



Administration Building
East Hearing Room
5334 S. Prince St.
Littleton, CO 80120
303-795-4630
Relay Colorado 711
303-795-4630 Audio Agenda Line

Nancy A. Doty, Chair, District 1
Nancy Sharpe, District 2
Rod Bockenfeld, District 3
Nancy Jackson, Chair Pro-Tem, District 4
Bill Holen, District 5

Public Meeting

December 13, 2016

9:30 A.M.

The Board of County Commissioners holds its weekly Public Hearing at 9:30 a.m. on Tuesdays. Public Hearings are open to the public and items for discussion are included on this agenda. Items listed on the consent agenda are adopted with one vote. Items listed under regular business are considered separately. Agendas are available through the Commissioners' Office or through the County's web site at www.arapahoegov.com. Questions about this agenda, please contact the Commissioners' Office at 303-795-4630 or by e-mail at commissioners@arapahoegov.com.

AGENDA

1. OPENING

1.a. CALL TO ORDER

Arapahoe County Board of County Commissioners

1.b. INTRODUCTION

Ron Carl, County Attorney

Joleen Sanchez, Asst. Clerk to the Board

1.c. ROLL CALL

1.d. PLEDGE OF ALLEGIANCE

2. MODIFICATION TO THE AGENDA

3. ADOPTION OF THE AGENDA

4. APPROVAL OF THE MINUTES

5. CITIZEN COMMENT PERIOD

Citizens are invited to speak to the Commissioners on non-agenda items. There is a 3-minute time limit per person, unless otherwise noted by the Chair.

6. CONSENT AGENDA

6.a. **11.28.2016 Warrant ACH Expenditure Report**

Authorization to sign the Warrant Disbursement Register

Ron Carl, County Attorney

Documents:

[11.28.2016 WARRANT ACH EXPENDITURE REPORT.PDF](#)

6.b. **Abatements (1 Resolution)**

Adoption of a resolution approving the recommendations of the Assessor.

Ron Carl, County Attorney

Karen Thompson, Paralegal, County Attorney's Office

Documents:

[SAMPLE ABATEMENT APPROVAL KST.DOC](#)

[12-13-16 BSR.DOC](#)

[KAREN TABLE 12-13-16.XLSX](#)

6.c. **Agreement with 1st Class Towing**

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign an agreement for services between Arapahoe County and Extreme Auto Repair, Inc. d/b/a 1st Class Towing to provide vehicle towing and storage services for the ACSO for the period of August 1, 2016 to July 31, 2017

Olga Fujaros, Budget & Logistics Manager, Sheriff's Office

Glenn Thompson, Public Safety Bureau Chief, Sheriff's Office

Louie Perea, Undersheriff, Sheriff's Office

David C. Walcher, Sheriff

Todd Weaver, Budget Manager, Finance

Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[BOARD SUMMARY REPORT - 1ST CLASS.DOC](#)

[RESO-1ST CLASS.DOCX](#)

[AGREEMENT FOR SVCS 1ST CLASS TOWING SIGNED BY
VENDOR.PDF](#)

6.d. **Agreement with Aurora Mental Health Center to Provide Services for the ADMIT Program**

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and Aurora Mental Health Center for the purpose of providing mental health care through the ADMIT Program at the Arapahoe County Sheriff's Office Detention Facility, for the period of January 1, 2017 to December 31, 2017, at the rates set forth in the Agreement, pursuant to the terms contained therein

Olga Fujaros, Budget & Logistics Manager, Sheriff's Office

Vince Line, Detentions Bureau Chief, Sheriff's Office

Louie Perea, Undersheriff, Sheriff's Office

David C. Walcher, Sheriff

Todd Weaver, Budget Manager, Finance

Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[2017 BSR FOR ADMIT.PDF](#)

[2017 AGREEMENT FOR ADMIT SIGNED BY VENDOR.DOCX.PDF](#)

6.e. Agreement with Correct Care Solutions, LLC to Provide Medical and Dental Services

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and Correct Care Solutions, LLC. for the purpose of providing inmate healthcare services at the Arapahoe County Sheriff's Office Detention Facility, for the period of January 1, 2017 to December 31, 2017, at the rates set forth in the Agreement, pursuant to the terms contained therein

Olga Fajaros, Budget & Logistics Manager, Sheriff's Office

Vince Line, Detentions Bureau Chief, Sheriff's Office

Louie Perea, Undersheriff, Sheriff's Office

David C. Walcher, Sheriff

Todd Weaver, Budget Manager, Finance

Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[BSR FOR 2017 AGREEMENT CCS.PDF](#)

[2017 AGREEMENT - VENDOR SIGNED.PDF](#)

6.f. Agreement with Crossover Counseling for the Multiple Offender Program

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and Crossover Counseling for the purpose of providing the Multiple Offender Program at the Arapahoe County Sheriff's Office Detention Facility, for the period of January 1, 2017 to December 31, 2017, at the rates set forth in the Agreement, pursuant to the terms contained therein

Olga Fajaros, Budget & Logistics Manager, Sheriff's Office

Vince Line, Detentions Bureau Chief, Sheriff's Office

Louie Perea, Undersheriff, Sheriff's Office

David C. Walcher, Sheriff

Todd Weaver, Budget Manager, Finance

Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[2017 BSR FOR MOP.DOCX](#)

[2017 AGREEMENT FOR SERVICES - VENDOR SIGNED.PDF](#)

6.g. Amendment to Resolution No. 160113 for an appointment of a Client Representative on the Community Services Block Grant Advisory Committee

Adoption of a resolution to amend Resolution No. 160113 adopted on February 9, 2016 and approve the appointment of Carol LoCicero as a Client Representative on the Community Services Block Grant Advisory Committee, which appointment will expire February 14, 2017

Carol Dosmann, Executive Assistant, BoCC Administration

Diana Maes, BoCC Administration Manager

Ron Carl, County Attorney

Documents:

6.h. **Amendment of Resolution No. 160116 and appointment to the DRCOG Advisory Committee on Aging**

Adoption of a resolution to amend Resolution No. 160116 adopted on February 9, 2016 and recommend the appointment of Anne Gross to fill the seat previously held by Doug Bowen on the Denver Regional Council of Governments Advisory Committee on Aging, which term will expire February 14, 2017

Carol Dosmann, Executive Assistant, BoCC Administration
Diana Maes, BoCC Administration Manager
Ron Carl, County Attorney

Documents:

[DRCOG ADVIS COM ON AGING-BSR-RESO-ANNE GROSS APPT..PDF](#)

6.i. **Arapahoe County Ethics Policy**

Adoption of a resolution adopting as a County policy the "Arapahoe County Ethics Code" as submitted on this date

Ron Carl, County Attorney

Documents:

[BSR RE ETHICS CODE ADOPTION.DOC](#)
[RESO ADOPTION OF ETHICS CODE.DOCX](#)
[DRAFT CODE OF ETHICS 161005.DOCX](#)

6.j. **Board of Assessment Appeals (1 Resolution)**

Adoption of a resolution approving stipulations which resulted from agreements reached between the taxpayer and the County regarding a reduction in the amount of property tax owed, pursuant to the terms contained therein

Ron Carl, County Attorney
Karen Thompson, Paralegal, County Attorney's Office

Documents:

[12 DECEMBER 13, 2016.DOC](#)
[SAMPLE BAA RESOLUTION.DOC](#)

6.k. **Board of Assessment Appeals (1 Resolution)**

Adoption of a resolution approving stipulations which resulted from agreements reached between the taxpayer and the County regarding a reduction in the amount of property tax owed, pursuant to the terms contained therein

Ron Carl, County Attorney
Karen Thompson, Paralegal, County Attorney's Office

Documents:

[12 DECEMBER 13, 2016 2.DOC](#)
[SAMPLE BAA RESOLUTION.DOC](#)

6.l. **Cash Operating Funds for Motor Vehicle Renewal Kiosks**

Adoption of a resolution authorizing the Clerk & Recorder to increase its cash

operating funds by \$4,000 to have cash operating funds for the Motor Vehicle renewal kiosks that will go into operation in February, 2017

Matt Crane, Clerk and Recorder
Janet Kennedy, Director, Finance
Monica Kovaci, Assistant County Attorney

Documents:

[2016 BSR MONEY FOR RENEWAL KIOSKS.DOC](#)
[2016 RESO MONEY FOR RENEWAL KIOSKS.DOCX](#)

6.m. Certifying Prosecution Costs to the Department of Corrections

Adoption of a resolution certifying the costs that the Department of Corrections is responsible for reimbursing the counties of the 18th Judicial District for prosecuting criminal cases in which the defendant, at the time of the criminal act, was in the custody of the Department of Corrections

Todd Weaver, Budget Manager, Finance
Janet Kennedy, Director, Finance
John Christofferson, Deputy County Attorney

Documents:

[BSR FOR DA-DOC REIMBURSE DROP-IN.PDF](#)
[RESOLUTION -DA-DOC REIMBURSE.PDF](#)
[2016 EXHIBIT A.PDF](#)

6.n. Dispatch Services Agreement with Cherry Hills Village

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the 2017 Agreement by and between Arapahoe County and Cherry Hills Village for the provision of dispatch services by the Arapahoe County Sheriff's Office within the City of Cherry Hills Village, for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$91,664.00 pursuant to the terms contained therein

Olga Fujaros, Budget & Logistics Manager, Sheriff's Office
Larry Etheridge, Support Services Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[2017 BOARD SUMMARY REPORT CHERRY HILLS VILLAGE.DOC](#)
[RESOLUTION NO DISPATCH CHERRY HILLS VILLAGE.DOCX](#)
[CHERRY HILLS VILLAGE AGREEMENT FOR DISPATCH SERVICES.PDF](#)

6.o. Dispatch Services Agreement with City of Sheridan

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the 2017 Agreement by and between Arapahoe County and the City of Sheridan for the provision of dispatch services by the Arapahoe County Sheriff's Office within the City of Sheridan, for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$189,801.00, pursuant to the terms contained therein

Olga Fujaros, Budget & Logistics Manager, Sheriff's Office

Larry Etheridge, Support Services Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[2017 BOARD SUMMARY REPORT SHERIDAN.DOCX](#)
[RESOLUTION NO DISPATCH SHERIDAN.DOCX](#)
[CITY OF SHERIDAN DISPATCH SERVICE AGREEMENT.PDF](#)

6.p. Dispatch Services Agreement with Town of Columbine Valley

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and the Town Columbine Valley for the provision of dispatch services by the Arapahoe County Sheriff's Office for the term January 1, 2017 through December 31, 2017, for payment in the amount of \$26,380.00 from Town of Columbine Valley annually, pursuant to the terms contained therein

Olga Fujaros, Budget & Logistics Manager, Sheriff's Office
Larry Etheridge, Support Services Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[2017 BOARD SUMMARY REPORT COLUMBINE VALLEY.DOC](#)
[RESO - 2017COLUMBINE VALLEY.DOC](#)
[COLUMBINE VALLEY DISPATCH SERVICE AGREEMENT.PDF](#)

6.q. District Attorney Salary Increase and Staffing of Office (2 resolutions)

Adoption of a resolution to set the salary for the Office of the District Attorney for the 18th Judicial District for the next four years pursuant to the Colorado State Constitution and the relevant statutes under Title 20; also, adoption of a resolution concerning full-time employee positions in the District Attorney's Office

George Brauchler, District Attorney, 18th Judicial District
Jeff Ulrich, CPA, Controller, Office of the District Attorney, 18th Judicial District
Janet Kennedy, Director, Finance
Ron Carl, County Attorney

Documents:

[SS BSR EXAMPLE_201308231729236082 \(2\).DOC](#)
[20161115.ARAPAHOE DA COMPENSATION RESOLUTION.DOC](#)
[DA OFFICE FTE RESOLUTION 2016.DOC](#)

6.r. Fire Lane Resolution Parkside Villas II

Adoption of a resolution approving the request from KB Homes that Parkside Villas II - 1229-1299 S Dallas Court, 1231-1297 S Dayton Street, 9501-9591 E Alabama Circle, and 1208-1226 S Clinton Street be adopted into the Fire Lane Resolution program

Jennifer Jepsen-Cook, Assistant Traffic Engineer
Bryan Weimer, Transportation Division Manager, Public Works and Development

David Schmit, Director, Public Works and Development
Todd Weaver, Budget Manager, Finance
Robert Hill, Senior Assistant County Attorney

Documents:

[FIRE LANE BSR W-RESO PARKSIDE VILLAS II.DOC](#)
[FIRE ACCESS PLAN - PARKSIDE VILLAS 2.PDF](#)
[PARKSIDE VILLAS 2 FIRE LANE.PDF](#)

6.s. Intergovernmental Agreement for Arapahoe County Narcotics Team

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign an Intergovernmental Agreement (IGA) on behalf of the Arapahoe County Sheriff's Office (ACSO) with the City of Littleton and the City of Englewood to form a combined narcotics enforcement unit known as the Arapahoe County Narcotics Team, pursuant to the terms contained therein

Olga Fujaros, Budget & Logistics Manager, Sheriff's Office
Glenn Thompson, Public Safety Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[BSR 2016 ACIT IGA \(002\).DOCX](#)
[RESO -LITTLETON NARCOTICS 2016.DOCX](#)
[IGA ACNT ENGLEWOOD LITTLETON SIGNED.PDF](#)

6.t. Intergovernmental Agreement with CDOT - Jolly Road Bridge over First Creek Project

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the Intergovernmental Agreement, by and between Arapahoe County and the Colorado Department of Transportation, regarding Colorado Counties, INC. funding for the Jolly Road Bridge Over First Creek Project, Project #C15-029, CDOT Project No. BRO C100-039 (21675) in the total IGA amount of \$218,605.00 and the County share of the IGA in the amount of \$43,721.00 (Federal Share \$174,884.00), pursuant to the terms contained therein

Art Negretti, PE, CIP Engineer III, Transportation Division
Brian Love, PE, Capital Improvement Program Manager, Public Works and Development
Bryan D. Weimer, Transportation Division Manager, Public Works and Development
David Schmit, Director, Public Works and Development
Todd Weaver, Budget Manager, Finance
Robert Hill, Senior Assistant County Attorney

Documents:

[C15029BOARDPACKET2DEC2016.PDF](#)

6.u. Law Enforcement Agreement Town of Bennett

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the 2017 Agreement for Law Enforcement Services by and between Arapahoe County and the Town of Bennett for the provision of law enforcement services by the Arapahoe County Sheriff's Office within the Town for

the period of January 1, 2017 through December 31, 2017, in an amount not to exceed \$25,765.26, pursuant to the terms contained therein

Olga Fajaros, Budget & Logistics Manager, Sheriff's Office
Larry Etheridge, Support Services Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[BSR BENNETT.DOC](#)
[RESOLUTION NO BENNETT LAW ENFORCEMENT.DOCX](#)
[AGREEMENT - TOWN OF BENNETT.DOC](#)

6.v. Law Enforcement Agreement Town Deer Trail

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the 2017 Agreement for Law Enforcement Services by and between Arapahoe County and the Town of Deer Trail for the provision of law enforcement services by the Arapahoe County Sheriff's Office within the Town for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$18,870.57, pursuant to the terms contained therein

Olga Fajaros, Budget & Logistics Manager, Sheriff's Office
Larry Etheridge, Support Services Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[BSR DEER TRAIL.DOC](#)
[RESOLUTION NO DEER TRAIL.DOCX](#)
[AGREEMENT - TOWN OF DEER TRAIL.DOC](#)

6.w. Law Enforcement Agreement Town of Foxfield

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the 2017 Agreement for Law Enforcement Services by and between Arapahoe County and the Town of Foxfield for the provision of law enforcement services by the Arapahoe County Sheriff's Office within the Town for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$85,110.24 pursuant to the terms contained therein

Olga Fajaros, Budget & Logistics Manager, Sheriff's Office
Larry Etheridge, Support Services Bureau Chief, Sheriff's Office
Louie Perea, Undersheriff, Sheriff's Office
David C. Walcher, Sheriff
Todd Weaver, Budget Manager, Finance
Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[BSR FOXFIELD.DOC](#)
[RESOLUTION NO FOXFIELD LAW ENFORCEMENT.DOCX](#)
[2017 ACSO AGREEMENT REV.DOC](#)

6.x. Personal Property Tax Cancellation

Adoption of a resolution approving the cancellation of 1997 through 2006 personal property taxes for businesses that are no longer active, along with taxes due for subsequent years, if any; and to adopt the cancellation of the remaining balance of 1995 taxes after a court ordered settlement, all of which are identified and presented to the Board of County Commissioners on this date

Debbie Dater, Property Tax Director, Treasurer's Office

Sue Sandstrom, Treasurer

Todd Weaver, Budget Manager

Monica Kovaci, Assistant County Attorney

Documents:

[1995-2014 PERS PROP CANCELLATION FINAL.DOC](#)

[1995-2014 PERSONAL PROPERTY CANCELLATIONS FOR RESOLUTION.XLS](#)

6.y. Select Source Purchasing Waiver For ClearPoint Strategy

Adoption of a resolution waiving the formal solicitation requirements as set forth in the Arapahoe County Purchasing Policies for a contract renewal with Ascendant Strategy Management for the use of ClearPoint Strategy software to collect performance data for Align Arapahoe measures

Matthew Nii, Strategy and Performance Analyst

Manisha Singh, Director, Department of Strategy and Performance

Todd Weaver, Budget Manager, Finance

John Christofferson, Deputy County Attorney

Documents:

[CLEARPOINT WAIVER CONSENT BSR 13DEC16.DOCX](#)

[CLEARPOINT WAIVER OF SOLICITATION RESOLUTION.DOC](#)

[CLEARPOINT WAIVER OF SOLICITATION 5DEC16 SIGNED COPY.PDF](#)

6.z. Waiver of Bid for Provider of the Multiple Offender Program at the Arapahoe County Sheriff's Office Detention Facility

Adoption of a resolution authorizing the Chair of the Board of County Commissioners to sign the waiver of the Arapahoe County Purchasing Policies for an agreement for the provision of the Multiple Offender Program by Crossover Counseling

Olga Fajaros, Budget & Logistics Manager, Sheriff's Office

Vince Line, Detentions Bureau Chief, Sheriff's Office

Louie Perea, Undersheriff, Sheriff's Office

David C. Walcher, Sheriff

Todd Weaver, Budget Manager, Finance

Tiffanie Bleau, Senior Assistant County Attorney

Documents:

[CONSENT AGENDA BSR - WAIVER MOP.DOC](#)

[WOB SIGNED BY KEITH.PDF](#)

7. GENERAL BUSINESS ITEMS

7.a. PUBLIC HEARING - County Assessor Appointment

Consideration of a request that the Board of County Commissioners of Arapahoe

County, Colorado, pursuant to the provisions of Section 9 of Article XIV of the Colorado Constitution and Section 30-11-117 of the Colorado Revised Statutes, appoint Marcus Scott as the Arapahoe County Assessor, in and for the County of Arapahoe, State of Colorado, for the remainder of the term expiring on the 8th day of January, 2019, to fill a vacancy in the office of the Arapahoe County Assessor to be created by the resignation of Corbin Sakdol, such appointment to be effective as of 12:01 a.m. on January 7, 2017

Presenter, Corbin Sakdol, Assessor
Ron Carl, County Attorney

Documents:

[BSR RE ASSESSOR APPOINTMENT GENERAL BUSINESS.DOC](#)
[RESO APPOINTMENT OF MARCUS SCOTT AS AC ASSESSOR DRAFT 12-5-16.DOCX](#)
[SAKDOL RESIGNATION LETTER.PDF](#)
[MARC SCOTT CV - 2016.PDF](#)

7.b. *PUBLIC HEARING - Adoption of the Budget, Appropriation, and Certification of Mill Levies for Fiscal Year 2017

Consideration of requests to adopt the budget, certify mill levies, and appropriate funds for Arapahoe County, the Arapahoe County Law Enforcement Authority, Arapahoe County Recreation District, and the Arapahoe County Water and Wastewater Public Improvement District

Presenter - Todd Weaver, Budget Manager, Finance
Janet Kennedy, Director, Finance
John Christofferson, Deputy County Attorney

Documents:

[BSR - 2017 ADOPTION.DOCX](#)
[PROPOSED MOTION_ADOPTION_2017.DOCX](#)
[2017 ADOPTION RESOLUTIONS_DRAFT.DOCX](#)

7.c. *PUBLIC HEARING - Certification of Tax Levies for Cities, School Districts, and Special Districts

Consideration of a request to adopt the three (3) resolutions to certify the tax levies for cities and towns, school districts, and special districts within Arapahoe County for fiscal year 2017 pursuant to 39-1-111 and 39-5-128, C.R.S.

Todd Weaver, Budget Manager, Finance
Janet Kennedy, Director, Finance
John Christofferson, Deputy County Attorney

Documents:

[BSR - 2017 CERT OF LEVIES FOR DISTRICTS.DOCX](#)
[PROPOSED MOTION_CERTOFTAXLEVIES.DOCX](#)

7.d. *PUBLIC HEARING - ASI 16-001 Prosper Wastewater Treatment Plant Utility Plan Application for Site Location Application

Consideration of a request from the applicant, Prosper Regional Water and Wastewater Metropolitan District, in case ASI 16-001, Prosper Wastewater Treatment Plant Utility Plan Application, for the approval of a Site Location Application for a wastewater treatment facility for the Prosper development located south of I-70 and along Watkins Road

Presenter - Julio Iturreria, Long Range Planning Program Manager, Public Works and Development
Jan Yeckes, Planning Division Manager, Public Works and Development
Dave Schmit, Director, Public Works and Development
Todd Weaver, Budget Manager, Finance
Robert Hill, Senior Assistant County Attorney

Documents:

[2016 BOARD SUMMARY REPORT PROSPER WASTEWATER TREATMENT UTILITY PLAN.PDF](#)

7.e. ***PUBLIC HEARING - Rush Creek Transmission Line 1041 Permit**

Consideration of a request from the applicant, Public Service Company of Colorado/Xcel Energy, for approval of a 1041 Permit for the Rush Creek Transmission Line that would parallel the existing NextEra Transmission Line that is east of Deer Trail, Colorado

Presenter - Sherman Feher, Senior Planner, Public Works & Development
Jason Reynolds, Current Planning Manager, Public Works & Development
Jan Yeckes, Planning Division Manager, Public Works & Development
David M. Schmit, Director, Public Works & Development
Todd Weaver, Budget Manager, Finance
Robert Hill, Senior Assistant County Attorney

Documents:

[ASI16-003 BOCC BSR MOTION RESO ANADARKO.PDF](#)
[ASI16-003 PC PACKET.PDF](#)
[197-274_RUSHCREEK_ARAPAHOE1041_R3_11-10-16_BT.PDF](#)

8. COMMISSIONER COMMENTS

***Denotes a requirement by federal or state law that this item be opened to public testimony. All other items under the "General Business" agenda may be opened for public testimony at the discretion of the Board of County Commissioners.**

Arapahoe County is committed to making its public meetings accessible to persons with disabilities.

Assisted listening devices are available. Ask any staff member and we will provide one for you.

If you need special accommodations, contact the Commissioners' Office at 303-795-4630 or Relay Colorado 711.

Please contact our office at least 3 days in advance to make arrangements.

REPORT FOR 11/22/2016 TO 11/28/2016

FUNDS SUMMARY:

FUNDS SUMMARY:

10 General Fund	358,021.41
11 Social Services	312,118.11
14 Law Enforcement Authority Dist	7,387.58
15 Arapahoe / Douglas Works!	45,736.42
16 Road and Bridge	96,796.08
20 Sheriff's Commissary	18,451.65
21 Community Development	23,645.99
26 Grants	28,051.68
28 Open Space Sales Tax	322,413.54
29 Homeland Security - North Cent	14,393.69
33 Building Maintenance Fund	4,527.02
34 Fair Fund	6,412.00
41 Capital Expenditure	70,724.17
42 Infrastructure	32,940.00
43 Arapahoe County Recreation Dis	609.36
70 Central Services	282,317.49
84 E-911 Authority	336.00
	=====
TOTAL	1,624,882.19

FUND REPORT - EXPENDITURE TYPE

FUND 10 EXPENDITURE REPORT

4 RIVERS EQUIPMENT LLC	Supplies	42.43
A2M4SEEN LLP	Services And Other	11,980.33
ADAMSON POLICE PRODUCTS	Supplies	2,911.00
ALL TRAFFIC DATA SERVICES INC	Supplies	400.00
ALLEGIANTE MORTUARY TRANSPORT LLC	Services And Other	5,697.50
ALLIED SECURITY HOLDINGS LLC	Services And Other	52,589.87
ANTONIA GALVEZ SALDANA	Services And Other	31.86
ARAMARK CHICAGO LOCKBOX	Services And Other	2,929.00
ARAMARK CHICAGO LOCKBOX	Supplies	24,290.31
ASPIRE HR INC	Services And Other	424.50
ATHENA FAYE HILL	MISC.	15.00
AURORA MENTAL HEALTH CTR	Services And Other	3,120.00
BACKGROUND INFORMATION SERVICES INC	Services And Other	4,700.20
BASELINE ASSOCIATES INC	Services And Other	5,320.00
BATTERY SYSTEMS INC	Supplies	281.73
BEAR CAT MANUFACTURING	Supplies	308.33
BLANCHARD TRAINING AND DEVELOPMENT	Services And Other	20,714.27
BRADY SARTIN	Services And Other	745.00
BRIAN O'DONNELL	MISC.	15.00
BRIDGESTONE RETAIL OPERATIONS LLC	Services And Other	49.99
BRITTANY MICHELLE LUCERO	MISC.	15.00
CARQUEST AUTO PARTS	Supplies	53.93
CDW GOVERNMENT	Services And Other	2,047.50
CDW GOVERNMENT	Supplies	1,982.69
CECILIA CARDENAS	MISC.	15.00
CENTURYLINK	Services And Other	446.50
CHARLES G MICHAELS ESQ	MISC.	15.00
CHEMATOK LABORATORY INC	Services And Other	10.00
CHEMATOK LABORATORY INC	Supplies	110.91
CLARION ASSOCIATES LLC	Services And Other	7,775.00

when the following proceedings, among others, were had and done to-wit:

RESOLUTION NO. 160XXX It was moved by Commissioner _____
and duly seconded by Commissioner _____ to adopt the following Resolution:

WHEREAS, the Board of County Commissioners of Arapahoe County met at a duly and lawfully called meeting held on Tuesday, _____, 2016; and

WHEREAS, the Board at that time considered Petitions for Abatement or Refund of Taxes as submitted by various taxpayers and as contained within an Agenda Memorandum to the Board; and

WHEREAS, applicable procedures, due process, and requirements of notice were followed pursuant to Sections 39-1-113 and 39-10-114, C.R.S.; and

WHEREAS, no Petitioners or representatives of the Arapahoe County Assessor were present, although both parties were afforded notice; and

WHEREAS, the Board received comments from the County Attorney, received exhibits and reviewed the record as represented by an Agenda Memorandum summarizing the Petitions and the Arapahoe County Assessor recommendations.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County as follows:

1. That the Petitions listed below, presented this date to the Board and relating to the schedule numbers set forth therein, shall be and are hereby granted, the recommendations of the Assessor are hereby adopted and abatements or refunds in the amounts approved by the Assessor are hereby approved by the Board.

Petitioner	Parcel Number	Year	Refund
------------	---------------	------	--------

The vote was:

Commissioner Bockenfeld, Yes; Commissioner Doty, Yes; Commissioner Holen, Yes; Commissioner Jackson, Yes; Commissioner Sharpe, Yes.

The Chair declared the motion carried and so ordered.



Board Summary Report

Date: November 29, 2016
To: Board of County Commissioners
Through: Ron Carl, County Attorney
From: Karen Thompsen, Paralegal
Subject: Abatements

Request and Recommendation

The purpose of this request is to obtain the authorization for the Chair to sign a resolution approving the recommendations of the Assessor concerning the listed abatements.

Background

These abatements were filed by petitioners and approved the Assessor's Office. C.R.S. 39-1-113(1) states. . ."no decision on any petition regarding abatements or refund of taxes shall be made unless a hearing is had thereon. . ."

Discussion

Attached

Alternatives:

None

Fiscal Impact

A decrease in the taxes collected on approval abatements.

Concurrence

The Assessor and County Attorney support these recommendations.

Reviewed by:

Karen Thompsen, Paralegal
Ron Carl, County Attorney

name	parcel number	year	refund	reason
Universal Hospital Services	28099-76189-001	2015	\$7,504.90	C.R.S. 39-10-114(1)(a)(I)(A) now allows errors by the property owner in the declaration to be abated.
Scott Casey	2077-18-4-10-005	2015	\$244.91	Information received from the property owner, after the original value was placed on the property, resulted in a reduction to that property's value.
Homestead Land Lease, Inc.	1975-31-4-44-003	2014 2015	\$5,006.69 \$4,821.32	Information received from the property owner, after the original value was placed on the property, resulted in a reduction to that property's value.
Michael and Andrea Davis	2077-33-3-07-011	2015	\$117.30	Value is being adjusted to reflect ordered value on this parcel during same base year period.
Bessie Adamopoulos	2077-01-1-03-013	2015	\$2,143.36	Value is being adjusted to reflect ordered value on this parcel during same base year period.



David C. Walcher
Sheriff

OFFICE OF THE SHERIFF
13101 E. Broncos Parkway
Centennial, Colorado 80112
Phone: 720-874-4176
Fax: 720-874-4158
www.arapahoesherriff.org
sheriff@arapahoegov.com

Board Summary Report

Date: November 28, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: Agreement for Services with Extreme Auto Repair, Inc., DBA 1st Class Towing

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services between Arapahoe County and Extreme Auto Repair, Inc., DBA 1st Class Towing, to provide vehicle towing and storage services for the ACSO for the period of October 7, 2016 to October 6, 2017.

Background

Extreme Auto Repair, Inc., DBA 1st Class Towing, was identified as the qualified vendor by Arapahoe County Purchasing in 2016 with solicitation number RFP-16-26.

Links to Align Arapahoe

Completing the agreement with Extreme Auto Repair, Inc., DBA 1st Class Towing, will allow the Arapahoe County Sheriff's Office to optimize the use of resources.

Discussion

Extreme Auto Repair, Inc., DBA 1st Class Towing, will provide vehicle towing and storage services.

Alternatives

The only alternative is to go for bid to find a new vendor.

Fiscal Impact

Funds for these services are included in the annual Sheriff's Office budget.

Concurrence

The Sheriff's Office Administration and Public Safety Bureau are in concurrence with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Glenn Thompson, Public Safety Bureau Chief
Louie M. Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign agreement for services between Arapahoe County and Extreme Auto Repair, Inc. DBA 1st Class Towing to provide vehicle towing and storage services for the ACSO for the period of August 1, 2016 to July 31, 2017.

The vote was:

Commissioner Bockenfeld,; Commissioner Doty,; Commissioner Holen,; Commissioner Jackson,; Commissioner Sharpe,.

The Chair declared the motion carried and so ordered.

AGREEMENT FOR SERVICES

Project Number or Name: Vehicle Towing & Storage, RFP-16-26

THIS AGREEMENT is entered into as of the 7th day of October, 2016 by and between the Board of County Commissioners of the County of Arapahoe, State of Colorado (hereinafter referred to as the "County") and Extreme Auto Repair, Inc. DBA 1st Class Towing (hereinafter referred to as the "Contractor").

WHEREAS, the County desires to engage the Contractor to provide the services described in Exhibit A.

NOW, THEREFORE, the parties mutually agree as follows:

1. **Scope of Services.** The Contractor agrees to perform the services described in Section 1 of Exhibit A, which document is attached hereto and incorporated herein in its entirety.

2. **Time of Performance.** The services of the Contractor are to commence and be completed (or end) by the dates set forth in Section 2 of Exhibit A, unless this Agreement is sooner terminated pursuant to paragraph 4.A. below. All time limits are of the essence in this Agreement.

3. **Method of Payment.** The County will compensate the Contractor for services rendered in accordance with Section 3 of Exhibit A, subject to the availability of appropriated funds within the annual budget. The Contractor is responsible for paying all applicable income, Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act, or other taxes owed on compensation paid under this Agreement. The Contractor shall submit requests for payment in a form acceptable to the County and in conformance with the County's policies. The Contractor shall provide such backup information for its payment requests as may be reasonably requested by the County. The County shall have forty-five (45) days from receipt of any payment request to make payment to the Contractor.

4. **General Terms and Conditions.**

A. **Termination of Agreement.** The County or the Contractor shall have the right to terminate this Agreement, with or without cause, by giving written notice to the other party of such termination and specifying the effective date thereof, which notice shall be given at least the number of days set forth in Section 4 of Exhibit A prior to the effective date of such termination. In such event, all finished or unfinished documents, data, studies and reports prepared by the Contractor pursuant to this Agreement shall become the property of the County. Unless expressly stated otherwise in the notice, Contractor shall provide no further services in connection with this Agreement after receipt of a notice of termination, and the Contractor shall proceed to cancel all existing orders and contracts that are chargeable to the County under this Agreement. The Contractor shall be entitled to receive compensation in accordance with this Agreement for any satisfactory services completed pursuant to the terms of this Agreement prior to the date of receipt of the notice of termination, or such other stop-work date as may be specified in the notice. Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by virtue of any breach of this Agreement by the Contractor.

B. **Changes.** The County or Contractor may, from time to time, request changes in the scope of services or compensation of the Contractor. Such changes that are mutually agreed upon between the County and Contractor shall be in writing, and upon execution shall become part of this Agreement. To be effective, all changes must be signed by the Contractor and by the Board of County Commissioners, or by a person authorized by resolution to sign on behalf of the Board.

C. **Assignability or Subcontracting.** Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the County.

D. **Audit.** The County and any of its duly authorized representatives shall have reasonable access to any books, documents, papers and records of the Contractor which are pertinent to the Contractor's performance under this Agreement for the purpose of making an audit, examination, or excerpts. The Contractor shall provide any documentation necessary to prepare all reporting required of or by the County, and shall keep all books, documents, papers and records

which are pertinent to the Contractor's performance for a minimum period of three years, or such longer time as may be set forth in any Special Conditions or addendums to this Agreement.

E. Equal Employment Opportunity. While performing this Agreement, the Contractor shall not discriminate against any employee, subcontractor, or applicant for employment because of disability, race, creed, color, sex, sexual orientation, religion, age, national origin, or ancestry.

F. Ownership of Documents. All drawings, specifications, guidelines and other documents prepared or received by the Contractor in connection with this Agreement shall be the property of the County.

G. Assignment of Copyrights. The Contractor assigns to the County the copyrights to all works prepared, developed, or created pursuant to this Agreement, including the rights to: 1) reproduce the work; 2) prepare derivative works; 3) distribute copies to the public by sale, rental, lease, or lending; 4) perform the works publicly; and 5) to display the work publicly. The Contractor waives its rights to claim authorship of the works, to prevent its name from being used in connection with the works, and to prevent distortion of the works.

H. Governing Law/Forum/Interpretation. This Agreement has been executed by the parties hereto on the day and year first above written and shall be governed by the laws of the State of Colorado. Venue for any civil action relating to this Agreement shall be in Arapahoe County. Both parties agree that the rule that ambiguities in a contract are to be construed against the drafting party shall not apply to the interpretation of this Agreement. If there is any conflict between the language of this Agreement and any exhibit or attachment, the language of this Agreement shall govern.

I. Compliance with Laws/Licenses and Permits. The Contractor shall comply with all applicable federal, state and local laws, ordinances, regulations, and resolutions. The Contractor shall be responsible for obtaining all licenses and permits necessary to perform the scope of services, at the Contractor's expense, unless specifically stated otherwise in this Agreement.

J. No Waiver of Rights. The County's approval or acceptance of, or payment for, services shall not be construed to operate as a waiver of any rights or benefits to be provided under this Agreement. No covenant or term of this Agreement shall be deemed to be waived by the County except in writing signed by the Board of County Commissioners or person authorized to sign by resolution of the Board, and any waiver of a right shall not be construed to be a waiver of any other right or to be a continuing waiver, unless specifically so stated.

K. Non-appropriation. Pursuant to C.R.S. § 29-1-110, as amended, the financial obligations of the County as set forth herein after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise available. This Agreement is automatically terminated on January 1st of the first fiscal year for which funds are not appropriated. The County shall give the Contractor written notice of such non-appropriation.

L. Conflict of Interest/Ethics. The Contractor shall refrain from providing services to other persons, firms or entities that would create a conflict of interest for Contractor with regard to providing services pursuant to this Agreement. The Contractor shall not offer or provide anything of benefit to any County official or employee that would place the official or employee in a position of violating the public trust in violation of Colorado Constitution Article XXIX, C.R.S. § 24-18-109, as amended, or the County's Ethical Principles and Guidelines.

M. Remedies. In addition to any other remedies provided for in this Agreement, and without limiting its remedies available at law, the County may exercise the following remedial actions if the Contractor substantially fails to satisfy the duties and obligations in this Agreement. Substantial failure to satisfy the duties and obligations shall mean significant insufficient, incorrect or improper performance, activities or inactions by the Contractor. These remedial actions are as follows:

(1) Suspend Contractor's performance pending necessary corrective action as specified by the County without the Contractor's entitlement to an increase in price/cost or a time extension; and/or

(2) Withhold payment to the Contractor until the necessary services or corrections in performance are satisfactorily completed; and/or

(3) Deny payment for those services which have not been satisfactorily performed, or which, due to circumstances caused by the Contractor, cannot be performed, or if performed would be of no value to the County.

The foregoing remedial actions are cumulative and the County, at its sole discretion, may exercise any or all of them individually or simultaneously. The County shall provide written notice to Contractor of its exercise of any of the foregoing remedial actions.

N. Force Majeure. Neither the Contractor nor the County shall be liable for any delay in, or failure of performance of, any covenant or promise contained in this Agreement, nor shall any delay or failure constitute default or give rise to any liability for damages if, and only to extent that, such delay or failure is caused by "force majeure." As used in this Agreement, "force majeure" means acts of God, acts of the public enemy, unusually severe weather, fires, floods, epidemics, quarantines, strikes, labor disputes and freight embargoes, to the extent such events were not the result of, or were not aggravated by, the acts or omissions of the non-performing or delayed party.

O. Third-Party Beneficiaries. It is expressly understood and agreed that the enforcement of this Agreement and all rights of action relating thereto shall be strictly reserved to the County and the named Contractor. Nothing contained in this Agreement shall give or allow any claim or right of action whatsoever by any other third person.

P. Survival of Terms and Conditions. Notwithstanding anything herein to the contrary, the parties understand and agree that all terms and conditions of the Agreement that anticipate continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.

Q. Illegal Aliens. As required by C.R.S. § 8-17.5-102, the Contractor certifies and agrees as follows:

(1) The Contractor shall not knowingly employ or contract with an illegal alien (a non-legal resident of the United States) to perform work under this Agreement.

(2) The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

(3) The Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement through participation in either the employment verification ("e-verify") program administered by the United States Department of Homeland Security and the Social Security Administration, or the employment verification program operated by the Colorado Department of Labor and Employment ("Department").

(4) The Contractor shall not use the e-verify or Department programs to undertake preemployment screening of job applicants while this Agreement is being performed.

(5) If the Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, then the Contractor shall: (a) notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract with the subcontractor if within three days of receiving the notice the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the subcontract if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(6) The Contractor shall comply with any reasonable request by the Department made in the course of an investigation that the Department is undertaking pursuant to the authority established by C.R.S. § 8-17.5-101(5).

(7) If the Contractor violates any of the provisions of this section 4.Q. the County may immediately terminate this Agreement effective upon the receipt by Contractor of written notice of termination from the County, and the Contractor shall be liable for actual and consequential damages to the County.

(8) Compliance with this subsection Q is not required if the Contractor is a governmental entity.

R. Abilities, Qualifications, Experience, and Best Efforts. Notwithstanding anything to the contrary contained in this Agreement, the County and Contractor agree and acknowledge that the County enters into this Agreement relying on the special and unique abilities of Contractor to perform the services and accomplish the tasks described. Contractor accepts the relationship of trust and confidence established between Contractor and the County by this Agreement. Contractor covenants with the County to use its best efforts. Contractor shall further the interests of the County according to the County's requirements and procedures, and according to the highest standards and quality prevailing among those who perform work of a similar nature.

S. Accuracy of Work. The Contractor represents, covenants and agrees that its work will be accurate and free from any material errors.

5. Insurance. In part to assure the County that the Contractor is always capable of fulfilling the specified indemnification obligations, the Contractor must purchase and maintain insurance of the kind and in the minimum amounts specified below, unless indicated otherwise in Section 7 of Exhibit A.

A. The Contractor agrees to procure and maintain, at its own expense, for all services covered by this Agreement, the following policies of insurance:

(1) Workers' Compensation Insurance: The Contractor will maintain workers' compensation insurance covering the contractor for the performance of all services under this Agreement in accordance with applicable state laws, and employer's liability insurance. Coverage shall include a waiver of subrogation in favor of Arapahoe County

Minimum Limits:

- Workers' Compensation – statutory limits
- Employer's Liability:
 - \$1,000,000 bodily injury for each accident
 - \$1,000,000 each employee for disease
 - \$1,000,000 disease aggregate

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(2) Commercial General Liability: The Contractor will maintain commercial general liability insurance covering all operations by or on behalf of the Contractor on an occurrence basis against claims for bodily injury, property damage (including loss of use) and personal injury. Such insurance will have these minimum limits and coverages:

Minimum Limits:

- \$1,000,000 each occurrence
- \$2,000,000 general aggregate with dedicated limits per project site
- \$2,000,000 products and completed operations aggregate

Coverages:

- Products and completed operations coverage maintained for at least 2 years after completion of the project for construction contractors
- Contractual Liability
- Independent Contractors
- Defense in addition to the limits of liability
- Waiver of Subrogation
- Severability of Interests Provision

Additional Insured Endorsement (for on-going and completed operations) issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(3) Automobile Liability: The Contractor will maintain business auto liability coverage covering liability arising out of any auto (including owned, hired and nonowned autos) used in connection Minimum Limits:

Minimum Limit:

- \$1,000,000 Combined Single Limit Each Accident

Coverages:

- Specific Waiver of Subrogation
- MCS 90 for vehicles carrying hazardous materials
- Mobile (for on-going and completed operations) issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(4) If indicated in Section 5 of Exhibit A, Errors and Omissions or Professional Liability Insurance with a minimum coverage amount as specified in Section 5 of Exhibit A, and for two years beyond the completion of all services under this Agreement.

(5) Garagekeepers' Legal Liability Coverage: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this contract, Garagekeepers' Legal Liability Insurance. Combines single limit per occurrence shall not be less than \$1,000,000 (One Million Dollars).

B. The above-mentioned coverages shall be procured and maintained with insurers with an A- or better rating, as determined by Best's Key Rating Guide. All coverages shall be continuously maintained during the term of this Agreement or as noted above to cover all liability, claims, demands, and other obligations assumed by the Contractor.

C. Additional Insured status required above shall be primary and non-contributory with any insurance or self-insurance carried by the County. The Contractor shall be solely responsible for any deductible losses under any policy required above.

D. The policies shall provide that the County will receive notice no less than 30 days prior to cancellation, termination or non-renewal of the policies.

E. The Contractor shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types.

F. Failure on the part of the Contractor to procure or maintain policies providing the required coverages, conditions and minimum limits shall constitute a material breach of contract upon which the County may immediately terminate this Agreement.

G. The County reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

6. **Insurance Certificates.**

A. The Contractor shall, prior to commencing services, deliver to the County Certificates of Insurance as evidence that policies providing any and all required coverages and limits are in full force and effect.

B. These certificates will serve as an indication to the County that the Contractor has acquired all necessary insurance; however, the County may require that certified copies of the insurance policies be submitted and may withhold payment for services until the applicable insurance policies are received and found to be in accordance with the Agreement.

C. Insurance limits must be indicated on each Certificate of Insurance. Each Certificate of Insurance shall be reviewed and approved by the County prior to commencement of services under the Agreement. The certificates shall identify this Agreement and shall state the project number where applicable.

7. **Indemnification.** The Contractor shall indemnify and hold harmless the County and its elected and appointed officials, officers, employees, and agents from and against any and all losses, damages, liabilities, claims, suits, actions, or awards, including costs, expenses and attorney's fees, incurred or occasioned as a result of the acts or omissions of the Contractor, or its principals, employees, agents, or subcontractors arising out of or in any way connected with the performance of services under this Agreement. The Contractor's obligation to indemnify pursuant to this paragraph, and to provide any extended insurance coverage where applicable, shall survive the completion of the scope of services, and shall survive the termination of this Agreement.


8. **Independent Contractor.** The Contractor is an independent contractor. AN INDEPENDENT CONTRACTOR IS NOT ENTITLED TO WORKER'S COMPENSATION BENEFITS AND IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON ANY MONIES EARNED PURSUANT TO THE CONTRACT RELATIONSHIP. Notwithstanding any provision appearing in this Agreement, all personnel assigned by the Contractor to perform work under the terms of this Agreement shall be and remain at all times employees of the Contractor or employees of their respective employers for all purposes.

9. **Notices.** Notices to be provided under this Agreement shall be given in writing and either delivered by hand or deposited in the United States mail with sufficient postage to the addresses set forth in Section 6 of Exhibit A.

10. **Extent of Agreement.** This Agreement represents the entire and integrated agreement between the County and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. Any amendments to this must be in writing and be signed by both the County and the Contractor. If any portion of this Agreement is found by a court of competent jurisdiction to be void and/or unenforceable, it is the intent of the parties that the remaining portions of this Agreement shall be of full force and effect.

(SA Form, 1/28/14)

CONTRACTOR : Extreme Auto Repair, Inc. DBA 1st Class
Towing

By: 
(signature)

Title: PRESIDENT

Signed this 3 day of November, 2016

State of Colorado)
County of Douglas)

Subscribed and sworn to before me this 3 day of November, 2016

by Dennis Brewster

My commission expires Oct 10, 2018


Notary Public



SEAL

ATTEST: Clerk to the Board

Date: _____

ARAPAHOE COUNTY

By: _____
Chair, Board of County Commissioners
(Or representative authorized by resolution)

EXHIBIT A to Agreement between the County and Extreme Auto Repair, Inc. DBA 1st Class Towing.

Project Number or Name: Vehicle Towing & Storage, RFP-16-26.

1. **Scope of Services.** The Contractor hereby agrees to and accepts responsibility to perform the following services:

A. Contractor shall have a minimum of four (4) towing and/or hauling vehicles which must be a minimum of 10,000 lb. G.V.W. rating as identified by the manufacturer's vehicle identification plate and equipped for towing service as required by P.U.C. regulations. The Contractor shall have the vehicles in possession, or show proof the vehicles will be operational on or before the effective date of the Agreement.

1. All vehicles shall be registered in the Contractor's name. If any of the vehicles are leased, valid legal lease documents must be in the Contractor's possession.

2. At least one (1) vehicle shall consist of cab and chassis with four wheel drive capability, and be equipped with standard commercial towing package designed and manufactured for vehicle towing and recovery, and be a serial numbered wrecker and or roll back carrier with a minimum winch capacity of 10,000 pounds.

3. At least one (1) vehicle shall consist of cab and chassis with standard, commercial rollback type carrier, with winch capacity no less than 10,000 pounds.

4. The ability to handle heavy towing is preferred.

B. Contractor shall have its primary business location within twenty (20) miles of the Sheriff's Office Headquarters. Contractor understands the intent of the services provided is for expeditious and efficient towing and storage services. Therefore, Contractor is required to maintain vehicles, equipment and facility within the limits set above.

1. Primary business location must comply with all City and/or County zoning regulations.

2. Contractor shall at all times meet ordinance or other zoning requirements and approved vehicle storage lot standards.

3. Contractor must have indoor, heated, secure long-term storage for at least four (4) vehicles.

4. JOINT VENTURES WILL NOT BE PERMITTED

C. Contractor shall provide full twenty-four (24) hour, two-way radio dispatch service and telephone service seven (7) days per week. A 24-hour staffed operation is preferred.

1. ANSWERING SERVICE DEVICES SHALL NOT BE ACCEPTABLE.

2. Contractor shall install and maintain, in each vehicles used, two-way communications equipment as approved by the Arapahoe County Sheriff's Office or its designee.

D. Contractor shall provide the County with one (1) telephone number, and agree to promptly notify the County of any change in this number.

E. Contractor shall have a valid permit issued by the Colorado Public Utilities Commission and shall comply at all times with the rules and regulations promulgated by the Commission.

Revocation of the permit by the Colorado Public Utilities Commission shall subject the Agreement to immediate termination.

F. All towing vehicle operator(s) must possess a valid Colorado Driver's License of the proper class.

- G. Contractor shall maintain adequate personnel and equipment available at all times to respond, to the location where the tow service is required, within thirty (30) minutes upon notification by the Arapahoe County Sheriff's Office. A fine of thirty (30) dollars per hour may be charged to Contractor in the event Contractor fails to comply without reasonable cause. Contractor, under no condition, shall violate any traffic laws nor drive in a hazardous, negligent or reckless manner to comply with the thirty (30) minute requirement.
- H. Contractor shall remove from any area at which a vehicle accident may have occurred, broken glass, metal, and other debris resulting from such accident. Contractor shall instruct all of its drivers that clean up should be at the level of prior accident condition, as reasonable and as safe as possible.
- I. Contractor agrees that during temporary periods of severe inclement weather that Arapahoe County vehicles will be towed on a priority basis to enable the Sheriff's Office to maintain an effective level of operation.
- J. Contractor agrees that any/all towing of Arapahoe County Sheriff's vehicles shall be towed at no cost to the County.
- K. Contractor shall tow vehicles to a location designated by the Sheriff's Office, or if released on scene, to a location designated by the owner of the vehicle.
- L. If a vehicle is placed on a hold as evidence, the Arapahoe County Sheriff's Office may direct the Contractor to tow to any location for purposes of securing and/or further investigation. In said event, if the vehicle is towed to a location other than Contractor's storage lot, the County shall reimburse Contractor for the tow at the rate as set forth by this Agreement. Arapahoe County Sheriff's Office will pay for the tow, but Contractor is responsible for the storage charge (the storage charge may be collected from the insurance company or the owner of the vehicle).
- M. Contractor must submit a copy of the tow ticket along with an invoice to the Arapahoe County Sheriff's Office for approval. Upon approval, the documents will be processed for payment.
- N. If a vehicle is impounded by the Arapahoe County Sheriff's Office, Contractor, upon arriving on the scene, shall sign the impound Vehicle Report (I.V.R.) and thereby accept said vehicle as described and, shall be solely liable and responsible for said vehicle and its contents until such time as the vehicle is released to the vehicle owner, or agent thereof.
- O. Contractor agrees to maintain all accounting and operational records at its primary location of business pursuant to this contract and throughout the contract period plus two (2) additional years. Such records shall be immediately available during normal business hours, for review or audit by an Arapahoe County Sheriff's Office representative or a County Auditor upon demand.
- P. Contractor SHALL IMMEDIATELY FURNISH TO THE COUNTY A FIVE THOUSAND DOLLAR (\$5,000.00) CASH BOND for the faithful performance and prompt settlement of claims for loss or damage. The County reserves the right to use any, or all, of the bond to settle claims submitted for loss or damage if such claim is substantiated to the County. Claims settled by Contractor shall be paid by Contractor or by the cash bond. Contractor shall replenish the cash bond within seven (7) days after such payment is made. The cash bond shall be refunded to Contractor within thirty (30) days after the expiration of the Agreement, or voluntary withdrawal by Contractor, if no claims are pending.
- Q. In the event of an emergency, where a large number of vehicles need to be towed within a short period of time, and Contractor is unable to do all of the work within the required period, the County may use, at its own discretion any/ all towing companies available to assist, until such a time as the emergency conditions have been relieved.
- R. Contractor or its officers, agents or employees are prohibited from soliciting for repairs to the owners of any Sheriff's Office requested tows.
- S. Contractor shall maintain all equipment in a safe working condition and each tow truck shall have the minimum equipment pursuant to PUC standards as specified by factory manufactured and serial numbered wrecker body with boom, or rollback flatbed car carrier.

1. The County reserves the right to inspect any vehicle owned by Contractor at any time during the Agreement period.

2. Failure to comply with PUC equipment standards may result in suspension or termination of the Agreement. The vehicle will be removed from service until it meets the requirements.

In the event of any conflicts between this Agreement and any attached solicitation documents, this Agreement shall control.

2. **Time of Performance.** The services of the Contractor shall commence (choose one):

- ☒ As of the date of this Agreement.
- ☐ As specified in a Notice to Proceed to be provided by the County.
- ☐ As of the following date:

The services of the Contractor shall be completed, or shall end, by

3. **Compensation.** The County agrees to compensate the Contractor for the performance of services detailed in Section 1 above, Scope of Services, as follows (choose one):

- ☐ Lump sum due upon completion:
- ☐ Hourly rate of (to be billed monthly).
- ☒ Other: Per 1st Class Towing Pricing Form.

It is expressly understood and agreed that the total compensation to be paid to the Contractor under this Agreement shall not exceed

4. **Notices of Termination.** Notices of termination shall be given at least thirty (30) days before the effective date of termination.

5. **Professional Liability Insurance.** Errors and Omissions or Professional Liability Insurance is required ☒ (check box only if it is required). The required minimum amount of coverage is \$1,000,000 (indicate amount only if it is required).

6. **Addresses for Notices.** The addresses for Notices are as follows:

To the County: Arapahoe County Attorney
5334 South Prince Street
Littleton, Colorado 80120-1136

and (send to both)

Arapahoe County Sheriff's Office
13101 East Broncos Parkway
Centennial, CO 80112

To the Contractor: Extreme Auto Repair, Inc. DBA 1st Class Towing
10274 South Dransfeldt Road
Parker, CO 80134

7. **Special Conditions.**

- ☐ No special conditions
- ☒ Special Conditions are as follows:

I. RULES AND REGULATIONS:

The information contained herein is furnished in order to establish a policy for evaluating the tow firm on its performance while operating under this Agreement. All equipment, location of operation, permits, insurance requirements, and performance requirements as listed in the Towing and Storage Services Agreement will apply throughout the duration of the Agreement. In addition to those requirements, additional criteria will be documented and compiled in order to properly monitor and evaluate the companies while under the Agreement.

It should be noted that any violation of the Colorado Revised Statutes, Colorado Criminal Code, P.U.C. Rules and Regulations or Arapahoe County Sheriff's Office guidelines may be grounds for termination under the Terms of the Towing and Storage Agreement.

Those items which are added, and/or emphasized are:

A. **RESPONSE TO CALLS FOR TOWS** - It shall be Contractor's responsibility to assure that tow refusals and late responses are kept to an absolute minimum. Repeated occurrences shall be subject to the Sheriff's Office review, and unjustified occurrences may subject Contractor to suspension and/or termination.

B. **TREATMENT OF THE PUBLIC** - Contractor, when in contact with the general public, is acting as a representative of Arapahoe County, and as such, is expected to treat the members of the general public with courtesy and respect. However, such Contractor is an independent entity, and is not deemed to be an agent or employee of the County.

C. **RATES FOR TOW SERVICES** - The rates are established and noted in the Agreement. Mileage is included. No variance from those rates by Contractor will be allowed.

D. **SOLICITING FOR REPAIRS** - It is to be understood that Contractor is PROHIBITED from soliciting the owners on any County tow, any repairs on vehicles, at any repair facility.

E. **THEFTS FROM VEHICLES** - It is Contractor's responsibility for the security of the vehicles and contents while in their possession. It is to be understood that theft(s) of items from vehicles is PROHIBITED.

1. In the event of theft from an impounded vehicle, a Police report will be completed.

2. Reports of incidents of theft shall be submitted to Arapahoe County Sheriff's Office for review.

F. **CHANGE IN EQUIPMENT** - Contractor must notify in writing to the Arapahoe County Sheriff's Office, any changes or additions to equipment prior to making the change, or as soon as practical.

G. **OFFICERS AND EMPLOYEES** - The Contractor shall provide a list of all officers and employees who are employed by the Contractor to the Arapahoe County Sheriff's Office with driver's license identification information in order that an appropriate background investigation may be conducted. If new officers or employees are hired, the Contractor shall update the list within two weeks of hire. If the Contractor utilizes any independent contractors or contract employees, then driver's license identification information shall be provided for such persons. The Contractor shall not allow any individual, not acceptable to the Arapahoe County Sheriff's Office, to perform towing services or any related services under this agreement.

Any violation(s) of the provisions set forth in the Agreement or Rules and Regulations may be cause for suspension and/or Agreement termination.

II. ADDITIONAL SPECIAL PROVISIONS

OPTION TO RENEW FOR SUBSEQUENT YEARS (WITH PRICE ADJUSTMENTS): The prices or discounts quoted in the Solicitation shall prevail during the specified term of the contract, at which time the County shall have the option to renew the contract for subsequent one year periods. The optional renewal periods shall not exceed a total of three additional years. This option is a County prerogative and not a right of Contractor and will be exercised only when such continuation is clearly

in the best interest of the County. Contractor shall notify the County of any adjustments during the option period a minimum of sixty (60) calendar days prior to the effective date of the new price to be charged to the County. The County reserves the right to reject any price adjustments submitted by Contractor and/or to terminate the contract with Contractor based on such price adjustments.

LIMITED CONTRACT EXTENSION TO MAINTAIN SERVICE LEVELS: It is hereby agreed and understood that this contract may be extended for an additional thirty-day transitional period after the contract is scheduled for termination and after any option years have been exercised. During this transitional period, Contractor agrees to continue the same or a reduced level of service to the County at the same prices while the new contract, also in force, is being mobilized. If Contractor is supplying equipment in conjunction with this contract, Contractor agrees to retain its equipment at the designated County premise(s) for an additional thirty calendar days after the termination of the contract, at which time the equipment shall be removed from the premise(s). Contractor shall be allowed to invoice the County for this additional period on a pro rated basis.

CASH BOND: Contractor to whom a contingent award is made shall duly execute and deliver a CASH Bond to the County in an amount of \$5,000.00. The bond shall be delivered to the County's Purchasing Division within five (5) calendar days after a Notice of Intent to Award has been issued on BidNet. If Contractor fails to deliver the bond within this specified time frame, including any extensions which may be granted by the County, the County shall declare Contractor in default of the contractual terms and conditions and Contractor shall surrender its Bid Bond. The County will accept a cash bond in the form of a certified cashier's check made payable to Arapahoe County Government.

ACCIDENT PREVENTION: Contractor shall be required to take safety precautions in an effort to protect persons and property. All contractors shall conform to all OSHA, State and County regulations while performing under the terms and conditions of this contract. Any fines levied by the above-mentioned authorities because of inadequate compliance with these requirements shall be borne solely by Contractor, which is responsible for same. Contractor shall provide barricades when work is performed in areas traversed by persons or when necessary.

FUEL ADJUSTMENTS (SURCHARGES): The County will not accept fuel adjustments from the firm unless a negotiated request for such adjustments are agreed by both parties as to amount and very specific timeframe. Such an agreement must be documented before the assessment date; the County will not honor such adjustments invoiced without the attachment of such agreement to the invoice.

PRICE DECREASE DURING CONTRACT: If prices decrease during the term of the contract, Contractor must notify the County of the lower prices so that all subsequent orders will reflect accurate pricing.

METHOD OF PAYMENT MONTHLY INVOICES: Contractor shall submit monthly invoices by the tenth day of each month. These invoices shall be submitted to the County's Finance Department. The invoice shall reflect the appropriate Purchase Order number, the service location(s) and the type of service provided to the County in the prior month.

MATERIAL PRICED INCORRECTLY: In the event the County discovers, through its contract monitoring process or formal audit process, that material was priced incorrectly, Contractor agrees to promptly refund all overpayments and to pay all reasonable audit expenses incurred as a result of the non-compliance.

GOVERNMENT STANDARDS AND REQUIREMENTS: All items or services to be purchased or supplied in conjunction with this Agreement shall be in accordance with all federal, state and local governmental standards to include, but not be limited to, those issued by the Office of Safety and Health Administration (OSHA), the National Institute of Occupational Safety Hazards (NIOSH) and the National Fire Protection Association (NFPA), the National Electric Code (NEC), as well as standards and requirements established by Colorado Public Utilities Commission.

PURCHASE BY OTHER GOVERNMENTAL AGENCIES: Each governmental unit which avails itself of this contract will establish its own contact, place its own orders, issues its own purchase orders, be invoiced there from and make its own payments and issue its own exemption certifications as required by Contractor. It is understood and agreed that Arapahoe County is not a legally binding party to any contractual agreement made between any other governmental unit and Contractor as a result of this solicitation.

SALES TAX: The County is exempt from paying State or Local Sales Taxes. Vendors should be aware of CONTRACTOR APPLICATION FOR EXEMPTION CERTIFICATE Pursuant to Statute Section 39-26.708(1)(a)(XIX) sales tax exemption for construction and building materials. State tax I.D. # 98-04527-000, Federal tax I.D. # 84-6000740.

For Arapahoe County seized vehicles, the discounted rate is \$65.00 hook up and \$3.00 per loaded mile.



Board Summary Report

Date: November 20, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: Arapahoe Diverts the Mentally Ill for Treatment – ADMIT Program

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services between Arapahoe County and Aurora Mental Health Center to continue administering the ADMIT Program at the Arapahoe County Sheriff's Office Detention Facility.

Background

The Arapahoe County Sheriff's Office and Aurora Mental Health Center established a partnership to implement the ADMIT Program for low risk inmates suffering from mental health issues and to divert those individuals from incarceration to treatment and supervision. The ADMIT Program has resulted in a reduction in the number of jail bed days required in the Arapahoe County Sheriff's Office Detention Facility.

Links to Align Arapahoe

Increase Community and Regional Partnerships.

Discussion

Aurora Mental Health Center and the Sheriff's Office split the cost of the \$250,000 ADMIT Program. Aurora Mental Health Center provides the treatment of ADMIT participants, while the Sheriff's Office provides for the supervision of ADMIT participants and ensures public safety. The treatment provided by the well-qualified and dedicated staff of Aurora Mental Health Center includes assessment, medication, education, evidence based therapeutic measures, support services and monitoring.

The ADMIT Program and the implementation of the Mental Health Court has resulted in a significant collaboration that serves the best interests of our community and the local judicial system.

Alternatives

Former practices would continue to incarcerate the mentally ill for longer periods of time than non-mentally ill inmates. Without treatment and supervision in the community, there is a higher probability that the inmate will continue to re-offend.

Fiscal Impact

The \$125,000.00 cost for the ADMIT Program is funded via the fee structure for inmate services provided through the Commissary Fund. The fee structure was agreed upon during a Study Session in June 2012.

Concurrence

The Sheriff's Office Administration and Detention Services Bureau are in concurrence with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager

Vincent Line, Detention Services Bureau

Louie Perea, Undersheriff

David C. Walcher, Sheriff

Finance Department

County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and Aurora Mental Health Center for the purpose of providing mental health care through the ADMIT Program at the Arapahoe County Sheriff's Office Detention Facility, for the period of January 1, 2017 to December 31, 2017, at the rates set forth in the Agreement, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR SERVICES

Project Number or Name: Aurora Mental Health Center - ADMIT

THIS AGREEMENT is entered into as of the 1st day of January, 2017 by and between the Board of County Commissioners of the County of Arapahoe, State of Colorado (hereinafter referred to as the "County") and Aurora Mental Health Center (hereinafter referred to as the "Contractor").

WHEREAS, the County desires to engage the Contractor to provide the services described in Exhibit A.

NOW, THEREFORE, the parties mutually agree as follows:

1. **Scope of Services.** The Contractor agrees to perform the services described in Section 1 of Exhibit A, which document is attached hereto and incorporated herein in its entirety.

2. **Time of Performance.** The services of the Contractor are to commence and be completed (or end) by the dates set forth in Section 2 of Exhibit A, unless this Agreement is sooner terminated pursuant to paragraph 4.A. below. All time limits are of the essence in this Agreement.

3. **Method of Payment.** The County will compensate the Contractor for services rendered in accordance with Section 3 of Exhibit A, subject to the availability of appropriated funds within the annual budget. The Contractor is responsible for paying all applicable income, Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act, or other taxes owed on compensation paid under this Agreement. The Contractor shall submit requests for payment in a form acceptable to the County and in conformance with the County's policies. The Contractor shall provide such backup information for its payment requests as may be reasonably requested by the County. The County shall have forty-five (45) days from receipt of any payment request to make payment to the Contractor.

4. **General Terms and Conditions.**

A. **Termination of Agreement.** The County or the Contractor shall have the right to terminate this Agreement, with or without cause, by giving written notice to the other party of such termination and specifying the effective date thereof, which notice shall be given at least the number of days set forth in Section 4 of Exhibit A prior to the effective date of such termination. In such event, all finished or unfinished documents, data, studies and reports prepared by the Contractor pursuant to this Agreement shall become the property of the County. Unless expressly stated otherwise in the notice, Contractor shall provide no further services in connection with this Agreement after receipt of a notice of termination, and the Contractor shall proceed to cancel all existing orders and contracts that are chargeable to the County under this Agreement. The Contractor shall be entitled to receive compensation in accordance with this Agreement for any satisfactory services completed pursuant to the terms of this Agreement prior to the date of receipt of the notice of termination, or such other stop-work date as may be specified in the notice. Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by virtue of any breach of this Agreement by the Contractor.

B. **Changes.** The County or Contractor may, from time to time, request changes in the scope of services or compensation of the Contractor. Such changes that are mutually agreed upon between the County and Contractor shall be in writing, and upon execution shall become part of this Agreement. To be effective, all changes must be signed by the Contractor and by the Board of County Commissioners, or by a person authorized by resolution to sign on behalf of the Board.

C. **Assignability or Subcontracting.** Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the County.

D. **Audit.** The County and any of its duly authorized representatives shall have reasonable access to any books, documents, papers and records of the Contractor which are pertinent to the Contractor's performance under this Agreement for the purpose of making an audit, examination, or excerpts. The Contractor shall provide any documentation necessary to prepare all reporting required of or by the County, and shall keep all books, documents, papers and records which are pertinent to the Contractor's performance for a minimum period of three years, or such longer time as may be set forth in any Special Conditions or addendums to this Agreement.

E. Equal Employment Opportunity. While performing this Agreement, the Contractor shall not discriminate against any employee, subcontractor, or applicant for employment because of disability, race, creed, color, sex, sexual orientation, religion, age, national origin, or ancestry.

F. Ownership of Documents. All drawings, specifications, guidelines and other documents prepared or received by the Contractor in connection with this Agreement shall be the property of the County.

G. Assignment of Copyrights. The Contractor assigns to the County the copyrights to all works prepared, developed, or created pursuant to this Agreement, including the rights to: 1) reproduce the work; 2) prepare derivative works; 3) distribute copies to the public by sale, rental, lease, or lending; 4) perform the works publicly; and 5) to display the work publicly. The Contractor waives its rights to claim authorship of the works, to prevent its name from being used in connection with the works, and to prevent distortion of the works.

H. Governing Law/Forum/Interpretation. This Agreement has been executed by the parties hereto on the day and year first above written and shall be governed by the laws of the State of Colorado. Venue for any civil action relating to this Agreement shall be in Arapahoe County. Both parties agree that the rule that ambiguities in a contract are to be construed against the drafting party shall not apply to the interpretation of this Agreement. If there is any conflict between the language of this Agreement and any exhibit or attachment, the language of this Agreement shall govern.

I. Compliance with Laws/Licenses and Permits. The Contractor shall comply with all applicable federal, state and local laws, ordinances, regulations, and resolutions. The Contractor shall be responsible for obtaining all licenses and permits necessary to perform the scope of services, at the Contractor's expense, unless specifically stated otherwise in this Agreement.

J. No Waiver of Rights. The County's approval or acceptance of, or payment for, services shall not be construed to operate as a waiver of any rights or benefits to be provided under this Agreement. No covenant or term of this Agreement shall be deemed to be waived by the County except in writing signed by the Board of County Commissioners or person authorized to sign by resolution of the Board, and any waiver of a right shall not be construed to be a waiver of any other right or to be a continuing waiver, unless specifically so stated.

K. Non-appropriation. Pursuant to C.R.S. § 29-1-110, as amended, the financial obligations of the County as set forth herein after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise available. This Agreement is automatically terminated on January 1st of the first fiscal year for which funds are not appropriated. The County shall give the Contractor written notice of such non-appropriation.

L. Conflict of Interest/Ethics. The Contractor shall refrain from providing services to other persons, firms or entities that would create a conflict of interest for Contractor with regard to providing services pursuant to this Agreement. The Contractor shall not offer or provide anything of benefit to any County official or employee that would place the official or employee in a position of violating the public trust in violation of Colorado Constitution Article XXIX, C.R.S. § 24-18-109, as amended, or the County's Ethical Principles and Guidelines.

M. Remedies. In addition to any other remedies provided for in this Agreement, and without limiting its remedies available at law, the County may exercise the following remedial actions if the Contractor substantially fails to satisfy the duties and obligations in this Agreement. Substantial failure to satisfy the duties and obligations shall mean significant insufficient, incorrect or improper performance, activities or inactions by the Contractor. These remedial actions are as follows:

(1) Suspend Contractor's performance pending necessary corrective action as specified by the County without the Contractor's entitlement to an increase in price/cost or a time extension; and/or

(2) Withhold payment to the Contractor until the necessary services or corrections in performance are satisfactorily completed; and/or

(3) Deny payment for those services which have not been satisfactorily performed, or which, due to circumstances caused by the Contractor, cannot be performed, or if performed would be of no value to the County.

The foregoing remedial actions are cumulative and the County, at its sole discretion, may exercise any or all of them individually or simultaneously. The County shall provide written notice to Contractor of its exercise of any of the foregoing remedial actions.

N. Force Majeure. Neither the Contractor nor the County shall be liable for any delay in, or failure of performance of, any covenant or promise contained in this Agreement, nor shall any delay or failure constitute default or give rise to any liability for damages if, and only to extent that, such delay or failure is caused by "force majeure." As used in this Agreement, "force majeure" means acts of God, acts of the public enemy, unusually severe weather, fires, floods, epidemics, quarantines, strikes, labor disputes and freight embargoes, to the extent such events were not the result of, or were not aggravated by, the acts or omissions of the non-performing or delayed party.

O. Third-Party Beneficiaries. It is expressly understood and agreed that the enforcement of this Agreement and all rights of action relating thereto shall be strictly reserved to the County and the named Contractor. Nothing contained in this Agreement shall give or allow any claim or right of action whatsoever by any other third person.

P. Survival of Terms and Conditions. Notwithstanding anything herein to the contrary, the parties understand and agree that all terms and conditions of the Agreement that anticipate continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.

Q. Illegal Aliens. As required by C.R.S. § 8-17.5-102, the Contractor certifies and agrees as follows:

(1) The Contractor shall not knowingly employ or contract with an illegal alien (a non-legal resident of the United States) to perform work under this Agreement.

(2) The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

(3) The Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement through participation in either the employment verification ("e-verify") program administered by the United States Department of Homeland Security and the Social Security Administration, or the employment verification program operated by the Colorado Department of Labor and Employment ("Department").

(4) The Contractor shall not use the e-verify or Department programs to undertake preemployment screening of job applicants while this Agreement is being performed.

(5) If the Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, then the Contractor shall: (a) notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract with the subcontractor if within three days of receiving the notice the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the subcontract if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(6) The Contractor shall comply with any reasonable request by the Department made in the course of an investigation that the Department is undertaking pursuant to the authority established by C.R.S. § 8-17.5-101(5).

(7) If the Contractor violates any of the provisions of this section 4.Q, the County may immediately terminate this Agreement effective upon the receipt by Contractor of written notice of termination from the County, and the Contractor shall be liable for actual and consequential damages to the County.

(8) Compliance with this subsection Q is not required if the Contractor is a governmental entity.

R. Abilities, Qualifications, Experience, and Best Efforts. Notwithstanding anything to the contrary contained in this Agreement, the County and Contractor agree and acknowledge that the County enters into this Agreement relying on the special and unique abilities of Contractor to perform the services and accomplish the tasks described.

Contractor accepts the relationship of trust and confidence established between Contractor and the County by this Agreement. Contractor covenants with the County to use its best efforts. Contractor shall further the interests of the County according to the County's requirements and procedures, and according to the highest standards and quality prevailing among those who perform work of a similar nature.

S. Accuracy of Work. The Contractor represents, covenants and agrees that its work will be accurate and free from any material errors.

5. Insurance. In part to assure the County that the Contractor is always capable of fulfilling the specified indemnification obligations, the Contractor must purchase and maintain insurance of the kind and in the minimum amounts specified below, unless indicated otherwise in Section 7 of Exhibit A.

A. The Contractor agrees to procure and maintain, at its own expense, for all services covered by this Agreement, the following policies of insurance:

(1) Workers' Compensation Insurance: The Contractor will maintain workers' compensation insurance covering the contractor for the performance of all services under this Agreement in accordance with applicable state laws, and employer's liability insurance. Coverage shall include a waiver of subrogation in favor of Arapahoe County

Minimum Limits:

- Workers' Compensation – statutory limits
- Employer's Liability:
 - \$1,000,000 bodily injury for each accident
 - \$1,000,000 each employee for disease
 - \$1,000,000 disease aggregate

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(2) Commercial General Liability: The Contractor will maintain commercial general liability insurance covering all operations by or on behalf of the Contractor on an occurrence basis against claims for bodily injury, property damage (including loss of use) and personal injury. Such insurance will have these minimum limits and coverages:

Minimum Limits:

- \$1,000,000 each occurrence
- \$2,000,000 general aggregate with dedicated limits per project site
- \$2,000,000 products and completed operations aggregate

Coverages:

- Products and completed operations coverage maintained for at least 2 years after completion of the project for construction contractors
- Contractual Liability
- Independent Contractors
- Defense in addition to the limits of liability
- Severability of Interests Provision
- Additional Insured Endorsement issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(3) Automobile Liability: The Contractor will maintain business auto liability coverage covering liability arising out of any auto (including owned, hired and nonowned autos) used in connection Minimum Limits:

Minimum Limit:

- \$1,000,000 Combined Single Limit Each Accident

Coverages:

- MCS 90 for vehicles carrying hazardous materials
- Additional Insured Endorsement issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(4) If indicated in Section 5 of Exhibit A, Errors and Omissions or Professional Liability Insurance with a minimum coverage amount as specified in Section 5 of Exhibit A, and for two years beyond the completion of all services under this Agreement.

(5) If indicated in Section 6 of Exhibit A, Cyber Liability Insurance with a minimum coverage amount as specified in Section 6 of Exhibit A.

B. The above-mentioned coverages shall be procured and maintained with insurers with an A- or better rating, as determined by Best's Key Rating Guide. All coverages shall be continuously maintained during the term of this Agreement or as noted above to cover all liability, claims, demands, and other obligations assumed by the Contractor.

C. Additional Insured status required above shall be primary and non-contributory with any insurance or self-insurance carried by the County. The Contractor shall be solely responsible for any deductible losses under any policy required above.

D. The policies shall provide that the County will receive notice no less than 30 days prior to cancellation, termination or non-renewal of the policies.

E. The Contractor shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types.

F. Failure on the part of the Contractor to procure or maintain policies providing the required coverages, conditions and minimum limits shall constitute a material breach of contract upon which the County may immediately terminate this Agreement.

G. The County reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

6. **Insurance Certificates.**

A. The Contractor shall, prior to commencing services, deliver to the County Certificates of Insurance as evidence that policies providing any and all required coverages and limits are in full force and effect.

B. These certificates will serve as an indication to the County that the Contractor has acquired all necessary insurance; however, the County may require that certified copies of the insurance policies be submitted and may withhold payment for services until the applicable insurance policies are received and found to be in accordance with the Agreement.

C. Insurance limits must be indicated on each Certificate of Insurance. Each Certificate of Insurance shall be reviewed and approved by the County prior to commencement of services under the Agreement. The certificates shall identify this Agreement and shall state the project number where applicable.

7. **Indemnification.** The Contractor shall indemnify and hold harmless the County and its elected and appointed officials, officers, employees, and agents from and against any and all losses, damages, liabilities, claims, suits,

actions, or awards, including costs, expenses and attorney's fees, incurred or occasioned as a result of the acts or omissions of the Contractor, or its principals, employees, agents, or subcontractors arising out of or in any way connected with the performance of services under this Agreement. The Contractor's obligation to indemnify pursuant to this paragraph, and to provide any extended insurance coverage where applicable, shall survive the completion of the scope of services, and shall survive the termination of this Agreement.

8. **Independent Contractor.** The Contractor is an independent contractor. AN INDEPENDENT CONTRACTOR IS NOT ENTITLED TO WORKER'S COMPENSATION BENEFITS AND IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON ANY MONIES EARNED PURSUANT TO THE CONTRACT RELATIONSHIP. Notwithstanding any provision appearing in this Agreement, all personnel assigned by the Contractor to perform work under the terms of this Agreement shall be and remain at all times employees of the Contractor or employees of their respective employers for all purposes.

9. **Notices.** Notices to be provided under this Agreement shall be given in writing and either delivered by hand or deposited in the United States mail with sufficient postage to the addresses set forth in Section 7 of Exhibit A.

10. **Extent of Agreement.** This Agreement represents the entire and integrated agreement between the County and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. Any amendments to this must be in writing and be signed by both the County and the Contractor. If any portion of this Agreement is found by a court of competent jurisdiction to be void and/or unenforceable, it is the intent of the parties that the remaining portions of this Agreement shall be of full force and effect.

(SA Form, 9/14/16)

CONTRACTOR : Aurora Mental Health Center

By:

(signature)

Title:

Signed this 8 day of November, 2016

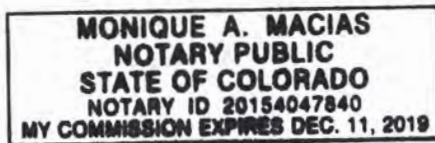
State of Colorado)
County of Arapahoe)

Subscribed and sworn to before me this 8 day of November, 2016

by

Monique A. Macias
My commission expires 12/11/2019

Notary Public



SEAL

ATTEST: Clerk to the Board

ARAPAHOE COUNTY

By:

Chair, Board of County Commissioners
(Or representative authorized by resolution)

Date: _____

EXHIBIT A to Agreement between the County and Aurora Mental Health Center.

Project Number or Name: ADMIT.

1. **Scope of Services.** The Contractor hereby agrees to and accepts responsibility to perform the following services:

Perform services on behalf of the Arapahoe County Detention Facility related to the ADMIT Program as outlined in Exhibit B. In the event of any conflicts between this Agreement and any attached solicitation documents, this Agreement shall control.

2. **Time of Performance.** The services of the Contractor shall commence (choose one);

- ☐ As of the date of this Agreement.
- ☐ As specified in a Notice to Proceed to be provided by the County.
- ☒ As of the following date: January 1, 2017.

The services of the Contractor shall be completed, or shall end, by

3. **Compensation.** The County agrees to compensate the Contractor for the performance of services detailed in Section 1 above, Scope of Services, as follows (choose one):

- ☐ Lump sum due upon completion:
- ☐ Hourly rate of (to be billed monthly).
- ☒ Other: As outlined in Exhibit B. Contractor will submit monthly invoices for services provided.

It is expressly understood and agreed that the total compensation to be paid to the Contractor under this Agreement shall not exceed \$125,000.00.

4. **Notices of Termination.** Notices of termination shall be given at least thirty (30) days before the effective date of termination.

5. **Professional Liability Insurance.** Errors and Omissions or Professional Liability Insurance is required ☒ (check box only if it is required). The required minimum amount of coverage is \$1,000,000.00 (indicate amount only if it is required).

6. **Cyber Liability Insurance.** Cyber Liability Insurance is required ☐ (check box only if it is required). The required minimum amount of coverage is not less than \$2,000,000 per occurrence or claim, \$2,000,000 aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Contractor in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

The requirements of this provision shall apply to the Contractor and to all subcontractors.

7. **Addresses for Notices.** The addresses for Notices are as follows:

To the County: Arapahoe County Attorney
 5334 South Prince Street
 Littleton, Colorado 80120-1136

 and (send to both)
 Lt. Adam Burson
 Arapahoe County Detention Facility
 7375 S. Potomac St.

Centennial, CO 80112

To the Contractor:

Mark Olson
Aurora Mental Health Center
11059 E. Bethany Dr., Ste. 2000
Aurora, CO 80014

8. **Special Conditions.**

- ☐ No special conditions
- ☒ Special Conditions are as follows:

The Contractor shall comply with the 2012 Prison Rape Elimination Act Standards. Contractor must adhere to all of the Sheriff's Policies and Procedures. Any reports, information, data, etc., provided to or obtained by Contractor shall be considered the property of the Sheriff and shall be kept confidential and shall not be made available to any individual or organization by the Contractor without prior written approval of the Sheriff or his designee.

Arapahoe Diverts the Mentally Ill for Treatment (ADMIT)

Program Description

Target Population

The target population for ADMIT comprises persons incarcerated in the county jail who are non-violent offenders, 18 or more years old, with serious mental illness or dually diagnosed with a serious mental illness and substance abuse disorder. Developmental disabilities may also be present.

Participation is further limited to persons who have demonstrated strong motivation and willingness to participate in and abide by the rules and regulations of the program, and who are eligible under local, state and federal law to participate in the program and receive the appropriate services. Participation is not restricted by race, color, national origin (ancestry), gender, sexual orientation, religion (creed), political affiliation, age, size, marital status, disability or HIV/AIDS status

Program Model

ADMIT is patterned after the Partnership for Active Community Engagement (PACE) program, a jail diversion program in Boulder County, Colorado that has been successfully operating since July 2000. It is recognized as a model program within the state that focuses on a collaborative partnership between local law enforcement, courts and community mental health organizations. Over a three-year evaluation period (2000-2003), the program showed a significant reduction in number of jail days (10,008), and re-arrests (21%), resulting in a cost savings of \$615, 492 for the Boulder County Sheriff's Office.

ADMIT will adopt a forensic intensive case management (FICM) approach. FCIM has been recognized as an efficacious treatment for individuals with criminal justice involvement (Morrissey & Meyer, 2005). In this model, participants will collaborate with their clinicians and the team to identify treatment goals and specify the supportive services they will use to develop new skills. This process guarantees development of a constellation of services and activities that are tailored to individual needs, but can be refined as needs change. The program will allow those that have more intense mental health issues to access the entire host of AuMHC resources and intensive treatment options while other clients with less intensive need can have those services extended through referral. Such services are appropriate for the target population because ADMIT clients will have differential needs that are best met by a flexible system. Through a close, ongoing relationship with their case managers and the ADMIT team, participants will have service options intended to meet their recovery goals through a multiple options.

In the ADMIT model, case managers will provide a wide variety of supportive services such as:

- Help with daily activities (shopping, transportation, basic social skills)
- Budget planning
- Facilitating independent money management skills
- Benefits acquisition (filling out paperwork, accompanying to offices, managing food stamps)
- Residential welfare checks
- Linkage to resources (bus training, GED classes, vocational training)

Case management is crucial to meeting the goals and objectives of the project. It will be the means through which individuals build the foundations for their ongoing recovery, by using new resources, practicing new skills, and developing a constructive series of behavioral skills in their lives.

Treatment

Integrated Mental Health and Substance Abuse Treatment - This integrated, step-wise treatment is designed specifically to address issues of mental illness and drug or alcohol abuse. It views both substance abuse and mental health diagnoses as primary concerns in requiring equal and integrated intervention. This service will be modified slightly when necessary to account for the individuals' disordered cognitions and/or communication style when appropriate.

Treatment will begin with thorough assessment of substance use history. Other components will include education about the interrelation of mental health and substance use (i.e. self medication), and development of peer support. Staff and participants will also coordinate with the vocational resources and recreational programs to build new adaptive activities and focus on changing entire lifestyles. Specific treatment details include presenting and discussing the role of healthy psychological functioning in the recovery process. Treatment will also emphasize the importance of physiological and psychological self-care in relapse prevention.

This core service supports and treats individuals that struggle with mental health and substance abuse problems so that their symptom coping and addictions management skills improve. The process then facilitates reaching project goals for increased community stability and decreased recidivism.

Medication Management and Access - This best practice is organized with four integral tenets:

- 1) Using systematic plans and accepted algorithms for medication management.
- 2) Producing objective outcome measures.
- 3) Clear and thorough documentation.
- 4) A shared decision making process between consumers and practitioners.

This aspect of treatment will assist meeting individual and project goals because it provides immediate symptom alleviation in an empowering context so that participants will feel they have a voice in treatment and their life-impairing mood and thinking problems will improve.

Psychiatric Rehabilitation - Psychiatric rehabilitation is multidimensional, team-based mental health treatment that focuses on collaborative planning and building recovery. All project clinical staff will participate in the individual's psychiatric rehabilitation. Services will include individual therapy, group therapy, case management, and medication management. These activities will be focused and guided by the individual's recovery treatment plan.

Aspects of psychiatric rehabilitation in the treatment plan will include issues such as gaining a greater knowledge of their illness and understanding the impact of substance abuse, role of medications and the value of medication compliance. This includes identifying the impact stress and it's role in relapse, developing and maintaining a social support system, developing effective problem management skills and developing coping skills. Development of individual treatment plans will be collaborative and strength-based. Participants will join with staff in identifying goals and understanding their existing positive skill-sets/ knowledge that can further enhance recovery.

Gender Based Trauma Services - Trauma is experienced differently by men and women, and that the sources of the trauma also tend to be different. It has a particular emphasis on the experience of women who are more likely to have been the survivors of domestic violence and sexual abuse. Comprehensive

diversion programs include an emphasis on self-care and self-efficacy, address cycles of violence and family relationships, discussion of social issues like poverty and gender inequity, and contain content that speaks to women's multiple roles.

Family Services - Many women have become involved with social services and child protective custody issues and have associated medical problems. Childcare is also a crucial issue because many women remain the primary caregivers for children (Hills, 2004). ADMIT will have ready access to resources for parenting training classes and other child care resources.

Delivery of Services

Although intensity of treatment will decrease as the participant progresses through the level system, all treatment in the ADMIT program will have the following key components:

- Begins with thorough assessment of mental health, substance abuse, criminal record, and psychosocial history with emphasis on identification of trauma-survivor and addictions issues.
- Treatment will include psycho-education about mental illness, substance abuse, and co-occurring disorders to participants and their families or support system.
- Assessment and treatment will incorporate cultural competence strategies throughout the process (training of staff, structured intake, invitations for participants to share cultural experience with staff, and provision of interpretive or bilingual services when needed)
- All participants in ADMIT will have access to medication management services. Once enrolled in the project, a medication evaluation will be scheduled with regular follow-up appointments, at least on a monthly basis or as indicated by the prescribing practitioner and treatment team.
- Medication will be securely stored at the program location and strictly controlled. They will be administered at the ADMIT location under close supervision. Participants will receive their entire weekend medication on Saturdays.
- Services are structured with collaborative goal-setting and measurement of outcomes/progress on goals (establishment of adaptive social support, sobriety shown through clean urinalysis, employment, coping skills rehearsal, and/or mentoring peers)
- Services will specify resources linked to goals and then empower/support participants in using them (Section – 8 HUD housing, Drop-in Centers, Food stamps, parent support groups, GED classes, community 12-step groups, etc).
- Assessment of participant progress is tracked throughout the process and integrated in treatment planning or consequences (i.e. program revocation and jail for re-offense and/or treatment noncompliance).

Below is a table of treatment levels and their corresponding frequency, treatment objectives and criteria for advancement. Advancement between levels will occur when criteria are met and agreed-upon by staff. The consequences for failing to meet basic program requirements in time are program revocation and return to jail.

Treatment Level 1		
Frequency of contact:	Typical Objectives:	Criteria for advancement:
Daily – 3x per week (Medications, Case management and therapy)	Assessment of mental health and substance abuse history Learn about mental illness/substance abuse patterns Establish treatment goals Begin using new resources and/or applying for benefits	Demonstrated sobriety (urinalysis) Can describe the interaction of their own mental health and substance abuse problems and discuss how smaller steps will lead to over-all goals *Regular attendance and participation in appointments and

		groups *Taking prescribed medications (*required of all levels).
Treatment Level 2		
Frequency of contact:	Typical Objectives:	Criteria for advancement:
1 – 3x per week (Not requiring more than 1 individual therapy session per week)	Begin skill rehearsal (refusal skills, symptom-coping, mood tracking) Process family of origin/trauma issues with therapist/case manager Beginning part time employment/volunteer/training and or education	Demonstrated sobriety and report of use of other supportive techniques (12-step groups) Demonstrates self-assessment of goal progress Initiates setting new treatment goals Has established social support outside of treatment providers
Treatment Level 3		
Frequency of contact:	Typical Objectives:	Criteria for advancement:
1x per week or less (Case management or individual therapy)	Begin mentoring activities Using established support network and discussing successful stress-coping outcomes	Can list most effective personal stress-coping strategies Utilizes outside support regularly Has some stability (3-4 weeks) in work or school

As part of the program, participants must adhere to random urinalysis (UA) testing and Portable Breathalyzer Tests (PBT) to document their progress. Any failed test would take the participant back to Level I. Failure to comply with program requirements would result in a revocation of bond and a return to jail. Immediate dismissal from ADMIT would occur if a participant exhibits violence or threat of violence and/or commits any new felony offense. In situations when a participant exhibits signs of psychiatric decompensation, Arapahoe County Detention Facility will be used as a short-term stabilization service.

Successful completion of ADMIT will lead to referrals for ongoing mental health substance abuse treatment maintenance. Some participants may be able to utilize sliding fee scale services or pay with Medicaid or Medicare insurance. Others may be referred out of AuMHC to other sliding fee scale agencies in the community. ADMIT will follow participants for an additional appointment even after they have begun services elsewhere, to ensure smooth transitions and prevent relapse.

Criteria for ADMIT Success

ADMIT is designed to move participants forward in their recovery and onto other mental health/substance abuse services. Each of the three levels of treatment lasts a minimum six weeks. Some participants may need to return to earlier levels in order re-establish adaptive coping skills or demonstrate consistent sobriety.

Graduation criteria; participant

- advances to level 3 as determined by the treatment team;
- Urinalysis and breathalyzer results demonstrate commitment to maintaining sobriety;
- attended appointments and has begun mental health/substance abuse treatment in the community or at another clinic within Aurora Mental Health;
- established support system for maintaining sobriety and psychiatric stability;

- articulated which coping skills work best for maintaining recovery and lists times they've been employed;
- has begun part-time or fulltime employment, education, or volunteer work (may also be involved in caring for young children).

Formal certification of program graduation will be awarded to the participant during a brief ceremony celebrating success and be shared with the sheriff's office.

The ADMIT structure expects and allows participants to falter along the way. A participant will either regress to an earlier level, or, if in level one, will restart the first two weeks of level one. Causes for return to earlier points in the continuum are:

- Several positive UAs or failure to produce UAs that demonstrate reduction of use.
- More than two unexcused absences.
- Failure to participate meaningfully – failure to develop personalized relapse prevention/recovery plans, refusal to discuss issues in therapy or groups or other failure deemed serious.

Individual treatment plans will specify which types of support and frequency of treatment will be required to re-establish recovery (daily care, types of services to be used).

The ADMIT team will be in regular monthly communication with the Arapahoe mental health specialist to update him or her on participant progress or problems. Any movement – forward or backward – in the level system will require a short, written report highlighting which of the listed criteria have been relevant. Copies of this documentation will be kept in client files, sent to the Detention Center and to other 18th Judicial District agencies as may be required, and given to and reviewed with, the participant. Due to the multi-faceted nature of recovery, the Aurora Mental Health Center lead therapist and the Arapahoe mental health specialist will consult frequently and may tailor consequences depending on presenting issues.

ADMIT program failure will result from:

- unsuccessful completion of graduation criteria within 26 weeks;
- team consensus that urinalysis and breathalyzer results have consistently demonstrated a lack of commitment to sobriety (typically 3 or more positive or non-substance-reducing results).
- five unexcused absences;
- failure to engage in any type of productive activity (work, school, volunteer or child care).

Formal documentation specifying recommendations and highlighting failed criteria will be supplied to the sheriff's office and the participant.

ADMIT failure necessitates coordination with the 18th Judicial District concerning legal consequences for the client, post-ADMIT discharge.

**Aurora Mental Health Center / Arapahoe County Sheriff's Office
ADMIT Project Budget -- 2014**

Clinical and Support Personnel

Lead Therapist	1.00 X 42,000		ACSO	42,000
Case Manager	1.00 X 34,652		ACSO	34,658
Program Manager	0.10 X 86,187		AuMHC	8,618
Clinical Supervisor	0.25 X 59,207		AuMHC	14,801
Psychiatric Mid-Level Provider	0.06 X 91,422		AuMHC	5,485
Nurse	0.06 X 67,817		AuMHC	4,069
Administrative support	0.40 X 29,702		AuMHC	11,880
Peer Specialist	200/mon.	stipend only	AuMHC	2,400
Benefits	0.17		ACSO	13,032
Benefits	0.17		AuMHC	8,402
Subtotal (ACSO)				89,690
Subtotal (AuMHC)				55,655
Total (Personnel)				145,345

Medication

Psychotropic medication			ACSO	2,910
Psychotropic medication			AUMHC	7,100
Subtotal (ACSO)				2,910
Subtotal (AuMHC)				7,100

Contracts

Norchem Drug Testing Laboratory	100/month	9.00/each	ACSO	10,800
Norchem Drug Testing Laboratory	100/month	9.00/each	AuMHC	3,800
Subtotal (ACSO)				10,800
Subtotal (AuMHC)				3,800

Other

Supported housing	900/month per apartment	One(1) apartment, three (3) beds per apartment	ACSO	10,800
Supported housing	900/month per apartment	One(1) apartment, three (3) beds per apartment	ACSO	10,800
Supported housing	1080/month per apartment	One(1) apartment, three (3) beds per apartment	AuMHC	12,960
Mileage	.565/mile		AuMHC	2,000
Office space cost and support	2,380/month		AuMHC	28,560
Assessment tools		BDI/BSI	AuMHC	225
Client travel		Bus and Van	AuMHC	7,500
Client fund		600/month	AuMHC	7,200
Subtotal (ACSO)				21,600
Subtotal (AUMHC)				58,445
Program Subtotal (ACSO)				125,000
Program Subtotal (AUMHC)				125,000
Total Program Cost				250,000



Board Summary Report

Date: November 21, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Agreement for Services with Correct Care Solutions, LLC.

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services with Correct Care Solutions, LLC to provide Inmate Medical Services at the Arapahoe County Sheriff's Office Detention Facility.

Background

Correct Care Solutions, LLC provides healthcare services to the inmates at the Arapahoe County Sheriff's Office Detention Facility, including Medical Services, Psychiatric Services, Physician Services, Pharmaceutical Services, Dental Technician Services, and other additional services as needed. The 2017 contract includes Dental Services in addition to these.

Links to Align Arapahoe

Optimize Use of Financial Assets – Correct Care Solutions, LLC won the competitive bidding process to provide quality healthcare services to the inmates at the Arapahoe County Sheriff's Office Detention Facility.

Discussion

Correct Care Solutions, LLC has provided these services to the inmates at the Arapahoe County Sheriff's Office Detention Facility since November, 2015. They have been awarded the Contract for Inmate Medical Services per RFP-16-47.

Alternatives

There is no alternative as CCS was awarded the contract per solicitation RFP-16-47.

Fiscal Impact

The cost of the Agreement for Services is included in the 2017 Sheriff's Office General Fund budget.

Concurrence

The Sheriff's Office Administration and Detention Services Bureau are in concurrence with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager

Vincent Line, Detention Service Bureau

Louie Perea, Undersheriff

David C. Walcher, Sheriff

Finance Department

County Attorney

RESOLUTION NO. 17_____. It was moved by Commissioner _____ and duly seconded by Commissioner _____ to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and Correct Care Solutions, LLC. for the purpose of providing inmate healthcare services at the Arapahoe County Sheriff's Office Detention Facility, for the period of January 1, 2017 to December 31, 2017, at the rates set forth in the Agreement, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, _____ ; Commissioner Doty, _____ ; Commissioner Holen, _____ ;
Commissioner Jackson, _____ ; Commissioner Sharpe, _____ .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR SERVICES

Project Number or Name: INMATE MEDICAL SERVICES, RFP-16-47

THIS AGREEMENT is entered into as of the 15 day of September, 2016 by and between the Board of County Commissioners of the County of Arapahoe, State of Colorado (hereinafter referred to as the "County") and Correct Care Solutions, LLC (hereinafter referred to as the "Contractor").

WHEREAS, the County desires to engage the Contractor to provide the services described in Exhibit A.

NOW, THEREFORE, the parties mutually agree as follows:

1. **Scope of Services.** The Contractor agrees to perform the services described in Section I of Exhibit A, which document is attached hereto and incorporated herein in its entirety.

2. **Time of Performance.** The services of the Contractor are to commence and be completed (or end) by the dates set forth in Section 2 of Exhibit A, unless this Agreement is sooner terminated pursuant to paragraph 4.A. below. All time limits are of the essence in this Agreement.

3. **Method of Payment.** The County will compensate the Contractor for services rendered in accordance with Section 3 of Exhibit A, subject to the availability of appropriated funds within the annual budget. The Contractor is responsible for paying all applicable income, Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act, or other taxes owed on compensation paid under this Agreement. The Contractor shall submit requests for payment in a form acceptable to the County and in conformance with the County's policies. The Contractor shall provide such backup information for its payment requests as may be reasonably requested by the County. The County shall have forty-five (45) days from receipt of any payment request to make payment to the Contractor.

4. **General Terms and Conditions.**

A. **Termination of Agreement.** The County or the Contractor shall have the right to terminate this Agreement, with or without cause, by giving written notice to the other party of such termination and specifying the effective date thereof, which notice shall be given at least the number of days set forth in Section 4 of Exhibit A prior to the effective date of such termination. In such event, all finished or unfinished documents, data, studies and reports prepared by the Contractor pursuant to this Agreement shall become the property of the County. Unless expressly stated otherwise in the notice, Contractor shall provide no further services in connection with this Agreement after receipt of a notice of termination, and the Contractor shall proceed to cancel all existing orders and contracts that are chargeable to the County under this Agreement. The Contractor shall be entitled to receive compensation in accordance with this Agreement for any satisfactory services completed pursuant to the terms of this Agreement prior to the date of receipt of the notice of termination, or such other stop-work date as may be specified in the notice. Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by virtue of any breach of this Agreement by the Contractor.

B. **Changes.** The County or Contractor may, from time to time, request changes in the scope of services or compensation of the Contractor. Such changes that are mutually agreed upon between the County and Contractor shall be in writing, and upon execution shall become part of this Agreement. To be effective, all changes must be signed by the Contractor and by the Board of County Commissioners, or by a person authorized by resolution to sign on behalf of the Board.

C. **Assignability or Subcontracting.** Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the County.

D. **Audit.** The County and any of its duly authorized representatives shall have reasonable access to any books, documents, papers and records of the Contractor which are pertinent to the Contractor's performance under this Agreement for the purpose of making an audit, examination, or excerpts. The Contractor shall provide any documentation necessary to prepare all reporting required of or by the County, and shall keep all books, documents, papers and records

which are pertinent to the Contractor's performance for a minimum period of three years, or such longer time as may be set forth in any Special Conditions or addendums to this Agreement.

E. Equal Employment Opportunity. While performing this Agreement, the Contractor shall not discriminate against any employee, subcontractor, or applicant for employment because of disability, race, creed, color, sex, sexual orientation, religion, age, national origin, or ancestry.

F. Ownership of Documents. All drawings, specifications, guidelines and other documents prepared or received by the Contractor in connection with this Agreement shall be the property of the County.

G. Assignment of Copyrights. The Contractor assigns to the County the copyrights to all works prepared, developed, or created pursuant to this Agreement, including the rights to: 1) reproduce the work; 2) prepare derivative works; 3) distribute copies to the public by sale, rental, lease, or lending; 4) perform the works publicly; and 5) to display the work publicly. The Contractor waives its rights to claim authorship of the works, to prevent its name from being used in connection with the works, and to prevent distortion of the works.

H. Governing Law/Forum/Interpretation. This Agreement has been executed by the parties hereto on the day and year first above written and shall be governed by the laws of the State of Colorado. Venue for any civil action relating to this Agreement shall be in Arapahoe County. Both parties agree that the rule that ambiguities in a contract are to be construed against the drafting party shall not apply to the interpretation of this Agreement. If there is any conflict between the language of this Agreement and any exhibit or attachment, the language of this Agreement shall govern.

I. Compliance with Laws/Licenses and Permits. The Contractor shall comply with all applicable federal, state and local laws, ordinances, regulations, and resolutions. The Contractor shall be responsible for obtaining all licenses and permits necessary to perform the scope of services, at the Contractor's expense, unless specifically stated otherwise in this Agreement.

J. No Waiver of Rights. The County's approval or acceptance of, or payment for, services shall not be construed to operate as a waiver of any rights or benefits to be provided under this Agreement. No covenant or term of this Agreement shall be deemed to be waived by the County except in writing signed by the Board of County Commissioners or person authorized to sign by resolution of the Board, and any waiver of a right shall not be construed to be a waiver of any other right or to be a continuing waiver, unless specifically so stated.

K. Non-appropriation. Pursuant to C.R.S. § 29-1-110, as amended, the financial obligations of the County as set forth herein after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise available. This Agreement is automatically terminated on January 1st of the first fiscal year for which funds are not appropriated. The County shall give the Contractor written notice of such non-appropriation.

L. Conflict of Interest/Ethics. The Contractor shall refrain from providing services to other persons, firms or entities that would create a conflict of interest for Contractor with regard to providing services pursuant to this Agreement. The Contractor shall not offer or provide anything of benefit to any County official or employee that would place the official or employee in a position of violating the public trust in violation of Colorado Constitution Article XXIX, C.R.S. § 24-18-109, as amended, or the County's Ethical Principles and Guidelines.

M. Remedies. In addition to any other remedies provided for in this Agreement, and without limiting its remedies available at law, the County may exercise the following remedial actions if the Contractor substantially fails to satisfy the duties and obligations in this Agreement. Substantial failure to satisfy the duties and obligations shall mean significant insufficient, incorrect or improper performance, activities or inactions by the Contractor. These remedial actions are as follows:

(1) Suspend Contractor's performance pending necessary corrective action as specified by the County without the Contractor's entitlement to an increase in price/cost or a time extension; and/or

(2) Withhold payment to the Contractor until the necessary services or corrections in performance are satisfactorily completed; and/or

(3) Deny payment for those services which have not been satisfactorily performed, or which, due to circumstances caused by the Contractor, cannot be performed, or if performed would be of no value to the County.

The foregoing remedial actions are cumulative and the County, at its sole discretion, may exercise any or all of them individually or simultaneously. The County shall provide written notice to Contractor of its exercise of any of the foregoing remedial actions.

N. Force Majeure. Neither the Contractor nor the County shall be liable for any delay in, or failure of performance of, any covenant or promise contained in this Agreement, nor shall any delay or failure constitute default or give rise to any liability for damages if, and only to extent that, such delay or failure is caused by "force majeure." As used in this Agreement, "force majeure" means acts of God, acts of the public enemy, unusually severe weather, fires, floods, epidemics, quarantines, strikes, labor disputes and freight embargoes, to the extent such events were not the result of, or were not aggravated by, the acts or omissions of the non-performing or delayed party.

O. Third-Party Beneficiaries. It is expressly understood and agreed that the enforcement of this Agreement and all rights of action relating thereto shall be strictly reserved to the County and the named Contractor. Nothing contained in this Agreement shall give or allow any claim or right of action whatsoever by any other third person.

P. Survival of Terms and Conditions. Notwithstanding anything herein to the contrary, the parties understand and agree that all terms and conditions of the Agreement that anticipate continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.

Q. Illegal Aliens. As required by C.R.S. § 8-17.5-102, the Contractor certifies and agrees as follows:

(1) The Contractor shall not knowingly employ or contract with an illegal alien (a non-legal resident of the United States) to perform work under this Agreement.

(2) The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

(3) The Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement through participation in either the employment verification ("e-verify") program administered by the United States Department of Homeland Security and the Social Security Administration, or the employment verification program operated by the Colorado Department of Labor and Employment ("Department").

(4) The Contractor shall not use the e-verify or Department programs to undertake preemployment screening of job applicants while this Agreement is being performed.

(5) If the Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, then the Contractor shall: (a) notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract with the subcontractor if within three days of receiving the notice the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the subcontract if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(6) The Contractor shall comply with any reasonable request by the Department made in the course of an investigation that the Department is undertaking pursuant to the authority established by C.R.S. § 8-17.5-101(5).

(7) If the Contractor violates any of the provisions of this section 4.Q, the County may immediately terminate this Agreement effective upon the receipt by Contractor of written notice of termination from the County, and the Contractor shall be liable for actual and consequential damages to the County.

(8) Compliance with this subsection Q is not required if the Contractor is a governmental entity.

R. Abilities, Qualifications, Experience, and Best Efforts. Notwithstanding anything to the contrary contained in this Agreement, the County and Contractor agree and acknowledge that the County enters into this Agreement relying on the special and unique abilities of Contractor to perform the services and accomplish the tasks described. Contractor accepts the relationship of trust and confidence established between Contractor and the County by this Agreement. Contractor covenants with the County to use its best efforts. Contractor shall further the interests of the County according to the County's requirements and procedures, and according to the highest standards and quality prevailing among those who perform work of a similar nature.

S. Accuracy of Work. The Contractor represents, covenants and agrees that its work will be accurate and free from any material errors.

5. Insurance. In part to assure the County that the Contractor is always capable of fulfilling the specified indemnification obligations, the Contractor must purchase and maintain insurance of the kind and in the minimum amounts specified below, unless indicated otherwise in Section 7 of Exhibit A.

A. The Contractor agrees to procure and maintain, at its own expense, for all services covered by this Agreement, the following policies of insurance:

(1) Workers' Compensation Insurance: The Contractor will maintain workers' compensation insurance covering the contractor for the performance of all services under this Agreement in accordance with applicable state laws, and employer's liability insurance. Coverage shall include a waiver of subrogation in favor of Arapahoe County

Minimum Limits:

- Workers' Compensation – statutory limits
- Employer's Liability:
 - \$1,000,000 bodily injury for each accident
 - \$1,000,000 each employee for disease
 - \$1,000,000 disease aggregate

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(2) Commercial General Liability: The Contractor will maintain commercial general liability insurance covering all operations by or on behalf of the Contractor on an occurrence basis against claims for bodily injury, property damage (including loss of use) and personal injury. Such insurance will have these minimum limits and coverages:

Minimum Limits:

- \$1,000,000 each occurrence
- \$2,000,000 general aggregate with dedicated limits per project site
- \$2,000,000 products and completed operations aggregate

Coverages:

- Products and completed operations coverage maintained for at least 2 years after completion of the project for construction contractors
- Contractual Liability
- Independent Contractors
- Defense in addition to the limits of liability
- Severability of Interests Provision
- Additional Insured Endorsement issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(3) Automobile Liability: The Contractor will maintain business auto liability coverage covering liability arising out of any auto (including owned, hired and nonowned autos) used in connection Minimum Limits:

Minimum Limit:

- \$1,000,000 Combined Single Limit Each Accident

Coverages:

- MCS 90 for vehicles carrying hazardous materials
- Additional Insured Endorsement issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(4) If indicated in Section 5 of Exhibit A, Errors and Omissions or Professional Liability Insurance with a minimum coverage amount as specified in Section 5 of Exhibit A, and for two years beyond the completion of all services under this Agreement.

B. The above-mentioned coverages shall be procured and maintained with insurers with an A- or better rating, as determined by Best's Key Rating Guide. All coverages shall be continuously maintained during the term of this Agreement or as noted above to cover all liability, claims, demands, and other obligations assumed by the Contractor.

C. Additional Insured status required above shall be primary and non-contributory with any insurance or self-insurance carried by the County. The Contractor shall be solely responsible for any deductible losses under any policy required above.

D. The policies shall provide that the County will receive notice no less than 30 days prior to cancellation, termination or non-renewal of the policies.

E. The Contractor shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types.

F. Failure on the part of the Contractor to procure or maintain policies providing the required coverages, conditions and minimum limits shall constitute a material breach of contract upon which the County may immediately terminate this Agreement.

G. The County reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

6. **Insurance Certificates.**

A. The Contractor shall, prior to commencing services, deliver to the County Certificates of Insurance as evidence that policies providing any and all required coverages and limits are in full force and effect.

B. These certificates will serve as an indication to the County that the Contractor has acquired all necessary insurance; however, the County may require that certified copies of the insurance policies be submitted and may withhold payment for services until the applicable insurance policies are received and found to be in accordance with the Agreement.

C. Insurance limits must be indicated on each Certificate of Insurance. Each Certificate of Insurance shall be reviewed and approved by the County prior to commencement of services under the Agreement. The certificates shall identify this Agreement and shall state the project number where applicable.

7. **Indemnification.** The Contractor shall indemnify and hold harmless the County and its elected and appointed officials, officers, employees, and agents from and against any and all losses, damages, liabilities, claims, suits, actions, or awards, including costs, expenses and attorney's fees, incurred or occasioned as a result of the acts or omissions of the Contractor, or its principals, employees, agents, or subcontractors arising out of or in any way connected with the performance of services under this Agreement. The Contractor's obligation to indemnify pursuant to this paragraph, and to provide any extended insurance coverage where applicable, shall survive the completion of the scope of services, and shall survive the termination of this Agreement.

8. **Independent Contractor.** The Contractor is an independent contractor. AN INDEPENDENT CONTRACTOR IS NOT ENTITLED TO WORKER'S COMPENSATION BENEFITS AND IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON ANY MONIES EARNED PURSUANT TO THE CONTRACT RELATIONSHIP. Notwithstanding any provision appearing in this Agreement, all personnel assigned by the Contractor to perform work under the terms of this Agreement shall be and remain at all times employees of the Contractor or employees of their respective employers for all purposes.

9. **Notices.** Notices to be provided under this Agreement shall be given in writing and either delivered by hand or deposited in the United States mail with sufficient postage to the addresses set forth in Section 6 of Exhibit A.

10. **Extent of Agreement.** This Agreement represents the entire and integrated agreement between the County and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. Any amendments to this must be in writing and be signed by both the County and the Contractor. If any portion of this Agreement is found by a court of competent jurisdiction to be void and/or unenforceable, it is the intent of the parties that the remaining portions of this Agreement shall be of full force and effect.

(SA Form, 4/15/16)

CONTRACTOR: Correct Care Solutions, LLC.

By: _____

(signature)

Title: _____

President Local Det Div.

Signed this 15th day of November, 2016

State of Tennessee)
County of Davidson)

Subscribed and sworn to before me this 15th day of November, 2016

by Chris Bule

My commission expires July 8, 2019

[Signature]
Notary Public



SEAL

ATTEST: Clerk to the Board

ARAPAHOE COUNTY

By: _____

Chair, Board of County Commissioners
(Or representative authorized by resolution)

Date: _____

EXHIBIT A to Agreement between the County and Correct Care Solutions, LLC.

Project Number or Name: Inmate Medical Services, RFP-16-47.

1. **Scope of Services.** The Contractor hereby agrees to and accepts responsibility to perform the following services:

The Arapahoe County Sheriff's Office (ACSO) operates a full-service Detention Facility. ACSO boasts the triple crown of accreditations and the Contractor shall perform services such that the Sheriff's Office remains in compliance with the standards set forth by each accrediting agency. The Detention Facility is comprised of six (6) pods (each capable of housing between 176 and 210 inmates), a 24-bed inpatient unit, and an 8-bed behavioral control unit. The inmate population consists of pre-trial detainees, sentenced misdemeanor and felony inmates, a work release program and an inmate trustee program.

Correct Care Solutions agrees to administer healthcare services with the healthcare staff as specified herein at the Arapahoe County Sheriff's Office Detention Facility.

A. GENERAL.

Correct Care Solutions shall be responsible for providing the services described herein to the inmates under the jurisdiction of ACSO or any other jurisdiction or agency and housed at the Arapahoe County Detention Facility (hereinafter "Detention Facility" or "Jail"), except where otherwise noted.

B. STANDARD OF CARE.

All services within this scope of services shall meet or exceed community standards, as well as the standards set forth by the American Correctional Association ("ACA") and the National Commission on Correctional Health Care ("NCCHC").

C. GENERAL HEALTHCARE SERVICES.

Correct Care Solutions shall administer the following healthcare services with the healthcare staff indicated below:

1. **Receiving Screening and Intake Process.** Correct Care Solutions shall provide documented Inmate health screening for Inmates upon arrival to the Detention Facility. The receiving screening shall be consistent with ACA and NCCHC standards and ACSO policies and procedures. Correct Care Solutions will ensure that qualified nursing staff is assigned to the Jail booking/intake area twenty-four (24) hours, seven (7) days a week, who will be primarily responsible for conducting receiving screenings immediately after Inmates arrive. The receiving screening conducted by Correct Care Solutions shall include but not be limited to:

- a. Inquiry into current illnesses, health problems, mental health problems and conditions;
- b. Verification of current medication(s) in a timely manner;
- c. Verification of medically necessary special diets or special health requirements;
- d. Observations of behavior, including state of consciousness, mental status, appearance, conduct, tremors and sweating;
- e. Notation of body deformities, trauma markings, ease of movement, bruises and jaundice;
- f. Notation of conditions of skin and body orifices, including rashes and infestations, needle marks or other indications of drug abuse;
- g. Provision of information to Inmates regarding the medical grievance process and the right to healthcare and health services during their incarceration;
- h. Identification of Inmates who are deaf or hard of hearing, who either request or otherwise need sign language interpreting services and immediate notification to ACSO staff of the same;
- i. Notification to ACSO staff regarding any medical special diet requirements, special housing issues or medically necessary work restrictions;
- j. Inquiry and documentation of Inmate third party health insurance and/or documentation of information necessary to determine eligibility under the Affordable Care Act; and.
- k. Notification to ACSO Classifications staff and other necessary ACSO staff, regarding special housing or management issues identified, including but not limited to, the following:
 - i. Inmates with critical conditions;
 - ii. Inmates identified as having Special Needs,
 - iii. Inmates requiring extraordinary oversight, treatment and/or management;
 - iv. Inmates with mental illness;
 - v. Inmates with identified or suspected suicidal and/or homicidal risk;
 - vi. Inmates identified as transgender;

- vii. Inmates identified as pregnant;
 - viii. Inmates potentially requiring protective custody; and
 - ix. Inmates with ADA needs or accommodation requests.
2. **Special Needs Screening.** Correct Care Solutions shall perform a special needs screening during the receiving screening and intake process and again during the initial health assessment in order to identify Inmates with special healthcare needs that require close medical supervision and/or multidisciplinary care. If an Inmate is determined to have special needs Correct Care Solutions staff will establish individualized treatment plans to be administered by Correct Care Solutions. Special needs patients will be reviewed by a mid-level provider or physician every 90 days or at shorter intervals when medically indicated. Special needs shall include, but are not limited to the following chronic conditions and/or communicable diseases:
- a. Diabetes;
 - b. Hypertension;
 - c. Coronary Artery Disease;
 - d. Congestive Heart Failure;
 - e. Asthma;
 - f. COPD;
 - g. Tuberculosis;
 - h. Seizure disorder;
 - i. HIV/AIDS;
 - j. Hepatitis;
 - k. Sickle Cell Anemia; and
 - l. Major mental illness.
3. **Initial Health Assessment.** Correct Care Solutions shall perform a health assessment of an Inmate as soon as possible after an Inmate is booked in to the Jail. Correct Care Solutions shall make every effort to conduct the health assessment within ten (10) calendar days, but shall conduct the health assessment no later than fourteen (14) calendar days after the Inmate's arrival at the Jail. The health assessment shall follow current NCCHC guidelines and will at a minimum include the following:
- a. Review of the receiving screening;
 - b. Review of health history and any additional data needed to complete the standard health history;
 - c. Recording of vital signs, height and weight;
 - d. Mental health appraisal;
 - e. Dental screening;
 - f. PPD for tuberculosis (if not previously administered) and laboratory and/or diagnostic tests when clinically indicated or judicially mandated;
 - g. Collection of additional health data to complete the medical, dental, mental health, and immunization histories;
 - h. A physical examination (including breast, rectal, and testicular exams as indicated by the patient's gender, age and risk factors);
 - i. For female Inmates, inquiry into menstrual cycle and unusual bleeding, current use of contraceptives and medications, pregnancy, breast masses and nipple discharge;
 - j. Vision screening and hearing screening;
 - k. Other tests and examinations as appropriate, required, and indicated (diagnostic panel, urinalysis, EKG, etc.);
 - l. Initiation of therapy and immunizations as indicated;
 - m. Any abnormal results of the health appraisal will be reviewed by a physician or mid-level provider for appropriate disposition;
 - n. Date and time of the health appraisal will be documented; and
 - o. Title and signature of the individual performing the health appraisal will be recorded and a physician will review, sign, and date any appraisals completed by RNs and any abnormal appraisals completed by a mid-level provider.
4. **Periodic Health Assessment.** Correct Care Solutions shall perform periodic health maintenance exams on Inmates who are at the Jail for prolonged periods of time in order to manage any existing conditions and to identify any new conditions or illnesses that may develop. A health maintenance exam shall take place upon the one-year anniversary of an Inmate's incarceration and will be repeated annually thereafter, or at shorter intervals as determined by a qualified contracted healthcare professional based on the Inmate's age, gender, and health of the patient.
5. **Scheduled Sick Call.** Correct Care Solutions shall provide sufficient qualified healthcare professionals to conduct sick calls for Inmates on a timely basis and in a clinical setting. Correct Care Solutions shall provide sufficient qualified healthcare professionals to conduct timely sick call triage, within twenty-four (24) hours of the patient's request. Correct Care Solutions shall also provide access to sick call consultation within the next twenty-four (24) hours (seventy-two (72) hours for weekends). To meet these needs, Correct Care Solutions shall provide the following sick call services:

- a. Qualified nursing personnel shall conduct sick call triage at least once daily, seven (7) days a week, including holidays;
 - b. Nursing sick call shall be conducted at least once daily;
 - c. Physician and mid-level providers will be on-site to conduct scheduled provider sick call clinics in accordance with the staffing requirements set forth in Exhibit B, the facility activity schedule, and as Correct Care Solutions deems necessary in order to meet or exceed community standards and/or accreditation standards; and
 - d. Inmates who require urgent or emergent medical attention shall be seen on the same day they request such attention.
6. Response to Inmate Medical Grievances. Inmate grievances regarding healthcare shall be answered by Correct Care Solutions staff within seventy-two (72) hours (excluding weekends and holidays) of receipt or the Inmate shall be advised of a delay in order to fully investigate the complaint. All grievances and responses shall become part of the Inmate's medical record.

D. STAFFING CONSIDERATIONS.

1. Staffing Hours. Correct Care Solutions shall provide for the medical, mental health and support staff services based on Correct Care Solutions judgment regarding what staffing is required to provide a sufficient standard of care to meet accreditation standards and to satisfy the terms of this Agreement. At a minimum, however, Correct Care Solutions will satisfy the staffing requirements set forth in Exhibit B. Correct Care Solutions shall notify ACSO of any staffing concerns that arise after this Agreement becomes effective. Correct Care Solutions shall backfill all positions identified in Exhibit B to ensure that consistent and adequate levels of care are provided at all times. While overall FTEs will be delivered, distribution of hours within the week may vary, based on mutual agreement by both parties (ACSO and CCS) as set forth in Exhibit B.
2. Staffing Qualifications. Correct Care Solutions shall ensure that all of their staff have and maintain all necessary qualifications and licenses required under state and federal law. Correct Care Solutions shall provide the name, contact information and copies of all credentials and licenses for any staff member who works at the Jail to the ACSO Contract Administrator. The Health Services Administrator (HSA) shall also maintain a copy of all staff credentials and licenses on-site at the Jail. Correct Care Solutions' employees shall be required to attend and/or participate in necessary training through ACSO's document management system (PowerDMS) consistent with ACA/NCCHC. Correct Care Solutions shall also ensure that all healthcare professionals participate annually in continuing education required by state or federal law and/or appropriate for their positions and accreditation standards. Correct Care Solutions shall provide documentation of such continuing education to the ACSO Contract Administrator and the HSA shall maintain copies on-site. Correct Care Solutions shall ensure that the Health Services Administrator and Director of Nursing possess (and maintain) active Registered Nursing licensure as recognized by the state of Colorado.
3. Key Staff Assigned to the Jail. Correct Care Solutions agrees that the ACSO Contract Administrator (or his/her designee) shall be consulted in the selection and/or appointment of key staff assigned under this Agreement. For purposes of this provision, key staff shall mean Correct Care Solutions' Medical Director, HSA, Director of Nursing and Psychiatrist.
4. Medical Director Services. Correct Care Solutions will identify a specific physician employee (identified as the "Medical Director") who has full responsibility for the medical treatment (including psychiatric and pharmaceutical matters) that Inmates receive at the Jail. The Medical Director will also oversee the training program that is relative to medical services for both the ACSO Detention Facility and to the ACSO Public Safety Bureau.
5. Physician Services. Correct Care Solutions shall provide physician services consistent with the staffing requirements set forth in Exhibit B, and which shall include:
 - a. Medical Director: 40 hours per week
 - b. Mid-level provider: 16 hours per week
 - c. Dentist: minimum of five (5) hours per week and maximum of eight (8) hours per week
 - d. Twenty-four (24) hour "on-call" telephone support which may be shared with other providers
 - e. Psychiatrist: 14 hours per week
 - f. OB mid-wife: six (6) hours per week (or twelve (12) hours of on-site services twice a month)
 - g. Medical chart review/audit: Correct Care Solutions must ensure that these medical chart reviews/audits that are performed by the providers are within compliance by the NCCHC and ACA accrediting entities.
6. Nursing Services. Correct Care Solutions shall ensure that a qualified registered nurse (RN) is on-site twenty-four (24) hours a day, seven (7) days a week, including holidays. Correct Care Solutions shall ensure that a Registered Nurse is assigned to the In-Patient unit twenty-four (24) hours a day, seven (7) days per week. Correct Care Solutions shall also ensure that a Registered Nurse and a Licensed Practical Nurse are assigned to the booking area twenty-four (24) hours a day, seven (7) days per week. Correct Care Solutions will also include the addition of the RN Intake Director position that will enhance the overall operations in the intake area. This will bring the total FTE count under this Agreement to 36.75, as reflected in the staffing requirements set forth in Exhibit B.

7. Administrative Meetings and Reports. Administrative meetings shall be held monthly and attended by the Medical Director, HSA, ACSO Contract Administrator and other members of the healthcare and correctional staff as appropriate. One monthly meeting per quarter will include Continuing Quality Improvement (CQI) review. Minutes or summaries shall be documented by Correct Care Solutions, retained for reference, and copies shall be distributed to attendees. Topics of discussion shall include but are not limited to: monthly statistics, healthcare services, quality improvement findings, infection control, Inmate grievances, staffing issues or concerns, and environmental health and safety inspection reports.

a. Correct Care Solutions shall submit a monthly statistical report in coordination with ACSO classification staff with narrative on noteworthy accomplishments or events and will be due on the tenth (10th) calendar day of each month to the ACSO Contract Administrator that includes, but is not limited to, the following:

- i. Number of Inmates receiving healthcare services by category of care;
- ii. Inmate deaths;
- iii. Inmates on suicide watches;
- iv. Actual suicide attempts;
- v. Grievances: medical, dental, mental health and administrative;
- vi. Physician services: Inmates seen by MD and PA/NP;
- vii. Physician services: chart reviews and QRI monitors;
- viii. Nursing services: Inmates seen at sick call, nursing treatments, unscheduled visits, initial health assessments, worker clearances, intake/receiving screenings, receiving screening diverted to ER;
- ix. Mental health services: psychiatrist sick call, mental health clinician sick call, treat and hold (M-1);
- x. Medications: Inmates on medications, Inmates on mental health medications;
- xi. Psychiatric hospitalizations;
- xii. Medical diets: Inmates on special medical diets;
- xiii. Off-site hospital admissions and number of hospital days;
- xiv. Emergency room visits;
- xv. Medical observation/watches;
- xvi. Outpatient services: specialist consults and OB/GYN;
- xvii. Radiology services: in-house x-ray, PPD chest x-rays, off-site imaging;
- xviii. Laboratory services;
- xix. Chronic care: pulmonary, diabetes, HIV/AIDS, cardiac/HTN, seizures;
- xx. HIV testing, positive HIV tests, STD, Hepatitis;
- xxi. TB testing;
- xxii. Substance abuse: alcohol and opiate;
- xxiii. Onsite injuries: kitchen, recreational, outside worker, laundry; and
- xxiv. All vacancies or hires by position and date of vacancy or hire.

b. To facilitate the healthcare delivery system through joint monitoring, planning and problem resolution, Correct Care Solutions shall submit reports to the ACSO Contract Administrator as follows:

- i. Quarterly: established pharmacy and accreditation audits;
- ii. Monthly: statistics, quality review, infection control, therapeutic medical diets, and staffing plans for all employees; and
- iii. Daily: a report of the previous twenty-four (24) hours that captures, but is not limited to:
 1. Transfers to off-site hospital emergency departments;
 2. Communicable disease reporting;
 3. Suicide data (i.e. attempts and precautions taken);
 4. Report of status of Inmates at local hospitals;
 5. Report of status of Inmates in medical observation unit;
 6. Staffing by position (MD, PA/NP, LPN, RN, etc.) and hours worked;
 7. Number of Inmates seen at various sick calls;
 8. Initial health assessments and worker clearances;
 9. Transgender Inmates admitted to the Jail;
 10. Inmate hunger strikes;
 11. Inmates identified as having ADA issues or requests;
 12. Inmates with substance abuse withdrawal;
 13. Reported and/or identified pregnancies;
 14. Medication administration errors; and
 15. Essential medications administered more than 24 hours after the receiving screening is conducted by Correct Care Solutions during intake.

c. To facilitate continued accreditation, Correct Care Solutions shall provide updated documentation to the ACSO Contract Administrator for all accreditation files on a quarterly basis for the term of the Agreement, and will submit to the ACSO Contract Administrator a quarterly report certifying that updated documentation has been provided for all accreditation files and CCS must be available for mock audits at times reasonably requested by ACSO.

For purposes of this agreement, the first quarterly update and report will be due the first week of April with quarterly updates thereafter for the term of the Contract. Correct Care Solutions must ensure that documentation for accreditation files is complete and audit ready at least one (1) month prior to any scheduled outside audits and must be available for mock audits at times determined by ACSO. Correct Care Solutions must ensure that documentation for accreditation files is complete prior to the termination of services provided under this Agreement.

d. In-Custody Deaths. The Medical Director, HSA and all other necessary or appropriate Correct Care Solutions staff will comply with all ACSO policies and procedures and will provide any requested documentation and/or records related to any in-custody Inmate death.

E. MENTAL HEALTH (PSYCHIATRIC) COVERAGE.

Correct Care Solutions' mental health professionals will work in conjunction with ACSO Classifications staff to identify those Inmates with mental health issues. Correct Care Solutions shall be responsible for seeking information pertaining to Inmate mental health problems during the receiving screening and communicating such information to ACSO Classifications. ACSO Classifications staff shall subsequently interview Inmates identified by Correct Care Solutions as having mental health problems and will perform classification of Inmates and will determine suitable housing as part of any initial crisis intervention. Correct Care Solutions shall provide basic mental health (psychiatric) services for the Inmates at the Jail and provide a Licensed Mental Health Professional on-site forty (40) hours per week, as set forth in Exhibit B. Services shall include the following:

1. Psychiatric consultations, assessments, and prescriptions of psychotropic medications as indicated, shall be provided by a licensed psychiatrist. The psychiatrist shall be on-site fourteen (14) hours per week, consistent with the staffing requirements set forth in Exhibit B, and will make arrangements with ACSO Classifications staff to reschedule any missed appointments. The on-site hours will accommodate the Facility Activity Schedule referenced in section AA (Miscellaneous).

2. Emergency psychiatric services will be available either by telephone consultation or by on-site consultation as the situation warrants and as determined by Correct Care Solutions and ACSO staff.

3. Crisis Intervention. Correct Care Solutions will work with ACSO staff to determine a policy for managing mental health emergencies. Designated mental health housing will be used as a protective environment for Inmates exhibiting behavior serious enough to require notification of the staff.

- a. Suicidal Inmates. Correct Care Solutions will place Inmates demonstrating self-injurious behaviors and those identified with suicide potential under constant observation until a comprehensive mental health evaluation can be completed by mental health staff and the Inmate is ultimately cleared by the psychiatrist or mental health professional. Correct Care Solutions agrees to implement a Suicide Risk Reduction Program, including but not limited to:

- i. Assessment for suicide risk during receiving screening;
- ii. Training on suicide risk to medical and security personnel;
- iii. Immediate assessment by mental health personnel and placement in an observation cell for monitoring when an Inmate is identified as posing a suicide risk;
- iv. Development of treatment plans and patient follow-up addressing suicidal ideation;
- v. Monitoring programs for observation of identified at risk Inmates; and
- vi. Notification to ACSO staff of any suicide attempts.

- b. Segregation. Upon notification that an Inmate is being placed in segregation, Correct Care Solutions will have a qualified healthcare professional conduct a chart review to ensure there is not contraindication to the placement. The chart review will be documented. Correct Care Solutions will have a physician or designee examine an Inmate within 48 hours after an Inmate is isolated for psychiatric purposes. Correct Care Solutions medical and mental health staff will be notified when an Inmate is placed in observation and will be available 24/7 to participate in the ongoing monitoring of the patient's progress. Correct Care Solutions agrees that segregation rounds will be made at least three times weekly or as determined by accreditation standards, with checks recorded on a module card or segregation log. Correct Care Solutions agrees that all Inmates on direct or psychiatric observation will be seen daily by the psychiatrist or designee. Correct Care Solutions will maintain records of segregation rounds, and clinical encounters will be noted in a patient's medical record.

4. The psychiatrist will attend the quarterly CQI meeting.

5. Reports and evaluations shall be provided according to Correct Care Solutions' and the Colorado State Department of Mental Health standards.

6. Correct Care Solutions shall arrange on-site mental health in coordination with ACSO classification staff and CCS on-site medical staff or psychiatric services to the extent reasonably possible. To the extent mental health or psychiatric services are required and cannot be rendered on-site, Correct Care Solutions shall make appropriate off-site arrangements for rendering mental health or psychiatric services. Correct Care Solutions will arrange and coordinate with ACSO for the transportation for mental health or psychiatric off-site services. Costs for off-site mental health or psychiatric services shall be included in the Offsite Cap listed in Paragraph N. Other than for ambulance services which are the responsibility of Correct Care Solutions, the County shall be responsible for the costs of any transportation provided by ACSO and security for such off-site services.

F. DENTAL.

Correct Care Solutions shall arrange and bear the cost of services of the dentist for a minimum of five (5) hours per week and a maximum of eight (8) hours per week. Additionally, Correct Care Solutions will provide a dental technician eighteen (18) hours per week. The dental technician shall be responsible for assisting the dentist. Correct Care Solutions shall purchase all necessary dental supplies, including but not limited to: anesthesia, medications, and swabs. Correct Care Solutions shall have no other responsibility to perform or pay for any other dental services or costs.

G. HOSPITALIZATION AND OFF-SITE HEALTH SERVICES.

Correct Care Solutions will authorize, schedule, coordinate, and bear the cost of any hospitalization or specialty services that cannot be provided on-site, including outpatient surgery, ER, diagnostic testing (e.g. MRI, CT scan, etc.), and ambulance service(s), for an Inmate who, in the opinion of the treating physician and/or the Medical Director or designee, requires hospitalization or other off-site services. Costs for hospitalization and other off-site health services, including all ambulance services, shall be included in the Offsite Cap listed in Paragraph N. Other than for ambulance services which are the responsibility of Correct Care Solutions, the County shall be responsible for the costs of any transportation provided by ACSO and security of such hospitalization and/or off-site health services. For prescheduled off-site consultations or services, Correct Care Solutions shall notify ACSO Court Services staff at least seventy-two (72) hours before the appointment for transportation purposes.

H. MEDICAL SUPPLIES/EQUIPMENT.

1. Medical Supplies/Equipment of \$500 or Less. Correct Care Solutions shall provide and bear the cost of medical supplies (i.e. alcohol prep pads, syringes, etc.) and equipment (i.e. thermometers, scales, reading glasses, etc.) required to administer the terms of the Agreement which have a unit cost of \$500 or less. Correct Care Solutions will provide all necessary office and paper supplies, which are not intended to be included under this section. The cost and provision of any medical supplies or equipment which have a unit cost of \$500 or more shall be the responsibility of the County, as long as such costs are approved by the ACSO Contract Administrator. The County shall not be responsible for the costs of any medical supplies or equipment that are not approved by the ACSO Contract Administrator prior to purchase.

2. Maintenance, Repair and Upkeep of ACSO Medical Equipment. Correct Care Solutions shall be responsible for maintenance, repair, replacement and certification of all medical and office equipment supplied and owned by ACSO for use by Correct Care Solutions if the cost of such maintenance, repair, replacement or certification is less than \$500. Any maintenance, repair, replacement or certification which costs more than \$500 shall be the sole responsibility of the County. Should such equipment become non-serviceable due to routine use, Correct Care Solutions is responsible for its replacement if the replacement cost is less than \$500; if the replacement cost exceeds \$500, then the County shall be responsible for the cost if approved by ACSO Contract Administrator. The following equipment is owned by ACSO:

- a. Wheel chairs (4);
- b. Walkers (4);
- c. Crutches underarm pairs (8);
- d. Aluminum canes (7);
- e. Vital signs towers (2);
- f. Exam table (8);
- g. Wall mount otoscope/opth (8);
- h. Scales (9);
- i. Nebulizers (10);
- j. EKG machine (including power cord and lead wire) (1);
- k. Bedside commode (2);
- l. Toilet riser (1);
- m. Autoclave (1);
- n. Centrifuge (1).

- o. Dental x-ray machine (1);
- p. Dental tools;
- q. Crash cart (1);
- r. Exam lights (2);
- s. Gurneys (1);
- t. Automatic external defibrillators (AEDs) (5);
- u. Pulse oximeter (10);
- v. Backboards (9);
- w. Suction Machines (2)

3. OWNERSHIP. Any medical equipment or supplies purchased by Correct Care Solutions in accordance herewith shall remain the property of Correct Care Solutions at all times, and Correct Care Solutions shall be entitled to remove such equipment and supplies upon termination of this Agreement.

I. MEDICAL WASTE.

Correct Care Solutions shall arrange and bear the cost of removing and properly disposing of medical waste material generated while fulfilling its duties under this Agreement in accordance with all applicable state laws and OSHA-regulated standards.

J. INFECTION CONTROL.

Correct Care Solutions shall develop and implement an Infection Control Program aimed at effectively controlling the occurrence and spread of communicable diseases. Through the Infection Control Program Correct Care Solutions shall implement policies and procedures designed to do the following:

1. Identify individuals who are at high risk for infectious diseases or present a risk of spreading infectious disease;
2. Monitor and report the incidence of infectious diseases among staff and Inmates;
3. Promote a safe and healthy environment through the use of regular inspections, education, communication and role modeling;
4. Provide timely and effective treatment when an infectious disease is identified;
5. Administer vaccinations to prevent the spread of infectious disease when appropriate;
6. Use appropriate isolation precautions to protect the health and safety of staff and Inmates;
7. Establish effective decontamination techniques for cleaning of medical equipment and contaminated reusable items;
8. Provide a safe means of disposing of biohazardous waste and used needles and sharps
9. Implement and use strict standard precautions to minimize the risk of exposure to blood and body fluids;
10. File all required reports in a manner consistent with local, state and federal laws and regulations;
11. Ensure staff is well trained initially through their orientation training and on an ongoing basis as to all areas of the Infection Control Program;
12. Monitor the effectiveness of the Infection Control Program through ongoing Quality Improvement data collection and statistical reporting; and
13. Provide appropriate cleaning and personal protective equipment.

K. PATHOLOGY/LABORATORY SERVICES.

Correct Care Solutions shall arrange and bear the cost of all pathology and laboratory services ordered by a Correct Care Solutions provider for the Inmates. Correct Care Solutions shall arrange on-site laboratory services whenever reasonably possible. To the extent pathology and/or laboratory services are required and cannot be rendered on-site, Correct Care Solutions shall make appropriate off-site arrangements for rendering such care. Correct Care Solutions will arrange and coordinate with ACSO for the transportation of any Inmates requiring off-site pathology or laboratory services. Costs for off-site pathology or laboratory services shall be included in the Offsite Cap listed in Paragraph N. Other than for ambulances services which are the responsibility of Correct Care Solutions, the County shall be responsible for the costs of any transportation provided by ACSO and for the security for such offsite services. Correct Care Solutions laboratory services shall include:

1. Provision of necessary laboratory supplies, a dedicated printer, timely pickup and delivery of specimens, and accurate reporting within 24 hours on most laboratory services;
2. Laboratory results will be reported via a dedicated printer or uploaded to a patient's electronic medical record. Abnormal lab results will be flagged and Correct Care Solutions medical staff will be informed that expedited review is necessary. Medical providers shall be notified immediately of all STAT lab test results;

3. Laboratory services shall comply with all standards set forth by the American College of Pathology and all Colorado state requirements for medical pathology, specimen handling, testing and reporting;

4. On-site laboratory services will be performed in accordance with the Clinical Laboratories Inspection Act (CLIA) and will comply with the Clinical Laboratories Improvement Amendments of 1988; and

5. Correct Care Solutions will train all on-site staff on laboratory policies and provide a diagnostic procedure manual that includes reporting on STAT and critical values.

L. RADIOLOGY SERVICES.

Correct Care Solutions shall arrange and bear the cost of all radiology services (also referred to as x-ray services) ordered by a Correct Care Solutions provider for the Inmates. Correct Care Solutions shall arrange on-site radiology services whenever reasonably possible. Correct Care Solutions will work with its contract radiology provider to establish a routine schedule for on-site radiology services at the Jail, including mobile x-ray services, ultrasounds, sonograms, Doppler studies, mammograms, pulmonary function tests, Holter monitor studies and upper GI x-rays. To the extent radiology services are required and cannot be rendered on-site, Correct Care Solutions shall make appropriate off-site arrangements for rendering radiology care. Correct Care Solutions will arrange and coordinate with ACSO for the transportation for pathology and radiology off-site services. Costs for off-site pathology and radiology services shall be included in the Offsite Cap listed in Paragraph N. Other than for ambulance services which are the responsibility of Correct Care Solutions, the County shall be responsible for the costs of any transportation provided by ACSO and for the security for such off-site services. Radiology services shall include:

1. All x-rays and radiology special studies will be read by a board-certified radiologist, who will provide a typed and/or automated report within 24 hours;

2. The radiologist will call the medical provider if a report necessitates immediate intervention;

3. Correct Care Solutions Medical Director or physician/mid-level designee will be notified of all abnormal radiology results and will review, initial, and date all x-ray reports within five (5) working days;

4. Correct Care Solutions Medical Director or physician/mid-level designee will meet with the patient to discuss the results and will establish a plan of care as appropriate;

5. Correct Care Solutions will document and store digital images and radiology reports in the patient's medical record and any follow-up with the patient will be noted in the medical record; and

6. Correct Care Solutions will maintain a log to document the type and number of X-rays completed and the results received. Correct Care Solutions personnel will review the log on a daily basis to determine if any test results are outstanding and will document such daily review.

M. SPECIALTY SERVICES.

In the event it is determined that an Inmate requires medical services that require physicians to be licensed in a specialty such as obstetrics, gynecology, dermatology or other specialized field of medicine ("Specialty Service"), Correct Care Solutions shall arrange and bear the cost of the Specialty Service. Correct Care Solutions authorized provider will make such determination and refer Inmates for Specialty Services when, in the provider's professional opinion, it is deemed medically necessary. Correct Care Solutions shall arrange on-site Specialty Services to the extent reasonably possible. To the extent Specialty Services are required and cannot be rendered on-site, Correct Care Solutions shall make appropriate off-site arrangements for rendering off-site care. In the event that Specialty Services are rendered off-site, Correct Care Solutions will arrange and bear the cost only if the Medical Director or designee approves the off-site Specialty Service. Costs for off-site Specialty Services shall be included in the Offsite Cap listed in Paragraph N. However, other than for ambulance services which are the responsibility of Correct Care Solutions, the County shall be responsible for the cost of transportation and security related to such off-site Specialty Service.

N. FINANCIAL LIMITATION.

Correct Care Solutions maximum liability for costs associated with the provision of off-site medical or other healthcare services which include, but are not limited to, the off-site services identified in Paragraphs E, G, K, L, M and Q, shall be Two Hundred Fifty Thousand Dollars (\$250,000.00) in the aggregate for all Inmates collectively per year, to be prorated for any partial contract years (the "Off-site Cap"). Costs for any medical or other health services which are provided to Inmates during any year or partial year which are in excess of the Off-site Cap shall be the responsibility of the County. When the Off-site Cap for the year or any prorated partial year is reached, Correct Care Solutions will continue to provide utilization management, extend all provider discounts to the County, and pay these expenses on behalf of the County, as long as the County remains current with payments due under this Agreement. Amounts paid by Correct Care Solutions which are over the Off-site Cap will be periodically reconciled with the County pursuant to Section 3. Should the costs associated with the

provision of healthcare services listed above not exceed the Off-site Cap for any year or as prorated for a partial year, Correct Care Solutions shall reimburse the County at a rate of One Hundred Percent (100%) of the difference between the actual cost to Correct Care Solutions for these services and the Off-site Cap. The rebate shall be net of any other reconciliation amounts due to Correct Care Solutions under this Agreement. The rebate will be calculated three months after the end of the contract year or any partial year to allow for processing of claims incurred during such year or partial year. In the event Correct Care Solutions receives payment from any third party, including, without limitation, insurance providers, Medicare/Medicaid, Inmates and/or workers compensation, for off-site medical services or other healthcare services, the amount paid to Correct Care Solutions shall be credited against the amounts accrued under the Off-site Cap.

O. PHARMACEUTICAL SERVICES.

1. Correct Care Solutions shall provide pharmaceutical services in accordance with all applicable laws, guidelines, policies and procedures, and accepted community standards. Correct Care Solutions shall also comply with all pharmaceutical standards established by ACA or NCCHC. Correct Care Solutions shall prescribe and administer medications to be provided to Inmates at the Jail. Correct Care Solutions will also contract with a pharmacy/pharmacist to provide prescription medications and other services. Pharmaceuticals are currently provided by Diamond Pharmaceutical Service. Correct Care Solutions agrees that the ACSO Contract Administrator shall be notified of any decision to utilize a different subcontractor under this Agreement. Correct Care Solutions agrees that Pharmaceutical services shall include:

a. Correct Care Solutions shall provide monitoring and oversight of formulary and non-formulary pharmacy usage as well as a Formulary Medication List;

b. Medications shall be prepared and administered from stock "bulk" medication except when specific medication for an Inmate is prescribed that is not in stock. Inmate specific medications shall be in the "Blister Pack" system for each prescription for each Inmate;

c. Unless specified by the treating provider, generic drugs shall be supplied;

d. Correct Care Solutions shall allocate nursing coverage to deliver, at no additional charge, medications as needed, to the Inmates in the general population of the Jail up to twice daily, including weekends, and more frequently as needed for Inmates in medical housing or observation;

e. Correct Care Solutions will ensure that all medications, including over-the-counter medications, will be administered by personnel appropriately licensed in Colorado;

f. Pharmacy services provided by Correct Care Solutions will be on a 24-hour a day, 7-days a week basis, with scheduled shipment of medication six days a week, and Correct Care Solutions will ensure local backup pharmacy services are available on Sundays, holidays, and in urgent or emergent situations;

g. Medications will be administered within 24 hours by trained medical personnel following the ordering of the pharmacotherapy by the responsible clinician;

h. All prescription orders will be logged in the patient's medical record;

i. Correct Care Solutions will include the Inmate's name and booking number on all Inmate specific orders on prescriptions and on the prescription label. A label will be placed on the blister package containing the Inmate's name, prescribed medication, directions, and quantity;

j. Correct Care Solutions will provide the following reports: monthly drug usage, monthly psychotropic usage, monthly medication administrative reports, monthly number of prescriptions by category, monthly prescriber which lists all prescriptions written by the prescriber, and a monthly itemized billing for each Inmate;

k. Correct Care Solutions will fill all prescriptions ordered by any ACSO contracted physician and/or mid-level provider before 1:30 p.m. Mountain Time and within a twenty-four (24) hour time period. Medications that are needed immediately will be filled within four (4) hours or less. The ACSO Contract Administrator will be notified of any substitutions and medications not delivered with the regular delivery. Prescriptions may include intravenous medications and/or any medications prescribed for Special Needs Inmates.

l. Correct Care Solutions will not delay administration of medications for life-threatening conditions, mental illness or serious chronic diseases upon admission of an Inmate. All efforts will be made to verify and dispense such medications prior to the next scheduled dose once Correct Care Solutions medical staff is aware of the need, and within twenty-four (24) hours for all other medications;

m. Correct Care Solutions will ensure that the pharmacist conducts and provides documentation to the ACSO Contract Administrator of quarterly inspections of the on-site stock medication storage area(s), quarterly quality assurance reviews, actions taken to ensure all medications are stored under proper conditions, removal and replacement of compromised or expired medications, quarterly drug administration usage, and documentation of any areas of concerns and/or recommendations for improving pharmacy services;

n. Correct Care Solutions will ensure that the pharmacist provides "Other Outlet" licensing for the Jail;

o. Correct Care Solutions will ensure that the pharmacist performs on-site audits consistent with NCCHC guidelines and provides documentation to the ACSO Contract Administrator;

p. For each prescription prepared, the County shall be charged the price passed on the Red Book Average Wholesale Price for the medication, plus a dispensing fee. Such charges and fees shall first be applied to the Pharmacy Cap identified in Paragraph O (2);

q. ACSO may return each unused dose of medication allowed by Colorado law (contained in the blister package system) not used by an Inmate, and Correct Care Solutions shall issue a refund to the County for unused medications. Any unused controlled substances will not be returned. Correct Care Solutions will perform the destruction of unused controlled substances; and

r. Correct Care Solutions will develop a method for providing discharge medications. Correct Care Solutions will give any Inmates with existing prescription medication needs that are documented in the Inmate's medical file a prescription and a pharmacy card, specific to their individual medications for one-time use only, including Inmates in need of psychotropic medications. The discharge medication program will allow the Inmate to fill a 30-day prescription at any pharmacy, improving continuity of care. Correct Care Solutions will be responsible for the costs when a prescription is filled, which will be included in the Pharmacy Cap listed in Paragraph O (2).

2. Correct Care Solutions maximum financial liability for pharmacy services per Inmate, each contract year (assuming a twelve month term) shall be Fifteen Thousand Dollars (\$15,000.00) (the "Pharmacy Cap"), prorated for partial years. When the Pharmacy Cap is reached for any Inmate, Correct Care Solutions will continue to provide utilization management related to such Inmate medication, extend all pharmacy discounts to the County for such Inmate's pharmacy, and pay the expenses incurred as a result of pharmacy for such Inmate on behalf of the County, as long as the County remains current with payments due under this Agreement. Amounts paid by Correct Care Solutions which are over the Pharmacy Cap for any Inmate pursuant to this paragraph will be periodically reconciled with the County pursuant to Section 3.

P. EMERGENCY CARE.

1. Emergency Treatment for Visitors and Staff. Correct Care Solutions agrees to provide emergency medical treatment and first aid to any ACSO staff, visitors, employees, or subcontractors of the Detention Facility who become ill or injured and require emergency care while on the premises. Correct Care Solutions will also provide medical treatment and first aid for any medical emergencies that occur in the Jail lobby, in the adjacent courthouse or in other areas surrounding the Justice Center Complex. Correct Care Solutions will document any services provided. Non-urgent medical care for Work Release Inmates is excluded from this Agreement.

2. Emergency Services for Inmates. Correct Care Solutions will provide emergency medical services twenty-four (24) hours a day, seven (7) days a week, for any person accepted into custody at the Detention Facility. On-site staff may make emergency off-site referrals based on established guidelines and their professional judgment related to a patient's needs. Correct Care Solutions will coordinate with local hospitals as appropriate in emergency situations and will coordinate emergency transport and ambulance services as needed. Emergency services will also include:

a. Correct Care Solutions will establish a physician/mid-level provider "call back" schedule during off hours so that urgent but non-emergent services can be provided on-site;

b. Correct Care Solutions staff will respond to all emergencies upon notification by reporting to the area of the emergency with necessary emergency equipment and supplies;

c. Correct Care Solutions staff will notify the on-call provider as soon as the situation allows;

d. Correct Care Solutions will stabilize the patient on-site if appropriate and then transfer the patient to an appropriate healthcare unit if necessary, including the determination of whether the patient needs to be transported to a local emergency room for treatment;

e. Correct Care Solutions staff who provide emergency services to Inmates shall provide any necessary reports or documentation related to such services as requested by ACSO staff;

f. Correct Care Solutions Medical Director will conduct a retrospective review following an ER referral to ensure that action was appropriate and to identify any additional staff training needed; and

g. Correct Care Solutions will provide customized monthly reports to ACSO of emergency room visits, with data including each patient's name and identification number, the date of the emergency services, the patient's disposition, and any emergency treatment received.

Q. PRE-INCARCERATION CONDITIONS AND CARE.

1. Cost for Treatment of Inmates Not Fit For Confinement. Correct Care Solutions shall not be responsible for the cost of any medical treatment or health care services provided prior to such time as an Inmate is determined to be fit for confinement, including services necessary to medically stabilize any arrested person presented at intake by an arresting agency with a life

threatening injury or illness or in immediate need of emergency medical care. Correct Care Solutions shall provide such care as is medically necessary until the arrested person can be transported to a medical care facility by the arresting agency or their designee. For purposes of this paragraph, "fit for confinement" shall mean that Correct Care Solutions health care staff member determined that the Inmate is medically stable and has been medically cleared for acceptance into the Jail. Such determination shall only be made after resolution of any injury or illness requiring immediate transportation and treatment at a hospital or similar facility.

2. Costs of Treatment for Self-Inflicted or Preexisting Conditions. Colorado Revised Statutes § 17-26-104.5 states, "[w]hen a person is held in custody in a county jail, the person shall be primarily responsible for the payment of the cost of medical care provided to the person for a self-inflicted injury or a condition that was preexisting prior to the person's arrest and shall be charged for the medical care by the provider of care." Based on this statute, Correct Care Solutions shall establish policies and procedures to identify self-inflicted and preexisting Inmate injuries and conditions and to notify off-site health services providers or hospital providers of the obligation to bill Inmates directly for such injuries or conditions. Correct Care Solutions shall also establish policies and procedures to notify off-site health services providers and/or hospital service providers of any third party insurance or Medicaid eligibility available to Inmates for such injuries. To the extent an off-site health services provider or hospital provider requires a guarantee of payment that an Inmate cannot provide, Correct Care Solutions shall be responsible for providing such guarantee of payment and Correct Care Solutions shall be responsible for paying any off-site costs not billed directly to the Inmate under CRS § 17-26-104.5. Costs paid by Correct Care Solutions under this provision shall be included in the Offsite Cap listed in Paragraph N.

3. Correct Care Solutions shall also enter any Public Safety Medical Claims received from the ACSO Contract Administrator into its utilization management system in order to negotiate rates of payment on behalf of ACSO. For purposes of this section "Public Safety Medical Claim" shall mean any medical claims and/or charges received by ACSO or the County related to medical services that arise prior to the time a person may be arrested and/or determined to be "fit for confinement" (as defined in Section Q.1) and accepted and booked into the Detention Facility, including but not limited to, ambulance services, emergency and urgent care services and other related health care services. For the processing of Public Safety Medical Claims, Correct Care Solutions agrees to the following:

a. Correct Care Solutions will enter any Public Safety Medical Claims received from the ACSO Contract Administrator into CCS' electronic utilization management system. CCS shall not be responsible for the administration, handling, submission, and/or processing of any Public Safety Medical Claims that the ACSO Contract Administrator does not submit to CCS. The ACSO Contract Administrator is not responsible for directly entering the Public Safety Medical Claims into CCS' utilization management system as that is the responsibility of CCS.

b. Correct Care Solutions will provide the same services for the processing of Public Safety Medical Claims as set forth below in Section U.3 through U.7 (Inmate Medical Management Administrative Services). Correct Care Solutions will not be responsible for making any payments for Public Safety Medical Claims.

c. Correct Care Solutions is expressly authorized to seek any reasonable and/or necessary extension of time from the billing party and/or claimant concerning the due date for payment of any Public Safety Medical Claims that are being reviewed and processed by Correct Care Solutions.

d. Correct Care Solutions shall notify the ACSO Contract Administrator regarding the status of any Public Safety Medical Claims that are being reviewed and processed within fifteen (15) days of receiving such a claim from the ACSO Contract Administrator.

e. In order to avoid the risk of ACSO falling into arrears on any Public Safety Medical Claim submitted, Correct Care Solutions shall also notify the ACSO Contract Administrator of any Public Safety Medical Claims that are still being reviewed and processed where payment is within five days of being due and owing.

f. Once Correct Care Solutions has completed the review and processing of a Public Safety Medical Claim submitted, Correct Care Solutions shall notify the ACSO Contract Administrator as to the proper payable amount(s) determined for such claim. If Correct Care Solutions negotiates a payable amount that is less than the original amount demanded or charged in the Public Safety Medical Claim, Correct Care Solutions shall obtain written documentation as to the negotiated amount from the billing party or claimant, and shall submit the same to the ACSO Contract Administrator. The determination by CCS as to a proper payable amount for any claim submitted under this MOU shall be considered final once notice is provided to the ACSO Contract Administrator.

g. Correct Care Solutions agrees that Public Safety Medical Claims processed under this section shall not be applied to the "Offsite Cap" and/or "Pharmacy Cap" set forth in Sections N and O.2.

R. ELECTIVE MEDICAL CARE.

Correct Care Solutions shall not be responsible for the provision or cost of any elective care. In the event an Inmate requires elective care, the Inmate or County shall be responsible for all costs. Elective medical care shall be defined as care which if

not provided, would not, in the sole opinion of the Medical Director or designee, cause the Inmate's health to deteriorate or cause harm to the Inmate's well-being. Decisions concerning elective medical care shall be consistent with the applicable American Medical Association (AMA) Standards.

S. VISION CARE.

Correct Care Solutions shall provide basic vision services to Inmates (including reading glasses), in addition to providing care for eye injuries or diseases. Correct Care Solutions shall provide optometry/ophthalmology services once per month. Basic vision services shall include eye examinations performed by qualified staff and the fulfillment and provision of eyeglasses as determined to be needed and prescribed; provided, however, that Correct Care Solutions shall only be responsible for providing one pair of eyeglasses to each Inmate requiring the same. Should an Inmate require eyeglasses in addition to the one pair provided by Correct Care Solutions, Correct Care Solutions shall provide such additional and/or replacement eyeglasses as necessary, however, the cost of any additional or replacement eyeglasses shall be borne by the County and/or Inmate. For any vision or eye care services beyond what is identified under this Section, the County and/or the Inmate shall bear the cost of such vision or eye care services.

T. HEARING CARE.

Correct Care Solutions shall not be responsible for the provision of hearing services other than care for ear injuries or ear infections. Correct Care Solutions shall be responsible for providing any necessary replacement batteries for Inmates with hearing aid devices.

U. INMATE MEDICAL MANAGEMENT ADMINISTRATIVE SERVICES.

Correct Care Solutions agrees to provide the Inmate medical management administrative services listed below:

1. Create procedures and necessary documentation to determine whether an Inmate is covered by medical insurance and assist in enrolling Inmates into Medicaid or Medicare as determined by law;
2. Inmate Co-Pays. Correct Care Solutions shall administer ACSO's Inmate co-pay policies by documenting when Inmates receive medical or dental service or any prescribed medication;
3. Access managed care agreements;
4. Medical claims review;
5. Medical billing record archiving;
6. Third party administrative services to include adjudication of Arapahoe County Sheriff medical claims relating to Inmates. Such adjudication shall entail:
 - a. Determination of claims eligibility;
 - b. Coordination of benefits with other insurance;
 - c. Detection of up coding/unbundling by physicians;
 - d. Subrogation recovery in case of an accident;
 - e. Repricing claims to reflect provider discounts;
 - f. Claim history to prevent duplicate billing/payment;
 - g. Tracking funds needed as claims are processed;
 - h. Provider service calls;
 - i. Provide enrollment of claim forms;
 - j. Funds dispersed to providers;
 - k. Utilization reports provided quarterly; and
 - l. Annual 1099 reports as required.
7. Review payments for any inpatient hospitalization of any Inmate. This shall include all institutional charges, physician charges and any and all other additional charges; and
8. Provide documentation to ACSO Accreditation Staff as required for ACA and NCCHC accreditation processes.

V. ACSO CONTRACT ADMINISTRATOR.

ACSO will appoint a Contract Administrator who will monitor this Agreement and provide for communication between ACSO and Correct Care Solutions. The ACSO Contract Administrator shall be the primary point of contact concerning this Agreement, except as otherwise specifically required under this Agreement for the provision of formal Notices.

W. TRAINING FOR NON-MEDICAL STAFF.

As requested by ACSO, Correct Care Solutions shall provide ACSO staff with adequate training specific to ACSO policies and procedures, and/or NCCHC and ACA standards, related to medical issues, including but not limited to, first aid administration, emergency response, early detection of illness or injury, and suicide risk reduction.

X. MEDICAL RECORDS.

1. Correct Care Solutions agrees to maintain up-to-date medical records at all times that are accessible through the electronic medical records system, ERMA, which Correct Care Solutions will provide to ACSO under this Agreement at no additional cost. Correct Care Solutions will ensure that all electronic medical records and data previously maintained through ACSO's CorEMR software will be accessible through ERMA at no additional cost and will ensure that the electronic medical records system will meet the following requirements:

- a. At will access to all medical records will be available to the ACSO/County;
 - b. Software upgrades is included at no additional cost to the County; and
 - c. Routine Maintenance of the software is included at no additional cost to the County.
 - d. Although the medical record data is not stored on a local server, ACSO remains the custodian of this data, including all data relevant to each patient's medical file.
 - e. If ACSO elects to change to a new JMS, Correct Care Solutions would not be responsible for the additional interface fees.
2. Medical records shall be consistent with NCCHC and ACA standards, ACSO policies and procedures, community standards of practice and all applicable federal, state and local laws. Correct Care Solutions acknowledges and agrees that all records prepared or acquired by Correct Care Solutions during the performance of services under this Agreement will immediately become the property of ACSO, and ACSO shall be deemed to be the custodian of such records. Correct Care Solutions will adhere to ACSO's records retention schedule for all medical records.

a. Individual Healthcare Records. Correct Care Solutions will initiate an individual healthcare record for each Inmate following the receiving screening, which will be the single source of all medical, dental or mental health information for each Inmate. Correct Care Solutions will be responsible for entry of patient information in the individual medical record, including all patient-provider encounters and all on-site and off-site services provided. At a minimum, medical records will contain the following:

- i. Identifying information (i.e. names, number, date of birth, sex);
- ii. A problem list containing medical and mental health diagnoses, treatments and dispositions;
- iii. Clinical orders for prescribed medication and medication administration records;
- iv. Reports of laboratory, x-ray, and diagnostic studies;
- v. Flow sheets;
- vi. Consent and refusal forms;
- vii. Release of information forms;
- viii. Results of specialty consultations and off-site referrals;
- ix. Discharge summaries of hospitalizations and other inpatient stays;
- x. Special needs treatment plans, if applicable;
- xi. Place, date, and time of each clinical encounter; and
- xii. Signature and title of each documenter.

3. Confidentiality of Medical Records. Correct Care Solutions will adhere to all laws relating to the confidentiality of patient information and will maintain all medical records under secure conditions, kept separate from other confinement records. All records will be maintained in accordance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and the Health Information Technology for Economic and Clinical Health (HITECH) amendment to HIPAA. Correct Care Solutions will ensure all of its employees are trained in HIPAA/HITECH compliance.

4. Access to Records. For the purpose of responding to subpoenas, records requests, defending litigation or in connection with any investigation, Correct Care Solutions shall assist ACSO in obtaining access to, or copies of medical records, unless specifically prohibited.

5. Upon the termination of this Agreement, Correct Care Solutions shall provide ACSO with an extract of the data in the format specified by ACSO.

- a. Correct Care Solutions' Electronic Records Management Application (ERMA), and all forms, workflows, policies and procedures maintained therein, will remain the property of Correct Care Solutions upon termination of the contract.
- b. Correct Care Solutions will maintain pertinent, patient information that is accessible by ACSO and/or Correct Care Solutions.

Y. SECURITY.

1. Correct Care Solutions agrees to exercise security measures in compliance with ACSO's Policies and Procedures. Employees of Correct Care Solutions shall be subject to a security clearance in order to obtain a building pass that allows for unescorted access into the Jail.

2. The Arapahoe County Sheriff and/or his designees reserve(s) the right to restrict access to any of Correct Care Solutions employees to any ACSO facility or to require immediate removal of any of Correct Care Solutions employees without prior notification.

Z. SERVICES BEYOND THE SCOPE OF THIS AGREEMENT.

Both parties understand and agree that there are certain occurrences, both beyond the control and within the control of the parties, that may result in health care expenses which are outside the scope of the normal operation of a correctional facility and, therefore, outside the contemplated scope of services under this Agreement. While both parties will act in good faith and endeavor to reduce the possibility of such occurrences, in the unlikely event of an occurrence such as an Act of God, riot, explosion, fire, food poisoning, epidemic illness outbreak or any other catastrophic event, or an event caused by the action or inaction of the County or Sheriff or their employees, agents or contractors, which results in medical care for the Inmates, Jail staff, visitors, or contractors, Correct Care Solutions shall not be responsible for costs attributable to such catastrophic event and all such costs shall be borne by the County. Notwithstanding the above, Correct Care Solutions shall be responsible for medical costs under this Agreement associated with such an event only if such an event was caused solely by Correct Care Solutions.

AA. MISCELLANEOUS.

1. Facility Activity Schedule. Correct Care Solutions acknowledges that ACSO has numerous programs and activities that impact staffing and scheduling within the Jail. Correct Care Solutions agrees that the routine provision of services under this Agreement, including but not limited to, daily nursing sick calls, physician sick calls and daily medication administrations shall be consistent with the existing ACSO Detention Facility schedule and that material changes to the scheduling of such services shall be subject to the approval of the ACSO Contract Administrator.

2. Damages for Loss of Accreditation. In the event the Detention Facility fails to pass any ACA audit, or to otherwise maintain the medical component of the ACA Accreditation as the sole and direct result of the action or inaction of Correct Care Solutions, Correct Care Solutions agrees to pay the County One Hundred Thousand Dollars (\$100,000), not as a penalty but as compensation for costs and damages, including but not limited to damage to reputation, professional standing, and ability to attract and retain qualified personnel (which are uncertain or difficult to prove) incurred by the County as a result of Correct Care Solutions failure. In the event the Detention Facility fails to pass any NCCHC audit, or to otherwise maintain the medical component of the NCCHC Accreditation as the sole and direct result of any action or inaction of Correct Care Solutions, Correct Care Solutions agrees to pay the County One Hundred Thousand Dollars (\$100,000), not as a penalty but as compensation for costs and damages, including but not limited to damage to reputation, professional standing, and ability to attract and retain qualified personnel (which are uncertain or difficult to prove) incurred by the County as a result of Correct Care Solutions failure. In the event a failure to maintain ACA or NCCHC accreditation is the sole and direct result of the action or inaction of Correct Care Solutions, Correct Care Solutions also agrees to bear any costs necessary to regain compliance and accreditation. Such payments shall be in addition to any other remedy available to the County under this Agreement or any other remedy available in law or in equity, and may be deducted from payments due to Correct Care Solutions under this Agreement.

3. Administrative assessment for failure to fill vacancies of key staff positions. Correct Care Solutions will ensure that any vacancies of key staff positions are immediately reported to the ACSO Contract Administrator and a temporary replacement is provided immediately to fill the vacancy until filled by a permanent replacement. If Correct Care Solutions cannot fill a key staff position with a permanent full time replacement within the first sixty (60) days, Correct Care Solutions shall be charged and agrees to pay a Daily Administrative Assessment, which will be equal to the daily salary of such key staff position for every day the position remains unfilled by a permanent hire starting with the 61st day. For purposes of this provision, "key staff positions" means and refers to the Medical Director, HSA, Director of Nursing, and the Psychiatrist. Daily salary shall be calculated by dividing the annual salary paid to the person previously holding the vacant key staff position by 365 days. The Daily Administrative Assessment shall be in addition to any salary being paid for any temporary interim replacement(s).

. In the event of any conflicts between this Agreement and any attached solicitation documents, this Agreement shall control.

2. **Time of Performance.** The services of the Contractor shall commence (choose one):

- ☐ As of the date of this Agreement.
- ☐ As specified in a Notice to Proceed to be provided by the County.
- ☒ As of the following date: January 1, 2017.

The services of the Contractor shall be completed, or shall end, by December 31, 2017, at which time the County shall have the option to renew the contract for three (3) subsequent one year periods, provided, however, that the Contractor maintains the same prices or discounts that were agreed to in the initial contract. The optional renewal periods shall not exceed three years. Continuation of the contract beyond the initial period is a County prerogative and not a right of the Contractor. This prerogative will be exercised only when such continuation is clearly in the best interest of the County.

3. **Compensation.** The County agrees to compensate the Contractor for the performance of services detailed in Section 1 above, Scope of Services, as follows (choose one):

- ☐ Lump sum due upon completion:
- ☐ Hourly rate of (to be billed monthly).
- ☒ Other:

It is expressly understood and agreed that the total compensation to be paid to the Contractor under this Agreement shall not exceed \$4,820,226.00, annually.

The base amount to be paid by the County to Correct Care Solutions under this Agreement is Four Million Eight Hundred Twenty Thousand Two-Hundred Twenty Six Dollars (\$4,820,226.00) for a twelve (12) month period. Payments shall be made in monthly installments equal to Four Hundred One Thousand Six Hundred Eighty Five Dollars and Fifty cents (\$401,685.50), pro-rated for any partial months and subject to any reconciliations as set forth below. The first monthly amount is to be paid to Correct Care Solutions on the 1st day of January, 2017 for services administered in the month of January, 2017. Each monthly payment thereafter is to be paid by the County to Correct Care Solutions before or on the 1st day of the month of the month of service.

A. **Monthly Reconciliation Process.** Correct Care Solutions will provide a monthly reconciliation with the County for any amounts owed by either party pursuant to the terms of this Agreement, including, but not limited to:

1. **Adjustment for Monthly Average Daily Population (MADP).** For each month reconciled, if the Jail's MADP is greater than One Thousand (1,000) Inmates, the compensation payable to Correct Care Solution by the County shall be increased by the number of Inmates over One Thousand (1,000) at the per diem rate of One Dollar and Eight-Six Cents (\$1.86). If the Jail's MADP is less than One Thousand (1,000) Inmates, then CCS will issue a credit to the County for the number of Inmates under One Thousand (1,000) at the per diem rate of One Dollar and Eight-Six Cents (\$1.86). For purposes of this contract, the Monthly Average Daily Population will be calculated by determining the average daily population of Inmates booked in to the Jail per calendar month, excluding Inmates admitted to work release, home detention or the ADMIT program. The ACSO Contract Administrator shall provide a report reflecting the MADP for the prior month no later than the tenth (10th) calendar day each month.

2. **Adjustment for Costs in Excess of Cap Amounts.** The monthly reconciliation shall include any amounts paid by CCS in excess of the Pharmacy Cap (per Inmate) or the Offsite Cap. The compensation payable to CCS by the County shall be increased by any costs paid by CCS in excess of the Pharmacy Cap or Offsite Cap.

4. **Notices of Termination.** Notices of termination shall be given at least thirty (30) days before the effective date of termination.

5. **Professional Liability Insurance.** Errors and Omissions or Professional Liability Insurance is required ☒ (check box only if it is required). The required minimum amount of coverage is \$5,000,000 (indicate amount only if it is required).

6. **Addresses for Notices.** The addresses for Notices are as follows:

To the County: Arapahoe County Attorney
5334 South Prince Street
Littleton, Colorado 80120-1136

and (send to both)

Arapahoe County Sheriff's Office Detention Facility
Attn: Detention Services Bureau Chief
7375 South Potomac Street
Centennial, CO 80112

Arapahoe County Sheriff's Office Detention Facility
Attn: ACSO Contract Administrator
7375 South Potomac Street
Centennial, CO 80112

To the Contractor: Correct Care Solutions, LLC
Attn.: Patrick Cummiskey, President
1283 Murfreesboro Road
Suite 500
Nashville, Tennessee 37217

With a copy to:
Correct Care Solutions, LLC
Attn.: General Counsel
1283 Murfreesboro Road
Suite 500
Nashville, Tennessee 37217

7. **Special Conditions.**

- ☐ No special conditions
☒ Special Conditions are as follows:

A. **EMERGENCY MEDICAL KITS:** Correct Care Solutions will provide and maintain all Emergency Medication Kits at the Jail.

B. **ASSIGNMENT OF AGREEMENT NOT ALLOWED:** No part of this Agreement can be assigned to another contractor without prior written approval by County.

C. **FEDERAL STANDARDS COMPLIANCE:** All services to be provided shall be in accordance with all governmental standards to include, but not limited to, those issued by the Office of Safety and Health Administration (OSHA), Health Insurance Portability and Accountability Act (HIPAA), and the National Institute of Occupational Safety Hazards of 1996 (NIOSH).

D. **BACKGROUND CHECK:** Contractor and all Subcontractors entering the Detention Facility shall submit a list of all employees within four (4) days prior to appearance on site including full name, date of birth, social security number, and driver's license number for background check. Any record indicating felony violations, questionable character or possible security risks shall be just cause for denial of access for that person to the facility. Final approval of the employee list shall be at the sole discretion of ACSO and shall not be cause for additional payment by ACSO or a breach of the terms of this Agreement.

E. **LOCAL OFFICE SHALL BE REQUIRED:** Due to the service level required in conjunction with this Agreement, the Contractor shall maintain an office within the Metro Denver, Colorado, area. This office shall be staffed by a competent company representative who can be contacted during normal working hours and who is authorized to discuss matters pertaining to the Agreement. Metro Denver consists of the City and County of Denver, the City of Ft. Collins and surrounding counties, the City of Colorado Springs and surrounding counties, Arapahoe County, Jefferson County, Adams County, Boulder County, Douglas County, the City and County of Broomfield, Clear Creek County, and Gilpin County, Colorado. All reimbursable payments will be based on a local Denver office.

F. **PURCHASE BY OTHER GOVERNMENTAL AGENCIES:** Each governmental unit which avails itself of this Agreement will establish its own contract, place its own orders, issue its own purchase orders, be invoiced therefrom and make its own payments and issue its own exemption certifications as required by the Contractor. It is understood and agreed that Arapahoe County is not legally a party to any contractual agreement made between any other governmental unit and the Contractor as a result of this solicitation.

G. **INDEMNIFICATION:**

1. Correct Care Solutions shall indemnify and hold harmless the County and its elected and appointed officials, officers, employees, and agents, including but not limited to the Arapahoe County Sheriff and all employees of the Arapahoe County Sheriff's Office, from any and all losses, damages, liabilities, claims, suits, actions, or awards, including costs, expenses, and attorney's fees, incurred or occasioned, in whole or in part, as a result of the acts or omissions of Correct Care Solutions, or its principals, employees, agents or subcontractors that arise out of, or are alleged to arise out of, Correct Care Solutions' performance of services under this Agreement. In no event shall Correct Care Solutions be liable to indemnify the County beyond its own proportional responsibility, as determined by a court or as agreed upon by the parties, or otherwise be liable to indemnify the County for the acts or omissions of the County and its elected and appointed officials, officers, employees and agents.

2. Correct Care Solutions shall notify the County and the Arapahoe County Attorney's Office within ten (10) calendar days of receiving notice of any notice of claim, notice of intent to sue, action, lawsuit, or claim that arises out of, is alleged to arise out of, or is in any way connected with the performance of services under this Agreement.

3. The County shall notify Correct Care Solutions within ten (10) calendar days of receiving notice of any notice of claim, notice of intent to sue, lawsuit, or claim that arises out of, is alleged to arise out of, or is in any way connected with the performance of services under this Agreement.

4. The County shall notify Correct Care Solutions within (10) calendar days of its intent to tender the defense and/or invoke the indemnification obligations set forth in this Agreement following receipt of formal service of a lawsuit upon ACSO or the County, in which one or more claims, losses, damages, liabilities, or awards are alleged against the County, ACSO, the Sheriff and/or their elected and appointed officials, officers, employees, and agents, and which are alleged to arise out of, or are alleged in any way to be connected with the performance of services under this Agreement. Correct Care Solutions shall thereafter notify the County within five (5) business days of receiving notice of the County's intent to tender the defense and/or invoke the indemnification obligations, if it will not assume such defense and/or indemnification obligations.

In the event of any conflicts between the general provisions of this Agreement and the Special Provisions set forth herein, the Special Provisions of this Agreement shall control.



Exhibit B

CorrectCare Solutions

Effective: 1/1/2017

Day Shift									
POSITION	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hrs/WK	FTE
Health Service Administrator	8	8	8	8	8			40	1.00
Director of Nursing	8	8	8	8	8			40	1.00
Medical Director/Physician	8	8	8	8	8			40	1.00
NP/PA Mid-level/Physician Extender		8		8				16	0.40
Psychiatrist	5		4		5			14	0.35
Certified Nurse Mid-Wife			6					6	0.15
Dentist					8			8	0.20
Dental Technician/Assistant	4		4		10			18	0.45
Registered Nurse (In-Patient Medical Unit)	12	12	12	12	12	12	12	84	2.10
Registered Nurse (Health Assessments)	8	8	8	8	8			40	1.00
Registered Nurse (Intake)	12	12	12	12	12	12	12	84	2.10
Registered Nurse (Infectious Disease)	8	8	8	8	8			40	1.00
Licensed Practical Nurse (Medication Pass)	36	36	36	36	36	36	36	252	6.30
Licensed Practical Nurse (Intake)	12	12	12	12	12	12	12	84	2.10
Administrative Assistance	8	8	8	8	8			40	1.00
Clerk/Medical Assistant	16	16	16	16	16			80	2.00
Mental Health Professional	8	8	8	8	8			40	1.00
Total Hours/FTE - Day								926	23.15
Evening Shift									
POSITION	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hrs/WK	FTE
Registered Nurse (Intake)	8	8	8	8	8			40.0	1.00
Total Hours/FTE - Evening								40	1.00
Night Shift									
POSITION	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hrs/WK	FTE
Registered Nurse (In-Patient Medical Unit)	12	12	12	12	12	12	12	84	2.10
Registered Nurse (Intake)	12	12	12	12	12	12	12	84	2.10
Licensed Practical Nurse (Medication Pass)	36	36	36	36	36	36	36	252	6.30
Licensed Practical Nurse (Intake)	12	12	12	12	12	12	12	84	2.10
Total Hours/FTE - Night								504	12.60
Weekly Total									
TOTAL HOURS/FTE - WEEKLY								1,470	36.75



Board Summary Report

Date: November 21, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2016 Agreement Between Arapahoe County and CrossOver Counseling for the Provision of the Multiple Offender Program at the Arapahoe County Sheriff's Office Detention Facility

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services between Arapahoe County and Crossover Counseling to continue administering the Multiple Offender Program (MOP) at the Arapahoe County Sheriff's Office Detention Facility (ACDF)

Background

The Multiple Offender Program has provided court-ordered drug and alcohol classes to inmates sentenced to home detention since 2001. The Multiple Offender Program was developed by Dr. Michael Maggard, Psy.D. CAC III of Crossover Counseling.

Links to Align Arapahoe

Service First – The Multiple Offender Program helps repeat offenders avoid returning to jail or prison.

Discussion

The classes focus on overcoming dependencies while living outside the jail environment. Many inmates are court-ordered to attend Drug and Alcohol classes as part of their probation. If inmates do not attend classes, they are in violation of probation and are again incarcerated. The cost of the MOP is charged to the inmate at \$32.00 per day. Dr. Maggard receives \$20.00 of the fee and Arapahoe receives \$12.00 of the fee. These classes are hosted by the Detention Facility and have been effective in assisting former inmates to remain out of jail.

Alternatives

The alternative is to suspend these court-ordered classes until a completely different drug and alcohol program provided by a different doctor can be tested and found.

Fiscal Impact

The Multiple Offender Program is estimated provide \$120,000.00 of revenue to Arapahoe County in 2017.

Concurrence

The Sheriff's Office Administration and Detention Services Bureau are in concurrence with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager

Vincent Line, Detention Service Bureau

Louie Perea, Undersheriff

David C. Walcher, Sheriff

Finance Department

County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and Crossover Counseling for the purpose of providing the Multiple Offender Program at the Arapahoe County Sheriff's Office Detention Facility, for the period of January 1, 2017 to December 31, 2017, at the rates set forth in the Agreement, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR SERVICES

Project Number or Name: Multiple Offender Program

THIS AGREEMENT is entered into as of the 1st day of January, 2017 by and between the Board of County Commissioners of the County of Arapahoe, State of Colorado (hereinafter referred to as the "County") and CrossOver Counseling - Michael J. Maggard, Psy.D. CAC III (hereinafter referred to as the "Contractor").

WHEREAS, the County desires to engage the Contractor to provide the services described in Exhibit A.

NOW, THEREFORE, the parties mutually agree as follows:

1. **Scope of Services.** The Contractor agrees to perform the services described in Section 1 of Exhibit A, which document is attached hereto and incorporated herein in its entirety.

2. **Time of Performance.** The services of the Contractor are to commence and be completed (or end) by the dates set forth in Section 2 of Exhibit A, unless this Agreement is sooner terminated pursuant to paragraph 4.A. below. All time limits are of the essence in this Agreement.

3. **Method of Payment.** The County will compensate the Contractor for services rendered in accordance with Section 3 of Exhibit A, subject to the availability of appropriated funds within the annual budget. The Contractor is responsible for paying all applicable income, Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act, or other taxes owed on compensation paid under this Agreement. The Contractor shall submit requests for payment in a form acceptable to the County and in conformance with the County's policies. The Contractor shall provide such backup information for its payment requests as may be reasonably requested by the County. The County shall have forty-five (45) days from receipt of any payment request to make payment to the Contractor.

4. **General Terms and Conditions.**

A. **Termination of Agreement.** The County or the Contractor shall have the right to terminate this Agreement, with or without cause, by giving written notice to the other party of such termination and specifying the effective date thereof, which notice shall be given at least the number of days set forth in Section 4 of Exhibit A prior to the effective date of such termination. In such event, all finished or unfinished documents, data, studies and reports prepared by the Contractor pursuant to this Agreement shall become the property of the County. Unless expressly stated otherwise in the notice, Contractor shall provide no further services in connection with this Agreement after receipt of a notice of termination, and the Contractor shall proceed to cancel all existing orders and contracts that are chargeable to the County under this Agreement. The Contractor shall be entitled to receive compensation in accordance with this Agreement for any satisfactory services completed pursuant to the terms of this Agreement prior to the date of receipt of the notice of termination, or such other stop-work date as may be specified in the notice. Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by virtue of any breach of this Agreement by the Contractor.

B. **Changes.** The County or Contractor may, from time to time, request changes in the scope of services or compensation of the Contractor. Such changes that are mutually agreed upon between the County and Contractor shall be in writing, and upon execution shall become part of this Agreement. To be effective, all changes must be signed by the Contractor and by the Board of County Commissioners, or by a person authorized by resolution to sign on behalf of the Board.

C. **Assignability or Subcontracting.** Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the County.

D. **Audit.** The County and any of its duly authorized representatives shall have reasonable access to any books, documents, papers and records of the Contractor which are pertinent to the Contractor's performance under this Agreement for the purpose of making an audit, examination, or excerpts. The Contractor shall provide any documentation necessary to prepare all reporting required of or by the County, and shall keep all books, documents, papers and records

which are pertinent to the Contractor's performance for a minimum period of three years, or such longer time as may be set forth in any Special Conditions or addendums to this Agreement.

E. Equal Employment Opportunity. While performing this Agreement, the Contractor shall not discriminate against any employee, subcontractor, or applicant for employment because of disability, race, creed, color, sex, sexual orientation, religion, age, national origin, or ancestry.

F. Ownership of Documents. All drawings, specifications, guidelines and other documents prepared or received by the Contractor in connection with this Agreement shall be the property of the County.

G. Assignment of Copyrights. The Contractor assigns to the County the copyrights to all works prepared, developed, or created pursuant to this Agreement, including the rights to: 1) reproduce the work; 2) prepare derivative works; 3) distribute copies to the public by sale, rental, lease, or lending; 4) perform the works publicly; and 5) to display the work publicly. The Contractor waives its rights to claim authorship of the works, to prevent its name from being used in connection with the works, and to prevent distortion of the works.

H. Governing Law/Forum/Interpretation. This Agreement has been executed by the parties hereto on the day and year first above written and shall be governed by the laws of the State of Colorado. Venue for any civil action relating to this Agreement shall be in Arapahoe County. Both parties agree that the rule that ambiguities in a contract are to be construed against the drafting party shall not apply to the interpretation of this Agreement. If there is any conflict between the language of this Agreement and any exhibit or attachment, the language of this Agreement shall govern.

I. Compliance with Laws/Licenses and Permits. The Contractor shall comply with all applicable federal, state and local laws, ordinances, regulations, and resolutions. The Contractor shall be responsible for obtaining all licenses and permits necessary to perform the scope of services, at the Contractor's expense, unless specifically stated otherwise in this Agreement.

J. No Waiver of Rights. The County's approval or acceptance of, or payment for, services shall not be construed to operate as a waiver of any rights or benefits to be provided under this Agreement. No covenant or term of this Agreement shall be deemed to be waived by the County except in writing signed by the Board of County Commissioners or person authorized to sign by resolution of the Board, and any waiver of a right shall not be construed to be a waiver of any other right or to be a continuing waiver, unless specifically so stated.

K. Non-appropriation. Pursuant to C.R.S. § 29-1-110, as amended, the financial obligations of the County as set forth herein after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise available. This Agreement is automatically terminated on January 1st of the first fiscal year for which funds are not appropriated. The County shall give the Contractor written notice of such non-appropriation.

L. Conflict of Interest/Ethics. The Contractor shall refrain from providing services to other persons, firms or entities that would create a conflict of interest for Contractor with regard to providing services pursuant to this Agreement. The Contractor shall not offer or provide anything of benefit to any County official or employee that would place the official or employee in a position of violating the public trust in violation of Colorado Constitution Article XXIX, C.R.S. § 24-18-109, as amended, or the County's Ethical Principles and Guidelines.

M. Remedies. In addition to any other remedies provided for in this Agreement, and without limiting its remedies available at law, the County may exercise the following remedial actions if the Contractor substantially fails to satisfy the duties and obligations in this Agreement. Substantial failure to satisfy the duties and obligations shall mean significant insufficient, incorrect or improper performance, activities or inactions by the Contractor. These remedial actions are as follows:

(1) Suspend Contractor's performance pending necessary corrective action as specified by the County without the Contractor's entitlement to an increase in price/cost or a time extension; and/or

(2) Withhold payment to the Contractor until the necessary services or corrections in performance are satisfactorily completed; and/or

(3) Deny payment for those services which have not been satisfactorily performed, or which, due to circumstances caused by the Contractor, cannot be performed, or if performed would be of no value to the County.

The foregoing remedial actions are cumulative and the County, at its sole discretion, may exercise any or all of them individually or simultaneously. The County shall provide written notice to Contractor of its exercise of any of the foregoing remedial actions.

N. Force Majeure. Neither the Contractor nor the County shall be liable for any delay in, or failure of performance of, any covenant or promise contained in this Agreement, nor shall any delay or failure constitute default or give rise to any liability for damages if, and only to extent that, such delay or failure is caused by "force majeure." As used in this Agreement, "force majeure" means acts of God, acts of the public enemy, unusually severe weather, fires, floods, epidemics, quarantines, strikes, labor disputes and freight embargoes, to the extent such events were not the result of, or were not aggravated by, the acts or omissions of the non-performing or delayed party.

O. Third-Party Beneficiaries. It is expressly understood and agreed that the enforcement of this Agreement and all rights of action relating thereto shall be strictly reserved to the County and the named Contractor. Nothing contained in this Agreement shall give or allow any claim or right of action whatsoever by any other third person.

P. Survival of Terms and Conditions. Notwithstanding anything herein to the contrary, the parties understand and agree that all terms and conditions of the Agreement that anticipate continued performance, compliance, or effect beyond the termination date of the Agreement shall survive such termination date and shall be enforceable in the event of a failure to perform or comply.

Q. Illegal Aliens. As required by C.R.S. § 8-17.5-102, the Contractor certifies and agrees as follows:

(1) The Contractor shall not knowingly employ or contract with an illegal alien (a non-legal resident of the United States) to perform work under this Agreement.

(2) The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

(3) The Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement through participation in either the employment verification ("e-verify") program administered by the United States Department of Homeland Security and the Social Security Administration, or the employment verification program operated by the Colorado Department of Labor and Employment ("Department").

(4) The Contractor shall not use the e-verify or Department programs to undertake preemployment screening of job applicants while this Agreement is being performed.

(5) If the Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, then the Contractor shall: (a) notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract with the subcontractor if within three days of receiving the notice the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the subcontract if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(6) The Contractor shall comply with any reasonable request by the Department made in the course of an investigation that the Department is undertaking pursuant to the authority established by C.R.S. § 8-17.5-101(5).

(7) If the Contractor violates any of the provisions of this section 4.Q. the County may immediately terminate this Agreement effective upon the receipt by Contractor of written notice of termination from the County, and the Contractor shall be liable for actual and consequential damages to the County.

(8) Compliance with this subsection Q is not required if the Contractor is a governmental entity.

R. Abilities, Qualifications, Experience, and Best Efforts. Notwithstanding anything to the contrary contained in this Agreement, the County and Contractor agree and acknowledge that the County enters into this Agreement relying on the special and unique abilities of Contractor to perform the services and accomplish the tasks described. Contractor accepts the relationship of trust and confidence established between Contractor and the County by this Agreement. Contractor covenants with the County to use its best efforts. Contractor shall further the interests of the County according to the County's requirements and procedures, and according to the highest standards and quality prevailing among those who perform work of a similar nature.

S. Accuracy of Work. The Contractor represents, covenants and agrees that its work will be accurate and free from any material errors.

5. Insurance. In part to assure the County that the Contractor is always capable of fulfilling the specified indemnification obligations, the Contractor must purchase and maintain insurance of the kind and in the minimum amounts specified below, unless indicated otherwise in Section 7 of Exhibit A.

A. The Contractor agrees to procure and maintain, at its own expense, for all services covered by this Agreement, the following policies of insurance:

(1) Workers' Compensation Insurance: The Contractor will maintain workers' compensation insurance covering the contractor for the performance of all services under this Agreement in accordance with applicable state laws, and employer's liability insurance. Coverage shall include a waiver of subrogation in favor of Arapahoe County

Minimum Limits:

- Workers' Compensation – statutory limits
- Employer's Liability:
 - \$1,000,000 bodily injury for each accident
 - \$1,000,000 each employee for disease
 - \$1,000,000 disease aggregate

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(2) Commercial General Liability: The Contractor will maintain commercial general liability insurance covering all operations by or on behalf of the Contractor on an occurrence basis against claims for bodily injury, property damage (including loss of use) and personal injury. Such insurance will have these minimum limits and coverages:

Minimum Limits:

- \$1,000,000 each occurrence
- \$2,000,000 general aggregate with dedicated limits per project site
- \$2,000,000 products and completed operations aggregate

Coverages:

- Products and completed operations coverage maintained for at least 2 years after completion of the project for construction contractors
- Contractual Liability
- Independent Contractors
- Defense in addition to the limits of liability
- Severability of Interests Provision
- Additional Insured Endorsement issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(3) Automobile Liability: The Contractor will maintain business auto liability coverage covering liability arising out of any auto (including owned, hired and nonowned autos) used in connection Minimum Limits:

Minimum Limit:

- \$1,000,000 Combined Single Limit Each Accident

Coverages:

- MCS 90 for vehicles carrying hazardous materials
- Additional Insured Endorsement issued to Arapahoe County, Colorado its officers, its agents, and its employees acting in the scope of their employment

The requirements of this provision shall apply to the Contractor and to all subcontractors.

(4) If indicated in Section 5 of Exhibit A, Errors and Omissions or Professional Liability Insurance with a minimum coverage amount as specified in Section 5 of Exhibit A, and for two years beyond the completion of all services under this Agreement.

(5) If indicated in Section 6 of Exhibit A, Cyber Liability Insurance with a minimum coverage amount as specified in Section 6 of Exhibit A.

B. The above-mentioned coverages shall be procured and maintained with insurers with an A- or better rating, as determined by Best's Key Rating Guide. All coverages shall be continuously maintained during the term of this Agreement or as noted above to cover all liability, claims, demands, and other obligations assumed by the Contractor.

C. Additional Insured status required above shall be primary and non-contributory with any insurance or self-insurance carried by the County. The Contractor shall be solely responsible for any deductible losses under any policy required above.

D. The policies shall provide that the County will receive notice no less than 30 days prior to cancellation, termination or non-renewal of the policies.

E. The Contractor shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types.

F. Failure on the part of the Contractor to procure or maintain policies providing the required coverages, conditions and minimum limits shall constitute a material breach of contract upon which the County may immediately terminate this Agreement.

G. The County reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

6. **Insurance Certificates.**

A. The Contractor shall, prior to commencing services, deliver to the County Certificates of Insurance as evidence that policies providing any and all required coverages and limits are in full force and effect.

B. These certificates will serve as an indication to the County that the Contractor has acquired all necessary insurance; however, the County may require that certified copies of the insurance policies be submitted and may

withhold payment for services until the applicable insurance policies are received and found to be in accordance with the Agreement.

C. Insurance limits must be indicated on each Certificate of Insurance. Each Certificate of Insurance shall be reviewed and approved by the County prior to commencement of services under the Agreement. The certificates shall identify this Agreement and shall state the project number where applicable.

7. **Indemnification.** The Contractor shall indemnify and hold harmless the County and its elected and appointed officials, officers, employees, and agents from and against any and all losses, damages, liabilities, claims, suits, actions, or awards, including costs, expenses and attorney's fees, incurred or occasioned as a result of the acts or omissions of the Contractor, or its principals, employees, agents, or subcontractors arising out of or in any way connected with the performance of services under this Agreement. The Contractor's obligation to indemnify pursuant to this paragraph, and to provide any extended insurance coverage where applicable, shall survive the completion of the scope of services, and shall survive the termination of this Agreement.

8. **Independent Contractor.** The Contractor is an independent contractor. AN INDEPENDENT CONTRACTOR IS NOT ENTITLED TO WORKER'S COMPENSATION BENEFITS AND IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON ANY MONIES EARNED PURSUANT TO THE CONTRACT RELATIONSHIP. Notwithstanding any provision appearing in this Agreement, all personnel assigned by the Contractor to perform work under the terms of this Agreement shall be and remain at all times employees of the Contractor or employees of their respective employers for all purposes.

9. **Notices.** Notices to be provided under this Agreement shall be given in writing and either delivered by hand or deposited in the United States mail with sufficient postage to the addresses set forth in Section 7 of Exhibit A.

10. **Extent of Agreement.** This Agreement represents the entire and integrated agreement between the County and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. Any amendments to this must be in writing and be signed by both the County and the Contractor. If any portion of this Agreement is found by a court of competent jurisdiction to be void and/or unenforceable, it is the intent of the parties that the remaining portions of this Agreement shall be of full force and effect.

(SA Form, 9/14/16)

CONTRACTOR : CrossOver Counseling – Michael J. Maggard,
Psy.D. CAC III

By: _____

(signature)

Title: _____

Addictions Counselor

Signed this 13th day of November, 2016

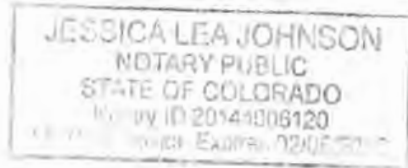
State of Colorado)
County of Arapahoe)

Subscribed and sworn to before me this 13th day of November, 2016

by Jessica Johnson

My commission expires 2/6/2018.

Jessica Johnson
Notary Public



SEAL

ATTEST: Clerk to the Board

ARAPAHOE COUNTY

By: _____

Chair, Board of County Commissioners
(Or representative authorized by resolution)

Date: _____

EXHIBIT A to Agreement between the County and CrossOver Counseling – Michael J. Maggard, Psy.D. CAC III
Project Number or Name: Multiple Offender Program.

1. **Scope of Services.** The Contractor hereby agrees to and accepts responsibility to perform the following services:

To provide the MOP Program for inmates who are in the Home Detention situation. The focus of the program is multiple offenders with substance abuse issues. The class's focus is on overcoming dependencies while living outside the jail environment and to helping them avoid becoming a repeat offender and/or returning to jail or prison. The cost of the MOP is \$32.00 per day charged to the inmate. Dr. Maggard receives \$20.00 of the fee and the Arapahoe County Sheriff's Office Detention Facility receives \$12.00 of the fee. In the event of any conflicts between this Agreement and any attached solicitation documents, this Agreement shall control.

2. **Time of Performance.** The services of the Contractor shall commence (choose one):

- ☐ As of the date of this Agreement.
☐ As specified in a Notice to Proceed to be provided by the County.
☒ As of the following date: January 1, 2017.

The services of the Contractor shall be completed, or shall end, by December 31, 2017. Arapahoe County shall have the option to renew the contract for subsequent one year periods, provided, however, that Crossover Counseling will maintain the same prices or discounts that were awarded during the initial contract. The optional renewal periods shall not exceed three years. Continuation of the contract beyond the initial period is a County prerogative and not a right of Crossover Counseling. This prerogative will be exercised only when such continuation is clearly in the best interest of the County.

3. **Compensation.** The County agrees to compensate the Contractor for the performance of services detailed in Section 1 above, Scope of Services, as follows (choose one):

- ☐ Lump sum due upon completion:
☐ Hourly rate of (to be billed monthly).
☒ Other: Each Multiple Offender Program ("MOP") participant shall be responsible for the cost of treatment services provided by the contractor. The County shall not be responsible or liable for payment of the cost of treatment services provided by the contractor to any MOP participant. The Arapahoe County Sheriff's Office, Work Release Section, shall debit each MOP participant's account and submit payment to the contractor based on the billed amount provided by the contractor..

It is expressly understood and agreed that the total compensation to be paid to the Contractor under this Agreement shall not exceed

4. **Notices of Termination.** Notices of termination shall be given at least thirty (30) days before the effective date of termination.

5. **Professional Liability Insurance.** Errors and Omissions or Professional Liability Insurance is required ☒ (check box only if it is required). The required minimum amount of coverage is \$1,000,000.00 (indicate amount only if it is required).

6. **Cyber Liability Insurance.** Cyber Liability Insurance is required ☐ (check box only if it is required). The required minimum amount of coverage is not less than \$2,000,000 per occurrence or claim, \$2,000,000 aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Contractor in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security.

The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

The requirements of this provision shall apply to the Contractor and to all subcontractors.

7. **Addresses for Notices.** The addresses for Notices are as follows:

To the County: Arapahoe County Attorney
5334 South Prince Street
Littleton, Colorado 80120-1136

 and (send to both)

 Attn: Lt. Adam Burson
Arapahoe County Sheriff's Office Detention Facility
7375 S. Potomac Street
Centennial, CO 80112

To the Contractor: CrossOver Counseling
Michael J. Maggard, Psy.D. CAC III
3801 East Florida Avenue, Suite 400
Denver, CO 80210

8. **Special Conditions.**

- ☐ No special conditions
☒ Special Conditions are as follows:

1. Contractor must adhere to all Sheriff's Policy and Procedures.
2. The Contractor shall comply with the 2012 Prison Rape Elimination Act Standards.
3. Any reports, information, data, etc., provided to or obtained by Contractor shall be considered the property of the Sheriff's Office and shall be kept confidential and shall not be made available to any individual or organization by the Contractor without prior written approval of the Sheriff or his designee.
4. I certify that I am a small independent contractor, and as such, I am not required, under Colorado Law, to carry worker's compensation insurance on myself or my business. I further agree, to assume all risk of injury of any type and kind, and to hold Arapahoe County, its elected officials and appointed officials, officers, employees, agents and the Sheriff and his officers, employees and agents harmless from any and all liability associated with any injury that I may incur as a result of the work described in this contract. Further, I agree to be personally responsible for any and all medical bills that I may incur as a result of any injury while engaged in the work described in this contract.



BOARD SUMMARY REPORT

Date: December 13, 2016

To: Board of County Commissioners

Through: Diana Maes, BOCC Administration Manager

From: Carol Dosmann, Executive Assistant, BOCC Administration

Subject: Amend Resolution No. 160113 adopted on February 9, 2016 and approve the appointment of Carol LoCicero to fill a Client Representative vacancy on the Community Services Block Grant Advisory Committee.

Purpose and Recommendation

Amend Resolution No. 160113 adopted on February 9, 2016 and approve the appointment of Carol LoCicero to fill a Client Representative vacancy on the Community Services Block Grant Advisory Committee, which appointment will expire February 14, 2017.

Background

This committee advises the Board of County Commissioners concerning the administration of the Arapahoe County Community Services Block Grant Program, pursuant to the Community Services Block Grant Act, Public Law 105-285, Sec. 676B, 42 U.S.C. 9910, as amended.

Discussion

Alternatives

Fiscal Impact

Concurrence

Reviewed By:

Diana Maes, BOCC Administration Office Manager
John Christofferson, Deputy County Attorney

RESOLUTION NO. 160

It was moved by Commissioner _____ and duly seconded by Commissioner _____, pursuant to Resolution No. 232-83, adopted by the Board of County Commissioners on March 1, 1983, which initially established a Community Services Block Grant Advisory Committee and pursuant to the Community Services Block Grant Act (42 USC 9901 et seq.) and the requirements of the Colorado Department of Local Affairs, the Board hereby amends Resolution No. 160113 adopted on February 9, 2016 and appoints Carol LoCicero, as a Client Representative, to the Community Services Block Grant Advisory Committee.

Said appointee shall serve a term which expires February 14, 2017, at the pleasure of the Board of County Commissioners and said appointee may be removed at any time by action of the Board with or without good cause shown.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.



BOARD SUMMARY REPORT

Date: December 13, 2016

To: Board of County Commissioners

Through: Diana Maes, BOCC Administration Manager

From: Carol Dosmann, Executive Assistant, BOCC Administration

Subject: Amend Resolution No. 160116 adopted on February 9, 2016 and recommend that Anne Gross be considered for appointment to the Denver Regional Council of Governments (DRCOG) Advisory Committee on Aging to fill the seat previously held by Doug Bowen, with her term to expire February 14, 2017.

Purpose and Recommendation

Amend Resolution No. 160116 adopted on February 9, 2016 and recommend the appointment of Anne Gross to fill the seat previously held by Doug Bowen on the Denver Regional Council of Governments (DRCOG) Advisory Committee on Aging. Anne's term will expire February 14, 2017.

Background

The Denver Regional Council of Governments (DRCOG) Advisory Committee on Aging (mandated by the Older Americans Act of 1965) represents the needs of older people, with special emphasis on the needs of those persons in greatest social and/or economic need. Major responsibilities of the Advisory Committee are to: sponsor and conduct public hearings, conferences, and other meetings designed to obtain and publicize information related to the problems, needs, accomplishments, and interests of the elderly; sponsor and conduct all official Area Plan public hearings; advise the DRCOG Aging Services Division in the development of the Area Plan and its annual amendments by reviewing data on the needs of older people and recommending policies to DRCOG on the needs of older people.

Discussion

Alternatives

Fiscal Impact

Concurrence

Reviewed By:

Diana Maes, BOCC Administration Office Manager
John Christofferson, Deputy County Attorney

RESOLUTION NO. 160 It was moved by Commissioner and duly seconded by Commissioner to amend Resolution No. 160116 adopted on February 9, 2016 and recommend the appointment of Anne Gross to the Denver Regional Council of Governments (DRCOG) Advisory Committee on Aging.

Said appointee shall serve a term which expires on February 14, 2017. Said appointee shall serve at the pleasure of the Board of County Commissioners and may be removed at any time, by action of the Board of County Commissioners, with or without good cause shown.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.



Board Summary Report

Date: December 5, 2016

To: Board of County Commissioners

From: Ron Carl, County Attorney
Monica Kovaci, Assistant County Attorney

Subject: Adoption of Ethics Code

Background and Discussion

In April of 2000, the Board of County Commissioners adopted an ethics policy, titled "Ethical Principles and Guidelines," for County employees and officials. In addition it created an Ethics Committee for the purpose of hearing complaints and inquiries under the policy. The purpose of adopting the ethics policy and creating an Ethics Committee was to help to ensure that Arapahoe County employees and officials conform their conduct to the highest standards of ethics.

The County Attorney's Office has undertaken a review and revision of the County's ethics policy. The primary purpose of the review and revision has been twofold: 1) to clarify the conduct that is a violation of the ethics policy by conforming the ethical standards in the policy to those found under state ethics statutes, and 2) to simplify the procedures to be followed by the Ethics Committee with respect to ethics complaints and inquiries.

Attached is the newly revised ethics policy, to be titled the "Arapahoe County Ethics Code," which was prepared by the County Attorney's Office. This policy was previously presented and discussed with the Board of County Commissioners, and was submitted for review and comment to the Ethics Committee.

The Board of County Commissioners is respectfully requested to adopt the attached resolution which adopts the Ethics Code as an official County policy, to replace and supersede the prior Ethical Principles and Guidelines.

Fiscal Impact

None.

Ron Carl, County Attorney.

RESOLUTION NO. _____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ that the Board of County Commissioners of Arapahoe County adopt as a County policy the “Arapahoe County Ethics Code” as submitted on this date, and that this policy supersede and replace the previously adopted “Arapahoe County Ethical Principles and Guidelines.”

The vote was:

Commissioner Bockenfeld, __; Commissioner Doty, __; Commissioner Holen, __; Commissioner Jackson, __; Commissioner Sharpe, __.

The Chair declared the motion carried and so ordered.

ARAPAHOE COUNTY CODE OF ETHICS

Ethics Committee Hotline: 303.738.7995

ARTICLE I – PURPOSE AND AUTHORITY

The Board of County Commissioners of Arapahoe County, Colorado believes that the citizens of this County are entitled to have an ethical, open and accountable local government. The purpose of this Code of Ethics is to provide guidance to the officials and employees of Arapahoe County whenever questions of ethical conflict arise to ensure that Arapahoe County government operates in a manner consistent with appropriate ethical principles and values. This Code of Ethics is also intended to establish a system for reporting possible ethical concerns so that any ethical violation, whether intentional or not, may be discovered and addressed appropriately.

The Code of Ethics is intended to be adopted in accordance with the applicable provisions of the Colorado Constitution, Colorado statutes, and internal Arapahoe County policies, and shall supersede the prior Ethical Principles and Guidelines adopted by the Board of County Commissioners on April 11, 2000. This Code of Ethics is not intended to supersede specific provisions of law or other County policies regarding ethical conduct. A determination, recommendation, or action taken under this Code of Ethics will not conclude or prevent action by the Colorado Independent Ethics Commission or the District Attorney's Office, as may be appropriate. This Code of Ethics is not intended to limit the ability of county officials and employees from seeking advice from the County Attorney's Office.

ARTICLE II – APPLICABILITY

This Code of Ethics is applicable to the officials and employees of Arapahoe County. "Employee" shall mean all members of the Arapahoe County workforce, including but not limited to full-time, part-time and temporary employees, and volunteers. "Official" shall mean a person in an elected or appointed position in Arapahoe County, including members of county boards, committees and commissions.

ARTICLE III – ETHICAL CONDUCT

All County officials and employees are expected to adhere to all state ethics laws, including Article XXIX of the Colorado Constitution (Amendment 41, Ethics in Government); Title 24, Article 18 of the Colorado Revised Statutes (Standards of Conduct); and Title 18, Article 8 of the Colorado Revised Statutes (Offenses—Governmental Operations). County officials and employees are also to comply with County guidelines and policies, including Chapter 1.8 (Ethics and Professional Conduct) of the Arapahoe County Department of Finance Purchasing Policies.

Summaries of the most commonly applicable provisions of the above-referenced state ethics laws which County officials and employees are required to adhere to, are as follows:

1. No official or employee, either directly or indirectly as the beneficiary of a gift or thing of value given to such person's spouse or dependent child, shall solicit, accept or receive any gift or other thing of value having either a fair market value or aggregate actual cost greater than fifty-nine dollars (\$59) in any calendar year (this is the amount as of July 2016 - the exact dollar amount is periodically adjusted by the Colorado Independent Ethics Commission), without the person receiving lawful consideration of equal or greater value in return from the official or employee who solicited, accepted or received the gift or other thing of value. Gifts include but are not limited to loans, rewards, promises or negotiations of future employment, favors or services, honoraria, travel, entertainment, and special discounts. Exceptions to the gift ban include campaign contributions, gifts from relatives or personal friends, and payments and reimbursements from certain non-profits for reasonable expenses associated with attendance at a convention or fact-finding mission or trip. Colorado Constitution Article XXIX, Section 3(2); C.R.S. § 24-18-104(1)(b) and (3).
2. No official or employee shall solicit, accept, or agree to accept any pecuniary benefit as compensation for having, as a public servant, given a decision, opinion, recommendation, or vote favorable to another, or for having otherwise exercised discretion in his or her favor. C.R.S. § 18-8-303(a). In addition, no official or employee shall solicit, accept or agree to accept any pecuniary benefit from another in exchange for appointing or nominating another as a candidate for public office. C.R.S. § 18-8-305(b).
3. No official or employee shall be interested in any contract made by them in their official capacity or by any body, agency, or board of which they are members or employees. For purposes of this section, "be interested in" does not include holding a minority interest in a corporation. It can include being an owner, an employee or prospective employee, a debtor, or an officer or director, of a contracting party. "Contract" does not include contracts awarded to the lowest responsible bidder based on competitive bidding procedures. Colorado Constitution Article XXIX, Section 1(1)(d); C.R.S. § 24-18-201(1); C.R.S. § 24-18-102(4).
4. An official or employee shall not perform an official act directly and substantially affecting to its economic benefit a business or other undertaking in which he either has a substantial financial interest or is engaged as counsel, consultant, representative, or agent. An "official action" means any vote, decision, recommendation, approval, disapproval, or other action, including inaction, which involves the use of discretionary authority. Colorado Constitution Article XXIX, Section 1(1)(d); C.R.S. § 24-18-108.5(2); C.R.S. § 24-18-109(2)(b).
5. An official or employee shall not engage in a substantial financial transaction for his private business purposes with a person whom he inspects or supervises in the course of his official duties. C.R.S. § 24-18-109(2)(a).
6. An official or employee shall not accept goods or services for his own personal benefit offered by a person who is at the same time providing goods or services to the local government for which the official or employee serves, under a contract or other means by which the person receives payment or other compensation from the local government,

unless the totality of the circumstances attendant to the acceptance of the goods or services indicates that the transaction is legitimate, the terms are fair to both parties, the transaction is supported by full and adequate consideration, and the official or employee does not receive any substantial benefit resulting from his or her official or governmental status that is unavailable to members of the public generally. C.R.S. § 24-18-104(2)(b); C.R.S. § 24-18-109(2)(c).

7. An official or employee shall not disclose or use confidential information acquired in the course of his official duties in order to further substantially his personal financial interests. C.R.S. § 24-18-104(1)(a); C.R.S. § 18-8-402
8. An official or employee who has a personal or private interest in any manner proposed or pending before the governing body shall disclose such interest to the governing body, shall not vote thereon, and shall refrain from attempting to influence the decisions of the other members of the governing board. An official or employee may nonetheless vote if his participation is necessary to obtain a quorum or otherwise enable the body to act and if he complies with the disclosure procedures under C.R.S. § 24-18-110. C.R.S. § 24-18-109(3).
9. An official or employee who exercises any substantial discretionary function in connection with a government contract, purchase, payment, or other pecuniary transaction, must give seventy-two (72) hours advance written notice to the secretary of state and to the governing body of the government which employs the official or employee of the existence of any known “potential conflicting interest.” A “potential conflicting interest” exists when the official or employee is a director, president, general manager, or similar executive officer or owns or controls directly or indirectly a substantial interest in any nongovernmental entity participating in the transaction. C.R.S. §18-8-308.
10. A former employee may not, within six months following the termination of his employment, contract with or be employed by an employer who contracts with a state agency or any local government involving matters with which he was directly involved during his employment. C.R.S. § 24-18-201.

The actual language of the constitutional and statutory ethics provisions are attached to this Ethics Code for reference purposes. Also attached are provisions of the statutes which, although not mandatory, are intended by the legislature as ethical guidelines.

ARTICLE IV - ETHICS COMMITTEE

Ethics Committee Hotline: 303.738.7995

1. Purpose and Applicability

The purpose of the Ethics Committee is to respond to inquiries and issue interpretations and advisory opinions regarding this Code of Ethics, to review and investigate ethics complaints, and to submit findings and recommendations to the Board of County Commissioners if the Ethics

Committee determines that this Code of Ethics has been violated.

If any County official or employee is in doubt as to the applicability of this Code of Ethics, he or she is encouraged to ask the Ethics Committee to review the situation and provide an advisory opinion. If anyone believes that an Arapahoe County official or employee is or may be in violation of this Code of Ethics, that person may submit a complaint to the Ethics Committee. Ethics complaints may be submitted by members of the public. Complaints may be submitted anonymously.

Ethics inquiries and/or complaints may be submitted through the Ethics Committee Hotline: 303.738.7995.

2. General Organization

- (a) The Ethics Committee shall be appointed by the Board of County Commissioners pursuant to County Resolution.
- (b) The Ethics Committee shall consist of five members. Each County Commissioner is to appoint one member to the Ethics Committee.
- (c) The term of appointment shall correspond with the appointing commissioner's term of office. The appointing commissioner may at any time withdraw his or her appointment of an individual and appoint a different person to the Ethics Committee.
- (d) The Ethics Committee shall self-elect a Chairman and Vice-Chairman from its membership. To the extent possible, the Chairman and Vice-Chairman shall be from different political parties, preferably parties with opposing political views (e.g., Republican and Democrat).

3. Conduct of Business-General

- (a) Meetings of the Ethics Committee shall comply with the provisions of the Colorado Open Meetings Law, C.R.S. Sections 24-6-401, *et seq.*, as amended.
- (b) The Chairman of the Ethics Committee shall schedule meetings or proceedings as the Committee deems necessary, on a case-by-case basis. Teleconferencing shall be permitted.
- (c) An attorney from the County Attorney's Office will attend Ethics Committee meetings at the request of the Chairman of the Ethics Committee.
- (d) Any action taken by the Ethics Committee shall require a majority vote of a quorum present. A quorum shall be three (3) or more members of the Ethics Committee. No member of the Ethics Committee may vote by proxy.
- (e) The Ethics Committee can at any time request legal input from the County Attorney's Office on issues related to the Code of Ethics.

4. Inquiry Process

- (a) When an inquiry is received, the Chairman and Vice-Chairman will consult in confidence to conduct an initial review. If the response to the inquiry is clear without further investigation or evaluation, a response shall be provided to the person making the inquiry. The members of the Ethics Committee shall be notified of the inquiry and the response.
- (b) If the inquiry requires further investigation or evaluation, then the Ethics Committee shall be convened. The Committee shall determine what investigation or other action is necessary to properly respond to the inquiry.
- (c) At the discretion of the Ethics Committee, the response to the inquiry may be in the form of a written advisory opinion. A copy of all written advisory opinions shall be provided to the Board of County Commissioners.

5. Complaint Process

- (a) The Chairman and the County Attorney's Office will coordinate to ensure that whenever a complaint is received, each person alleged to have violated this Code of Ethics will be notified of the complaint and of any action or decision of the Ethics Committee. Unless a complaint was submitted anonymously, the complainant will be notified of any final decision.
- (b) Upon receipt of a complaint, the Chairman and Vice-Chairman will consult in confidence to conduct an initial review. The Chairman and Vice-Chairman may immediately dismiss a complaint if it is, on its face, or after the initial review, clearly frivolous, groundless, brought for purposes of harassment, or the alleged violation, if true, clearly would not constitute a violation of this Code of Ethics. A complaint may also be dismissed if the Ethics Committee had previously issued an advisory opinion that identified the conduct as not being in violation of the Code of Ethics.
- (c) If a complaint is not dismissed during the screening process, the Ethics Committee shall promptly convene a meeting to consider the allegations and determine an appropriate course of action. The Ethics Committee is allowed flexibility and the use of discretion in determining the appropriate course of action for resolution of complaints.
- (d) If an investigation is warranted, the Ethics Committee may conduct the investigation or it may make assignments for carrying out any investigation. At the conclusion of the investigation, the Ethics Committee shall determine if there is proof beyond a reasonable doubt that this Code of Ethics has been violated.
- (e) If the Ethics Committee determines that this Code of Ethics has been violated, it shall prepare a written report containing its findings and any recommendations for the Board of County Commissioners. Such report shall be a confidential work product and shall not be subject to public disclosure as an inter-agency advisory or deliberative

report assembled for the benefit of the Board of County Commissioners which expresses an opinion or is communicated for the purpose of assisting the Board in reaching a decision within the scope of the Board's authority. *See* C.R.S. § 24-72-202(6.5).

- (f) Upon review of the Ethics Committee's report, the Board of County Commissioners will determine whether to accept or deny the committee's recommendation and whether any further action is necessary.



Board Summary Report

Date: November 29, 2016

To: Board of County Commissioners

Through: Ronald A. Carl, County Attorney

From: Karen Thompson, Paralegal

Subject: Approval of BAA Stipulation (1 Resolution Number)

Request and Recommendation

The purpose of this request is for the adoption of a resolution approving the Board of Assessment Appeals (BAA) stipulations listed below.

Background

These stipulations are a result of an agreement reached between the taxpayer and the County regarding a reduction in the amount of property tax owed, settling tax protests filed with the BAA.

Discussion

The following BAA docket numbers have been stipulated to for the tax year(s) indicated below.

Tax Year	Docket #	Property Owner	Property Address	Code	Original Value	Stipulated Value
2013/ 2014	68931	Amber Communities, Inc.	Vacant Land	1.	\$168,000	\$156,000
2015/ 2016	68936	Vaka Reddy & Sarwani Ronda	20598 East Hamilton Circle	1.	\$305,900	\$280,000
2015/ 2016	69604	Lazy Hills LLC	6202 South Parker Road	2.	\$7,694,000	\$7,300,000
2016	69633	MCSS LLC	Vacant Land	1.	\$529,783	\$464,191

Code

1. Comparable market sales indicate that adjustment to this value is correct.
2. Comparable market sales and review of appraisal provided by petitioner indicate that adjustment to this value is correct.

Alternatives

Let protest proceed to the BAA for a decision. Said alternative would involve unnecessary time and expense for the County and the taxpayer.

Fiscal Impact

Reduction in the amount of property taxes collected for the above listed properties.

Concurrence

The negotiator for the County Board of Equalization, the County Assessor and the County Attorney all support this recommendation.

Reviewed By:

Ronald A. Carl, County Attorney
Karen Thompsen, Paralegal

RESOLUTION NO. 160XXX It was moved by Commissioner _____ and duly seconded by Commissioner _____ to authorize the Arapahoe County Attorney to settle the following Board of Assessment Appeals Cases (Docket Numbers), for the tax years listed below:

Docket #	Property Owner	Tax Year
-----------------	-----------------------	-----------------

After review by the County Attorney's Office, in conjunction with the Arapahoe County Assessor's Office and the Petitioners, evidence was submitted which supported the Stipulation and Petitioner agreed to a new value. The Assessor has recommended approval pursuant to the terms contained within the Stipulations. Based upon the evidence submitted to the Board on this date, the Board has no reason not to concur with the proposed Stipulations.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ;
Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.



Board Summary Report

Date: December 2, 2016

To: Board of County Commissioners

Through: Ronald A. Carl, County Attorney

From: Karen Thompsen, Paralegal

Subject: Approval of BAA Stipulation (1 Resolution Number)

Request and Recommendation

The purpose of this request is for the adoption of a resolution approving the Board of Assessment Appeals (BAA) stipulations listed below.

Background

These stipulations are a result of an agreement reached between the taxpayer and the County regarding a reduction in the amount of property tax owed, settling tax protests filed with the BAA.

Discussion

The following BAA docket numbers have been stipulated to for the tax year(s) indicated below.

Tax Year	Docket #	Property Owner	Property Address	Code	Original Value	Stipulated Value
2016	69106	South Prince LLC/John Unruh	5664 South Prince Street	1.	\$367,000	\$230,000
2016	69322	Value Place Aurora, LLC	575 Billings Street	2.	\$2,420,000	\$2,420,000
2016	69329	Windsor at Meadow Hills, LP	4260 South Cimarron Way	3.	\$47,011,600	\$46,169,500

Code

1. Income and sales comparison approaches indicate that adjustment to this value is correct.
2. No change in value. Subject is extended stay lodging & breakdown based on number of extended stay rooms.

3. Comparable market sales indicate that adjustment to this value is correct. In addition, 2016 value adjusted to match parties' earlier stipulation to tax year 2015 value for same schedule numbers.

Alternatives

Let protest proceed to the BAA for a decision. Said alternative would involve unnecessary time and expense for the County and the taxpayer.

Fiscal Impact

Reduction in the amount of property taxes collected for the above listed properties.

Concurrence

The negotiator for the County Board of Equalization, the County Assessor and the County Attorney all support this recommendation.

Reviewed By:

Ronald A. Carl, County Attorney
Karen Thompsen, Paralegal

RESOLUTION NO. 160XXX It was moved by Commissioner _____ and duly seconded by Commissioner _____ to authorize the Arapahoe County Attorney to settle the following Board of Assessment Appeals Cases (Docket Numbers), for the tax years listed below:

Docket #	Property Owner	Tax Year
-----------------	-----------------------	-----------------

After review by the County Attorney's Office, in conjunction with the Arapahoe County Assessor's Office and the Petitioners, evidence was submitted which supported the Stipulation and Petitioner agreed to a new value. The Assessor has recommended approval pursuant to the terms contained within the Stipulations. Based upon the evidence submitted to the Board on this date, the Board has no reason not to concur with the proposed Stipulations.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ;
Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.



Board Summary Report

Date: November 15, 2016

To: Board of County Commissioners

From: Matt Crane, Arapahoe County Clerk and Recorder

Subject: Request for Cash Operating Funds for Five Motor Vehicle Renewal Kiosks

Request and Recommendation

Arapahoe County Clerk and Recorder Matt Crane requests and recommends approval of an increase in the cash operating funds, pursuant to Financial Policy 7.9, to be utilized in the Motor Vehicle Division within Arapahoe County.

Background

The Motor Vehicle Office needs to maintain cash change in the Motor Vehicle renewal kiosks for customers. Pursuant to Financial Policy 7.9, the Board of County Commissioners must approve the establishment, increase and/or modification of any and all cash drawer pool funds. The Clerk and Records Office, in conjunction with the County Clerks Association, proposed the implementation of Motor Vehicle renewal kiosks to the Colorado Legislation. The renewal kiosks have proven successful in 8 other States.

Discussion

Arapahoe County is leading the State of Colorado in this project and will pilot the Motor Vehicle renewal kiosks. The launch of this project will provide efficiencies of scale, allowing customers to renew their Motor Vehicle registrations from the kiosk decreasing wait times within Motor Vehicle offices. Customers will have the ability to walk up to a renewal kiosk at their convenience, scan their renewal card or enter their Motor Vehicle license plate or title number and select their form of payment. The renewal kiosk will issue a new vehicle registration, license plate year tab, receipt and cash change (if applicable). Initial testing will launch on December 12th with full implementation in February 2017 at 3 motor vehicle branch locations.

Alternatives

Taking No Action: Customers will have to pay with exact change or use another form of payment or potentially experience longer wait times by visiting an office. This would be an inconvenience for many people.

Approving Recommendation: Having cash change available for distribution will streamline business transactions, allow for greater flexibility for customers to choose a form of payment that is convenient for them and alleviate customers from waiting in lines.

Fiscal Impact

\$4000.00 Fund 91 GL 13350

2 initial tester kiosks at \$500 each

3 branch kiosks at \$1,000 each

Authorization regarding Cash Operating Funds for Motor Vehicle Kiosks

RESOLUTION NO 16_____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to authorize the Clerk & Recorder to increase its cash operating funds by \$4,000 to have cash operating funds for the Motor Vehicle renewal kiosks that will go into operation in February 2017.

The vote was:

Commissioner Bockenfeld,; Commissioner Doty,; Commissioner Holen,; Commissioner Jackson,; Commissioner Sharpe,.

The Chair declared the motion carried and so ordered.



Board Summary Report

Date: November 29, 2016

To: Board of County Commissioners

From: Todd Weaver, Budget Manager

Subject: Proposed Resolution Certifying Prosecution Costs to the Department of Corrections

Information

The Department of Corrections is responsible for reimbursing the counties of the Office of the District Attorney for the 18th Judicial District for the costs of prosecuting criminal cases in which the defendant, at the time of the criminal act, was in the custody of the Department of Corrections (DOC). Pursuant to State statute, in order for the County to receive its portion of the reimbursement, the Board of County Commissioners is required to adopt a resolution that certifies these costs to the DOC. This Board Summary Report provides information about the process, including the amount of reimbursable costs.

Request and Recommendation

The Office of the District Attorney requests that the Board of County Commissioners adopt a resolution related to the costs of prosecuting criminal cases in which the defendant, at the time of the criminal act, was in the custody of the Department of Corrections (DOC). The proposed resolution certifies the costs to the DOC, for the purposes of Section 16-18-101 (3), C.R.S., so that the DOC can reimburse Arapahoe County for its portion of these costs. The costs are identified in Exhibit A, which accompanies the resolution. It is recommended that the Board adopt the resolution.

Background

Pursuant to Section 16-18-101 (3), C.R.S., the Department of Corrections shall reimburse the counties in a judicial district for the cost of prosecuting any crime alleged to have been committed by a person in DOC custody. The counties shall certify these costs to the Department, and upon approval of the Executive Director of the Department, the costs shall be reimbursed. The reimbursement applies only to those costs that are not otherwise paid by the State. The costs were incurred by the Office of the District Attorney during the State fiscal year 2015 – 2016 (July 1, 2015 thru June 30, 2016).

The Office of the District Attorney has prepared billings for the costs, has confirmed the accuracy of the billings, and is now submitting them to Arapahoe, Douglas, Elbert, and Lincoln Counties so that the counties can certify the costs to the DOC. The proposed resolution explains that the County's certification relies upon the confirmation of the accuracy of the information that was provided by the Office of the District Attorney, 18th Judicial District.

Links to Align Arapahoe

This request supports the Align Arapahoe objective of optimizing the use of financial resources because it seeks to recoup the costs that the Office of the District Attorney, 18th Judicial District,

incurred while providing services on behalf of the State. Given that the County provides a portion of the funds to operate the Office of the District Attorney, County funds were used to provide these services. The request allows the County to seek reimbursement as permissible by Colorado State statute.

Discussion

Section 16-18-101 (3), C.R.S., was enacted because the costs of prosecuting crimes committed by a person in the custody of the DOC can be significant, and the Legislature believed that these costs should be borne by the State, not by the counties in which the DOC facilities are located. In the past, the DOC was unwilling to reimburse these costs due to challenges raised by the defendants in the criminal cases, and due to the statutory requirement that the counties “certify” the costs to the DOC.

State statute does not define whether a county, in order to “certify” the costs to the DOC, must independently verify the accuracy of the costs. There is no Colorado case law interpreting the meaning of this statutory language. Since the Office of the District Attorney receives its primary funding from the counties within the judicial district, and because the Office of the District Attorney has prosecuted these criminal cases, it is reasonable for the County to rely on the Office’s confirmation that the costs are accurate. Supervisory personnel in the Office of the District Attorney, 18th Judicial District, who have direct knowledge of the costs of prosecution for these cases, have confirmed the accuracy of the costs and that the DOC has not previously reimbursed these costs.

Alternatives

Adopting the proposed resolution: It is expected that adopting the proposed resolution will result in the DOC reimbursing to the Counties the identified prosecution costs.

Postponing action: If action is postponed, it is unknown whether the DOC will have funds within its budget to reimburse these costs if the amount is certified in the future. The DOC recently indicated that it is currently willing to reimburse costs that the counties certify. The reimbursement is contingent upon final approval by the Executive Director of the DOC, and it is unknown whether any future occurrences might affect this approval. It is possible that postponing action could result in Arapahoe County foregoing the ability to be reimbursed for these costs.

Taking no action: The prosecution costs have already been incurred. In accordance with Section 16-18-101 (3), C.R.S., the DOC has indicated that it will not reimburse these costs unless the County certifies them. If the Board of County Commissioners decides to not certify the costs, Arapahoe County will forego the opportunity to be reimbursed.

Fiscal Impact

The adoption of this resolution should enable Arapahoe County to be reimbursed by the DOC for the prosecution costs that have already been incurred. The Office of the District Attorney anticipates that the County’s portion of costs incurred by the 18th Judicial District is \$4,506.73. Adoption of the resolution should not require Arapahoe County to expend any funds.

Approved By:

Janet Kennedy, Finance Director
John Christofferson, Deputy County Attorney

RESOLUTION NO. 160____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, Section 16-18-101 (3), C.R.S., provides that the Department of Corrections, from annual appropriations made by the General Assembly, shall reimburse the county or counties in a judicial district for the costs of prosecuting any crime alleged to have been committed by a person in the custody of the Department; and

WHEREAS, Section 16-18-101 (3), C.R.S., provides that the county or counties shall certify these costs to the Department; and

WHEREAS, Section 16-18-101 (3), C.R.S., provides that this provision shall apply to costs that are not otherwise paid by the State; and

WHEREAS, the District Attorney for the Eighteenth Judicial District has prepared a document identified as Exhibit A, which document describes the costs of prosecuting a crime or crimes alleged to have been committed by a person or persons in the custody of the Department of Corrections in matters prosecuted by the Office of the District Attorney for the Eighteenth Judicial District, which serves Arapahoe, Douglas, Elbert, and Lincoln Counties; and

WHEREAS, the Office of the District Attorney for the Eighteenth Judicial District has confirmed the accuracy of these bills as set forth in Exhibit A to Arapahoe, Douglas, Elbert, and Lincoln Counties and the Counties are now forwarding and certifying such bills to the Department of Corrections relying on such confirmation of the District Attorney.

NOW, THEREFORE, BE IT RESOLVED, by the Board of County Commissioners of the County of Arapahoe, State of Colorado, as follows:

1. The costs in Exhibit A are certified to the Department of Corrections.
2. The costs in Exhibit A have not otherwise been paid by the State.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

All Limon Correctional Facility Prosecution Expenses Summary
District Attorney Employee Compensation and Associated Costs
Related to Colorado Department of Corrections (DOC) - Limon Facility

DOC Fiscal Year - July 1st thru June 30th

2015

2016

Percentage & Dollar Amounts of Total Expenses to be Billed to DOC
County & District Attorney Fiscal Year Runs - January 1st thru December 31st
DOC Fiscal Year Runs - July 1st thru June 30th

County Percentages

The chart below reflects the total amounts owed by DOC to each of the Four Counties. The amounts owed to each of the Four Counties is calculated upon the population percentage of each County in relationship to the total population of the 18th Judicial District within a Calendar Year. Because portions of two Calendar Years are contained within DOC's Fiscal Year, each of the two years is assigned different County percentages. The percentage owed to each County is calculated separately for each of the portions of the two years within DOC's Fiscal Year, and then added together to give the total amount to be billed (invoiced) to DOC by each of the Four Counties for the Billing Cycle.

County	DOC First Quarter	DOC Second Quarter	DOC Third Quarter	DOC Fourth Quarter
Arapahoe	\$1,399.57	\$1,307.93	\$540.77	\$1,258.46
Calendar Year Within DOC Fiscal Year	2015		2016	
Percent Applied to County	64.4100%		64.2400%	
Calendar Year Total to be Billed to DOC	\$2,707.50		\$1,799.23	
Fiscal Year Total to be Billed to DOC	\$4,506.73			
County	DOC First Quarter	DOC Second Quarter	DOC Third Quarter	DOC Fourth Quarter
Douglas	\$706.20	\$659.95	\$275.10	\$640.20
Calendar Year Within DOC Fiscal Year	2015		2016	
Percent Applied to County	32.5000%		32.6800%	
Calendar Year Total to be Billed to DOC	\$1,366.15		\$915.30	
Fiscal Year Total to be Billed to DOC	\$2,281.45			
County	DOC First Quarter	DOC Second Quarter	DOC Third Quarter	DOC Fourth Quarter
Elbert	\$54.54	\$50.97	\$21.13	\$49.17
Calendar Year Within DOC Fiscal Year	2015		2016	
Percent Applied to County	2.5100%		2.5100%	
Calendar Year Total to be Billed to DOC	\$105.51		\$70.30	
Fiscal Year Total to be Billed to DOC	\$175.81			
County	DOC First Quarter	DOC Second Quarter	DOC Third Quarter	DOC Fourth Quarter
Lincoln	\$12.60	\$11.78	\$4.80	\$11.17
Calendar Year Within DOC Fiscal Year	2015		2016	
Percent Applied to County	0.5800%		0.5700%	
Calendar Year Total to be Billed to DOC	\$24.38		\$15.96	
Fiscal Year Total to be Billed to DOC	\$40.35			
District	DOC First Quarter	DOC Second Quarter	DOC Third Quarter	DOC Fourth Quarter
Entire 18th Judicial District	\$2,172.91	\$2,030.63	\$841.80	\$1,958.99
Calendar Year Within DOC Fiscal Year	2015		2016	
Percent Applied to All Counties Combined	100.0000%		100.0000%	
Calendar Year Total to be Billed to DOC	\$4,203.54		\$2,800.79	
Fiscal Year Total to be Billed to DOC	\$7,004.33			



Board Summary Report

Date: November 3, 2016

To: Board of County Commissioners

Through: David C. Walcher,

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Agreement for Dispatch Services for the City of Cherry Hills Village

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Dispatch Services with City of Cherry Hills Village.

Background

The Arapahoe County Sheriff's Office had provided Dispatch Services to the City of Cherry Hills Village since at least 1997 at no cost. In 2009, the ACSO began charging for the services to maintain continuity with other contractual agreements with local municipalities.

Links to Align Arapahoe

The Arapahoe County Sheriff's Office provides public safety communication services to the City of Cherry Hills Village. This increases regional and community partnerships.

Discussion

A working relationship has been established between the Arapahoe County Sheriff's Office and the City of Cherry Hills Village. The Sheriff's Office would like to continue this relationship through the Agreement for Dispatch Services.

Alternatives

If the Board declines this agreement, the City of Cherry Hills Village will have to initiate a search for another form of dispatch services. During the search, the citizens of Cherry Hills Village will be without dispatch services. In addition, the Arapahoe County Sheriff's Office would not receive the contract funds the Agreement provides.

Fiscal Impact

The Agreement for Dispatch Services will generate \$91,664.00 in revenue for the Arapahoe County Sheriff's Office.

Concurrence

The Sheriff's Office Administration and Support Services Bureau are in concurrence with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Larry Etheridge, Support Services Bureau Chief
Louie Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the 2017 Agreement for Dispatch Services for the City of Cherry Hills Village by and between Arapahoe County and Cherry Hills Village for the provision of dispatch services by the Arapahoe County Sheriff's Office within the City of Cherry Hills Village, for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$91,664.00 pursuant to the terms contained therein.

Commissioner Bockenfeld, ; Commissioner Doty ; Commissioner Holen ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR DISPATCH SERVICES

THIS AGREEMENT is made and entered into by and between the CITY OF CHERRY HILLS VILLAGE, a municipal corporation of the State of Colorado, hereinafter referred to as "City" and THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF ARAPAHOE, hereinafter referred to as "County," on behalf of the Arapahoe County Sheriff.

WITNESSETH:

WHEREAS, Section 30-11-410, C.R.S. as amended, authorizes the County to contract with a municipality for the purpose of providing law enforcement services by the Sheriff within the boundaries of the municipality; and

WHEREAS, Section 29-1-203 authorized the City and County to enter into agreements for the provision of services within each other's jurisdiction; and

WHEREAS, the County, in the interest of the health, safety and welfare of the residents of the City, deems it advisable to enter into this Agreement for Dispatch Services ("Agreement"); and

WHEREAS, the County has decided to execute any future agreements on a fiscal year basis.

NOW, THEREFORE, in consideration of the foregoing, it is agreed as follows:

1. The Arapahoe County Sheriff's Office ("Sheriff") shall provide Dispatch Services within the boundaries of the City.
2. The Dispatch Services to be provided by the Sheriff within the boundaries of the City shall be similar to the Dispatch Services provided in other unincorporated and incorporated areas of the County of Arapahoe. For purposes of this Agreement, Dispatch Services shall mean receiving calls for service and dispatching them to appropriate Cherry Hills Village law enforcement personnel, and entering information into the Colorado Crime Information Center (CCIC) to include, but not be limited to, missing persons, stolen and recovered automobiles, and vehicle impound information.
3. The term of the Agreement shall commence as of January 1, 2017 and shall end as of December 31, 2017.
4. For the Dispatch Services provided under this Agreement, the City shall pay to the County \$91,664.00, which is the cost for performing Dispatch Services for the City for the term of this Agreement. Payment of said \$91,664.00 shall be made to the County upon execution of this Agreement by the City.

5. The Dispatch Services provided pursuant to this Agreement shall be performed by the communications personnel of the Sheriff. The Sheriff's staff shall be responsible for maintaining all records relating to the services performed. The Sheriff shall be considered the "custodian of record" regarding any audio recording of radio or telephone conversations that is recorded by the County that pertains to the City within the City's jurisdiction. The Sheriff shall provide an electronic copy of audio recordings of any radio or telephone conversations, pertaining to the electronic copy of audio recordings of any radio or telephone conversations, pertaining to the City, within 21 business days of any City written request, at no additional cost to the City, and shall notify the City within three (3) business days of any open records request it receives regarding audio recordings pertaining to the City.
6. The County is, and shall at all times be deemed to be, an independent contractor. Nothing in this Agreement shall be construed as creating the relationship of employer or employee between the City and the County or any of the County's agents or employees. To the extent this Agreement creates a principal-agent relationship between the County and the City, such relationship confers on the County and its employees the authority to act on the City's behalf only as to matters covered by this Agreement. The County shall retain all authority for rendition of the services covered by this Agreement, including standards of performance, control of personnel (including discipline), and other matters incidental to the performance of the services by the County. Nothing in this Agreement shall make any employee of the City a County employee or any employee of the County a City employee for any purpose, including, but not limited to, withholding of taxes, payment of benefits, worker's compensation, or any other rights or privileges accorded County or City employees by virtue of their employment.
7. Nothing in this Agreement shall be construed as a waiver by either party of the protections afforded them pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.*, C.R.S. ("CGIA") as same may be amended from time to time. Specifically, neither party waives the monetary limitations or any other rights, immunities or protections afforded by the CGIA or otherwise available at law.
8. The County does not intend by the Agreement to assume any contractual obligations to anyone other than the City, and the City does not intend by the Agreement to assume any contractual obligation to anyone other than the County. The County and City do not intend that there be any third-party beneficiary to this Agreement.

9. Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the other party in writing.
10. This Agreement may not be modified, amended or otherwise altered unless mutually agreed upon in writing by the parties hereto.
11. The City is not responsible for Worker's Compensation claims of Sheriff's employees working under this Agreement.
12. The City further agrees to carry Workers Compensation coverage for the City employees as required by Colorado law.
13. Either party may terminate this Agreement, with or without good cause shown, upon 120 days written notice to the other party prior to termination. In the event of termination by the County, no damages, liquidated or otherwise, shall inure to the benefit of the County; however, the County will refund a pro-rated portion of the fee paid pursuant to paragraph 4 above.
14. Unless otherwise agreed in writing, this Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado.
15. Notices to be provided under this Agreement shall be given in writing either by hand delivery, or deposited in the United States mail, with sufficient postage, to the following persons:

Arapahoe County Office
Of the County Attorney
5334 South Prince Street
Littleton, Colorado 80120-1136

Arapahoe County Sheriff
Arapahoe County Sheriff's Office
13101 East Broncos Parkway
Centennial, Colorado 80112

City Clerk
City of Cherry Hills Village
2450 East Quincy Avenue
Cherry Hills Village, CO 80113

Chief of Police
City of Cherry Hills Village
2450 East Quincy Avenue
Cherry Hills Village, CO 80113


16. This Agreement may be executed in counterparts.

EXECUTED this _____ day of _____,

ATTEST:


CITY OF CHERRY HILLS VILLAGE

City Clerk



Mayor

Approved as to form:



City Attorney

ATTEST:

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE

Chair

ARAPAHOE COUNTY SHERIFF

David C. Walcher, Sheriff



David C. Walcher
Sheriff

OFFICE OF THE SHERIFF
13101 E. Broncos Parkway
Centennial, Colorado 80112
Phone: 720-874-4176
Fax: 720-874-4158
www.arapahoesherriff.org
sheriff@arapahoegov.com

Board Summary Report

Date: November 22, 2016
To: Board of County Commissioners
Through: David C. Walcher, Sheriff
From: Olga Fajaros, Budget & Logistics Manager
Subject: 2017 Agreement for Dispatch Services for the City of Sheridan

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Dispatch Services with the City of Sheridan.

Background

In 2010, representatives of the City of Sheridan and the Arapahoe County Sheriff's Office determined that an agreement for dispatch services, provided by the Sheriff's Office, serves the best public safety interests of the people of the City of Sheridan. The Sheriff's Office has provided Dispatch Services to the City of Sheridan since 2010.

Links to Align Arapahoe

The Arapahoe County Sheriff's Office provides public safety communication services to the City of Sheridan, increasing regional and community partnerships.

Discussion

A working relationship has been established between the Arapahoe County Sheriff's Office and the City of Sheridan. The Sheriff's Office would like to continue this relationship through the Agreement for Dispatch Services.

Alternatives

If the Board declines this agreement, the City of Sheridan will have to initiate a search for another form of dispatch services. During the search, the citizens of Sheridan will be without dispatch services. In addition, the Arapahoe County Sheriff's Office would not receive the contract funds

the Agreement provides. Failure to execute the public safety communications services agreement will place the Sheridan Police Department in a very difficult position and would have an extraordinarily adverse impact upon the level of public safety services provided to the community.

Fiscal Impact

The Agreement for Dispatch Services will generate 189,801.00 in revenue for the Arapahoe County Sheriff's Office.

Concurrence

The Sheriff's Office Administration and Support Services Bureau are in concurrence with this decision.

Attorney Comments

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Larry Etheridge, Support Services Bureau Chief
Louie Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the 2017 Agreement for Dispatch Services for the City of Sheridan by and between Arapahoe County and the City of Sheridan for the provision of dispatch services by the Arapahoe County Sheriff's Office within the City of Sheridan, for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$189,801.00, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, : Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR DISPATCH SERVICES

THIS AGREEMENT is made and entered into by and between the CITY OF SHERIDAN, a municipal corporation of the State of Colorado, hereinafter referred to as "City" and THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF ARAPAHOE, hereinafter referred to as "County," on behalf of the Arapahoe County Sheriff.

WITNESSETH:

WHEREAS, Section 30-11-410, C.R.S. as amended, authorizes the County to contract with a municipality for the purpose of providing law enforcement services by the Sheriff within the boundaries of the municipality; and

WHEREAS, the City has requested that the County provide public safety communications dispatch services ("Dispatch Services") to the City, which the parties agree are included within the definition of law enforcement services referenced in said Section 30-11-410; and

WHEREAS, the County, in the interest of the health, safety and welfare of the residents of the City, deems it advisable to enter into this Agreement for Dispatch Services ("Agreement"); and

WHEREAS, the County has decided to execute any future agreements on a fiscal year basis.

NOW, THEREFORE, in consideration of the foregoing, it is agreed as follows:

1. The Arapahoe County Sheriff's Office ("Sheriff") shall provide Dispatch Services within the boundaries of the City.
2. The Dispatch Services to be provided by the Sheriff within the boundaries of the City shall be similar to the Dispatch Services provided in other unincorporated and incorporated areas of the County of Arapahoe. For purposes of this Agreement, Dispatch Services shall mean receiving calls for service and dispatching them to appropriate Sheridan law enforcement personnel, and entering information into the Colorado Crime Information Center (CCIC) to include, but not be limited to, missing persons, stolen and recovered automobiles, and vehicle impound information.
3. The term of the Agreement shall commence as of January 1, 2017, and shall end as of December 31, 2017.
4. For the Dispatch Services provided under this Agreement, the City shall pay to the County \$189,801.00, which is the cost for performing Dispatch Services for the City for the term of this

agreement. Payment of said \$189,801.00 shall be made to the County upon execution of this Agreement by the City in monthly installments of \$15,816.75 due by the first day of each month.

5. The Dispatch Services provided pursuant to this Agreement shall be performed by the communications personnel of the Sheriff. The Sheriff's staff shall be responsible for maintaining all records relating to the services performed.
6. The County is, and shall at all times be deemed to be, an independent contractor. Nothing in this Agreement shall be construed as creating the relationship of employer or employee between the City and the County or any of the County's agents or employees. To the extent this Agreement creates a principal-agent relationship between the County and the City, such relationship confers on the County and its employees the authority to act on the City's behalf only as to matters covered by this Agreement. The County shall retain all authority for rendition of the services covered by this Agreement, including standards of performance, control of personnel (including discipline), and other matters incidental to the performance of the services by the County. Nothing in this Agreement shall make any employee of the City a County employee or any employee of the County a City employee for any purpose, including, but not limited to, withholding of taxes, payment of benefits, worker's compensation, or any other rights or privileges accorded County or City employees by virtue of their employment.
7. Nothing in this Agreement shall be construed as a waiver by either party of the protections afforded them pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.*, C.R.S. ("CGIA") as same may be amended from time to time. Specifically, neither party waives the monetary limitations or any other rights, immunities or protections afforded by the CGIA or otherwise available at law. If any waiver by the City results in a waiver of protections afforded to the County, the City shall, to the extent allowed by law, indemnify and hold harmless the County for such actions. If any waiver by the County results in a waiver of the protections afforded to the City, the County shall, to the extent allowed by law, indemnify and hold harmless the City for such actions. Further, the County shall not be responsible for any claim against the City which arises out of services not performed by the County pursuant to this Agreement.
8. The County does not intend by this Agreement to assume any contractual obligations to anyone other than the City, and the City does not intend by this Agreement to assume any contractual

obligation to anyone other than the County. The County and City do not intend that there be any third-party beneficiary to this Agreement.

9. Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the other party in writing.
10. This Agreement may not be modified, amended or otherwise altered unless mutually agreed upon in writing by the parties hereto.
11. The City is not responsible for Worker's Compensation claims of Sheriff's employees working under this Agreement.
12. The City agrees to carry Comprehensive General Liability Insurance with a minimum \$1,000,000.00 limit of liability. Arapahoe County and the Sheriff and his employees will be named as additional insureds under this policy. The City shall provide the County with a Certificate reflecting that coverage.
13. The City further agrees to carry Workers Compensation coverage for City employees as required by Colorado law.
14. Either party may terminate this Agreement, with or without good cause shown, upon 30 days written notice to the other party prior to termination. In the event of termination by the County, no damages, liquidated or otherwise, shall inure to the benefit of the County; however, the County will refund a pro-rated portion of the fee paid pursuant to paragraph 4 above.
15. Unless otherwise agreed in writing, this Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado.
16. Notices to be provided under this Agreement shall be given in writing either by hand delivery, or deposited in the United States mail, with sufficient postage, to the following persons:

Arapahoe County Office
Of the County Attorney
5334 South Prince Street
Littleton, Colorado 80120-1136

Arapahoe County Sheriff
Arapahoe County Sheriff's Office
13101 East Broncos Parkway
Centennial, Colorado 80112

City Clerk
City of Sheridan
4101 South Federal Blvd.
Sheridan, CO 80110

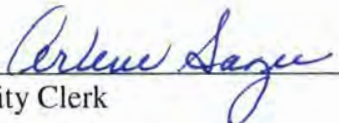
Chief of Police
City of Sheridan
4101 South Federal Blvd.
Sheridan, CO 80110

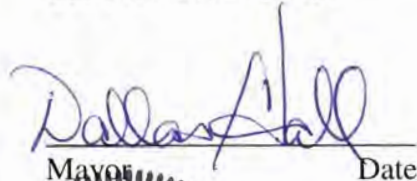
17. This Agreement may be executed in counterparts.

EXECUTED this 24th day of October 2016.


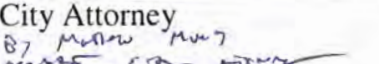
ATTEST:

CITY OF SHERIDAN


City Clerk


Mayor Date

Approved as to form:


City Attorney
BY 
ATTEST:



BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE

Chair Date

ARAPAHOE COUNTY SHERIFF

David C. Walcher, Sheriff Date



Board Summary Report

Date: November 22, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Agreement for Dispatch Services for the Town of Columbine Valley

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Dispatch Services with the Town of Columbine Valley.

Background

Historically, the Arapahoe County Sheriff's Office had provided Dispatch services to the Columbine Valley Police Department at no cost. In 2009 the ACSO began charging for the services to maintain continuity with other contractual agreements with local municipalities.

Links to Align Arapahoe

The Arapahoe County Sheriff's Office provides public safety communication services to the Columbine Valley Police Department, increasing regional and community partnerships.

Discussion

A working relationship has been established between the Arapahoe County Sheriff's Office and the Town of Columbine Valley and the Sheriff's Office would like to continue this relationship through the Agreement for Dispatch Services.

Alternatives

If the Board declines this Agreement, the Town of Columbine Valley will have to initiate a search for another form of Dispatch Services. During the search, the citizens of the Town of Columbine Valley will be without dispatch services and the Arapahoe County Sheriff's Office would not receive the contracted funds the Agreement provides.

Fiscal Impact

The Agreement for Dispatch Services will generate \$26,380.00 in revenue for the Arapahoe County Sheriff's Office.

Concurrence

The Sheriff's Office Administration and Support Services Bureau are in concurrence with this decision.

Attorney Comments

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Larry Etheridge, Support Services Bureau Chief
Louie Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services by and between Arapahoe County and the Town Columbine Valley for the provision of dispatch services by the Arapahoe County Sheriff's Office for the term January 1, 2017 through December 31, 2017, for payment in the amount of \$26,380.00 from Town of Columbine Valley annually, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ;
Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR SERVICES

THIS AGREEMENT made and entered into by and between the TOWN OF COLUMBINE VALLEY, a municipal corporation of the State of Colorado, hereinafter referred to as "Columbine Valley" and THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF ARAPAHOE, hereinafter referred to as "County", on behalf of the Arapahoe County Sheriff.

WITNESSETH:

WHEREAS, Section 30-11-410, C.R.S. as amended, authorizes the County to contract with a municipality for the purposes of providing law enforcement services by the Sheriff within the boundaries of the municipality; and

WHEREAS, Columbine Valley has requested that the County provide public safety communications dispatch services ("Dispatch Services") to Columbine Valley and Bow Mar, which the parties agree are included within the definition of law enforcement services referenced in said Section 30-11-410; and

WHEREAS, the County, in the interest of the health, safety and welfare of the residents of the Columbine Valley and Bow Mar, deems it advisable to enter into this contract; and

WHEREAS, the County has determined to execute future agreements on a fiscal year basis; and

NOW THEREFORE, in consideration of the premises, it is agreed as follows:

1. The Arapahoe County Sheriff's Office ("Sheriff") shall provide Dispatch Services within the boundaries of Columbine Valley and Bow Mar.
2. The Dispatch Services to be provided by the Sheriff within the boundaries of Columbine Valley and Bow Mar shall be similar to the Dispatch Services provided in other unincorporated and incorporated areas of the County of Arapahoe. For purposes of this Agreement, Dispatch Services shall mean receiving calls for service and dispatching them to appropriate Columbine Valley law enforcement personnel, and entering information into the Colorado Crime Information Center (CCIC) to include, but not be limited to, missing persons, stolen and recovered automobiles, and vehicle impound information.
3. The term of this Agreement shall commence as of January 1, 2017, and shall end as of December 31, 2017.
4. For the Dispatch Services provided under this Agreement, Columbine Valley shall pay to the County \$26,380.00, which is the cost for performing communication services in both Columbine Valley and Bow Mar for the term of this Agreement. Payment of said \$26,380.00 shall be made to the County in quarterly installments of \$6,595.00 each, with the first payment due on or before March 21, 2017, and subsequent quarterly payments to be paid on or before the 15th day of June, September, and December of 2017.
5. The Dispatch services provided pursuant to this Agreement shall be performed by

the communications personnel of the Sheriff. The Sheriff's staff shall be responsible for maintaining all records relating to the services performed.

6. The County is, and shall at all times be deemed to be, an independent contractor. Nothing in this Agreement shall be construed as creating the relationship of employer or employee between Columbine Valley and/or Bow Mar and the County or any of the County's agents or employees. To the extent this Agreement creates a principal-agent relationship between the County and the Columbine Valley and/or Bow Mar, such relationship confers on the County and its employees the authority to act on the Columbine Valley's behalf only as to matters covered by this Agreement. The County shall retain all authority for rendition of the services covered by this Agreement, including standards of performance, control of personnel (including discipline), and other matters incidental to the performance of the services by the County. Nothing in this Agreement shall make any employee of Columbine Valley and/or Bow Mar a County employee or any employee of the County an employee of Columbine Valley or Bow Mar for any purpose, including, but not limited to, withholding of taxes, payment of benefits, worker's compensation, or any other rights or privileges accorded County or Columbine Valley and/or Bow Mar employees by virtue of their employment.
7. Nothing in this Agreement shall be construed as a waiver by any of the parties of the protections afforded them pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.*, C.R.S. ("CGIA") as same may be amended from time to time. Specifically, neither party waives the monetary limitations or any other rights, immunities or protections afforded by the CGIA or otherwise available at law. If any waiver by Columbine Valley or Bow Mar results in a waiver of protections afforded to the County, Columbine Valley shall, to the extent allowed by law, indemnify and hold harmless the County for such actions. If any waiver by the County results in a waiver of the protections afforded to Columbine Valley, the County shall, to the extent allowed by law, indemnify and hold harmless Columbine Valley for such actions. Further, the County shall not be responsible for any claim against Columbine Valley and/or Bow Mar which arises out of services not performed by the County pursuant to this Agreement.
8. This Agreement may not be modified, amended or otherwise altered unless mutually agreed upon in writing by the parties hereto.
9. Neither Columbine Valley nor Bow Mar are responsible for Worker's Compensation claims of Sheriff's employees working under this Agreement.
10. Columbine Valley agrees to maintain General Liability Insurance with a minimum \$1,000,000.00 limit of liability. Arapahoe County, the Arapahoe County Sheriff and his employees will be named insureds under the policies. Columbine Valley shall provide the County with a Certificate reflecting that coverage.
11. Columbine Valley further agrees to carry Worker's Compensation coverage for its

employees as required by Colorado law and acknowledges that Bow Mar carries such coverage for its employees as required by Colorado Law.

12. Either party may terminate this Agreement with, or without, good cause shown upon 30 days written notice to the other party prior to termination. In the event of termination by the County, no damages, liquidated or otherwise, shall inure to the benefit of the County; however, the County will refund a pro-rated portion of the fee paid pursuant to paragraph 4 above.
13. It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Columbine Valley and the County, and nothing contained in this agreement shall give or allow any such claim or right of action by any other or third party pursuant to this Agreement. The County does not intend by the Agreement to assume any contractual obligations to anyone other than Columbine Valley, including Bow Mar, and Columbine does not intend by the Agreement to assume any contractual obligation to anyone other than the County. The County and Columbine Valley do not intend that there be any third-party beneficiary to this Agreement, including Bow Mar. It is the express intention of the County and Columbine Valley that any person or party other than the County or Columbine Valley receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.
14. Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the other party in writing.
15. Unless otherwise agreed in writing, this Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado.
16. Notices to be provided under this Agreement shall be given in writing either by hand delivery, or deposited in the United States mail, with sufficient postage to the following persons:

Arapahoe County
Office of the County Attorney
5334 South Prince Street
Littleton, Colorado 80120-1136

Town of Columbine Valley
2 Middlefield Road
Columbine Valley, CO 80123

Arapahoe County Sheriff
Arapahoe County Sheriff's Office
13101 East Broncos Parkway
Centennial, Colorado 80112

17. This Agreement may be executed in counterparts.

DATED this 16th day of November 2016,

ATTEST:

TOWN OF COLUMBINE VALLEY

[Signature]
Town Clerk

11.16.16
Date

[Signature]
Mayor

11/16/16
Date

ATTEST:

ARAPAHOE COUNTY SHERIFF

David C. Walcher, Sheriff

Date

BOARD OF COUNTY COMMISSIONERS
ARAPAHOE COUNTY, COLORADO

By: _____

Nancy Doty

Chair, Arapahoe County Board of Commissioners

ATTEST:

Clerk of the Board



Board Summary Report

Date: 11/29/2016
To: Board of County Commissioners
Through: District Attorney George Brauchler
From: George Brauchler
Subject: 20-1-301, C.R.S, District Attorney salary and office staffing resolutions

Direction/Information: This request is to fix the salary for DA for the next four years pursuant to our state's constitution and the relevant statutes under Title 20. The salary for this position must be fixed prior to the beginning of the term in office and cannot be changed thereafter. The second resolution will establish discretion for the DA to staff his Office accordingly, while staying with the constraints of the annual budget approved by each County's Board of County Commissioners.

Request and Recommendation

Honorable Commissioners,

I am respectfully submitting this request to fix the salary for DA for the next four years pursuant to our state's constitution and the relevant statutes under Title 20. Prior to taking office in 2013, I came to you seeking a pay cut from my predecessor (\$160,000/year for four years). Had I received the exact same salary as my predecessor with no increase of any kind, our taxpayers would have spent an additional \$46,000. I am requesting to set my salary as follows for my second term.

2017	\$195,000
2018	\$200,000
2019	\$205,000
2020	\$210,000

This increase will be funded in the salary and benefit line items requested in our original 2017 budget request and is not a request for additional 2017 funding.

Background

When considering a requested salary adjustment, it is important to compare DA salaries of similar jurisdictions across the metro area and the state. Because our jurisdiction is the most populous in Colorado (approximately 1 million people, 45% more populous than Denver), I have reviewed the DA salaries of the most significant, albeit smaller, jurisdictions in our state.

There are eight Colorado counties with populations in excess of 300,000 (bolded below). Seven elected DAs represent those counties (I represent two of them: Arapahoe and Douglas). Below is a table which contains the salaries of the DAs for the 2013-2017 term, the proposed salaries (if known) of the 2017-2020 term, and the four year difference between my salary and each of the other six DA's.

For the 2013-2016 term, I was the lowest paid DA of these major jurisdictions by a range of \$138,000—\$284,424. Two things about those numbers: 1) fiscal conservatism in our office starts with me (I am proud of that), and 2) I can never let my wife see this email or know about these numbers.

For the 2017-2020 term, despite a proposed increase in salary for 2017 and approximately 2.5% increases for the following three years, I remain the lowest paid DA in the Metro Area (1st, 2nd, 17th, and 18th); this presumes that the salaries of the Metro Area DAs remain the same or increase over this next term (no DA has expressed to me an interest in decreasing their salary). For the eight years from 2013-2020, I remain the lowest paid DA in the metro area and the lowest paid of the seven major jurisdictions in Colorado.

JD	Counties	District Attorney	2013-2016	Total (4)	Δ GHB (4)	2017-2020
1	Jefferson, Gilpin	Peter Weir	208,000	832,000	238,000	UNK +
2	Denver	Beth McCann	219,606	878,424	284,424	UNK
4	El Paso, Teller	Dan May	183,000	732,000	138,000	UNK +
8	Larimer	Cliff Riedel	196,911	787,644	193,644	216,602
17	Adams, Broomfield	Dave Young	203,859	815,436	221,436	UNK +
18	Arapahoe, Douglas, Elbert, Lincoln	George Brauchler	130,000 143,000 156,000 165,000	594,000		195,000 200,000 205,000 210,000
20	Boulder	Stan Garnett	190,565	760,000	166,000	205,810/yr* -or- 193,800 197,676 201,629 205,622

The amount of my salary increase over the current salary of \$165,000 is allotted proportionally among our four counties. The per-county four year total amount of increased contribution above \$165,000 is listed below.

Arapahoe: \$ 96,238
 Douglas: \$ 49,147
 Elbert: \$ 3,769
 Lincoln: \$ 846
 TOTAL: \$150,000

Links to Align Arapahoe

Fiscal responsibility – the requested salary will still be the lowest of any District Attorney in the metro area.

Safer communities – the DA Office plays a vital role fostering safe communities through seeking justice for the community. We also are dedicated to protecting the rights and interests of crime victims. Finally we serve as a driving force for prevention of crime, the protection of victims and enhancement of the lives of district residents.

Discussion

Alternatives

Fiscal Impact

Based on the acceptance of our 2017 amended budget request (proposed reduction in gang prosecutor salary and benefits), there is no new budget impact. The actual change in funds spent for the DA salary is \$96,238 over the four year term.

Concurrence

The Board of County Commissioners for Douglas, Elbert and Lincoln counties will also be asked to approve these two resolutions and to fund their proportionate share of the requested increase.

Attorney Comments

If appropriate, include this section.

Reviewed By:

Staff Member
Division Manager
Department Director or Elected Official
Finance Department
County Attorney

RESOLUTION NO. _____

**THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE, COLORADO**

**A RESOLUTION SETTING THE ANNUAL SALARY OF
THE DISTRICT ATTORNEY FOR THE
EIGHTEENTH JUDICIAL DISTRICT**

WHEREAS, pursuant to Section 20-1-301, C.R.S., the Boards of County Commissioners of those counties comprising the Eighteenth Judicial District must set the annual salary of the District Attorney for the succeeding four-year term; and

WHEREAS, as set forth in Section 20-1-301, C.R.S., said salary cannot be less than one hundred thirty thousand dollars (\$130,000.00) effective January 1, 2012, and for each year thereafter; and

WHEREAS, the Board of County Commissioners of Arapahoe County has met to review and determine a fair salary and has discussed this salary with the Boards of County Commissioners for Douglas, Elbert, and Lincoln Counties; and

WHEREAS, the Board of County Commissioners has held a public meeting on this matter and is desirous of setting the salary for George Brauchler, the re-elected District Attorney, at this time;

WHEREAS, the re-elected District Attorney has requested that his salary remain lower than each of the other elected District Attorneys in the Denver-Metro area;

NOW, THEREFORE, BE IT RESOLVED, by the Board of County Commissioners of Arapahoe County as follows:

1. That the salary of the District Attorney for the Eighteenth Judicial District for his term beginning in January, 2017 and ending in January, 2020 shall be as follows:

2017:	\$195,000
2018:	\$200,000
2019:	\$205,000
2020:	\$210,000

2. That the Board's determination made on this date represents Arapahoe County's commitment to pay its percentage of said salary, and this determination shall be subject to the payment of the percentage contributions by the Boards of County Commissioners of Douglas, Elbert, and Lincoln Counties as required by law.

3. That it is understood that the District Attorney's benefits include the use of an office car in accordance with the policy of the District Attorney's Office, as well as only those benefits (such as medical insurance, dental insurance, life insurance, long-term disability insurance, personal mileage reimbursement, matching contribution to PERA in lieu of social security contribution, 401K contribution, etc.) which are received uniformly by all full-time employees of the District Attorney's Office and that the District Attorney will not accrue any sick leave or any vacation time during his time in office.

4. That the Clerk of the Board of County Commissioners is directed to inform the other Boards of County Commissioners that action must be taken on this matter prior to January 7, 2017.

PASSED AND ADOPTED this ____ of ____, 2016, in Centennial, Arapahoe County, Colorado.

**THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE, COLORADO**

BY: _____
Nancy Doty, Chair

ATTEST:

Clerk to the Board

RESOLUTION NO. _____

**THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE, COLORADO**

**A RESOLUTION CONCERNING FULL-TIME EMPLOYEE POSITIONS IN THE OFFICE OF
THE DISTRICT ATTORNEY FOR THE EIGHTEENTH JUDICIAL DISTRICT**

WHEREAS, pursuant to Section 20-1-205, C.R.S., the District Attorney is authorized to appoint an Assistant District Attorney; and

WHEREAS, pursuant to Section 20-1-201(2), C.R.S., the District Attorney may designate and appoint Chief Deputy District Attorneys, except that no District Attorney may appoint more than one Chief Deputy District Attorney without the prior approval of the boards of county commissioners of the judicial district; and

WHEREAS, pursuant to Section 20-1-201(1), C.R.S., the District Attorney is authorized to appoint such Deputy District Attorneys as he deems necessary to properly discharge the duties of his office, with the approval of the boards of county commissioners of the judicial district; and

WHEREAS, pursuant to Section 20-1-209, C.R.S., the District Attorney is authorized to appoint a Chief Investigator and such other investigators as he may deem necessary in the conduct of his office and such stenographers, office employees, and other technical and professional assistants as are necessary to properly transact the business of his office, subject to budget approval of the boards of county commissioners of the judicial district; and

WHEREAS, consistent with Sections 20-1-201 and 20-1-205, C.R.S., the boards of county commissioners of the Eighteenth Judicial District have previously eliminated setting a total number of full-time attorney positions for the District Attorney's Office, to include an Assistant District Attorney, if the District Attorney chooses to appoint one; not more than 12 Chief Deputy District Attorneys, if the District Attorney chooses to appoint them; and Deputy District Attorneys, if the District Attorney chooses to appoint them; and

WHEREAS, consistent with Section 20-1-209, C.R.S., the boards of county commissioners of the Eighteenth Judicial District have previously eliminated setting a total number of full-time non-attorney positions for the District Attorney's Office, to include a Chief Investigator, other investigators, and such stenographers, office employees, and other technical and professional assistants as are necessary to properly transact the business of the office, if the District Attorney chooses to appoint them; and

WHEREAS, consistent with Sections 20-1-201, 20-1-205, 20-1-209, and 20-1-302, C.R.S., the boards of county commissioners of the Eighteenth Judicial District have previously agreed that a sufficient budget for the salaries and benefits of such attorney and non-attorney positions shall be paid by the counties comprising the judicial district, with each county paying into the budget the proportion that the population of each county bears to the population of the whole judicial district, according to the last preceding population estimate that is prepared before May 1 of the current year by the division of planning in the department of local affairs pursuant to section 24-32-204, C.R.S.; and

WHEREAS, consistent with Sections 29-1-101, *et seq.* C.R.S., the District Attorney's Office has discretion in the expenditure of its budget, and the boards of county commissioners of Arapahoe, Douglas, Elbert, and Lincoln Counties have agreed to give the re-elected District Attorney greater flexibility regarding the number of attorney and non-attorney full-time employee positions, so long as the utilization of such positions does not cause the District Attorney's Office to incur expenditures in excess of its budget;

NOW, THEREFORE, BE IT RESOLVED, by the Board of County Commissioners of Arapahoe County as follows:

1. Consistent with Section 20-1-201(2), C.R.S., the District Attorney is authorized to appoint more than one Chief Deputy District Attorney.
2. Consistent with Section 20-1-201(1), C.R.S., the District Attorney is authorized to appoint such Deputy District Attorneys as he deems necessary to properly discharge the duties of his office.
3. Consistent with Section 20-1-209, C.R.S., the District Attorney is authorized to appoint a Chief Investigator, other investigators, and such stenographers, office employees, and other technical and professional assistants as are necessary to properly transact the business of the office.
4. The District Attorney has statutory discretion about whether to appoint an Assistant District Attorney, and is hereby granted the discretion to appoint any number of Chief Deputy District Attorneys and any number of Deputy District Attorneys, as well as a Chief Investigator, and any number of other investigators, stenographers, office employees, and other technical and professional assistants as are necessary to properly transact the business of the office, so long as the utilization of all such positions does not cause the District Attorney's Office to incur expenditures in any given year in excess of revenues appropriated for the District Attorney's Office by the counties comprising the 18th Judicial District for such year or obtained from other sources.

PASSED AND ADOPTED this ____ of ____, 2016, in Centennial, Arapahoe County, Colorado.

**THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE, COLORADO**

BY: _____
Nancy Doty, Chair

ATTEST:

Clerk to the Board



Board Summary Report

Date: November 28, 2016
To: Board of County Commissioners
Through: David M Schmit, P.E., Director, Public Works and Development
From: Jennifer Jepsen-Cook, Assistant Traffic Engineer
Subject: Consent for Fire Lane Resolution

Request and Recommendation

KB Homes is asking that Parkside Villas II - 1229-1299 S Dallas Court, 1231-1297 S Dayton Street, 9501-9591 E Alabama Circle, and 1208-1226 S Clinton Street be adopted into the Fire Lane Resolution program. Cunningham FPD has determined that in the interest of safety, these lanes should be marked and determined enforceable under said resolution.

The Board of County Commissioners has the authority pursuant to section 42-4-1210, C.R.S. to designate areas on private property for authorized vehicles. The Board of County Commissioners also has authority pursuant to 18-9-117, C.R.S. to adopt rules for regulating use of public property.

Background

Cars parked in fire lanes block the access of emergency vehicles. Therefore, a Fire Lane restriction is warranted.

Discussion

This Transportation Division has reviewed the attached request and supports this resolution.

Alternatives

Approve or deny said request.

Fiscal Impact

There is no fiscal impact.

Concurrence:

Arapahoe County Sheriff's office and Cunningham Fire Protection District support this resolution.

Attorney Comments

N/A

Reviewed By:

Staff Member – Jennifer Jepsen-Cook
Department Director or Elected Official – Dave Schmit
County Attorney – Robert Hill

FIRE LANE DESIGNATION

RESOLUTION NO. XXXXXX. It was moved by Commissioner and duly seconded by Commissioner to adopt the following Resolution:

WHEREAS, Section 42-4-1210, C.R.S., allows the Board of County Commissioners to designate certain areas on private property for use by authorized vehicles only; and

WHEREAS, on August 25, 1981, the Board of County Commissioners adopted Resolution No. 891-81 which established certain procedures to be utilized to designate such areas for enforcement by the Arapahoe County Sheriff's Office; and

WHEREAS, in relation to this matter, the KB Homes has submitted a request to designate certain parking and drive areas within Parkside Villas II - 1229-1299 S Dallas Court, 1231-1297 S Dayton Street, 9501-9591 E Alabama Circle, and 1208-1226 S Clinton Street for use by authorized vehicles only; and

WHEREAS, a map has been submitted with said request showing said areas to be designated as required by the Board of County Commissioners; and

WHEREAS, the Transportation Division of the Arapahoe County Department of Public Works and Development has referred this matter to the Arapahoe County Attorney, Arapahoe County Sheriff's Office and the Cunningham Fire Protection District for review and comment as required by the Board of County Commissioners; and

WHEREAS, there has been no objection to said designation by any of the aforementioned agencies; and

WHEREAS, on the basis of the above request and referrals, and the authority of the Board of County Commissioners pursuant to Section 42-4-1210, C.R.S., the Board desires to designate certain areas within Parkside Villas II - 1229-1299 S Dallas Court, 1231-1297 S Dayton Street, 9501-9591 E Alabama Circle, and 1208-1226 S Clinton Street as Fire Lanes and/or Emergency Parking Only.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County as follows:

- 1) The Board hereby designates those areas within Parkside Villas II - 1229-1299 S Dallas Court, 1231-1297 S Dayton Street, 9501-9591 E Alabama Circle, and 1208-1226 S Clinton Street as shown on the map as submitted, as Fire Lanes and/or Emergency Vehicle Parking Only.
- 2) The Board hereby directs the Transportation Division of the Department of Public Works and Development to notify the Arapahoe County Sheriff's Office, the Cunningham Fire Protection District, and the Arapahoe County Facilities and Fleet Management of said designation by the Board.
- 3) The Board hereby directs that enforcement of said designated areas begin as soon as the Arapahoe County Traffic Engineer approves the signage and markings as being consistent with the Manual on Uniform Traffic Control Devices.
- 4) In the event that additional or different signage or markings for this site are required by the Arapahoe County Transportation Division, no cost shall be borne by Arapahoe County for installation of said signage or markings.

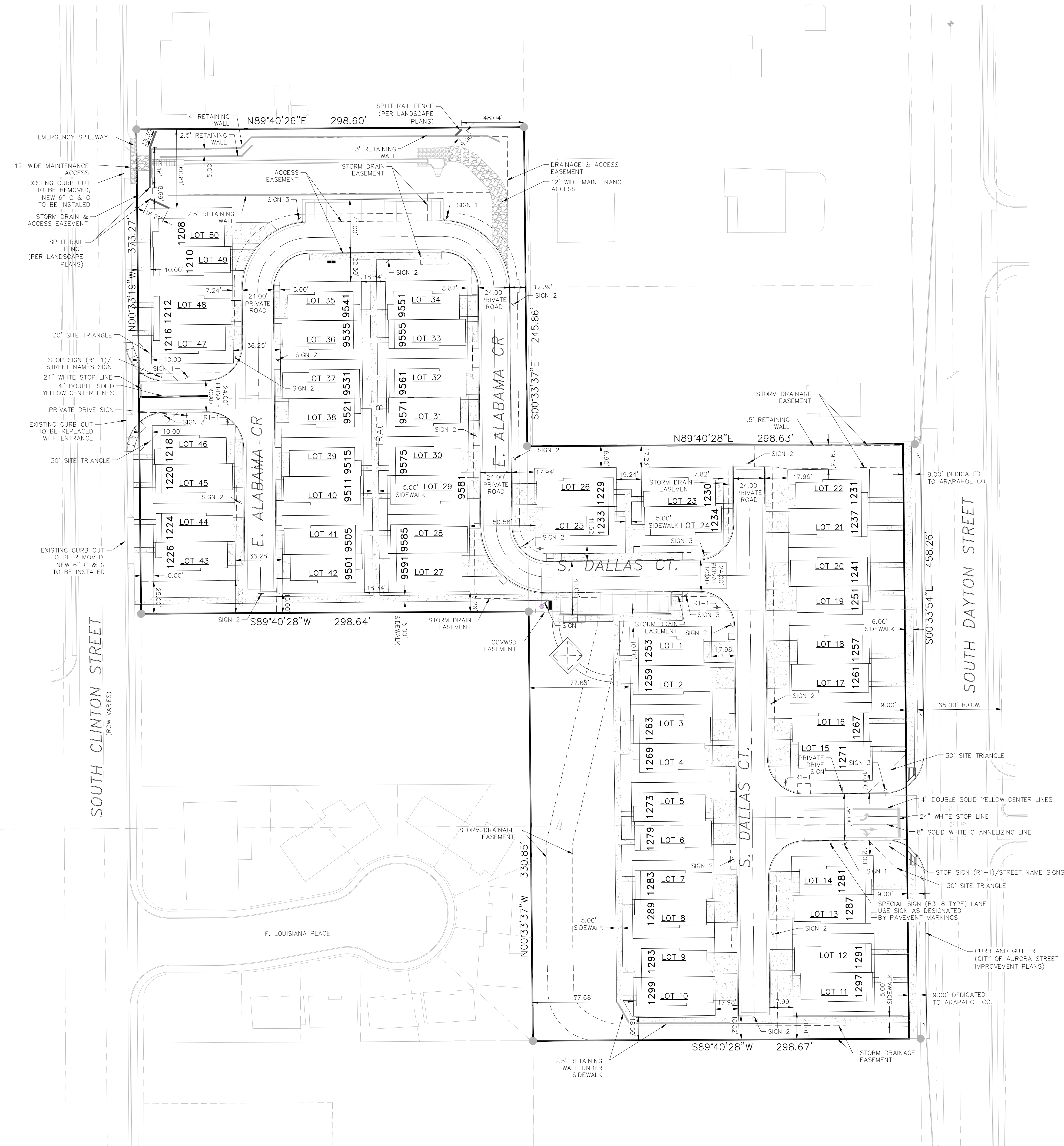
- 5) All said signs and markings shall be keyed to the Manual on Uniform Traffic Control Devices for all classes of streets and highways as adopted by the Colorado Department of Transportation and said signs shall be erected in accordance with said Manual at approximately the location(s) designated on the diagram submitted with said request and as approved by the Arapahoe County Transportation Division.
- 6) Designation of said areas shall continue until the further order of the Board of County Commissioners.
- 7) Any fines or forfeitures collected by the courts for violations of Section 42-4-1210, C.R.S., shall be paid into the treasury of Arapahoe County monthly.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty ; Commissioner Holen ; Commissioner Jackson
; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

ARAPAHOE COUNTY CASE NO. P13-014
SEMSWA CASE NO. D13-2033



FIRE ACCESS PLAN
PARKSIDE VILLAS II
A PORTION OF THE NW 1/4 OF SECTION 22, TOWNSHIP 4 SOUTH,
RANGE 67 WEST OF THE 6TH P.M. COUNTY OF ARAPAHOE,
STATE OF COLORADO

NO PARKING
FIRE LANE
→

TOW-AWAY ZONE
SIGN 1
(M.U.T.C.D.)

NO PARKING
FIRE LANE
←

TOW-AWAY ZONE
SIGN 2
(M.U.T.C.D.)

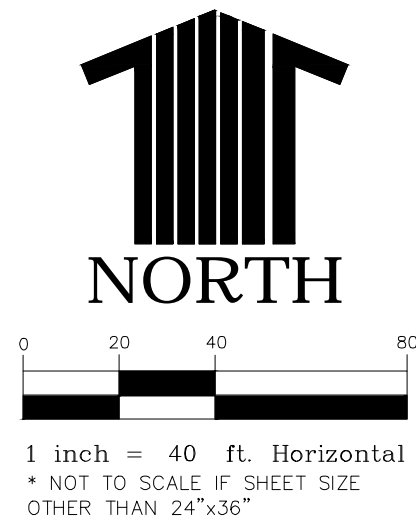
NO PARKING
FIRE LANE
←

TOW-AWAY ZONE
SIGN 3
(M.U.T.C.D.)

STOP
24" X 24"
SIGN R1-1 TO
CONFORM TO
2009 MUTCD
STANDARDS

ONLY

R3-8 TYPE
SPECIAL SIGN
SOUTH DAYTON STREET
(M.U.T.C.D.)



1 PER FIRE DEPT. COMMENTS

11/03/2016 FGF

No.

REVISIONS

DATE

BY

PHELPS

ENGINEERING

720 E. Hampden Ave. Suite 300 Denver, CO 80224 303.756.9441

SITE/FIRE ACCESS
PLAN, SIGNAGE
AND STRIPING PLAN

PARKSIDE VILLAS II
ARAPAHOE COUNTY, CO

DATE
10/25/2016

PROJECT NO.
13045

1

of 1



October 27, 2016

Arapahoe County Attorney's Office
5334 South Prince Street
Littleton, CO 80166

Re: 1229 – 1299 S. Dallas Court, 1231 – 1297 S. Dayton Street, 9501 – 9591 E. Alabama Circle,
1208 – 1226 S. Clinton Street

To Whom It May Concern:

Please accept this letter as a formal request for KB Parkside Villas II Subdivision to participate in the county program for enforcement of private property parking.

This program will help us maintain unobstructed fire apparatus within our property in the event of a fire or other emergency.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mark Armstrong', written over a horizontal line.

Mark Armstrong
Land Development Project Manager



Board Summary Report

Date: November 16, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: Arapahoe County Narcotics Team Intergovernmental Agreement

Request and Recommendation

Request the Board of County Commissioners approve and authorize the Chair of the Board of County Commissioners to sign an Intergovernmental Agreement (IGA) on behalf of the Arapahoe County Sheriff's Office (ACSO) with the City of Littleton and the City of Englewood to form a combined narcotics enforcement unit known as the Arapahoe County Narcotics Team.

Background

Since 2013 the ACSO has participated in an IGA with the Littleton Police Department and the Englewood Police Department to operate the Arapahoe County Impact Team (ACIT). The purpose of the ACIT was to combine law enforcement resources in order to better identify, investigate, and combat criminal activity within Arapahoe County, Colorado, through the creation of a special multi-jurisdictional criminal investigations unit. The ACIT investigated narcotics, vice and pattern crime activity in the participating jurisdictions. During the ongoing evaluation process by ACSO to evaluate the delivery of services to the community, the need to expand narcotics specific investigations was identified and as a result the ACIT has gradually increased their efforts related to narcotics investigations. In order to more effectively continue these efforts, ACSO Command Staff determined that a restructure of the ACIT was necessary. ACSO has taken the responsibility for all non-narcotics related investigations and returned those investigations along with the appropriate staffing to Investigation Services. The multi-jurisdictional staff of the ACIT has focused their efforts specifically on narcotics and narcotics related criminal activity as the Arapahoe County Narcotics Team (ACNT.)

Links to Align Arapahoe

Participating in a multi-jurisdictional unit to investigate narcotics related criminal activity will allow the Arapahoe County Sheriff's Office to optimize the use of resources and enhance community safety.

Discussion

In essence this is a change in the name of the IGA only as operational changes have already been implemented. All investigations are continuing as usual. This name change requires an updated IGA which reflects the change in focus and name of the multi-jurisdictional unit.

Alternatives

The alternative is to not sign the IGA and continue operations under the old ACIT IGA.

Fiscal Impact

None

Concurrence

The Sheriff's Office Administration and Public Safety Bureau are in concurrence with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Glenn Thompson, Public Safety Bureau Chief
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign an Intergovernmental Agreement (IGA) on behalf of the Arapahoe County Sheriff's Office (ACSO) with the City of Littleton and the City of Englewood to form a combined narcotics enforcement unit known as the Arapahoe County Narcotics Team, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

INTERGOVERNMENTAL AGREEMENT

This Agreement is made and entered into this 15th day of November, 2016, by and between the CITY OF ENGLEWOOD, acting on behalf of the ENGLEWOOD POLICE DEPARTMENT, the CITY OF LITTLETON, acting on behalf of the LITTLETON POLICE DEPARTMENT, and the BOARD OF COUNTY COMMISSIONERS OF ARAPAHOE COUNTY, STATE OF COLORADO, acting on behalf of the ARAPAHOE COUNTY SHERIFF'S OFFICE ("ACSO"), and provides as follows:

WHEREAS, Section 29-1-203 of the Colorado Revised Statutes, as well Article XIV, Section 18(2), of the Colorado Constitution, encourage governmental entities to make efficient and effective use of their powers and responsibilities through cooperation and the execution of intergovernmental agreements; and

WHEREAS, intergovernmental agreements may provide for the joint exercise of functions, services, or facilities lawfully authorized to each contracting governmental entity; and

WHEREAS, the signatories to this agreement are each authorized by law to provide law enforcement and other emergency services; and

WHEREAS, narcotics related activities and related crimes commonly transcend the geographical boundaries of the separate governmental jurisdictions situated within the county of Arapahoe; and

WHEREAS, the parties hereto desire to share and coordinate resources in the enforcement, intervention, and prevention of narcotics related activities and related crimes within the county of Arapahoe; and

NOW THEREFORE, in consideration of the foregoing recitals and the mutual terms, covenants, and conditions set forth below, the signatories hereto voluntarily agree as follows:

1. The purpose of this agreement is to set forth a framework within which the parties hereto shall combine their law enforcement resources in order to better identify, investigate, and combat narcotics related activities and related crimes within Arapahoe County, Colorado, through the creation of a special multi-jurisdictional criminal investigations unit comprised of members drawn from each participating jurisdiction. This unit shall be known as the Arapahoe County Narcotics Team ("ACNT"). Those entities participating in the formation and operation of the ACNT shall be referred to herein as "member jurisdictions."

2. Each member jurisdiction shall assign not less than one sworn law enforcement officer to the ACNT who shall serve on the unit on a fulltime basis during the assignment. All officers assigned to the ACNT shall have been adequately trained by their home jurisdiction in criminal investigative techniques and operations prior to their assignment. The total number of persons who

shall or may be assigned to the ACNT from any one member jurisdiction shall be agreed upon by the participating entities from time to time as circumstances and needs warrant. Each member jurisdiction shall be solely responsible for the salary and other compensation paid the officer(s) it may assign to the ACNT, and shall supply its ACNT officers such equipment, including, where appropriate, vehicles, necessary to allow both the officer and the ACNT to effectively carry out their respective duties and responsibilities.

3. Officers assigned to the ACNT shall serve a tour of duty determined by the officer's home jurisdiction unless or until the assignment is withdrawn by the officer's home jurisdiction or is otherwise terminated as elsewhere provided for in this agreement.

4. Each officer and/or other person assigned to serve on the ACNT shall remain the employee of his or her home jurisdiction and shall, likewise, remain subject to and covered under that jurisdiction's liability and other insurance or self-insurance coverage, in addition to its personnel policies and procedures, inclusive of policies and procedures governing overtime, employment compensation and benefits, worker's compensation, vacation and sick time, grievances and discipline, job performance review, duty assignments, and termination. Each member jurisdiction shall also retain responsibility for the conduct of those officers it assigns to the ACNT and will be responsible for investigating and handling any complaints made against those officers it assigns to the ACNT. In the event a claim or legal action should be brought against an officer assigned to the ACNT and/or the ACNT arising from the assigned officer's conduct, the member jurisdiction that assigned the officer to the ACNT, at its sole cost, shall be responsible to defend and indemnify the officer consistent with the terms and limitations provided under the Colorado Liability of Peace Officers Statute and Governmental Immunity Act, COLO.REV.STAT. §§ 29-5-111 and 24-10-101, *et seq.*, respectively. The provisions of this paragraph shall survive and remain in effect against any member jurisdiction that should withdraw from participation in the ACNT, as well as the termination of the agreement.

5. The Arapahoe County Sheriff shall deputize all officers assigned to the ACNT as Arapahoe County Sheriff's deputies in order to ensure that each officer has law enforcement authority throughout Arapahoe County. The term of that appointment shall remain effective during the term of the officer's assignment to the ACNT and will automatically terminate if or when the officer is withdrawn or terminated from the ACNT, or unless the appointment is otherwise terminated in the discretion of the Arapahoe County Sheriff. The officer and employing member jurisdiction shall be provided notice of any such termination. Each member jurisdiction, by signing this agreement, also acknowledges and agrees that officers assigned to the ACNT and deputized by the Arapahoe County Sheriff shall be vested by the jurisdiction with the authority to exercise their full law enforcement authority within the geographical boundaries of the member jurisdiction when performing ACNT activities. This authority shall remain effective during the term of the officer's assignment to the ACNT unless the same is withdrawn or terminated by the vesting member jurisdiction.

6. The ACNT shall operate from offices within the ACSO and the day-to-day management and tactical command of the ACNT shall rest in a lieutenant (the ACNT Commander) with the

ACSO, who shall be assigned to the unit by the Arapahoe County Sheriff. Upon reasonable notice to the member jurisdiction and Arapahoe County Sheriff, the ACNT Commander shall have the authority and discretion to terminate the assignment of any officer upon such grounds as he or she may deem necessary or appropriate for the efficient and/or effective operation of the unit.

6a. Disputes among officers and/or other staff assigned to the ACNT shall be resolved cooperatively among such officers/staff and their assigned Sergeant(s). If the dispute cannot be resolved cooperatively among the officers/staff and their assigned Sergeant(s), the dispute shall be elevated to the ACNT Commander who shall attempt to resolve the dispute in conjunction with supervisor(s) from the home jurisdiction of the involved ACNT officers/staff. Any disciplinary action imposed against officers and/or staff assigned to ACNT as a result of his or her involvement or participation in ACNT shall be the responsibility of the home jurisdiction who assigned such officer and/or staff.

7. The operations of the ACNT shall be informed and guided by the policies and procedures of the ACSO. ACSO shall serve as the repository for all reports, evidence, and records compiled or generated by the ACNT's activities. ACSO shall also serve as the custodian of records under the Colorado Criminal Justice Records Act (CCJRA) and/or the Colorado Open Records Act (CORA) as it relates to any records related to the operations of ACNT.

8. Net forfeitures generated from seizures of money and/or personal or real property resulting from ACNT operations shall be maintained by ACSO following established forfeiture guidelines as set forth in C.R.S. §§ 16-13-311 to 16-13-315, the Colorado Contraband Forfeiture Act, C.R.S. §§ 16-13-501, *et seq.*, and/or pursuant to federal guidelines. Such forfeitures shall be the sole property of ACSO and shall be deposited in Arapahoe County's Forfeited Property Fund, and expenditures of the same shall be made only after approval by the Committee on Disposition of Forfeited Property, as set forth in Arapahoe County's Forfeited Property Expenditure Policy.

9. The management and general operations of the ACNT shall be subject to joint review by the chief law enforcement officers from each member jurisdiction (or their authorized designee) sitting together as they may deem necessary or appropriate from time to time. It is not the intent of the member jurisdictions to create a separate legal entity or government subdivision/agency by the creation of the ACNT and any member jurisdiction may, within its discretion, withdraw from participation in the ACNT at any time upon providing written notice to the other members not less than thirty (30) days prior to such withdrawal. This agreement may also be terminated in its entirety upon the affirmative vote of a majority of the member jurisdictions.

10. No change, amendment, or waiver of any of the terms or provisions of this agreement shall be valid or binding unless the same has been approved in writing by all member jurisdictions.

11. This agreement is made solely for the benefit of the parties hereto and is not intended, nor shall it be deemed, to confer, give, or allow any rights or claim or right of action by any person or entity not signatory hereto.

12. This agreement embodies the entire agreement of the parties. There are no promises, terms, conditions, or obligations other than those contained herein; and this writing supersedes all previous communications, representations, or agreements, either verbal or written, between the parties.

13. This agreement may be executed in several counterparts and, as so executed, shall constitute one agreement, binding on all the parties even though all have not signed the same counterpart. Any counterpart which has attached to it separate signature pages which together contain the signature of all the parties shall be deemed a fully executed instrument for all purposes.

14. This agreement shall not be deemed a pledge of the credit of any signatory hereto, and nothing herein shall be construed to create a multiple-fiscal year direct or indirect debt or financial obligation.

15. This agreement shall not become effective or be binding against any member jurisdiction except upon the affirmative written approval or authorization of the legislative body for such jurisdiction.

IN WITNESS WHEREOF, the parties have executed this agreement as of the date written above.

THE CITY OF ENGLEWOOD

By: _____
Printed Name:
Title:

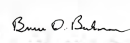
ATTEST:

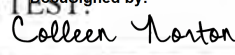
Title:

APPROVED AS TO FORM:


Title:

THE CITY OF LITTLETON

DocuSigned by:
By: 
Bruce O. Beckman, Mayor

DocuSigned by:
ATTEST: 

Title: City Clerk

DocuSigned by:
APPROVED AS TO FORM: 

Title: City Attorney

12. This agreement embodies the entire agreement of the parties. There are no promises, terms, conditions, or obligations other than those contained herein; and this writing supersedes all previous communications, representations, or agreements, either verbal or written, between the parties.

13. This agreement may be executed in several counterparts and, as so executed, shall constitute one agreement, binding on all the parties even though all have not signed the same counterpart. Any counterpart which has attached to it separate signature pages which together contain the signature of all the parties shall be deemed a fully executed instrument for all purposes.

14. This agreement shall not be deemed a pledge of the credit of any signatory hereto, and nothing herein shall be construed to create a multiple-fiscal year direct or indirect debt or financial obligation.

15. This agreement shall not become effective or be binding against any member jurisdiction except upon the affirmative written approval or authorization of the legislative body for such jurisdiction.

IN WITNESS WHEREOF, the parties have executed this agreement as of the date written above.

THE CITY OF ENGLEWOOD

By: [Signature]
Printed Name: Joe Jefferson
Title: Mayor

ATTEST: [Signature]
Title: Loucrishia A. Ellis

APPROVED AS TO FORM:

Title:

THE CITY OF LITTLETON

By: _____
Phil Cernanec, Mayor & Council President

ATTEST:

Title:

APPROVED AS TO FORM:

Title:

**BOARD OF COUNTY
COMMISSIONERS
ARAPAHOE COUNTY, COLORADO**

By: _____

Printed Name:

Title:

ATTEST:

Clerk of the Board



Board Summary Report

Date: December 2, 2016

To: Board of County Commissioners

Through: Bryan Weimer, Transportation Division Manager

Through: Brian R. Love, CIP Manager *BR Love*

From: Art Negretti, Capital Improvement Engineer *AN*

Subject: **C15-029/C16-023; JOLLY ROAD BRIDGE OVER FIRST CREEK PROJECT, APPROVAL OF FEDERAL FUNDING INTERGOVERNMENTAL AGREEMENT (IGA) BETWEEN ARAPAHOE COUNTY AND THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) FOR A TOTAL AMOUNT OF \$218,605 (\$174,884 FEDERAL, \$43,721 COUNTY)**

Request and Recommendation

This Summary Report requests approval of and a resolution for the Jolly Road Over First Creek Project Intergovernmental Agreement (IGA) between Arapahoe County and the Colorado Department of Transportation for the federal funding associated with the project. This specific action/IGA has not previously been heard by the BOCC at a study session or drop-in. However, the Board of County Commissioners (BOCC) is aware of the project as it was submitted to Colorado Counties, INC (CCI) for federal funding.

Staff requests approval from the BOCC to enter into an Intergovernmental Agreement (IGA) with the State of Colorado/Colorado Department of Transportation (CDOT) regarding the federal funding of the Jolly Road over First Creek Project in the total IGA amount of \$218,605. Specifically, Staff requests the following actions.

1. Approval of the attached Intergovernmental Agreement with CDOT, for a total IGA amount of \$218,605. For this action, there is a County 20% local match requirement in the amount of \$43,721 and a Federal commitment of \$174,884.
2. Authorization of the Board of County Commissioner Chair to sign the IGA and include the associated resolution approving this agreement in the IGA.
3. Authorization to invoice and receive federal dollar reimbursements in accordance with contractual obligations.
4. Authorization to Budget the Federal Funds of \$174,844 into Cost Center 424516-0.

Background

This bridge was inspected on 11/2/2015 for CDOT by Alfred Benesch and Company and Essential Repair Finds were identified (attached). At that time, the bridge was deemed structurally deficient, mainly due to bridge deck issues. The Road and Bridge Department placed barriers to keep traffic away from the outside edges of the bridge deck. The project was eligible for funds administered by Colorado Counties Incorporated due to its structural condition, and the County applied for and was granted CCI funding (attached).

Links to Align Arapahoe**Quality of Life**

This project will improve safety and restore the bridge to a fully functional condition at present day standards. The County's infrastructure will be improved by extending the service life of this rural structure, connecting agrarian areas with market and transportation centers.

Fiscally Responsible

Using federal funding leverages the use of County dollars for needed public infrastructure improvements, which allows the County dollars to be stretched further. Investments in County infrastructure improve the County's economic environment by providing accessibility and reducing direct costs of safety incidents.

Service First

This project will improve access to County services and facilities. By being proactive about handling the deteriorating condition of the Jolly Road Bridge over First Creek, the County will prevent conditions from becoming worse and possibly compromising service to this community, its residences and businesses.

Discussion

The anticipated plan for the project is dynamic due to the need for further information and engineering. Following approval of the IGA, staff will retain an engineering firm to assess the condition, capacity and best disposition for the bridge. Based on the outcome of the assessment, County Transportation Division staff will select a course of action that provides the best value to the County while sustaining its crucial infrastructure. Due to the remoteness of the bridge, construction, and acquisition of materials will be challenging.

Construction of the project will be completed by 2019.

PROJECT COST BREAKDOWN

The cost breakdown is as follows, pursuant to the IGA based on a \$6,115,000.00 budget and as discussed above:

Federal Funds (80% of participating)	\$ 174,884.00
Local Agency Matching Funds (20% of participating costs)	\$ 43,721.00

Total Budget Funds in IGA

\$ 218,605.00

Design and ROW will be paid for separately and completely by the County.

There will be NO CDOT invoicing to the County for costs associated with their involvement in the project. Based on the CDOT IGA, the maximum payable amount of federal funds to Arapahoe County will be \$174,884.00.

The Public Works CIP staff recommends endorsement of the Agreement with CDOT and County participation in the project.

Alternatives

- 1) Approve the IGA as presented and recommended by Staff
- 2) Disapprove the IGA and pay for the project entirely with County funds, thereby returning the federal fund allocation.
- 3) Disapprove the IGA and do not pursue the project, thereby returning the federal fund allocation.

Fiscal Impact

There is no funding encumbrance with this action. Encumbrance of funds will occur as part of separate contracts awards (Design, Construction, Etc.). For the purposes of tracking the reimbursement of funding from CDOT associated with this IGA, Staff has created a new cost center, which is as follows:

424516023-54896 CDOT Reimbursement Jolly Road Bridge over First Creek (Federal Share)

The Federal Share of \$174,884 will need to be budgeted in this cost center so that expenditures can be made from it and then reimbursed accordingly.

The IGA establishes how CDOT will pay the County. Contractor invoices are provided to the County. The County Staff will review, approve, and issue a check to the contractor. The County will then invoice CDOT once the check is issued by the County, and CDOT will reimburse based on the 80% Federal - 20% County ratio. These reimbursed Federal funds will be placed in the above referenced cost center.

Attorney Comments

The County Attorney's Office has reviewed the IGA and recommends approval.

Reviewed By:

Art Negretti, Staff
Bryan Weimer, Division Manager
Dave Schmit, Department Director
Todd Weaver Finance Department
Robert Hill, Assistant County Attorney

cc: Email

David M. Schmit, Director, Public Works
Bryan D. Weimer, Division Manager – Transportation Division
Robert Hill, Assistant County Attorney
Brian R. Love, CIP Manager – Transportation Division
Rhonda Robinson, PW&D Budget Analyst
Jessica Savko, Finance Department

Todd Weaver, Finance Department
Loren Kohler, Finance Department
Wendy Williams, CDOT, Region 1
Kim Lynch, Administration
Reader
File (C15-029)
File (C16-023)
Agenda Notebook

Digital Copy

Bryan D. Weimer, Division Manager – Transportation
Art Negretti, CIP Engineer III
File (C15-029)
File (C16-023)
Reader

AUTHORIZATION TO SIGN INTERGOVERNMENTAL AGREEMENT

RESOLUTION NO. _____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to approve and authorize the Chair of the Board of County Commissioners to sign the Intergovernmental Agreement, by and between Arapahoe County and the Colorado Department of Transportation, regarding Colorado Counties INC funding for the Jolly Road Bridge Over First Creek Project, Project #C15-029, CDOT PROJECT No. BRO C100-039 (21675) in the total IGA amount of \$218,605.00 and the County share of the IGA in the amount of \$43,721.00 (Federal share \$174,884.00), pursuant to the terms contained therein.

The vote was:

Commissioner Doty, ____; Commissioner Sharpe, ____; Commissioner Jackson, ____;
Commissioner Bockenfeld, ____; Commissioner Holen, ____.

The Chair declared the motion carried and so ordered.

Brian Love,

11/3/2015

CDOT has instructed us to send out notifications on bridges now termed Essential Repair Finds (ERF).

This notification is now including all structures that are coded a 3 or less for Item 58 (deck), Item 59 (superstructure), Item 60 (substructure) or Item 62 (culvert) or have been coded a 4 (poor condition) or less based on Item 58 (deck), Item 59 (superstructure), Item 60 (substructure) or Item 62 (culvert) and are on a 12 month inspection cycle. This also includes Any Item 113 (Scour) coded a 4 or 2. Also deemed ERF, are missing, damaged, and or illegible Load Posting Signs (LPS).

The following bridge meets this criteria:

Structure#	Problem	Recommendation
ARA 34-56.3	Item 58 = 3 (local deck failures)	Direct traffic on center of Bridge / rehab or consider Deck replacement

Bridge ARA 34-56.3 was inspected in 11/2/2015. The underside of the deck is deteriorated to the point of concern. Attached are photos from our inspection. It is our recommendation to prevent traffic from driving on the heavily deteriorated exterior bays (edge of deck to the white line). Consideration should be given to replacing the deck.

Below are some the photos taken during the inspection:



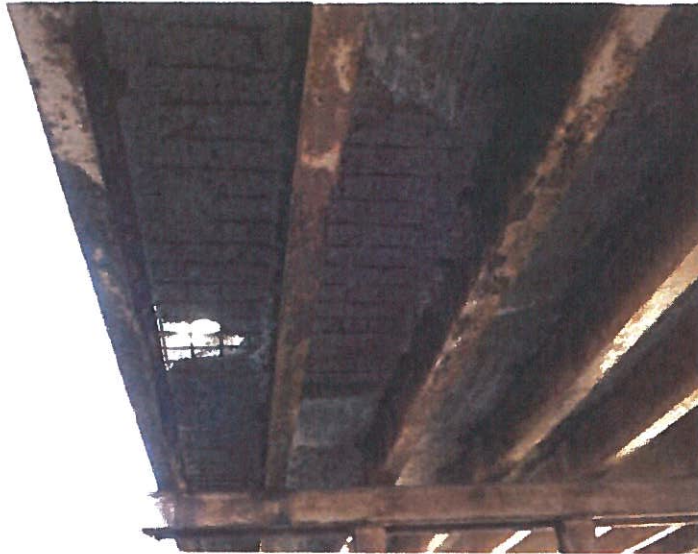
South side of the deck



North side of the deck



Deck condition in the center



Deck condition at the exterior bays

A copy of this email will be included with the bridge report for reference.

Please free to contact me if you have any question.

Thank you.



Andrew Brown

**COLORADO DEPARTMENT OF TRANSPORTATION
LOAD FACTOR RATING SUMMARY**

Structure # ARA 34-56.3

State highway # CR 34

Rated using

Asphalt thickness: _____ mm (_____ in.)

☐ Colorado legal loads

☒ Interstate legal loads

GRAVEL 279.4 mm 11 in.
THICKNESS

Batch I.D. 005029

Structure type CIC

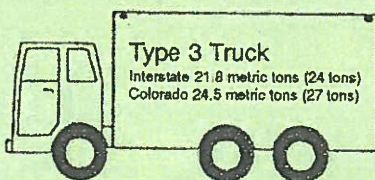
Parallel structure # N/A

Structural member	<u>INT</u> <u>GIRDER</u>	<u>CONCRETE</u> <u>DECK</u>		
-------------------	-----------------------------	--------------------------------	--	--

Metric tons (Tons)

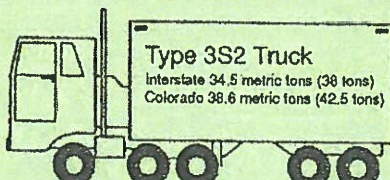
Inventory	<u>59.4 (65.5)</u>	<u>32.6 (36)</u>	<u>()</u>	<u>()</u>
Operating	<u>98.9 (109.1)</u>	<u>36.2 (40)</u>	<u>()</u>	<u>()</u>

Type 3 truck	<u>()</u>	<u>()</u>	<u>()</u>	<u>()</u>
Type 3S2 truck	<u>()</u>	<u>()</u>	<u>()</u>	<u>()</u>
Type 3-2 truck	<u>()</u>	<u>()</u>	<u>()</u>	<u>()</u>
Permit truck	<u>()</u>	<u>()</u>	<u>()</u>	<u>()</u>



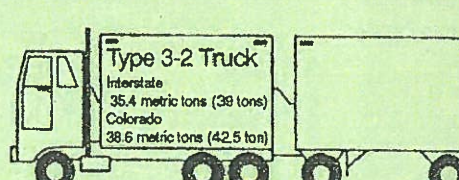
Type 3 Truck

Interstate 21.8 metric tons (24 tons)
Colorado 24.5 metric tons (27 tons)



Type 3S2 Truck

Interstate 34.5 metric tons (38 tons)
Colorado 38.6 metric tons (42.5 tons)



Type 3-2 Truck

Interstate 35.4 metric tons (39 tons)
Colorado 38.6 metric tons (42.5 tons)

Metric tons (Tons)

Metric tons (Tons)

Metric tons (Tons)

Comments

POSTING NOT REQUIRED

11" GRAVEL ON 8" CONCRETE DECK, ASSUMED NON COMPOSITE.

SERVICEABILITY REQUIREMENTS GOVERN GIRDER RATINGS. INTERIOR GIRDER

CONTROLS IN BENDING, $F_y = 33000$. NO PLANS AVAILABLE FOR CONCRETE

SLAB. RATED PER SECTION 5.1.2, "MANUAL FOR MAINTENANCE INSP OF

BRIDGES 1983."

INSPECTED BUT NOT RATED

INSPECTED BUT NOT RATED

SEH, INC.

DATE: _____

BY: _____

STANTEC CONSULTING 2011

INSPECTED BUT NOT RATED

STANTEC CONSULTING 2013

BRIDGE BEING INSPECTED BUT NOT
RATED BY LONCO, INC.

Rated by

Mano Delen

Date

12/10/97

Checked by

[Signature]

Date

12/12/97

Previous editions are obsolete and may not be used

CDOT Form #1187 1/91

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 00000 V
Mile Post (ON) 11: 0.000 mi

Bridge Key: ARA 34-56.3		Inspection Date: 11/02/2015		Sufficiency Rating: 77.9		SD	
-------------------------	--	-----------------------------	--	--------------------------	--	----	--

NBI Reporting ID:	ARA 34-56.3	Hist Signif 37:	5	UW Inspection Date 93B:	
Rgn/Sect 2E/2M:	15	Posting status 41:	A	SI Date 93C:	
Tran Region 2T:	02	Service on/un 42A/B:	1 5	Bridge Cost 94:	\$394280
County Code 3:	005	Main Mat/Desgn 43A/B:	4 02	Roadway Cost 95:	\$39428
ARAPAHOE		Appr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$591421
Place Code 4:	00000	Main Spans Unit 45:	2	Year of Cost Estimate 97:	2,015.00
non-city		Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	0.00
Rte.(On/Under) 5A:	1	Horiz Clr 47:	27.1 ft	Border Bridge Number 99:	
Signing Prefix 5B:	4	Max Span 48:	18.8 ft	Defense Highway 100:	0
Level of Service 5C:	1	Str Length 49:	39.8 ft	Parallel Structure 101:	N
Direction Suffix 5E:	0	Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft	Direction of Traffic 102:	2
Feature Intersected 6:		Width Curb to Curb 51:	27.1 ft	Temporary Structure 103:	-
FIRST CREEK		Width Out to Out 52:	30.1 ft	Highway Systems 104:	0
Facility Carried 7:		Deck Area:	1,194.79	Fed Lands Hiway 105:	0
COUNTY RD 34		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	
Alias Str No.8A:		Min Undrclr Ref 54A:	N	Deck Type 107:	1
		Min Underclr 54B:	0.0 ft	Wearing Surface 108A:	6
Prll Str No. 8P:		Min Lat Cmcg Ref R 55A:	N	Membrane 108A:	0
N/A		Min Lat Undrclr R 55B:	0.0 ft	Deck Protection 108C:	0
Location 9:		Min Lat Undrclr L 56:	0.0 ft	Truck ADT 109:	0 %
2.5 MI E OF COUNTY RD 217		Deck 58:	3	Trk Net 110:	0
Max Clr 10:	99.99	Super 59:	5	Pier Protection 111:	1
BaseHiway Net12:	0	Sub 60:	6	NBIS Length 112:	Y
IrsinvRout 13A:	00000000000	Channel/Protection 61:	7	Scour Critical 113:	8
IrrsubRout No13B:	00	Culvert 62:	N	Scour Watch 113M:	N
Latitude 16:	39d 37' 26"	Oprtg Rtg Method 63:	0 Field Evaluation	Future ADT 114:	157
Longitude 17:	103d 59' 47"	Operating Rating 64:	40.00	Year of Future ADT 115:	2033
Range 18A:	59W	Inv Rtg Method 65:	0	CDOT Str Type 120A:	CIC
Township 18B:	5S	Inventory Rating 66:	36.00	CDOT Constr Type 120B:	00
Section 18C:	9	Asph/Fill Thick 66T:	7.00 in	Inspection Indic 122A:	-
Detour Length 19:	9.0 mi	Str. Evaluation 67:	5	Inspection Trip 122AA:	-1.00
Toll Facility 20:	3	Deck Geometry 68:	5	Scheduling Status 122B:	-
Custodian 21:	02	Undrclr Vert/Hor 69:	N	Maintenance Patrol 123:	1
Owner 22:	02	Posting 70:	5	Expansion Dev/Type 124:	0
Functional Class 26:	08	Waterway Adequacy 71:	8	Brdg Rail Type/Mod 125A/B:	Y 1
Year Built 27:	1950	Approach Alignment 72:	6	Posting Trucks 129A/B/C:	0 0 0
Lanes on 28A:	2	Type Of Work 75A:	35	Str Rating Date 130:	12/10/1997
Lanes Under 28B:		Work Done By 75B:	1	Special Equip 133:	0.00
ADT 29:	107	Length of Improvment 76:	62.00	Vert Clr N/E 134A/B/C:	X 99.99 0.00
Year of ADT 30:	2013	Insp Team Indicator 90B:	BE	Vert Clr S/W 135A/B/C:	X 99.99 0.00
Design Load 31:	5	Inspector Name 90C:	Brown, Andy	Vertical Clr Date:	01/01/1901
Apr Rdwy Width 32:	35.0 ft	Frequency 91:	12 months	Weight Limit Color 139:	0
Median 33:	0	FC Frequency 92A:		Str Billing Type:	IIB
Skew 34:	0.00 °	UW Frequency 92B:		Userkey 1 - System:	OFFSYS
Structure Flared 35:	0	SI Frequency 92C:		Userkey 4 - OffSys Sched:	Central FY EVN
Sfty Rail 36a/b/c/d:	1 1 1 1	FC Inspection Date 93A:		Userkey 5:	
Rail ht36h:	36.00 in			Userkey 7 - Update Ind.:	
				BridgeGroup	

Inspector Name:	Brown, Andy
-----------------	-------------

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 00000 V

Mile Post (ON) 11: 0.000 mi

Element Inspection Report

Elm/Env	Description	Unit	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
12/1	Re Concrete Deck	sq.ft	1198	0%	0	0%	0	75%	898	25%	300
510/1	Wearing Surfaces	sq.ft	1198	79%	950	21%	248	0%	0	0%	0
1120/1	Efflorescence/Rust Staining	sq.ft	1198	0%	0	0%	0	75%	898	25%	300
107/1	Steel Opn Girder/Beam	ft	517	0%	0	71%	367	19%	100	10%	50
515/1	Steel Protective Coating	sq.ft	517	100%	517	0%	0	0%	0	0%	0
202/1	Steel Column	each	21	0%	0	100%	21	0%	0	0%	0
515/1	Steel Protective Coating	sq.ft	21	100%	21	0%	0	0%	0	0%	0
215/1	Re Conc Abutment	ft	60	75%	45	25%	15	0%	0	0%	0
231/1	Steel Pier Cap	ft	90	0%	0	83%	75	17%	15	0%	0
515/1	Steel Protective Coating	sq.ft	90	100%	90	0%	0	0%	0	0%	0
330/1	Metal Bridge Railing	ft	80	100%	80	0%	0	0%	0	0%	0
515/1	Steel Protective Coating	sq.ft	80	100%	80	0%	0	0%	0	0%	0
9326/1	Bridge Wingwalls	(EA)	4	75%	3	25%	1	0%	0	0%	0
9338/1	Conc Curbs/SW	(LF)	80	100%	80	0%	0	0%	0	0%	0
9501/1	Channel Cond	(EA)	1	100%	1	0%	0	0%	0	0%	0
9504/1	BankCond	(EA)	1	100%	1	0%	0	0%	0	0%	0
9505/1	Debris Smart Flag	(EA)	1	100%	1	0%	0	0%	0	0%	0
9530/1	Approach Guardrail A	(EA)	1	100%	1	0%	0	0%	0	0%	0

Elm/Env	Description	Element Notes
12/1	Re Concrete Deck	Spalls with exposed rebar at outside edges of deck. Chip/slurry seal added between 2005 and 2007 inspections. Feather patch in eastbound lane carried across deck, longitudinal crack in asphalt along centerline of deck. 3 square feet in CS=4. 100% section loss in deck under the north barrier.
510/1	Wearing Surfaces	
1120/1	Efflorescence/Rust Staining	Extensive hairline cracking with efflorescence throughout soffit. Exterior bays between Girders A and B and L and M exhibit saturated concrete, spalled and breaking up with exposed, corroded reinforcing adjacent to the entire top flanges of Girders A and M with most affected areas spalled completely across the exterior bays. Exterior deck edges are spalled and breaking up full length with areas of section loss nearing 90 percent, likely causing partial cantilever of the deck between first interior to exterior girders. Condition is the worst at curb-cut.
107/1	Steel Opn Girder/Beam	R3 corrosion at Girders A, B, C, G, H, L, and M with peeling paint along the webs and the bottom flanges. Remaining interior girders exhibit light R1 to R1 rusting with isolated areas of R2 rusting to the top flanges.
515/1	Steel Protective Coating	
202/1	Steel Column	Light spotty R1 rusting throughout the piles.
515/1	Steel Protective Coating	
215/1	Re Conc Abutment	Light spalling of precast concrete panels between steel H-piles along edges and at lifting holes.
231/1	Steel Pier Cap	R2-R3 corrosion at end 2-4 feet of all caps. R1 at interior portions.
515/1	Steel Protective Coating	
330/1	Metal Bridge Railing	Type 10 rail.
515/1	Steel Protective Coating	
9326/1	Bridge Wingwalls	Northwest wingwall is leaning toward channel at top up to 1 foot over entire height. All other wingwalls lean in between 2-4 inches. Light spotty R1 rust of steel H-piles with precast concrete panels. Diagonal cracks in panels of northwest and northeast wingwalls. Previous erosion behind wingwalls has been shored up with oriented strand board extensions and backfilled. Void into roadway at northwest has been patched prior to 2011 inspection.
9338/1	Conc Curbs/SW	Poured separately from deck slab.
9501/1	Channel Cond	Mud and silt channel, water ponding under structure at the time of the 2013 inspection. 1.6 feet of scour at the center of Pier 2 (P2).
9504/1	BankCond	Grass and weeds on banks.

Colorado Department of Transportation

Highway Number (ON) 5D: 00000 V

Mile Post (ON) 11: 0.000 mi

Structure Inspection and Inventory Report (English Units)

9505/1	Debris Smart Flag	Debris caught on welded wire fence hung from downstream side of bridge. Debris at P2 (upstream), see photo.
9530/1	Approach Guardrail A	Bottom of approach has a vertical curve with limited sight distance. Approach guard rail has minor impact damage at the northeast. Backer blocks are twisted in several locations. Erosion hole at the southwest corner is affecting guardrail post 2 feet from encroaching into the approach roadway.

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
152.02	Apprh Rdway-Mill Apprch/Shlder	11/2/2015	<input type="checkbox"/>	2017	500

Fill and compact areas of shoulder erosion at the west approach.

154.01	Approach Roadway	11/2/2015	<input type="checkbox"/>	2017	1000
--------	------------------	-----------	--------------------------	------	------

Feather pave asphalt at both approaches to eliminate bump on to deck.

156.01	Deck-Seal	11/2/2015	<input type="checkbox"/>	2017	250
--------	-----------	-----------	--------------------------	------	-----

Seal cracks at the ends of the bridge and along the centerline of the deck.

353.99	Deck-Replace	11/2/2015	<input type="checkbox"/>	2017	0
--------	--------------	-----------	--------------------------	------	---

Consider replacement of deck and rehabilitation of girders and piles due to extensive deterioration and corrosion.

398.00	Misc-Install Sign	11/2/2015	<input type="checkbox"/>	2017	
--------	-------------------	-----------	--------------------------	------	--

Until bridge is rehabbed or replaced, install barricades at the white traffic lines to prevent traffic from traveling on heavy deteriorated areas of the deck.

Bridge Notes

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 00000 V

Mile Post (ON) 11: 0.000 mi

ITEM 58 (DECK): CHANGED FROM 4 TO 3 IN 2015 DUE TO LOCAL FAILURES.
ITEM 58=3: 12 MONTH INSPECTION FREQUENCY REQUIRED.
ESSENTIAL FIND LETTER TO CDOT 11/2/2015.

Inspection Notes

Temp: 74 Degrees Time: 2:26 PM Weather: Sunny-calm AWB/CGM

Scope:

☒ NBI ☒ Element ☐ Underwater ☐ Fracture Critical ☐ Other Type: Regular NBI

Team Leader Inspection Check-off:

☐ FCM's ☐ Vertical Clearance
☐ Posting Signs ☐ Stream Bed Profile
☐ Essential Repair Verification

Inspection Team:

Inspection Date: 11/02/2015


Inspector: Brown, Andy

Inspector (Team Leader)

ABUTMENTS:

(2) C10"x2 1/2" CAP ON
(7) 8"x8"xtf=3/8"xtw=5/16"
H-PILES w/6" PC. CONC.
PANELS BETWEEN H-PILES

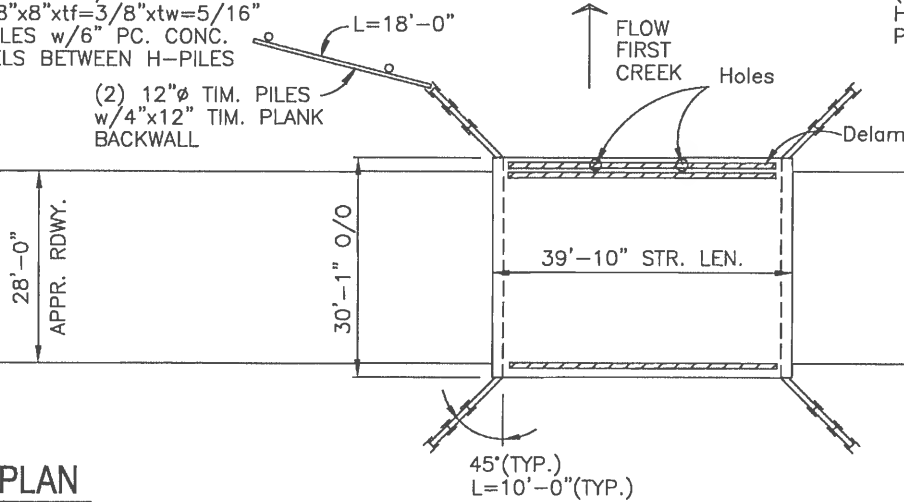
(2) 12"Ø TIM. PILES
w/4"x12" TIM. PLANK
BACKWALL

WINGWALLS:

(3) 8"x8"xtf=3/8"xtw=3/16"
H-PILES w/6" PC. CONC.
PANELS BETWEEN H-PILES

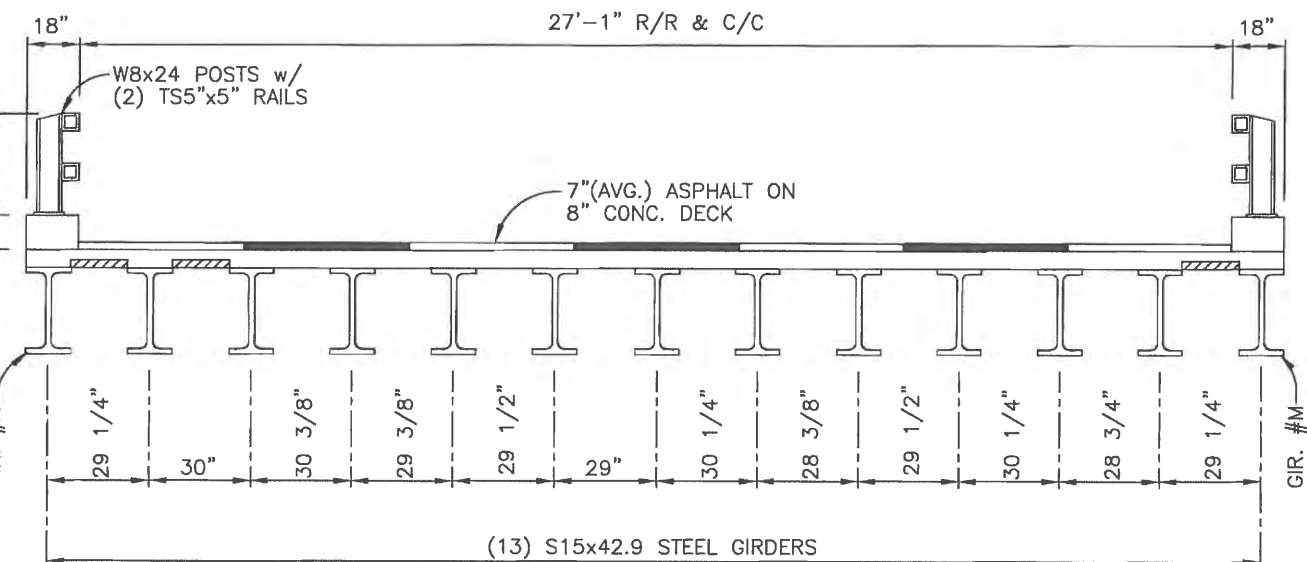
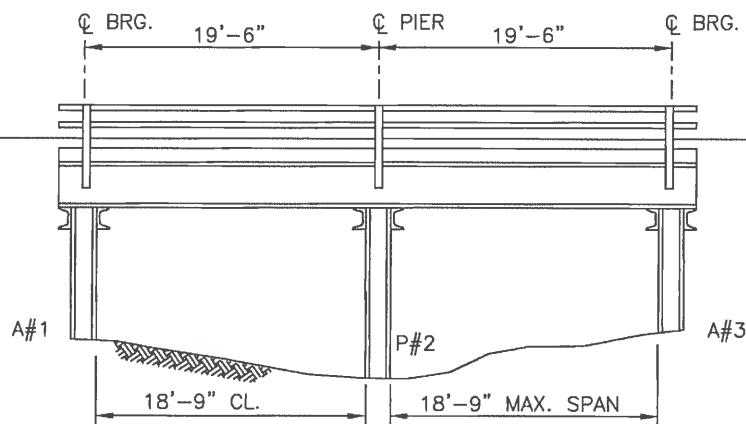


NORTH



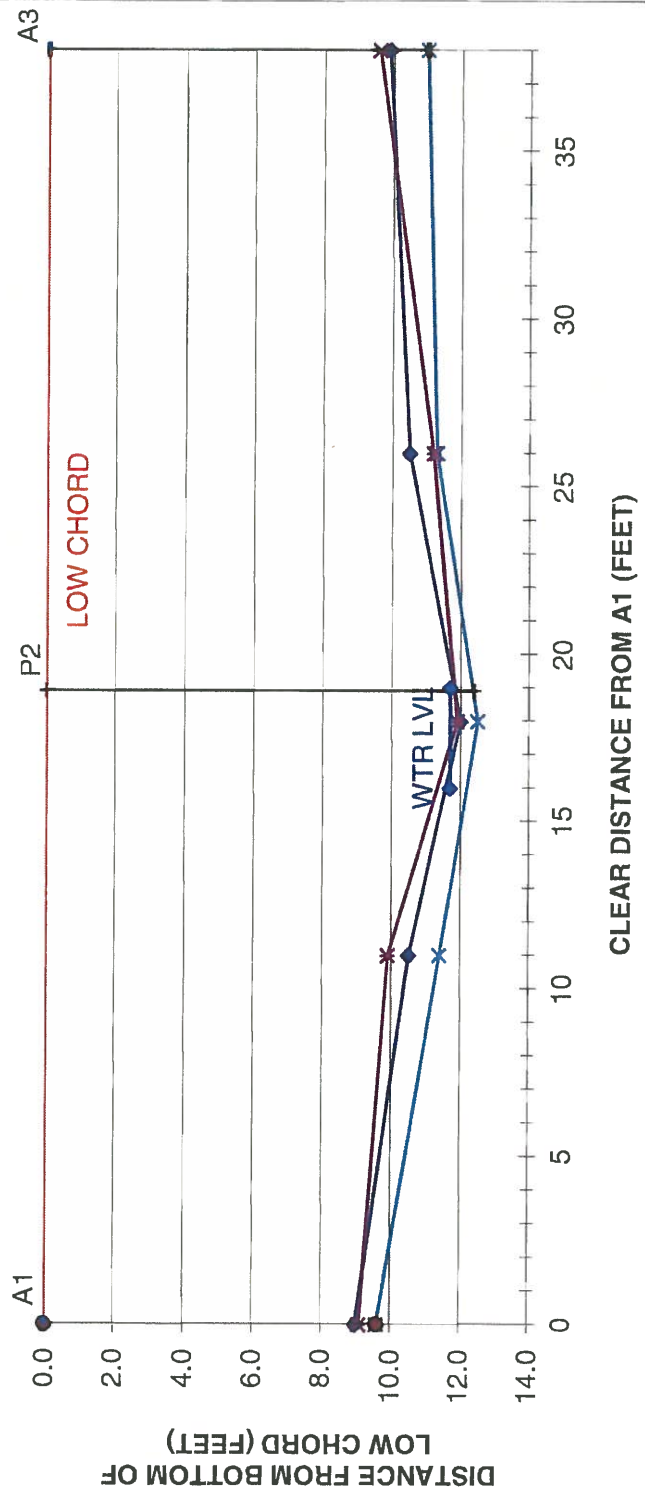
ELEVATION

LOOKING NORTH



LOOKING EAST

STREAMBED HISTORY



WTR LVL
N/A
12.3
11.7

	0	11	18	26	38
2011	9.0	10.5	12.0	10.5	9.9
2013	9.6	11.4	12.5	11.3	11.0
2015	9.1	9.9	11.9	11.2	9.6
2017					
2019					

STRUCTURE NUMBER: ARA 34-56.3
 INSPECTION DATE: 11/2/2015
 PERFORMED BY: CGM/AWB
R. Gm



January 8, 2016

Brian Love, Public Works Leadership Fellow
Arapahoe Public Works and Development
6924 S. Lima St.
Centennial, CO 80112

Re: Off-System Bridge Program Grant Awards

Dear Mr. Love:

On December 18, 2015, the Special Highway Committee met to consider and evaluate local government bridge grant applications for rehabilitation or replacement of substandard bridges and make funding recommendations to the Colorado Department of Transportation (CDOT). The Committee prioritized the county bridge projects submitted, taking into account bridge sufficiency ratings, structural deficiency and functional obsolescence, average daily traffic and grant history.

I am pleased to inform you that the County Road 34 Bridge project (ARA 34-56.3) was recommended for funding in the full amount of \$174,884. The recommendations of the Special Highway Committee have been forwarded to the Bridge Section at CDOT. Bridge Section staff will be contacting you in the near future regarding next steps.

If you have any questions, please do not hesitate to contact me at 303.861.4076.

Sincerely,

Eric Bergman, Policy Director
Colorado Counties, Inc.

Project: BRO C100-039 (21675)
Region: 1 (JH)

(FMLAWRK) Rev. 7/8/09

STATE OF COLORADO
Department of Transportation
Agreement
with
ARAPAHOE COUNTY

TABLE OF CONTENTS

1. PARTIES.....	2
2. EFFECTIVE DATE AND NOTICE OF NONLIABILITY.....	2
3. RECITALS.....	2
4. DEFINITIONS.....	2
5. TERM AND EARLY TERMINATION.....	3
6. SCOPE OF WORK.....	3
7. OPTION LETTER MODIFICATION.....	6
8. PAYMENTS.....	7
9. ACCOUNTING.....	9
10. REPORTING - NOTIFICATION.....	9
11. LOCAL AGENCY RECORDS.....	10
12. CONFIDENTIAL INFORMATION-STATE RECORDS.....	10
13. CONFLICT OF INTEREST.....	11
14. REPRESENTATIONS AND WARRANTIES.....	11
15. INSURANCE.....	12
16. DEFAULT-BREACH.....	13
17. REMEDIES.....	13
18. NOTICES and REPRESENTATIVES.....	15
19. RIGHTS IN DATA, DOCUMENTS, AND COMPUTER SOFTWARE.....	15
20. GOVERNMENTAL IMMUNITY.....	15
21. STATEWIDE CONTRACT MANAGEMENT SYSTEM.....	15
22. FEDERAL REQUIREMENTS.....	16
23. DISADVANTAGED BUSINESS ENTERPRISE (DBE).....	16
24. DISPUTES.....	16
25. GENERAL PROVISIONS.....	16
26. COLORADO SPECIAL PROVISIONS.....	19
27. SIGNATURE PAGE.....	21

28. EXHIBIT A – SCOPE OF WORK	
29. EXHIBIT B – LOCAL AGENCY RESOLUTION	
30. EXHIBIT C – FUNDING PROVISIONS	
31. EXHIBIT D – OPTION LETTER	
32. EXHIBIT E – LOCAL AGENCY CONTRACT ADMINISTRATION CHECKLIST	
33. EXHIBIT F – CERTIFICATION FOR FEDERAL-AID CONTRACTS	
34. EXHIBIT G – DISADVANTAGED BUSINESS ENTERPRISE	
35. EXHIBIT H – LOCAL AGENCY PROCEDURES FOR CONSULTANT SERVICES	
36. EXHIBIT I – FEDERAL-AID CONTRACT PROVISIONS	
37. EXHIBIT J – FEDERAL REQUIREMENTS	
38. EXHIBIT K – SUPPLEMENTAL FEDERAL PROVISIONS	

1. PARTIES

THIS AGREEMENT is entered into by and between ARAPAHOE COUNTY (hereinafter called the "Local Agency"), and the STATE OF COLORADO acting by and through the Department of Transportation (hereinafter called the "State" or "CDOT").

2. EFFECTIVE DATE AND NOTICE OF NONLIABILITY

This Agreement shall not be effective or enforceable until it is approved and signed by the Colorado State Controller or their designee (hereinafter called the "Effective Date"). The State shall not be liable to pay or reimburse the Local Agency for any performance hereunder, including, but not limited to costs or expenses incurred, or be bound by any provision hereof prior to the Effective Date.

3. RECITALS

A. Authority, Appropriation, and Approval

Authority exists in the law and funds have been budgeted, appropriated and otherwise made available and a sufficient unencumbered balance thereof remains available for payment and the required approval, clearance and coordination have been accomplished from and with appropriate agencies.

i. Federal Authority

Pursuant to Title I, Subtitle A, Section 1108 of the "Transportation Equity Act for the 21st Century" of 1998 (TEA-21) and/or the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" (SAFETEA-LU) of 2005 and to applicable provisions of Title 23 of the United States Code and implementing regulations at Title 23 of the Code of Federal Regulations, as may be amended, (collectively referred to hereinafter as the "Federal Provisions"), certain federal funds have been and are expected to continue to be allocated for transportation projects requested by the Local Agency and eligible under the Surface Transportation Improvement Program that has been proposed by the State and approved by the Federal Highway Administration ("FHWA").

ii. State Authority

Pursuant to CRS §43-1-223 and to applicable portions of the Federal Provisions, the State is responsible for the general administration and supervision of performance of projects in the Program, including the administration of federal funds for a Program project performed by a Local Agency under a contract with the State. This Agreement is executed under the authority of CRS §§29-1-203, 43-1-110; 43-1-116, 43-2-101(4)(c) and 43-2-104.5.

B. Consideration

The Parties acknowledge that the mutual promises and covenants contained herein and other good and valuable consideration are sufficient and adequate to support this Agreement.

C. Purpose

The purpose of this Agreement is to disburse Federal funds to the Local Agency pursuant to CDOT's Stewardship Agreement with the FHWA.

D. References

All references in this Agreement to sections (whether spelled out or using the § symbol), subsections, exhibits or other attachments, are references to sections, subsections, exhibits or other attachments contained herein or incorporated as a part hereof, unless otherwise noted.

4. DEFINITIONS

The following terms as used herein shall be construed and interpreted as follows:

A. Agreement or Contract

"Agreement" or "Contract" means this Agreement, its terms and conditions, attached exhibits, documents incorporated by reference under the terms of this Agreement, and any future modifying agreements, exhibits, attachments or references that are incorporated pursuant to Colorado State Fiscal Rules and Policies.

B. Agreement Funds

"Agreement Funds" means funds payable by the State to Local Agency pursuant to this Agreement.

C. Budget

"Budget" means the budget for the Work described in Exhibit C.

D. Consultant and Contractor

"Consultant" means a professional engineer or designer hired by Local Agency to design the Work and

"Contractor" means the general construction contractor hired by Local Agency to construct the Work.

E. Evaluation

"Evaluation" means the process of examining the Local Agency's Work and rating it based on criteria established in §6 and Exhibits A and E.

F. Exhibits and Other Attachments

The following exhibit(s) are attached hereto and incorporated by reference herein: **Exhibit A** (Scope of Work), **Exhibit B** (Resolution), **Exhibit C** (Funding Provisions), **Exhibit D** (Option Letter), **Exhibit E** (Checklist), **Exhibit F** (Certification for Federal-Aid Funds), **Exhibit G** (Disadvantaged Business Enterprise), **Exhibit H** (Local Agency Procedures), **Exhibit I** (Federal-Aid Contract Provisions), **Exhibit J** (Federal Requirements) and **Exhibit K** (Supplemental Federal Provisions).

G. Goods

"Goods" means tangible material acquired, produced, or delivered by the Local Agency either separately or in conjunction with the Services the Local Agency renders hereunder.

H. Oversight

"Oversight" means the term as it is defined in the Stewardship Agreement between CDOT and the Federal Highway Administration ("FHWA") and as it is defined in the Local Agency Manual.

I. Party or Parties

"Party" means the State or the Local Agency and "Parties" means both the State and the Local Agency

J. Work Budget

Work Budget means the budget described in **Exhibit C**.

K. Services

"Services" means the required services to be performed by the Local Agency pursuant to this Contract.

L. Work

"Work" means the tasks and activities the Local Agency is required to perform to fulfill its obligations under this Contract and Exhibits A and E, including the performance of the Services and delivery of the Goods.

M. Work Product

"Work Product" means the tangible or intangible results of the Local Agency's Work, including, but not limited to, software, research, reports, studies, data, photographs, negatives or other finished or unfinished documents, drawings, models, surveys, maps, materials, or work product of any type, including drafts.

5. TERM AND EARLY TERMINATION

The Parties' respective performances under this Agreement shall commence on the Effective Date. This Agreement shall terminate after five (5) years of state controllers signature in section 27, unless sooner terminated or completed as demonstrated by final payment and final audit.

6. SCOPE OF WORK

A. Completion

The Local Agency shall complete the Work and other obligations as described herein in **Exhibit A**. Work performed prior to the Effective Date or after final acceptance shall not be considered part of the Work.

B. Goods and Services

The Local Agency shall procure Goods and Services necessary to complete the Work. Such procurement shall be accomplished using the Contract Funds and shall not increase the maximum amount payable hereunder by the State.

C. Employees

All persons employed hereunder by the Local Agency, or any Consultants or Contractors shall be considered the Local Agency's, Consultants', or Contractors' employee(s) for all purposes and shall not be employees of the State for any purpose.

D. State and Local Agency Commitments

i. Design

If the Work includes preliminary design or final design or design work sheets, or special provisions and estimates (collectively referred to as the "Plans"), the Local Agency shall comply with and be responsible for satisfying the following requirements:

- a) Perform or provide the Plans to the extent required by the nature of the Work.
- b) Prepare final design in accordance with the requirements of the latest edition of the American Association of State Highway Transportation Officials (AASHTO) manual or other standard, such as the Uniform Building Code, as approved by the State.

- c) Prepare provisions and estimates in accordance with the most current version of the State's Roadway and Bridge Design Manuals and Standard Specifications for Road and Bridge Construction or Local Agency specifications if approved by the State.
- d) Include details of any required detours in the Plans in order to prevent any interference of the construction Work and to protect the traveling public.
- e) Stamp the Plans produced by a Colorado Registered Professional Engineer.
- f) Provide final assembly of Plans and all other necessary documents.
- g) Be responsible for the Plans' accuracy and completeness.
- h) Make no further changes in the Plans following the award of the construction contract to contractor unless agreed to in writing by the Parties. The Plans shall be considered final when approved in writing by CDOT and when final they shall be incorporated herein.

ii. Local Agency Work

- a) Local Agency shall comply with the requirements of the Americans With Disabilities Act (ADA), and applicable federal regulations and standards as contained in the document "ADA Accessibility Requirements in CDOT Transportation Projects".
- b) Local Agency shall afford the State ample opportunity to review the Plans and make any changes in the Plans that are directed by the State to comply with FHWA requirements.
- c) Local Agency may enter into a contract with a Consultant to perform all or any portion of the Plans and/or of construction administration. Provided, however, if federal-aid funds are involved in the cost of such Work to be done by such Consultant, such Consultant contract (and the performance/provision of the Plans under the contract) must comply with all applicable requirements of 23 C.F.R. Part 172 and with any procedures implementing those requirements as provided by the State, including those in Exhibit H. If the Local Agency enters into a contract with a Consultant for the Work:
 - (1) Local Agency shall submit a certification that procurement of any Consultant contract complies with the requirements of 23 C.F.R. 172.5(1) prior to entering into such Consultant contract, subject to the State's approval. If not approved by the State, the Local Agency shall not enter into such Consultant contract.
 - (2) Local Agency shall ensure that all changes in the Consultant contract have prior approval by the State and FHWA and that they are in writing. Immediately after the Consultant contract has been awarded, one copy of the executed Consultant contract and any amendments shall be submitted to the State.
 - (3) Local Agency shall require that all billings under the Consultant contract comply with the State's standardized billing format. Examples of the billing formats are available from the CDOT Agreements Office.
 - (4) Local Agency (and any Consultant) shall comply with 23 C.F.R. 172.5(b) and (d) and use the CDOT procedures described in Exhibit H to administer the Consultant contract.
 - (5) Local Agency may expedite any CDOT approval of its procurement process and/or Consultant contract by submitting a letter to CDOT from the Local Agency's attorney/authorized representative certifying compliance with Exhibit H and 23 C.F.R. 172.5(b) and (d).
 - (6) Local Agency shall ensure that the Consultant contract complies with the requirements of 49 CFR 18.36(i) and contains the following language verbatim:
 - (a) The design work under this Agreement shall be compatible with the requirements of the contract between the Local Agency and the State (which is incorporated herein by this reference) for the design/construction of the project. The State is an intended third-party beneficiary of this agreement for that purpose.
 - (b) Upon advertisement of the project work for construction, the consultant shall make available services as requested by the State to assist the State in the evaluation of construction and the resolution of construction problems that may arise during the construction of the project.
 - (c) The consultant shall review the Construction Contractor's shop drawings for conformance with the contract documents and compliance with the provisions of the State's publication, Standard Specifications for Road and Bridge Construction, in connection with this work.
 - (d) The State, in its sole discretion, may review construction plans, special provisions and estimates and may require the Local Agency to make such changes therein as the State determines necessary to comply with State and FHWA requirements.

iii. Construction

If the Work includes construction, the Local Agency shall perform the construction in accordance with the approved design plans and/or administer the construction in accordance with **Exhibit E**. Such administration shall include Work inspection and testing; approving sources of materials; performing required plant and shop inspections; documentation of contract payments, testing and inspection activities; preparing and approving pay estimates; preparing, approving and securing the funding for contract modification orders and minor contract revisions; processing Construction Contractor claims; construction supervision; and meeting the Quality Control requirements of the FHWA/CDOT Stewardship Agreement, as described in the Local Agency Contract Administration Checklist.

- a) If the Local Agency is performing the Work, the State may, after providing written notice of the reason for the suspension to the Local Agency, suspend the Work, wholly or in part, due to the failure of the Local Agency or its Contractor to correct conditions which are unsafe for workers or for such periods as the State may deem necessary due to unsuitable weather, or for conditions considered unsuitable for the prosecution of the Work, or for any other condition or reason deemed by the State to be in the public interest.
- b) The Local Agency shall be responsible for the following:
 - (1) Appointing a qualified professional engineer, licensed in the State of Colorado, as the Local Agency Project Engineer (LAPE), to perform engineering administration. The LAPE shall administer the Work in accordance with this Agreement, the requirements of the construction contract and applicable State procedures.
 - (2) For the construction of the Work, advertising the call for bids upon approval by the State and awarding the construction contract(s) to the low responsible bidder(s).
 - (a) All advertising and bid awards, pursuant to this agreement, by the Local Agency shall comply with applicable requirements of 23 U.S.C. §112 and 23 C.F.R. Parts 633 and 635 and C.R.S. § 24-92-101 et seq. Those requirements include, without limitation, that the Local Agency and its Contractor shall incorporate Form 1273 (**Exhibit I**) in its entirety verbatim into any subcontract(s) for those services as terms and conditions therefore, as required by 23 C.F.R. 633.102(e).
 - (b) The Local Agency may accept or reject the proposal of the apparent low bidder for Work on which competitive bids have been received. The Local Agency must accept or reject such bid within three (3) working days after they are publicly opened.
 - (c) As part of accepting bid awards, the Local Agency shall provide additional funds, subject to their availability and appropriation, necessary to complete the Work if no additional federal-aid funds are available.
 - (3) The requirements of this §6(D)(iii)(c)(2) also apply to any advertising and awards made by the State.
 - (4) If all or part of the Work is to be accomplished by the Local Agency's personnel (i.e. by force account) rather than by a competitive bidding process, the Local Agency shall perform such work in accordance with pertinent State specifications and requirements of 23 C.F.R. 635, Subpart B, Force Account Construction.
 - (a) Such Work will normally be based upon estimated quantities and firm unit prices agreed to between the Local Agency, the State and FHWA in advance of the Work, as provided for in 23 C.F.R. 635.204(c). Such agreed unit prices shall constitute a commitment as to the value of the Work to be performed.
 - (b) An alternative to the preceding subsection is that the Local Agency may agree to participate in the Work based on actual costs of labor, equipment rental, materials supplies and supervision necessary to complete the Work. Where actual costs are used, eligibility of cost items shall be evaluated for compliance with 48 C.F.R. Part 31.
 - (c) If the State provides matching funds under this Agreement, rental rates for publicly owned equipment shall be determined in accordance with the State's Standard Specifications for Road and Bridge Construction §109.04.
 - (d) All Work being paid under force account shall have prior approval of the State and/or FHWA and shall not be initiated until the State has issued a written notice to proceed.

E. State's Commitments

- a) The State will perform a final project inspection of the Work as a quality control/assurance activity. When all Work has been satisfactorily completed, the State will sign the FHWA Form 1212.

- b) Notwithstanding any consents or approvals given by the State for the Plans, the State shall not be liable or responsible in any manner for the structural design, details or construction of any major structures designed by, or that are the responsibility of, the Local Agency as identified in the Local Agency Contract Administration Checklist, **Exhibit E**.

F. ROW and Acquisition/Relocation

- a) If the Local Agency purchases a right of way for a State highway, including areas of influence, the Local Agency shall immediately convey title to such right of way to CDOT after the Local Agency obtains title.
- b) Any acquisition/relocation activities shall comply with all applicable federal and state statutes and regulations, including but not limited to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended and the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs as amended (49 C.F.R. Part 24), CDOT's Right of Way Manual, and CDOT's Policy and Procedural Directives.
- c) The Parties' respective compliance responsibilities depend on the level of federal participation; provided however, that the State always retains Oversight responsibilities.
- d) The Parties' respective responsibilities under each level in CDOT's Right of Way Manual (located at http://www.dot.state.co.us/ROW_Manual/) and reimbursement for the levels will be under the following categories:
 - (1) Right of way acquisition (3111) for federal participation and non-participation;
 - (2) Relocation activities, if applicable (3109);
 - (3) Right of way incidentals, if applicable (expenses incidental to acquisition/relocation of right of way – 3114).

G. Utilities

If necessary, the Local Agency shall be responsible for obtaining the proper clearance or approval from any utility company which may become involved in the Work. Prior to the Work being advertised for bids, the Local Agency shall certify in writing to the State that all such clearances have been obtained.

- a) **Railroads**
If the Work involves modification of a railroad company's facilities and such modification will be accomplished by the railroad company, the Local Agency shall make timely application to the Public Utilities commission requesting its order providing for the installation of the proposed improvements and not proceed with that part of the Work without compliance. The Local Agency shall also establish contact with the railroad company involved for the purpose of complying with applicable provisions of 23 C.F.R. 646, subpart B, concerning federal-aid projects involving railroad facilities and:
 - b) Execute an agreement setting out what work is to be accomplished and the location(s) thereof, and which costs shall be eligible for federal participation.
 - c) Obtain the railroad's detailed estimate of the cost of the Work.
 - d) Establish future maintenance responsibilities for the proposed installation.
 - e) Proscribe future use or dispositions of the proposed improvements in the event of abandonment or elimination of a grade crossing.
 - f) Establish future repair and/or replacement responsibilities in the event of accidental destruction or damage to the installation.

H. Environmental Obligations

The Local Agency shall perform all Work in accordance with the requirements of the current federal and state environmental regulations including the National Environmental Policy Act of 1969 (NEPA) as applicable.

I. Maintenance Obligations

The Local Agency shall maintain and operate the Work constructed under this Agreement at its own cost and expense during their useful life, in a manner satisfactory to the State and FHWA, and the Local Agency shall provide for such maintenance and operations obligations each year. Such maintenance and operations shall be conducted in accordance with all applicable statutes, ordinances and regulations pertaining to maintaining such improvements. The State and FHWA may make periodic inspections to verify that such improvements are being adequately maintained.

7. OPTION LETTER MODIFICATION

An option letter may be used to add a phase without increasing total budgeted funds, increase or decrease the encumbrance amount as shown on **Exhibit C**, and/or transfer funds from one phase to another. Option letter modification is limited to the specific scenarios listed below. The option letter shall not be deemed valid until signed by the State Controller or an authorized delegate.

A. Option to add a phase and/or increase or decrease the total encumbrance amount.

The State may require the Local Agency to begin a phase that may include Design, Construction, Environmental, Utilities, ROW Incidentals or Miscellaneous (this does not apply to Acquisition/Relocation or Railroads) as detailed in **Exhibit A** and at the same terms and conditions stated in the original Agreement, with the total budgeted funds remaining the same. The State may simultaneously increase and/or decrease the total encumbrance amount by replacing the original funding exhibit (**Exhibit C**) in the original Agreement with an updated **Exhibit C-1** (subsequent exhibits to **Exhibit C-1** shall be labeled **C-2**, **C-3**, etc.). The State may exercise this option by providing a fully executed option to the Local Agency within thirty (30) days before the initial targeted start date of the phase, in a form substantially equivalent to **Exhibit D**. If the State exercises this option, the Agreement will be considered to include this option provision.

B. Option to transfer funds from one phase to another phase.

The State may require or permit the Local Agency to transfer funds from one phase (Design, Construction, Environmental, Utilities, ROW Incidentals or Miscellaneous) to another as a result of changes to state, federal, and local match. The original funding exhibit (**Exhibit C**) in the original Agreement will be replaced with an updated **Exhibit C-1** (subsequent exhibits to **Exhibit C-1** shall be labeled **C-2**, **C-3**, etc.) and attached to the option letter. The funds transferred from one phase to another are subject to the same terms and conditions stated in the original Agreement with the total budgeted funds remaining the same. The State may unilaterally exercise this option by providing a fully executed option to the Local Agency within thirty (30) days before the initial targeted start date of the phase, in a form substantially equivalent to **Exhibit D**. Any transfer of funds from one phase to another is limited to an aggregate maximum of 24.99% of the original dollar amount of either phase affected by a transfer. A bilateral amendment is required for any transfer exceeding 24.99% of the original dollar amount of the phase affected by the increase or decrease.

C. Option to do both Options A and B.

The State may require the Local Agency to add a phase as detailed in **Exhibit A**, and encumber and transfer funds from one phase to another. The original funding exhibit (**Exhibit C**) in the original Agreement will be replaced with an updated **Exhibit C-1** (subsequent exhibits to **Exhibit C-1** shall be labeled **C-2**, **C-3**, etc.) and attached to the option letter. The addition of a phase and encumbrance and transfer of funds are subject to the same terms and conditions stated in the original Agreement with the total budgeted funds remaining the same. The State may unilaterally exercise this option by providing a fully executed option to the Local Agency within thirty (30) days before the initial targeted start date of the phase, in a form substantially equivalent to **Exhibit D**.

8. PAYMENTS

The State shall, in accordance with the provisions of this §8, pay the Local Agency in the amounts and using the methods set forth below:

A. Maximum Amount

The maximum amount payable is set forth in **Exhibit C** as determined by the State from available funds. Payments to the Local Agency are limited to the unpaid encumbered balance of the Contract set forth in **Exhibit C**. The Local Agency shall provide its match share of the costs as evidenced by an appropriate ordinance/resolution or other authority letter which expressly authorizes the Local Agency the authority to enter into this Agreement and to expend its match share of the Work. A copy of such ordinance/resolution or authority letter is attached hereto as **Exhibit B**.

B. Payment

i. Advance, Interim and Final Payments

Any advance payment allowed under this Contract or in **Exhibit C** shall comply with State Fiscal Rules and be made in accordance with the provisions of this Contract or such Exhibit. The Local Agency shall initiate any payment requests by submitting invoices to the State in the form and manner approved by the State.

ii. Interest

The State shall fully pay each invoice within 45 days of receipt thereof if the amount invoiced represents performance by the Local Agency previously accepted by the State. Uncontested amounts not paid by the State within 45 days shall bear interest on the unpaid balance beginning on the 46th day at a rate not to exceed one percent per month until paid in full; provided, however, that interest shall not accrue on unpaid amounts that are subject to a good faith dispute. The Local Agency shall invoice the State separately for accrued interest on delinquent amounts. The billing shall reference the delinquent payment, the number of days interest to be paid and the interest rate.

iii. Available Funds-Contingency-Termination

The State is prohibited by law from making commitments beyond the term of the State's current fiscal year. Therefore, the Local Agency's compensation beyond the State's current Fiscal Year is contingent upon the continuing availability of State appropriations as provided in the Colorado Special Provisions. The State's performance hereunder is also contingent upon the continuing availability of federal funds. Payments pursuant to this Contract shall be made only from available funds encumbered for this Contract and the State's liability for such payments shall be limited to the amount remaining of such encumbered funds. If State or federal funds are not appropriated, or otherwise become unavailable to fund this Contract, the State may terminate this Contract immediately, in whole or in part, without further liability in accordance with the provisions hereof.

iv. Erroneous Payments

At the State's sole discretion, payments made to the Local Agency in error for any reason, including, but not limited to overpayments or improper payments, and unexpended or excess funds received by the Local Agency, may be recovered from the Local Agency by deduction from subsequent payments under this Contract or other contracts, Agreements or agreements between the State and the Local Agency or by other appropriate methods and collected as a debt due to the State. Such funds shall not be paid to any party other than the State.

C. Use of Funds

Contract Funds shall be used only for eligible costs identified herein.

D. Matching Funds

The Local Agency shall provide matching funds as provided in §8.A. and Exhibit C. The Local Agency shall have raised the full amount of matching funds prior to the Effective Date and shall report to the State regarding the status of such funds upon request. The Local Agency's obligation to pay all or any part of any matching funds, whether direct or contingent, only extend to funds duly and lawfully appropriated for the purposes of this Agreement by the authorized representatives of the Local Agency and paid into the Local Agency's treasury. The Local Agency represents to the State that the amount designated "Local Agency Matching Funds" in Exhibit C has been legally appropriated for the purpose of this Agreement by its authorized representatives and paid into its treasury. The Local Agency does not by this Agreement irrevocably pledge present cash reserves for payments in future fiscal years, and this Agreement is not intended to create a multiple-fiscal year debt of the Local Agency. The Local Agency shall not pay or be liable for any claimed interest, late charges, fees, taxes or penalties of any nature, except as required by the Local Agency's laws or policies.

E. Reimbursement of Local Agency Costs

The State shall reimburse the Local Agency's allowable costs, not exceeding the maximum total amount described in Exhibit C and §8. The applicable principles described in 49 C.F.R. 18 Subpart C and 49 C.F.R. 18.22 shall govern the State's obligation to reimburse all costs incurred by the Local Agency and submitted to the State for reimbursement hereunder, and the Local Agency shall comply with all such principles. The State shall reimburse the Local Agency for the federal-aid share of properly documented costs related to the Work after review and approval thereof, subject to the provisions of this Agreement and Exhibit C. However, any costs incurred by the Local Agency prior to the date of FHWA authorization for the Work and prior to the Effective Date shall not be reimbursed absent specific FHWA and State Controller approval thereof. Costs shall be:

i. Reasonable and Necessary

Reasonable and necessary to accomplish the Work and for the Goods and Services provided.

ii. Net Cost

Actual net cost to the Local Agency (i.e. the price paid minus any items of value received by the Local Agency that reduce the cost actually incurred).

9. ACCOUNTING

The Local Agency shall establish and maintain accounting systems in accordance with generally accepted accounting standards (a separate set of accounts, or as a separate and integral part of its current accounting scheme). Such accounting systems shall, at a minimum, provide as follows:

A. Local Agency Performing the Work

If Local Agency is performing the Work, all allowable costs, including any approved services contributed by the Local Agency or others, shall be documented using payrolls, time records, invoices, contracts, vouchers, and other applicable records.

B. Local Agency-Checks or Draws

Checks issued or draws made by the Local Agency shall be made or drawn against properly signed vouchers detailing the purpose thereof. All checks, payrolls, invoices, contracts, vouchers, orders, and other accounting documents shall be on file in the office of the Local Agency, clearly identified, readily accessible, and to the extent feasible, kept separate and apart from all other Work documents.

C. State-Administrative Services

The State may perform any necessary administrative support services required hereunder. The Local Agency shall reimburse the State for the costs of any such services from the Budget as provided for in Exhibit C. If FHWA funding is not available or is withdrawn, or if the Local Agency terminates this Agreement prior to the Work being approved or completed, then all actual incurred costs of such services and assistance provided by the State shall be the Local Agency's sole expense.

D. Local Agency-Invoices

The Local Agency's invoices shall describe in detail the reimbursable costs incurred by the Local Agency for which it seeks reimbursement, the dates such costs were incurred and the amounts thereof, and shall not be submitted more often than monthly.

E. Invoicing Within 60 Days

The State shall not be liable to reimburse the Local Agency for any costs unless CDOT receives such invoices within 60 days after the date for which payment is requested, including final invoicing. Final payment to the Local Agency may be withheld at the discretion of the State until completion of final audit. Any costs incurred by the Local Agency that are not allowable under 49 C.F.R. 18 shall be reimbursed by the Local Agency, or the State may offset them against any payments due from the State to the Local Agency.

F. Reimbursement of State Costs

CDOT shall perform Oversight and the Local Agency shall reimburse CDOT for its related costs. The Local Agency shall pay invoices within 60 days after receipt thereof. If the Local Agency fails to remit payment within 60 days, at CDOT's request, the State is authorized to withhold an equal amount from future apportionment due the Local Agency from the Highway Users Tax Fund and to pay such funds directly to CDOT. Interim funds shall be payable from the State Highway Supplementary Fund (400) until CDOT is reimbursed. If the Local Agency fails to make payment within 60 days, it shall pay interest to the State at a rate of one percent per month on the delinquent amounts until the billing is paid in full. CDOT's invoices shall describe in detail the reimbursable costs incurred, the dates incurred and the amounts thereof, and shall not be submitted more often than monthly.

10. REPORTING - NOTIFICATION

Reports, Evaluations, and Reviews required under this §10 shall be in accordance with the procedures of and in such form as prescribed by the State and in accordance with §18, if applicable.

A. Performance, Progress, Personnel, and Funds

The Local Agency shall submit a report to the State upon expiration or sooner termination of this Agreement, containing an Evaluation and Review of the Local Agency's performance and the final status of the Local Agency's obligations hereunder.

B. Litigation Reporting

Within 10 days after being served with any pleading related to this Agreement, in a legal action filed with a court or administrative agency, the Local Agency shall notify the State of such action and deliver copies of such pleadings to the State's principal representative as identified herein. If the State or its principal representative is not then serving, such notice and copies shall be delivered to the Executive Director of CDOT.

C. Noncompliance

The Local Agency's failure to provide reports and notify the State in a timely manner in accordance with this §10 may result in the delay of payment of funds and/or termination as provided under this Agreement.

D. Documents

Upon request by the State, the Local Agency shall provide the State, or its authorized representative, copies of all documents, including contracts and subcontracts, in its possession related to the Work.

11. LOCAL AGENCY RECORDS

A. Maintenance

The Local Agency shall make, keep, maintain, and allow inspection and monitoring by the State of a complete file of all records, documents, communications, notes and other written materials, electronic media files, and communications, pertaining in any manner to the Work or the delivery of Services (including, but not limited to the operation of programs) or Goods hereunder. The Local Agency shall maintain such records until the last to occur of the following: (i) a period of three years after the date this Agreement is completed or terminated, or (ii) three years after final payment is made hereunder, whichever is later, or (iii) for such further period as may be necessary to resolve any pending matters, or (iv) if an audit is occurring, or the Local Agency has received notice that an audit is pending, then until such audit has been completed and its findings have been resolved (collectively, the "Record Retention Period").

B. Inspection

The Local Agency shall permit the State, the federal government and any other duly authorized agent of a governmental agency to audit, inspect, examine, excerpt, copy and/or transcribe the Local Agency's records related to this Agreement during the Record Retention Period to assure compliance with the terms hereof or to evaluate the Local Agency's performance hereunder. The State reserves the right to inspect the Work at all reasonable times and places during the term of this Agreement, including any extension. If the Work fails to conform to the requirements of this Agreement, the State may require the Local Agency promptly to bring the Work into conformity with Agreement requirements, at the Local Agency's sole expense. If the Work cannot be brought into conformance by re-performance or other corrective measures, the State may require the Local Agency to take necessary action to ensure that future performance conforms to Agreement requirements and may exercise the remedies available under this Agreement at law or in equity in lieu of or in conjunction with such corrective measures.

C. Monitoring

The Local Agency also shall permit the State, the federal government or any other duly authorized agent of a governmental agency, in their sole discretion, to monitor all activities conducted by the Local Agency pursuant to the terms of this Agreement using any reasonable procedure, including, but not limited to: internal evaluation procedures, examination of program data, special analyses, on-site checking, formal audit examinations, or any other procedures. All such monitoring shall be performed in a manner that shall not unduly interfere with the Local Agency's performance hereunder.

D. Final Audit Report

If an audit is performed on the Local Agency's records for any fiscal year covering a portion of the term of this Agreement, the Local Agency shall submit a copy of the final audit report to the State or its principal representative at the address specified herein.

12. CONFIDENTIAL INFORMATION-STATE RECORDS

The Local Agency shall comply with the provisions of this §12 if it becomes privy to confidential information in connection with its performance hereunder. Confidential information, includes, but is not necessarily limited to, state records, personnel records, and information concerning individuals. Nothing in this §12 shall be construed to require the Local Agency to violate the Colorado Open Records Act, C.R.S. § 24-72-101 et seq.

A. Confidentiality

The Local Agency shall keep all State records and information confidential at all times and to comply with all laws and regulations concerning confidentiality of information. Any request or demand by a third party for State records and information in the possession of the Local Agency shall be immediately forwarded to the State's principal representative.

B. Notification

The Local Agency shall notify its agents, employees, and assigns who may come into contact with State records and confidential information that each is subject to the confidentiality requirements set forth herein, and shall provide each with a written explanation of such requirements before they are permitted to access such records and information.

C. Use, Security, and Retention

Confidential information of any kind shall not be distributed or sold to any third party or used by the Local Agency or its agents in any way, except as authorized by the Agreement and as approved by the State. The Local Agency shall provide and maintain a secure environment that ensures confidentiality of all State records and other confidential information wherever located. Confidential information shall not be retained in any files or otherwise by the Local Agency or its agents, except as set forth in this Agreement and approved by the State.

D. Disclosure-Liability

Disclosure of State records or other confidential information by the Local Agency for any reason may be cause for legal action by third parties against the Local Agency, the State or their respective agents. The Local Agency is prohibited from providing indemnification to the State pursuant to the Constitution of the State of Colorado, Article XI, Section 1, however, the Local Agency shall be responsible for any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related costs, incurred as a result of any act or omission by the Local Agency, or its employees, agents, or assignees pursuant to this §12.

13. CONFLICT OF INTEREST

The Local Agency shall not engage in any business or personal activities or practices or maintain any relationships which conflict in any way with the full performance of the Local Agency's obligations hereunder. The Local Agency acknowledges that with respect to this Agreement even the appearance of a conflict of interest is harmful to the State's interests. Absent the State's prior written approval, the Local Agency shall refrain from any practices, activities or relationships that reasonably appear to be in conflict with the full performance of the Local Agency's obligations to the State hereunder. If a conflict or appearance exists, or if the Local Agency is uncertain whether a conflict or the appearance of a conflict of interest exists, the Local Agency shall submit to the State a disclosure statement setting forth the relevant details for the State's consideration. Failure to promptly submit a disclosure statement or to follow the State's direction in regard to the apparent conflict constitutes a breach of this Agreement.

14. REPRESENTATIONS AND WARRANTIES

The Local Agency makes the following specific representations and warranties, each of which was relied on by the State in entering into this Agreement.

A. Standard and Manner of Performance

The Local Agency shall perform its obligations hereunder, including in accordance with the highest professional standard of care, skill and diligence and in the sequence and manner set forth in this Agreement.

B. Legal Authority – The Local Agency and the Local Agency's Signatory

The Local Agency warrants that it possesses the legal authority to enter into this Agreement and that it has taken all actions required by its procedures, by-laws, and/or applicable laws to exercise that authority, and to lawfully authorize its undersigned signatory to execute this Agreement, or any part thereof, and to bind the Local Agency to its terms. If requested by the State, the Local Agency shall provide the State with proof of the Local Agency's authority to enter into this Agreement within 15 days of receiving such request.

C. Licenses, Permits, Etc.

The Local Agency represents and warrants that as of the Effective Date it has, and that at all times during the term hereof it shall have, at its sole expense, all licenses, certifications, approvals, insurance, permits, and other authorization required by law to perform its obligations hereunder. The Local Agency warrants that it shall maintain all necessary licenses, certifications, approvals, insurance, permits, and other authorizations required to properly perform this Agreement, without reimbursement by the State or other adjustment in Agreement Funds. Additionally, all employees and agents of the Local Agency performing Services under this Agreement shall hold all required licenses or certifications, if any, to perform their responsibilities. The Local Agency, if a foreign corporation or other foreign entity transacting business in the State of Colorado, further warrants that it currently has obtained and shall maintain any applicable certificate of authority to transact business in the State of Colorado and has designated a registered agent in Colorado to accept service

of process. Any revocation, withdrawal or non-renewal of licenses, certifications, approvals, insurance, permits or any such similar requirements necessary for the Local Agency to properly perform the terms of this Agreement shall be deemed to be a material breach by the Local Agency and constitute grounds for termination of this Agreement.

15. INSURANCE

The Local Agency and its contractors shall obtain and maintain insurance as specified in this section at all times during the term of this Agreement: All policies evidencing the insurance coverage required hereunder shall be issued by insurance companies satisfactory to the Local Agency and the State.

A. The Local Agency

i. Public Entities

If the Local Agency is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., as amended (the "GIA"), then the Local Agency shall maintain at all times during the term of this Agreement such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the GIA. The Local Agency shall show proof of such insurance satisfactory to the State, if requested by the State. The Local Agency shall require each Agreement with their Consultant and Contractor, that are providing Goods or Services hereunder, to include the insurance requirements necessary to meet Consultant or Contractor liabilities under the GIA.

ii. Non-Public Entities

If the Local Agency is not a "public entity" within the meaning of the Governmental Immunity Act, the Local Agency shall obtain and maintain during the term of this Agreement insurance coverage and policies meeting the same requirements set forth in §15(B) with respect to sub-contractors that are not "public entities".

B. Contractors

The Local Agency shall require each contract with Contractors, Subcontractors, or Consultants, other than those that are public entities, providing Goods or Services in connection with this Agreement, to include insurance requirements substantially similar to the following:

i. Worker's Compensation

Worker's Compensation Insurance as required by State statute, and Employer's Liability Insurance covering all of the Local Agency's Contractors, Subcontractors, or Consultant's employees acting within the course and scope of their employment.

ii. General Liability

Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent contractors, products and completed operations, blanket liability, personal injury, and advertising liability with minimum limits as follows: (a) \$1,000,000 each occurrence; (b) \$1,000,000 general aggregate; (c) \$1,000,000 products and completed operations aggregate; and (d) \$50,000 any one fire. If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, contractors, subcontractors, and consultants shall immediately obtain additional insurance to restore the full aggregate limit and furnish to the Local Agency a certificate or other document satisfactory to the Local Agency showing compliance with this provision.

iii. Automobile Liability

Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of \$1,000,000 each accident combined single limit.

iv. Additional Insured

The Local Agency and the State shall be named as additional insured on the Commercial General Liability policies (leases and construction contracts require additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037, or equivalent).

v. Primacy of Coverage

Coverage required of the Consultants or Contractors shall be primary over any insurance or self-insurance program carried by the Local Agency or the State.

vi. Cancellation

The above insurance policies shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the Local Agency and the State by certified mail.

vii. Subrogation Waiver

All insurance policies in any way related to this Agreement and secured and maintained by the Local Agency's Consultants or Contractors as required herein shall include clauses stating that each carrier

shall waive all rights of recovery, under subrogation or otherwise, against the Local Agency or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

C. Certificates

The Local Agency and all Contractors, subcontractors, or Consultants shall provide certificates showing insurance coverage required hereunder to the State within seven business days of the Effective Date of this Agreement. No later than 15 days prior to the expiration date of any such coverage, the Local Agency and each contractor, subcontractor, or consultant shall deliver to the State or the Local Agency certificates of insurance evidencing renewals thereof. In addition, upon request by the State at any other time during the term of this Agreement or any sub-contract, the Local Agency and each contractor, subcontractor, or consultant shall, within 10 days of such request, supply to the State evidence satisfactory to the State of compliance with the provisions of this §15.

16. DEFAULT-BREACH

A. Defined

In addition to any breaches specified in other sections of this Agreement, the failure of either Party to perform any of its material obligations hereunder in whole or in part or in a timely or satisfactory manner constitutes a breach.

B Notice and Cure Period

In the event of a breach, notice of such shall be given in writing by the aggrieved Party to the other Party in the manner provided in §18. If such breach is not cured within 30 days of receipt of written notice, or if a cure cannot be completed within 30 days, or if cure of the breach has not begun within 30 days and pursued with due diligence, the State may exercise any of the remedies set forth in §17. Notwithstanding anything to the contrary herein, the State, in its sole discretion, need not provide advance notice or a cure period and may immediately terminate this Agreement in whole or in part if reasonably necessary to preserve public safety or to prevent immediate public crisis.

17. REMEDIES

If the Local Agency is in breach under any provision of this Agreement, the State shall have all of the remedies listed in this §17 in addition to all other remedies set forth in other sections of this Agreement following the notice and cure period set forth in §16(B). The State may exercise any or all of the remedies available to it, in its sole discretion, concurrently or consecutively.

A. Termination for Cause and/or Breach

If the Local Agency fails to perform any of its obligations hereunder with such diligence as is required to ensure its completion in accordance with the provisions of this Agreement and in a timely manner, the State may notify the Local Agency of such non-performance in accordance with the provisions herein. If the Local Agency thereafter fails to promptly cure such non-performance within the cure period, the State, at its option, may terminate this entire Agreement or such part of this Agreement as to which there has been delay or a failure to properly perform. Exercise by the State of this right shall not be deemed a breach of its obligations hereunder. The Local Agency shall continue performance of this Agreement to the extent not terminated, if any.

i. Obligations and Rights

To the extent specified in any termination notice, the Local Agency shall not incur further obligations or render further performance hereunder past the effective date of such notice, and shall terminate outstanding orders and sub-Agreements with third parties. However, the Local Agency shall complete and deliver to the State all Work, Services and Goods not cancelled by the termination notice and may incur obligations as are necessary to do so within this Agreement's terms. At the sole discretion of the State, the Local Agency shall assign to the State all of the Local Agency's right, title, and interest under such terminated orders or sub-Agreements. Upon termination, the Local Agency shall take timely, reasonable and necessary action to protect and preserve property in the possession of the Local Agency in which the State has an interest. All materials owned by the State in the possession of the Local Agency shall be immediately returned to the State. All Work Product, at the option of the State, shall be delivered by the Local Agency to the State and shall become the State's property.

ii. Payments

The State shall reimburse the Local Agency only for accepted performance received up to the date of termination. If, after termination by the State, it is determined that the Local Agency was not in default

or that the Local Agency's action or inaction was excusable, such termination shall be treated as a termination in the public interest and the rights and obligations of the Parties shall be the same as if this Agreement had been terminated in the public interest, as described herein.

iii. Damages and Withholding

Notwithstanding any other remedial action by the State, the Local Agency also shall remain liable to the State for any damages sustained by the State by virtue of any breach under this Agreement by the Local Agency and the State may withhold any payment to the Local Agency for the purpose of mitigating the State's damages, until such time as the exact amount of damages due to the State from the Local Agency is determined. The State may withhold any amount that may be due to the Local Agency as the State deems necessary to protect the State, including loss as a result of outstanding liens or claims of former lien holders, or to reimburse the State for the excess costs incurred in procuring similar goods or services. The Local Agency shall be liable for excess costs incurred by the State in procuring from third parties replacement Work, Services or substitute Goods as cover.

B. Early Termination in the Public Interest

The State is entering into this Agreement for the purpose of carrying out the public policy of the State of Colorado, as determined by its Governor, General Assembly, and/or Courts. If this Agreement ceases to further the public policy of the State, the State, in its sole discretion, may terminate this Agreement in whole or in part. Exercise by the State of this right shall not constitute a breach of the State's obligations hereunder. This subsection shall not apply to a termination of this Agreement by the State for cause or breach by the Local Agency, which shall be governed by §17(A) or as otherwise specifically provided for herein.

i. Method and Content

The State shall notify the Local Agency of the termination in accordance with §18, specifying the effective date of the termination and whether it affects all or a portion of this Agreement.

ii. Obligations and Rights

Upon receipt of a termination notice, the Local Agency shall be subject to and comply with the same obligations and rights set forth in §17(A)(i).

iii. Payments

If this Agreement is terminated by the State pursuant to this §17(B), the Local Agency shall be paid an amount which bears the same ratio to the total reimbursement under this Agreement as the Services satisfactorily performed bear to the total Services covered by this Agreement, less payments previously made. Additionally, if this Agreement is less than 60% completed, the State may reimburse the Local Agency for a portion of actual out-of-pocket expenses (not otherwise reimbursed under this Agreement) incurred by the Local Agency which are directly attributable to the uncompleted portion of the Local Agency's obligations hereunder; provided that the sum of any and all reimbursement shall not exceed the maximum amount payable to the Local Agency hereunder.

C. Remedies Not Involving Termination

The State, its sole discretion, may exercise one or more of the following remedies in addition to other remedies available to it:

i. Suspend Performance

Suspend the Local Agency's performance with respect to all or any portion of this Agreement pending necessary corrective action as specified by the State without entitling the Local Agency to an adjustment in price/cost or performance schedule. The Local Agency shall promptly cease performance and incurring costs in accordance with the State's directive and the State shall not be liable for costs incurred by the Local Agency after the suspension of performance under this provision.

ii. Withhold Payment

Withhold payment to the Local Agency until corrections in the Local Agency's performance are satisfactorily made and completed.

iii. Deny Payment

Deny payment for those obligations not performed that due to the Local Agency's actions or inactions cannot be performed or, if performed, would be of no value to the State; provided that any denial of payment shall be reasonably related to the value to the State of the obligations not performed.

iv. Removal

Demand removal of any of the Local Agency's employees, agents, or contractors whom the State deems incompetent, careless, insubordinate, unsuitable, or otherwise unacceptable, or whose continued relation to this Agreement is deemed to be contrary to the public interest or not in the State's best interest.

v. Intellectual Property

If the Local Agency infringes on a patent, copyright, trademark, trade secret or other intellectual property right while performing its obligations under this Agreement, the Local Agency shall, at the State's option (a) obtain for the State or the Local Agency the right to use such products and services; (b) replace any Goods, Services, or other product involved with non-infringing products or modify them so that they become non-infringing; or, (c) if neither of the foregoing alternatives are reasonably available, remove any infringing Goods, Services, or products and refund the price paid therefore to the State.

18. NOTICES and REPRESENTATIVES

Each individual identified below is the principal representative of the designating Party. All notices required to be given hereunder shall be hand delivered with receipt required or sent by certified or registered mail to such Party's principal representative at the address set forth below. In addition to but not in lieu of a hard-copy notice, notice also may be sent by e-mail to the e-mail addresses, if any, set forth below. Either Party may from time to time designate by written notice substitute addresses or persons to whom such notices shall be sent. Unless otherwise provided herein, all notices shall be effective upon receipt.

A. If to State:

CDOT Region: 1
Wendy Williams
Project Manager
2000 South Holly Street
Denver, CO 80222
303-757-9002

B. If to the Local Agency:

Arapahoe County
Art Negretti
Project Manager
5334 S Prince Street
Littleton, CO 80120-1136
720-874-6516

19. RIGHTS IN DATA, DOCUMENTS, AND COMPUTER SOFTWARE

Any software, research, reports, studies, data, photographs, negatives or other documents, drawings, models, materials, or work product of any type, including drafts, prepared by the Local Agency in the performance of its obligations under this Agreement shall be the exclusive property of the State and all Work Product shall be delivered to the State by the Local Agency upon completion or termination hereof. The State's exclusive rights in such Work Product shall include, but not be limited to, the right to copy, publish, display, transfer, and prepare derivative works. The Local Agency shall not use, willingly allow, cause or permit such Work Product to be used for any purpose other than the performance of the Local Agency's obligations hereunder without the prior written consent of the State.

20. GOVERNMENTAL IMMUNITY

Notwithstanding any other provision to the contrary, nothing herein shall constitute a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., as amended. Liability for claims for injuries to persons or property arising from the negligence of the State of Colorado, its departments, institutions, agencies, boards, officials, and employees and of the Local Agency is controlled and limited by the provisions of the Governmental Immunity Act and the risk management statutes, CRS §24-30-1501, et seq., as amended.

21. STATEWIDE CONTRACT MANAGEMENT SYSTEM

If the maximum amount payable to the Local Agency under this Agreement is \$100,000 or greater, either on the Effective Date or at any time thereafter, this §21 applies.

The Local Agency agrees to be governed, and to abide, by the provisions of CRS §24-102-205, §24-102-206, §24-103-601, §24-103.5-101 and §24-105-102 concerning the monitoring of vendor performance on state agreements/contracts and inclusion of agreement/contract performance information in a statewide contract management system.

The Local Agency's performance shall be subject to Evaluation and Review in accordance with the terms and conditions of this Agreement, State law, including CRS §24-103.5-101, and State Fiscal Rules, Policies and Guidance. Evaluation and Review of the Local Agency's performance shall be part of the normal Agreement administration process and the Local Agency's performance will be systematically recorded in the statewide Agreement Management System. Areas of Evaluation and Review shall include, but shall not be limited to quality, cost and timeliness. Collection of information relevant to the performance of the Local Agency's obligations under this Agreement shall be determined by the specific requirements of such obligations and shall include

factors tailored to match the requirements of the Local Agency's obligations. Such performance information shall be entered into the statewide Contract Management System at intervals established herein and a final Evaluation, Review and Rating shall be rendered within 30 days of the end of the Agreement term. The Local Agency shall be notified following each performance Evaluation and Review, and shall address or correct any identified problem in a timely manner and maintain work progress.

Should the final performance Evaluation and Review determine that the Local Agency demonstrated a gross failure to meet the performance measures established hereunder, the Executive Director of the Colorado Department of Personnel and Administration (Executive Director), upon request by CDOT, and showing of good cause, may debar the Local Agency and prohibit the Local Agency from bidding on future Agreements. The Local Agency may contest the final Evaluation, Review and Rating by: (a) filing rebuttal statements, which may result in either removal or correction of the evaluation (CRS §24-105-102(6)), or (b) under CRS §24-105-102(6), exercising the debarment protest and appeal rights provided in CRS §§24-109-106, 107, 201 or 202, which may result in the reversal of the debarment and reinstatement of the Local Agency, by the Executive Director, upon showing of good cause.

22. FEDERAL REQUIREMENTS

The Local Agency and/or their contractors, subcontractors, and consultants shall at all times during the execution of this Agreement strictly adhere to, and comply with, all applicable federal and state laws, and their implementing regulations, as they currently exist and may hereafter be amended.

23. DISADVANTAGED BUSINESS ENTERPRISE (DBE)

The Local Agency will comply with all requirements of Exhibit G and the Local Agency Contract Administration Checklist regarding DBE requirements for the Work, except that if the Local Agency desires to use its own DBE program to implement and administer the DBE provisions of 49 C.F.R. Part 26 under this Agreement, it must submit a copy of its program's requirements to the State for review and approval before the execution of this Agreement. If the Local Agency uses any State- approved DBE program for this Agreement, the Local Agency shall be solely responsible to defend that DBE program and its use of that program against all legal and other challenges or complaints, at its sole cost and expense. Such responsibility includes, without limitation, determinations concerning DBE eligibility requirements and certification, adequate legal and factual bases for DBE goals and good faith efforts. State approval (if provided) of the Local Agency's DBE program does not waive or modify the sole responsibility of the Local Agency for use of its program.

24. DISPUTES

Except as otherwise provided in this Agreement, any dispute concerning a question of fact arising under this Agreement which is not disposed of by agreement shall be decided by the Chief Engineer of the Department of Transportation. The decision of the Chief Engineer will be final and conclusive unless, within 30 calendar days after the date of receipt of a copy of such written decision, the Local Agency mails or otherwise furnishes to the State a written appeal addressed to the Executive Director of CDOT. In connection with any appeal proceeding under this clause, the Local Agency shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Local Agency shall proceed diligently with the performance of this Agreement in accordance with the Chief Engineer's decision. The decision of the Executive Director or his duly authorized representative for the determination of such appeals shall be final and conclusive and serve as final agency action. This dispute clause does not preclude consideration of questions of law in connection with decisions provided for herein. Nothing in this Agreement, however, shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

25. GENERAL PROVISIONS

A. Assignment

The Local Agency's rights and obligations hereunder are personal and may not be transferred, assigned or subcontracted without the prior written consent of the State. Any attempt at assignment, transfer, or subcontracting without such consent shall be void. All assignments and subcontracts approved by the Local Agency or the State are subject to all of the provisions hereof. The Local Agency shall be solely responsible for all aspects of subcontracting arrangements and performance.

B. Binding Effect

Except as otherwise provided in §25(A), all provisions herein contained, including the benefits and burdens, shall extend to and be binding upon the Parties' respective heirs, legal representatives, successors, and assigns.

C. Captions

The captions and headings in this Agreement are for convenience of reference only, and shall not be used to interpret, define, or limit its provisions.

D. Counterparts

This Agreement may be executed in multiple identical original counterparts, all of which shall constitute one agreement.

E. Entire Understanding

This Agreement represents the complete integration of all understandings between the Parties and all prior representations and understandings, oral or written, are merged herein. Prior or contemporaneous addition, deletion, or other amendment hereto shall not have any force or affect whatsoever, unless embodied herein.

F. Indemnification - General

If Local Agency is not a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., the Local Agency shall indemnify, save, and hold harmless the State, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related costs, incurred as a result of any act or omission by the Local Agency, or its employees, agents, subcontractors or assignees pursuant to the terms of this Agreement. This clause is not applicable to a Local Agency that is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq.

G. Jurisdiction and Venue

All suits, actions, or proceedings related to this Agreement shall be held in the State of Colorado and exclusive venue shall be in the City and County of Denver.

H. Limitations of Liability

Any and all limitations of liability and/or damages in favor of the Local Agency contained in any document attached to and/or incorporated by reference into this Agreement, whether referred to as an exhibit, attachment, schedule, or any other name, are void and of no effect. This includes, but is not necessarily limited to, limitations on (i) the types of liabilities, (ii) the types of damages, (iii) the amount of damages, and (iv) the source of payment for damages.

I. Modification

i. By the Parties

Except as specifically provided in this Agreement, modifications of this Agreement shall not be effective unless agreed to in writing by both parties in an amendment to this Agreement, properly executed and approved in accordance with applicable Colorado State law, State Fiscal Rules, and Office of the State Controller Policies, including, but not limited to, the policy entitled MODIFICATIONS OF AGREEMENTS - TOOLS AND FORMS.

ii. By Operation of Law

This Agreement is subject to such modifications as may be required by changes in Federal or Colorado State law, or their implementing regulations. Any such required modification automatically shall be incorporated into and be part of this Agreement on the effective date of such change, as if fully set forth herein

J. Order of Precedence

The provisions of this Agreement shall govern the relationship of the State and the Local Agency. In the event of conflicts or inconsistencies between this Agreement and its exhibits and attachments, such conflicts or inconsistencies shall be resolved by reference to the documents in the following order of priority:

- i. Colorado Special Provisions,**
- ii. The provisions of the main body of this Agreement,**
- iii. Exhibit A (Scope of Work),**
- iv. Exhibit B (Local Agency Resolution),**
- v. Exhibit C (Funding Provisions),**
- vi. Exhibit D (Option Letter),**
- vii. Exhibit E (Local Agency Contract Administration Checklist),**

viii. Other exhibits in descending order of their attachment.

K. Severability

Provided this Agreement can be executed and performance of the obligations of the Parties accomplished within its intent, the provisions hereof are severable and any provision that is declared invalid or becomes inoperable for any reason shall not affect the validity of any other provision hereof.

L. Survival of Certain Agreement Terms

Notwithstanding anything herein to the contrary, provisions of this Agreement requiring continued performance, compliance, or effect after termination hereof, shall survive such termination and shall be enforceable by the State if the Local Agency fails to perform or comply as required.

M. Taxes

The State is exempt from all federal excise taxes under IRC Chapter 32 (No. 84-730123K) and from all State and local government sales and use taxes under CRS §§39-26-101 and 201 et seq. Such exemptions apply when materials are purchased or services rendered to benefit the State; provided however, that certain political subdivisions (e.g., City of Denver) may require payment of sales or use taxes even though the product or service is provided to the State. The Local Agency shall be solely liable for paying such taxes as the State is prohibited from paying for or reimbursing the Local Agency for them

N. Third Party Beneficiaries

Enforcement of this Agreement and all rights and obligations hereunder are reserved solely to the Parties, and not to any third party. Any services or benefits which third parties receive as a result of this Agreement are incidental to the Agreement, and do not create any rights for such third parties.

O. Waiver

Waiver of any breach of a term, provision, or requirement of this Agreement, or any right or remedy hereunder, whether explicitly or by lack of enforcement, shall not be construed or deemed as a waiver of any subsequent breach of such term, provision or requirement, or of any other term, provision, or requirement.

THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK

26. COLORADO SPECIAL PROVISIONS

The Special Provisions apply to all Agreements except where noted in italics.

A. CONTROLLER'S APPROVAL. CRS §24-30-202 (1).

This Agreement shall not be deemed valid until it has been approved by the Colorado State Controller or designee.

B. FUND AVAILABILITY. CRS §24-30-202(5.5).

Financial obligations of the State payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available.

C. GOVERNMENTAL IMMUNITY.

No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions, of the Colorado Governmental Immunity Act, CRS §24-10-101 et seq., or the Federal Tort Claims Act, 28 U.S.C. §§1346(b) and 2671 et seq., as applicable now or hereafter amended.

D. INDEPENDENT CONTRACTOR.

The Local Agency shall perform its duties hereunder as an independent contractor and not as an employee. Neither The Local Agency nor any agent or employee of The Local Agency shall be deemed to be an agent or employee of the State. The Local Agency and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the State and the State shall not pay for or otherwise provide such coverage for The Local Agency or any of its agents or employees. Unemployment insurance benefits shall be available to The Local Agency and its employees and agents only if such coverage is made available by The Local Agency or a third party. The Local Agency shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to this Agreement. The Local Agency shall not have authorization, express or implied, to bind the State to any Agreement, liability or understanding, except as expressly set forth herein. The Local Agency shall (a) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, (b) provide proof thereof when requested by the State, and (c) be solely responsible for its acts and those of its employees and agents.

E. COMPLIANCE WITH LAW.

The Local Agency shall strictly comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

F. CHOICE OF LAW.

Colorado law, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this Agreement. Any provision included or incorporated herein by reference which conflicts with said laws, rules, and regulations shall be null and void. Any provision incorporated herein by reference which purports to negate this or any other Special Provision in whole or in part shall not be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Any provision rendered null and void by the operation of this provision shall not invalidate the remainder of this Agreement, to the extent capable of execution.

G. BINDING ARBITRATION PROHIBITED.

The State of Colorado does not agree to binding arbitration by any extra-judicial body or person. Any provision to the contrary in this contract or incorporated herein by reference shall be null and void.

H. SOFTWARE PIRACY PROHIBITION. Governor's Executive Order D 002 00.

State or other public funds payable under this Agreement shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. The Local Agency hereby certifies and warrants that, during the term of this Agreement and any extensions, The Local Agency has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that The Local Agency is in violation of this provision, the State may exercise any remedy available at law or in equity or under this Agreement, including, without limitation, immediate termination of this Agreement and any remedy consistent with federal copyright laws or applicable licensing restrictions.

I. EMPLOYEE FINANCIAL INTEREST. CRS §§24-18-201 and 24-50-507.

The signatories aver that to their knowledge, no employee of the State has any personal or beneficial interest whatsoever in the service or property described in this Agreement. The Local Agency has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of The Local Agency's services and The Local Agency shall not employ any person having such known interests.

J. VENDOR OFFSET. CRS §§24-30-202 (1) and 24-30-202.4.

[Not Applicable to intergovernmental agreements]. Subject to CRS §24-30-202.4 (3.5), the State Controller may withhold payment under the State's vendor offset intercept system for debts owed to State agencies for: (a) unpaid child support debts or child support arrearages; (b) unpaid balances of tax, accrued interest, or other charges specified in CRS §39-21-101, et seq.; (c) unpaid loans due to the Student Loan Division of the Department of Higher Education; (d) amounts required to be paid to the Unemployment Compensation Fund; and (e) other unpaid debts owing to the State as a result of final agency determination or judicial action.

K. PUBLIC CONTRACTS FOR SERVICES. CRS §8-17.5-101.

[Not Applicable to Agreements relating to the offer, issuance, or sale of securities, investment advisory services or fund management services, sponsored projects, intergovernmental Agreements, or information technology services or products and services]. The Local Agency certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who shall perform work under this Agreement and shall confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under this Agreement, through participation in the E-Verify Program or the State program established pursuant to CRS §8-17.5-102(5)(c). The Local Agency shall not knowingly employ or contract with an illegal alien to perform work under this Agreement or enter into a contract with a subcontractor that fails to certify to The Local Agency that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. The Local Agency (a) shall not use E-Verify Program or State program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed, (b) shall notify the subcontractor and the contracting State agency within three days if The Local Agency has actual knowledge that a subcontractor is employing or contracting with an illegal alien for work under this Agreement, (c) shall terminate the subcontract if a subcontractor does not stop employing or contracting with the illegal alien within three days of receiving the notice, and (d) shall comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS §8-17.5-102(5), by the Colorado Department of Labor and Employment. If The Local Agency participates in the State program, The Local Agency shall deliver to the contracting State agency, Institution of Higher Education or political subdivision, a written, notarized affirmation, affirming that The Local Agency has examined the legal work status of such employee, and shall comply with all of the other requirements of the State program. If The Local Agency fails to comply with any requirement of this provision or CRS §8-17.5-101 et seq., the contracting State agency, institution of higher education or political subdivision may terminate this Agreement for breach and, if so terminated, The Local Agency shall be liable for damages.

L. PUBLIC CONTRACTS WITH NATURAL PERSONS. CRS §24-76.5-101.

The Local Agency, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that he or she (a) is a citizen or otherwise lawfully present in the United States pursuant to federal law, (b) shall comply with the provisions of CRS §24-76.5-101 et seq., and (c) has produced one form of identification required by CRS §24-76.5-103 prior to the effective date of this Agreement.

SPs Effective 1/1/09

THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK

27. SIGNATURE PAGE

THE PARTIES HERETO HAVE EXECUTED THIS AGREEMENT

* Persons signing for The Local Agency hereby swear and affirm that they are authorized to act on The Local Agency's behalf and acknowledge that the State is relying on their representations to that effect.

<p>THE LOCAL AGENCY ARAPAHOE COUNTY</p> <p>Name: _____ (print name)</p> <p>Title: _____ (print title)</p> <p>_____ *Signature</p> <p>Date: _____</p>	<p>STATE OF COLORADO John W. Hickenlooper Department of Transportation</p> <p>By _____ Joshua Laipply, P.E., Chief Engineer (For) Shailen P. Bhatt, Executive Director</p> <p>Date: _____</p>
<p>2nd Local Agency Signature if needed</p> <p>Name: _____ (print name)</p> <p>Title: _____ (print title)</p> <p>_____ *Signature</p> <p>Date: _____</p>	<p>STATE OF COLORADO LEGAL REVIEW Cynthia H. Coffman, Attorney General</p> <p>By _____ Signature – Assistant Attorney General</p> <p>Date: _____</p>

ALL AGREEMENTS REQUIRE APPROVAL BY THE STATE CONTROLLER

CRS §24-30-202 requires the State Controller to approve all State Agreements. This Agreement is not valid until signed and dated below by the State Controller or delegate. The Local Agency is not authorized to begin performance until such time. If The Local Agency begins performing prior thereto, the State of Colorado is not obligated to pay The Local Agency for such performance or for any goods and/or services provided hereunder.

<p>STATE OF COLORADO STATE CONTROLLER Robert Jaros, CPA, MBA, JD</p> <p>By: _____ Colorado Department of Transportation</p> <p>Date: _____</p>

28. EXHIBIT A – SCOPE OF WORK

JOLLY ROAD (CR 34) BRIDGE OVER FIRST CREEK, ARA 34-56.3; C15-029

The purpose of this project is to remedy the deteriorating condition of structure ARA 34-56.3. A recent inspection report from CDOT listed this bridge as having “Essential Repair Finds (ERF)”, and recommended that the County take measures “to prevent traffic from driving on the heavily deteriorated exterior bays (edge of deck to the white line).”

Initial evaluation was performed during annual inspection by Benesch & Company for CDOT and determined that a minimum of deck replacement and superstructure refurbishing was needed. This defines the minimum expected level of repairs needed. Based on the need for further evaluation and work on the bridge, Arapahoe County requested and was granted Federal funding from Colorado Counties, INC. (CCI). CDOT will administer and oversee this as a Local Agency project. Davis Bacon, UDBE, Uniform Act and other similar requirements are expected to apply. Design and Right-of-Way will be completely paid for by the County. Transportation Improvement Plan (TIP) process was not performed for this project and is not expected to apply.

This Scope of Work (SOW) conveys the expected process at the point of consultant selection. Depending on engineering evaluation of the structure and hydrology, improvements will range from repairs possibly to replacement, which will also determine the need for Right-of-Way (ROW). After the County determines what level of work on the bridge provides the best value and affordability, the scope will be narrowed to that selection. The base SOW will include the repairs identified in the latest inspection report; deck replacement and superstructure refurbishment. This option would not greatly change the configuration of the existing bridge except to upgrade the bridge rail and guard rail to current standards. Other known options include; more extensive repairs such as deck replacement, encasing piers and/or abutments in concrete. Replacement alternatives include; Installation of concrete box culverts (CBC) and replacing the entire bridge structure. If selected, each of these options would improve the bridge’s width and increase the shoulder widths, in addition to upgrading the rails. The County will request bids per Federal processes, including all required clearances, and will retain a contractor to perform the work.

The anticipated schedule is:

- Design to be completed by early 2017
- Construction to follow in mid-2017, unless task 4 ROW is required
- In that case it is expected that acquisition or ROW and/or easement(s) will take an additional nine months or more, extending the schedule into 2018

THE REST OF THIS PAGE INTENTIONALLY LEFT BLANK

29. EXHIBIT B – LOCAL AGENCY RESOLUTION

**LOCAL AGENCY
ORDINANCE
or
RESOLUTION**

30. EXHIBIT C – FUNDING PROVISIONS

BRO C100-039 (21675)

A. Cost of Work Estimate

The Local Agency has estimated the total cost of the Work to be \$218,605.00, which is to be funded as follows:

1 BUDGETED FUNDS				
a. Federal Funds (Bridge @ 80%)				\$174,884.00
b. Local Agency Matching Funds (Bridge @ 20%)				\$43,721.00
TOTAL BUDGETED FUNDS				\$218,605.00
2 ESTIMATED CDOT-INCURRED COSTS				
a. Federal Share (0% of Participating Costs)				\$0.00
b. Local Agency				\$0.00
TOTAL ESTIMATED CDOT-INCURRED COSTS				\$0.00
3 ESTIMATED PAYMENT TO LOCAL AGENCY				
a. Federal Funds Budgeted (1a)				\$174,884.00
b. Less Estimated Federal Share of CDOT-Incurred Costs (2a)				\$0.00
TOTAL ESTIMATED PAYMENT TO LOCAL AGENCY				\$174,884.00
FOR CDOT ENCUMBRANCE PURPOSES				
Total Encumbrance Amount				\$218,605.00
Less ROW Acquisition 3111 and/or ROW Relocation 3109				\$0.00
Net to be encumbered as follows:				\$218,605.00
NOTE: Construction funds are currently not available; the Construction funds will become available after the federal authorization and execution of an Option Letter (Exhibit D) or Amendment.				
WBS Element <<<<<>>>>		Design	3020	\$0.00
WBS Element 21675.20.10		Const	3301	\$0.00

B. Matching Funds

The matching ratio for the federal participating funds of this Work is 80% federal-aid funds (CFDA #20.205) to 20% Local Agency funds, it being understood that such ratio applies only to the \$218,605.00 that is eligible for federal participation, it being further understood that all non-participating costs are borne by the Local Agency at 100%. If the total participating cost of performance of the Work exceeds \$218,605.00, and additional federal funds are made available for the Work, the Local Agency shall pay 20% of all such costs eligible for federal participation and 100% of all non-participating costs; if additional federal funds are not made available, the Local Agency shall pay all such excess costs. If the total participating cost of performance of the Work is less than \$218,605.00, then the amounts of Local Agency and federal-aid funds will be decreased in accordance with the funding ratio described herein. The performance of the Work shall be at no cost to the State.

C. Maximum Amount Payable

The maximum amount payable to the Local Agency under this Agreement shall be \$174,884.00 (For CDOT accounting purposes, the federal funds of \$174,884.00 and the Local Agency matching funds of \$43,721.00 will be encumbered for a total encumbrance of \$218,605.00), unless such amount is decreased as described in Sections B. and C. 1. of this Exhibit C, or increased by an appropriate written modification to this Agreement executed before any increased cost is incurred. ***NOTE: Construction funds are currently not available; the Construction funds will become available after the federal authorization and execution of an Option Letter (Exhibit D) or Amendment.*** It is understood and agreed by the parties hereto that the total cost of the Work stated hereinbefore is the best estimate available, based on the design data as approved at the time of execution of this Agreement, and that such cost is subject to revisions (in accord with the procedure in the previous sentence) agreeable to the parties prior to bid and award.

The maximum amount payable shall be reduced without amendment when the actual amount of the local agency's awarded contract is less than the budgeted total of the federal participating funds and the local agency matching funds. The maximum amount payable shall be reduced through the execution of an Option Letter as described in Section 7. A. of this contract.

D. Single Audit Act Amendment

All state and local government and non-profit organizations receiving more than \$750,000 from all funding sources defined as federal financial assistance for Single Audit Act Amendment purposes shall comply with the audit requirements of OMB Circular A-133 (Audits of States, Local Governments and Non-Profit Organizations). The Single Audit Act Amendment requirements applicable to the Local Agency receiving federal funds are as follows:

i. Expenditure less than \$750,000

If the Local Agency expends less than \$750,000 in Federal funds (all federal sources, not just Highway funds) in its fiscal year then this requirement does not apply.

ii. Expenditure exceeding more than \$750,000-Highway Funds Only

If the Local Agency expends more than \$750,000 in Federal funds, but only received federal Highway funds (Catalog of Federal Domestic Assistance, CFDA 20.205) then a program specific audit shall be performed. This audit will examine the "financial" procedures and processes for this program area.

iii. Expenditure exceeding more than \$750,000-Multiple Funding Sources

If the Local Agency expends more than \$750,000 in Federal funds, and the Federal funds are from multiple sources (FTA, HUD, NPS, etc.) then the Single Audit Act applies, which is an audit on the entire organization/entity.

iv. Independent CPA

Single Audit shall only be conducted by an independent CPA, not by an auditor on staff. An audit is an allowable direct or indirect cost.

31. EXHIBIT D – OPTION LETTER

SAMPLE IGA OPTION LETTER

(This option has been created by the Office of the State Controller for CDOT use only)

NOTE: This option is limited to the specific contract scenarios listed below

AND may be used in place of exercising a formal amendment.

Date:	State Fiscal Year:	Option Letter No.	Option Letter CMS Routing #
			Option Letter SAP #
Original Contract CMS #		Original Contract SAP #	

Vendor name: _____

SUBJECT:

Option to unilaterally authorize the Local Agency to begin a phase which may include Design, Construction, Environmental, Utilities, ROW incidentals or Miscellaneous ONLY (*does not apply to Acquisition/Relocation or Railroads*) and to update encumbrance amounts(a new Exhibit C must be attached with the option letter and shall be labeled C-1, future changes for this option shall be labeled as follows: C-2, C-3, C-4, etc.).

Option to unilaterally transfer funds from one phase to another phase (a new Exhibit C must be attached with the option letter and shall be labeled C-1, future changes for this option shall be labeled as follows: C-2, C-3, C-4, etc.).

Option to unilaterally do both A and B (a new Exhibit C must be attached with the option letter and shall be labeled C-1, future changes for this option shall be labeled as follows: C-2, C-3, C-4, etc.).

REQUIRED PROVISIONS:

Option A (Insert the following language for use with the Option A):

In accordance with the terms of the original Agreement (*insert CMS routing # of the original Agreement*) between the State of Colorado, Department of Transportation and (*insert the Local Agency's name here*), the State hereby exercises the option to authorize the Local Agency to begin a phase that will include (*describe which phase will be added and include all that apply – Design, Construction, Environmental, Utilities, ROW incidentals or Miscellaneous*) and to encumber previously budgeted funds for the phase based upon changes in funding availability and authorization. The encumbrance for (*Design, Construction, Environmental, Utilities, ROW incidentals or Miscellaneous*) is (*insert dollars here*). A new **Exhibit C-1** is made part of the original Agreement and replaces **Exhibit C**. (*The following is a NOTE only, please delete when using this option. Future changes for this option for Exhibit C shall be labled as follows: C-2, C-3, C-4, etc.*).

Option B (Insert the following language for use with Option B):

In accordance with the terms of the original Agreement (*insert CMS # of the original Agreement*) between the State of Colorado, Department of Transportation and (*insert the Local Agency's name here*), the State hereby exercises the option to transfer funds from (*describe phase from which funds will be moved*) to (*describe phase to which funds will be moved*) based on variance in actual phase costs and original phase estimates. A new **Exhibit C-1** is made part of the original Agreement and replaces **Exhibit C**. (*The following is a NOTE only so please delete when using this option: future changes for this option for Exhibit C shall be labeled as follows: C-2, C-3, C-4, etc.; and no more than 24.99% of any phase may be moved using this option letter. A transfer greater than 24.99% must be*

made using a formal amendment)..

Option C (Insert the following language for use with Option C):

In accordance with the terms of the original Agreement (*insert CMS routing # of original Agreement*) between the State of Colorado, Department of Transportation and (*insert the Local Agency's name here*), the State hereby exercises the option to 1) release the Local Agency to begin a phase that will include (*describe which phase will be added and include all that apply – Design, Construction, Environmental, Utilities, ROW incidentals or Miscellaneous*); 2) to encumber funds for the phase based upon changes in funding availability and authorization; and 3) to transfer funds from (*describe phase from which funds will be moved*) to (*describe phase to which funds will be moved*) based on variance in actual phase costs and original phase estimates. A new **Exhibit C-1** is made part of the original Agreement and replaces **Exhibit C**. (*The following is a NOTE only so please delete when using this option: future changes for this option for **Exhibit C** shall be labeled as follows: **C-2, C-3, C-4**, etc.; and no more than 24.99% of any phase may be moved using this option letter. A transfer greater than 24.99% must be made using a formal amendment*).

(*The following language must be included on ALL options*):

The total encumbrance as a result of this option and all previous options and/or amendments is now (*insert total encumbrance amount*), as referenced in **Exhibit (C-1, C-2, etc., as appropriate)**. The total budgeted funds to satisfy services/goods ordered under the Agreement remains the same: (*indicate total budgeted funds*) as referenced in **Exhibit (C-1, C-2, etc., as appropriate)** of the original Agreement.

The effective date of this option letter is upon approval of the State Controller or delegate.

APPROVALS:

State of Colorado:

John W. Hickenlooper, Governor

By: _____ Date: _____
Executive Director, Colorado Department of Transportation

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER

CRS §24-30-202 requires the State Controller to approve all State Contracts. This Agreement is not valid until signed and dated below by the State Controller or delegate. Contractor is not authorized to begin performance until such time. If the Local Agency begins performing prior thereto, the State of Colorado is not obligated to pay the Local Agency for such performance or for any goods and/or services provided hereunder.

**State Controller
Robert Jaros, CPA, MBA, JD**

By: _____

Date: _____

Form Updated: December 19, 2012

32. EXHIBIT E – LOCAL AGENCY CONTRACT ADMINISTRATION CHECKLIST

LOCAL AGENCY CONTRACT ADMINISTRATION CHECKLIST

The following checklist has been developed to ensure that all required aspects of a project approved for Federal funding have been addressed and a responsible party assigned for each task.

After a project has been approved for Federal funding in the Statewide Transportation Improvement Program, the Colorado Department of Transportation (CDOT) Project Manager, Local Agency project manager, and CDOT Resident Engineer prepare the checklist. It becomes a part of the contractual agreement between the Local Agency and CDOT. The CDOT Agreements Unit will not process a Local Agency agreement without this completed checklist. It will be reviewed at the Final Office Review meeting to ensure that all parties remain in agreement as to who is responsible for performing individual tasks.

COLORADO DEPARTMENT OF TRANSPORTATION LOCAL AGENCY CONTRACT ADMINISTRATION CHECKLIST			
Project No. BRO C100-039		STIP No.	Project Code 21675
			Region R1
Project Location CR 34 at First Creek, 2.5 miles east of Deer Trail			Date 8/29/16
Project Description Bridge rehabilitation			
Local Agency Arapahoe County CDOT Resident Engineer John Vetterling		Local Agency Project Manager Art Negretti CDOT Project Manager Wendy Williams	
INSTRUCTIONS: This checklist shall be utilized to establish the contract administration responsibilities of the individual parties to this agreement. The checklist becomes an attachment to the Local Agency agreement. Section numbers correspond to the applicable chapters of the <i>CDOT Local Agency Manual</i> . The checklist shall be prepared by placing an "X" under the responsible party, opposite each of the tasks. The "X" denotes the party responsible for initiating and executing the task. Only one responsible party should be selected. When neither CDOT nor the Local Agency is responsible for a task, not applicable (NA) shall be noted. In addition, a "#" will denote that CDOT must concur or approve. Tasks that will be performed by Headquarters staff will be indicated. The Regions, in accordance with established policies and procedures, will determine who will perform all other tasks that are the responsibility of CDOT. The checklist shall be prepared by the CDOT Resident Engineer or the CDOT Project Manager, in cooperation with the Local Agency Project Manager, and submitted to the Region Program Engineer. If contract administration responsibilities change, the CDOT Resident Engineer, in cooperation with the Local Agency Project Manager, will prepare and distribute a revised checklist.			
NO.	DESCRIPTION OF TASK	RESPONSIBLE PARTY LA CDOT	
TIP / STIP AND LONG-RANGE PLANS			
2.1	Review Project to ensure it is consistent with STIP and amendments thereto		X
FEDERAL FUNDING OBLIGATION AND AUTHORIZATION			
4.1	Authorize funding by phases (CDOT Form 418 - Federal-aid Program Data. Requires FHWA concurrence/involvement)		X
PROJECT DEVELOPMENT			
5.1	Prepare Design Data - CDOT Form 463	X	
5.2	Prepare Local Agency/CDOT Inter-Governmental Agreement (see also Chapter 3)		X
5.3	Conduct Consultant Selection/Execute Consultant Agreement	X	
5.4	Conduct Design Scoping Review Meeting	X	
5.5	Conduct Public Involvement	X	
5.6	Conduct Field Inspection Review (FIR)	X	
5.7	Conduct Environmental Processes (may require FHWA concurrence/involvement)	X	#
5.8	Acquire Right-of-Way (may require FHWA concurrence/involvement)	X	#
5.9	Obtain Utility and Railroad Agreements	X	#
5.10	Conduct Final Office Review (FOR)	X	#
5.11	Justify Force Account Work by the Local Agency	X	
5.12	Justify Proprietary, Sole Source, or Local Agency Furnished Items	X	
5.13	Document Design Exceptions - CDOT Form 464	X	
5.14	Prepare Plans, Specifications and Construction Cost Estimates	X	#
5.15	Ensure Authorization of Funds for Construction		X

PROJECT DEVELOPMENT CIVIL RIGHTS AND LABOR COMPLIANCE			
6.1	Set Underutilized Disadvantaged Business Enterprise (UBDE) Goals for Consultant and Construction Contracts (CDOT Region EEO/Civil Rights Specialist)		X
6.2	Determine Applicability of Davis-Bacon Act This project is not exempt from Davis-Bacon requirements as determined by the functional classification of the project location (Projects located on local roads and rural minor collectors may be exempt.) John Vetterling _____ 9/7/2016 _____ CDOT Resident Engineer (Signature on File) Date		X
6.3	Set On-the-Job Training Goals. Goal is zero if total construction is less than \$1 million (CDOT Region EEO/Civil Rights Specialist)		X
6.4	Title VI Assurances	X	
	Ensure the correct Federal Wage Decision, all required Disadvantaged Business Enterprise/On-the-Job Training special provisions and FHWA Form 1273 are included in the Contract (CDOT Resident Engineer)		X
ADVERTISE, BID AND AWARD			
7.1	Obtain Approval for Advertisement Period of Less Than Three Weeks	X	
7.2	Advertise for Bids	X	
7.3	Distribute "Advertisement Set" of Plans and Specifications	X	
7.4	Review Worksite and Plan Details with Prospective Bidders While Project Is Under Advertisement	X	
7.5	Open Bids	X	
7.6	Process Bids for Compliance		
	Check CDOT Form 715 - Certificate of Proposed Underutilized DBE Participation when the low bidder meets UDBE goals	N/A	X
	Evaluate CDOT Form 718 - Underutilized DBE Good Faith Effort Documentation and determine if the Contractor has made a good faith effort when the low bidder does not meet DBE goals	N/A	X
	Submit required documentation for CDOT award concurrence	X	
7.7	Concurrence from CDOT to Award		X
7.8	Approve Rejection of Low Bidder		X
7.9	Award Contract	X	
7.10	Provide "Award" and "Record" Sets of Plans and Specifications	X	
CONSTRUCTION MANAGEMENT			
8.1	Issue Notice to Proceed to the Contractor	X	#
8.2	Project Safety	X	X
8.3	Conduct Conferences:		
	Pre-Construction Conference (Appendix B)	X	
	Pre-survey		
	• Construction staking	X	
	• Monumentation	X	
	Partnering (Optional)	X	
	Structural Concrete Pre-Pour (Agenda is in <i>CDOT Construction Manual</i>)	X	
	Concrete Pavement Pre-Paving (Agenda is in <i>CDOT Construction Manual</i>)	X	
	HMA Pre-Paving (Agenda is in <i>CDOT Construction Manual</i>)	X	
8.4	Develop and distribute Public Notice of Planned Construction to media and local residents	X	
8.5	Supervise Construction		
	A Professional Engineer (PE) registered in Colorado, who will be "in responsible charge of construction supervision." Art Negretti _____ Local Agency Professional Engineer or Phone number _____ CDOT Resident Engineer	X	
	Provide competent, experienced staff who will ensure the Contract work is constructed in accordance with the plans and specifications	X	
	Construction inspection and documentation	X	
8.6	Approve Shop Drawings	X	

8.7	Perform Traffic Control Inspections	X	
8.8	Perform Construction Surveying	X	
8.9	Monument Right-of-Way	X	
8.10	Prepare and Approve Interim and Final Contractor Pay Estimates Provide the name and phone number of the person authorized for this task. Local Agency Representative _____ Phone number _____	X	
8.11	Prepare and Approve Interim and Final Utility and Railroad Billings	X	
8.12	Prepare Local Agency Reimbursement Requests _____	X	
8.13	Prepare and Authorize Change Orders	X	#
8.14	Approve All Change Orders		X
8.15	Monitor Project Financial Status	X	
8.16	Prepare and Submit Monthly Progress Reports	X	
8.17	Resolve Contractor Claims and Disputes	X	
8.18	Conduct Routine and Random Project Reviews Provide the name and phone number of the person responsible for this task. John Vetterling _____ 303-757-9914 CDOT Resident Engineer _____ Phone number _____		X
MATERIALS			
9.1	Conduct Materials Pre-Construction Meeting	X	
9.2	Complete CDOT Form 250 - Materials Documentation Record • Generate form, which includes determining the minimum number of required tests and applicable material submittals for all materials placed on the project • Update the form as work progresses • Complete and distribute form after work is completed	X X X	X
9.3	Perform Project Acceptance Samples and Tests	X	
9.4	Perform Laboratory Verification Tests	X	
9.5	Accept Manufactured Products Inspection of structural components: • Fabrication of structural steel and pre-stressed concrete structural components • Bridge modular expansion devices (0" to 6" or greater) • Fabrication of bearing devices	X X X	# # #
9.6	Approve Sources of Materials	X	
9.7	Independent Assurance Testing (IAT), Local Agency Procedures <input checked="" type="checkbox"/> CDOT Procedures <input type="checkbox"/> • Generate IAT schedule • Schedule and provide notification • Conduct IAT	X X X	
9.8	Approve mix designs • Concrete • Hot mix asphalt	X X	
9.9	Check Final Materials Documentation	X	
9.10	Complete and Distribute Final Materials Documentation	X	

CONSTRUCTION CIVIL RIGHTS AND LABOR COMPLIANCE			
10.1	Fulfill Project Bulletin Board and Pre-Construction Packet Requirements	X	
10.2	Process CDOT Form 205 - Sublet Permit Application Review and sign completed CDOT Form 205 for each subcontractor, and submit to EEO/Civil Rights Specialist	X	
10.3	Conduct Equal Employment Opportunity and Labor Compliance Verification Employee Interviews. Complete CDOT Form 280	X	
10.4	Monitor Disadvantaged Business Enterprise Participation to Ensure Compliance with the "Commercially Useful Function" Requirements	X	
10.5	Conduct Interviews When Project Utilizes On-the-Job Trainees. Complete CDOT Form 200 - OJT Training Questionnaire	X	
10.6	Check Certified Payrolls (Contact the Region EEO/Civil Rights Specialists for training requirements.)	X	
10.7	Submit FHWA Form 1391 - Highway Construction Contractor's Annual EEO Report	X	
FINALS			
11.1	Conduct Final Project Inspection. Complete and submit CDOT Form 1212 - Final Acceptance Report (Resident Engineer with mandatory Local Agency participation.)		X
11.2	Write Final Project Acceptance Letter	X	
11.3	Advertise for Final Settlement	X	
11.4	Prepare and Distribute Final As-Constructed Plans	X	
11.5	Prepare EEO Certification	X	
11.6	Check Final Quantities, Plans, and Pay Estimate; Check Project Documentation; and submit Final Certifications	X	
11.7	Check Material Documentation and Accept Final Material Certification (See Chapter 9)	X	
11.8	Obtain CDOT Form 17 from the Contractor and Submit to the Resident Engineer	X	
11.9	Obtain FHWA Form 47 - Statement of Materials and Labor Used ... from the Contractor	X	
11.10	Complete and Submit CDOT Form 1212 - Final Acceptance Report (by CDOT)		X
11.11	Process Final Payment	X	
11.12	Complete and Submit CDOT Form 950 - Project Closure		X
11.13	Retain Project Records for Six Years from Date of Project Closure	X	
11.14	Retain Final Version of Local Agency Contract Administration Checklist	X	X

cc: CDOT Resident Engineer/Project Manager
CDOT Region Program Engineer
CDOT Region EEO/Civil Rights Specialist
CDOT Region Materials Engineer
CDOT Contracts and Market Analysis Branch
Local Agency Project Manager

33. EXHIBIT F – CERTIFICATION FOR FEDERAL-AID CONTRACTS

The Local Agency certifies, by signing this Agreement, to the best of its knowledge and belief, that:

No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, Agreement, loan, or cooperative agreement.

If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer of Congress, or an employee of a Member of Congress in connection with this Federal contract, Agreement, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agree by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub-recipients shall certify and disclose accordingly.

Required by 23 CFR 635.112

34. EXHIBIT G – DISADVANTAGED BUSINESS ENTERPRISE

1. Program Objective and Assurance:

It is the objective of the State to create a level playing field upon which Disadvantaged Business Enterprises (DBEs) can compete fairly for DOT-assisted contracts. By entering into this Agreement, the Local Agency hereby agrees to the following:

The Local Agency shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of the DBE program or the requirements of 49 CFR part 26. The Local Agency shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The State's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

Each contract the Local Agency signs with a subcontractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance:

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

2. DBE Contract Goals:

Each scope of work prepared to procure consultant services or construction of the Work shall be evaluated by the CDOT Regional Civil Rights Office to determine a contract goal. The Local Agency shall be responsible for ensuring that the contract goal is incorporated into the procurement advertisement and accompanied by either:

- a. For consultant services, CDOT's then current process for evaluating the Consultant's proposed DBE participation; or an alternative proposed by the local agency and approved by CDOT.
- b. For construction, the CDOT DBE Standard Special Provision and all related forms.

The Local Agency shall submit the Statement of Interest (consultants) and/or DBE Forms (Construction) to the CDOT Civil Rights and Business Resource Center for review and concurrence prior to award.

3. Compliance:

With the assistance of the Local Agency, the CDOT Regional Civil Rights Office shall oversee the subcontractor's performance toward the contract goal.

Revised 11/2013

35. EXHIBIT H – LOCAL AGENCY PROCEDURES FOR CONSULTANT SERVICES

THE LOCAL AGENCY SHALL USE THESE PROCEDURES TO IMPLEMENT FEDERAL-AID PROJECT AGREEMENTS WITH PROFESSIONAL CONSULTANT SERVICES

Title 23 Code of Federal Regulations (CFR) 172 applies to a federally funded local agency project agreement administered by CDOT that involves professional consultant services. 23 CFR 172.1 states "The policies and procedures involve federally funded contracts for engineering and design related services for projects subject to the provisions of 23 U.S.C. 112(a) and are issued to ensure that a qualified consultant is obtained through an equitable selection process, that prescribed work is properly accomplished in a timely manner, and at fair and reasonable cost" and according to 23 CFR 172.5 "Price shall not be used as a factor in the analysis and selection phase." Therefore, local agencies must comply with these CFR requirements when obtaining professional consultant services under a federally funded consultant contract administered by CDOT.

CDOT has formulated its procedures in Procedural Directive (P.D.) 400.1 and the related operations guidebook titled "Obtaining Professional Consultant Services". This directive and guidebook incorporate requirements from both Federal and State regulations, i.e., 23 CFR 172 and CRS §24-30-1401 et seq. Copies of the directive and the guidebook may be obtained upon request from CDOT's Agreements and Consultant Management Unit. [Local agencies should have their own written procedures on file for each method of procurement that addresses the items in 23 CFR 172].

Because the procedures and laws described in the Procedural Directive and the guidebook are quite lengthy, the subsequent steps serve as a short-hand guide to CDOT procedures that a local agency must follow in obtaining professional consultant services. This guidance follows the format of 23 CFR 172. The steps are:

1. The contracting local agency shall document the need for obtaining professional services.
2. Prior to solicitation for consultant services, the contracting local agency shall develop a detailed scope of work and a list of evaluation factors and their relative importance. The evaluation factors are those identified in C.R.S. 24-30-1403. Also, a detailed cost estimate should be prepared for use during negotiations.
3. The contracting agency must advertise for contracts in conformity with the requirements of C.R.S. 24-30-1405. The public notice period, when such notice is required, is a minimum of 15 days prior to the selection of the three most qualified firms and the advertising should be done in one or more daily newspapers of general circulation.
4. The request for consultant services should include the scope of work, the evaluation factors and their relative importance, the method of payment, and the goal of 10% for Disadvantaged Business Enterprise (DBE) participation as a minimum for the project.
5. The analysis and selection of the consultants shall be done in accordance with CRS §24-30-1403. This section of the regulation identifies the criteria to be used in the evaluation of CDOT pre-qualified prime consultants and their team. It also shows which criteria are used to short-list and to make a final selection.

The short-list is based on the following evaluation factors:

- a. Qualifications,
- b. Approach to the Work,
- c. Ability to furnish professional services.
- d. Anticipated design concepts, and
- e. Alternative methods of approach for furnishing the professional services.

Evaluation factors for final selection are the consultant's:

- a. Abilities of their personnel,
 - b. Past performance,
 - c. Willingness to meet the time and budget requirement,
 - d. Location,
 - e. Current and projected work load,
 - f. Volume of previously awarded contracts, and
 - g. Involvement of minority consultants.
6. Once a consultant is selected, the local agency enters into negotiations with the consultant to obtain a fair and reasonable price for the anticipated work. Pre-negotiation audits are prepared for contracts expected to be greater than \$50,000. Federal reimbursements for costs are limited to those costs allowable under the cost principles of 48 CFR 31. Fixed fees (profit) are determined with consideration given to size, complexity, duration, and degree of risk involved in the work. Profit is in the range of six to 15 percent of the total direct and indirect costs.
7. A qualified local agency employee shall be responsible and in charge of the Work to ensure that the work being pursued is complete, accurate, and consistent with the terms, conditions, and specifications of the contract. At the end of Work, the local agency prepares a performance evaluation (a CDOT form is available) on the consultant.

CRS §§24-30-1401 through 24-30-1408, 23 CFR Part 172, and P.D. 400.1, provide additional details for complying with the preceeding eight (8) steps.

36. EXHIBIT I – FEDERAL-AID CONTRACT PROVISIONS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

37. EXHIBIT J – FEDERAL REQUIREMENTS

Federal laws and regulations that may be applicable to the Work include:

Executive Order 11246

Executive Order 11246 of September 24, 1965 entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967 and as supplemented in Department of Labor regulations (41 CFR Chapter 60) (All construction contracts awarded in excess of \$10,000 by the Local Agencies and their contractors or the Local Agencies).

Copeland "Anti-Kickback" Act

The Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3) (All contracts and sub-Agreements for construction or repair).

Davis-Bacon Act

The Davis-Bacon Act (40 U.S.C. 276a to a-7) as supplemented by Department of Labor regulations (29 CFR Part 5) (Construction contracts in excess of \$2,000 awarded by the Local Agencies and the Local Agencies when required by Federal Agreement program legislation. This act requires that all laborers and mechanics employed by contractors or sub-contractors to work on construction projects financed by federal assistance must be paid wages not less than those established for the locality of the project by the Secretary of Labor).

Contract Work Hours and Safety Standards Act

Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5). (Construction contracts awarded by the Local Agency's in excess of \$2,000, and in excess of \$2,500 for other contracts which involve the employment of mechanics or laborers).

Clear Air Act

Standards, orders, or requirements issued under section 306 of the Clear Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368). Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15) (contracts, subcontracts, and sub-Agreements of amounts in excess of \$100,000).

Energy Policy and Conservation Act

Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163).

OMB Circulars

Office of Management and Budget Circulars A-87, A-21 or A-122, and A-102 or A-110, whichever is applicable.

Hatch Act

The Hatch Act (5 USC 1501-1508) and Public Law 95-454 Section 4728. These statutes state that federal funds cannot be used for partisan political purposes of any kind by any person or organization involved in the administration of federally-assisted programs.

Nondiscrimination

42 USC 6101 et seq. 42 USC 2000d, 29 USC 794, and implementing regulation, 45 C.F.R. Part 80 et. seq. These acts require that no person shall, on the grounds of race, color, national origin, age, or handicap, be excluded from participation in or be subjected to discrimination in any program or activity funded, in whole or part, by federal funds.

ADA

The Americans with Disabilities Act (Public Law 101-336; 42 USC 12101, 12102, 12111-12117, 12131-12134, 12141-12150, 12161-12165, 12181-12189, 12201-12213 47 USC 225 and 47 USC 611.

Uniform Relocation Assistance and Real Property Acquisition Policies Act

The Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended (Public Law 91-646, as amended and Public Law 100-17, 101 Stat. 246-256). (If the contractor

is acquiring real property and displacing households or businesses in the performance of the Agreement).

Drug-Free Workplace Act

The Drug-Free Workplace Act (Public Law 100-690 Title V, subtitle D, 41 USC 701 et seq.).

Age Discrimination Act of 1975

The Age Discrimination Act of 1975, 42 U.S.C. Sections 6101 et. seq. and its implementing regulation, 45 C.F.R. Part 91; Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. 794, as amended, and implementing regulation 45 C.F.R. Part 84.

23 C.F.R. Part 172

23 C.F.R. Part 172, concerning "Administration of Engineering and Design Related Contracts".

23 C.F.R Part 633

23 C.F.R Part 633, concerning "Required Contract Provisions for Federal-Aid Construction Contracts".

23 C.F.R. Part 635

23 C.F.R. Part 635, concerning "Construction and Maintenance Provisions".

Title VI of the Civil Rights Act of 1964 and 162(a) of the Federal Aid Highway Act of 1973

Title VI of the Civil Rights Act of 1964 and 162(a) of the Federal Aid Highway Act of 1973. The requirements for which are shown in the Nondiscrimination Provisions, which are attached hereto and made a part hereof.

Nondiscrimination Provisions:

In compliance with Title VI of the Civil Rights Act of 1964 and with Section 162(a) of the Federal Aid Highway Act of 1973, the Contractor, for itself, its assignees and successors in interest, agree as follows:

i. Compliance with Regulations

The Contractor will comply with the Regulations of the Department of Transportation relative to nondiscrimination in Federally assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21, hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this Agreement.

ii. Nondiscrimination

The Contractor, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the ground of race, color, sex, mental or physical handicap or national origin in the selection and retention of Subcontractors, including procurement of materials and leases of equipment. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix C of the Regulations.

iii. Solicitations for Subcontracts, Including Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurement of materials or equipment, each potential Subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Agreement and the Regulations relative to nondiscrimination on the ground of race, color, sex, mental or physical handicap or national origin.

iv. Information and Reports

The Contractor will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the State or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the Contractor is in the

exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the State, or the FHWA as appropriate and shall set forth what efforts have been made to obtain the information.

v. Sanctions for Noncompliance

In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Agreement, the State shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to: **a.** Withholding of payments to the Contractor under the contract until the Contractor complies, and/or **b.** Cancellation, termination or suspension of the contract, in whole or in part.

Incorporation of Provisions §22

The Contractor will include the provisions of this **Exhibit J** in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, orders, or instructions issued pursuant thereto. The Contractor will take such action with respect to any subcontract or procurement as the State or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that, in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or supplier as a result of such direction, the Contractor may request the State to enter into such litigation to protect the interest of the State and in addition, the Contractor may request the FHWA to enter into such litigation to protect the interests of the United States.

38. EXHIBIT K – SUPPLEMENTAL FEDERAL PROVISIONS

**State of Colorado
Supplemental Provisions for
Federally Funded Contracts, Grants, and Purchase Orders
Subject to
The Federal Funding Accountability and Transparency Act of 2006 (FFATA), As Amended
Revised as of 3-20-13**

The contract, grant, or purchase order to which these Supplemental Provisions are attached has been funded, in whole or in part, with an Award of Federal funds. In the event of a conflict between the provisions of these Supplemental Provisions, the Special Provisions, the contract or any attachments or exhibits incorporated into and made a part of the contract, the provisions of these Supplemental Provisions shall control.

1. Definitions. For the purposes of these Supplemental Provisions, the following terms shall have the meanings ascribed to them below.

1.1. “Award” means an award of Federal financial assistance that a non-Federal Entity receives or administers in the form of:

- 1.1.1.** Grants;
- 1.1.2.** Contracts;
- 1.1.3.** Cooperative agreements, which do not include cooperative research and development agreements (CRDA) pursuant to the Federal Technology Transfer Act of 1986, as amended (15 U.S.C. 3710);
- 1.1.4.** Loans;
- 1.1.5.** Loan Guarantees;
- 1.1.6.** Subsidies;
- 1.1.7.** Insurance;
- 1.1.8.** Food commodities;
- 1.1.9.** Direct appropriations;
- 1.1.10.** Assessed and voluntary contributions; and
- 1.1.11.** Other financial assistance transactions that authorize the expenditure of Federal funds by non-Federal Entities.

Award **does not** include:

- 1.1.12.** Technical assistance, which provides services in lieu of money;
- 1.1.13.** A transfer of title to Federally-owned property provided in lieu of money; even if the award is called a grant;
- 1.1.14.** Any award classified for security purposes; or
- 1.1.15.** Any award funded in whole or in part with Recovery funds, as defined in section 1512 of the American Recovery and Reinvestment Act (ARRA) of 2009 (Public Law 111-5).

1.2. “Contract” means the contract to which these Supplemental Provisions are attached and includes all Award types in §1.1.1 through 1.1.11 above.

1.3. “Contractor” means the party or parties to a Contract funded, in whole or in part, with Federal financial assistance, other than the Prime Recipient, and includes grantees, subgrantees, Subrecipients, and borrowers. For purposes of Transparency Act reporting, Contractor does not include Vendors.

1.4. “Data Universal Numbering System (DUNS) Number” means the nine-digit number established and assigned by Dun and Bradstreet, Inc. to uniquely identify a business entity. Dun and Bradstreet's website may be found at: <http://fedgov.dnb.com/webform>.

1.5. “Entity” means all of the following as defined at 2 CFR part 25, subpart C;

- 1.5.1.** A governmental organization, which is a State, local government, or Indian Tribe;
- 1.5.2.** A foreign public entity;

- 1.5.3. A domestic or foreign non-profit organization;
 - 1.5.4. A domestic or foreign for-profit organization; and
 - 1.5.5. A Federal agency, but only a Subrecipient under an Award or Subaward to a non-Federal entity.
- 1.6. **“Executive”** means an officer, managing partner or any other employee in a management position.
 - 1.7. **“Federal Award Identification Number (FAIN)”** means an Award number assigned by a Federal agency to a Prime Recipient.
 - 1.8. **“FFATA”** means the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), as amended by §6202 of Public Law 110-252. FFATA, as amended, also is referred to as the “Transparency Act.”
 - 1.9. **“Prime Recipient”** means a Colorado State agency or institution of higher education that receives an Award.
 - 1.10. **“Subaward”** means a legal instrument pursuant to which a Prime Recipient of Award funds awards all or a portion of such funds to a Subrecipient, in exchange for the Subrecipient’s support in the performance of all or any portion of the substantive project or program for which the Award was granted.
 - 1.11. **“Subrecipient”** means a non-Federal Entity (or a Federal agency under an Award or Subaward to a non-Federal Entity) receiving Federal funds through a Prime Recipient to support the performance of the Federal project or program for which the Federal funds were awarded. A Subrecipient is subject to the terms and conditions of the Federal Award to the Prime Recipient, including program compliance requirements. The term “Subrecipient” includes and may be referred to as Subgrantee.
 - 1.12. **“Subrecipient Parent DUNS Number”** means the subrecipient parent organization’s 9-digit Data Universal Numbering System (DUNS) number that appears in the subrecipient’s System for Award Management (SAM) profile, if applicable.
 - 1.13. **“Supplemental Provisions”** means these Supplemental Provisions for Federally Funded Contracts, Grants, and Purchase Orders subject to the Federal Funding Accountability and Transparency Act of 2006, As Amended, as may be revised pursuant to ongoing guidance from the relevant Federal or State of Colorado agency or institution of higher education.
 - 1.14. **“System for Award Management (SAM)”** means the Federal repository into which an Entity must enter the information required under the Transparency Act, which may be found at <http://www.sam.gov>.
 - 1.15. **“Total Compensation”** means the cash and noncash dollar value earned by an Executive during the Prime Recipient’s or Subrecipient’s preceding fiscal year and includes the following:
 - 1.15.1. Salary and bonus;
 - 1.15.2. Awards of stock, stock options, and stock appreciation rights, using the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2005) (FAS 123R), Shared Based Payments;
 - 1.15.3. Earnings for services under non-equity incentive plans, not including group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of Executives and are available generally to all salaried employees;
 - 1.15.4. Change in present value of defined benefit and actuarial pension plans;
 - 1.15.5. Above-market earnings on deferred compensation which is not tax-qualified;
 - 1.15.6. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the Executive exceeds \$10,000.
 - 1.16. **“Transparency Act”** means the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), as amended by §6202 of Public Law 110-252. The Transparency Act also is referred to as FFATA.

- 1.17 "Vendor"** means a dealer, distributor, merchant or other seller providing property or services required for a project or program funded by an Award. A Vendor is not a Prime Recipient or a Subrecipient and is not subject to the terms and conditions of the Federal award. Program compliance requirements do not pass through to a Vendor.
- 2. Compliance.** Contractor shall comply with all applicable provisions of the Transparency Act and the regulations issued pursuant thereto, including but not limited to these Supplemental Provisions. Any revisions to such provisions or regulations shall automatically become a part of these Supplemental Provisions, without the necessity of either party executing any further instrument. The State of Colorado may provide written notification to Contractor of such revisions, but such notice shall not be a condition precedent to the effectiveness of such revisions.
- 3. System for Award Management (SAM) and Data Universal Numbering System (DUNS) Requirements.**
- 3.1. SAM.** Contractor shall maintain the currency of its information in SAM until the Contractor submits the final financial report required under the Award or receives final payment, whichever is later. Contractor shall review and update SAM information at least annually after the initial registration, and more frequently if required by changes in its information.
- 3.2. DUNS.** Contractor shall provide its DUNS number to its Prime Recipient, and shall update Contractor's information in Dun & Bradstreet, Inc. at least annually after the initial registration, and more frequently if required by changes in Contractor's information.
- 4. Total Compensation.** Contractor shall include Total Compensation in SAM for each of its five most highly compensated Executives for the preceding fiscal year if:
- 4.1.** The total Federal funding authorized to date under the Award is \$25,000 or more; and
- 4.2.** In the preceding fiscal year, Contractor received:
- 4.2.1.** 80% or more of its annual gross revenues from Federal procurement contracts and subcontracts and/or Federal financial assistance Awards or Subawards subject to the Transparency Act; and
- 4.2.2.** \$25,000,000 or more in annual gross revenues from Federal procurement contracts and subcontracts and/or Federal financial assistance Awards or Subawards subject to the Transparency Act; and
- 4.3.** The public does not have access to information about the compensation of such Executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d) or § 6104 of the Internal Revenue Code of 1986.
- 5. Reporting.** Contractor shall report data elements to SAM and to the Prime Recipient as required in §7 below if Contractor is a Subrecipient for the Award pursuant to the Transparency Act. No direct payment shall be made to Contractor for providing any reports required under these Supplemental Provisions and the cost of producing such reports shall be included in the Contract price. The reporting requirements in §7 below are based on guidance from the US Office of Management and Budget (OMB), and as such are subject to change at any time by OMB. Any such changes shall be automatically incorporated into this Contract and shall become part of Contractor's obligations under this Contract, as provided in §2 above. The Colorado Office of the State Controller will provide summaries of revised OMB reporting requirements at <http://www.colorado.gov/dpa/dfp/sco/FFATA.htm>.
- 6. Effective Date and Dollar Threshold for Reporting.** The effective date of these Supplemental Provisions apply to new Awards as of October 1, 2010. Reporting requirements in §7 below apply to new Awards as of October 1, 2010, if the initial award is \$25,000 or more. If the initial Award is below \$25,000 but subsequent Award modifications result in a total Award of \$25,000 or more, the Award is subject to the reporting requirements as of the date the Award exceeds \$25,000. If the initial Award is \$25,000 or more, but funding is subsequently de-obligated such that the total award amount falls below \$25,000, the Award shall continue to be subject to the reporting requirements.

7. Subrecipient Reporting Requirements. If Contractor is a Subrecipient, Contractor shall report as set forth below.

7.1 ToSAM. A Subrecipient shall register in SAM and report the following data elements in SAM *for each* Federal Award Identification Number no later than the end of the month following the month in which the Subaward was made:

- 7.1.1** Subrecipient DUNS Number;
- 7.1.2** Subrecipient DUNS Number + 4 if more than one electronic funds transfer (EFT) account;
- 7.1.3** Subrecipient Parent DUNS Number;
- 7.1.4** Subrecipient's address, including: Street Address, City, State, Country, Zip + 4, and Congressional District;
- 7.1.5** Subrecipient's top 5 most highly compensated Executives if the criteria in §4 above are met; and
- 7.1.6** Subrecipient's Total Compensation of top 5 most highly compensated Executives if criteria in §4 above met.

7.2 To Prime Recipient. A Subrecipient shall report to its Prime Recipient, upon the effective date of the Contract, the following data elements:

- 7.2.1** Subrecipient's DUNS Number as registered in **SAM**.
- 7.2.2** Primary Place of Performance Information, including: Street Address, City, State, Country, Zip code + 4, and Congressional District.

8. Exemptions.

- 8.1.** These Supplemental Provisions do not apply to an individual who receives an Award as a natural person, unrelated to any business or non-profit organization he or she may own or operate in his or her name.
- 8.2** A Contractor with gross income from all sources of less than \$300,000 in the previous tax year is exempt from the requirements to report Subawards and the Total Compensation of its most highly compensated Executives.
- 8.3** Effective October 1, 2010, "Award" currently means a grant, cooperative agreement, or other arrangement as defined in Section 1.1 of these Special Provisions. On future dates "Award" may include other items to be specified by OMB in policy memoranda available at the OMB Web site; Award also will include other types of Awards subject to the Transparency Act.
- 8.4** There are no Transparency Act reporting requirements for Vendors.

Event of Default. Failure to comply with these Supplemental Provisions shall constitute an event of default under the Contract and the State of Colorado may terminate the Contract upon 30 days prior written notice if the default remains uncured five calendar days following the termination of the 30 day notice period. This remedy will be in addition to any other remedy available to the State of Colorado under the Contract, at law or in equity.



Board Summary Report

Date: November 18, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Agreement for Law Enforcement Services with the Town of Bennett, CO

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Law Enforcement Services with the Town of Bennett, CO.

Background

The Arapahoe County Sheriff's Office has provided contract Patrol Services for the Town of Bennett, within the boundaries of Arapahoe County, since at least 2001.

Links to Align Arapahoe

The 2017 Agreement for Law Enforcement Services with the Town of Bennett, CO increases community and regional partnerships.

Discussion

A working relationship has been established between the Sheriff's Office and the citizens of the Town of Bennett, CO.

Alternatives

If the Board declines this agreement, the Town Council of Bennett would need to initiate a search for another accredited law enforcement agency to provide these services within their boundaries. During the search, the citizens of Bennett would be without law enforcement protection.

Fiscal Impact

This Agreement for Service will generate \$25,765.26 in revenue to the Arapahoe Law Enforcement Authority.

Concurrence

The Sheriff's Office Administration and Public Safety Bureau concurs with this decision.

Reviewed By:

Olga Fugaros, Budget & Logistics Manager
Glenn Thompson, Public Safety Bureau Chief
Louie M. Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the 2017 Agreement for Law Enforcement Services by and between Arapahoe County and the Town of Bennett for the provision of law enforcement services by the Arapahoe County Sheriff's Office within the Town for the period of January 1, 2017 through December 31, 2017, in an amount not to exceed \$25,765.26, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld,; Commissioner Doty,; Commissioner Holen,; Commissioner Jackson,; Commissioner Sharpe,.

The Chair declared the motion carried and so ordered.

AGREEMENT FOR LAW ENFORCEMENT SERVICES

THIS AGREEMENT is made and entered into by and between the TOWN OF BENNETT, a municipal corporation of the State of Colorado, (hereinafter referred to as "Bennett") and BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF ARAPAHOE, on behalf of the ARAPAHOE COUNTY SHERIFF'S OFFICE (hereafter referred to as the "County").

WITNESSETH:

WHEREAS, Section 30-11-410, C.R.S. as amended, authorizes the County to contract with a municipality for the purpose of providing law enforcement by the Sheriff within the boundaries of the municipality; and

WHEREAS, Bennett is without monetary means to provide for the employment of any full-time law officers; and

WHEREAS, Bennett has requested that the County through the Arapahoe County Sheriff provide law enforcement services which the parties agree are contemplated in Section 30-11-410, C.R.S. ,and

WHEREAS, the County, in the interest of health, safety, and welfare of the residents of the Town of Bennett, deems it advisable to enter into this Agreement for Law Enforcement Services; and

WHEREAS, the County has determined to execute future agreements on a fiscal year basis.

NOW, THEREFORE, in consideration of the premises, it is agreed as follows:

1. The Arapahoe County Sheriff ("Sheriff") shall provide law enforcement as more specifically described herein and in Attachment A within the boundaries of Bennett within Arapahoe County commencing upon January 1, 2017.

2. The type of law enforcement services to be provided by the Sheriff, within the boundaries of Bennett situated in Arapahoe County, shall be similar to the law enforcement services provided in unincorporated areas of the County of Arapahoe and will include law enforcement communication center services, but shall not include enforcement of municipal ordinances. The Sheriff shall utilize, to the best of his ability and judgment, the manpower and equipment presently at his disposal in order to provide said law enforcement services. Offenders shall be cited into the District Court or the County Court of Arapahoe County as appropriate.

a. The law enforcement services provided under this Agreement shall not include non-routine law enforcement services associated with special events sponsored

by or approved by Bennett. For such events, it is expressly understood that Bennett shall consult with the Sheriff's staff regarding such event(s) and any law enforcement needs associated with the events that exceed routine service levels. Bennett shall negotiate a separate agreement with the Sheriff's Office for any temporary or off-duty services required for such events that exceed routine service levels. For purposes of this Agreement, "special events" and/or "non-routine service levels" shall mean events sponsored or approved by Bennett with an expected or actual attendance of more than five thousand people.

3. The term of the Agreement shall commence as of January 1, 2017 and shall end as of December 31, 2017.

4. For the law enforcement services provided under this Agreement, Bennett shall pay to the County the sum of Twenty Five Thousand, Seven Hundred and Sixty Five Dollars, and Twenty Six Cents (\$25,765.26) for the term of this agreement, which includes dispatch services. Payment of said \$25,765.26 shall be made to the County in full upon execution of this Agreement by Bennett.

5. The services provided pursuant to this Agreement shall be performed by the deputies of the Arapahoe County Sheriff. The Sheriff's staff shall be responsible for maintaining all records relating to the services performed.

6. The County is, and shall at all times be deemed to be, an independent contractor. Nothing in this Agreement shall be construed as creating the relationship of employer or employee between Bennett and the County or any of the County's agents or employees. To the extent this Agreement creates a principal-agent relationship between the County and Bennett, such relationship confers on the County and its employees the authority to act on Bennett's behalf only as to matters covered by this Agreement. The County shall retain all authority for rendition of the services covered by this Agreement, including standards of performance, control of personnel (including discipline), and other matters incidental to the performance of the services by the County. Nothing in this Agreement shall make any employee of Bennett a County employee or any employee of the County a Bennett employee for any purpose, including, but not limited to, withholding of taxes, payment of benefits, worker's compensation, or any other rights or privileges accorded County or Bennett employees by virtue of their employment.

7. Nothing in this Agreement shall be construed as a waiver by either party of the protections afforded them pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.*, C.R.S. ("CGIA") as same may be amended from time to time. Specifically, neither party waives the monetary limitations or any other rights, immunities or protections afforded by the CGIA or otherwise available at law. If any waiver by Bennett results in a waiver of protections afforded to the County, Bennett shall, to the extent allowed by law, indemnify and hold harmless the County for such actions. If any waiver by the County results in a waiver of the protections afforded to Bennett, the County shall, to the extent allowed by law, indemnify and hold harmless Bennett for such

actions. Further, the County shall not be responsible for any claim against Bennett which arises out of services not performed by the County pursuant to this Agreement.

8. The County does not intend by the Agreement to assume any contractual obligations to anyone other than Bennett, and Bennett does not intend by the Agreement to assume any contractual obligation to anyone other than the County. The County and Bennett do not intend that there be any third-party beneficiary to this Agreement.

9. Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the other party in writing.

10. This Agreement may not be modified, amended or otherwise altered unless mutually agreed upon in writing by the parties hereto.

11. Bennett is not responsible for Worker's Compensation claims to the Sheriff's employees working under this Agreement. The County shall procure and maintain Worker's Compensation insurance for such employees as required under Colorado law.

12. Bennett agrees to carry Comprehensive General Liability Insurance with a minimum \$1,000,000.00 limit of liability. Arapahoe County and the Arapahoe County Sheriff will be named as additional insured under this policy. Bennett shall provide the County with a Certificate of Insurance reflecting that coverage. Arapahoe County agrees to maintain insurance, either through self-insurance or commercial policies, adequate to cover the liability and other risks to which it may be exposed as a result of the services provided pursuant to this Agreement.

13. Bennett further agrees to carry Comprehensive General Liability Insurance, Public Official Liability insurance, and Workers Compensation for its own employees for the duration of the Agreement as well as for two years after the Sheriff's services terminate. Bennett shall provide the County with a certificate of insurance reflecting that coverage.

14. Either party may terminate this Agreement with or without good cause shown upon 30 days written notice to the other party prior to termination. In the event of termination by the County, no damages liquidated or otherwise, shall inure to the benefit of the County; however, the County will refund a pro-rated portion of the fee paid pursuant to paragraph 4 above.

15. Unless otherwise agreed in writing, this Agreement, and the interpretation thereof shall be governed by the laws of the State of Colorado.

16. Notices to be provided under this Agreement shall be given in writing either by hand delivery, or deposited in the United States mail, with sufficient postage, to the following persons:

For County: Arapahoe County Attorney

5334 South Prince Street
Littleton, Colorado 80120

and (send to both)

Arapahoe County Sheriff's Office
Attn: Arapahoe County Sheriff
7375 South Potomac Street
Centennial, Colorado 80112

For Bennett: Town Clerk
Town of Bennett
355 Fourth Street
Bennett, CO 80102-7806

EXECUTED this _____ day of _____, 20__.

ATTEST:

TOWN OF BENNETT

Town Clerk Date

Mayor Date

ATTEST:

**BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE**

Chair Date

ATTACHMENT A

This Agreement for Law Enforcement Services will be implemented by the Arapahoe County Sheriff's Office and shall not in any way affect the regular law enforcement services provided by the Arapahoe County Sheriff's Office to unincorporated portions of Arapahoe County. The Sheriff will make all determinations in scheduling and designating

the patrol area of the deputy supplied under this Agreement for Law Enforcement Services. The standards of performance, disciplining of deputies, control of personnel providing such services, and other matters incident to the performance of the services to be provided hereunder shall be in accordance with Arapahoe County Sheriff's Office policies and procedures.

All legal documents, i.e. subpoenas, summonses, or any legal paperwork not generated by the Arapahoe County Sheriff's Office that require service shall be handled as follows: (1) Legal documents will be provided by Bennett to the Civil Section of the Arapahoe County Sheriff's Office; (2) Arapahoe County Sheriff's Office personnel will serve only legal documents required to be served in Arapahoe County; (3) Bennett will pay for service in accordance with the Arapahoe County Sheriff's Office fee schedule, based upon the Colorado Revised Statutes.

Criminal and traffic enforcement action taken by deputies assigned to Bennett will be handled in the same manner and nature as enforcement actions within the unincorporated areas of Arapahoe County. Generally, it will be standard practice for deputies to utilize Bennett Municipal Ordinances for criminal and traffic charging whenever practical; however, appropriate charging shall remain at the deputies' discretion.

Law enforcement services provided to Bennett under this Agreement for Law Enforcement Services will be provided within the territory of Bennett that is located within Arapahoe County. Areas outside Arapahoe County, annexed by Bennett, will not be served under this Agreement for Law Enforcement Services. The Sheriff, or his designee, will meet with the Bennett Trustees on an as-needed basis. The meetings may occur in an effort to maintain communication and enhance community policing and partnerships.



Board Summary Report

Date: November 18, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Agreement for Law Enforcement Services with the Town of Deer Trail, CO

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services for Law Enforcement Services with the Town of Deer Trail, CO.

Background

The Arapahoe County Sheriff's Office has provided law enforcement services within the boundaries of the Town of Deer Trail, Colorado since 1977

Links to Align Arapahoe

The 2017 Agreement for Law Enforcement Services with the Town of Deer Trail, CO increases community and regional partnerships.

Discussion

Over the past quarter century, the Sheriff's Office Patrol as served the citizens of Deer Trail. The deputies that are assigned to this district have established a relationship with the citizens they serve and protect.

Alternatives

If the Board declines this agreement, the Town Council of Deer Trail would have to initiate a search for another accredited law enforcement agency to provide these services within their boundaries. During the search, the citizens of Deer Trail would be without law enforcement protection.

Fiscal Impact

This Agreement for Service will generate \$18,870.57 in revenue to the Arapahoe Law Enforcement Authority.

Concurrence

The Sheriff's Administration and Public Safety Bureau concurs with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Glenn Thompson, Public Safety Bureau Chief
Louie M. Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the 2017 Agreement for Law Enforcement Services by and between Arapahoe County and the Town of Deer Trail for the provision of law enforcement services by the Arapahoe County Sheriff's Office within the Town for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$18,870.57, pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld,; Commissioner Doty ; Commissioner Holen; Commissioner Jackson; Commissioner Sharpe.

The Chair declared the motion carried and so ordered.

AGREEMENT FOR LAW ENFORCEMENT SERVICES

THIS AGREEMENT made and entered into by and between the TOWN OF DEER TRAIL, a municipal corporation of the State of Colorado (hereinafter referred to as "Deer Trail") and BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF ARAPAHOE, on behalf of the ARAPAHOE COUNTY SHERIFF'S OFFICE (hereafter referred to as the "County").

WITNESSETH:

WHEREAS, Section 30-11-410, C.R.S. as amended, authorizes the County to contract with a municipality for the purpose of providing law enforcement by the Sheriff within the boundaries of the municipality; and

WHEREAS, originally by letter dated September 22, 1977, Deer Trail requested a contract contemplated by said Section 30-11-410 and indicated in said letter that Deer Trail is without monetary means to provide for the employment of any full-time law officers; and

WHEREAS, the County and Deer Trail have previously entered into contracts for law enforcement services since 1977; and

WHEREAS, Deer Trail has requested renewal of said Agreement; and

WHEREAS, the County, in the interest of the health, safety and welfare of the residents of the Town of Deer Trail, deems it advisable to enter into this Agreement for Law Enforcement Services; and

WHEREAS, the County has determined to execute future agreements on a fiscal year basis.

NOW, THEREFORE, in consideration of the premises, it is agreed as follows:

1. The Arapahoe County Sheriff shall provide law enforcement within the boundaries of Deer Trail commencing January 1, 2017.

2. The type of law enforcement services to be provided by the Arapahoe County Sheriff ("Sheriff"), within the boundaries of Deer Trail shall be similar to the law enforcement services provided in unincorporated areas of the County of Arapahoe and will include law enforcement and law enforcement communication center services, but shall not include enforcement of municipal ordinances. The Sheriff shall utilize, to the best of his ability and judgment, the manpower and equipment presently at his disposal in order to provide said law enforcement services. Offenders shall be cited into the District Court or the County Court of Arapahoe County as appropriate.

- A. The law enforcement services provided under this Agreement shall not include non-routine law enforcement services associated with special events sponsored by or approved by Deer Trail. For such events, it is expressly understood that Deer Trail shall consult with the Sheriff's staff regarding such event(s) and any law enforcement needs associated with the events that exceed routine service levels. Deer Trail shall negotiate a separate agreement with the Sheriff's Office for any temporary or off-duty services required for such events that exceed routine service levels. For purposes of this Agreement, "special events" and/or "non-routine service levels" shall mean events sponsored or approved by Deer Trail with an expected or actual attendance of more than five thousand people.
3. The term of the Agreement shall commence as of January 1, 2017 and shall end as of December 31, 2017.
4. For the law enforcement services provided under this Agreement, Deer Trail shall pay to the County \$18,870.57, for the term of this Agreement, which includes dispatch services. Payment of said \$18,870.57 shall be made to the County in full upon execution of this Agreement by Deer Trail.
5. The services provided pursuant to this Agreement shall be performed by the deputies of the Arapahoe County Sheriff. The Sheriff's staff shall be responsible for maintaining all records relating to the services performed.
6. The County is, and shall at all times be deemed to be, an independent contractor. Nothing in this Agreement shall be construed as creating the relationship of employer or employee between Deer Trail and the County or any of the County's agents or employees. To the extent this Agreement creates a principal-agent relationship between the County and Deer Trail, such relationship confers on the County and its employees the authority to act on Deer Trail's behalf only as to matters covered by this Agreement. The County shall retain all authority for rendition of the services covered by this Agreement, including standards of performance, control of personnel (including discipline), and other matters incidental to the performance of the services by the County. Nothing in this Agreement shall make any employee of Deer Trail a County employee or any employee of the County a Deer Trail employee for any purpose, including, but not limited to, withholding of taxes, payment of benefits, worker's compensation, or any other rights or privileges accorded County or Deer Trail employees by virtue of their employment.
7. Nothing in this Agreement shall be construed as a waiver by either party of the protections afforded them pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.*, C.R.S. ("CGIA") as same may be amended from time to time. Specifically, neither party waives the monetary limitations or any other rights, immunities or protections afforded by the CGIA or otherwise available at law. If any waiver by Deer Trail results in a waiver of protections afforded to the County, Deer Trail shall, to the extent allowed by law, indemnify and hold harmless the County for such

actions. If any waiver by the County results in a waiver of the protections afforded to Deer Trail, the County shall, to the extent allowed by law, indemnify and hold harmless Deer Trail for such actions. Further, the County shall not be responsible for any claim against Deer Trail which arises out of services not performed by the County pursuant to this Agreement.

8. The County does not intend by the Agreement to assume any contractual obligations to anyone other than Deer Trail, and Deer Trail does not intend by the Agreement to assume any contractual obligation to anyone other than the County. The County and Deer Trail do not intend that there be any third-party beneficiary to this Agreement.

9. Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the other party in writing.

10. This Agreement may not be modified, amended or otherwise altered unless mutually agreed upon in writing by the parties hereto.

11. Deer Trail is not responsible for Worker's Compensation claims of Sheriff's employees working under this Agreement. The County shall procure and maintain Worker's Compensation insurance for such employees as required under Colorado law.

12. Deer Trail agrees to carry Comprehensive General Liability Insurance with a minimum \$1,000,000.00 limit of liability. Arapahoe County and the Arapahoe County Sheriff and his employees will be named insured under this policy. Deer Trail shall provide the County with a Certificate reflecting that coverage.

13. Deer Trail agrees to continue to maintain its Liability Reserve Escrow Fund ("Fund"), as established pursuant to the 1997 calendar year Agreement for Services and maintained in subsequent Agreements.

A. If the County or Sheriff or his staff incur and/or receive any costs, attorney's fees, damages, judgments or awards as the result of Sheriff's employees performing work under the Agreement, and said amounts are not covered by the Town's liability insurance for Sheriff's employees, the Town of Deer Trail agrees to pay up to the total amount of money existing in the Fund at the time to the County for said costs, attorney's fees, damages, judgments or awards, including but not limited to, the costs of defense. Deer Trail's obligation to indemnify pursuant to this paragraph, and to provide insurance coverage where applicable, shall survive the termination of this Agreement.

14. Deer Trail further agrees to carry General Liability Insurance and Workers Compensation for its town employees for the duration of this Agreement as well as for two years after the Sheriff's services terminate. Deer Trail shall provide the County with certificates of insurance reflecting that coverage.

15. Either party may terminate this Agreement with or without good cause shown upon 30 days written notice to the other party prior to termination. In the event of termination by the County, no damages, liquidated or otherwise, shall inure to the benefit of the County; however, the County will refund a pro-rated portion of the fee paid pursuant to paragraph 4 above.

16. Unless otherwise agreed in writing, this Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado.

17. Notices to be provided under this Agreement shall be given in writing either by hand delivery, or deposited in the United States mail, with sufficient postage, to the following persons:

Arapahoe County Office
Office of the County Attorney
5334 South Prince Street
Littleton, Colorado 80120

Town Clerk
Town of Deer Trail
P. O. Box 217
Deer Trail, Colorado 80105

Arapahoe County Sheriff's Office
13101 E. Broncos Parkway
Centennial, CO 80112

EXECUTED this _____ day of _____, 20____.

ATTEST:

TOWN OF DEER TRAIL

Town Clerk Date

Mayor Date

ARAPAHOE COUNTY

Chair, Board of County Commissioners

Date
ATTEST:

Clerk of the Board



Board Summary Report

Date: November 18, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Agreement for Law Enforcement Services with the Town of Foxfield, CO

Request and Recommendation

Request the Board of County Commissioners to authorize the Chair of the Board of County Commissioners to sign the Agreement for Services for Law Enforcement Services with the Town of Foxfield, CO.

Background

Historically, the Arapahoe County Sheriff's Office has provided law enforcement services within the boundaries of Town of Foxfield, CO.

Links to Align Arapahoe

The 2017 Agreement for Law Enforcement Services with the Town of Foxfield, CO increases community and regional partnerships.

Discussion

In the course of providing law enforcement services to the citizens of Town of Foxfield, CO, a working relationship has been established between the Sheriff's Office and the citizens of the Town of Foxfield.

Alternatives

If the Board declines this agreement, the Town Council of Foxfield would have to initiate a search for another accredited law enforcement agency to provide these services within their boundaries. During the search, the citizens of Town of Foxfield would not have access to law enforcement services.

Fiscal Impact

This Agreement for Service will generate \$85,110.24 in revenue to the Arapahoe Law Enforcement Authority.

Concurrence

The Sheriff's Office Administration and Public Safety Bureau concurs with this decision.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager
Glenn Thompson, Public Safety Bureau Chief
Louie M. Perea, Undersheriff
David C. Walcher, Sheriff
Finance Department
County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to authorize the Chair of the Board of County Commissioners to sign the 2017 Agreement for Law Enforcement Services by and between Arapahoe County and the Town of Foxfield for the provision of law enforcement services by the Arapahoe County Sheriff's Office within the Town for the period of January 1, 2017 through December 31, 2017, for payment in the amount of \$85,110.24 pursuant to the terms contained therein.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty; Commissioner Holen ; Commissioner Jackson ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

AGREEMENT FOR LAW ENFORCEMENT SERVICES

THIS AGREEMENT made and entered into by and between the TOWN OF FOXFIELD, a municipal corporation of the State of Colorado, (hereinafter referred to as "Foxfield") and BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF ARAPAHOE, on behalf of the ARAPAHOE COUNTY SHERIFF'S OFFICE (hereinafter referred to as "County").

WITNESSETH:

WHEREAS, Section 30-11-410, C.R.S. as amended, authorizes the County to contract with a municipality for the purpose of providing law enforcement by the Sheriff within the boundaries of the municipality; and

WHEREAS, Foxfield is without monetary means to provide for the employment of any full-time law officers; and

WHEREAS, Foxfield has requested that the County, through the Arapahoe County Sheriff, provide law enforcement services which the parties agree are contemplated in section 30-11-410, C.R.S.,

WHEREAS, the County, in the interest of the health, safety and welfare of the residents of the Town of Foxfield, deems it advisable to enter into this Agreement for Law Enforcement Services; and

WHEREAS, the County has determined to execute future agreements on a fiscal year basis.

NOW, THEREFORE, in consideration of the premises, it is agreed as follows:

1. The Arapahoe County Sheriff ("Sheriff") shall provide law enforcement as more specifically described herein and in Attachment A within the boundaries of Foxfield within Arapahoe County commencing January 1, 2017.

2. The type of law enforcement services to be provided by the Sheriff, within the boundaries of Foxfield situated in Arapahoe County, shall be similar to the law enforcement services provided in unincorporated areas of the County of Arapahoe and will include law enforcement communication center services, but shall not include enforcement of municipal ordinances. The Sheriff shall utilize, to the best of his ability and judgment, the manpower and equipment presently at his disposal in order to provide said law enforcement services. Offenders shall be cited into the Town of Foxfield Municipal Court, District Court or the County Court of Arapahoe County as appropriate.

- A. The law enforcement services provided under this Agreement shall not include non-routine law enforcement services associated with special events sponsored by or approved by Foxfield. For such events, it is expressly understood that Foxfield shall consult with the Sheriff's staff regarding such event(s) and any law enforcement needs associated with the events that exceed routine service levels. Foxfield shall negotiate a separate agreement with the Sheriff's Office for any temporary or off-duty services required for such events that exceed routine service levels. For purposes of this Agreement, "special events" and/or "non-routine service levels" shall mean events sponsored or approved by Foxfield with an expected or actual attendance of more than five thousand people.

3. The term of the Agreement shall commence as of January 1, 2017 and shall end as of December 31, 2017.

4. For the law enforcement services provided under this Agreement, Foxfield shall pay to the County \$85,110.24 for the term of this Agreement, which includes dispatch services. Payment of said \$85,110.24 shall be made to the County in full upon execution of this Agreement by Foxfield.

5. The services provided pursuant to this Agreement shall be performed by the deputies of the Arapahoe County Sheriff. The Sheriff's staff shall be responsible for maintaining all records relating to the services performed.

6. The County is, and shall at all times be deemed to be, an independent contractor. Nothing in this Agreement shall be construed as creating the relationship of employer or employee between Foxfield and the County or any of the County's agents or employees. To the extent this Agreement creates a principal-agent relationship between the County and Foxfield, such relationship confers on the County and its employees the authority to act on Foxfield's behalf only as to matters covered by this Agreement. The County shall retain all authority for rendition of the services covered by this Agreement, including standards of performance, control of personnel (including discipline), and other matters incidental to the performance of the services by the County. Nothing in this Agreement shall make any employee of Foxfield a County employee or any employee of the County a Foxfield employee for any purpose, including, but not limited to, withholding of taxes, payment of benefits, worker's compensation, or any other rights or privileges accorded County or Foxfield employees by virtue of their employment.

7. Nothing in this Agreement shall be construed as a waiver by either party of the protections afforded them pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, et seq., C.R.S. ("CGIA") as same may be amended from time to time. Specifically, neither party waives the monetary limitations or any other rights, immunities or protections afforded by the CGIA or otherwise available at law. If any waiver by Foxfield results in a waiver of protections afforded to the County, Foxfield shall, to the extent allowed by law, indemnify and hold harmless the County for such actions. If any waiver by the County results in a waiver of the protections afforded to

Foxfield, the County shall, to the extent allowed by law, indemnify and hold harmless Foxfield for such actions. Further, the County shall not be responsible for any claim against Foxfield which arises out of services not performed by the County pursuant to this Agreement.

8. The County does not intend by the Agreement to assume any contractual obligations to anyone other than Foxfield, and Foxfield does not intend by the Agreement to assume any contractual obligation to anyone other than the County. The County and Foxfield do not intend that there be any third-party beneficiary to this Agreement.

9. Any assignment, transfer or subcontracting of this Agreement is prohibited, unless written consent is obtained from the other party in writing.

10. This Agreement may not be modified, amended or otherwise altered unless mutually agreed upon in writing by the parties hereto.

11. Foxfield is not responsible for Worker's Compensation claims of Sheriff's employees working under this Agreement. The County shall procure and maintain Worker's Compensation insurance for such employees as required under Colorado law.

12. Foxfield agrees to carry Comprehensive General Liability Insurance with a minimum \$1,000,000.00 limit of liability. Arapahoe County and the Arapahoe County Sheriff and his employees will be additional insureds under this policy. Foxfield shall provide the County with a Certificate reflecting that coverage.

13. Foxfield agrees to continue to maintain its Liability Reserve Escrow Fund ("Fund"), as established pursuant to the 1997 calendar year Agreement for Services and maintained in subsequent Agreements.

A. If the County or Sheriff or his staff incur and/or receive any costs, attorney's fees, damages, judgments or awards as the result of Sheriff's employees performing work under the Agreement, and said amounts are not covered by the Foxfield's liability insurance for Sheriff's employees, Foxfield agrees to pay up to the total amount of money existing in the Fund at the time to the County for said costs, attorney's fees, damages, judgments or awards, including but not limited to, the costs of defense. Foxfield's obligation to indemnify pursuant to this paragraph, and to provide insurance coverage where applicable, shall survive the termination of this Agreement.

14. Foxfield further agrees to carry Comprehensive General Liability Insurance and Workers Compensation for its town employees for the duration of this Agreement as well as for two years after the Sheriff's services terminate. Foxfield shall provide the County with certificates of insurance reflecting that coverage.

15. Either party may terminate this Agreement with or without good cause shown upon 30 days written notice to the other party prior to termination. In the event of

termination by the County, no damages, liquidated or otherwise, shall inure to the benefit of the County; however, the County will refund a pro-rated portion of the fee paid pursuant to paragraph 4 above.

16. Unless otherwise agreed in writing, this Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado.

17. Notices to be provided under this Agreement shall be given in writing either by hand delivery, or deposited in the United States mail, with sufficient postage, to the following persons:

For County: Arapahoe County Attorney
5334 South Prince Street
Littleton, Colorado 80120

And (send to both)

Arapahoe County Sheriff's Office
13101 E. Broncos Parkway
Centennial, CO 80112

For Foxfield: Town of Foxfield
P.O. Box 461450
Foxfield, CO 80046

EXECUTED this _____ day of _____, 20____.

ATTEST:

TOWN OF FOXFIELD

Town Clerk Date

Mayor Date

ATTEST:

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF ARAPAHOE

Chair Date



Board Summary Report

Date: November 9, 2016
To: Board of County Commissioners
Through: Sue Sandstrom, Treasurer
From: Debbie Dater, Property Tax Director
Subject: Cancellation of Personal Property Tax for Closed Businesses

Request and Recommendation

Request for adoption of a resolution canceling levied personal property taxes that are deemed uncollectible for tax years 1995 through 2006, plus taxes for subsequent years for these businesses, if any.

Background

Pursuant to CRS 39-10-114(2)(a), “Any taxes levied on personal property, including but not limited to mobile homes, which are determined to be uncollectible after a period of one year after the date of their becoming delinquent may be canceled by the board of county commissioners.”

This particular list is comprised of inactive businesses in Arapahoe County with amounts due for tax years 1997 through 2006. If taxes in subsequent years for these businesses were also found to be due, the subsequent years were included in this request for cancellation. The list also includes taxes for 1995, where the court ordered amounts were paid and the remaining balances were never canceled.

Links to Align Arapahoe

This is a business process that helps to clean up old records, giving a better picture of tax revenue that is outstanding and has the potential of being collected. By canceling uncollectible personal property and mobile home taxes, staff can focus on collecting more current delinquencies, thus contributing to Fiscal Responsibility.

Discussion

In recent years, the Treasurer’s Office has collected over 97% of the property taxes due every year. The amounts to be canceled represent a very small percentage of the overall expected revenue for all authorities for the affected tax years. The expected revenue amounts range from just over \$402.750 million for tax year 1997 to over \$794.5 million for tax year 2014.

There are multiple reasons for these cancelations, including bankruptcy cases being dismissed, final settlements on bankruptcy cases, businesses being closed, and assets being sold, seized by the state and/or being destroyed.

The following is a summary by year of the amounts to be canceled. Please note that for tax year 2001, there is a single tax record with an amount due of almost \$1.8 million. This is why the total requested cancelation for tax year 2001 is substantially more than the other years.

The resolution will contain an attachment detailing the property identification numbers, the tax years, the amounts to be canceled, the reasons for the cancelations, and the amount that would have been disbursed to the county, if the taxes had been collected.

Tax Year	# of Parcels	Dollar Amount
1995	14	13,991.20
1997	1	543.60
1998	2	243.21
1999	1	239.89
2000	82	259,390.85
2001	193	2,262,387.42
2002	189	297,509.82
2003	563	381,026.08
2004	641	449,182.33
2005	675	412,310.11
2006	666	424,749.00
2007	275	151,459.70
2008	155	92,418.79
2009	60	45,197.28
2010	45	21,320.37
2011	27	26,015.45
2012	12	9,321.03
2013	11	12,874.26
2014	6	5,320.61
Totals	3,618	4,865,501.00

Alternatives

N/A

Fiscal Impact

The amount we are requesting to be canceled is \$4,865,501.00, which if collected, would have been disbursed to multiple taxing authorities, including Arapahoe County. The amount payable to the county would have been \$657,613.12. As the 3,618 records have been determined to be uncollectible for a variety of reasons, there is no real fiscal impact to the County.

Reviewed By:

Sue Sandstrom, Treasurer
Todd Weaver, Budget Manager
Debbie Dater, Property Tax Director
Monica Kovaci, Assistant County Attorney

RESOLUTION NO. _____. It was moved by Commissioner _____ and duly seconded by Commissioner _____ to adopt the cancelation of 1997 through 2006 personal property taxes for businesses that are no longer active, along with taxes due for subsequent years, if any; and to adopt the cancelation of the remaining balance of 1995 taxes after a court ordered settlement, all of which are identified in the attached Exhibit A presented to the Board of County Commissioners on this date.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty ____; Commissioner Holen ____; Commissioner Jackson ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

Tax Year	PIN	AIN	Amount	Reason	2998 County
1995	032640766	87110-01013-0701	3,992.36	Court ordered adjustment	1,182.92
2004	032660503	25231-02698-001	75.30	Inactive - uncollectible	0.00
2007	032660503	25231-02698-001	84.96	Inactive - uncollectible	0.00
2008	032660503	25231-02698-001	78.11	Inactive - uncollectible	0.00
2004	032661071	25241-02014-001	102.91	Inactive - uncollectible	0.00
2005	032661071	25241-02014-001	113.13	Inactive - uncollectible	0.00
2003	032661186	25251-00669-001	71.69	Inactive - uncollectible	0.00
2007	032661186	25251-00669-001	174.03	Inactive - uncollectible	0.00
2006	032665068	25351-16015-001	221.16	Inactive - uncollectible	0.00
2004	032665297	25351-17694-001	122.67	Inactive - uncollectible	0.00
2003	032665564	25351-19138-001	62.36	Inactive - uncollectible	0.00
2003	032666030	25351-21437-001	171.34	Inactive - uncollectible	0.00
2005	032668326	25351-28290-001	46.69	Inactive - uncollectible	3.75
2006	032668326	25351-28290-001	297.01	Inactive - uncollectible	17.96
2007	032668326	25351-28290-001	253.24	Inactive - uncollectible	0.00
2008	032668326	25351-28290-001	197.63	Inactive - uncollectible	0.00
2009	032668326	25351-28290-001	194.37	Inactive - uncollectible	0.00
2010	032668326	25351-28290-001	162.28	Inactive - uncollectible	0.00
2004	032669462	25441-07851-001	803.27	Inactive - uncollectible	84.38
2005	032669462	25441-07851-001	748.53	Inactive - uncollectible	76.81
2003	032672048	25521-13100-002	35.77	Inactive - uncollectible	0.00
2004	032672048	25521-13100-002	44.77	Inactive - uncollectible	0.00
2005	032674075	25541-03442-001	305.40	Inactive - uncollectible	27.49
2004	032675128	25599-13775-001	129.75	Inactive - uncollectible	0.00
2005	032675128	25599-13775-001	135.92	Inactive - uncollectible	0.00
2006	032676337	25621-25725-001	79.51	Bankruptcy-inactive-no assets	0.00
2005	032680300	25722-16967-002	40.44	Inactive - uncollectible	0.00
2006	032682027	25812-01105-001	1,994.38	Inactive - uncollectible	286.03
2007	032682027	25812-01105-001	1,650.10	Inactive - uncollectible	232.78
2001	032682809	25812-03747-002	439.11	Bankruptcy-inactive-no assets	47.03
2005	032683376	25812-06809-001	1,561.17	Bankruptcy-inactive-no assets	268.77
2006	032683376	25812-06809-001	3,054.13	Bankruptcy-inactive-no assets	540.45
2004	032683481	25812-07844-001	265.37	Inactive - uncollectible	4.91
2005	032683481	25812-07844-001	253.59	Inactive - uncollectible	3.60
2004	032683767	25812-09694-001	56.96	Inactive - uncollectible	0.00
2005	032683767	25812-09694-001	55.94	Inactive - uncollectible	0.00
2004	032684011	25812-12903-001	92.02	Inactive - uncollectible	0.00
2008	032684232	25812-13792-001	3,974.92	Bankruptcy final settlement	723.15
2004	032684241	25812-13792-002	1,239.92	Bankruptcy final settlement	200.21
2004	032684496	25812-14409-001	349.59	Inactive - uncollectible	34.96
2006	032684887	25812-15762-001	163.85	Inactive - uncollectible	0.00
2003	032685689	25812-22475-001	230.84	Bankruptcy-inactive-no assets	10.88
2004	032685689	25812-22475-001	184.92	Bankruptcy-inactive-no assets	0.00

2005	032685689	25812-22475-001	178.17 Bankruptcy-inactive-no assets	0.00
2006	032685689	25812-22475-001	165.83 Bankruptcy-inactive-no assets	0.00
2007	032685689	25812-22475-001	158.87 Bankruptcy-inactive-no assets	0.00
2006	032685735	25812-22902-001	1,014.42 Inactive - uncollectible	150.02
2003	032685816	25812-23725-001	215.09 Inactive - uncollectible	1.98
2006	032686235	25812-26307-001	791.28 Inactive - uncollectible	116.81
2006	032686715	25812-28439-001	762.79 Inactive - uncollectible	74.43
2006	032686898	25813-01120-001	101.32 Inactive - uncollectible	0.00
2006	032687029	25813-03267-001	74.76 Inactive - uncollectible	0.00
2008	032687029	25813-03267-001	61.14 Inactive - uncollectible	0.00
2000	032687355	25813-25334-001	1,187.05 Out of Business - No assets	142.49
2009	032687355	25813-25334-001	265.72 Out of Business - No assets	0.00
2005	032688157	25921-09581-001	200.56 Inactive - uncollectible	1.58
2006	032688351	25921-16604-001	107.67 Bankruptcy-inactive-no assets	0.00
2005	032688459	25921-23894-001	187.55 Bankruptcy-inactive-no assets	0.00
2006	032688459	25921-23894-001	190.32 Bankruptcy-inactive-no assets	0.30
2005	032690976	25992-03167-001	83.84 Inactive - uncollectible	0.00
2006	032693622	25999-07425-001	59.59 Inactive - uncollectible	0.00
2001	032693886	25999-12378-001	116.71 Inactive - uncollectible	0.00
2002	032693886	25999-12378-001	110.55 Inactive - uncollectible	0.00
2003	032693886	25999-12378-001	104.42 Inactive - uncollectible	0.00
2004	032693886	25999-12378-001	106.15 Inactive - uncollectible	0.00
2005	032693886	25999-12378-001	98.65 Inactive - uncollectible	0.00
2006	032693886	25999-12378-001	96.26 Inactive - uncollectible	0.00
2007	032693886	25999-12378-001	88.74 Inactive - uncollectible	0.00
2005	032694131	25999-15696-001	722.44 Inactive - uncollectible	72.73
2004	032694467	25999-17562-001	47.34 Inactive - uncollectible	0.00
2001	032694611	25999-18605-001	2,754.53 Inactive - uncollectible	425.11
2002	032694611	25999-18605-001	976.55 Inactive - uncollectible	151.44
2003	032694611	25999-18605-001	845.08 Inactive - uncollectible	140.83
2004	032694611	25999-18605-001	712.20 Inactive - uncollectible	77.91
2005	032694611	25999-18605-001	660.98 Inactive - uncollectible	62.88
2006	032697784	26140-24052-001	387.96 Inactive - uncollectible	17.41
2007	032697784	26140-24052-001	359.88 Inactive - uncollectible	0.00
2008	032697784	26140-24052-001	380.04 Inactive - uncollectible	0.00
2009	032697784	26140-24052-001	373.23 Inactive - uncollectible	0.00
2010	032697784	26140-24052-001	383.31 Inactive - uncollectible	0.00
2011	032697784	26140-24052-001	401.73 Inactive - uncollectible	0.00
2012	032697784	26140-24052-001	416.11 Inactive - uncollectible	0.00
2013	032697784	26140-24052-001	363.23 Inactive - uncollectible	0.02
2003	032698659	26152-26370-001	2,924.41 Inactive - uncollectible	519.64
2004	032698659	26152-26370-001	2,908.82 Inactive - uncollectible	533.84
2006	032707780	26513-07247-001	262.51 Inactive - uncollectible	12.85

2004	032712678	26531-16809-001	46.94 Inactive - uncollectible	0.00
2004	032716720	26552-06811-001	83.07 Inactive - uncollectible	0.00
2005	032718374	26561-25114-001	142.82 Inactive - uncollectible	0.00
2004	032718447	26561-25561-002	1,395.88 Inactive - uncollectible	214.81
2005	032718447	26561-25561-002	1,442.76 Inactive - uncollectible	222.08
2006	032720182	27011-00537-001	330.11 Inactive - uncollectible	33.75
2007	032720182	27011-00537-001	367.90 Inactive - uncollectible	13.56
2006	032720441	27011-02873-001	58.74 Inactive - uncollectible	0.00
2006	032720450	27011-02965-001	43.48 Inactive - uncollectible	0.00
2007	032720450	27011-02965-001	51.85 Inactive - uncollectible	0.00
2006	032721821	27215-26308-001	323.66 Inactive - uncollectible	19.11
2007	032721821	27215-26308-001	288.20 Inactive - uncollectible	0.00
2008	032721821	27215-26308-001	268.03 Inactive - uncollectible	0.00
2009	032721821	27215-26308-001	240.88 Inactive - uncollectible	0.00
2010	032721821	27215-26308-001	193.15 Inactive - uncollectible	0.00
2011	032721821	27215-26308-001	175.52 Inactive - uncollectible	0.00
2004	032721847	27215-28223-001	460.91 Inactive - uncollectible	39.68
2004	032722258	27216-27139-001	394.03 Inactive - uncollectible	43.59
2005	032722258	27216-27139-001	352.08 Inactive - uncollectible	36.82
2006	032722282	27216-28984-001	109.90 Inactive - uncollectible	0.00
2007	032722282	27216-28984-001	115.67 Inactive - uncollectible	0.00
2008	032722282	27216-28984-001	122.04 Inactive - uncollectible	0.00
2004	032722738	27221-28934-001	2,364.34 Inactive - uncollectible	337.12
2005	032723220	27231-04132-003	205.23 Inactive - uncollectible	0.00
2006	032723220	27231-04132-003	172.33 Inactive - uncollectible	0.00
2007	032723220	27231-04132-003	167.08 Inactive - uncollectible	0.00
2009	032723220	27231-04132-003	148.76 Inactive - uncollectible	0.00
2010	032723220	27231-04132-003	146.60 Inactive - uncollectible	0.00
2004	032724820	27241-00872-001	180.28 Inactive - uncollectible	12.55
2005	032724820	27241-00872-001	389.25 Inactive - uncollectible	22.28
2005	032727969	27299-23227-001	1,784.00 Out of Business - State seized all assets	320.42
2006	032727969	27299-23227-001	1,593.91 Out of Business - State seized all assets	293.84
2007	032727969	27299-23227-001	1,619.67 Out of Business - State seized all assets	270.06
2008	032727969	27299-23227-001	1,614.28 Out of Business - State seized all assets	233.26
2009	032727969	27299-23227-001	1,352.37 Out of Business - State seized all assets	195.32
2010	032727969	27299-23227-001	1,031.40 Out of Business - State seized all assets	137.20
2011	032727969	27299-23227-001	930.63 Out of Business - State seized all assets	116.62
2012	032727969	27299-23227-001	774.06 Out of Business - State seized all assets	58.72
2013	032727969	27299-23227-001	722.14 Out of Business - State seized all assets	44.33
2014	032727969	27299-23227-001	576.48 Out of Business - State seized all assets	20.80
2004	032728795	27299-25792-001	150.52 Inactive - uncollectible	0.00
2005	032728850	27299-25934-001	81.14 Inactive - uncollectible	0.00
2006	032728850	27299-25934-001	86.38 Inactive - uncollectible	0.00

2006	032732156	27349-02252-001	1,143.47 Inactive - uncollectible	219.06
2007	032732156	27349-02252-001	979.74 Inactive - uncollectible	168.65
2008	032732156	27349-02252-001	866.16 Inactive - uncollectible	146.32
2009	032732156	27349-02252-001	793.55 Inactive - uncollectible	129.26
2010	032732156	27349-02252-001	693.39 Inactive - uncollectible	105.73
2011	032732156	27349-02252-001	728.13 Inactive - uncollectible	100.11
2006	032733918	27349-18832-001	88.62 Inactive - uncollectible	0.00
2005	032738821	27392-13432-001	592.42 Inactive - uncollectible	51.78
2006	032738821	27392-13432-001	463.72 Inactive - uncollectible	29.16
2002	032740213	27392-18406-001	743.79 Bankruptcy-inactive-no assets	103.52
2005	032745550	27392-25215-001	438.52 Inactive - uncollectible	19.23
2005	032745690	27392-25321-001	118.13 Inactive - uncollectible	0.00
2006	032749768	27392-28234-001	408.78 Inactive - uncollectible	50.13
2007	032749768	27392-28234-001	297.67 Inactive - uncollectible	48.90
2008	032749768	27392-28234-001	187.80 Inactive - uncollectible	30.69
2011	032749768	27392-28234-001	7,281.29 Inactive - uncollectible	1,168.58
2012	032749768	27392-28234-001	6,001.78 Inactive - uncollectible	889.94
2013	032749768	27392-28234-001	11,004.90 Inactive - uncollectible	1,709.48
2004	032749831	27392-28348-001	584.02 Inactive - uncollectible	45.31
2003	032770562	27394-11374-001	58.52 Inactive-leased equipment	0.00
2005	032777702	27394-17725-001	74.90 Inactive - uncollectible	0.00
2006	032777702	27394-17725-001	105.41 Inactive - uncollectible	0.00
2004	032791926	27394-22660-001	136.93 Inactive - uncollectible	0.00
2006	032806664	27399-06421-001	413.07 Inactive - uncollectible	37.39
2004	032809728	27531-17023-001	639.55 Inactive - uncollectible	91.40
2006	032809728	27531-17023-001	499.33 Inactive - uncollectible	70.50
2007	032809728	27531-17023-001	433.43 Inactive - uncollectible	41.63
2009	032809728	27531-17023-001	162.65 Inactive - uncollectible	0.00
2010	032809728	27531-17023-001	146.20 Inactive - uncollectible	0.00
2011	032809728	27531-17023-001	152.08 Inactive - uncollectible	0.00
2012	032809728	27531-17023-001	136.30 Inactive - uncollectible	0.00
2005	032810386	27538-03379-001	270.40 Inactive - uncollectible	48.87
2006	032810386	27538-03379-001	781.22 Inactive - uncollectible	147.04
2007	032810386	27538-03379-001	656.27 Inactive - uncollectible	105.05
2010	032810386	27538-03379-001	671.59 Inactive - uncollectible	100.40
2011	032810386	27538-03379-001	753.10 Inactive - uncollectible	105.79
2005	032810408	27538-03445-001	68.86 Inactive - uncollectible	0.00
2004	032810815	27538-25118-002	167.47 Inactive - uncollectible	0.00
2005	032811404	27539-05397-001	180.18 Inactive - uncollectible	0.00
2005	032811897	27539-20838-001	123.36 Bankruptcy-inactive-no assets	0.00
2002	032812117	27539-23305-001	328.42 Inactive - uncollectible	31.98
2005	032812117	27539-23305-001	339.48 Inactive - uncollectible	34.47
2006	032812117	27539-23305-001	346.68 Inactive - uncollectible	36.44

2007	032812117	27539-23305-001	307.37 Inactive - uncollectible	14.67
2006	032812711	27542-12595-001	625.00 Inactive - uncollectible	84.19
2005	032812923	27549-01561-001	95.48 Inactive - uncollectible	0.00
2006	032812923	27549-01561-001	84.64 Inactive - uncollectible	0.00
2005	032813059	27549-06427-001	293.64 Inactive - uncollectible	39.33
2003	032814268	27699-18523-001	1,866.30 Inactive - uncollectible	259.52
2002	032814390	27699-22027-001	27.05 Inactive - uncollectible	0.97
2003	032814390	27699-22027-001	209.72 Inactive - uncollectible	5.54
2005	032814390	27699-22027-001	187.66 Inactive - uncollectible	4.47
2006	032814390	27699-22027-001	198.81 Inactive - uncollectible	4.50
2007	032814390	27699-22027-001	195.81 Inactive - uncollectible	0.00
2008	032814390	27699-22027-001	180.11 Inactive - uncollectible	0.00
2009	032814390	27699-22027-001	205.71 Inactive - uncollectible	0.00
2006	032814799	27832-24869-002	6,319.07 Inactive - uncollectible	1,176.40
2000	032816139	28011-02017-001	473.59 Bankruptcy-out of business-no assets to collect	52.17
2005	032817526	28011-12470-001	3,038.59 Inactive - uncollectible	377.85
2001	032819022	28011-23490-001	2,001.20 Bankruptcy-all claims paid	308.68
2004	032819537	28011-27208-001	1,092.36 Inactive - uncollectible	168.02
2004	032820926	28021-14122-001	1,635.15 Inactive - uncollectible	285.56
2002	032821655	28021-22732-001	2,671.30 Bankruptcy-inactive-no assets	459.51
2003	032821655	28021-22732-001	2,418.11 Bankruptcy-inactive-no assets	427.37
2004	032821736	28021-23361-001	635.04 Inactive - uncollectible	46.39
2005	032822139	28031-07002-001	48.88 Inactive - uncollectible	0.00
2003	032822309	28041-17253-001	39.62 Inactive - uncollectible	0.00
2004	032822309	28041-17253-001	152.75 Inactive - uncollectible	0.00
2005	032822309	28041-17253-001	130.87 Inactive - uncollectible	0.00
2006	032822309	28041-17253-001	131.70 Inactive - uncollectible	0.00
2007	032822309	28041-17253-001	130.14 Inactive - uncollectible	0.00
2008	032822309	28041-17253-001	127.06 Inactive - uncollectible	0.00
2010	032822309	28041-17253-001	128.34 Inactive - uncollectible	0.00
2011	032822309	28041-17253-001	150.20 Inactive - uncollectible	0.00
2012	032822309	28041-17253-001	153.11 Inactive - uncollectible	0.00
2006	032822449	28041-21504-001	553.78 Inactive - uncollectible	71.37
2007	032822449	28041-21504-001	570.31 Inactive - uncollectible	50.14
2008	032822449	28041-21504-001	539.77 Inactive - uncollectible	42.16
2003	032828447	28911-17024-001	320.17 Inactive - uncollectible	12.40
2004	032828447	28911-17024-001	275.14 Inactive - uncollectible	0.00
2005	032828447	28911-17024-001	279.54 Inactive - uncollectible	0.00
2006	032828447	28911-17024-001	257.45 Inactive - uncollectible	0.00
2003	032828528	28911-17877-001	78.30 Inactive - uncollectible	0.00
2005	032831731	32510-16883-001	147.72 Inactive - uncollectible	0.00
2003	032831847	32590-02423-001	472.86 Inactive - uncollectible	74.15
2001	032832568	32751-03133-001	353.92 Bankruptcy-inactive-no assets	74.17

2004	032832649	32751-06441-001	113.88 Inactive - uncollectible	0.00
2006	032832649	32751-06441-001	102.88 Inactive - uncollectible	0.00
2007	032832649	32751-06441-001	99.41 Inactive - uncollectible	0.00
2008	032832649	32751-06441-001	84.87 Inactive - uncollectible	0.00
2003	032833271	32751-25749-001	1,818.53 Inactive - uncollectible	373.81
2010	032833271	32751-25749-001	826.01 Inactive - uncollectible	137.60
2011	032833271	32751-25749-001	937.47 Inactive - uncollectible	148.01
2003	032833611	32790-09419-001	59.46 Inactive - uncollectible	0.00
2004	032833611	32790-09419-001	74.21 Inactive - uncollectible	0.00
2001	032834307	33390-04591-001	339.37 Out of Business - No assets	43.56
2002	032834307	33390-04591-001	337.33 Out of Business - No assets	43.18
2003	032834307	33390-04591-001	145.21 Out of Business - No assets	19.21
2004	032834307	33390-04591-001	372.74 Out of Business - No assets	45.78
2005	032834307	33390-04591-001	373.58 Out of Business - No assets	52.04
2006	032834307	33390-04591-001	393.11 Out of Business - No assets	57.59
2007	032834307	33390-04591-001	362.07 Out of Business - No assets	36.70
2000	032834315	33390-04951-002	598.06 Out of Business - No assets	98.66
2001	032834315	33390-04951-002	545.15 Out of Business - No assets	87.53
2002	032834315	33390-04951-002	538.44 Out of Business - No assets	86.97
2003	032834315	33390-04951-002	347.13 Out of Business - No assets	57.54
2004	032834315	33390-04951-002	585.33 Out of Business - No assets	90.45
2005	032834315	33390-04591-002	586.24 Out of Business - No assets	99.73
2006	032834315	33390-04591-002	616.31 Out of Business - No assets	109.04
2007	032834315	33390-04591-002	576.84 Out of Business - No assets	86.65
2006	032834340	33390-06444-001	3,307.65 Inactive - uncollectible	729.37
2007	032834340	33390-06444-001	3,197.86 Inactive - uncollectible	695.78
2008	032834340	33390-06444-001	2,892.24 Inactive - uncollectible	641.77
2009	032834340	33390-06444-001	2,948.20 Inactive - uncollectible	644.53
2010	032834340	33390-06444-001	2,929.74 Inactive - uncollectible	656.66
2011	032834340	33390-06444-001	3,427.07 Inactive - uncollectible	716.74
2006	032834668	33390-27883-001	137.38 Inactive - uncollectible	0.00
2007	032834668	33390-27883-001	132.84 Inactive - uncollectible	0.00
2008	032834668	33390-27883-001	129.19 Inactive - uncollectible	0.00
2003	032834935	33440-19886-001	5,552.97 Inactive - uncollectible	1,205.66
2000	032835435	33690-01460-001	93,702.33 Bankruptcy-write-off per attorney	17,192.73
2001	032835435	33690-01460-001	134,214.11 Bankruptcy-write-off per attorney	24,955.43
2002	032835435	33690-01460-001	126,020.47 Bankruptcy-write-off per attorney	22,977.26
2006	032836041	33710-02984-001	6,235.64 Inactive - uncollectible	1,392.57
2003	032837390	40720-18304-001	62.11 Inactive - uncollectible	0.00
2005	032837390	40720-18304-001	58.07 Inactive - uncollectible	0.00
2006	032837390	40720-18304-001	49.22 Inactive - uncollectible	0.00
2007	032837390	40720-18304-001	50.28 Inactive - uncollectible	0.00
2003	032841117	84721-16492-001	63.57 Inactive - uncollectible	0.00

2005	032841419	84721-22648-001	88.00 Inactive - uncollectible	0.00
2002	032842156	84890-19126-001	530.92 Inactive - uncollectible	33.81
2004	032843870	27399-27876-001	988.14 Inactive - uncollectible	163.56
2004	032844752	25541-01487-008	998.77 Inactive - uncollectible	173.15
2007	032844752	25541-01487-008	427.26 Inactive - uncollectible	44.96
2008	032844752	25541-01487-008	396.23 Inactive - uncollectible	29.94
2009	032844752	25541-01487-008	307.49 Inactive - uncollectible	13.02
2010	032844752	25541-01487-008	197.48 Inactive - uncollectible	0.00
2004	032846976	28911-12314-001	4,395.32 Inactive - uncollectible	485.79
2005	032846976	28911-12314-001	4,306.41 Inactive - uncollectible	453.14
2005	032851783	28021-20705-002	391.23 Inactive - uncollectible	38.21
2006	032851783	28021-20705-002	378.26 Inactive - uncollectible	37.69
2007	032851783	28021-20705-002	376.64 Inactive - uncollectible	13.06
2008	032851783	28021-20705-002	389.23 Inactive - uncollectible	13.42
2009	032851783	28021-207-50002	384.36 Inactive - uncollectible	13.48
2010	032851783	28021-20705-002	394.01 Inactive - uncollectible	13.74
2006	032875712	25921-29134-001	277.01 Inactive - uncollectible	6.91
2007	032875712	25921-29134-001	267.12 Inactive - uncollectible	0.00
2008	032875712	25921-29134-001	242.69 Inactive - uncollectible	0.00
2009	032875712	25921-29134-001	238.80 Inactive - uncollectible	0.00
2010	032875712	25921-29134-001	275.33 Inactive - uncollectible	0.00
2006	032882336	28011-29508-001	83.54 Inactive - uncollectible	0.00
2004	032883481	25812-29186-001	871.46 Inactive - uncollectible	81.94
2005	032883481	25812-29186-001	833.71 Inactive - uncollectible	77.66
2006	032883481	25812-29186-001	656.45 Inactive - uncollectible	66.22
2004	032883961	25953-29329-001	56.53 Inactive - uncollectible	0.00
2005	032884371	25351-29306-001	6,297.54 Inactive - uncollectible	659.30
2006	032884371	25351-29306-001	6,135.94 Inactive - uncollectible	665.42
2007	032884371	25351-29306-001	5,558.65 Inactive - uncollectible	578.85
2004	032889276	25521-29742-001	555.40 Bankruptcy-write-off per attorney	59.70
2005	032889276	25521-29742-001	472.14 Bankruptcy-write-off per attorney	53.06
2007	032889276	25521-29742-001	387.84 Bankruptcy-write-off per attorney	15.05
2008	032889276	25521-29742-001	329.53 Bankruptcy-write-off per attorney	3.39
2003	032894237	27213-29880-001	36.25 Inactive - uncollectible	0.00
2003	032894989	27699-29947-001	108.69 Inactive - uncollectible	0.00
2005	032894989	27699-29947-001	107.87 Inactive - uncollectible	0.00
2005	032895471	25812-29932-001	982.72 Inactive - uncollectible	146.80
2004	032896388	25812-28345-001	132.25 Inactive - uncollectible	0.00
2005	032896388	25812-28345-001	154.93 Inactive - uncollectible	0.00
2007	032896388	25812-28345-001	174.75 Inactive - uncollectible	0.00
2008	032896388	25812-28345-001	157.25 Inactive - uncollectible	0.00
2009	032896388	25812-28345-001	173.74 Inactive - uncollectible	0.00
2003	032898895	27216-30000-001	156.53 Inactive - uncollectible	0.00

2004	032898895	27216-30000-001	154.47 Inactive - uncollectible	0.00
2005	032903121	28111-30267-001	268.24 Bankruptcy-inactive-no assets	0.00
2003	032946741	27321-30785-001	92.58 Inactive - uncollectible	0.00
2006	032950862	98699-30952-001	96.47 Inactive - uncollectible	0.00
2007	032950862	98699-30952-001	135.86 Inactive - uncollectible	0.00
2002	032951729	25599-13775-002	67.30 Inactive - uncollectible	0.00
2007	032951729	25599-13775-002	66.51 Inactive - uncollectible	0.00
2005	033040546	27394-26721-039	41.32 Bankruptcy-leased equip-all claims paid	0.00
2006	033040546	27394-26721-039	37.15 Bankruptcy-leased equip-all claims paid	0.00
2005	033040708	27394-26721-053	411.44 Bankruptcy-leased equip-all claims paid	36.61
2006	033040708	27394-26721-053	360.17 Bankruptcy-leased equip-all claims paid	29.16
2007	033040708	27394-26721-053	285.33 Bankruptcy-leased equip-all claims paid	0.43
2008	033040708	27394-26721-053	81.85 Bankruptcy-leased equip-all claims paid	0.00
1995	033045378	87110-01013-0901	500.05 Court ordered adjustment	118.60
1995	033045408	87110-01013-1001	2,330.17 Court ordered adjustment	625.36
1995	033045416	87110-01013-1101	4,342.95 Court ordered adjustment	1,184.83
1995	033045424	87110-01013-3005	106.08 Court ordered adjustment	0.00
1995	033045441	87110-01013-4012	887.55 Court ordered adjustment	0.00
1995	033045475	87110-01013-4013	105.32 Court ordered adjustment	0.00
1995	033045513	87110-01013-4026	795.48 Court ordered adjustment	0.00
1995	033045548	87110-01013-4060	26.05 Court ordered adjustment	0.00
1995	033045564	87110-01013-4085	254.39 Court ordered adjustment	0.00
1995	033045629	87110-01013-4268	324.61 Court ordered adjustment	0.00
1995	033045661	87110-01013-4483	5.13 Court ordered adjustment	0.00
1995	033045700	87110-01013-4680	301.91 Court ordered adjustment	0.00
1995	033045726	87110-01013-4690	19.15 Court ordered adjustment	0.00
2003	033074718	27211-31374-001	68.78 Inactive - uncollectible	0.00
2004	033076583	25531-31384-001	182.63 Inactive - uncollectible	0.86
2005	033076583	25531-31384-001	127.96 Inactive - uncollectible	0.00
2008	033076583	25531-31384-001	114.71 Inactive - uncollectible	0.00
2009	033076583	25531-31384-001	112.20 Inactive - uncollectible	0.00
2010	033076583	25531-31384-001	113.15 Inactive - uncollectible	0.00
2004	033081790	27349-31606-001	1,851.11 Inactive - uncollectible	356.32
2003	033084357	25351-31722-001	1,825.34 Inactive - uncollectible	190.13
2006	033084985	27231-31834-001	116.45 Inactive - uncollectible	0.00
2004	033085078	27392-12923-002	231.06 Inactive - uncollectible	12.70
2004	033085957	27392-22927-002	90.61 Inactive - uncollectible	0.00
2005	033088921	25812-32171-001	103.55 Inactive - uncollectible	0.00
2004	033097629	25531-32939-001	282.68 Inactive - uncollectible	14.73
2006	033099061	27215-32810-001	192.94 Inactive - uncollectible	27.95
2007	033099061	27215-32810-001	397.94 Inactive - uncollectible	33.35
2008	033099061	27215-32810-001	357.74 Inactive - uncollectible	25.80
2002	033100603	27392-32845-001	22,712.22 Bankruptcy-write-off per attorney	3,134.51

2003	033100603	27392-32845-001	21,237.02 Bankruptcy-write-off per attorney	2,928.87
2004	033100603	27392-32845-001	19,333.17 Bankruptcy-write-off per attorney	2,581.16
2004	033103017	25999-32723-001	161.75 Inactive - uncollectible	0.00
2000	033103246	40720-33078-001	408.16 Out of Business - No assets	39.05
2004	033103246	40720-33078-001	118.89 Out of Business - No assets	0.00
2005	033103246	40720-33078-001	83.02 Out of Business - No assets	0.00
2003	033104137	27398-32868-001	128.35 Inactive - uncollectible	0.00
2004	033145119	27299-33327-001	336.67 Inactive - uncollectible	22.29
2005	033145119	27299-33327-001	301.13 Inactive - uncollectible	17.41
2003	033157010	27399-33403-001	193.35 Inactive - uncollectible	0.00
1998	033159128	27216-33525-001	179.42 Bankruptcy-out of business-no assets to collect	9.07
2004	033161246	25921-33573-001	50.24 Inactive - uncollectible	0.00
2010	033161297	25451-33568-001	527.29 Bankruptcy-out of business-no assets to collect	36.97
2004	033161467	25952-33687-001	97.29 Inactive - uncollectible	0.00
2006	033164962	25812-33899-001	139.05 Inactive - uncollectible	0.00
2005	033165578	27399-33848-001	589.53 Inactive - uncollectible	75.47
2005	033167104	25952-34075-001	134.80 Inactive - uncollectible	0.00
2000	033169689	25812-32118-002	51.31 Out of Business - No assets	0.00
2000	033174461	26552-34442-001	10.00 Bankruptcy-all claims paid	1.30
2001	033174461	26552-34442-001	144.16 Bankruptcy-all claims paid	18.54
2002	033174461	26552-34442-001	1,786.81 Bankruptcy-all claims paid	219.73
2001	033175174	27216-30000-002	257.53 Inactive - uncollectible	24.89
2002	033175174	27216-30000-002	302.85 Inactive - uncollectible	25.96
2003	033175174	27216-30000-002	263.53 Inactive - uncollectible	26.33
2003	033175832	27392-34614-001	181.21 Inactive - uncollectible	0.61
2004	033178556	27216-34813-001	144.95 Inactive - uncollectible	0.00
2006	033178556	27216-34813-001	118.46 Inactive - uncollectible	0.00
2007	033178556	27216-34813-001	120.96 Inactive - uncollectible	0.00
2008	033178556	27216-34813-001	119.76 Inactive - uncollectible	0.00
2009	033178556	27216-34813-001	119.82 Inactive - uncollectible	0.00
2003	033185137	27394-26721-150	53.00 Bankruptcy-leased equip-all claims paid	0.00
2001	033205855	27394-31254-309	57.85 Inactive-leased equipment	0.00
2004	033214528	26152-35527-001	1,379.10 Inactive - uncollectible	159.63
2008	033214528	26152-35527-001	1,207.13 Inactive - uncollectible	111.72
2005	033214536	27949-35525-001	3,531.68 Inactive - uncollectible	614.74
2004	033216334	28111-35440-001	550.84 Inactive - uncollectible	55.87
2004	033216661	27231-35430-001	480.85 Inactive - uncollectible	52.55
2000	033217161	32751-35685-001	1,408.09 Bankruptcy-out of business-no assets to collect	134.69
2001	033217161	32751-35685-001	1,277.00 Bankruptcy-out of business-no assets to collect	112.76
2005	033218973	27399-35699-001	883.20 Inactive - uncollectible	166.43
2006	033221494	27949-35838-001	209.57 Inactive - uncollectible	0.00
2006	033222890	84721-35938-001	422.36 Inactive - uncollectible	15.65
2007	033222890	84721-35938-001	340.99 Inactive - uncollectible	0.00

2008	033222890	84721-35938-001	327.82 Inactive - uncollectible	0.00
2011	033222890	84721-35938-001	336.57 Inactive - uncollectible	0.00
2004	033225635	25592-36098-001	121.83 Inactive - uncollectible	0.00
2005	033225635	25592-36098-001	99.94 Inactive - uncollectible	0.00
2006	033225635	25592-36098-001	106.39 Inactive - uncollectible	0.00
2005	033226542	25999-36072-001	107.87 Inactive - uncollectible	0.00
2006	033226542	25999-36072-001	124.36 Inactive - uncollectible	0.00
2005	033226895	27531-36224-001	843.72 Inactive - uncollectible	171.38
2002	033227409	26531-36212-001	5.13 Inactive - uncollectible	0.00
2003	033227468	25942-36165-001	120.74 Inactive - uncollectible	0.00
2004	033227794	26531-36199-001	3,061.77 Inactive - uncollectible	431.43
2003	033228065	25531-36241-001	1,281.91 Inactive - uncollectible	209.41
2004	033228065	25531-36241-001	1,117.25 Inactive - uncollectible	174.85
2003	033228600	26140-36245-001	184.11 Inactive - uncollectible	0.00
2004	033228600	26140-36245-001	207.29 Inactive - uncollectible	0.00
2006	033230221	25499-36426-001	415.07 Inactive - uncollectible	51.18
2007	033230221	25499-36426-001	366.31 Inactive - uncollectible	26.50
2003	033232941	27538-36623-001	1,116.83 Inactive - uncollectible	143.74
2008	033232941	27538-36623-001	285.81 Inactive - uncollectible	0.00
2003	033236017	26411-36676-001	229.95 Inactive - uncollectible	0.00
2005	033236017	26411-36676-001	286.69 Inactive - uncollectible	0.00
2006	033236017	26411-36676-001	282.52 Inactive - uncollectible	0.00
2005	033237218	25713-36791-001	74.32 Inactive - uncollectible	0.00
2006	033237391	25712-25964-002	161.95 Inactive - uncollectible	0.00
2006	033238338	27216-35599-002	416.76 Inactive - uncollectible	57.71
2007	033238338	27216-35599-002	731.38 Inactive - uncollectible	81.14
2005	033238435	27538-36855-001	321.98 Inactive - uncollectible	22.52
2002	033239652	27299-36917-001	295.86 Inactive - uncollectible	13.84
2003	033239652	27299-36917-001	211.39 Inactive - uncollectible	7.22
2004	033239652	27299-36917-001	191.00 Inactive - uncollectible	0.00
2005	033239652	27299-36917-001	172.89 Inactive - uncollectible	0.00
2006	033248139	33070-31885-001	12,757.89 Inactive - uncollectible	2,895.75
2008	033248139	33070-31885-001	10,438.31 Inactive - uncollectible	2,430.54
2009	033248139	33070-31885-001	10,010.38 Inactive - uncollectible	2,333.49
2006	033251091	27531-37116-001	1,133.46 Inactive - uncollectible	174.99
2001	033252365	27394-31254-370	193.18 Inactive-leased equipment	12.26
2001	033252608	27394-31254-375	947.57 Inactive-leased equipment	136.86
2004	033252802	27394-31254-383	69.14 Inactive-leased equipment	0.00
2005	033253906	27392-37122-001	86.20 Inactive - uncollectible	0.00
2001	033269802	25812-37335-001	635.78 Inactive - uncollectible	76.93
2000	033270797	27392-37350-001	2,113.33 Out of Business - No assets	268.22
2001	033270797	27392-37350-001	496.75 Out of Business - No assets	38.09
2002	033270797	27392-37350-001	365.86 Out of Business - No assets	26.61

2003	033271297	27392-37379-001	147.60 Inactive - uncollectible	0.00
2003	033276060	27538-37638-001	217.33 Inactive - uncollectible	8.31
2005	033276060	27538-37638-001	133.97 Inactive - uncollectible	0.00
2004	033276078	27231-37639-001	71.00 Inactive - uncollectible	0.00
1997	033276086	25812-37640-001	543.60 Out of Business - No assets	96.56
2005	033276086	25812-37640-001	180.81 Out of Business - No assets	0.00
2006	033276086	25812-37640-001	176.35 Out of Business - No assets	0.00
2008	033276086	25812-37640-001	192.10 Out of Business - No assets	0.00
2009	033276086	25812-37640-001	187.61 Out of Business - No assets	0.00
2010	033276086	25812-37640-001	175.57 Out of Business - No assets	0.00
2011	033276086	25812-37640-001	168.85 Out of Business - No assets	0.00
2012	033276086	25812-37640-001	160.64 Out of Business - No assets	0.00
2013	033276086	25812-27640-001	163.33 Out of Business - No assets	0.00
2002	033276531	27539-37668-001	98.85 Inactive - uncollectible	0.00
2003	033276531	27539-37668-001	98.90 Inactive - uncollectible	0.00
2004	033276531	27539-37668-001	88.42 Inactive - uncollectible	0.00
2005	033276531	27539-37668-001	85.79 Inactive - uncollectible	0.00
2006	033276531	27539-37668-001	80.94 Inactive - uncollectible	0.00
2007	033276531	27539-37668-001	81.78 Inactive - uncollectible	0.00
2008	033276531	27539-37668-001	79.10 Inactive - uncollectible	0.00
2006	033277406	27629-37729-001	1,081.46 Inactive - uncollectible	97.22
2002	033277872	28111-37793-001	73.42 Inactive - uncollectible	0.00
2003	033277872	28111-37793-001	66.80 Inactive - uncollectible	0.00
2004	033277872	28111-37793-001	80.15 Inactive - uncollectible	0.00
2006	033277872	28111-37793-001	37.98 Inactive - uncollectible	0.00
2007	033277872	28111-37793-001	73.01 Inactive - uncollectible	0.00
2008	033277872	28111-37793-001	75.28 Inactive - uncollectible	0.00
2000	033278488	27299-37717-001	2,083.35 Out of Business - No assets	252.18
2001	033278488	27299-37717-001	1,329.65 Out of Business - No assets	172.81
2002	033278488	27299-37717-001	1,339.44 Out of Business - No assets	156.43
2000	033279204	33990-37870-001	48.70 Out of Business - No assets	0.00
2005	033282795	25812-38072-001	618.09 Inactive - uncollectible	63.62
2004	033282809	98299-38073-001	885.96 Inactive - uncollectible	129.79
2006	033283244	27392-38088-001	83.35 Inactive - uncollectible	0.00
2003	033285085	27392-38198-001	89.84 Inactive - uncollectible	0.00
2004	033285085	27392-38198-001	200.33 Inactive - uncollectible	0.00
2005	033285085	27392-38198-001	191.23 Inactive - uncollectible	0.00
2006	033286448	25812-30180-003	2,093.25 Inactive - uncollectible	259.63
2007	033286448	25812-30180-003	1,842.89 Inactive - uncollectible	212.65
2008	033286448	25812-30180-003	1,652.01 Inactive - uncollectible	180.06
2003	033286669	27349-38317-001	237.01 Inactive - uncollectible	20.50
2004	033286669	27349-38317-001	298.11 Inactive - uncollectible	20.95
2005	033286669	27349-38317-001	270.02 Inactive - uncollectible	20.91

2006	033286669	27349-38317-001	273.78 Inactive - uncollectible	21.88
2001	033302397	33390-22679-002	2,230.34 Inactive - uncollectible	399.15
2003	033329414	27392-38995-001	216.56 Inactive - uncollectible	8.15
2004	033330030	28111-39068-001	330.37 Bankruptcy-inactive-no assets	22.77
2007	033330030	28111-39068-001	118.42 Bankruptcy-inactive-no assets	0.00
2011	033330030	28111-39068-001	133.35 Bankruptcy-inactive-no assets	0.00
2012	033330030	28111-39068-001	140.02 Bankruptcy-inactive-no assets	0.00
2004	033331338	28111-39158-001	64.07 Inactive - uncollectible	0.00
2004	033331460	27539-39172-001	203.85 Inactive - uncollectible	4.61
2005	033331460	27539-39172-001	203.30 Inactive - uncollectible	2.26
2005	033333543	27299-39344-001	172.79 Inactive - uncollectible	0.00
2006	033334213	25531-39426-001	561.71 Inactive - uncollectible	81.39
2007	033334213	25531-39426-001	575.73 Inactive - uncollectible	54.09
2004	033335295	25812-39371-001	207.70 Inactive - uncollectible	8.88
2005	033335295	25812-39371-001	227.37 Inactive - uncollectible	6.20
2007	033335295	2582-839371-001	194.75 Inactive - uncollectible	0.00
2009	033335295	25812-39371-001	187.38 Inactive - uncollectible	0.00
2010	033335295	25812-39371-001	148.05 Inactive - uncollectible	0.00
2011	033335295	25812-39371-001	142.12 Inactive - uncollectible	0.00
2004	033335350	25812-39451-001	139.06 Inactive - uncollectible	0.00
2005	033335350	25812-39451-001	143.60 Inactive - uncollectible	0.00
2004	033335571	25719-39473-001	168.18 Inactive - uncollectible	0.00
2003	033336038	25992-39397-001	151.47 Inactive - uncollectible	0.00
2004	033336038	25992-39397-001	150.79 Inactive - uncollectible	0.00
2000	033336372	27392-39525-001	906.35 Out of Business - No assets	95.52
2003	033336747	27399-39562-001	206.13 Inactive - uncollectible	6.21
2004	033336747	27399-39562-001	198.36 Inactive - uncollectible	0.50
2005	033336747	27399-39562-001	184.76 Inactive - uncollectible	0.00
2006	033336747	27399-39562-001	168.47 Inactive - uncollectible	0.00
2005	033337867	27538-39649-001	333.57 Inactive - uncollectible	33.30
2006	033337867	27538-39649-001	281.26 Inactive - uncollectible	23.35
2006	033338308	27531-39689-001	1,193.83 Inactive - uncollectible	246.25
2007	033338308	27531-39689-001	1,091.00 Inactive - uncollectible	201.39
2006	033343387	27349-40141-001	965.90 Bankruptcy-inactive-no assets	146.83
2007	033343387	27349-40141-001	843.60 Bankruptcy-inactive-no assets	103.11
2008	033343387	27349-40141-001	742.59 Bankruptcy-inactive-no assets	86.38
2009	033343387	27349-40141-001	667.51 Bankruptcy-inactive-no assets	72.40
2005	033349768	27394-26721-268	96.38 Bankruptcy-leased equip-all claims paid	0.00
2006	033349768	27394-26721-268	74.94 Bankruptcy-leased equip-all claims paid	0.00
2005	033349881	27394-26721-276	84.11 Bankruptcy-leased equip-all claims paid	0.00
2006	033349881	27394-26721-276	75.74 Bankruptcy-leased equip-all claims paid	0.00
2003	033349989	27394-26721-278	55.87 Bankruptcy-leased equip-all claims paid	0.00
2004	033349989	27394-26721-278	34.30 Bankruptcy-leased equip-all claims paid	0.00
2005	033349989	27394-26721-278	32.83 Bankruptcy-leased equip-all claims paid	0.00

2006	033349989	27394-26721-278	24.80 Bankruptcy-leased equip-all claims paid	0.00
2005	033349997	27394-26721-279	171.16 Bankruptcy-leased equip-all claims paid	0.00
2006	033349997	27394-26721-279	143.03 Bankruptcy-leased equip-all claims paid	0.00
2005	033350022	27394-26721-280	32.61 Bankruptcy-leased equip-all claims paid	0.00
2006	033350022	27394-26721-280	29.39 Bankruptcy-leased equip-all claims paid	0.00
2005	033350031	27394-26721-281	30.38 Bankruptcy-leased equip-all claims paid	0.00
2006	033350031	27394-26721-281	26.94 Bankruptcy-leased equip-all claims paid	0.00
2005	033364597	27394-26721-302	26.51 Bankruptcy-leased equip-all claims paid	0.00
2006	033364597	27394-26721-302	19.55 Bankruptcy-leased equip-all claims paid	0.00
2003	033371305	27394-40504-001	294.33 Inactive-leased equipment	1.99
2004	033371305	27394-40504-001	260.84 Inactive-leased equipment	0.00
2005	033371879	27399-40538-001	487.52 Inactive - uncollectible	63.66
2005	033374622	27399-40755-001	1,578.51 Inactive - uncollectible	271.58
2006	033377052	25241-40906-001	222.10 Inactive - uncollectible	5.64
2007	033377052	25241-40906-001	221.34 Inactive - uncollectible	0.00
2008	033377052	25241-40906-001	226.00 Inactive - uncollectible	0.00
2005	033377834	27349-40967-001	1,122.13 Bankruptcy-inactive-no assets	118.32
2005	033377931	28111-40971-001	208.67 Inactive - uncollectible	0.00
2004	033380665	27231-41168-001	200.59 Inactive - uncollectible	4.35
2004	033381718	27941-41203-001	243.25 Inactive - uncollectible	11.32
2005	033381718	27941-41203-001	282.77 Inactive - uncollectible	11.50
2004	033384407	25351-41329-001	125.78 Inactive - uncollectible	0.00
2004	033384458	25999-41334-001	69.23 Inactive - uncollectible	0.00
2005	033384458	25999-41334-001	70.10 Inactive - uncollectible	0.00
2005	033386922	98299-41514-001	121.97 Inactive - uncollectible	0.00
2003	033389565	27392-41621-001	2,691.63 Inactive - uncollectible	368.53
2006	033396120	26561-28390-004	261.09 Inactive - uncollectible	0.00
2007	033396120	26561-28390-004	238.40 Inactive - uncollectible	0.00
2008	033396120	26561-28390-004	218.51 Inactive - uncollectible	0.00
2003	033396731	25351-41703-001	262.87 Inactive - uncollectible	1.21
2004	033397045	27538-41732-001	574.28 Inactive - uncollectible	73.17
2005	033397045	27538-41732-001	1,154.15 Inactive - uncollectible	138.11
2003	033397452	27392-41772-001	1,446.47 Inactive - uncollectible	172.71
2000	033398254	27629-41799-001	50.93 Out of Business - No assets	0.00
2003	033399358	25699-41836-001	221.78 Inactive - uncollectible	8.10
2004	033399358	25699-41836-001	193.60 Inactive - uncollectible	0.00
2006	033399358	25699-41836-001	138.24 Inactive - uncollectible	0.00
2007	033399358	25699-41836-001	118.74 Inactive - uncollectible	0.00
2008	033399358	25699-41836-001	109.25 Inactive - uncollectible	0.00
2009	033399358	25699-41836-001	101.73 Inactive - uncollectible	0.00
2010	033399358	25699-41836-001	101.10 Inactive - uncollectible	0.00
2004	033400356	25995-41907-001	97.08 Inactive - uncollectible	0.00
2004	033400372	26720-41909-001	48.54 Inactive - uncollectible	0.00
2006	033401328	27538-41977-001	47.23 Inactive - uncollectible	0.00

2007	033401328	27538-41977-001	122.04 Inactive - uncollectible	0.00
2006	033401409	25531-41985-001	997.83 Inactive - uncollectible	158.69
2003	033405188	27394-35970-002	568.17 Inactive-leased equipment	40.05
2004	033405188	27394-35970-002	400.79 Inactive-leased equipment	14.14
2005	033405188	27394-35979-002	329.61 Inactive-leased equipment	10.76
2006	033405188	27394-35970-002	331.54 Inactive-leased equipment	5.99
2003	033406125	26161-42170-001	211.84 Inactive - uncollectible	2.50
2004	033418450	27941-42370-001	2,242.07 Inactive - uncollectible	380.30
2007	033418450	27941-42370-001	2,317.87 Inactive - uncollectible	396.03
2008	033418450	27941-42370-001	2,042.97 Inactive - uncollectible	339.09
2003	033418905	25999-42381-001	1,658.98 Inactive - uncollectible	181.91
2001	033420799	27394-31254-620	77.80 Inactive-leased equipment	0.00
2001	033420802	27394-31254-621	97.02 Inactive-leased equipment	0.00
2004	033420942	27394-31254-633	28.82 Inactive-leased equipment	0.00
2005	033425910	26531-13845-003	14,889.74 Inactive - uncollectible	2,310.17
2005	033433980	27394-26721-320	6.96 Bankruptcy-leased equip-all claims paid	0.00
2006	033433980	27394-26721-320	6.26 Bankruptcy-leased equip-all claims paid	0.00
2005	033434293	27394-26721-330	73.26 Bankruptcy-leased equip-all claims paid	0.00
2006	033434293	27394-26721-330	58.74 Bankruptcy-leased equip-all claims paid	0.00
2005	033444442	27538-42536-001	1,895.21 Inactive - uncollectible	332.59
2006	033444442	27538-42536-001	1,613.06 Inactive - uncollectible	287.45
2005	033444451	27949-42537-001	476.27 Inactive - uncollectible	51.47
2006	033444451	27949-42537-001	432.97 Inactive - uncollectible	38.60
2007	033444451	27949-42537-001	357.98 Inactive - uncollectible	9.96
2006	033444493	25251-42541-001	229.64 Inactive - uncollectible	6.96
2003	033444574	25812-42547-001	1,624.14 Inactive - uncollectible	267.06
2007	033444574	25812-42547-001	1,330.40 Inactive - uncollectible	169.56
2010	033444574	25812-42547-001	235.18 Inactive - uncollectible	45.30
2001	033447212	25812-42708-001	562.89 Bankruptcy-inactive-no assets	64.62
2002	033447212	25812-42708-001	489.59 Bankruptcy-inactive-no assets	55.15
2003	033447212	25812-42708-001	421.02 Bankruptcy-inactive-no assets	46.83
2001	033447221	25812-42709-001	246.05 Bankruptcy-inactive-no assets	12.93
2002	033447221	25812-42709-001	217.92 Bankruptcy-inactive-no assets	8.41
2003	033447221	25812-42709-001	199.59 Bankruptcy-inactive-no assets	4.02
2006	033447417	27349-42728-001	1,153.25 Inactive - uncollectible	176.82
2007	033447417	27349-42728-001	1,000.08 Inactive - uncollectible	136.17
2005	033447735	25921-42752-001	403.73 Bankruptcy-inactive-no assets	57.97
2006	033447735	25921-42752-001	787.02 Bankruptcy-inactive-no assets	106.42
2007	033447735	25921-42752-001	693.04 Bankruptcy-inactive-no assets	73.82
2008	033447735	25921-42752-001	564.77 Bankruptcy-inactive-no assets	56.58
2009	033447735	25921-42752-001	535.40 Bankruptcy-inactive-no assets	42.75
2006	033447891	25995-42756-001	132.91 Inactive - uncollectible	0.00
2007	033447891	25995-42756-001	129.63 Inactive - uncollectible	0.00
2009	033447891	25995-42756-001	112.03 Inactive - uncollectible	0.00

2010	033447891	25995-42756-001	122.36 Inactive - uncollectible	0.00
2004	033448596	28021-42795-001	87.23 Inactive - uncollectible	0.00
2004	033450795	27392-42914-001	74.66 Inactive - uncollectible	0.00
2005	033450868	25231-42921-001	70.76 Inactive - uncollectible	0.00
2006	033450868	25231-42921-001	67.64 Inactive - uncollectible	0.00
2003	033451490	32751-42927-001	513.77 Inactive - uncollectible	64.29
2003	033454006	25812-43046-001	352.04 Inactive - uncollectible	17.13
2004	033454006	25812-43046-001	337.32 Inactive - uncollectible	5.52
2003	033460154	32590-43257-001	444.82 Inactive - uncollectible	48.60
2004	033460154	32590-43257-001	411.40 Inactive - uncollectible	34.07
2000	033460243	27349-43266-001	1,087.64 Out of Business - No assets	158.70
2011	033460243	27349-43266-001	1,823.47 Out of Business - No assets	157.64
2003	033461045	25732-43322-001	131.38 Inactive - uncollectible	0.00
2005	033461045	25732-43322-001	75.74 Inactive - uncollectible	0.00
2003	033461533	27392-43366-001	67.89 Inactive - uncollectible	0.00
2003	033462238	25812-43431-001	538.76 Inactive - uncollectible	85.41
2002	033462360	28911-43443-001	745.57 Inactive - uncollectible	53.44
2006	033462360	28911-43443-001	562.97 Inactive - uncollectible	29.47
2003	033464885	25997-43508-001	86.00 Inactive - uncollectible	0.00
2004	033464885	25997-43508-001	95.82 Inactive - uncollectible	0.00
2003	033466918	27393-43619-001	476.42 Inactive - uncollectible	57.31
2001	033468074	25812-43728-001	76.39 Inactive - uncollectible	0.00
2005	033473388	27311-43925-001	266.18 Inactive- uncollectible	10.42
2004	033474422	27371-44012-001	906.03 Business closed 2003	104.28
2003	033474686	27221-44037-001	62.82 Inactive - uncollectible	0.00
2003	033476506	27392-44072-001	55.10 Inactive - uncollectible	0.00
2001	033477120	27392-25836-003	2,391.62 Inactive - uncollectible	482.59
2005	033478151	25812-44138-001	1,373.15 Inactive - uncollectible	149.60
2006	033478151	25812-44138-001	1,222.44 Inactive - uncollectible	133.09
2005	033478827	25997-44179-001	54.93 Inactive - uncollectible	0.00
2003	033481089	25812-44281-001	196.47 Inactive - uncollectible	3.40
2004	033481089	25812-44281-001	148.84 Inactive - uncollectible	0.00
2004	033481909	27231-44318-001	198.54 Bankruptcy-inactive-no assets	20.50
2007	033481909	27231-44318-001	147.15 Bankruptcy-inactive-no assets	0.55
2009	033481909	27231-44318-001	210.40 Bankruptcy-inactive-no assets	0.00
2010	033481909	27231-44318-001	236.36 Bankruptcy-inactive-no assets	0.00
2004	033482204	25671-44348-001	78.65 Inactive - uncollectible	0.00
2006	033482859	32751-44391-001	893.34 Inactive - uncollectible	126.88
2007	033482859	32751-44391-001	861.36 Inactive - uncollectible	106.12
2001	033488776	25812-44474-002	2,816.87 bankruptcy-location closed	349.86
2004	033497937	27394-31254-709	537.66 Inactive-leased equipment	40.67
2002	033498259	27394-31254-738	54.37 Inactive-leased equipment	0.00
2001	033500296	27394-20116-913	278.59 Inactive-leased equipment	5.21
2003	033500351	27394-20116-919	70.52 Inactive-leased equipment	0.00

2004	033500733	26152-15383-009	4.36 Inactive - uncollectible	0.00
2005	033504232	27394-26721-358	10.72 Bankruptcy-leased equip-all claims paid	0.00
2006	033504232	27394-26721-358	6.26 Bankruptcy-leased equip-all claims paid	0.00
2005	033504429	27394-26721-375	108.59 Bankruptcy-leased equip-all claims paid	0.00
2006	033504429	27394-26721-375	90.44 Bankruptcy-leased equip-all claims paid	0.00
2007	033504429	27394-26721-375	50.14 Bankruptcy-leased equip-all claims paid	0.00
2008	033504429	27394-26721-375	14.21 Bankruptcy-leased equip-all claims paid	0.00
2002	033504437	27394-26721-376	41.42 Bankruptcy-leased equip-all claims paid	0.00
2003	033504437	27394-26721-376	31.05 Bankruptcy-leased equip-all claims paid	0.00
2005	033504445	27394-26721-377	55.43 Bankruptcy-leased equip-all claims paid	0.00
2006	033504445	27394-26721-377	41.68 Bankruptcy-leased equip-all claims paid	0.00
2005	033504526	27394-26721-385	74.04 Bankruptcy-leased equip-all claims paid	0.00
2006	033504526	27394-26721-385	57.88 Bankruptcy-leased equip-all claims paid	0.00
2007	033504526	27394-26721-385	50.10 Bankruptcy-leased equip-all claims paid	0.00
2008	033504526	27394-26721-385	12.86 Bankruptcy-leased equip-all claims paid	0.00
2005	033504534	27394-26721-386	121.20 Bankruptcy-leased equip-all claims paid	0.00
2006	033504534	27394-26721-386	107.05 Bankruptcy-leased equip-all claims paid	0.00
2007	033504534	27394-26721-386	92.48 Bankruptcy-leased equip-all claims paid	0.00
2008	033504534	27394-26721-386	26.31 Bankruptcy-leased equip-all claims paid	0.00
2004	033511590	27394-07732-009	70.41 Inactive-leased equipment	0.00
2001	033518314	27394-31254-748	60.28 Inactive-leased equipment	0.00
2001	033524632	27394-20116-934	82.83 Inactive-leased equipment	0.00
2003	033525728	27299-44994-001	63.80 Inactive - uncollectible	0.00
2004	033525728	27299-44994-001	122.16 Inactive - uncollectible	0.00
2005	033525809	25813-45002-001	705.32 Inactive - uncollectible	89.01
2006	033525809	25813-45002-001	603.04 Inactive - uncollectible	73.99
2007	033525809	25813-45002-001	522.84 Inactive - uncollectible	41.63
2005	033527348	25812-45117-001	91.02 Inactive - uncollectible	0.00
2006	033527348	25812-45117-001	75.34 Inactive - uncollectible	0.00
2004	033527488	25812-45131-001	896.87 Bankruptcy-inactive-no assets	79.83
2003	033527658	27399-45146-001	670.90 Inactive - uncollectible	50.45
2003	033528981	27371-18244-001	95.19 Inactive - uncollectible	0.00
2004	033528981	27371-18244-001	109.09 Inactive - uncollectible	0.00
2005	033528981	27371-18244-001	116.16 Inactive - uncollectible	0.00
2000	033529022	27941-01477-002	285.44 Out of Business - No assets	17.21
2003	033531302	25812-24143-001	60.33 Inactive - uncollectible	7.83
2004	033531302	25812-24143-001	2,389.44 Inactive - uncollectible	299.85
2003	033538820	28099-45209-001	14,948.31 Inactive - uncollectible	2,651.72
2003	033539982	32330-45292-001	59.12 Inactive - uncollectible	0.00
2004	033539982	32330-45292-001	54.95 Inactive - uncollectible	0.00
2008	033539982	32330-45292-001	65.51 Inactive - uncollectible	0.00
2006	033541910	27216-45343-001	1,245.37 Inactive - uncollectible	124.28
2007	033541910	27216-45343-001	1,373.74 Inactive - uncollectible	116.18
2008	033541910	27216-45343-001	1,234.18 Inactive - uncollectible	98.07

2009	033541910	27216-45343-001	1,113.61 Inactive - uncollectible	84.41
2004	033546288	27299-45587-001	246.42 Inactive - uncollectible	5.96
2006	033546288	27299-45587-001	201.58 Inactive - uncollectible	0.00
2006	033548078	27299-45636-001	200.86 Inactive - uncollectible	0.00
2007	033548078	27299-45636-001	199.00 Inactive - uncollectible	0.00
2005	033552067	27392-45804-001	203.10 Inactive - uncollectible	2.02
2006	033552067	27392-45804-001	200.09 Inactive - uncollectible	1.65
2004	033553675	28011-45940-001	1,478.22 Inactive - uncollectible	239.29
2003	033553900	25351-45953-001	178.88 Inactive - uncollectible	0.16
2004	033553900	25351-45953-001	169.05 Inactive - uncollectible	0.00
2003	033557557	27371-46031-001	116.52 Inactive - uncollectible	5.64
2003	033558014	26411-46070-001	588.27 Inactive - uncollectible	72.53
2004	033558995	27371-46148-001	25,759.98 Inactive - uncollectible	2,590.70
2005	033558995	27371-46148-001	21,135.34 Inactive - uncollectible	2,242.72
2004	033562992	27531-46200-001	84.49 Inactive - uncollectible	0.00
2005	033562992	27531-46200-001	74.52 Inactive - uncollectible	0.00
2006	033565312	27539-46334-001	273.83 Inactive - uncollectible	22.57
2008	033565312	27539-46334-001	190.84 Inactive - uncollectible	0.00
2010	033565312	27539-46334-001	172.18 Inactive - uncollectible	0.00
2011	033565312	27539-46334-001	198.34 Inactive - uncollectible	0.00
2012	033565312	27539-46334-001	199.60 Inactive - uncollectible	0.00
2013	033565312	27539-46334-001	174.90 Inactive - uncollectible	0.01
2006	033566467	26531-46355-001	119.76 Inactive - uncollectible	0.00
2007	033566467	26531-46355-001	115.67 Inactive - uncollectible	0.00
2003	033569938	25812-46483-001	78.00 Inactive - uncollectible	0.00
2000	033571444	25999-46499-001	73.12 Out of Business - No assets	0.00
2001	033571444	25999-46499-001	60.82 Out of Business - No assets	0.00
2006	033571444	25999-46499-001	70.03 Out of Business - No assets	0.00
2008	033571444	25999-46499-001	71.82 Out of Business - No assets	0.00
2009	033571444	25999-46499-001	71.40 Out of Business - No assets	0.00
2005	033571576	27392-46507-001	142.44 Inactive - uncollectible	0.00
2006	033571576	27392-46507-001	158.30 Inactive - uncollectible	0.00
2004	033573471	26411-46541-001	387.23 Inactive - uncollectible	21.33
2005	033573471	26411-46541-001	409.26 Inactive - uncollectible	17.36
2006	033573471	26411-46541-001	378.18 Inactive - uncollectible	11.76
2000	033573901	25812-37717-003	373.78 Out of Business - No assets	30.35
2003	033577671	25812-46707-001	2,209.30 Inactive - uncollectible	388.03
2005	033578279	27699-46753-001	76.38 Inactive - uncollectible	0.00
2006	033584287	27699-46846-001	72.67 Inactive - uncollectible	0.00
2004	033588363	27394-46880-001	568.28 Inactive-leased equipment	77.58
2005	033588363	27394-46880-001	576.04 Inactive-leased equipment	71.25
2006	033588363	27394-46880-001	514.97 Inactive-leased equipment	61.50
2001	033593227	27394-31254-786	65.22 Inactive-leased equipment	0.00
2004	033593227	27394-31254-786	72.91 Inactive-leased equipment	0.00

2001	033593235	27394-31254-787	456.20 Inactive-leased equipment	68.49
2002	033593448	27394-26721-402	50.03 Bankruptcy-leased equip-all claims paid	0.00
2002	033593651	27394-26721-417	144.67 Bankruptcy-leased equip-all claims paid	0.00
2003	033593651	27394-26721-417	114.94 Bankruptcy-leased equip-all claims paid	0.00
2004	033593651	27394-26721-417	81.87 Bankruptcy-leased equip-all claims paid	0.00
2001	033594380	27394-31254-821	85.35 Inactive-leased equipment	0.00
2005	033597109	27394-22219-412	79.79 Inactive-leased equipment	0.00
2006	033597109	27394-22219-412	72.81 Inactive-leased equipment	0.00
2000	033601041	27394-42453-187	1,091.80 Inactive-leased equipment	133.50
2001	033601041	27394-42453-187	789.20 Inactive-leased equipment	87.04
2001	033601173	27394-42453-200	706.51 Inactive-leased equipment	78.56
2006	033621743	27371-47095-001	477.66 Inactive - uncollectible	30.57
2002	033622171	25812-27836-003	430.96 Inactive - uncollectible	37.95
2001	033623886	27394-31254-825	109.80 Inactive-leased equipment	0.00
2003	033625196	27221-47201-001	234.47 Inactive - uncollectible	6.62
2004	033625196	27221-47201-001	242.73 Inactive - uncollectible	2.60
2005	033625196	27221-47201-001	248.87 Inactive - uncollectible	3.59
2004	033625251	25812-47207-001	124.19 Inactive - uncollectible	0.00
2004	033625331	25952-47214-001	69.92 Inactive - uncollectible	0.00
2003	033625358	25812-47216-001	111.16 Inactive - uncollectible	0.00
2004	033626826	28099-47250-001	1,919.39 Inactive - uncollectible	331.20
2003	033633598	26152-47318-001	279.85 Inactive - uncollectible	14.37
2001	033634276	26531-47370-001	386.76 Inactive - uncollectible	37.77
2003	033634276	26531-47370-001	60.17 Inactive - uncollectible	0.00
2006	033634276	26531-47370-001	30.26 Inactive - uncollectible	0.00
2006	033635728	25812-28609-002	513.57 Inactive - uncollectible	36.96
2003	033636481	27299-47555-001	549.70 Inactive - uncollectible	54.16
2007	033636481	27299-47555-001	278.60 Inactive - uncollectible	0.00
2008	033636481	27299-47555-001	286.64 Inactive - uncollectible	0.00
2009	033636481	27299-47555-001	255.31 Inactive - uncollectible	0.00
2010	033636481	27299-47555-001	216.46 Inactive - uncollectible	0.00
2000	033636767	25933-47577-001	325.71 Bankruptcy-inactive-no assets	24.37
2001	033636767	25933-47577-001	242.66 Bankruptcy-inactive-no assets	10.27
2002	033636767	25933-47577-001	221.18 Bankruptcy-inactive-no assets	2.31
2003	033636767	25933-47577-001	144.53 Bankruptcy-inactive-no assets	0.00
2004	033636767	25933-47577-001	124.17 Bankruptcy-inactive-no assets	0.00
2005	033636767	25933-47577-001	99.00 Bankruptcy-inactive-no assets	0.00
2006	033636767	25933-47577-001	98.06 Bankruptcy-inactive-no assets	0.00
2007	033636767	25933-47577-001	101.72 Bankruptcy-inactive-no assets	0.00
2005	033636805	26411-47581-001	62.38 Inactive - uncollectible	0.00
2004	033638085	27392-47644-001	1,111.22 Inactive - uncollectible	122.02
2006	033639332	26159-39825-002	2,268.03 Bankruptcy-inactive-no assets	288.68
2007	033639332	26159-39825-002	2,082.11 Bankruptcy-inactive-no assets	242.80
2004	033642872	28911-47799-001	1,973.07 Inactive - uncollectible	238.11

2006	033643046	27349-47816-001	971.52 Inactive - uncollectible	153.61
2004	033643101	27349-47817-001	388.76 Inactive - uncollectible	38.12
2004	033645154	98921-47976-001	88.53 Inactive - uncollectible	0.00
2005	033645154	98921-47976-001	90.75 Inactive - uncollectible	0.00
2003	033645332	25999-47993-001	100.71 Inactive - uncollectible	0.00
2004	033645332	25999-47993-001	94.62 Inactive - uncollectible	0.00
2005	033645332	25999-47993-001	86.41 Inactive - uncollectible	0.00
2003	033645481	25995-48008-001	196.60 Inactive - uncollectible	8.00
2001	033645553	28021-02935-002	3,747.27 Inactive - uncollectible	635.74
2002	033645553	28021-02935-002	3,333.00 Inactive - uncollectible	592.73
2005	033645553	28021-02935-002	2,181.51 Inactive - uncollectible	399.19
2006	033645553	28021-02935-002	1,756.76 Inactive - uncollectible	317.04
2007	033645553	28021-02935-002	1,615.03 Inactive - uncollectible	259.35
2008	033645553	28021-02935-002	1,605.56 Inactive - uncollectible	231.75
2003	033646321	27349-48020-001	117.74 Inactive - uncollectible	0.00
2005	033648587	32751-48087-001	176.96 Inactive - uncollectible	2.78
2006	033650298	25712-27503-002	48.26 Inactive - uncollectible	0.00
2008	033650298	25712-27503-002	44.49 Inactive - uncollectible	0.00
2005	033653378	27392-48212-001	267.25 Inactive - uncollectible	0.00
2003	033655605	25812-48283-001	66.91 Inactive - uncollectible	0.00
2007	033655605	25812-48283-001	79.44 Inactive - uncollectible	0.00
2008	033655605	25812-48283-001	82.30 Inactive - uncollectible	0.00
2000	033655737	27539-48290-001	746.56 Inactive - uncollectible	99.03
2001	033655737	27539-48290-001	618.98 Inactive - uncollectible	74.17
2003	033655737	27539-48290-001	421.73 Inactive - uncollectible	46.93
2004	033655737	27539-48290-001	404.73 Inactive - uncollectible	35.92
2005	033655737	27539-48290-001	385.28 Inactive - uncollectible	33.44
2006	033655737	27539-48290-001	338.37 Inactive - uncollectible	26.41
2007	033655737	27539-48290-001	321.41 Inactive - uncollectible	5.51
2001	033655940	32590-48311-001	2,144.46 Bankruptcy-write-off per attorney	436.49
2002	033655940	32590-48311-001	3,520.47 Bankruptcy-write-off per attorney	736.09
2003	033655940	32590-48311-001	3,179.53 Bankruptcy-write-off per attorney	661.47
2004	033655940	32590-48311-001	3,136.02 Bankruptcy-write-off per attorney	665.11
2005	033655940	32590-48311-001	2,808.63 Bankruptcy-write-off per attorney	630.74
2003	033656610	27392-48349-001	86.02 Inactive - uncollectible	0.00
2003	033656873	28111-48364-001	46.06 Inactive - uncollectible	0.00
2003	033664302	25351-48545-001	86.54 Inactive - uncollectible	0.00
2002	033665554	27221-48623-001	538.90 Inactive - uncollectible	83.03
2003	033665554	27221-48623-001	1,045.31 Inactive - uncollectible	164.68
2004	033665554	27221-48623-001	833.27 Inactive - uncollectible	119.47
2005	033665554	27221-48623-001	666.32 Inactive - uncollectible	89.14
2004	033665929	33750-48640-001	61.81 Inactive - uncollectible	0.00
2003	033666364	27361-48654-001	49.40 Inactive - uncollectible	0.00
2004	033666364	27361-48654-001	48.94 Inactive - uncollectible	0.00

2000	033667760	27371-48742-001	18,176.32 Bankruptcy-inactive-no assets	3,308.03
2000	033676734	25812-37717-006	377.67 Out of Business - No assets	17.43
2001	033676734	25812-37717-006	311.82 Out of Business - No assets	10.03
2002	033676734	25812-37717-006	204.07 Out of Business - No assets	2.06
2000	033676815	25812-37717-012	106.21 Out of Business - No assets	0.00
2001	033676815	25812-37717-012	81.34 Out of Business - No assets	0.00
2002	033676815	25812-37717-012	67.37 Out of Business - No assets	0.00
2005	033678117	27394-26721-441	37.24 Bankruptcy-leased equip-all claims paid	0.00
2006	033678117	27394-26721-441	33.17 Bankruptcy-leased equip-all claims paid	0.00
2002	033678125	27394-26721-442	353.20 Bankruptcy-leased equip-all claims paid	33.26
2003	033678125	27394-26721-442	280.70 Bankruptcy-leased equip-all claims paid	18.96
2003	033678737	25812-48902-001	71.87 Inactive - uncollectible	0.00
2004	033678737	25812-48902-001	76.60 Inactive - uncollectible	0.00
2001	033683579	27394-35129-276	87.86 Inactive-leased equipment	0.00
2002	033683579	27394-35129-276	51.32 Inactive-leased equipment	0.00
2001	033683609	27394-35129-279	345.63 Inactive-leased equipment	61.08
2002	033683609	27394-35129-279	426.31 Inactive-leased equipment	68.21
2004	033685326	27394-31254-827	55.89 Inactive-leased equipment	0.00
2006	033694546	27392-48947-001	554.93 Inactive - uncollectible	85.24
2007	033694546	27392-48947-001	532.81 Inactive - uncollectible	62.50
2000	033697472	27394-46901-002	697.17 Inactive-leased equipment	111.46
2006	033708971	27349-48983-001	80.05 Inactive - uncollectible	0.00
2005	033709748	27221-49037-001	517.85 Inactive - uncollectible	26.18
2006	033710029	27371-49064-001	95.71 Inactive - uncollectible	0.00
2009	033710029	27371-49064-001	87.51 Inactive - uncollectible	0.00
2010	033710029	27371-49064-001	98.53 Inactive - uncollectible	0.00
2004	033710223	25921-49084-001	100.14 Inactive - uncollectible	0.00
2005	033711734	25999-49129-001	133.27 Inactive - uncollectible	0.00
2003	033711947	27299-49150-001	83.89 Inactive - uncollectible	0.00
2007	033711947	27299-49150-001	50.26 Inactive - uncollectible	0.00
2004	033712471	25812-49201-001	182.43 Inactive - uncollectible	0.00
2006	033712471	25812-49201-001	142.51 Inactive - uncollectible	0.00
2007	033712471	25812-49201-001	147.98 Inactive - uncollectible	0.00
2008	033712471	25812-49201-001	130.74 Inactive - uncollectible	0.00
2009	033712471	25812-49201-001	110.00 Inactive - uncollectible	0.00
2001	033712625	25999-49215-001	48.96 Inactive - uncollectible	0.00
2007	033712625	25999-49215-001	58.37 Inactive - uncollectible	0.00
2006	033713583	25812-49261-001	225.81 Inactive - uncollectible	1.82
2004	033715179	26531-49271-001	567.90 Inactive - uncollectible	55.06
2006	033717198	27221-49352-001	406.45 Inactive - uncollectible	13.43
2005	033717376	27299-49367-001	126.32 Inactive - uncollectible	0.00
2005	033718020	27299-49422-001	363.83 Inactive - uncollectible	29.72
2006	033718038	25812-49423-001	670.96 Inactive - uncollectible	103.88
2007	033718038	25812-49423-001	613.65 Inactive - uncollectible	71.49

2008	033718038	25812-49423-001	1,243.79 Inactive - uncollectible	174.79
2010	033718038	25812-49423-001	1,154.41 Inactive - uncollectible	150.73
2012	033718038	25812-49423-001	875.53 Inactive - uncollectible	67.76
2005	033718097	26152-49429-001	720.69 Inactive - uncollectible	58.81
2006	033718097	26152-49429-001	642.18 Inactive - uncollectible	49.51
2000	033719387	25812-49534-001	137.77 Inactive - uncollectible	0.00
2003	033719387	25812-49534-001	91.57 Inactive - uncollectible	0.00
2004	033719387	25812-49534-001	67.40 Inactive - uncollectible	0.00
2005	033719387	25812-49534-001	70.96 Inactive - uncollectible	0.00
2006	033719387	25812-49534-001	58.63 Inactive - uncollectible	0.00
2004	033720172	25351-49592-001	309.52 Inactive - uncollectible	27.12
2003	033721179	25812-29186-003	488.23 Inactive - uncollectible	41.01
2004	033721179	25812-29186-003	563.11 Inactive - uncollectible	40.23
2005	033721179	25812-29186-003	569.14 Inactive - uncollectible	41.82
2006	033721179	25812-29186-003	564.25 Inactive - uncollectible	43.73
2007	033721179	25812-29186-003	526.94 Inactive - uncollectible	20.62
2011	033721179	25812-29186-003	656.42 Inactive - uncollectible	23.66
2003	033723961	25999-39220-004	789.65 Bankruptcy-write-off per attorney	113.60
2004	033724003	25521-49721-001	66.90 Inactive - uncollectible	0.00
2000	033724551	27392-49770-001	16,646.84 Bankruptcy-inactive-no assets	2,924.75
2001	033724551	27392-49770-001	23,713.73 Bankruptcy-inactive-no assets	4,166.53
2005	033724658	28041-49780-001	359.71 Inactive - uncollectible	18.06
2004	033724801	25714-49785-001	166.24 Inactive - uncollectible	0.00
2002	033725247	28099-49793-002	17.19 Bankruptcy-inactive-no assets	0.00
2005	033725271	25971-49796-001	44.41 Inactive - uncollectible	0.00
2006	033725271	25971-49796-001	64.45 Inactive - uncollectible	0.00
2005	033726456	25999-49862-001	109.26 Bankruptcy-inactive-no assets	0.00
2003	033726634	26152-49880-001	52.82 Inactive - uncollectible	0.00
2004	033726634	26152-49880-001	54.19 Inactive - uncollectible	0.00
2003	033727169	27395-49924-001	114.07 Bankruptcy-final settlement	0.00
2004	033727169	27395-49924-001	122.16 Bankruptcy-final settlement	0.00
2005	033727169	27395-49924-001	118.80 Bankruptcy-final settlement	0.00
2006	033727169	27395-49924-001	114.49 Bankruptcy-final settlement	0.00
2007	033727169	27395-49924-001	114.33 Bankruptcy-final settlement	0.00
2008	033727169	27395-49924-001	124.29 Bankruptcy-final settlement	0.00
2009	033727169	27395-49924-001	116.79 Bankruptcy-final settlement	0.00
2001	033727223	27392-49929-001	1,839.18 Bankruptcy-inactive-no assets	227.71
2002	033727266	25411-49933-001	134.42 Bankruptcy-inactive-no assets	0.00
2003	033727266	25411-49933-001	111.68 Bankruptcy-inactive-no assets	0.00
2004	033727266	25411-49933-001	124.87 Bankruptcy-inactive-no assets	0.00
2005	033727266	25411-49933-001	124.73 Bankruptcy-inactive-no assets	0.00
2006	033727835	26152-49972-001	327.01 Inactive - uncollectible	27.81
2007	033727835	26152-49972-001	292.32 Inactive - uncollectible	0.00
2006	033728815	26531-50028-001	63.86 Inactive - uncollectible	0.00

2007	033728815	26531-50028-001	70.00 Inactive - uncollectible	0.00
2008	033728815	26531-50028-001	72.52 Inactive - uncollectible	0.00
2000	033728840	25182-50031-001	51.31 Inactive - uncollectible	0.00
2003	033729137	25521-37358-002	1,075.84 Inactive - uncollectible	204.12
2006	033729358	27539-50072-001	83.91 Bankruptcy-inactive-no assets	0.00
2001	033732219	25997-50159-001	91.62 Bankruptcy-inactive-no assets	0.00
2002	033732219	25997-50159-001	76.69 Bankruptcy-inactive-no assets	0.00
2005	033732227	25812-50160-001	326.55 Inactive - uncollectible	31.72
2005	033732561	27371-50182-001	610.14 Inactive - uncollectible	41.82
2008	033732561	27371-50182-001	554.65 Inactive - uncollectible	21.19
2009	033732561	27371-50182-001	546.36 Inactive - uncollectible	21.27
2004	033732600	27371-50186-001	604.00 Inactive - uncollectible	68.71
2005	033735366	27361-38472-002	737.17 Inactive - uncollectible	60.48
2006	033739213	27349-50245-001	4,680.32 Inactive - uncollectible	526.02
2004	033743067	27539-50319-001	54.68 Inactive - uncollectible	0.00
2004	033744004	27539-50371-001	815.46 Inactive - uncollectible	116.00
2005	033744004	27539-50371-001	610.50 Inactive - uncollectible	87.97
2004	033746872	84583-29068-002	297.75 Inactive - uncollectible	24.08
2001	033752716	27394-22179-024	2,750.36 Inactive-leased equipment	455.61
2004	033753950	27394-22219-576	64.55 Inactive-leased equipment	0.00
2005	033757335	84890-01222-048	894.41 Inactive - uncollectible	74.05
2001	033761171	27394-31254-895	41.43 Inactive-leased equipment	0.00
2001	033761618	27394-31254-900	37.60 Inactive-leased equipment	0.00
2001	033761669	27394-31254-905	152.51 Inactive-leased equipment	0.00
2004	033761936	27394-31254-910	121.68 Inactive-leased equipment	0.00
2001	033762258	27394-31254-922	2,014.14 Inactive-leased equipment	270.01
2000	033763912	27394-42453-458	323.83 Inactive-leased equipment	14.84
2001	033763912	27394-42453-458	227.82 Inactive-leased equipment	1.99
2002	033765176	27394-26721-482	224.46 Bankruptcy-leased equip-all claims paid	15.03
2005	033765494	27394-26721-498	74.96 Bankruptcy-leased equip-all claims paid	0.00
2006	033765494	27394-26721-498	62.72 Bankruptcy-leased equip-all claims paid	0.00
2005	033765958	27394-26721-516	73.86 Bankruptcy-leased equip-all claims paid	0.00
2006	033765958	27394-26721-516	65.10 Bankruptcy-leased equip-all claims paid	0.00
2002	033766016	27394-26721-521	53.73 Bankruptcy-leased equip-all claims paid	0.00
2000	033766636	25812-37717-014	67.19 Out of Business - No assets	0.00
2001	033766636	25812-37717-014	57.38 Out of Business - No assets	0.00
2000	033766717	25812-37717-022	403.51 Out of Business - No assets	79.59
2001	033766717	25812-37717-022	341.70 Out of Business - No assets	60.62
2002	033766717	25812-37717-022	278.58 Out of Business - No assets	45.03
2003	033766717	25812-37717-022	229.11 Out of Business - No assets	31.96
2000	033766733	25812-37717-024	706.40 Out of Business - No assets	91.35
2001	033766733	25812-37717-024	565.17 Out of Business - No assets	69.48
2002	033766733	25812-37717-024	466.73 Out of Business - No assets	53.28
2003	033766733	25812-37717-024	400.87 Out of Business - No assets	38.85

2000	033766741	25812-37717-025	80.54 Out of Business - No assets	0.00
2001	033766741	25812-37717-025	64.02 Out of Business - No assets	0.00
2002	033766741	25812-37717-025	47.01 Out of Business - No assets	0.00
2003	033766741	25812-37717-025	34.64 Out of Business - No assets	0.00
2003	033769261	27394-46916-098	35.01 Inactive-leased equipment	0.00
2000	033769422	27394-38379-015	11,822.16 Bankruptcy-leased equip-write-off per attorney	1,564.15
2004	033776071	27699-50625-001	189.15 Inactive - uncollectible	4.58
2003	033783883	87440-01768-0101	562.62 Bankruptcy-write-off per attorney	145.78
2003	033783891	87440-01768-0501	3,642.07 Bankruptcy-write-off per attorney	794.81
2003	033783905	87440-01768-0601	1,829.64 Bankruptcy-write-off per attorney	428.02
2003	033783913	87440-01768-0801	1,364.31 Bankruptcy-write-off per attorney	305.71
2003	033783921	87440-01768-3001	241.08 Bankruptcy-write-off per attorney	0.00
2003	033783930	87440-01768-3006	179.67 Bankruptcy-write-off per attorney	0.00
2003	033783948	87440-01768-3007	182.04 Bankruptcy-write-off per attorney	0.00
2003	033783956	87440-01768-3008	63.39 Bankruptcy-write-off per attorney	0.00
2003	033783964	87440-01768-3009	144.03 Bankruptcy-write-off per attorney	0.00
2003	033783972	87440-01768-4026	212.57 Bankruptcy-write-off per attorney	0.00
2003	033783981	87440-01768-4100	140.53 Bankruptcy-write-off per attorney	0.00
2003	033784006	87440-01768-4650	140.05 Bankruptcy-write-off per attorney	0.00
2003	033784014	87440-01768-4712	69.13 Bankruptcy-write-off per attorney	0.00
2003	033802969	27231-50717-001	241.35 Inactive - uncollectible	12.89
2005	033802969	27231-50717-001	209.79 Inactive - uncollectible	3.19
2006	033802969	27231-50717-001	176.35 Inactive - uncollectible	0.00
2007	033802969	27231-50717-001	170.18 Inactive - uncollectible	0.00
2008	033802969	27231-50717-001	164.22 Inactive - uncollectible	0.00
2004	033802977	25812-50702-001	70.07 Inactive - uncollectible	0.00
2002	033803132	25812-50723-001	147.16 Inactive - uncollectible	0.00
2003	033803132	25812-50723-001	131.42 Inactive - uncollectible	0.00
2004	033803132	25812-50723-001	127.86 Inactive - uncollectible	0.00
2005	033803132	25812-50723-001	117.61 Inactive - uncollectible	0.00
2000	033803221	25812-50734-001	1,244.88 Bankruptcy-write-off per attorney	191.34
2003	033803574	25812-50763-001	109.88 Inactive - uncollectible	0.00
2004	033803574	25812-50763-001	89.20 Inactive - uncollectible	0.00
2002	033803680	27392-50768-001	9,361.07 Inactive-leased equipment	1,113.64
2003	033803680	27392-50768-001	23,966.42 Inactive-leased equipment	2,897.75
2004	033803680	27392-50768-001	45,002.23 Inactive-leased equipment	5,260.18
2005	033803680	27392-50768-001	4,668.51 Inactive-leased equipment	642.66
2001	033803761	27394-31254-955	754.05 Inactive-leased equipment	97.02
2006	033803892	27216-31475-003	561.56 Inactive - uncollectible	57.42
2007	033803892	27216-31475-003	567.10 Inactive - uncollectible	35.20
2001	033805232	27299-50793-001	163.81 Bankruptcy-write-off per attorney	0.00
2002	033805232	27299-50793-001	143.46 Bankruptcy-write-off per attorney	0.00
2004	033806344	26152-50812-001	110.44 Inactive - uncollectible	0.00
2004	033806786	28111-50835-001	300.55 Inactive - uncollectible	30.64

2002	033807103	25812-50857-001	873.52 Inactive - uncollectible	118.27
2003	033807103	25812-50857-001	434.64 Inactive - uncollectible	61.50
2005	033807103	25812-50857-001	1,009.36 Inactive - uncollectible	125.47
2006	033807103	25812-50857-001	1,009.26 Inactive - uncollectible	131.22
2007	033807103	25812-50857-001	939.35 Inactive - uncollectible	103.08
2004	033807286	25997-50871-001	271.03 Inactive - uncollectible	4.85
2005	033807286	25997-05871-001	223.36 Inactive - uncollectible	0.00
2006	033807286	25997-05871-001	171.64 Inactive - uncollectible	0.00
2007	033807286	25997-50871-001	129.28 Inactive - uncollectible	0.00
2008	033807286	25997-50871-001	115.63 Inactive - uncollectible	0.00
2009	033807286	25997-50871-001	114.46 Inactive - uncollectible	0.00
2006	033807731	25812-50903-001	946.75 Inactive - uncollectible	111.70
2007	033807731	25812-50903-001	860.37 Inactive - uncollectible	73.80
2004	033811992	27392-50933-001	126.50 Inactive - uncollectible	0.00
2003	033812212	25713-50937-001	1,437.65 Bankruptcy-inactive-no assets	288.97
2004	033821424	27392-51155-001	234.45 Inactive - uncollectible	0.00
2003	033821564	25722-46435-002	549.14 Inactive - uncollectible	33.88
2003	033822188	25997-51183-001	173.66 Inactive - uncollectible	0.00
2004	033822188	25997-51183-001	182.13 Inactive - uncollectible	0.00
2002	033822277	27371-51192-001	7,371.61 Bankruptcy-inactive-no assets	1,317.57
2003	033825942	25732-51364-001	103.56 Inactive - uncollectible	0.00
2003	033826001	28099-51368-001	55.15 Inactive - uncollectible	0.00
2005	033832451	28041-51467-001	77.02 Inactive - uncollectible	0.00
2006	033832485	27299-51470-001	222.49 Inactive - uncollectible	3.46
2004	033833066	27941-51489-001	57.37 Inactive - uncollectible	0.00
2004	033833791	25997-51523-001	67.22 Inactive - uncollectible	0.00
1998	033833813	27371-51525-001	63.79 Out of Business - No assets	0.00
2004	033838874	27371-51674-001	353.51 Inactive - uncollectible	26.78
2005	033838874	27371-51674-001	311.97 Inactive - uncollectible	20.80
2005	033841891	27349-51705-001	470.16 Inactive - uncollectible	51.47
2006	033843258	25812-41577-002	457.65 Inactive - uncollectible	60.00
2003	033843339	27371-51791-001	2,906.27 Inactive - uncollectible	418.67
2001	033843444	84890-51773-001	15,172.39 Bankruptcy final settlement	2,102.70
2001	033843452	98299-51797-001	6,108.93 Bankruptcy-inactive-no assets	820.55
2003	033843517	27392-51776-001	68.77 Inactive - uncollectible	0.00
2003	033844955	27911-51837-001	46.06 Inactive - uncollectible	0.00
2004	033844955	27911-51837-001	0.10 Inactive - uncollectible	0.00
2005	033844955	27911-51837-001	54.44 Inactive - uncollectible	0.00
2001	033850556	27392-51930-001	63.52 Leased Equipment issue per Assessor	0.00
2004	033852460	25499-51957-001	94.48 Inactive - uncollectible	0.00
2005	033852583	27392-51965-001	354.52 Inactive - uncollectible	19.04
2000	033852591	25812-37717-026	413.20 Out of Business - No assets	20.32
2005	033854250	27394-08613-028	811.98 Inactive-leased equipment	84.92

2005	033854403	27394-26721-535	79.39 Bankruptcy-leased equip-all claims paid	0.00
2006	033854403	27394-26721-535	72.02 Bankruptcy-leased equip-all claims paid	0.00
2001	033857259	27394-24362-408	1,171.57 Inactive-leased equipment	139.59
2000	033857551	27394-38379-018	12,756.60 Bankruptcy-leased equip-write-off per attorney	1,521.70
2003	033858832	27699-03192-012	6,527.44 Inactive - uncollectible	1,422.77
2001	033860683	27394-31254-982	103.87 Inactive-leased equipment	0.00
2004	033860683	27394-31254-982	85.72 Inactive-leased equipment	0.00
2001	033860870	27394-31254-986	3,039.54 Inactive-leased equipment	621.18
2004	033860870	27394-31254-986	1,454.86 Inactive-leased equipment	273.08
2003	033861451	27394-33189-501	3,264.03 Inactive-leased equipment	313.68
2003	033864174	27394-50517-005	702.62 Inactive-leased equipment	92.66
2001	033865481	27394-42453-597	406.97 Inactive-leased equipment	24.50
2002	033865481	27394-42453-597	250.58 Inactive-leased equipment	2.91
2001	033866053	27394-42453-616	134.13 Inactive-leased equipment	0.00
2002	033866215	27394-42453-628	416.72 Inactive-leased equipment	20.25
2001	033866274	27394-42453-632	103.56 Inactive-leased equipment	0.00
2001	033869681	27394-35129-590	428.01 Inactive-leased equipment	45.03
2002	033869681	27394-35129-590	296.14 Inactive-leased equipment	26.55
2002	033869702	27394-35129-592	197.50 Inactive-leased equipment	10.40
2002	033869788	27394-35129-600	252.85 Inactive-leased equipment	43.17
2001	033872622	27394-31254-994	56.48 Inactive-leased equipment	0.00
2000	033873416	27394-46923-008	78.35 Inactive-leased equipment	0.00
2001	033873416	27394-46923-008	38.14 Inactive-leased equipment	0.00
2005	033874439	27394-26721-557	56.56 Bankruptcy-leased equip-all claims paid	0.00
2006	033874439	27394-26721-557	46.42 Bankruptcy-leased equip-all claims paid	0.00
2002	033874447	27394-26721-558	35.81 Bankruptcy-leased equip-all claims paid	0.00
2003	033874447	27394-26721-558	59.34 Bankruptcy-leased equip-all claims paid	0.00
2004	033874447	27394-26721-558	30.65 Bankruptcy-leased equip-all claims paid	0.00
2001	033892607	27394-42027-001	62.76 Inactive-leased equipment	0.00
2001	033892615	27394-52027-001	50.42 Inactive-leased equipment	0.00
2000	033894456	27394-52027-019	1,062.64 Inactive-leased equipment	123.86
2003	033898834	27394-46916-233	279.84 Inactive-leased equipment	18.74
2000	033898958	27394-46916-245	377.91 Inactive-leased equipment	22.65
2004	033899610	27394-52027-034	46.94 Inactive-leased equipment	0.00
2002	033908180	26159-52054-001	70.17 Inactive - uncollectible	0.00
2003	033908180	26159-52054-001	86.60 Inactive - uncollectible	0.00
2004	033908180	26159-52054-001	97.89 Inactive - uncollectible	0.00
2005	033908180	26159-52054-001	95.67 Inactive - uncollectible	0.00
2006	033908180	26159-52054-001	95.44 Inactive - uncollectible	0.00
2005	033908252	27392-52061-001	216.77 Inactive - uncollectible	0.00
2006	033908252	27392-52061-001	175.85 Inactive - uncollectible	0.00
2003	033908287	27941-52064-001	485.25 Inactive - uncollectible	50.43
2004	033908287	27941-52064-001	918.06 Inactive - uncollectible	84.13

2005	033908287	27941-52064-001	869.69 Inactive - uncollectible	76.78
2005	033908554	27231-52090-001	57.35 Inactive - uncollectible	0.00
2003	033909003	27392-52121-001	137.51 Inactive - uncollectible	0.00
2005	033916395	33390-52160-001	1,460.12 Inactive - uncollectible	284.70
2003	033920741	27394-26595-004	3,085.55 Inactive-leased equipment	358.53
2003	033921437	27539-52190-001	2,763.80 Bankruptcy-write-off per attorney	584.45
2000	033922751	84890-52206-001	312.10 Bankruptcy-write-off per attorney	36.29
2004	033923162	27629-52239-001	52.38 Inactive - uncollectible	0.00
2005	033923162	27629-52239-001	53.57 Inactive - uncollectible	0.00
2006	033923162	27629-52239-001	52.92 Inactive - uncollectible	0.00
2004	033924843	25997-52291-001	118.13 Inactive - uncollectible	0.00
2005	033926293	27392-52375-001	65.75 Inactive - uncollectible	0.00
2003	033926358	25719-52380-001	111.70 Inactive - uncollectible	0.00
2003	033926404	25812-52385-001	382.55 Bankruptcy-inactive-no assets	37.80
2004	033926404	25812-52385-001	323.06 Bankruptcy-inactive-no assets	26.03
2003	033927559	33590-52437-001	205.20 Inactive - uncollectible	0.48
2005	033927982	26152-52455-001	3,878.48 Inactive - uncollectible	579.03
2004	033928130	27539-52470-001	543.11 Bankruptcy-write-off per attorney	72.69
2005	033928130	27539-52470-001	541.82 Bankruptcy-write-off per attorney	64.47
2006	033928130	27539-52470-001	462.25 Bankruptcy-write-off per attorney	50.70
2002	033928491	27392-52486-001	13,142.01 Bankruptcy-inactive-no assets	1,819.77
2003	033928491	27392-52486-001	22,275.55 Bankruptcy-inactive-no assets	3,073.78
2004	033928491	27392-52486-001	13,865.25 Bankruptcy-inactive-no assets	1,845.87
2006	033929144	25812-52523-001	107.29 Inactive - uncollectible	0.00
2006	033929241	25812-28345-009	344.98 Inactive - uncollectible	13.90
2007	033929241	25812-28345-009	339.66 Inactive - uncollectible	0.00
2008	033929241	25812-28345-009	284.31 Inactive - uncollectible	0.00
2009	033929241	25812-28345-009	185.55 Inactive - uncollectible	0.00
2010	033929241	25812-28345-009	185.07 Inactive - uncollectible	0.00
2006	033929403	27392-50156-002	94.31 Inactive - uncollectible	0.00
2006	033930231	28072-52594-001	105.79 Inactive - uncollectible	0.00
2005	033930827	84890-52630-001	89.92 Inactive - uncollectible	0.00
2006	033930827	84890-52630-001	96.00 Inactive - uncollectible	0.00
2007	033930827	84890-52630-001	88.79 Inactive - uncollectible	0.00
2008	033930827	84890-52630-001	88.76 Inactive - uncollectible	0.00
2004	033936256	27371-52734-001	2,322.14 Inactive - uncollectible	241.82
2004	033936272	26152-52736-001	4.01 Inactive - uncollectible	0.00
2003	033936744	27392-52766-001	64.10 Inactive - uncollectible	0.00
2004	033936795	84890-52811-001	183.57 Inactive - uncollectible	0.00
2005	033936795	84890-52811-001	164.30 Inactive - uncollectible	0.00
2004	033936868	32751-52817-001	2,050.75 Inactive - uncollectible	288.10
2003	033937082	32741-52829-001	1,390.82 Inactive - uncollectible	198.06
2005	033937147	27392-52833-001	1,425.43 Inactive - uncollectible	162.44

2000	033937201	26152-52839-001	47.74 Inactive - uncollectible	0.00
2002	033937201	26152-52839-001	51.19 Inactive - uncollectible	0.00
2003	033937201	26152-52839-001	75.57 Inactive - uncollectible	0.00
2005	033937201	26152-52839-001	425.84 Inactive - uncollectible	44.61
2006	033937201	26152-52839-001	362.76 Inactive - uncollectible	30.73
2007	033937201	26152-52839-001	272.53 Inactive - uncollectible	0.00
2003	033940644	84890-52938-001	409.78 Inactive - uncollectible	20.50
2004	033940652	27392-52939-001	834.61 Inactive - uncollectible	70.59
2005	033940865	27392-52959-001	2,404.89 Inactive - uncollectible	278.21
2003	033941004	27392-52971-001	314.67 Inactive - uncollectible	11.36
2000	033942281	26140-50149-002	1,460.70 Inactive - uncollectible	164.07
2003	033942302	27371-52996-001	138.80 Inactive - uncollectible	0.00
2006	033942345	26152-53000-001	86.77 Inactive - uncollectible	0.00
2003	033942701	27392-53012-001	67.43 Inactive - uncollectible	0.00
2003	033943783	27349-53022-001	225.39 Bankruptcy-final settlement	30.49
2006	033944046	27392-53030-001	638.57 Inactive - uncollectible	44.52
2003	033944267	25812-53036-001	1,034.08 Inactive-state seized all equipment-uncollectible	93.70
2004	033944267	25812-53036-001	758.35 Inactive-state seized all equipment-uncollectible	72.86
2005	033944267	25812-53036-001	716.48 Inactive-state seized all equipment-uncollectible	65.35
2007	033944267	25812-53036-001	526.56 Inactive-state seized all equipment-uncollectible	21.81
2008	033944267	25812-53036-001	443.31 Inactive-state seized all equipment-uncollectible	7.32
2009	033944267	25812-53036-001	251.78 Inactive-state seized all equipment-uncollectible	0.00
2001	033944321	25999-53042-001	575.70 Bankruptcy-write-off per attorney	49.89
2003	033944577	25812-53061-001	1,344.84 Inactive - uncollectible	224.78
2004	033944577	25812-53061-001	1,191.98 Inactive - uncollectible	183.96
2005	033944577	25812-53061-001	1,139.94 Inactive - uncollectible	168.06
2004	033944666	27349-53069-001	248.48 Inactive - uncollectible	0.00
2005	033944666	27349-53069-001	235.27 Inactive - uncollectible	0.00
2006	033944666	27349-53069-001	202.65 Inactive - uncollectible	0.00
2003	033945000	27531-53074-001	60.92 Inactive - uncollectible	0.00
2004	033945000	27531-53074-001	68.84 Inactive - uncollectible	0.00
2004	033945662	25351-49592-002	73.94 Inactive - uncollectible	0.00
2001	033945727	25999-53123-001	223.47 Bankruptcy-inactive-no assets	7.03
2005	033946812	26541-53162-001	475.11 Inactive - uncollectible	24.30
2006	033946812	26541-53162-001	443.93 Inactive - uncollectible	20.55
2004	033947045	25812-53174-001	89.77 Inactive - uncollectible	0.00
2005	033947045	25812-53174-001	72.88 Inactive - uncollectible	0.00
2000	033947975	25812-37717-027	637.44 Out of Business - No assets	60.95
2003	033949137	27394-26595-010	4,050.79 Inactive-leased equipment	481.72
2002	033951743	27394-42453-693	229.26 Inactive-leased equipment	0.00
2001	033952375	27394-52027-063	41.24 Inactive-leased equipment	0.00
2001	033952383	27394-52027-064	18.75 Inactive-leased equipment	0.00
2001	033952618	27394-52027-075	200.43 Inactive-leased equipment	0.00

2004	033952618	27394-52027-075	80.24 Inactive-leased equipment	0.00
2001	033952626	27394-52027-076	1,750.21 Inactive-leased equipment	213.71
2004	033952715	27394-52027-082	34.95 Inactive-leased equipment	0.00
2001	033952758	27394-52027-086	681.82 Inactive-leased equipment	62.58
2001	033952847	27394-52027-092	97.96 Inactive-leased equipment	0.00
2004	033952847	27394-52027-092	191.78 Inactive-leased equipment	7.74
2001	033952863	27394-52027-094	115.16 Inactive-leased equipment	0.00
2001	033952871	27394-52027-095	110.14 Inactive-leased equipment	0.00
2004	033952871	27394-52027-095	722.25 Inactive-leased equipment	119.21
2003	033953754	25999-53248-001	229.65 Inactive - uncollectible	19.91
2003	033953771	27392-53247-001	143.38 Inactive - uncollectible	0.00
2001	033957369	27394-35146-278	146.05 Inactive-leased equipment	0.00
2002	033958161	27394-26721-561	431.46 Bankruptcy-leased equip-all claims paid	44.79
2005	033958306	27394-26721-574	91.12 Bankruptcy-leased equip-all claims paid	0.00
2006	033958306	27394-26721-574	70.32 Bankruptcy-leased equip-all claims paid	0.00
2007	033958306	27394-26721-574	59.01 Bankruptcy-leased equip-all claims paid	0.00
2008	033958306	27394-26721-574	15.09 Bankruptcy-leased equip-all claims paid	0.00
2002	033958314	27394-26721-575	1,504.58 Bankruptcy-leased equip-all claims paid	149.67
2003	033958314	27394-26721-575	2,621.86 Bankruptcy-leased equip-all claims paid	286.48
2004	033958314	27394-26721-575	1,470.09 Bankruptcy-leased equip-all claims paid	141.47
2005	033958314	27394-26721-575	1,181.98 Bankruptcy-leased equip-all claims paid	104.04
2006	033958314	27394-26721-575	1,046.08 Bankruptcy-leased equip-all claims paid	93.03
2007	033958314	27394-26721-575	7.98 Bankruptcy-leased equip-all claims paid	0.00
2008	033958314	27394-26721-575	3.14 Bankruptcy-leased equip-all claims paid	0.00
2002	033958349	27394-26721-578	116.44 Bankruptcy-leased equip-all claims paid	0.00
2002	033959426	27394-35129-664	49.18 Inactive-leased equipment	8.99
2001	033959752	27394-35129-687	261.64 Inactive-leased equipment	0.00
2003	033959876	27394-16963-224	435.28 Inactive-leased equipment	49.55
2003	033960327	27394-16963-240	128.98 Inactive-leased equipment	0.00
2003	033960378	27394-16963-242	233.83 Inactive-leased equipment	11.45
2003	033961081	27394-53265-024	969.92 Inactive-leased equipment	113.05
2004	033961471	27394-53265-040	51.84 Inactive - uncollectible	0.00
2004	033961838	27394-53265-060	586.06 Inactive - uncollectible	73.20
2001	033962303	27394-16963-264	1,168.70 Inactive-leased equipment	167.07
2000	033963008	27394-51978-078	378.57 Inactive-leased equipment	22.68
2000	033965132	27394-38379-022	1,605.11 Inactive-leased equipment	192.42
2001	033965281	27394-49530-015	594.45 Inactive-leased equipment	61.45
2002	033965281	27394-49530-015	271.02 Inactive-leased equipment	12.35
2000	033965663	27394-52004-004	644.22 Inactive-leased equipment	122.22
2005	033965931	27394-35129-704	101.12 Inactive-leased equipment	0.00
2001	033967836	27394-48976-040	1,513.49 Inactive-leased equipment	201.47
2002	033969782	27394-26721-586	45.17 Bankruptcy-leased equip-all claims paid	0.00
2001	033970128	27394-52027-106	143.73 Inactive-leased equipment	0.00

2001	033970489	27394-52027-134	124.90 Inactive-leased equipment	0.00
2000	033970527	27394-52027-137	2,898.82 Inactive-leased equipment	331.28
2001	033970527	27394-52027-137	1,264.98 Inactive-leased equipment	125.51
2001	033970632	27394-52027-144	131.38 Inactive-leased equipment	0.00
2001	033970667	27394-52027-147	127.42 Inactive-leased equipment	0.00
2000	033977963	27394-46916-294	146.79 Inactive-leased equipment	0.00
2000	033977980	27394-46916-296	261.73 Inactive-leased equipment	12.99
2000	033977998	27394-46916-297	122.98 Inactive-leased equipment	0.00
2002	033978102	27394-52027-156	32.55 Inactive-leased equipment	0.00
2004	033978102	27394-52027-156	127.50 Inactive-leased equipment	0.00
2002	033985257	27394-35129-732	797.87 Inactive-leased equipment	146.78
2002	033985273	27394-35129-734	362.76 Inactive-leased equipment	32.63
2002	033997701	27211-06749-002	89.66 Inactive - uncollectible	0.00
2003	033997701	27211-06749-002	86.00 Inactive - uncollectible	0.00
2004	033997701	27211-06749-002	95.82 Inactive - uncollectible	0.00
2005	033997701	27211-06749-002	95.67 Inactive - uncollectible	0.00
2006	033997701	27211-06749-002	95.44 Inactive - uncollectible	0.00
2007	033997701	27211-06749-002	96.40 Inactive - uncollectible	0.00
2004	033997841	27699-53321-001	114.55 Inactive - uncollectible	0.00
2005	033997841	27699-53321-001	105.30 Inactive - uncollectible	0.00
2006	033997841	27699-53321-001	96.23 Inactive - uncollectible	0.00
2007	033997841	27699-53321-001	91.19 Inactive - uncollectible	0.00
2004	033997883	25499-53325-001	8,256.92 Inactive - uncollectible	1,490.96
2005	033997883	25499-53325-001	7,681.61 Inactive - uncollectible	1,376.68
2003	034004831	61381-26593-806	954.03 Inactive - uncollectible	153.28
2004	034008349	27538-53393-001	1,220.76 Inactive - uncollectible	132.75
2005	034008349	27538-53393-001	1,216.63 Inactive - uncollectible	124.29
2006	034009078	25999-53394-001	574.81 Inactive - uncollectible	45.22
2003	034009167	26531-53402-001	101.37 Inactive - uncollectible	0.00
2004	034009167	26531-53402-001	96.23 Inactive - uncollectible	0.00
2004	034010432	26152-53419-001	191.53 Inactive - uncollectible	0.00
2005	034010432	26152-53419-001	216.20 Inactive - uncollectible	0.00
2005	034010475	25812-53423-001	70.38 Inactive - uncollectible	0.00
2004	034010483	25995-53424-001	103.83 Inactive - uncollectible	0.00
2005	034010483	25995-53424-001	92.13 Inactive - uncollectible	0.00
2004	034013873	27299-25398-002	371.27 Inactive - uncollectible	34.48
2002	034014411	25999-53443-001	80.01 Inactive - uncollectible	0.00
2003	034014462	27392-53447-001	278.40 Inactive - uncollectible	18.21
2006	034017429	28099-53482-001	47.88 Inactive - uncollectible	0.00
2003	034018883	28099-53545-001	67.96 Inactive - uncollectible	0.00
2004	034019421	27349-53573-001	193.07 Inactive - uncollectible	0.00
2005	034019600	27531-53591-001	76.34 Inactive - uncollectible	0.00
2006	034019626	25351-53593-001	329.64 Inactive - uncollectible	31.57

2005	034019685	25999-53599-001	72.36 Inactive - uncollectible	0.00
2005	034020713	25812-53639-001	730.26 Inactive - uncollectible	80.28
2005	034028501	26161-53680-001	110.85 Inactive - uncollectible	0.00
2006	034028501	26161-53680-001	68.08 Inactive - uncollectible	0.00
2007	034028501	26161-53680-001	71.13 Inactive - uncollectible	0.00
2004	034030344	27911-53762-001	122.38 Inactive - uncollectible	0.00
2005	034031227	26152-53774-001	270.02 Inactive - uncollectible	20.91
2006	034031227	26152-53774-001	273.78 Inactive - uncollectible	21.88
2002	034031286	27392-53780-001	144.37 Inactive - uncollectible	0.00
2003	034031286	27392-53780-001	81.22 Inactive - uncollectible	0.00
2004	034031286	27392-53780-001	63.45 Inactive - uncollectible	0.00
2005	034031286	27392-53780-001	59.40 Inactive - uncollectible	0.00
2006	034031286	27392-53780-001	54.61 Inactive - uncollectible	0.00
2004	034031324	25812-53784-001	283.97 Inactive - uncollectible	14.84
2005	034031324	25812-53784-001	255.77 Inactive - uncollectible	10.21
2004	034031430	27299-53795-001	440.39 Inactive - uncollectible	31.08
2003	034031651	27392-53810-001	5,656.98 Inactive - uncollectible	655.38
2005	034031693	28111-53814-001	107.13 Inactive - uncollectible	0.00
2004	034032088	27349-53850-001	332.75 Inactive - uncollectible	6.23
2006	034032151	25992-53854-001	134.60 Bankruptcy-inactive-no assets	0.00
2007	034032151	25992-53854-001	115.16 Bankruptcy-inactive-no assets	0.00
2001	034032576	25999-53123-002	371.96 Bankruptcy-inactive-no assets	35.11
2003	034034668	25971-47680-002	895.00 Inactive - uncollectible	93.56
2004	034034668	25971-47680-002	776.37 Inactive - uncollectible	74.06
2005	034036032	25812-54022-001	210.04 Inactive - uncollectible	8.60
2006	034036032	25812-54022-001	172.49 Inactive - uncollectible	1.31
2005	034036091	26411-54028-001	91.10 Inactive - uncollectible	0.00
2000	034036334	84890-51773-007	53,067.80 Bankruptcy-inactive-no assets	7,251.15
2001	034036334	84890-51773-007	141,477.99 Bankruptcy-inactive-no assets	19,018.82
2004	034037080	84890-54092-001	1,613.51 Inactive - uncollectible	158.46
2005	034037080	84890-54092-001	894.80 Inactive - uncollectible	81.60
2006	034037080	84890-54092-001	646.77 Inactive - uncollectible	59.01
2006	034037110	26152-54095-001	1,410.47 Inactive - uncollectible	203.01
2007	034037110	26152-54095-001	628.07 Inactive - uncollectible	33.97
2008	034037110	26152-54095-001	632.75 Inactive - uncollectible	34.90
2001	034037489	27349-54125-001	490.92 Bankruptcy-inactive-no assets	56.67
2001	034037497	32751-54126-001	137.57 Bankruptcy-write-off per attorney	0.00
2003	034037705	25993-53957-003	171.42 Inactive - uncollectible	0.00
2005	034037721	25351-54137-001	225.29 Bankruptcy-inactive-no assets	11.61
2003	034051287	26159-54231-001	281.74 Inactive - uncollectible	20.50
2004	034051287	26159-54231-001	319.34 Inactive - uncollectible	20.95
2005	034051287	26159-54231-001	312.75 Inactive - uncollectible	20.91
2006	034051678	25699-54236-001	153.92 Inactive - uncollectible	0.00

2004	034051694	25812-54237-001	648.65 Bankruptcy-final settlement	83.49
2005	034051694	25812-54237-001	592.07 Bankruptcy-final settlement	74.43
2004	034052003	26531-54269-001	84.95 Inactive - uncollectible	0.00
2006	034052003	26531-54269-001	75.52 Inactive - uncollectible	0.00
2006	034052259	32590-54285-001	47.25 Inactive - uncollectible	0.00
2007	034052259	32590-54285-001	52.16 Inactive - uncollectible	0.00
2005	034052283	28911-54288-001	94.12 Inactive - uncollectible	0.00
2003	034052429	27392-54300-001	690.69 Inactive - uncollectible	61.51
2006	034053662	25719-53453-002	86.19 Inactive - uncollectible	0.00
2010	034053662	25719-53453-002	99.58 Inactive - uncollectible	0.00
2003	034054308	25521-54311-001	702.04 Bankruptcy-final settlement	122.36
2002	034055592	25812-54315-001	2.53 Inactive - uncollectible	0.00
2003	034055592	25812-54315-001	3.70 Inactive - uncollectible	0.00
2006	034056424	26152-54334-001	189.71 Inactive - uncollectible	0.00
2004	034056998	26152-54363-001	189.18 Inactive - uncollectible	1.26
2003	034057960	25812-54390-001	86.60 Inactive - uncollectible	0.00
2004	034058800	25812-54441-001	59.43 Inactive - uncollectible	0.00
2000	034059920	84890-54465-001	483.70 Bankruptcy-inactive-no assets	54.01
2003	034059962	26152-54469-001	438.44 Inactive - uncollectible	48.14
2004	034059962	26152-54469-001	422.27 Inactive - uncollectible	35.04
2005	034059962	26152-54469-001	394.81 Inactive - uncollectible	29.63
2003	034060863	25999-54500-001	1,517.79 Inactive - uncollectible	150.69
2003	034060901	27349-54504-001	120.05 Inactive - uncollectible	0.00
2005	034060901	27349-54504-001	135.72 Inactive - uncollectible	0.00
2004	034061169	25712-54523-001	764.81 Inactive - uncollectible	79.73
2003	034063994	27394-50517-011	927.21 Inactive-leased equipment	97.34
2003	034064281	27394-35129-766	945.61 Inactive-leased equipment	129.11
2001	034066641	27394-26658-101	5,529.21 Bankruptcy-leased equip-inactive-no assets	598.09
2003	034067019	27394-54557-001	4.30 Inactive-leased equipment	0.00
2001	034067507	27392-54567-001	32.20 Bankruptcy-write-off per attorney	0.53
2002	034069054	27394-54580-004	4,007.89 Inactive-leased equipment	526.76
2003	034069054	27394-54580-004	2,765.15 Inactive-leased equipment	344.06
2001	034069178	27394-52027-165	417.28 Inactive-leased equipment	37.96
2004	034069178	27394-52027-165	1,162.53 Inactive-leased equipment	140.44
2001	034069275	27394-52027-172	68.71 Inactive-leased equipment	0.00
2004	034069275	27394-52027-172	19.17 Inactive-leased equipment	0.00
2001	034069402	27394-52027-179	58.43 Inactive-leased equipment	0.00
2004	034069402	27394-52027-179	18.71 Inactive-leased equipment	0.00
2005	034069615	27513-52726-005	2.04 Bankruptcy-inactive-no assets	0.00
2006	034069615	27513-52726-005	2.30 Bankruptcy-inactive-no assets	0.00
2013	034069615	27513-52726-005	14.86 Bankruptcy-inactive-no assets	0.00
2001	034069691	27394-52027-197	50.07 Inactive-leased equipment	7.13
2001	034069712	27394-52027-198	97.62 Inactive-leased equipment	0.00

2004	034069712	27394-52027-198	31.46 Inactive-leased equipment	0.00
2001	034069721	27394-52027-199	69.85 Inactive-leased equipment	0.00
2004	034069755	27394-52027-201	44.75 Inactive-leased equipment	0.00
2001	034070001	27394-52027-216	199.20 Inactive-leased equipment	13.50
2004	034070001	27394-52027-216	58.15 Inactive-leased equipment	0.00
2001	034070036	27394-52027-219	93.91 Inactive-leased equipment	0.00
2001	034070133	27394-52027-229	286.81 Inactive-leased equipment	11.52
2001	034070354	27394-07520-062	208.45 Inactive-leased equipment	0.00
2002	034072462	27394-26721-590	41.42 Bankruptcy-leased equip-all claims paid	0.00
2005	034072551	27394-26721-599	59.60 Bankruptcy-leased equip-all claims paid	0.00
2006	034072551	27394-26721-599	55.60 Bankruptcy-leased equip-all claims paid	0.00
2005	034072560	27394-26721-600	70.07 Bankruptcy-leased equip-all claims paid	0.00
2006	034072560	27394-26721-600	58.19 Bankruptcy-leased equip-all claims paid	0.00
2007	034072560	27394-26721-600	51.66 Bankruptcy-leased equip-all claims paid	0.00
2008	034072560	27394-26721-600	13.05 Bankruptcy-leased equip-all claims paid	0.00
2002	034072578	27394-26721-601	241.41 Bankruptcy-leased equip-all claims paid	0.00
2005	034072608	27394-26721-603	92.17 Bankruptcy-leased equip-all claims paid	0.00
2006	034072608	27394-26721-603	70.11 Bankruptcy-leased equip-all claims paid	0.00
2005	034072683	27394-26721-609	131.66 Bankruptcy-leased equip-all claims paid	0.00
2006	034072683	27394-26721-609	100.22 Bankruptcy-leased equip-all claims paid	0.00
2002	034072721	27394-26721-612	113.16 Bankruptcy-leased equip-all claims paid	0.00
2004	034074449	27394-42453-728	144.36 Inactive - uncollectible	0.14
2001	034074597	27394-42453-733	51.92 Inactive-leased equipment	0.00
2001	034074759	27394-42453-745	114.64 Inactive-leased equipment	0.00
2003	034075992	27394-41699-029	901.16 Bankruptcy-leased equip-inactive-no assets	97.75
2002	034076018	27394-41699-030	6.01 Bankruptcy-leased equip-inactive-no assets	0.00
2003	034076051	27394-41699-032	72.56 Bankruptcy-leased equip-inactive-no assets	0.00
2005	034077499	26531-53760-001	1,144.26 Inactive - uncollectible	167.28
2003	034078657	27394-41010-009	358.12 Inactive-leased equipment	34.93
2000	034080015	27394-54594-001	428.18 Bankruptcy-inactive-leased equip-no assets	33.91
2001	034080015	27394-54594-001	610.76 Bankruptcy-inactive-leased equip-no assets	63.96
2000	034080023	27394-54594-002	578.40 Bankruptcy-inactive-leased equip-no assets	85.46
2001	034080023	27394-54594-002	537.11 Bankruptcy-inactive-leased equip-no assets	64.45
2000	034080031	27394-54594-003	614.85 Bankruptcy-inactive-leased equip-no assets	81.45
2001	034080031	27394-54594-003	1,974.00 Bankruptcy-inactive-leased equip-no assets	301.59
2000	034080040	27394-54594-004	210.57 Bankruptcy-inactive-leased equip-no assets	0.00
2001	034080040	27394-54594-004	153.21 Bankruptcy-inactive-leased equip-no assets	0.00
2000	034080074	27394-54594-006	1,240.18 Bankruptcy-inactive-leased equip-no assets	166.85
2001	034080074	27394-54594-006	1,798.52 Bankruptcy-inactive-leased equip-no assets	237.73
2000	034080082	27394-54594-007	97.49 Bankruptcy-inactive-leased equip-no assets	0.00
2001	034080082	27394-54594-007	57.38 Bankruptcy-inactive-leased equip-no assets	0.00
2000	034080104	27394-54594-008	1,176.06 Bankruptcy-inactive-leased equip-no assets	148.84
2001	034080104	27394-54594-008	1,767.79 Bankruptcy-inactive-leased equip-no assets	217.75

2002	034080104	27394-54594-008	514.05 Bankruptcy-inactive-leased equip-no assets	44.76
2001	034094806	98299-54641-001	367.68 Inactive - uncollectible	52.12
2000	034096655	27394-38379-024	64.96 Bankruptcy-leased equip-write-off per attorney	0.00
2002	034096787	27394-40388-076	471.30 Inactive-leased equipment	51.94
2002	034097040	27394-35129-878	40.59 Inactive-leased equipment	7.30
2002	034097155	27394-35129-888	102.03 Inactive-leased equipment	0.00
2005	034097236	27394-26721-614	667.28 Bankruptcy-leased equip-all claims paid	97.66
2006	034097236	27394-26721-614	503.93 Bankruptcy-leased equip-all claims paid	68.50
2005	034097279	27394-26721-617	121.13 Bankruptcy-leased equip-all claims paid	0.00
2006	034097279	27394-26721-617	92.31 Bankruptcy-leased equip-all claims paid	0.00
2003	034097350	32751-54651-001	44.79 Inactive - uncollectible	0.00
2004	034097350	32751-54651-001	50.61 Inactive - uncollectible	0.00
2005	034097350	32751-54651-001	49.48 Inactive - uncollectible	0.00
2005	034097503	27394-54606-001	3,137.80 Inactive - uncollectible	596.89
2006	034100792	26152-54655-001	262.35 Inactive - uncollectible	0.00
2007	034100792	26152-54655-001	252.09 Inactive - uncollectible	0.00
2008	034100792	26152-54655-001	259.92 Inactive - uncollectible	0.00
2009	034100792	26152-54655-001	256.50 Inactive - uncollectible	0.00
2010	034100792	26152-54655-001	263.43 Inactive - uncollectible	0.00
2000	034102221	25351-54676-001	63.96 Inactive - uncollectible	0.00
2001	034102221	25351-54676-001	63.37 Inactive - uncollectible	0.00
2005	034102221	25351-54676-001	190.04 Inactive - uncollectible	0.00
2000	034103643	27371-54697-001	145.39 Bankruptcy-write-off per attorney	0.00
2002	034103643	27371-54697-001	110.46 Bankruptcy-write-off per attorney	0.00
2003	034103643	27371-54697-001	110.30 Bankruptcy-write-off per attorney	0.00
2005	034119043	25997-54743-001	585.72 Inactive - uncollectible	58.88
2004	034119345	25933-54771-001	134.56 Inactive - uncollectible	0.00
2005	034119345	25933-54771-001	119.59 Inactive - uncollectible	0.00
2005	034119574	27392-54893-001	6,141.54 Inactive - uncollectible	1,173.68
2004	034119876	28041-54784-001	126.50 Inactive - uncollectible	0.00
2005	034119876	28041-54784-001	124.89 Inactive - uncollectible	0.00
2001	034120785	84890-54790-001	2,501.29 Bankruptcy-write-off per attorney	312.69
2001	034122044	27371-54845-001	222.40 Inactive - uncollectible	0.00
2002	034122184	25411-54858-001	197.92 Inactive - uncollectible	0.00
2003	034122184	25411-54858-001	178.09 Inactive - uncollectible	0.00
2004	034122184	25411-54858-001	209.47 Inactive - uncollectible	0.00
2003	034122206	25992-54859-001	120.05 Inactive - uncollectible	0.00
2006	034122214	25812-54860-001	1,324.35 Inactive - uncollectible	224.20
2007	034122214	25812-54860-001	1,141.57 Inactive - uncollectible	179.96
2008	034122214	25812-54860-001	1,011.30 Inactive - uncollectible	148.31
2004	034122524	25732-54865-001	83.32 Inactive - uncollectible	0.00
2005	034122524	25732-54865-001	83.19 Inactive - uncollectible	0.00
2003	034122770	25812-54894-001	3,247.67 Inactive - uncollectible	442.09

2006	034122974	27371-54902-001	185.75 Inactive - uncollectible	0.00
2005	034123024	27231-45879-003	92.62 Bankruptcy-inactive-no assets	11.52
2003	034124152	27392-54965-001	515.02 Inactive - uncollectible	59.35
2003	034124195	25993-53957-005	337.51 Inactive - uncollectible	34.65
2004	034124195	25993-53957-005	273.49 Inactive - uncollectible	18.84
2004	034126686	25812-54986-001	254.45 Inactive - uncollectible	7.19
2005	034126686	25812-54986-001	206.19 Inactive - uncollectible	0.00
2007	034126686	25812-54986-001	170.87 Inactive - uncollectible	0.00
2008	034126686	25812-54986-001	153.59 Inactive - uncollectible	0.00
2009	034126686	25812-54986--001	135.15 Inactive - uncollectible	0.00
2003	034126694	28911-54987-001	92.01 Inactive - uncollectible	0.00
2003	034127488	27539-55022-001	54.14 Inactive - uncollectible	0.00
2004	034127488	27539-55022-001	63.18 Inactive - uncollectible	0.00
2005	034127488	27539-55022-001	53.91 Inactive - uncollectible	0.00
2006	034134981	27349-55143-001	229.22 Inactive - uncollectible	4.97
2003	034135219	27392-55219-001	385.15 Inactive - uncollectible	20.50
2005	034135383	27911-55207-001	187.06 Inactive - uncollectible	0.00
2004	034136207	27231-55322-001	102.57 Inactive - uncollectible	0.00
2001	034136428	28099-55233-001	91.01 Inactive - uncollectible	0.00
2002	034136428	28099-55233-001	108.59 Inactive - uncollectible	0.00
2003	034136428	28099-55233-001	99.87 Inactive - uncollectible	0.00
2004	034136428	28099-55233-001	116.59 Inactive - uncollectible	0.00
2006	034136428	28099-55233-001	117.15 Inactive - uncollectible	0.00
2007	034136428	28099-55233-001	111.89 Inactive - uncollectible	0.00
2008	034136428	28099-55233-001	115.91 Inactive - uncollectible	0.00
2006	034136746	27231-55301-001	53.99 Inactive - uncollectible	0.00
2003	034136754	27299-55254-001	39.29 Inactive - uncollectible	0.00
2005	034136771	27299-55236-001	51.33 Inactive - uncollectible	0.00
2001	034141120	26152-55342-001	403.81 Inactive - uncollectible	41.01
2004	034141120	26152-55342-001	385.17 Inactive - uncollectible	12.40
2006	034141120	26152-55342-001	325.73 Inactive - uncollectible	4.68
2007	034141120	26152-55342-001	296.70 Inactive - uncollectible	0.00
2002	034141260	27216-55361-001	695.52 Inactive - uncollectible	107.83
2003	034141260	27216-55361-001	906.70 Inactive - uncollectible	129.10
2004	034141260	27216-55361-001	799.99 Inactive - uncollectible	113.04
2005	034141260	27216-55361-001	744.96 Inactive - uncollectible	104.72
2006	034141260	27216-55361-001	662.39 Inactive - uncollectible	91.89
2007	034141260	27216-55361-001	624.72 Inactive - uncollectible	63.78
2008	034141260	27216-55361-001	587.36 Inactive - uncollectible	46.09
2009	034141260	27216-55361-001	513.83 Inactive - uncollectible	32.72
2006	034141651	27392-55393-001	419.78 Inactive - uncollectible	21.43
2009	034141651	27392-55393-001	322.76 Inactive - uncollectible	0.00
2004	034147390	25611-55577-001	58.70 Inactive - uncollectible	0.00

2003	034147411	25713-55573-001	79.59 Inactive - uncollectible	0.00
2005	034148400	26152-55576-001	81.19 Inactive - uncollectible	0.00
2003	034149139	27299-55514-001	89.05 Inactive - uncollectible	0.00
2001	034149252	27371-55483-001	844.36 Inactive - uncollectible	120.28
2002	034149252	27371-55483-001	542.25 Inactive - uncollectible	58.87
2003	034149252	27371-54483-001	331.22 Inactive - uncollectible	28.31
2004	034149252	27371-54483-001	237.44 Inactive - uncollectible	4.52
2005	034149252	27371-55483-001	184.42 Inactive - uncollectible	0.00
2006	034149252	27371-55483-001	169.21 Inactive - uncollectible	0.00
2007	034149252	27371-55483-001	159.87 Inactive - uncollectible	0.00
2008	034149252	27371-55483-001	152.13 Inactive - uncollectible	0.00
2009	034149252	27371-55483-001	140.06 Inactive - uncollectible	0.00
2010	034149252	27371-55483-001	121.80 Inactive - uncollectible	0.00
2004	034149384	27392-55441-001	62.82 Inactive - uncollectible	0.00
2005	034149392	27392-55445-001	157.09 Inactive - uncollectible	0.00
2004	034149708	27392-55564-001	131.48 Inactive - uncollectible	0.00
2003	034150412	26152-55612-001	243.21 Inactive - uncollectible	12.06
2004	034150412	26152-55612-001	192.15 Inactive - uncollectible	0.00
2005	034152237	25942-55655-001	170.61 Inactive - uncollectible	0.00
2006	034152237	25942-55655-001	147.61 Inactive - uncollectible	0.00
2002	034152270	27392-55666-001	807.88 Inactive - uncollectible	102.89
2003	034153438	27392-55692-001	1,723.16 Inactive - uncollectible	207.33
2005	034153497	26140-55699-001	108.18 Inactive - uncollectible	0.00
2007	034153497	26140-55699-001	102.24 Inactive - uncollectible	0.00
2008	034153497	26140-55699-001	105.94 Inactive - uncollectible	0.00
2003	034153543	27392-55702-001	1,997.90 Inactive - uncollectible	248.07
2003	034157654	25952-55746-001	171.42 Inactive - uncollectible	0.00
2004	034157654	25952-55746-001	193.69 Inactive - uncollectible	0.00
2006	034157654	25952-55746-001	188.87 Inactive - uncollectible	0.00
2004	034157719	25411-55753-001	107.63 Inactive - uncollectible	0.00
2005	034159614	26152-55787-001	917.97 Inactive - uncollectible	113.41
2006	034159614	26152-55787-001	825.98 Inactive - uncollectible	102.27
2006	034159789	26152-55796-001	1,151.70 Inactive - uncollectible	185.91
2007	034159789	26152-55796-001	795.94 Inactive - uncollectible	103.22
2005	034159959	27349-24423-003	1,146.79 Inactive - uncollectible	145.53
2003	034160361	27299-55810-001	194.48 Inactive - uncollectible	0.00
2004	034160361	27299-55810-001	236.84 Inactive - uncollectible	0.00
2003	034161031	27392-55843-001	162.89 Inactive - uncollectible	0.00
2001	034162275	27392-55206-002	152.76 Inactive - uncollectible	0.00
2004	034166068	27299-55891-001	1,140.54 Inactive - uncollectible	121.59
2003	034166238	28911-55880-001	141.28 Inactive - uncollectible	0.00
2003	034166459	25812-50789-007	396.33 Inactive - uncollectible	42.18
2003	034166955	27399-55926-001	87.86 Bankruptcy-inactive-no assets	3.43

2004	034166955	27399-55926-001	50.53 Bankruptcy-inactive-no assets	0.00
2005	034166955	27399-55926-001	101.44 Bankruptcy-inactive-no assets	0.00
2004	034167048	27392-55900-001	66.53 Inactive - uncollectible	0.00
2004	034167269	27399-26658-127	3,067.39 Bankruptcy-inactive-no assets	345.66
2005	034167340	27349-55933-001	681.32 Inactive - uncollectible	58.16
2001	034169610	27392-55980-001	224.92 Inactive - uncollectible	0.00
2005	034170049	27392-56003-001	102.27 Inactive - uncollectible	0.00
2001	034170294	84890-56034-001	2,540.65 Bankruptcy-final settlement	340.04
2002	034170294	84890-56034-001	2,559.17 Bankruptcy-final settlement	354.81
2003	034170294	84890-56034-001	2,695.38 Bankruptcy-final settlement	369.05
2003	034170308	27531-56033-001	548.23 Inactive - uncollectible	70.80
2002	034170341	27539-56029-001	51.06 Inactive - uncollectible	0.00
2002	034170375	25995-56026-001	206.23 Inactive - uncollectible	0.00
2003	034170375	25995-56026-001	72.87 Inactive - uncollectible	0.00
2004	034170375	25995-56026-001	70.20 Inactive - uncollectible	0.00
2005	034170375	25995-56026-001	64.66 Inactive - uncollectible	0.00
2006	034170375	25995-56026-001	55.29 Inactive - uncollectible	0.00
2007	034170375	25995-56026-001	53.18 Inactive - uncollectible	0.00
2003	034172424	27394-56052-001	227.10 Inactive-leased equipment	0.00
2002	034172726	27394-07520-074	1,165.51 Inactive-leased equipment	143.77
2002	034172734	27394-07520-075	1.11 Inactive-leased equipment	0.00
2003	034172734	27394-07520-075	0.67 Inactive-leased equipment	0.00
2003	034173447	27394-41699-033	235.94 Bankruptcy-leased equip-inactive-no assets	0.00
2004	034173889	27394-35267-022	1.13 Inactive-leased equipment	0.00
2005	034173927	25999-56068-001	159.09 Inactive - uncollectible	0.00
2002	034173978	27394-44901-028	92.85 Inactive-leased equipment	0.00
2003	034174320	27394-16963-299	1,104.21 Inactive-leased equipment	123.64
2003	034174401	27394-16963-307	63.87 Inactive-leased equipment	0.00
2000	034175318	27394-46916-345	339.02 Inactive-leased equipment	0.00
2001	034175423	27394-46916-350	207.36 Inactive-leased equipment	21.14
2002	034175423	27394-46916-350	152.86 Inactive-leased equipment	8.56
2003	034175423	27394-46916-350	110.31 Inactive-leased equipment	0.00
2000	034175458	27394-46916-352	316.56 Inactive-leased equipment	0.00
2000	034175491	27394-46916-355	176.33 Inactive-leased equipment	0.00
2000	034175521	27394-46916-358	151.97 Inactive-leased equipment	0.00
2003	034175920	27394-53243-020	61.44 Inactive-leased equipment	5.47
2001	034176900	27371-56080-001	863.27 Bankruptcy-inactive-no assets	134.12
2002	034176900	27371-56080-001	645.04 Bankruptcy-inactive-no assets	89.59
2003	034176900	27371-56080-001	477.52 Bankruptcy-inactive-no assets	61.05
2004	034176900	27371-56080-001	441.53 Bankruptcy-inactive-no assets	40.02
2005	034176900	27371-56080-001	351.43 Bankruptcy-inactive-no assets	25.43
2006	034176900	27371-56080-001	315.19 Bankruptcy-inactive-no assets	20.95
2007	034176900	27371-56080-001	271.03 Bankruptcy-inactive-no assets	0.00

2008	034176900	27371-56080-001	224.87 Bankruptcy-inactive-no assets	0.00
2009	034176900	27371-56080-001	206.79 Bankruptcy-inactive-no assets	0.00
2010	034176900	27371-56080-001	201.89 Bankruptcy-inactive-no assets	0.00
2011	034176900	27371-56080-001	183.45 Bankruptcy-inactive-no assets	0.00
2003	034177752	27394-42805-028	1,643.67 Inactive-leased equipment	200.92
2003	034178058	27394-35129-901	1,948.03 Inactive-leased equipment	326.79
2003	034178074	27394-35129-903	198.90 Inactive-leased equipment	8.45
2001	034178180	27394-35129-913	56.31 Inactive-leased equipment	0.00
2004	034178589	27394-35129-941	84.28 Inactive-leased equipment	15.10
2003	034178619	27394-35129-944	281.69 Inactive-leased equipment	3.51
2003	034179097	27394-35129-991	112.15 Inactive-leased equipment	0.00
2001	034179585	27394-56091-026	3,148.72 Inactive-leased equipment	459.42
2003	034179658	27394-56091-033	117.74 Inactive-leased equipment	0.00
2002	034179721	27394-56091-040	42.00 Inactive-leased equipment	0.00
2003	034179721	27394-56091-040	32.68 Inactive-leased equipment	0.00
2003	034180621	27394-56091-117	776.05 Inactive-leased equipment	66.73
2003	034180648	27394-56091-119	268.24 Inactive-leased equipment	10.79
2003	034180672	27394-56091-122	364.11 Inactive-leased equipment	34.35
2002	034180842	27394-56091-138	128.28 Inactive-leased equipment	0.00
2003	034180842	27394-56091-138	105.23 Inactive-leased equipment	0.00
2002	034181695	27394-31198-171	4.78 Inactive-leased equipment	0.00
2003	034181695	27394-31198-171	2.90 Inactive-leased equipment	0.00
2003	034184597	27394-22219-811	457.56 Inactive-leased equipment	31.56
2003	034185062	27394-57018-001	472.82 Inactive-leased equipment	30.13
2003	034185071	27394-57018-002	567.86 Inactive-leased equipment	60.96
2003	034186557	27394-53265-125	2,961.30 Inactive-leased equipment	529.99
2003	034186719	27394-53265-132	707.57 Inactive-leased equipment	66.66
2002	034187162	27394-26721-620	172.75 Bankruptcy-leased equip-all claims paid	0.00
2003	034187162	27394-26721-620	142.21 Bankruptcy-leased equip-all claims paid	0.00
2002	034187171	27394-26721-621	84.26 Bankruptcy-leased equip-all claims paid	0.00
2002	034187189	27394-26721-622	493.07 Bankruptcy-leased equip-all claims paid	38.02
2003	034187189	27394-26721-622	361.67 Bankruptcy-leased equip-all claims paid	18.14
2002	034187197	27394-26721-623	88.55 Bankruptcy-leased equip-all claims paid	0.00
2003	034187197	27394-26721-623	71.38 Bankruptcy-leased equip-all claims paid	0.00
2004	034187197	27394-26721-623	181.28 Bankruptcy-leased equip-all claims paid	0.00
2005	034187197	27394-26721-623	123.06 Bankruptcy-leased equip-all claims paid	0.00
2006	034187197	27394-26721-623	112.76 Bankruptcy-leased equip-all claims paid	0.00
2007	034187197	27394-26721-623	61.52 Bankruptcy-leased equip-all claims paid	0.00
2008	034187197	27394-26721-623	17.86 Bankruptcy-leased equip-all claims paid	0.00
2002	034187201	27394-26721-624	143.30 Bankruptcy-leased equip-all claims paid	0.00
2005	034187219	27394-26721-625	28.81 Bankruptcy-leased equip-all claims paid	0.00
2006	034187219	27394-26721-625	26.17 Bankruptcy-leased equip-all claims paid	0.00
2002	034187227	27394-26721-626	79.29 Bankruptcy-leased equip-all claims paid	0.00

2002	034187235	27394-26721-627	538.81 Bankruptcy-leased equip-all claims paid	67.42
2003	034187235	27394-26721-627	397.85 Bankruptcy-leased equip-all claims paid	40.62
2004	034187235	27394-26721-627	253.35 Bankruptcy-leased equip-all claims paid	13.11
2005	034187235	27394-26721-627	234.94 Bankruptcy-leased equip-all claims paid	9.54
2006	034187235	27394-26721-627	204.40 Bankruptcy-leased equip-all claims paid	4.40
2005	034187251	27394-26721-629	38.40 Bankruptcy-leased equip-all claims paid	0.00
2006	034187251	27394-26721-629	34.11 Bankruptcy-leased equip-all claims paid	0.00
2005	034187260	27394-26721-630	66.08 Bankruptcy-leased equip-all claims paid	0.00
2006	034187260	27394-26721-630	59.00 Bankruptcy-leased equip-all claims paid	0.00
2002	034187278	27394-26721-631	36.21 Bankruptcy-leased equip-all claims paid	0.00
2003	034187278	27394-26721-631	44.22 Bankruptcy-leased equip-all claims paid	0.00
2005	034187286	27394-26721-632	60.09 Bankruptcy-leased equip-all claims paid	0.00
2006	034187286	27394-26721-632	53.12 Bankruptcy-leased equip-all claims paid	0.00
2002	034187294	27394-26721-633	467.22 Bankruptcy-leased equip-all claims paid	46.99
2003	034187294	27394-26721-633	328.63 Bankruptcy-leased equip-all claims paid	24.99
2004	034187294	27394-26721-633	198.60 Bankruptcy-leased equip-all claims paid	2.58
2005	034187294	27394-26721-633	179.54 Bankruptcy-leased equip-all claims paid	0.00
2006	034187294	27394-26721-633	160.26 Bankruptcy-leased equip-all claims paid	0.00
2002	034187308	27394-26721-634	110.98 Bankruptcy-leased equip-all claims paid	0.00
2003	034187308	27394-26721-634	84.14 Bankruptcy-leased equip-all claims paid	0.00
2004	034187308	27394-26721-634	56.53 Bankruptcy-leased equip-all claims paid	0.00
2005	034187308	27394-26721-634	53.66 Bankruptcy-leased equip-all claims paid	0.00
2006	034187308	27394-26721-634	47.58 Bankruptcy-leased equip-all claims paid	0.00
2001	034187707	27394-57027-001	1,175.33 Bankruptcy-leased equip-inactive-no assets	181.65
2001	034187740	27394-57027-002	1,638.93 Bankruptcy-leased equip-inactive-no assets	259.11
2001	034187766	27394-57027-003	1,292.70 Bankruptcy-leased equip-inactive-no assets	214.16
2001	034187791	27394-57027-004	1,418.62 Bankruptcy-leased equip-inactive-no assets	220.22
2001	034187821	27394-57027-005	1,621.83 Bankruptcy-leased equip-inactive-no assets	244.30
2006	034187961	27394-00142-113	31.38 Inactive-leased equipment	0.00
2000	034188576	27394-48976-055	112.36 Inactive-leased equipment	0.00
2002	034188983	27394-52027-237	369.79 Inactive-leased equipment	0.00
2003	034188983	27394-52027-237	231.81 Inactive-leased equipment	0.00
2004	034189009	27394-52027-238	18.68 Inactive-leased equipment	0.00
2003	034189157	27394-52027-245	913.18 Inactive-leased equipment	106.51
2002	034189335	27394-52027-253	1.50 Inactive-leased equipment	0.00
2003	034189335	27394-52027-253	0.91 Inactive-leased equipment	0.00
2004	034189335	27394-52027-253	16.72 Inactive-leased equipment	0.00
2004	034189351	27394-52027-254	25.99 Inactive-leased equipment	0.00
2001	034189874	27394-22299-210	209.88 Leased Equipment issue	6.49
2001	034192042	27394-50291-017	1,797,955.71 Inactive-leased equipment	250,245.42
2003	034192204	27394-57037-002	1,898.07 Inactive-leased equipment	325.81
2004	034192204	27394-57037-002	1,212.58 Inactive-leased equipment	203.21
2002	034192701	25462-57046-001	783.44 Inactive - uncollectible	98.56

2003	034192701	25462-57046-001	114.66 Inactive - uncollectible	0.00
2004	034192701	25462-57046-001	831.54 Inactive - uncollectible	128.95
2005	034192701	25462-57046-001	767.74 Inactive - uncollectible	119.12
2006	034192701	25462-57046-001	718.81 Inactive - uncollectible	103.49
2007	034192701	25462-57046-001	660.80 Inactive - uncollectible	70.95
2004	034192891	27394-56073-002	84.50 Inactive-leased equipment	0.00
2000	034197150	27394-46916-385	145.60 Inactive-leased equipment	0.00
2000	034199560	27394-48976-061	793.82 Inactive-leased equipment	0.00
1999	034199578	27394-48976-062	239.89 Inactive-leased equipment	0.00
2000	034199578	27394-48976-062	217.70 Inactive-leased equipment	0.00
2001	034202285	27394-52010-131	160.15 Inactive-leased equipment	4.58
2001	034213741	27399-57059-001	493.64 Inactive - uncollectible	56.67
2003	034213741	27399-57059-001	168.27 Inactive - uncollectible	0.00
2001	034213937	27394-57027-006	7,238.70 Bankruptcy-leased-equip-inactive-no assets	1,140.71
2006	034224807	26152-53774-002	383.34 Inactive - uncollectible	19.01
2006	034224891	28011-58020-001	956.05 Inactive - uncollectible	100.12
2003	034224980	26145-58014-002	86.60 Inactive - uncollectible	0.00
2005	034225013	27392-58012-001	338.71 Inactive - uncollectible	17.55
2003	034225196	25713-57086-001	68.13 Bankruptcy-write-off per attorney	0.00
2003	034225200	26531-57096-001	176.19 Inactive - uncollectible	0.57
2004	034225315	25999-57085-001	114.55 Inactive - uncollectible	0.00
2005	034225315	25999-57085-001	92.13 Inactive - uncollectible	0.00
2002	034225323	25813-57084-001	206.23 Inactive - uncollectible	0.00
2003	034225323	25813-57084-001	173.20 Inactive - uncollectible	0.00
2004	034225323	25813-57084-001	191.68 Inactive - uncollectible	0.00
2005	034225323	25813-57084-001	191.35 Inactive - uncollectible	0.00
2006	034225323	25813-57084-001	190.83 Inactive - uncollectible	0.00
2007	034225323	25813-57084-001	192.76 Inactive - uncollectible	0.00
2008	034225323	25813-57084-001	218.44 Inactive - uncollectible	0.00
2003	034225412	27393-57072-001	69.61 Inactive - uncollectible	0.00
2003	034225471	25631-57078-001	281.74 Inactive - uncollectible	20.50
2004	034225471	25631-57078-001	319.34 Inactive - uncollectible	20.95
2005	034225471	25631-57078-001	312.75 Inactive - uncollectible	20.91
2005	034225595	84890-58032-001	217.06 Inactive - uncollectible	0.00
2006	034231102	25812-49044-003	314.71 Inactive - uncollectible	8.04
2003	034231277	28111-58080-001	444.33 Inactive - uncollectible	28.99
2004	034231331	27211-58094-001	171.33 Inactive - uncollectible	0.00
2005	034231331	27211-58094-001	156.13 Inactive - uncollectible	0.00
2003	034231374	25521-58096-001	230.51 Inactive - uncollectible	19.03
2005	034231404	25999-58098-001	3,445.01 Inactive - uncollectible	428.18
2004	034231463	27392-58097-001	3,808.44 Inactive - uncollectible	487.94
2005	034231463	27392-58097-001	2,331.13 Inactive - uncollectible	282.81
2003	034231676	25351-58145-001	69.61 Inactive - uncollectible	0.00

2005	034231811	27349-58157-001	1,402.93 Inactive - uncollectible	271.85
2006	034231811	27349-58157-001	1,426.79 Inactive - uncollectible	284.31
2007	034231811	27349-58157-001	1,318.59 Inactive - uncollectible	247.38
2002	034231935	27941-58123-001	1,581.16 Inactive - uncollectible	256.26
2003	034231935	27941-58123-001	1,668.43 Inactive - uncollectible	266.55
2003	034232001	28911-58128-001	755.19 Inactive - uncollectible	102.52
2004	034232001	28911-58128-001	845.05 Inactive - uncollectible	104.77
2006	034232028	25712-58172-001	200.92 Inactive - uncollectible	0.00
2003	034232583	27392-58204-001	226.75 Inactive - uncollectible	4.09
2004	034233296	25812-58226-001	619.04 Inactive - uncollectible	79.99
2005	034233296	25812-58226-001	1,237.57 Inactive - uncollectible	183.29
2006	034233296	25812-58226-001	911.27 Inactive - uncollectible	138.88
2005	034233474	84890-58213-001	433.18 Inactive - uncollectible	43.44
2006	034233474	84890-58213-001	269.18 Inactive - uncollectible	11.41
2007	034233474	84890-58213-001	159.58 Inactive - uncollectible	0.00
2004	034233644	26152-58253-001	226.65 Inactive - uncollectible	8.00
2005	034233644	26152-58253-001	354.31 Inactive - uncollectible	4.75
2006	034233644	26152-58263-001	308.46 Inactive - uncollectible	0.95
2004	034234110	25995-58345-001	126.50 Inactive - uncollectible	0.00
2004	034234187	26531-58316-001	83.58 Inactive - uncollectible	0.00
2003	034234756	27392-58283-001	1,187.74 Bankruptcy-inactive-no assets	164.02
2003	034235523	27539-58295-001	89.83 Inactive - uncollectible	0.00
2004	034235523	27539-58295-001	103.03 Inactive - uncollectible	0.00
2005	034235523	27539-58295-001	95.02 Inactive - uncollectible	0.00
2003	034235574	27539-58332-001	143.73 Inactive - uncollectible	0.00
2004	034235574	27539-58332-001	164.82 Inactive - uncollectible	0.00
2005	034236911	27349-58303-001	33.06 Inactive - uncollectible	0.00
2004	034238361	27393-58312-001	363.40 Inactive - uncollectible	42.52
2005	034238361	27393-58312-001	311.90 Inactive - uncollectible	38.20
2003	034238468	25221-58398-001	40.16 Inactive - uncollectible	0.00
2002	034238557	25732-58363-001	446.36 Inactive - uncollectible	39.42
2005	034238557	25732-58363-001	375.20 Inactive - uncollectible	41.82
2005	034238638	26152-58391-001	343.05 Inactive - uncollectible	20.91
2005	034238689	26159-58396-001	137.34 Inactive - uncollectible	0.00
2004	034238697	26161-58387-001	385.92 Inactive - uncollectible	42.04
2004	034238743	27349-58359-001	258.59 Inactive - uncollectible	17.33
2005	034238743	27349-58359-001	219.17 Inactive - uncollectible	14.00
2002	034238981	28011-58381-001	2,627.73 Inactive - uncollectible	387.29
2003	034238981	28011-58381-001	2,971.41 Inactive - uncollectible	431.80
2004	034239103	32590-58360-001	287.74 Inactive - uncollectible	22.52
2005	034239103	32590-58360-001	246.34 Inactive - uncollectible	19.15
2003	034239855	27392-58414-001	108.10 Inactive - uncollectible	0.00
2003	034242422	25812-58471-001	130.19 Inactive - uncollectible	0.00

2004	034242422	25812-58471-001	125.00 Inactive - uncollectible	0.00
2004	034242546	25999-58518-001	699.49 Inactive - uncollectible	103.15
2005	034242546	25999-58518-001	635.96 Inactive - uncollectible	93.01
2006	034242546	25999-58518-001	537.58 Inactive - uncollectible	76.46
2007	034242546	25999-58518-001	481.12 Inactive - uncollectible	45.32
2008	034242546	25999-58518-001	452.35 Inactive - uncollectible	30.51
2003	034242627	27231-58516-001	62.12 Inactive - uncollectible	0.00
2004	034242627	27231-58516-001	71.69 Inactive - uncollectible	0.00
2005	034242627	27231-59516-001	67.13 Inactive - uncollectible	0.00
2006	034242627	27231-59516-001	59.16 Inactive - uncollectible	0.00
2005	034242724	27392-58490-001	519.90 Inactive - uncollectible	31.93
2003	034242856	27539-58514-001	86.60 Inactive - uncollectible	0.00
2006	034242937	28011-58501-001	1,531.89 Inactive - uncollectible	320.06
2004	034242996	28099-58491-001	478.62 Inactive - uncollectible	45.45
2005	034242996	28099-58491-001	395.70 Inactive - uncollectible	29.88
2006	034242996	28099-58491-001	291.03 Inactive - uncollectible	13.64
2004	034247378	25411-58553-001	64.55 Inactive - uncollectible	0.00
2007	034247378	25411-58553-001	74.46 Inactive - uncollectible	0.00
2002	034247416	25813-49159-003	3,445.93 Bankruptcy-inactive-no assets	614.96
2003	034247416	25813-49159-003	6,300.35 Bankruptcy-inactive-no assets	1,160.32
2002	034248340	28911-58571-001	2,724.30 Inactive - uncollectible	551.92
2003	034248340	28911-58571-001	2,717.45 Inactive - uncollectible	574.09
2004	034248340	28911-58751-001	2,997.74 Inactive - uncollectible	586.72
2005	034248340	28911-58571-001	4,539.02 Inactive - uncollectible	585.50
2006	034248340	28911-58571-001	4,580.08 Inactive - uncollectible	612.37
2007	034248340	28911-58571-001	4,303.28 Inactive - uncollectible	556.59
2003	034248455	27539-51377-002	173.20 Inactive - uncollectible	0.00
2004	034248510	25441-58611-001	423.17 Inactive - uncollectible	44.46
2005	034248510	25441-58611-001	397.56 Inactive - uncollectible	39.39
2003	034248552	25719-16730-002	86.00 Inactive - uncollectible	0.00
2004	034248668	25992-58614-001	59.66 Inactive - uncollectible	0.00
2005	034248676	25995-58595-001	209.79 Inactive - uncollectible	3.19
2006	034250905	25812-37868-003	209.68 Inactive - uncollectible	0.13
2003	034250948	25812-58730-001	877.92 Inactive - uncollectible	82.01
2005	034250948	25812-58730-001	953.68 Inactive - uncollectible	83.65
2005	034250956	25952-58686-001	509.88 Inactive - uncollectible	28.33
2003	034251367	26720-58742-001	192.35 Inactive - uncollectible	0.00
2003	034251472	27231-58711-001	153.46 Inactive - uncollectible	0.00
2003	034251839	27371-58727-001	411.09 Inactive - uncollectible	25.03
2003	034252142	27941-58618-001	3,848.19 Inactive - uncollectible	694.10
2005	034252274	28041-58609-001	64.49 Inactive - uncollectible	0.00
2007	034252274	28041-58609-001	55.89 Inactive - uncollectible	0.00
2008	034252274	28041-58609-001	48.77 Inactive - uncollectible	0.00

2004	034253262	28041-58723-001	1,043.10 Inactive - uncollectible	158.96
2003	034254366	28111-58588-001	108.08 Inactive - uncollectible	0.00
2005	034254480	25351-58772-001	74.59 Inactive - uncollectible	0.00
2003	034255061	25541-03434-053	3,844.86 Inactive - uncollectible	825.26
2004	034255061	25541-03434-053	3,859.69 Inactive - uncollectible	767.75
2005	034255524	25813-58841-001	1,337.21 Inactive - uncollectible	167.28
2006	034255524	25813-58841-001	1,337.46 Inactive - uncollectible	174.97
2007	034255524	25813-58841-001	1,245.71 Inactive - uncollectible	144.31
2003	034255532	25995-58842-001	44.79 Inactive - uncollectible	0.00
2002	034255541	25999-53123-004	317.76 Bankruptcy-inactive-no assets	19.71
2003	034255699	27371-58805-001	333.47 Inactive - uncollectible	28.68
2005	034258582	28041-58845-001	782.65 Inactive - uncollectible	70.50
2004	034258604	28099-58803-001	93.19 Inactive - uncollectible	0.00
2003	034258728	27392-58816-001	480.33 Inactive - uncollectible	34.19
2003	034262601	25661-58913-001	69.28 Inactive - uncollectible	0.00
2004	034262601	25661-58913-001	78.29 Inactive - uncollectible	0.00
2005	034262601	25661-58913-001	76.57 Inactive - uncollectible	0.00
2004	034262610	25699-58907-001	95.82 Inactive - uncollectible	0.00
2003	034262636	25812-58849-001	101.54 Inactive - uncollectible	0.00
2003	034263942	26152-58869-001	111.07 Inactive - uncollectible	0.00
2004	034263942	26152-58869-001	255.15 Inactive - uncollectible	0.00
2003	034263985	26152-58954-001	176.48 Inactive - uncollectible	0.00
2004	034263985	26152-58954-001	216.72 Inactive - uncollectible	0.00
2004	034272089	27392-58884-001	2,461.12 Inactive - uncollectible	309.35
2005	034272089	27292-58884-001	1,919.66 Inactive - uncollectible	224.28
2006	034272089	27392-58884-001	1,394.41 Inactive - uncollectible	160.55
2004	034272518	27392-58987-001	193.94 Inactive - uncollectible	0.00
2002	034272551	27399-58877-001	201.61 Bankruptcy-write-off per attorney	0.00
2003	034272551	27399-58877-001	174.56 Bankruptcy-write-off per attorney	0.00
2004	034272551	27399-58877-001	161.25 Bankruptcy-write-off per attorney	0.00
2004	034272577	27539-58898-001	1,172.48 Inactive - uncollectible	195.35
2005	034272577	27539-58898-001	1,232.92 Inactive - uncollectible	211.26
2003	034272771	28011-58952-001	326.92 Inactive - uncollectible	32.60
2006	034273387	25351-59031-001	403.39 Inactive - uncollectible	21.88
2004	034273395	25351-59064-001	81.20 Inactive - uncollectible	0.00
2005	034276017	27399-59032-001	1,547.16 Inactive - uncollectible	241.19
2006	034276017	27399-59032-001	1,366.24 Inactive - uncollectible	217.51
2003	034276777	27231-59154-001	353.41 Inactive - uncollectible	19.99
2004	034276777	27231-59154-001	435.38 Inactive - uncollectible	20.95
2005	034276777	27231-59154-001	430.86 Inactive - uncollectible	20.91
2006	034276777	27231-59154-001	385.29 Inactive - uncollectible	21.88
2003	034281118	84721-59145-001	89.97 Inactive - uncollectible	0.00
2004	034281126	84890-22224-104	5,987.40 Inactive - uncollectible	796.26

2006	034281151	84890-59160-001	74.76 Inactive - uncollectible	0.00
2004	034281606	27392-59187-001	139.37 Inactive - uncollectible	0.00
2006	034281711	27393-59179-001	304.84 Inactive - uncollectible	0.00
2007	034281711	27393-59179-001	295.14 Inactive - uncollectible	0.00
2008	034281711	27393-59179-001	303.07 Inactive - uncollectible	0.00
2003	034281835	84890-59176-001	849.04 Bankruptcy-inactive-no assets	72.18
2004	034281835	84890-59176-001	817.00 Bankruptcy-inactive-no assets	64.58
2005	034281835	84890-59176-001	848.19 Bankruptcy-inactive-no assets	60.37
2002	034281967	27394-59211-001	42.75 Inactive-leased equipment	0.00
2003	034281967	27394-59211-001	42.13 Inactive-leased equipment	0.00
2004	034281967	27394-59211-001	31.20 Inactive-leased equipment	0.00
2005	034281967	27394-59211-001	24.64 Inactive-leased equipment	0.00
2006	034281967	27394-59211-001	20.18 Inactive-leased equipment	0.00
2003	034281975	25812-54315-002	311.51 Inactive - uncollectible	18.17
2003	034283218	61382-58965-001	139.41 Inactive - uncollectible	0.00
2004	034283218	61382-58965-001	170.20 Inactive - uncollectible	0.00
2005	034283218	61382-58965-001	172.01 Inactive - uncollectible	0.00
2004	034283838	25733-59243-001	784.35 Inactive - uncollectible	61.57
2005	034283838	25733-59243-001	642.72 Inactive - uncollectible	48.53
2006	034283838	25733-59243-001	353.09 Inactive - uncollectible	20.29
2007	034283838	25733-59243-001	409.30 Inactive - uncollectible	16.15
2008	034283838	25733-59243-001	344.44 Inactive - uncollectible	3.81
2009	034283838	25733-59243-001	264.33 Inactive - uncollectible	0.00
2010	034283838	25733-59243-001	200.42 Inactive - uncollectible	0.00
2011	034283838	25733-59243-001	166.78 Inactive - uncollectible	0.00
2012	034283838	25733-59243-001	137.52 Inactive - uncollectible	0.00
2003	034283871	26720-59254-002	315.44 Inactive - uncollectible	20.50
2004	034283897	27392-59245-001	156.82 Inactive - uncollectible	0.49
2005	034283951	27531-59256-001	177.62 Inactive - uncollectible	0.00
2006	034283951	27531-59256-001	145.80 Inactive - uncollectible	0.00
2006	034284061	27399-59258-001	5,337.63 Inactive - uncollectible	830.55
2007	034284061	27399-59258-001	5,266.96 Inactive - uncollectible	798.58
2003	034284699	26152-59275-001	385.15 Inactive - uncollectible	20.50
2004	034284761	27392-59268-001	69.90 Inactive - uncollectible	0.00
2005	034284770	27392-59271-001	287.14 Inactive - uncollectible	0.00
2002	034284991	27371-59288-001	362.20 Bankruptcy-write-off per attorney	19.71
2003	034284991	27371-59288-001	362.51 Bankruptcy-write-off per attorney	20.50
2002	034285121	27394-35197-025	2.76 Inactive-leased equipment	0.00
2003	034285121	27394-35197-025	1.82 Inactive-leased equipment	0.00
2004	034285521	26152-59311-001	1,721.09 Inactive - uncollectible	239.64
2001	034286161	27394-52010-137	259.53 Inactive-leased equipment	4.71
2001	034286284	27394-52027-262	109.80 Inactive-leased equipment	0.00
2001	034286314	27394-52027-265	215.79 Inactive-leased equipment	7.56

2001	034288171	27394-50531-053	481.80 Inactive-leased equipment	54.54
2001	034288643	27394-16089-392	657.84 Inactive-leased equipment	71.18
2003	034288767	26561-58097-002	533.88 Inactive - uncollectible	40.12
2005	034288767	26561-58097-002	485.14 Inactive - uncollectible	30.59
2003	034289003	27394-16963-325	39.91 Inactive-leased equipment	0.00
2003	034289020	27394-16963-327	31.64 Inactive-leased equipment	0.00
2003	034289071	27394-16963-332	857.07 Inactive-leased equipment	125.37
2003	034289208	27394-16963-340	459.89 Inactive-leased equipment	52.10
2004	034290559	27394-54589-041	10.06 Inactive-leased equipment	0.00
2003	034292101	27394-56091-187	202.67 Inactive-leased equipment	9.19
2001	034292128	27394-56091-189	685.04 Inactive-leased equipment	64.71
2003	034294724	27394-56091-212	200.09 Inactive-leased equipment	0.00
2001	034295241	27394-35223-065	396.98 Inactive-leased equipment	36.44
2001	034295461	27394-59373-004	463.59 Inactive-leased equipment	30.82
2001	034295488	27394-59373-005	140.35 Inactive-leased equipment	0.00
2001	034295534	27394-59373-009	1,611.57 Inactive-leased equipment	209.74
2000	034297847	27394-59385-027	510.38 Inactive-leased equipment	25.68
2001	034297847	27394-59385-027	393.53 Inactive-leased equipment	11.99
2004	034298991	27394-59389-001	135.79 Inactive-leased equipment	0.00
2004	034299173	27394-54625-005	48.88 Inactive-leased equipment	0.00
2005	034299173	27394-54625-005	23.57 Inactive-leased equipment	0.00
2002	034299564	27394-59385-063	0.26 Inactive-leased equipment	0.00
2003	034299815	27394-59392-003	1,177.29 Inactive-leased equipment	183.03
2001	034299963	27394-57003-024	92.27 Inactive-leased equipment	0.00
2000	034299971	27394-57003-025	150.86 Inactive-leased equipment	0.00
2001	034299971	27394-57003-025	134.27 Inactive-leased equipment	0.00
2004	034300261	27394-57003-039	34.95 Inactive-leased equipment	0.00
2000	034300309	27394-57003-041	448.32 Inactive-leased equipment	29.50
2001	034300309	27394-57003-041	352.12 Inactive-leased equipment	17.67
2002	034300759	27394-01829-697	1.94 Inactive-leased equipment	0.00
2003	034300759	27394-01829-697	1.99 Inactive-leased equipment	0.00
2001	034301348	27394-59395-002	291.86 Inactive-leased equipment	33.40
2005	034302671	27394-53216-064	72.02 Inactive-leased equipment	11.37
2006	034302671	27394-53216-064	39.65 Inactive-leased equipment	0.00
2006	034303227	27394-53216-093	55.77 Inactive-leased equipment	0.00
2006	034303316	27394-53216-098	10.84 Inactive-leased equipment	0.00
2000	034303596	27394-42453-781	1,827.45 Inactive-leased equipment	291.56
2001	034303596	27394-42453-781	1,614.98 Inactive-leased equipment	256.37
2004	034304134	27394-42453-806	1,040.17 Inactive-leased equipment	115.18
2005	034304169	27394-46916-391	130.05 Inactive-leased equipment	0.00
2003	034307958	27394-56091-311	24.65 Inactive-leased equipment	0.00
2004	034307958	27394-56091-311	14.93 Inactive-leased equipment	0.00
2002	034308245	27394-59211-002	49.91 Inactive-leased equipment	0.00

2003	034308245	27394-59211-002	42.10 Inactive-leased equipment	0.00
2004	034308245	27394-59211-002	41.92 Inactive-leased equipment	0.00
2005	034308245	27394-59211-002	39.22 Inactive-leased equipment	0.00
2006	034308245	27394-59211-002	27.72 Inactive-leased equipment	0.00
2002	034308253	27394-59211-003	69.54 Inactive-leased equipment	0.00
2003	034308253	27394-59211-003	58.02 Inactive-leased equipment	0.00
2004	034308253	27394-59211-003	47.50 Inactive-leased equipment	0.00
2005	034308253	27394-59211-003	42.96 Inactive-leased equipment	0.00
2006	034308253	27394-59211-003	32.07 Inactive-leased equipment	0.00
2002	034308261	27394-59211-004	60.41 Inactive-leased equipment	0.00
2003	034308261	27394-59211-004	51.52 Inactive-leased equipment	0.00
2004	034308261	27394-59211-004	41.68 Inactive-leased equipment	0.00
2005	034308261	27394-59211-004	38.34 Inactive-leased equipment	0.00
2006	034308261	27394-59211-004	27.46 Inactive-leased equipment	0.00
2002	034308270	27394-59211-005	37.76 Inactive-leased equipment	0.00
2003	034308270	27394-59211-005	33.07 Inactive-leased equipment	0.00
2004	034308270	27394-59211-005	26.56 Inactive-leased equipment	0.00
2005	034308270	27394-59211-005	24.35 Inactive-leased equipment	0.00
2006	034308270	27394-59211-005	17.78 Inactive-leased equipment	0.00
2002	034308377	27394-56091-318	1,297.64 Inactive-leased equipment	215.41
2003	034308971	27394-56091-457	205.04 Inactive-leased equipment	0.00
2003	034309977	27394-56091-363	134.87 Inactive-leased equipment	0.00
2003	034310134	27394-56091-388	484.37 Inactive-leased equipment	33.21
2001	034310177	27394-56091-390	199.71 Inactive-leased equipment	3.03
2001	034310789	27394-37177-017	192.41 Inactive-leased equipment	3.33
2000	034310843	27394-51938-014	162.33 Inactive-leased equipment	0.00
2003	034310916	27394-51938-021	1,195.67 Inactive-leased equipment	167.43
2003	034311424	27394-42805-034	1,018.27 Inactive-leased equipment	111.20
2000	034311441	27394-42805-035	8,758.99 Inactive-leased equipment	1,476.48
2001	034311441	27394-42805-035	7,759.94 Inactive-leased equipment	1,305.67
2003	034311513	27394-56052-002	55.95 Inactive-leased equipment	0.00
2006	034311700	27392-39825-002	508.19 Bankruptcy-inactive-no assets	52.46
2007	034311700	27392-39825-002	614.62 Bankruptcy-inactive-no assets	43.29
2001	034311718	27394-37289-006	4,493.36 Inactive-leased equipment	610.86
2003	034311718	27394-37289-006	4,011.15 Inactive-leased equipment	584.92
2000	034311742	27394-37289-007	3,368.17 Inactive-leased equipment	359.38
2001	034311742	27394-37289-007	3,051.04 Inactive-leased equipment	315.33
2003	034311742	27394-37289-007	2,438.13 Inactive-leased equipment	264.21
2004	034311742	27394-37289-007	2,278.79 Inactive-leased equipment	230.80
2000	034311751	27394-37289-008	1,911.49 Inactive-leased equipment	237.25
2001	034311751	27394-37289-008	1,519.96 Inactive-leased equipment	184.22
2003	034311751	27394-37289-008	1,172.21 Inactive-leased equipment	134.41
2004	034319425	27394-52027-307	164.99 Inactive-leased equipment	2.15

2004	034319433	27394-52027-308	67.74 Inactive-leased equipment	0.00
2001	034319450	27394-52027-310	3,266.03 Inactive-leased equipment	630.68
2004	034319468	27394-52027-311	19.20 Inactive-leased equipment	0.00
2001	034319484	27394-52027-313	44.12 Inactive-leased equipment	0.00
2004	034319484	27394-52027-313	11.42 Inactive-leased equipment	0.00
2000	034319492	27394-52027-314	93.95 Inactive-leased equipment	0.00
2001	034319492	27394-52027-314	55.17 Inactive-leased equipment	0.00
2001	034319573	27394-52027-315	334.67 Inactive-leased equipment	15.27
2004	034319573	27394-52027-315	80.69 Inactive-leased equipment	0.00
2004	034319611	27394-53891-037	93.75 Inactive-leased equipment	0.00
2000	034319654	27394-52027-317	354.17 Inactive-leased equipment	29.42
2001	034319654	27394-52027-317	200.42 Inactive-leased equipment	3.11
2003	034320288	27394-41699-035	1,127.66 Bankruptcy-leased equip-inactive-no assets	180.24
2004	034320296	27394-52027-325	6.19 Inactive-leased equipment	0.00
2003	034320300	27394-41699-036	47.18 Bankruptcy-leased equip-inactive-no assets	0.00
2003	034320326	27394-41699-037	27.64 Bankruptcy-leased equip-inactive-no assets	0.00
2001	034320334	27394-52027-327	150.91 Inactive-leased equipment	2.50
2003	034323392	27394-59383-004	25.19 Inactive-leased equipment	0.00
2003	034323457	27394-59383-005	24.50 Inactive-leased equipment	0.00
2001	034323511	27394-57014-003	316.91 Inactive-leased equipment	17.14
2004	034323767	27394-52027-332	17.06 Inactive-leased equipment	0.00
2001	034326065	27394-59373-015	113.98 Inactive-leased equipment	0.00
2001	034326081	27394-59373-017	237.14 Inactive-leased equipment	11.31
2001	034326138	27394-57040-023	130.92 Inactive-leased equipment	0.00
2001	034326146	27394-57040-024	1,535.00 Inactive-leased equipment	204.82
2005	034326499	27394-59457-001	521.46 Inactive-leased equipment	60.46
2006	034328459	32751-52901-002	12.01 Inactive - uncollectible	0.00
2007	034328459	32751-52901-002	13.96 Inactive - uncollectible	0.00
2000	034331689	27394-42453-845	154.57 Inactive-leased equipment	0.00
2001	034331689	27394-42453-845	114.86 Inactive-leased equipment	0.00
2000	034331816	27394-42453-849	153.27 Inactive-leased equipment	0.00
2001	034331824	27394-42453-850	142.62 Inactive-leased equipment	0.00
2004	034344144	27394-39784-031	85.52 Inactive-leased equipment	0.00
2001	034344187	27394-42453-853	83.47 Inactive-leased equipment	0.00
2003	034344209	28111-59607-001	64.85 Inactive - uncollectible	0.00
2001	034344233	27394-52010-151	430.05 Inactive-leased equipment	42.09
2002	034344241	27394-57003-047	15.43 Inactive-leased equipment	0.00
2002	034344250	27394-57003-048	14.24 Inactive-leased equipment	0.00
2002	034344268	27394-57003-049	49.26 Inactive-leased equipment	0.00
2002	034344276	27394-57003-050	59.37 Inactive-leased equipment	0.00
2003	034344306	27394-57003-053	47.77 Inactive-leased equipment	0.00
2002	034344314	27394-59404-014	219.87 Inactive-leased equipment	7.25
2004	034344373	27394-59467-001	162.56 Inactive-leased equipment	4.18

2005	034344454	25351-59498-001	172.01 Inactive - uncollectible	0.00
2003	034344489	25499-59556-001	169.31 Inactive - uncollectible	0.00
2004	034344489	25499-59556-001	179.54 Inactive - uncollectible	0.00
2005	034344489	25499-59556-001	172.42 Inactive - uncollectible	0.00
2003	034344501	25531-59518-001	91.44 Inactive - uncollectible	0.00
2003	034344578	25812-59481-001	289.10 Inactive - uncollectible	20.50
2004	034344578	25812-59481-001	209.47 Inactive - uncollectible	0.00
2003	034344624	25812-59499-001	400.10 Inactive - uncollectible	41.01
2003	034344713	25812-59557-001	93.35 Inactive - uncollectible	0.00
2004	034344713	25812-59557-001	100.41 Inactive - uncollectible	0.00
2005	034344713	25812-59557-001	98.01 Inactive - uncollectible	0.00
2006	034344713	25812-59557-001	74.50 Inactive - uncollectible	0.00
2003	034344811	25997-59575-001	76.99 Inactive - uncollectible	0.00
2004	034344811	25997-59575-001	97.15 Inactive - uncollectible	0.00
2005	034344811	25997-59575-001	95.43 Inactive - uncollectible	0.00
2006	034344811	25997-59575-001	94.27 Inactive - uncollectible	0.00
2007	034344811	25997-59575-001	92.11 Inactive - uncollectible	0.00
2003	034344985	28099-59585-001	42.06 Inactive - uncollectible	0.00
2003	034345108	25999-59601-001	76.99 Inactive - uncollectible	0.00
2003	034345132	26152-59469-001	97.83 Inactive - uncollectible	0.00
2003	034345221	26411-59479-001	300.26 Inactive - uncollectible	8.28
2004	034345272	32751-59582-001	513.89 Inactive - uncollectible	41.91
2003	034345434	84890-59509-001	1,101.17 Inactive - uncollectible	161.14
2004	034345434	84890-59509-001	890.95 Inactive - uncollectible	125.04
2005	034345574	27299-59519-001	981.78 Bankruptcy-inactive-no assets	114.45
2003	034345604	27299-59523-001	1,210.42 Inactive - uncollectible	164.02
2003	034345612	27392-59515-001	100.27 Inactive - uncollectible	0.00
2004	034345612	27392-59515-001	114.53 Inactive - uncollectible	0.00
2005	034345612	27392-59515-001	103.29 Inactive - uncollectible	0.00
2006	034345612	27392-59515-001	122.80 Inactive - uncollectible	0.00
2004	034345779	27392-59599-001	155.43 Inactive - uncollectible	0.00
2005	034345779	27392-59599-001	152.67 Inactive - uncollectible	0.00
2006	034345779	27392-59599-001	150.81 Inactive - uncollectible	0.00
2007	034345779	27392-59599-001	147.35 Inactive - uncollectible	0.00
2003	034345931	27531-59572-001	148.71 Inactive - uncollectible	0.00
2004	034345931	27531-59572-001	152.53 Inactive - uncollectible	0.00
2005	034345931	27531-59572-001	141.86 Inactive - uncollectible	0.00
2006	034345931	27535-59572-001	125.70 Inactive - uncollectible	0.00
2003	034346015	27531-59611-001	102.15 Bankruptcy-inactive-no assets	0.00
2004	034346015	27531-59611-001	142.31 Bankruptcy-inactive-no assets	0.00
2005	034346015	27531-59611-001	130.30 Bankruptcy-inactive-no assets	0.00
2006	034346015	27531-59611-001	131.70 Bankruptcy-inactive-no assets	0.00
2007	034346015	27531-59611-001	125.27 Bankruptcy-inactive-no assets	0.00
2008	034346015	27531-59611-001	124.36 Bankruptcy-inactive-no assets	0.00

2009	034346015	27531-59611-001	124.53 Bankruptcy-inactive-no assets	0.00
2010	034346015	27531-59611-001	125.60 Bankruptcy-inactive-no assets	0.00
2011	034346015	27531-59611-001	147.01 Bankruptcy-inactive-no assets	0.00
2006	034346023	33990-59612-001	2,153.87 Inactive - uncollectible	451.87
2007	034346023	33990-59612-001	1,236.77 Inactive - uncollectible	239.98
2008	034346023	33990-59612-001	1,149.67 Inactive - uncollectible	214.02
2009	034346023	33990-59612-001	1,051.27 Inactive - uncollectible	190.92
2003	034346031	27394-59625-001	63.63 Inactive-leased equipment	0.00
2004	034346031	27394-59625-001	49.28 Inactive-leased equipment	0.00
2003	034346040	27539-59613-001	112.15 Inactive - uncollectible	0.00
2009	034346104	25499-59620-001	375.45 Out of Business-agreement reached w/new owner	9.86
2004	034346309	26149-59675-001	139.90 Inactive - uncollectible	0.00
2004	034346341	27539-59669-001	97.89 Inactive - uncollectible	0.00
2005	034346341	27539-59669-001	95.67 Inactive - uncollectible	0.00
2006	034346341	27539-59669-001	95.44 Inactive - uncollectible	0.00
2007	034346341	27539-59669-001	96.40 Inactive - uncollectible	0.00
2008	034346341	27539-59669-001	109.25 Inactive - uncollectible	0.00
2003	034346431	25999-59655-001	452.15 Inactive - uncollectible	48.14
2003	034346503	26152-59644-001	405.43 Inactive - uncollectible	16.40
2005	034346511	27392-59643-001	201.57 Bankruptcy-inactive-no assets	0.00
2006	034346571	25411-59673-001	190.83 Inactive - uncollectible	0.00
2007	034346571	25411-59673-001	192.76 Inactive - uncollectible	0.00
2008	034346571	25411-59673-001	218.44 Inactive - uncollectible	0.00
2004	034347488	26159-59797-001	47.07 Inactive - uncollectible	0.00
2005	034347488	26159-59797-001	105.27 Inactive - uncollectible	0.00
2003	034347496	98661-59799-001	390.30 Inactive - uncollectible	41.01
2004	034347496	98661-59799-001	435.18 Inactive - uncollectible	41.91
2005	034347496	98661-59799-001	427.53 Inactive - uncollectible	41.82
2006	034347569	26161-59802-001	56.54 Inactive - uncollectible	0.00
2004	034347763	27932-59684-001	667.21 Bankruptcy-inactive-no assets	62.86
2005	034347763	27932-59684-001	660.07 Bankruptcy-inactive-no assets	62.73
2006	034347763	27932-59684-001	657.37 Bankruptcy-inactive-no assets	65.61
2003	034347771	25812-59683-001	2,908.79 Inactive - uncollectible	451.06
2003	034347798	26411-59688-001	100.38 Inactive - uncollectible	0.00
2004	034347798	26411-59688-001	18.47 Inactive - uncollectible	0.00
2005	034347798	26411-59688-001	124.89 Inactive - uncollectible	0.00
2006	034347798	26411-59688-001	123.60 Inactive - uncollectible	0.00
2005	034347810	26411-59689-001	76.34 Inactive - uncollectible	0.00
2008	034347810	26411-59689-001	73.45 Inactive - uncollectible	0.00
2005	034347844	27299-59677-001	133.97 Inactive - uncollectible	0.00
2005	034347852	25812-59692-001	76.57 Inactive - uncollectible	0.00
2006	034347852	25812-59692-001	76.33 Inactive - uncollectible	0.00
2003	034347917	27539-59703-001	71.87 Inactive - uncollectible	0.00
2003	034347984	27538-59709-001	133.87 Inactive - uncollectible	0.00

2005	034348026	27699-59717-001	65.17 Inactive - uncollectible	0.00
2003	034348042	25511-59720-001	42.06 Inactive - uncollectible	0.00
2003	034348069	26531-59724-001	187.47 Inactive - uncollectible	0.00
2006	034348158	25641-59755-001	196.72 Inactive - uncollectible	6.33
2007	034348158	25641-59755-001	174.55 Inactive - uncollectible	0.00
2004	034348239	25999-59753-001	125.18 Inactive - uncollectible	0.00
2004	034348280	27215-59732-001	97.15 Inactive - uncollectible	0.00
2005	034348280	27215-59732-001	95.43 Inactive - uncollectible	0.00
2004	034348433	27392-59747-001	48.15 Inactive - uncollectible	0.00
2006	034348611	27539-59776-001	40.02 Inactive - uncollectible	0.00
2003	034348697	28099-59828-001	1,858.39 Inactive - uncollectible	164.02
2004	034348697	28099-59828-001	1,956.36 Inactive - uncollectible	167.63
2005	034348697	28099-59828-001	1,961.40 Inactive - uncollectible	167.28
2006	034348697	28099-59828-001	1,960.83 Inactive - uncollectible	174.97
2007	034348697	28099-59828-001	1,787.53 Inactive - uncollectible	144.31
2008	034348697	28099-59828-001	1,821.86 Inactive - uncollectible	148.28
2003	034348719	28099-59834-001	289.10 Inactive - uncollectible	20.50
2004	034348719	28099-59834-001	288.65 Inactive - uncollectible	19.70
2003	034349146	25441-59862-001	86.60 Inactive - uncollectible	0.00
2005	034349162	25661-59867-001	63.14 Inactive - uncollectible	0.00
2003	034349171	25699-59863-001	59.76 Inactive - uncollectible	0.00
2004	034349171	25699-59863-001	45.18 Inactive - uncollectible	0.00
2006	034349642	25993-59864-001	104.41 Inactive - uncollectible	0.00
2008	034349642	25993-59864-001	126.74 Inactive - uncollectible	0.00
2003	034349651	25995-59904-001	152.60 Inactive - uncollectible	0.00
2003	034349685	25999-59852-001	177.01 Inactive - uncollectible	8.21
2008	034349685	25999-59852-001	103.95 Inactive - uncollectible	0.00
2003	034349723	25411-59950-001	76.99 Inactive - uncollectible	0.00
2004	034349723	25411-59950-001	97.15 Inactive - uncollectible	0.00
2005	034349723	25411-59950-001	95.43 Inactive - uncollectible	0.00
2005	034349731	25462-59953-001	41.58 Inactive - uncollectible	0.00
2006	034349731	25462-59953-001	95.44 Inactive - uncollectible	0.00
2003	034349758	25531-59940-001	136.11 Inactive - uncollectible	0.00
2005	034349774	25714-59934-001	119.70 Inactive - uncollectible	0.00
2004	034349804	25812-59935-001	1,186.18 Inactive - uncollectible	145.27
2005	034349804	25812-59935-001	1,127.88 Inactive - uncollectible	134.80
2005	034349812	25812-59946-001	747.73 Inactive - uncollectible	83.65
2003	034349839	25813-59943-001	232.22 Inactive - uncollectible	20.50
2005	034349928	26140-59905-001	2,509.75 Inactive - uncollectible	292.16
2003	034349944	26152-59906-001	129.64 Inactive - uncollectible	0.00
2004	034349944	26152-59906-001	162.28 Inactive - uncollectible	0.00
2005	034349944	26152-59906-001	160.09 Inactive - uncollectible	0.00
2003	034349979	26152-59937-001	161.94 Inactive - uncollectible	0.00
2004	034349979	26152-59937-001	190.13 Inactive - uncollectible	0.00

2005	034349979	26152-59937-001	152.43 Inactive - uncollectible	0.00
2006	034349979	26152-59937-001	151.10 Inactive - uncollectible	0.00
2007	034349979	26152-59937-001	143.50 Inactive - uncollectible	0.00
2008	034349979	26152-59937-001	149.37 Inactive - uncollectible	0.00
2005	034350080	27231-59842-001	190.83 Inactive - uncollectible	0.00
2006	034350080	27231-59842-001	188.51 Inactive - uncollectible	0.00
2007	034350080	27231-59842-001	184.18 Inactive - uncollectible	0.00
2008	034350080	27231-59842-001	183.67 Inactive - uncollectible	0.00
2003	034350110	27299-59841-001	67.43 Inactive - uncollectible	0.00
2005	034350349	25812-59982-001	1,361.77 Inactive - uncollectible	142.69
2003	034350357	25812-60017-001	230.13 Inactive - uncollectible	9.59
2003	034350381	25813-60014-001	173.20 Inactive - uncollectible	0.00
2003	034350454	26152-59983-001	299.36 Inactive - uncollectible	4.09
2004	034350683	26152-60064-001	90.14 Inactive - uncollectible	0.00
2003	034350861	27392-59915-001	134.69 Inactive - uncollectible	0.00
2003	034350934	27392-59941-001	42.06 Inactive - uncollectible	0.00
2005	034350942	27392-59955-001	105.92 Inactive - uncollectible	0.00
2004	034352864	28041-59991-001	61.47 Inactive - uncollectible	0.00
2003	034353232	27539-59944-001	89.83 Inactive - uncollectible	0.00
2004	034353364	27911-59942-001	69.93 Inactive - uncollectible	0.00
2005	034353364	27911-59942-001	65.17 Inactive - uncollectible	0.00
2003	034353534	27941-60059-001	46.20 Inactive - uncollectible	0.00
2003	034353828	25651-60072-001	178.09 Inactive - uncollectible	0.00
2004	034353925	25812-60075-001	70.98 Inactive - uncollectible	7.25
2005	034353925	25812-60075-001	1,544.17 Inactive - uncollectible	167.28
2004	034354174	25812-60131-001	572.63 Inactive - uncollectible	62.86
2005	034354174	25812-60131-001	524.78 Inactive - uncollectible	62.73
2005	034354441	25971-60074-001	73.23 Inactive - uncollectible	0.00
2006	034354441	25971-60074-001	138.92 Inactive - uncollectible	0.00
2003	034354506	26152-60084-001	268.27 Inactive - uncollectible	0.00
2003	034354808	27299-60073-001	178.09 Inactive - uncollectible	0.00
2004	034354808	27299-60073-001	209.47 Inactive - uncollectible	0.00
2003	034354832	27392-60067-001	94.20 Inactive - uncollectible	0.00
2003	034354867	27392-60077-001	124.97 Inactive - uncollectible	0.00
2003	034354891	27392-60083-001	268.27 Inactive - uncollectible	0.00
2003	034355081	27392-60092-001	205.12 Inactive - uncollectible	0.00
2003	034355162	27398-60117-001	55.28 Inactive - uncollectible	0.00
2003	034355189	27399-60098-001	121.24 Inactive - uncollectible	0.00
2003	034355235	28099-59860-001	281.74 Inactive - uncollectible	20.50
2004	034355235	28099-59860-001	319.34 Inactive - uncollectible	20.95
2004	034355448	28111-59924-001	61.47 Inactive - uncollectible	0.00
2003	034355553	28911-60078-001	486.80 Inactive - uncollectible	28.70
2003	034355600	28911-60106-001	46.09 Inactive - uncollectible	0.00
2006	034355677	98299-59936-001	208.79 Inactive - uncollectible	0.00

2007	034355677	98299-59936-001	199.00 Inactive - uncollectible	0.00
2008	034355677	98299-59936-001	235.48 Inactive - uncollectible	0.00
2003	034355880	26152-60144-001	281.74 Inactive - uncollectible	20.50
2004	034355880	26152-60144-001	1,190.97 Inactive - uncollectible	198.91
2005	034355880	26152-60144-001	852.80 Inactive - uncollectible	113.74
2006	034355880	26152-60144-001	620.32 Inactive - uncollectible	74.57
2004	034356878	25351-60195-001	118.83 Inactive - uncollectible	0.00
2003	034356941	25511-60208-001	330.65 Inactive - uncollectible	41.01
2003	034357076	27392-60274-001	220.24 Inactive - uncollectible	0.00
2003	034357084	25812-60200-001	227.79 Inactive - uncollectible	10.26
2003	034357149	27392-60304-001	46.20 Inactive - uncollectible	0.00
2004	034357165	25812-60256-001	288.65 Inactive - uncollectible	19.70
2005	034357165	25812-60256-001	341.53 Inactive - uncollectible	20.91
2004	034357190	27398-60176-001	147.13 Inactive - uncollectible	0.00
2005	034357190	27398-60176-001	143.84 Inactive - uncollectible	0.00
2003	034357351	27531-60264-001	69.28 Inactive - uncollectible	0.00
2003	034357378	27531-60271-001	281.74 Inactive - uncollectible	20.50
2004	034357424	27539-60260-001	136.73 Inactive - uncollectible	0.00
2005	034357459	27539-60261-001	312.75 Inactive - uncollectible	20.91
2004	034357483	25999-60152-001	71.30 Inactive - uncollectible	0.00
2003	034357696	26152-60185-001	216.14 Inactive - uncollectible	0.00
2003	034357823	26152-60240-001	71.68 Inactive - uncollectible	0.00
2004	034357823	26152-60240-001	97.89 Inactive - uncollectible	0.00
2005	034357823	26152-60240-001	95.67 Inactive - uncollectible	0.00
2006	034357823	26152-60240-001	95.44 Inactive - uncollectible	0.00
2007	034357823	26162-60240-001	99.51 Inactive - uncollectible	0.00
2003	034357912	26159-60231-001	275.30 Inactive - uncollectible	0.00
2004	034357912	26159-60231-001	333.12 Inactive - uncollectible	0.00
2003	034357939	28099-60226-001	607.41 Inactive - uncollectible	82.01
2003	034358030	32751-60161-001	400.10 Inactive - uncollectible	41.01
2004	034358030	32751-60161-001	459.14 Inactive - uncollectible	41.91
2003	034358048	32790-59858-001	1,041.60 Inactive - uncollectible	164.02
2004	034358048	32790-59858-001	1,080.17 Inactive - uncollectible	167.63
2003	034358854	26531-60254-001	178.09 Inactive - uncollectible	0.00
2004	034358854	26531-60254-001	209.47 Inactive - uncollectible	0.00
2005	034358854	26531-60254-001	460.88 Inactive - uncollectible	41.82
2006	034358854	26531-60254-001	459.73 Inactive - uncollectible	43.73
2007	034358854	26531-60254-001	476.03 Inactive - uncollectible	20.62
2008	034358854	26531-60254-001	489.17 Inactive - uncollectible	21.19
2003	034358943	27299-60275-001	44.84 Inactive - uncollectible	0.00
2005	034358960	27299-60301-001	386.32 Inactive - uncollectible	49.58
2007	034358960	27299-60301-001	380.11 Inactive - uncollectible	15.05
2006	034358978	27321-60232-001	71.66 Inactive - uncollectible	0.00
2007	034358978	27321-60232-001	74.77 Inactive - uncollectible	0.00

2006	034359486	27392-60267-001	261.28 Inactive - uncollectible	8.75
2007	034359486	27392-60267-001	207.63 Inactive - uncollectible	0.00
2003	034359532	26159-60359-001	690.20 Inactive - uncollectible	94.57
2004	034359532	26159-60359-001	280.02 Inactive - uncollectible	18.09
2005	034359532	26159-60359-001	188.05 Inactive - uncollectible	0.00
2003	034359745	27392-60373-001	142.48 Inactive - uncollectible	0.00
2003	034360042	32590-60378-001	173.20 Inactive - uncollectible	0.00
2004	034360352	27392-60205-001	87.70 Inactive - uncollectible	0.00
2003	034360476	27392-60223-001	80.71 Inactive - uncollectible	0.00
2003	034360891	28099-60410-001	281.74 Inactive - uncollectible	20.50
2004	034360891	28099-60410-001	319.34 Inactive - uncollectible	20.95
2006	034360891	28099-60410-001	313.08 Inactive - uncollectible	21.88
2007	034360891	28099-60410-001	289.16 Inactive - uncollectible	0.00
2003	034360921	25812-60409-001	54.16 Inactive - uncollectible	0.00
2003	034360930	27539-60408-001	88.24 Inactive - uncollectible	0.00
2003	034360956	27299-60407-001	86.60 Inactive - uncollectible	0.00
2004	034361146	27299-60403-001	161.26 Inactive - uncollectible	0.00
2005	034361146	27299-60403-001	167.53 Inactive - uncollectible	0.00
2003	034361171	25812-60434-001	82.91 Inactive - uncollectible	0.00
2003	034361464	25812-60436-001	2,176.14 Inactive - uncollectible	369.05
2003	034361472	25812-60438-001	325.18 Inactive - uncollectible	20.50
2004	034361502	27392-60461-001	53.47 Inactive - uncollectible	0.00
2005	034361537	27349-60464-001	232.95 Inactive - uncollectible	0.00
2006	034361553	25999-60433-001	145.24 Inactive - uncollectible	0.00
2007	034361553	25999-60433-001	138.43 Inactive - uncollectible	0.00
2010	034361553	25999-60433-001	167.20 Inactive - uncollectible	0.00
2011	034361553	25999-60433-001	177.80 Inactive - uncollectible	0.00
2003	034361596	26152-60420-001	89.05 Inactive - uncollectible	0.00
2004	034361596	26152-60420-001	104.75 Inactive - uncollectible	0.00
2003	034361618	26152-60424-001	44.51 Inactive - uncollectible	0.00
2004	034361804	27349-60455-001	101.20 Inactive - uncollectible	0.00
2005	034361855	27392-60440-001	339.64 Inactive - uncollectible	6.18
2006	034361855	27392-60440-001	245.50 Inactive - uncollectible	0.00
2003	034364251	28041-60471-001	498.85 Inactive - uncollectible	61.51
2006	034364251	28041-60471-001	534.82 Inactive - uncollectible	65.61
2005	034364404	28911-60442-001	4,327.39 Inactive - uncollectible	582.17
2006	034364404	28911-60442-001	3,960.49 Inactive - uncollectible	542.80
2007	034364404	28911-60442-001	165.06 Inactive - uncollectible	0.00
2008	034364404	28911-60442-001	158.24 Inactive - uncollectible	0.00
2004	034364749	25699-60543-001	278.75 Inactive - uncollectible	0.00
2005	034365052	26541-60490-001	455.55 Inactive - uncollectible	49.96
2006	034365052	26541-60490-001	359.78 Inactive - uncollectible	25.09
2006	034365222	27299-60488-001	239.71 Inactive - uncollectible	11.10
2003	034365231	27299-60497-001	1,122.05 Bankruptcy-inactive-no assets	123.01

2004	034365231	27299-60497-001	1,184.57 Bankruptcy-inactive-no assets	125.73
2005	034365231	27299-60497-001	1,172.36 Bankruptcy-inactive-no assets	125.47
2005	034366181	27392-60481-001	306.14 Bankruptcy-inactive-no assets	0.00
2003	034366199	27392-60489-001	80.45 Inactive - uncollectible	0.00
2004	034366199	27392-60489-001	80.40 Inactive - uncollectible	0.00
2003	034366296	27392-60514-001	178.09 Inactive - uncollectible	0.00
2006	034366326	27399-60501-001	257.15 Inactive - uncollectible	3.57
2007	034366326	27399-60501-001	243.62 Inactive - uncollectible	0.00
2008	034366326	27399-60501-001	204.26 Inactive - uncollectible	0.00
2009	034366326	27399-60501-001	171.66 Inactive - uncollectible	0.00
2003	034366831	26152-60547-001	213.54 Inactive - uncollectible	0.00
2004	034366831	26152-60547-001	195.83 Inactive - uncollectible	0.00
2005	034366831	26152-60547-001	160.80 Inactive - uncollectible	0.00
2004	034366849	26152-60553-001	163.94 Inactive - uncollectible	0.00
2004	034366903	26720-60584-001	226.64 Inactive - uncollectible	0.00
2003	034366938	27371-60551-001	52.36 Inactive - uncollectible	0.00
2004	034366938	27371-60551-001	106.20 Inactive - uncollectible	0.00
2003	034367195	27399-60579-001	797.45 Inactive - uncollectible	61.51
2004	034367195	27399-60579-001	877.67 Inactive - uncollectible	62.86
2004	034367233	27699-60573-001	3,355.24 Inactive - uncollectible	436.29
2005	034367233	27699-60573-001	2,465.10 Inactive - uncollectible	307.74
2003	034367276	28111-60549-001	1,100.21 Inactive - uncollectible	123.01
2004	034367721	25812-60623-001	647.86 Inactive - uncollectible	87.64
2005	034367721	25812-60623-001	518.52 Inactive - uncollectible	70.37
2006	034367721	25812-60623-001	507.36 Inactive - uncollectible	55.37
2007	034367721	25812-60623-001	453.95 Inactive - uncollectible	27.34
2008	034367721	25812-60623-001	402.99 Inactive - uncollectible	18.42
2003	034367730	25999-60605-001	299.34 Inactive - uncollectible	8.21
2005	034367829	27392-60617-001	747.72 Inactive - uncollectible	68.83
2006	034367829	27392-60617-001	725.24 Inactive - uncollectible	60.70
2005	034368124	84890-60615-001	232.24 Inactive - uncollectible	0.00
2006	034368124	84890-60615-001	219.70 Inactive - uncollectible	0.00
2007	034368124	84890-60615-001	203.55 Inactive - uncollectible	0.00
2008	034368124	84890-60615-001	188.12 Inactive - uncollectible	0.00
2003	034368141	98641-60622-001	422.06 Inactive - uncollectible	20.50
2003	034368167	98661-60606-001	50.03 Inactive - uncollectible	0.00
2003	034368795	27299-60627-001	53.43 Inactive - uncollectible	0.00
2003	034371222	27392-60652-001	730.38 Inactive - uncollectible	69.90
2004	034371419	25999-59711-001	136.31 Inactive - uncollectible	0.00
2005	034371419	25999-59711-001	126.89 Inactive - uncollectible	0.00
2006	034371419	25999-59711-001	107.67 Inactive - uncollectible	0.00
2007	034371419	25999-59711-001	111.16 Inactive - uncollectible	0.00
2008	034371419	25999-59711-001	98.12 Inactive - uncollectible	0.00
2004	034373993	25952-60683-001	302.17 Inactive - uncollectible	0.00

2004	034374043	26152-60701-001	116.97 Inactive - uncollectible	0.00
2005	034374043	26152-60701-001	118.79 Inactive - uncollectible	0.00
2006	034374051	26152-60703-001	173.41 Inactive - uncollectible	0.00
2003	034374175	27392-60685-001	524.49 Inactive - uncollectible	41.01
2004	034374205	27392-60712-001	135.50 Inactive - uncollectible	0.00
2004	034374213	27392-60713-001	0.90 Inactive - uncollectible	0.00
2003	034374230	27810-60692-001	524.49 Inactive - uncollectible	41.01
2004	034374230	27810-60692-001	592.26 Inactive - uncollectible	41.91
2005	034374370	32741-60700-001	89.31 Inactive - uncollectible	0.00
2006	034374370	32741-60700-001	64.93 Inactive - uncollectible	0.00
2007	034374370	32741-60700-001	67.34 Inactive - uncollectible	0.00
2008	034374370	32741-60700-001	64.66 Inactive - uncollectible	0.00
2003	034374400	84890-60698-001	97.24 Bankruptcy-inactive-no assets	0.00
2004	034374418	84890-60711-001	86.31 Inactive - uncollectible	0.00
2005	034374418	84890-60711-001	68.00 Inactive - uncollectible	0.00
2004	034374809	25812-60762-001	209.47 Inactive - uncollectible	0.00
2005	034374809	25812-60762-001	210.53 Inactive - uncollectible	0.00
2006	034374809	25812-60762-001	208.79 Inactive - uncollectible	0.00
2003	034374914	27392-60752-001	2,063.67 Inactive - uncollectible	266.55
2003	034374990	25999-60744-001	761.21 Inactive - uncollectible	61.51
2003	034375180	25971-60820-001	147.07 Inactive - uncollectible	0.00
2003	034375198	25996-12152-004	335.05 Inactive - uncollectible	20.50
2004	034375198	25996-12152-004	402.77 Inactive - uncollectible	20.95
2005	034375198	25996-12152-004	413.40 Inactive - uncollectible	20.91
2003	034375210	26140-60791-001	111.10 Inactive - uncollectible	0.00
2004	034375236	26152-60790-001	255.15 Inactive - uncollectible	0.00
2005	034375236	26152-60790-001	243.33 Inactive - uncollectible	0.00
2006	034375236	26152-60790-001	243.30 Inactive - uncollectible	0.00
2007	034375236	26152-60790-001	229.80 Inactive - uncollectible	0.00
2003	034375392	26152-60814-001	117.39 Inactive - uncollectible	0.00
2004	034375392	26152-60814-001	134.99 Inactive - uncollectible	0.00
2005	034375392	26152-60814-001	134.59 Inactive - uncollectible	0.00
2003	034375465	27299-60722-001	46.06 Inactive - uncollectible	0.00
2004	034375465	27299-60722-001	72.16 Inactive - uncollectible	0.00
2004	034375503	98299-60720-001	3,630.32 Bankruptcy-final settlement	389.89
2005	034375503	98299-60720-001	3,578.09 Bankruptcy-final settlement	376.05
2004	034375554	26411-60837-001	255.15 Inactive - uncollectible	0.00
2005	034375619	26541-60809-001	524.71 Inactive - uncollectible	51.24
2004	034375783	27311-60839-001	249.88 Inactive - uncollectible	0.00
2007	034375783	27311-60839-001	68.95 Inactive - uncollectible	0.00
2003	034375937	27392-60828-001	111.10 Inactive - uncollectible	0.00
2003	034376062	28111-60788-001	111.10 Inactive - uncollectible	0.00
2004	034376232	84721-60775-001	82.28 Inactive - uncollectible	0.00
2003	034376241	84890-60782-001	247.92 Inactive - uncollectible	0.00

2004	034376933	26152-60862-001	959.18 Inactive - uncollectible	100.59
2006	034377026	27299-60860-001	68.12 Inactive - uncollectible	0.00
2007	034377026	27299-60860-001	74.04 Inactive - uncollectible	0.00
2008	034377026	27299-60860-001	75.92 Inactive - uncollectible	0.00
2003	034377239	27371-60850-001	96.98 Inactive - uncollectible	0.00
2004	034377247	27392-48821-002	67.93 Bankruptcy-final settlement	2.12
2004	034377301	25813-60870-001	172.86 Inactive - uncollectible	0.00
2005	034377387	27392-60866-001	186.54 Inactive - uncollectible	0.00
2003	034377743	27392-60885-001	68.41 Inactive - uncollectible	0.00
2006	034377743	27392-60885-001	77.88 Inactive - uncollectible	0.00
2007	034377743	27392-60885-001	103.81 Inactive - uncollectible	0.00
2008	034377743	27392-60885-001	106.62 Inactive - uncollectible	0.00
2003	034378120	28111-60880-001	58.35 Inactive - uncollectible	0.00
2003	034382186	28072-60892-001	289.10 Inactive - uncollectible	20.50
2005	034382453	26152-60893-001	115.49 Inactive - uncollectible	0.00
2006	034386068	27394-60911-001	626.85 Inactive-leased equipment	68.02
2004	034389997	27348-53226-002	997.39 Inactive - uncollectible	62.86
2005	034389997	27348-53226-002	925.35 Inactive - uncollectible	62.73
2003	034390014	27348-55068-002	506.13 Inactive - uncollectible	20.50
2004	034390014	27348-55068-002	564.82 Inactive - uncollectible	20.95
2004	034390090	27348-60923-001	775.89 Inactive - uncollectible	62.86
2003	034390251	27394-41699-039	1,683.27 Bankruptcy-leased equip-inactive-no assets	343.67
2002	034390898	27394-60944-001	678.30 Inactive-leased equipment	92.38
2003	034390898	27394-60944-001	637.73 Inactive-leased equipment	84.29
2004	034390898	27394-60944-001	642.41 Inactive-leased equipment	75.19
2003	034391011	27394-41699-040	136.18 Bankruptcy-leased equip-inactive-no assets	0.00
2003	034391029	27394-41699-041	2,562.85 Bankruptcy-leased equip-inactive-no assets	427.23
2006	034391193	26152-51361-002	3,472.74 Bankruptcy-inactive-no assets	466.28
2003	034391240	84890-48693-006	60.54 Inactive - uncollectible	0.00
2004	034392009	27394-38798-041	3.13 Inactive-leased equipment	0.00
2003	034392793	27394-60954-001	862.54 Inactive-leased equipment	160.88
2004	034392793	27394-60954-001	830.86 Inactive-leased equipment	141.98
2004	034392858	27394-60950-005	168.35 Inactive-leased equipment	0.00
2006	034394532	27394-59382-109	61.20 Inactive-leased equipment	0.00
2006	034394583	27394-59382-114	74.36 Inactive - uncollectible	0.00
2005	034396373	25812-60988-001	309.24 Inactive - uncollectible	26.89
2003	034396900	27394-53265-155	1,072.08 Inactive-leased equipment	115.81
2004	034397001	27394-6099-0001	2,813.73 Inactive-leased equipment	591.10
2005	034397001	27394-60990-001	2,349.30 Inactive-leased equipment	527.22
2002	034397051	27394-24226-119	419.13 Inactive-leased equipment	45.05
2002	034397094	27394-24226-123	413.30 Inactive-leased equipment	22.24
2004	034397256	27299-54836-002	698.25 Bankruptcy-inactive-no assets	123.27
2005	034397256	27299-54836-002	643.01 Bankruptcy-inactive-no assets	111.19
2006	034397256	27299-54836-002	556.47 Bankruptcy-inactive-no assets	97.22

2007	034397256	27299-54836-002	567.71 Bankruptcy-inactive-no assets	70.50
2008	034397256	27299-54836-002	489.01 Bankruptcy-inactive-no assets	55.19
2003	034398759	27394-42453-868	111.42 Inactive-leased equipment	0.00
2003	034398899	27394-42453-870	84.14 Inactive-leased equipment	0.00
2003	034398902	27394-42453-871	3.28 Inactive-leased equipment	0.00
2003	034398911	27394-42453-872	51.64 Inactive-leased equipment	0.00
2003	034399119	27394-42453-876	114.16 Inactive-leased equipment	0.00
2003	034399135	27394-42453-878	1,183.48 Inactive-leased equipment	163.28
2003	034399143	27394-42453-879	51.37 Inactive-leased equipment	0.00
2003	034399186	27394-42453-881	268.16 Inactive-leased equipment	8.20
2002	034399429	27394-56091-490	616.47 Inactive-leased equipment	81.73
2001	034399755	27394-56091-521	145.39 Inactive-leased equipment	0.00
2002	034399755	37394-56091-521	104.98 Inactive-leased equipment	0.00
2005	034402641	27394-26721-635	90.66 Bankruptcy-leased equip-all claims paid	0.00
2006	034402641	27394-26721-635	81.83 Bankruptcy-leased equip-all claims paid	0.00
2003	034402659	27394-26721-636	32.11 Bankruptcy-leased equip-all claims paid	0.00
2002	034402667	27394-26721-637	23.42 Bankruptcy-leased equip-all claims paid	0.00
2003	034402667	27394-26721-637	12.75 Bankruptcy-leased equip-all claims paid	0.00
2004	034402667	27394-26721-637	13.28 Bankruptcy-leased equip-all claims paid	0.00
2005	034402667	27394-26721-637	9.52 Bankruptcy-leased equip-all claims paid	0.00
2006	034402667	27394-26721-637	8.43 Bankruptcy-leased equip-all claims paid	0.00
2005	034402675	27394-26721-638	349.66 Bankruptcy-leased equip-all claims paid	30.62
2006	034402675	27394-26721-638	305.04 Bankruptcy-leased equip-all claims paid	23.63
2002	034402683	27394-26721-639	80.38 Bankruptcy-leased equip-all claims paid	0.00
2003	034402683	27394-26721-639	60.92 Bankruptcy-leased equip-all claims paid	0.00
2004	034402683	27394-26721-639	42.84 Bankruptcy-leased equip-all claims paid	0.00
2005	034402683	27394-26721-639	29.26 Bankruptcy-leased equip-all claims paid	0.00
2006	034402683	27394-26721-639	26.32 Bankruptcy-leased equip-all claims paid	0.00
2002	034402705	27394-26721-641	103.26 Bankruptcy-leased equip-all claims paid	0.00
2003	034402705	27394-26721-641	83.52 Bankruptcy-leased equip-all claims paid	0.00
2004	034402705	27394-26721-641	61.55 Bankruptcy-leased equip-all claims paid	0.00
2005	034402705	27394-26721-641	42.93 Bankruptcy-leased equip-all claims paid	0.00
2006	034402705	27394-26721-641	38.82 Bankruptcy-leased equip-all claims paid	0.00
2003	034402713	27394-26721-642	88.76 Bankruptcy-leased equip-all claims paid	0.00
2004	034402713	27394-26721-642	65.19 Bankruptcy-leased equip-all claims paid	0.00
2005	034402713	27394-26721-642	42.43 Bankruptcy-leased equip-all claims paid	0.00
2006	034402713	27394-26721-642	31.86 Bankruptcy-leased equip-all claims paid	0.00
2005	034402721	27394-26721-643	203.71 Bankruptcy-leased equip-all claims paid	0.00
2006	034402721	27394-26721-643	178.51 Bankruptcy-leased equip-all claims paid	0.00
2007	034402721	27394-26721-643	120.06 Bankruptcy-leased equip-all claims paid	0.00
2008	034402721	27394-26721-643	29.23 Bankruptcy-leased equip-all claims paid	0.00
2003	034402730	27394-26721-644	58.44 Bankruptcy-leased equip-all claims paid	0.00
2004	034402730	27394-26721-644	42.49 Bankruptcy-leased equip-all claims paid	0.00
2005	034402730	27394-26721-644	30.13 Bankruptcy-leased equip-all claims paid	0.00

2006	034402730	27394-26721-644	27.64 Bankruptcy-leased equip-all claims paid	0.00
2001	034402748	27394-26721-645	19.39 Bankruptcy-leased equip-all claims paid	0.00
2002	034402748	27394-26721-645	15.77 Bankruptcy-leased equip-all claims paid	0.00
2003	034402748	27394-26721-645	11.85 Bankruptcy-leased equip-all claims paid	0.00
2004	034402748	27394-26721-645	8.33 Bankruptcy-leased equip-all claims paid	0.00
2005	034402748	27394-26721-645	8.24 Bankruptcy-leased equip-all claims paid	0.00
2006	034402748	27394-26721-645	6.67 Bankruptcy-leased equip-all claims paid	0.00
2002	034402756	27394-26721-646	172.84 Bankruptcy-leased equip-all claims paid	0.00
2003	034402756	27394-26721-646	147.98 Bankruptcy-leased equip-all claims paid	0.00
2004	034402756	27394-26721-646	107.60 Bankruptcy-leased equip-all claims paid	0.00
2005	034402756	27394-26721-646	76.20 Bankruptcy-leased equip-all claims paid	0.00
2006	034402756	27394-26721-646	71.30 Bankruptcy-leased equip-all claims paid	0.00
2002	034402764	27394-26721-647	102.94 Bankruptcy-leased equip-all claims paid	0.00
2003	034402764	27394-26721-647	85.62 Bankruptcy-leased equip-all claims paid	0.00
2004	034402764	27394-26721-647	65.32 Bankruptcy-leased equip-all claims paid	0.00
2005	034402764	27394-26721-647	46.07 Bankruptcy-leased equip-all claims paid	0.00
2006	034402764	27394-26721-647	41.16 Bankruptcy-leased equip-all claims paid	0.00
2002	034402781	27394-26721-649	86.93 Bankruptcy-leased equip-all claims paid	0.00
2003	034402781	27394-26721-649	71.60 Bankruptcy-leased equip-all claims paid	0.00
2004	034402781	27394-26721-649	55.08 Bankruptcy-leased equip-all claims paid	0.00
2002	034402829	27394-26721-650	125.62 Bankruptcy-leased equip-all claims paid	0.00
2003	034402829	27394-26721-650	98.47 Bankruptcy-leased equip-all claims paid	0.00
2004	034402829	27394-26721-650	77.49 Bankruptcy-leased equip-all claims paid	0.00
2005	034402837	27394-26721-651	33.86 Bankruptcy-leased equip-all claims paid	0.00
2006	034402837	27394-26721-651	30.90 Bankruptcy-leased equip-all claims paid	0.00
2003	034402845	27394-26721-652	112.28 Bankruptcy-leased equip-all claims paid	0.00
2002	034402853	27394-26721-653	280.47 Bankruptcy-leased equip-all claims paid	15.58
2003	034402853	27394-26721-653	221.52 Bankruptcy-leased equip-all claims paid	3.64
2004	034402853	27394-26721-653	158.68 Bankruptcy-leased equip-all claims paid	0.00
2005	034402853	27394-26721-653	111.47 Bankruptcy-leased equip-all claims paid	0.00
2006	034402853	27394-26721-653	100.45 Bankruptcy-leased equip-all claims paid	0.00
2001	034402870	27394-26721-655	30.01 Bankruptcy-leased equip-all claims paid	0.00
2002	034402870	27394-26721-655	23.28 Bankruptcy-leased equip-all claims paid	0.00
2003	034402870	27394-26721-655	17.92 Bankruptcy-leased equip-all claims paid	0.00
2004	034402870	27394-26721-655	3.79 Bankruptcy-leased equip-all claims paid	0.00
2002	034402896	27394-26721-657	144.14 Bankruptcy-leased equip-all claims paid	0.00
2003	034402896	27394-26721-657	114.27 Bankruptcy-leased equip-all claims paid	0.00
2002	034402900	27394-26721-658	120.47 Bankruptcy-leased equip-all claims paid	0.00
2003	034402900	27394-26721-658	97.64 Bankruptcy-leased equip-all claims paid	0.00
2004	034402900	27394-26721-658	71.62 Bankruptcy-leased equip-all claims paid	0.00
2005	034402900	27394-26721-658	49.87 Bankruptcy-leased equip-all claims paid	0.00
2006	034402900	27394-26721-658	45.09 Bankruptcy-leased equip-all claims paid	0.00
2005	034403001	27394-26721-659	47.82 Bankruptcy-leased equip-all claims paid	0.00
2006	034403001	27394-26721-659	43.73 Bankruptcy-leased equip-all claims paid	0.00

2002	034403035	27394-26721-660	69.74 Bankruptcy-leased equip-all claims paid	1.87
2003	034403035	27394-26721-660	278.76 Bankruptcy-leased equip-all claims paid	6.07
2004	034403035	27394-26721-660	199.79 Bankruptcy-leased equip-all claims paid	0.00
2005	034403035	27394-26721-660	79.76 Bankruptcy-leased equip-all claims paid	0.00
2006	034403035	27394-26721-660	73.40 Bankruptcy-leased equip-all claims paid	0.00
2004	034403761	32820-55688-001	8,842.80 Bankruptcy-inactive-no assets	1,031.04
2005	034403761	32820-55688-001	21,885.92 Bankruptcy-inactive-no assets	2,451.95
2006	034403761	32820-55688-001	18,365.39 Bankruptcy-inactive-no assets	2,153.27
2002	034404694	27394-22299-442	83.06 Inactive-leased equipment	0.00
2003	034404961	27394-61000-001	154.30 Inactive-leased equipment	29.13
2001	034404988	27394-61002-001	2,577.17 Inactive-leased equipment	297.86
2002	034404988	27394-61002-001	2,347.01 Inactive-leased equipment	274.15
2003	034404988	27394-61002-001	2,180.14 Inactive-leased equipment	251.16
2005	034405143	27348-24423-004	321.84 Inactive - uncollectible	0.00
2003	034405151	27348-60670-001	846.21 Inactive - uncollectible	61.51
2004	034405151	27348-60670-001	911.29 Inactive - uncollectible	62.86
2002	034406077	27394-58034-006	108.22 Inactive-leased equipment	0.00
2002	034406093	27394-58034-008	145.16 Inactive-leased equipment	0.00
2002	034406158	27394-22446-035	1,252.67 Inactive-leased equipment	159.98
2002	034406590	27394-52010-157	231.77 Inactive-leased equipment	20.19
2004	034406921	27394-46924-113	4.96 Inactive-leased equipment	0.00
2005	034406921	27394-46924-113	8.78 Inactive-leased equipment	0.00
2002	034407413	27394-46916-480	313.84 Inactive-leased equipment	23.92
2003	034407421	27394-46916-482	224.85 Inactive-leased equipment	0.00
2003	034407472	27394-46916-485	103.35 Inactive-leased equipment	0.00
2003	034407545	27394-46916-491	249.73 Inactive-leased equipment	1.10
2003	034407553	27394-46916-492	763.74 Inactive-leased equipment	115.14
2003	034407570	27394-46916-494	79.69 Inactive-leased equipment	0.00
2003	034407626	27394-46916-499	31.17 Inactive-leased equipment	0.00
2003	034407669	27394-46916-503	224.32 Inactive-leased equipment	0.00
2003	034407740	27394-46916-510	38.76 Inactive-leased equipment	0.00
2003	034407766	27394-46916-512	32.26 Inactive-leased equipment	0.00
2003	034407774	27394-46916-513	19.52 Inactive-leased equipment	0.00
2001	034407855	27394-46916-519	879.27 Inactive-leased equipment	104.92
2002	034407855	27394-46916-519	816.41 Inactive-leased equipment	98.03
2003	034407863	27394-46916-520	37.84 Inactive-leased equipment	0.00
2002	034407928	27394-46916-526	10,183.77 Inactive-leased equipment	1,840.76
2005	034407952	27394-46916-529	220.06 Inactive-leased equipment	0.00
2003	034407987	27394-46916-532	5.98 Inactive-leased equipment	0.00
2003	034407995	27394-46916-533	7.59 Inactive-leased equipment	0.00
2003	034408011	27394-46916-535	38.23 Inactive-leased equipment	0.00
2003	034408037	27394-46916-537	36.52 Inactive-leased equipment	0.00
2003	034408088	27394-46916-542	53.75 Inactive-leased equipment	0.00
2003	034408100	27394-46916-544	60.08 Inactive-leased equipment	0.00

2002	034408142	27394-46916-548	150.22 Inactive-leased equipment	0.00
2003	034408142	27394-46916-548	118.92 Inactive-leased equipment	0.00
2003	034408169	27394-46916-550	25.78 Inactive-leased equipment	0.00
2004	034408398	27394-61011-001	1,458.48 Inactive-leased equipment	206.67
2005	034408738	27394-16963-348	57.01 Inactive-leased equipment	0.00
2002	034408746	27394-16963-349	270.02 Inactive-leased equipment	16.69
2001	034408762	27394-16963-351	208.47 Inactive-leased equipment	0.00
2002	034408762	27394-16963-351	197.69 Inactive-leased equipment	0.00
2003	034408771	27394-16963-352	216.77 Inactive-leased equipment	3.25
2002	034409009	27394-16963-360	74.17 Inactive-leased equipment	0.00
2002	034409238	27394-59406-004	157.42 Inactive-leased equipment	0.00
2003	034409238	27394-59406-004	406.36 Inactive-leased equipment	39.60
2003	034409262	27394-59406-005	660.53 Inactive-leased equipment	49.29
2002	034422374	27394-07520-114	357.41 Inactive-leased equipment	47.62
2004	034422633	27394-54585-016	3.42 Inactive-leased equipment	0.00
2003	034422714	26050-55953-005	100.24 Inactive - uncollectible	0.00
2002	034422803	27394-40388-091	4,112.44 Inactive-leased equipment	671.29
2006	034423354	27394-51938-043	94.77 Inactive-leased equipment	0.00
2002	034423460	27394-42805-040	5,113.88 Inactive-leased equipment	887.31
2003	034423460	27394-42805-040	4,758.97 Inactive-leased equipment	839.95
2001	034423478	27394-42805-041	824.63 Inactive-leased equipment	111.20
2002	034423478	27394-42805-041	776.62 Inactive-leased equipment	104.08
2002	034423494	27394-22446-040	740.99 Inactive-leased equipment	86.15
2001	034423567	27394-26721-661	20.71 Bankruptcy-leased equip-all claims paid	0.00
2002	034423567	27394-26721-661	16.08 Bankruptcy-leased equip-all claims paid	0.00
2003	034423567	27394-26721-661	11.34 Bankruptcy-leased equip-all claims paid	0.00
2004	034423567	27394-26721-661	7.63 Bankruptcy-leased equip-all claims paid	0.00
2003	034423591	27394-26721-663	438.41 Bankruptcy-leased equip-all claims paid	28.88
2004	034423591	27394-26721-663	815.33 Bankruptcy-leased equip-all claims paid	77.36
2005	034423591	27394-26721-663	455.00 Bankruptcy-leased equip-all claims paid	27.63
2006	034423591	27394-26721-663	397.02 Bankruptcy-leased equip-all claims paid	21.39
2004	034424563	27394-39784-034	80.58 Inactive-leased equipment	0.00
2004	034424571	27394-39784-035	10.48 Inactive-leased equipment	0.00
2004	034424580	27394-39784-036	201.41 Inactive-leased equipment	0.00
2001	034424644	27394-26721-662	1,502.85 Bankruptcy-leased equip-all claims paid	307.38
2002	034424644	27394-26721-662	1,189.18 Bankruptcy-leased equip-all claims paid	241.68
2003	034424644	27394-26721-662	882.81 Bankruptcy-leased equip-all claims paid	173.71
2004	034424644	27394-26721-662	643.05 Bankruptcy-leased equip-all claims paid	102.84
2002	034424652	27394-26721-664	219.92 Bankruptcy-leased equip-all claims paid	17.61
2003	034424652	27394-26721-664	164.23 Bankruptcy-leased equip-all claims paid	5.30
2005	034424661	27394-26721-665	69.43 Bankruptcy-leased equip-all claims paid	0.00
2006	034424661	27394-26721-665	53.20 Bankruptcy-leased equip-all claims paid	0.00
2004	034424792	27394-56091-674	136.82 Inactive-leased equipment	0.00
2003	034424997	27394-26721-666	164.23 Bankruptcy-leased equip-all claims paid	5.30

2002	034426205	27394-61048-001	851.13 Inactive-leased equipment	119.47
2003	034426205	27394-61048-001	678.52 Inactive-leased equipment	95.44
2004	034426205	27394-61048-001	524.61 Inactive-leased equipment	69.12
2005	034426205	27394-61048-001	449.32 Inactive-leased equipment	46.11
2001	034426221	27394-61048-002	957.51 Inactive-leased equipment	138.43
2002	034426221	27394-61048-002	692.56 Inactive-leased equipment	96.05
2003	034426221	27394-61048-002	469.70 Inactive-leased equipment	59.61
2004	034426221	27394-61048-002	278.53 Inactive-leased equipment	23.81
2005	034426221	27394-61048-002	210.22 Inactive-leased equipment	13.99
2003	034426248	27394-32375-002	733.28 Inactive-leased equipment	72.46
2001	034427716	27394-52027-352	46.87 Inactive-leased equipment	0.00
2002	034427716	27394-52027-352	47.86 Inactive-leased equipment	0.00
2004	034427716	27394-52027-352	53.35 Inactive-leased equipment	0.00
2003	034427732	27394-60960-065	85.21 Inactive-leased equipment	0.00
2002	034427902	27394-56091-676	1,110.27 Inactive-leased equipment	172.43
2002	034428062	27394-42453-890	367.32 Inactive-leased equipment	30.39
2004	034428062	27394-42453-890	65.00 Inactive-leased equipment	0.00
2003	034428241	27394-60960-056	171.02 Inactive-leased equipment	0.00
2002	034428259	27394-60960-057	355.92 Inactive-leased equipment	25.74
2003	034428259	27394-60960-057	258.63 Inactive-leased equipment	8.77
2001	034428305	27394-42805-037	6,729.95 Inactive-leased equipment	1,410.66
2002	034428305	27394-42805-037	6,264.52 Inactive-leased equipment	1,333.36
2003	034428305	27394-42805-037	5,721.82 Inactive-leased equipment	1,243.26
2003	034428321	27394-60960-058	783.43 Inactive-leased equipment	107.53
2003	034428348	27394-60960-060	88.68 Inactive-leased equipment	0.00
2003	034428356	27394-60960-061	157.03 Inactive-leased equipment	0.60
2003	034428721	27394-16963-363	957.73 Inactive-leased equipment	117.80
2003	034432329	27392-61028-001	4,396.16 Inactive - uncollectible	779.11
2002	034432574	27394-50780-059	66.16 Inactive-leased equipment	0.00
2004	034443045	27231-62055-001	572.63 Inactive - uncollectible	62.86
2005	034443045	27231-62055-001	574.78 Inactive - uncollectible	62.73
2005	034443355	28931-61070-001	68.45 Inactive - uncollectible	0.00
2004	034443461	25812-61078-001	3,223.28 Inactive - uncollectible	425.96
2005	034443461	25812-61078-001	3,198.82 Inactive - uncollectible	398.43
2005	034443550	27371-61086-001	912.78 Bankruptcy-inactive-no assets	104.54
2006	034443550	27371-61086-001	1,068.25 Bankruptcy-inactive-no assets	109.36
2004	034443762	25411-62003-001	195.72 Inactive - uncollectible	0.00
2004	034443878	28099-62013-001	71.28 Inactive - uncollectible	0.00
2004	034443959	25499-62020-001	575.51 Inactive - uncollectible	62.86
2005	034443959	25499-62020-001	577.62 Inactive - uncollectible	62.73
2007	034443959	25499-62020-001	1,206.91 Inactive - uncollectible	181.02
2005	034443967	27699-62021-001	60.38 Inactive - uncollectible	0.00
2006	034443975	25812-62022-001	472.33 Inactive - uncollectible	55.24
2007	034443975	25812-62022-001	472.45 Inactive - uncollectible	30.83

2004	034444157	26152-26370-002	4,441.66 Inactive - uncollectible	586.72
2002	034444637	27394-16963-365	507.72 Inactive-leased equipment	56.56
2003	034444637	27394-16963-365	447.03 Inactive-leased equipment	48.43
2004	034445226	27539-62029-001	76.88 Inactive - uncollectible	0.00
2003	034445293	27394-62090-001	4,243.55 Bankruptcy-leased equip-inactive-no assets	768.85
2001	034445391	27394-41699-042	262.76 Bankruptcy-leased equip-inactive-no assets	10.94
2002	034445391	27394-41699-042	211.26 Bankruptcy-leased equip-inactive-no assets	2.96
2003	034445391	27394-41699-042	171.71 Bankruptcy-leased equip-inactive-no assets	0.00
2003	034445404	27394-60950-007	723.85 Inactive-leased equipment	100.74
2004	034445684	27393-62102-001	166.24 Inactive - uncollectible	0.00
2005	034445684	27393-62102-001	221.42 Inactive - uncollectible	0.00
2009	034445757	25812-62106-001	1,953.30 Bankruptcy-write-off per attorney	330.55
2010	034445757	25812-62106-001	1,752.65 Bankruptcy-write-off per attorney	256.33
2011	034445757	25812-62106-001	1,571.69 Bankruptcy-write-off per attorney	223.94
2006	034445960	27392-62117-001	3,503.22 Bankruptcy-inactive-no assets	460.75
2007	034445960	27392-62117-001	2,755.76 Bankruptcy-inactive-no assets	336.18
2004	034446001	25812-62121-001	712.86 Inactive - uncollectible	105.78
2004	034446214	25997-62152-001	253.00 Inactive - uncollectible	0.00
2006	034446346	26152-62142-001	46.42 Inactive - uncollectible	0.00
2005	034446443	25999-62156-001	71.48 Inactive - uncollectible	0.00
2004	034446460	25812-62158-001	138.08 Inactive - uncollectible	0.00
2004	034446559	25531-62166-001	195.72 Inactive - uncollectible	0.00
2004	034446664	25812-62177-001	539.91 Inactive - uncollectible	95.50
2005	034446664	25812-62177-001	4,750.58 Inactive - uncollectible	825.05
2006	034446664	25812-62177-001	4,275.69 Inactive - uncollectible	770.83
2007	034446664	25812-62177-001	3,959.14 Inactive - uncollectible	698.13
2008	034446664	25812-62177-001	3,672.45 Inactive - uncollectible	637.18
2004	034446958	28111-62206-001	151.12 Inactive - uncollectible	0.00
2006	034447067	27941-62216-001	770.43 Bankruptcy-inactive-no assets	94.51
2007	034447067	27941-62216-001	729.54 Bankruptcy-inactive-no assets	71.86
2004	034447083	25812-62218-001	447.18 Bankruptcy-inactive-no assets	58.58
2005	034447083	25812-62218-001	1,154.70 Bankruptcy-inactive-no assets	165.44
2006	034447083	25812-62218-001	1,233.85 Bankruptcy-inactive-no assets	178.06
2007	034447083	25812-62218-001	1,175.84 Bankruptcy-inactive-no assets	152.25
2004	034447172	25999-62224-001	253.00 Inactive - uncollectible	0.00
2004	034447342	25999-62236-001	86.22 Inactive - uncollectible	0.00
2004	034447482	25999-62249-001	1,523.12 Bankruptcy-inactive-no assets	167.63
2005	034447482	25999-62249-001	1,529.99 Bankruptcy-inactive-no assets	167.28
2004	034447512	25999-62252-001	134.27 Inactive - uncollectible	0.00
2004	034447539	27539-62254-001	292.62 Inactive - uncollectible	20.95
2006	034447610	25531-62260-001	2,100.88 Inactive - uncollectible	439.67
2007	034447610	25531-62260-001	1,946.78 Inactive - uncollectible	393.39
2008	034447610	25531-62260-001	1,729.96 Inactive - uncollectible	352.43
2005	034447661	26541-62249-001	859.49 Inactive - uncollectible	84.29

2004	034447822	25999-62275-001	112.14 Inactive - uncollectible	0.00
2006	034447849	27392-62277-001	80.86 Inactive - uncollectible	0.00
2007	034447849	27392-62277-001	160.26 Inactive - uncollectible	0.00
2008	034447849	27392-62277-001	159.12 Inactive - uncollectible	0.00
2010	034447849	27392-62277-001	79.69 Inactive - uncollectible	0.00
2011	034447849	27392-62277-001	162.84 Inactive - uncollectible	0.00
2004	034447971	27399-62290-001	97.89 Inactive - uncollectible	0.00
2005	034447971	27399-62290-001	95.67 Inactive - uncollectible	0.00
2006	034448080	26152-62299-001	102.50 Inactive - uncollectible	0.00
2006	034448110	25812-62302-001	545.08 Inactive - uncollectible	72.47
2005	034448144	27539-62305-001	957.55 Inactive - uncollectible	203.16
2006	034448144	27539-62305-001	1,228.76 Inactive - uncollectible	254.48
2007	034448144	27539-62305-001	1,504.06 Inactive - uncollectible	284.40
2008	034448144	27539-62305-001	1,805.93 Inactive - uncollectible	378.24
2009	034448144	27539-62305-001	1,717.34 Inactive - uncollectible	359.24
2010	034448144	27539-62305-001	784.53 Inactive - uncollectible	162.90
2011	034448144	27539-62305-001	1,648.49 Inactive - uncollectible	365.24
2004	034448187	27539-62309-001	164.82 Inactive - uncollectible	0.00
2004	034448195	27539-62310-001	164.82 Inactive - uncollectible	0.00
2005	034448195	27539-62310-001	152.02 Inactive - uncollectible	0.00
2006	034448195	27539-62310-001	161.76 Inactive - uncollectible	0.00
2003	034448519	27394-01829-739	25.07 Inactive-leased equipment	0.00
2004	034448659	33390-62334-001	453.14 Inactive - uncollectible	41.91
2005	034448659	33390-62334-001	425.20 Inactive - uncollectible	41.82
2004	034448667	25399-62335-001	164.82 Inactive - uncollectible	0.00
2004	034448934	25812-62362-001	63.02 Inactive - uncollectible	0.00
2004	034448942	25531-62363-001	271.88 Inactive - uncollectible	17.38
2002	034449191	27394-60999-073	56.97 Inactive-leased equipment	0.00
2003	034449191	27394-60999-073	48.51 Inactive-leased equipment	0.00
2005	034449981	25411-62376-001	211.85 Inactive - uncollectible	0.00
2006	034449981	25411-62376-001	210.18 Inactive - uncollectible	0.00
2005	034450025	25813-62377-001	1,149.94 Inactive - uncollectible	167.28
2006	034450025	25813-62377-001	1,150.38 Inactive - uncollectible	174.97
2004	034450602	25999-62395-001	83.32 Inactive - uncollectible	0.00
2004	034450734	27932-52410-002	166.68 Inactive - uncollectible	0.00
2004	034450891	28099-62416-001	803.21 Bankruptcy-inactive-no assets	125.73
2004	034451072	28099-62432-001	19,955.45 Inactive - uncollectible	4,148.88
2005	034451072	28099-62432-001	4,473.33 Inactive - uncollectible	972.13
2006	034451072	28099-62432-001	2,577.04 Inactive - uncollectible	560.92
2007	034451072	28099-62432-001	1,931.61 Inactive - uncollectible	401.45
2008	034451072	28099-62432-001	1,966.32 Inactive - uncollectible	408.84
2005	034452141	26541-60490-002	246.71 Inactive - uncollectible	11.70
2005	034454608	25812-62492-001	1,496.08 Bankruptcy-write-off per attorney	292.74
2004	034454675	25999-62495-001	650.18 Inactive - uncollectible	83.82

2005	034454705	25999-62498-001	54.76 Inactive - uncollectible	0.00
2004	034454730	25999-62500-001	319.34 Inactive - uncollectible	20.95
2005	034454730	25999-62500-001	312.75 Inactive - uncollectible	20.91
2005	034454829	28011-62509-001	564.34 Inactive - uncollectible	83.65
2006	034454829	28011-62509-001	572.73 Inactive - uncollectible	87.48
2004	034454918	26152-62518-001	106.74 Inactive - uncollectible	0.00
2004	034454951	25499-62522-001	799.59 Inactive - uncollectible	104.77
2004	034455248	25812-62538-001	572.63 Inactive - uncollectible	62.86
2005	034455248	25812-62538-001	574.78 Inactive - uncollectible	62.73
2006	034455248	25812-62538-001	573.85 Inactive - uncollectible	65.61
2004	034457399	26152-62568-001	75.06 Inactive - uncollectible	0.00
2005	034457399	26152-62568-001	90.28 Inactive - uncollectible	0.00
2004	034457402	25351-62569-001	209.47 Inactive - uncollectible	0.00
2005	034459308	27349-62592-001	142.68 Inactive - uncollectible	0.00
2004	034459367	25733-62598-001	908.65 Inactive - uncollectible	143.98
2005	034459367	25733-62598-001	310.22 Inactive - uncollectible	20.47
2006	034459367	25733-62598-001	268.42 Inactive - uncollectible	13.90
2005	034459456	25812-62605-001	1,613.39 Inactive - uncollectible	276.70
2006	034459456	25812-62605-001	1,473.84 Inactive - uncollectible	258.85
2007	034459456	25812-62605-001	1,432.09 Inactive - uncollectible	223.22
2008	034459456	25812-62605-001	1,438.88 Inactive - uncollectible	201.32
2009	034459456	25812-62605-001	1,329.31 Inactive - uncollectible	181.88
2005	034459995	27221-62627-001	2,867.20 Inactive - uncollectible	401.99
2008	034459995	27221-62627-001	1,530.15 Inactive - uncollectible	180.17
2005	034460004	98299-62628-001	132.04 Inactive - uncollectible	0.00
2005	034460217	25999-62634-001	142.30 Inactive - uncollectible	0.00
2004	034460471	27949-62653-001	142.96 Inactive - uncollectible	0.00
2004	034460489	26159-62654-001	142.31 Inactive - uncollectible	0.00
2005	034460489	26159-62654-001	130.30 Inactive - uncollectible	0.00
2006	034460489	26159-62654-001	227.65 Inactive - uncollectible	0.00
2004	034460551	25812-62661-001	459.14 Inactive - uncollectible	41.91
2004	034460748	84810-62674-001	459.14 Inactive - uncollectible	41.91
2005	034460748	84810-62674-001	460.88 Inactive - uncollectible	41.82
2004	034467653	25812-62734-001	542.69 Inactive - uncollectible	62.86
2004	034467807	25813-62740-001	1,080.17 Inactive - uncollectible	167.63
2004	034468013	27392-62751-001	28.57 Inactive - uncollectible	0.00
2004	034468056	27392-62755-001	204.89 Inactive - uncollectible	4.22
2005	034468056	27392-62755-001	121.85 Inactive - uncollectible	0.00
2005	034468188	25812-62768-001	6,186.35 Inactive - uncollectible	794.59
2004	034468251	25933-62774-001	123.12 Inactive - uncollectible	0.00
2004	034468439	27699-62791-001	95.49 Inactive - uncollectible	0.00
2005	034468447	25812-62771-001	431.29 Inactive - uncollectible	34.23
2006	034468871	27371-62793-001	131.77 Inactive - uncollectible	0.00
2004	034468935	25812-62799-001	435.18 Inactive - uncollectible	41.91

2007	034468935	25812-62799-001	65.14 Inactive - uncollectible	0.00
2004	034469036	25812-62803-001	935.61 Inactive - uncollectible	139.45
2008	034469036	25812-62803-001	430.76 Inactive - uncollectible	26.61
2004	034469796	25999-62822-001	1,059.15 Bankruptcy-inactive-no assets	173.32
2006	034470751	27349-62851-001	671.83 Inactive - uncollectible	68.05
2007	034470751	27349-62851-001	645.02 Inactive - uncollectible	45.59
2008	034470751	27349-62851-001	585.69 Inactive - uncollectible	36.73
2004	034470760	27911-62852-001	793.08 Inactive - uncollectible	83.82
2004	034470778	26152-62853-001	251.83 Inactive - uncollectible	0.00
2006	034471006	26411-62874-001	182.95 Inactive - uncollectible	0.00
2007	034471006	26411-62874-001	152.87 Inactive - uncollectible	0.00
2008	034471006	26411-62874-001	166.81 Inactive - uncollectible	0.00
2009	034471006	26411-62874-001	154.82 Inactive - uncollectible	0.00
2010	034471006	26411-62874-001	127.79 Inactive - uncollectible	0.00
2004	034471049	26152-62878-001	4,534.57 Inactive - uncollectible	586.72
2005	034471049	26152-62878-001	4,378.48 Inactive - uncollectible	585.50
2004	034471804	25999-62882-001	93.35 Inactive - uncollectible	0.00
2005	034471804	25999-62882-001	102.66 Inactive - uncollectible	0.00
2005	034471821	25351-62884-001	61.92 Inactive - uncollectible	0.00
2005	034471910	28099-62891-001	77.87 Inactive - uncollectible	0.00
2006	034471910	28099-62891-001	64.49 Inactive - uncollectible	0.00
2007	034471910	28099-62891-001	63.14 Inactive - uncollectible	0.00
2008	034471910	28099-62891-001	63.28 Inactive - uncollectible	0.00
2005	034472088	26152-62908-001	140.91 Inactive - uncollectible	0.00
2004	034472177	27299-62916-001	226.92 Inactive - uncollectible	0.00
2004	034472649	25411-62933-001	340.01 Inactive - uncollectible	20.95
2005	034472649	25411-62933-001	341.53 Inactive - uncollectible	20.91
2006	034472649	25411-62933-001	340.02 Inactive - uncollectible	21.88
2007	034472649	25411-62933-001	298.49 Inactive - uncollectible	0.00
2004	034472681	25812-62936-001	108.01 Inactive - uncollectible	0.00
2005	034472681	25812-62936-001	105.58 Inactive - uncollectible	0.00
2006	034472681	25812-62936-001	105.31 Inactive - uncollectible	0.00
2004	034472754	26152-62943-001	188.55 Inactive - uncollectible	0.00
2005	034472754	26152-62943-001	189.49 Inactive - uncollectible	0.00
2004	034472771	25813-62959-001	494.52 Inactive - uncollectible	35.66
2005	034472771	25813-62959-001	514.49 Inactive - uncollectible	34.00
2004	034472819	26152-62952-001	596.01 Inactive - uncollectible	41.91
2005	034472819	26152-62952-001	602.41 Inactive - uncollectible	41.82
2006	034472819	26152-62952-001	606.20 Inactive - uncollectible	43.73
2004	034472924	28021-62963-001	4,544.63 Inactive - uncollectible	796.26
2005	034472924	28021-62963-001	4,561.23 Inactive - uncollectible	794.59
2006	034472924	28021-62963-001	4,567.22 Inactive - uncollectible	831.08
2004	034472983	28011-62969-001	209.47 Inactive - uncollectible	0.00
2005	034472983	28011-62969-001	210.53 Inactive - uncollectible	0.00

2004	034473131	27911-62983-001	127.84 Inactive - uncollectible	0.00
2008	034473131	27911-62983-001	65.78 Inactive - uncollectible	0.00
2005	034473165	26541-62986-001	658.05 Inactive - uncollectible	59.03
2004	034473271	32751-62993-001	651.14 Inactive - uncollectible	41.91
2005	034473271	32751-62993-001	615.73 Inactive - uncollectible	41.82
2006	034473769	27392-63058-001	92.99 Inactive - uncollectible	0.00
2007	034473769	27394-63058-001	91.85 Inactive - uncollectible	0.00
2008	034473769	27394-63058-001	73.62 Inactive - uncollectible	0.00
2004	034473874	27299-63017-001	239.06 Inactive - uncollectible	0.26
2005	034473874	27299-63017-001	216.71 Inactive - uncollectible	1.11
2004	034473882	27349-63029-001	358.98 Inactive - uncollectible	21.89
2005	034473921	27941-63024-001	2,476.38 Inactive - uncollectible	298.87
2005	034475702	27941-63063-001	191.35 Inactive - uncollectible	0.00
2005	034476636	27911-63093-001	210.53 Inactive - uncollectible	0.00
2005	034476725	26152-63091-001	140.13 Inactive - uncollectible	0.00
2006	034476725	26152-63091-001	102.23 Inactive - uncollectible	0.00
2007	034476725	26152-63091-001	76.88 Inactive - uncollectible	0.00
2004	034476881	27349-63100-001	51.84 Inactive - uncollectible	0.00
2004	034476920	26050-63113-001	297.35 Inactive - uncollectible	(0.02)
2007	034476920	26050-63113-001	238.27 Inactive - uncollectible	0.00
2008	034476920	26050-63113-001	246.27 Inactive - uncollectible	0.00
2009	034476920	26050-63113-001	204.23 Inactive - uncollectible	0.00
2010	034476920	26050-63113-001	250.35 Inactive - uncollectible	0.00
2011	034476920	26050-63113-001	264.87 Inactive - uncollectible	0.00
2012	034476920	26050-63113-001	276.29 Inactive - uncollectible	0.00
2013	034476920	26050-63113-001	237.84 Inactive - uncollectible	0.00
2004	034476938	27699-63101-001	3,522.28 Inactive - uncollectible	377.18
2005	034476938	27699-63101-001	3,630.76 Inactive - uncollectible	376.39
2006	034481427	25813-63149-001	647.60 Inactive - uncollectible	99.15
2007	034481427	25813-63149-001	650.68 Inactive - uncollectible	68.93
2008	034481427	25813-63149-001	632.95 Inactive - uncollectible	54.34
2004	034481494	27539-63197-001	195.72 Inactive - uncollectible	0.00
2005	034481494	27539-63197-001	191.35 Inactive - uncollectible	0.00
2004	034481621	25812-63177-001	209.47 Inactive - uncollectible	0.00
2004	034481851	27392-63171-001	90.63 Bankruptcy-write-off per attorney	6.50
2005	034481851	27392-63171-001	529.14 Bankruptcy-write-off per attorney	35.92
2006	034481851	27392-63171-001	697.82 Bankruptcy-write-off per attorney	54.71
2005	034482083	26152-63160-001	339.48 Inactive - uncollectible	8.23
2009	034482083	26152-63160-001	3,388.12 Inactive - uncollectible	400.33
2005	034482211	27299-63204-001	167.06 Inactive - uncollectible	10.26
2005	034482237	28011-63184-001	251.28 Inactive - uncollectible	0.00
2006	034482237	28011-63184-001	290.09 Inactive - uncollectible	0.00
2004	034482245	28011-63169-001	6,414.35 Inactive - uncollectible	1,005.79
2005	034482245	28011-63169-001	6,492.35 Inactive - uncollectible	1,003.70

2007	034482245	28011-63169-001	6,308.66 Inactive - uncollectible	968.89
2008	034482245	28011-63169-001	6,500.88 Inactive - uncollectible	995.60
2005	034482393	25411-63229-001	533.09 Inactive - uncollectible	62.73
2004	034482521	27392-63242-001	1,160.72 Inactive - uncollectible	124.31
2005	034482521	27392-63242-001	844.80 Inactive - uncollectible	73.33
2006	034482521	27392-63242-001	592.21 Inactive - uncollectible	49.02
2007	034482521	27392-63242-001	435.65 Inactive - uncollectible	11.38
2004	034482539	25511-63243-001	191.38 Bankruptcy-inactive-no assets	0.00
2006	034482539	25511-63243-001	145.70 Bankruptcy-inactive-no assets	0.00
2005	034482644	27392-63253-001	133.61 Inactive - uncollectible	0.00
2006	034482768	26159-63265-001	208.90 Inactive - uncollectible	0.00
2004	034483021	84890-63278-001	163.95 Inactive - uncollectible	0.00
2006	034483098	27299-63275-001	92.54 Inactive - uncollectible	0.00
2007	034483098	27299-63275-001	78.09 Inactive - uncollectible	0.00
2005	034483187	26531-63290-001	75.52 Inactive - uncollectible	0.00
2005	034483217	26152-63293-001	410.88 Inactive - uncollectible	41.82
2006	034483217	26152-63293-001	459.73 Inactive - uncollectible	43.73
2007	034483217	26152-63293-001	476.03 Inactive - uncollectible	20.62
2008	034483217	26152-63293-001	489.17 Inactive - uncollectible	21.19
2004	034483501	84890-63310-001	293.40 Inactive - uncollectible	23.15
2005	034483501	84890-63310-001	528.03 Inactive - uncollectible	37.52
2006	034483772	26152-63321-001	181.85 Inactive - uncollectible	0.00
2007	034483772	26152-63321-001	166.79 Inactive - uncollectible	0.00
2004	034483870	26411-63329-001	335.33 Inactive - uncollectible	9.68
2004	034484132	25999-63345-001	245.18 Inactive - uncollectible	8.39
2005	034484213	26152-11264-003	285.93 Inactive - uncollectible	18.84
2006	034484213	26152-11264-003	257.04 Inactive - uncollectible	14.43
2007	034484213	26152-11264-003	259.38 Inactive - uncollectible	0.00
2008	034484213	26152-11264-003	245.30 Inactive - uncollectible	0.00
2005	034484221	27399-63352-001	47.34 Inactive - uncollectible	0.00
2004	034484299	25812-59732-001	116.56 Inactive - uncollectible	0.00
2005	034484299	25812-59732-002	114.51 Inactive - uncollectible	0.00
2006	034484311	26152-63360-001	253.14 Inactive - uncollectible	0.00
2006	034484680	26561-59458-001	163.91 Inactive - uncollectible	0.00
2005	034484779	25812-63403-001	574.78 Inactive - uncollectible	62.73
2004	034484850	25813-63409-001	1,392.17 Inactive - uncollectible	104.77
2006	034484957	27699-63418-001	463.65 Inactive - uncollectible	21.03
2004	034485058	27321-63424-001	237.65 Inactive - uncollectible	0.00
2004	034485279	28011-63439-001	141.81 Inactive - uncollectible	0.00
2005	034485279	28011-63439-001	286.69 Inactive - uncollectible	0.00
2005	034485384	27349-63461-001	286.69 Inactive - uncollectible	0.00
2006	034485384	27349-63461-001	282.52 Inactive - uncollectible	0.00
2004	034485520	27392-63444-001	211.30 Inactive - uncollectible	0.00
2005	034485520	27392-63444-001	201.63 Inactive - uncollectible	0.00

2004	034485538	27392-63446-001	158.50 Inactive - uncollectible	0.00
2005	034485538	27392-63446-001	151.26 Inactive - uncollectible	0.00
2004	034485597	26152-63452-001	169.99 Inactive - uncollectible	0.00
2005	034485597	26152-63452-001	172.22 Inactive - uncollectible	0.00
2006	034485597	26152-63452-001	125.27 Inactive - uncollectible	0.00
2004	034485911	26161-63476-001	4,517.99 Inactive - uncollectible	586.72
2006	034485996	26152-63483-001	304.84 Inactive - uncollectible	0.00
2006	034486097	98299-63492-001	3,883.46 Inactive - uncollectible	425.12
2007	034486097	98299-63492-001	3,541.86 Inactive - uncollectible	367.27
2004	034486186	25351-63501-001	79.56 Inactive - uncollectible	0.00
2005	034486186	25351-63501-001	87.62 Inactive - uncollectible	0.00
2006	034486186	25351-63501-001	77.80 Inactive - uncollectible	0.00
2004	034486283	27392-63510-001	443.38 Inactive - uncollectible	20.95
2005	034486283	27392-63510-001	447.93 Inactive - uncollectible	20.91
2005	034486461	26152-63523-001	1,049.10 Inactive - uncollectible	125.47
2006	034486461	26152-63523-001	1,055.87 Inactive - uncollectible	131.22
2005	034486623	26152-63532-001	214.28 Inactive - uncollectible	0.38
2003	034486658	27394-42466-055	763.74 Inactive-leased equipment	115.14
2003	034486704	27394-42466-055	225.86 Inactive-leased equipment	8.41
2004	034487115	26552-63546-001	474.90 Inactive - uncollectible	16.76
2005	034487115	26552-63546-001	483.88 Inactive - uncollectible	16.73
2005	034487352	27349-63548-001	8,387.53 Inactive - uncollectible	1,170.42
2008	034487352	27349-63548-001	4,343.67 Inactive - uncollectible	611.68
2004	034487417	33960-63554-001	1,518.34 Inactive - uncollectible	146.67
2004	034487719	26152-63580-001	1,034.72 Inactive - uncollectible	104.77
2004	034487905	27392-63596-001	303.60 Inactive - uncollectible	0.00
2005	034488341	26152-63609-001	190.83 Inactive - uncollectible	0.00
2004	034489002	27394-54608-004	20.74 Inactive-leased equipment	0.00
2004	034489011	27394-54608-005	21.35 Inactive-leased equipment	0.00
2004	034489029	27394-54611-003	54.02 Inactive-leased equipment	0.00
2004	034489037	27394-54611-004	95.53 Inactive-leased equipment	0.00
2004	034489045	27394-54611-005	0.99 Inactive-leased equipment	0.00
2004	034489053	27394-54611-006	38.73 Inactive-leased equipment	0.00
2004	034489738	27394-20293-242	379.92 Inactive-leased equipment	13.11
2004	034489959	27394-42453-897	130.84 Inactive-leased equipment	0.00
2004	034490329	27394-42453-915	1,164.07 Inactive-leased equipment	125.86
2004	034492232	27394-59382-266	1,169.65 Inactive-leased equipment	137.61
2005	034492542	27394-59381-303	289.28 Inactive-leased equipment	8.32
2004	034493999	27394-59382-419	741.02 Inactive-leased equipment	103.71
2004	034494961	25813-58030-002	901.14 Inactive - uncollectible	122.38
2005	034494961	25813-58030-002	1,009.36 Inactive - uncollectible	125.47
2004	034497692	27394-59467-002	430.63 Inactive-leased equipment	58.02
2004	034497757	27394-59467-004	431.39 Inactive-leased equipment	25.93
2005	034497935	27394-38613-002	265.39 Inactive-leased equipment	19.59

2004	034498664	27394-63678-001	125.78 Inactive-leased equipment	0.00
2004	034498672	27394-63678-002	287.11 Inactive-leased equipment	19.04
2002	034499873	27394-16963-386	483.46 Inactive-leased equipment	55.35
2003	034499873	27394-16963-386	440.43 Inactive-leased equipment	48.27
2003	034499946	27394-56091-699	828.91 Inactive-leased equipment	153.41
2003	034500065	27394-56091-711	3,365.55 Inactive-leased equipment	718.45
2003	034500154	27394-56091-720	335.64 Inactive-leased equipment	20.74
2003	034500171	27394-56091-722	309.66 Inactive-leased equipment	22.56
2003	034500774	27394-56091-756	315.58 Inactive-leased equipment	7.62
2004	034501134	27394-59389-003	124.38 Inactive-leased equipment	0.00
2004	034501142	27394-59389-004	105.18 Inactive-leased equipment	0.00
2004	034501151	27394-59389-005	27.25 Inactive-leased equipment	0.00
2004	034501169	27394-59389-006	323.52 Inactive-leased equipment	26.97
2004	034501177	27394-59389-007	36.27 Inactive-leased equipment	0.00
2004	034501185	27394-59389-008	410.00 Inactive-leased equipment	25.36
2004	034501193	27394-59389-009	73.09 Inactive-leased equipment	0.00
2004	034501207	27394-59389-010	107.22 Inactive-leased equipment	0.00
2004	034501495	27394-50710-017	122.65 Inactive-leased equipment	0.00
2004	034502785	27394-41699-043	2,310.61 Bankruptcy-leased equip-inactive-no assets	280.65
2004	034504541	27394-63687-036	195.63 Inactive-leased equipment	0.00
2004	034505164	27394-63687-051	8.25 Inactive-leased equipment	0.00
2004	034505181	27394-63687-052	32.62 Inactive-leased equipment	0.00
2004	034505199	27394-63687-053	178.22 Inactive-leased equipment	0.00
2006	034505610	27394-53216-217	28.05 Inactive-leased equipment	0.00
2004	034506721	27394-54589-092	13.50 Inactive-leased equipment	0.00
2004	034507582	27394-39784-037	341.64 Inactive-leased equipment	22.04
2004	034507612	27394-52027-355	8.05 Inactive-leased equipment	0.00
2004	034507698	27394-52027-363	29.34 Inactive-leased equipment	0.00
2004	034507728	27394-52027-366	147.16 Inactive-leased equipment	0.00
2004	034507809	27394-52027-373	144.84 Inactive-leased equipment	0.00
2004	034508538	27394-01829-749	2,870.48 Inactive-leased equipment	377.58
2005	034509780	27394-63701-001	56.92 Inactive-leased equipment	0.00
2004	034509933	27394-26721-668	13.45 Bankruptcy-leased equip-all claims paid	0.00
2005	034509933	27394-26721-668	9.68 Bankruptcy-leased equip-all claims paid	0.00
2006	034509933	27394-26721-668	8.68 Bankruptcy-leased equip-all claims paid	0.00
2004	034509941	27394-26721-669	34.15 Bankruptcy-leased equip-all claims paid	0.00
2005	034509941	27394-26721-669	19.28 Bankruptcy-leased equip-all claims paid	0.00
2006	034509941	27394-26721-669	15.24 Bankruptcy-leased equip-all claims paid	0.00
2005	034509950	27394-26721-670	123.08 Bankruptcy-leased equip-all claims paid	0.00
2006	034509950	27394-26721-670	109.71 Bankruptcy-leased equip-all claims paid	0.00
2005	034509968	27394-26721-671	17.74 Bankruptcy-leased equip-all claims paid	0.00
2006	034509968	27394-26721-671	15.26 Bankruptcy-leased equip-all claims paid	0.00
2005	034509976	27394-26721-672	14.88 Bankruptcy-leased equip-all claims paid	0.00
2006	034509976	27394-26721-672	11.30 Bankruptcy-leased equip-all claims paid	0.00

2007	034509976	27394-26721-672	9.95 Bankruptcy-leased equip-all claims paid	0.00
2008	034509976	27394-26721-672	2.20 Bankruptcy-leased equip-all claims paid	0.00
2005	034509984	27394-25721-673	28.81 Bankruptcy-leased equip-all claims paid	0.00
2006	034509984	27394-26721-673	22.70 Bankruptcy-leased equip-all claims paid	0.00
2007	034509984	27394-26721-673	19.26 Bankruptcy-leased equip-all claims paid	0.00
2008	034509984	27394-26721-673	4.85 Bankruptcy-leased equip-all claims paid	0.00
2005	034509992	27394-26721-674	18.94 Bankruptcy-leased equip-all claims paid	0.00
2006	034509992	27394-26721-674	16.61 Bankruptcy-leased equip-all claims paid	0.00
2005	034510001	27394-26721-675	32.48 Bankruptcy-leased equip-all claims paid	0.00
2006	034510001	27394-26721-675	25.41 Bankruptcy-leased equip-all claims paid	0.00
2005	034510010	27394-26721-675	25.47 Bankruptcy-leased equip-all claims paid	0.00
2006	034510010	27394-26721-675	22.24 Bankruptcy-leased equip-all claims paid	0.00
2005	034510028	27394-26721-677	49.18 Bankruptcy-leased equip-all claims paid	0.00
2006	034510028	27394-26721-677	44.10 Bankruptcy-leased equip-all claims paid	0.00
2007	034510028	27394-26721-677	38.10 Bankruptcy-leased equip-all claims paid	0.00
2008	034510028	27394-26721-677	10.91 Bankruptcy-leased equip-all claims paid	0.00
2005	034510320	27394-26721-681	16.41 Bankruptcy-leased equip-all claims paid	0.00
2006	034510320	27394-26721-681	14.40 Bankruptcy-leased equip-all claims paid	0.00
2004	034510338	27394-26721-682	123.25 Bankruptcy-leased equip-all claims paid	0.00
2005	034510338	27394-26721-682	67.71 Bankruptcy-leased equip-all claims paid	0.00
2006	034510338	27394-26721-682	52.65 Bankruptcy-leased equip-all claims paid	0.00
2007	034510338	27394-26721-682	47.40 Bankruptcy-leased equip-all claims paid	0.00
2008	034510338	27394-26721-682	11.79 Bankruptcy-leased equip-all claims paid	0.00
2005	034510354	27394-26721-684	104.59 Bankruptcy-leased equip-all claims paid	0.00
2006	034510354	27394-26721-684	78.27 Bankruptcy-leased equip-all claims paid	0.00
2005	034510362	27394-26721-685	45.62 Bankruptcy-leased equip-all claims paid	0.00
2006	034510362	27394-26721-685	36.31 Bankruptcy-leased equip-all claims paid	0.00
2007	034510362	27394-26721-685	30.88 Bankruptcy-leased equip-all claims paid	0.00
2008	034510362	27394-26721-685	6.88 Bankruptcy-leased equip-all claims paid	0.00
2005	034510371	27394-26721-686	186.34 Bankruptcy-leased equip-all claims paid	0.00
2006	034510371	27394-26721-686	145.32 Bankruptcy-leased equip-all claims paid	0.00
2007	034510371	27394-26721-686	124.78 Bankruptcy-leased equip-all claims paid	0.00
2008	034510371	27394-26721-686	28.18 Bankruptcy-leased equip-all claims paid	0.00
2005	034510389	27394-26721-687	50.50 Bankruptcy-leased equip-all claims paid	0.00
2006	034510389	27394-26721-687	38.82 Bankruptcy-leased equip-all claims paid	0.00
2004	034510397	27394-26721-688	2,147.19 Bankruptcy-leased equip-all claims paid	264.50
2005	034510397	27394-26721-688	1,396.91 Bankruptcy-leased equip-all claims paid	167.20
2006	034510397	27394-26721-688	1,102.80 Bankruptcy-leased equip-all claims paid	130.08
2004	034510401	27394-27621-689	157.16 Bankruptcy-leased equip-all claims paid	0.00
2005	034510401	27394-26721-689	89.50 Bankruptcy-leased equip-all claims paid	0.00
2006	034510401	27394-26721-689	69.98 Bankruptcy-leased equip-all claims paid	0.00
2007	034510401	27394-26721-689	60.12 Bankruptcy-leased equip-all claims paid	0.00
2008	034510401	27394-26721-689	15.80 Bankruptcy-leased equip-all claims paid	0.00
2004	034522361	27394-39784-038	1,388.17 Inactive-leased equipment	256.45

2008	034522361	27394-39784-038	189.89 Inactive-leased equipment	0.00
2004	034522751	27394-42453-929	94.07 Inactive-leased equipment	0.00
2003	034522905	27394-57003-090	31.93 Inactive-leased equipment	0.00
2005	034523090	27394-53216-302	118.77 Inactive-leased equipment	0.00
2006	034523090	27394-53216-302	112.15 Inactive-leased equipment	0.00
2006	034523171	27394-53216-308	41.95 Inactive-leased equipment	0.00
2004	034523570	27394-52027-383	199.42 Inactive-leased equipment	9.41
2004	034523588	27394-52027-384	528.24 Inactive-leased equipment	78.46
2004	034523596	27394-52027-385	111.48 Inactive-leased equipment	0.00
2004	034523618	27394-52027-386	32.55 Inactive-leased equipment	0.00
2006	034524967	27394-40864-003	3,172.96 Bankruptcy-leased equipment-final settlement	364.27
2006	034525181	27394-40864-002	1,585.83 Bankruptcy-leased equipment-final settlement	211.13
2003	034525211	27394-60999-081	144.32 Inactive-leased equipment	0.00
2002	034528075	27394-63727-001	13,413.88 Inactive-leased equipment	1,566.48
2003	034528075	27394-63727-001	9,342.95 Inactive-leased equipment	1,099.11
2006	034528491	25999-63730-001	150.05 Inactive - uncollectible	0.00
2002	034528768	27394-44901-123	2,100.07 Inactive-leased equipment	355.19
2006	034531424	26152-50071-002	138.36 Inactive - uncollectible	0.00
2005	034531491	25812-63743-001	533.09 Inactive - uncollectible	62.73
2005	034531564	27299-63748-001	577.62 Inactive - uncollectible	62.73
2005	034531696	27392-63761-001	533.09 Inactive - uncollectible	62.73
2006	034531696	27392-63761-001	534.82 Inactive - uncollectible	65.61
2005	034531785	25999-63768-001	1,820.68 Inactive - uncollectible	271.85
2006	034531891	33280-63777-001	200.35 Inactive - uncollectible	0.00
2007	034531891	33280-63777-001	198.53 Inactive - uncollectible	0.00
2008	034531891	33280-63777-001	197.05 Inactive - uncollectible	0.00
2006	034531955	28011-63783-001	1,895.38 Inactive - uncollectible	392.31
2007	034531955	28011-63783-001	1,725.93 Inactive - uncollectible	342.03
2005	034531998	27532-63787-001	130.30 Inactive - uncollectible	0.00
2005	034532013	27539-63789-001	657.49 Bankruptcy-inactive-no assets	104.54
2006	034532013	27539-63789-001	667.63 Bankruptcy-inactive-no assets	109.36
2005	034532081	32790-63796-001	3,097.03 Inactive - uncollectible	376.39
2006	034532081	32790-63796-001	3,078.75 Inactive - uncollectible	393.67
2005	034532129	27299-63800-001	95.43 Inactive - uncollectible	0.00
2005	034532439	27251-63828-001	159.09 Inactive - uncollectible	0.00
2004	034532684	27394-63732-001	641.71 Inactive-leased equipment	91.92
2005	034532692	28041-63841-001	190.83 Inactive - uncollectible	0.00
2006	034537295	28041-63845-001	94.44 Inactive - uncollectible	0.00
2007	034537295	28041-63845-001	89.69 Inactive - uncollectible	0.00
2005	034537384	25341-63856-001	74.95 Inactive - uncollectible	0.00
2006	034537759	26152-63878-001	114.26 Inactive - uncollectible	0.00
2005	034537775	25351-63880-001	2,419.29 Inactive - uncollectible	292.74
2006	034537775	25351-63880-001	2,440.32 Inactive - uncollectible	306.19
2005	034538143	84890-58966-002	249.76 Inactive - uncollectible	0.00

2005	034538208	25813-63913-001	1,009.36 Inactive - uncollectible	125.47
2006	034538208	25813-63913-001	1,009.26 Inactive - uncollectible	131.22
2007	034538208	25813-63913-001	939.35 Inactive - uncollectible	103.08
2008	034538208	25813-63913-001	967.78 Inactive - uncollectible	105.91
2005	034538283	27392-63921-001	107.26 Inactive - uncollectible	0.00
2005	034538704	27941-63925-001	209.83 Bankruptcy-inactive-no assets	4.96
2005	034538798	26159-39825-006	959.64 Inactive - uncollectible	98.06
2005	034539671	27539-63969-001	95.67 Inactive - uncollectible	0.00
2005	034539689	27539-63970-001	95.67 Inactive - uncollectible	0.00
2005	034539701	25812-63972-001	95.12 Inactive - uncollectible	0.00
2006	034539701	25812-63972-001	82.01 Inactive - uncollectible	0.00
2005	034539794	27371-63981-001	143.51 Inactive - uncollectible	0.00
2005	034539867	32590-63788-001	377.19 Inactive - uncollectible	41.82
2006	034539867	32590-63788-001	332.92 Inactive - uncollectible	43.73
2006	034540008	27371-63998-001	545.61 Inactive - uncollectible	92.73
2005	034540032	27699-67000-001	68.38 Inactive - uncollectible	0.00
2005	034540075	27531-67004-001	95.02 Inactive - uncollectible	0.00
2006	034540075	27531-67004-001	101.11 Inactive - uncollectible	0.00
2005	034540130	27539-67010-001	2,104.82 Inactive - uncollectible	376.39
2005	034540334	27539-67028-001	246.41 Inactive - uncollectible	27.30
2005	034540342	27531-67029-001	95.67 Inactive - uncollectible	0.00
2006	034540342	27531-67029-001	95.44 Inactive - uncollectible	0.00
2007	034540342	27531-67029-001	96.40 Inactive - uncollectible	0.00
2005	034540351	27539-67030-001	440.16 Inactive - uncollectible	54.26
2006	034540440	25812-67038-001	166.53 Inactive - uncollectible	0.00
2007	034540440	25812-67038-001	163.49 Inactive - uncollectible	0.00
2005	034541136	98661-64012-001	207.17 Exempt effective 1-1-2005	2.67
2005	034541250	25813-64022-001	3,502.30 Out of Business - No assets	771.63
2006	034541250	25813-64022-001	8,025.99 Out of Business - No assets	1,816.73
2007	034541250	25813-64022-001	7,619.09 Out of Business - No assets	1,723.34
2008	034541250	25813-64022-001	4,828.42 Out of Business - No assets	1,091.79
2009	034541250	25813-64022-001	4,315.13 Out of Business - No assets	971.47
2010	034541250	25813-64022-001	3,285.02 Out of Business - No assets	730.30
2011	034541250	25813-64022-001	3,197.01 Out of Business - No assets	664.12
2006	034541438	26531-64038-001	247.20 Inactive - uncollectible	0.00
2007	034541438	26531-64038-001	242.39 Inactive - uncollectible	0.00
2008	034541438	26531-64038-001	242.24 Inactive - uncollectible	0.00
2005	034541462	25999-64041-001	892.17 Inactive - uncollectible	104.54
2006	034541462	25999-64041-001	889.17 Inactive - uncollectible	109.36
2005	034541675	25999-64060-001	210.53 Inactive - uncollectible	0.00
2008	034541675	25999-64060-001	206.18 Inactive - uncollectible	0.00
2009	034541675	25999-64060-001	203.08 Inactive - uncollectible	0.00
2005	034542264	27392-64087-001	143.51 Inactive - uncollectible	0.00
2005	034542272	27371-64088-001	143.51 Inactive - uncollectible	0.00

2005	034542299	26152-64090-001	1,343.24 Inactive - uncollectible	167.28
2006	034542299	26152-64090-001	1,390.14 Inactive - uncollectible	174.97
2006	034542353	25499-64094-001	77.62 Inactive - uncollectible	0.00
2007	034542353	25499-64094-001	86.46 Inactive - uncollectible	0.00
2005	034542507	25999-64101-001	610.41 Inactive - uncollectible	62.73
2006	034542540	25999-64102-001	147.30 Inactive - uncollectible	0.00
2005	034542566	25812-64104-001	607.97 Inactive - uncollectible	62.36
2006	034543082	27231-64114-001	275.89 Inactive - uncollectible	9.69
2007	034543082	27231-64114-001	268.25 Inactive - uncollectible	0.00
2008	034543082	27231-64114-001	242.27 Inactive - uncollectible	0.00
2009	034543082	27231-64114-001	228.02 Inactive - uncollectible	0.00
2005	034543091	98299-64115-001	797.73 Inactive - uncollectible	83.65
2005	034543155	27311-64121-001	147.38 Inactive - uncollectible	0.00
2006	034543155	27311-64121-001	146.14 Inactive - uncollectible	0.00
2005	034543163	26531-64122-001	168.44 Inactive - uncollectible	0.00
2005	034543201	26541-64126-001	105.27 Inactive - uncollectible	0.00
2005	034543279	27231-64132-001	63.17 Inactive - uncollectible	0.00
2006	034543341	27539-64139-001	558.36 Inactive - uncollectible	84.19
2005	034543392	25812-64143-001	270.02 Inactive - uncollectible	20.91
2006	034543392	25812-64143-001	273.78 Inactive - uncollectible	21.88
2007	034543392	25812-64143-001	234.88 Inactive - uncollectible	0.00
2005	034543422	25521-64146-001	40.70 Inactive - uncollectible	0.00
2006	034543422	25521-64146-001	82.32 Inactive - uncollectible	0.00
2005	034543651	27299-64166-001	77.64 Inactive - uncollectible	0.00
2005	034543791	27349-64179-001	572.47 Inactive - uncollectible	82.00
2005	034544089	25531-64196-001	1,399.76 Inactive - uncollectible	292.74
2005	034544160	27399-64201-001	719.33 Inactive - uncollectible	62.73
2005	034544194	26531-64204-001	190.83 Inactive - uncollectible	0.00
2006	034544194	26531-64204-001	188.51 Inactive - uncollectible	0.00
2007	034544194	26531-64204-001	184.18 Inactive - uncollectible	0.00
2005	034544241	28011-64209-001	1,338.22 Inactive - uncollectible	167.28
2006	034544241	28011-64209-001	1,386.12 Inactive - uncollectible	174.97
2005	034544275	27941-64212-001	415.88 Inactive - uncollectible	31.71
2005	034544291	28099-64214-001	137.14 Inactive - uncollectible	0.00
2006	034544437	27539-64221-001	370.93 Inactive - uncollectible	52.52
2005	034544453	84890-64223-001	85.85 Inactive - uncollectible	0.00
2005	034544704	25499-64243-001	312.75 Inactive - uncollectible	20.91
2006	034544704	25499-64243-001	313.08 Inactive - uncollectible	21.88
2006	034544887	26159-64260-001	83.52 Inactive - uncollectible	0.00
2007	034544887	26159-64260-001	79.59 Inactive - uncollectible	0.00
2008	034544887	26159-64260-001	82.47 Inactive - uncollectible	0.00
2005	034544895	25812-64261-001	95.67 Inactive - uncollectible	0.00
2005	034544933	25995-64265-001	44.63 Inactive - uncollectible	0.00
2005	034545051	27399-64277-001	1,011.57 Inactive - uncollectible	184.01

2006	034545051	27399-64277-001	1,028.22 Inactive - uncollectible	192.45
2005	034545069	27392-64278-001	136.76 Inactive - uncollectible	0.00
2005	034545085	27392-64280-001	70.56 Inactive - uncollectible	0.00
2006	034545166	27398-64287-001	70.41 Inactive - uncollectible	0.00
2007	034545166	27398-64287-001	55.48 Inactive - uncollectible	0.00
2005	034545191	25999-64290-001	133.97 Inactive - uncollectible	0.00
2005	034545247	32711-64295-001	91.53 Inactive - uncollectible	0.00
2006	034545999	27392-64326-001	282.52 Inactive - uncollectible	0.00
2006	034546022	25351-64329-001	761.59 Inactive - uncollectible	65.88
2007	034546022	25351-64329-001	613.06 Inactive - uncollectible	37.89
2006	034546219	25997-54343-001	51.35 Inactive - uncollectible	0.00
2006	034546316	27348-64351-001	222.48 Inactive - uncollectible	0.00
2007	034546316	27348-64351-001	199.79 Inactive - uncollectible	0.00
2008	034546316	27348-64351-001	147.24 Inactive - uncollectible	0.00
2009	034546316	27348-64351-001	144.34 Inactive - uncollectible	0.00
2006	034546359	27392-64355-001	240.22 Bankruptcy-inactive-no assets	19.41
2007	034546359	27392-64355-001	377.35 Bankruptcy-inactive-no assets	0.00
2006	034546430	26140-64361-001	424.67 Inactive - uncollectible	53.22
2006	034546618	25813-64378-001	93.29 Inactive - uncollectible	0.00
2005	034546910	26152-64391-001	121.67 Inactive - uncollectible	0.00
2006	034546910	26152-64391-001	121.66 Inactive - uncollectible	0.00
2005	034548041	26159-64438-001	193.06 Inactive - uncollectible	0.00
2006	034550071	26145-64456-001	46.34 Inactive - uncollectible	0.00
2006	034550089	25411-64457-001	534.82 Inactive - uncollectible	65.61
2005	034550119	25999-64459-001	95.67 Inactive - uncollectible	0.00
2005	034550224	27392-64466-001	229.35 Inactive - uncollectible	0.00
2006	034550224	27392-64466-001	226.00 Inactive - uncollectible	0.00
2006	034550283	26152-64471-001	95.49 Inactive - uncollectible	0.00
2005	034550291	27371-64472-001	286.69 Inactive - uncollectible	0.00
2005	034550356	26149-64477-001	197.90 Inactive - uncollectible	0.00
2005	034552723	27941-64490-001	1,747.70 Inactive - uncollectible	238.68
2005	034552855	26152-64503-001	229.63 Inactive - uncollectible	0.00
2006	034552855	26152-64503-001	230.49 Inactive - uncollectible	0.00
2006	034554220	25812-64520-001	441.67 Inactive - uncollectible	46.41
2007	034554220	25812-64520-001	417.32 Inactive - uncollectible	22.84
2005	034554700	25812-64526-001	660.07 Inactive - uncollectible	62.73
2005	034554874	27231-64534-001	1,544.17 Inactive - uncollectible	167.28
2006	034554874	27231-64534-001	1,321.15 Inactive - uncollectible	174.97
2007	034554874	27231-64534-001	1,182.32 Inactive - uncollectible	144.31
2008	034554874	27231-64534-001	1,219.56 Inactive - uncollectible	148.28
2009	034554874	27231-64534-001	1,208.43 Inactive - uncollectible	148.92
2005	034557105	27392-64539-001	84.21 Inactive - uncollectible	0.00
2005	034557326	26152-64551-001	287.03 Inactive - uncollectible	0.00
2006	034557326	26152-64551-001	288.11 Inactive - uncollectible	0.00

2007	034557326	26152-64551-001	278.46 Inactive - uncollectible	0.00
2008	034557326	26152-64551-001	286.54 Inactive - uncollectible	0.00
2005	034557334	25351-64552-001	229.63 Inactive - uncollectible	0.00
2010	034557334	25351-64552-001	345.98 Inactive - uncollectible	0.00
2014	034557334	25351-64552-001	208.62 Inactive - uncollectible	0.00
2006	034557962	25999-64559-001	143.46 Inactive - uncollectible	0.00
2006	034558080	25351-64566-001	59.28 Inactive - uncollectible	0.00
2005	034559779	27539-64576-001	191.35 Inactive - uncollectible	0.00
2007	034559779	27539-64576-001	192.76 Inactive - uncollectible	0.00
2005	034559809	27943-64579-001	699.27 Inactive - uncollectible	105.53
2005	034559949	26152-64587-001	94.06 Inactive - uncollectible	0.00
2005	034559973	26541-64590-001	86.94 Inactive - uncollectible	0.00
2005	034559981	26720-64591-001	287.03 Inactive - uncollectible	0.00
2006	034559990	26152-53774-003	6.03 Inactive - uncollectible	0.00
2007	034559990	26152-53774-003	4.82 Inactive - uncollectible	0.00
2005	034560076	27392-64597-001	598.33 Inactive - uncollectible	41.82
2006	034560076	27392-64597-001	602.32 Inactive - uncollectible	43.73
2006	034560149	26411-64599-001	218.58 Inactive - uncollectible	0.00
2005	034560742	27392-64609-001	126.32 Inactive - uncollectible	0.00
2006	034560742	27392-64609-001	125.27 Inactive - uncollectible	0.00
2005	034560858	25999-64602-001	95.66 Inactive - uncollectible	0.00
2006	034560858	25999-64602-001	165.93 Inactive - uncollectible	0.00
2005	034561251	26152-64631-001	84.21 Inactive - uncollectible	0.00
2006	034561251	26152-64631-001	83.52 Inactive - uncollectible	0.00
2007	034561251	26152-64631-001	79.59 Inactive - uncollectible	0.00
2005	034561269	28931-64632-001	84.21 Inactive - uncollectible	0.00
2006	034561269	28931-64632-001	83.52 Inactive - uncollectible	0.00
2007	034561269	28931-64632-001	79.59 Inactive - uncollectible	0.00
2005	034561277	27810-64633-001	324.75 Inactive - uncollectible	0.00
2005	034562290	26152-44146-002	210.53 Inactive - uncollectible	0.00
2006	034562290	26152-44146-002	208.79 Inactive - uncollectible	0.00
2005	034562311	32751-64641-001	191.35 Inactive - uncollectible	0.00
2006	034562311	32751-64641-001	190.83 Inactive - uncollectible	0.00
2005	034562320	27539-64642-001	95.67 Inactive - uncollectible	0.00
2005	034562419	27539-64647-001	95.67 Inactive - uncollectible	0.00
2006	034563024	28911-64654-001	368.54 Inactive - uncollectible	10.53
2005	034563610	28049-64657-001	1,094.26 Inactive - uncollectible	167.28
2006	034563628	26411-64658-001	54.47 Inactive - uncollectible	0.00
2007	034563628	26411-64658-001	59.71 Inactive - uncollectible	0.00
2005	034571485	27392-64675-001	143.84 Inactive - uncollectible	0.00
2005	034571655	27539-64683-001	427.53 Inactive - uncollectible	41.82
2005	034571795	27539-64697-001	95.67 Inactive - uncollectible	0.00
2006	034571809	27539-64698-001	57.92 Inactive - uncollectible	0.00
2005	034571833	27392-64699-001	95.67 Inactive - uncollectible	0.00

2005	034571868	27349-64702-001	330.25 Inactive - uncollectible	32.50
2009	034571868	27349-64702-001	486.91 Inactive - uncollectible	21.27
2010	034571868	27349-64702-001	497.71 Inactive - uncollectible	21.68
2005	034571876	21751-64703-001	191.35 Inactive - uncollectible	0.00
2005	034571892	27539-64705-001	427.53 Inactive - uncollectible	41.82
2006	034571892	27539-64705-001	428.50 Inactive - uncollectible	43.73
2005	034572031	26152-64714-001	161.24 Inactive - uncollectible	7.95
2006	034572031	26152-64714-001	345.81 Inactive - uncollectible	12.81
2006	034572180	27392-64722-001	313.08 Inactive - uncollectible	21.88
2005	034572350	27539-64732-001	191.35 Inactive - uncollectible	0.00
2005	034572481	26531-37746-002	84.21 Inactive - uncollectible	0.00
2005	034572571	26152-63523-002	654.46 Inactive - uncollectible	62.73
2005	034572601	27299-64752-001	1,077.76 Inactive - uncollectible	104.21
2006	034572627	26152-64754-001	525.35 Inactive - uncollectible	43.73
2007	034572627	26152-64754-001	458.16 Inactive - uncollectible	20.62
2008	034572627	26152-64754-001	472.05 Inactive - uncollectible	21.19
2006	034572813	26159-64768-001	607.37 Inactive - uncollectible	65.61
2005	034572821	27392-64769-001	89.72 Inactive - uncollectible	0.00
2005	034573020	25812-64774-001	117.63 Inactive - uncollectible	0.00
2005	034574662	26561-64781-001	460.88 Inactive - uncollectible	41.82
2005	034574778	32751-64792-001	6,492.35 Inactive - uncollectible	1,003.70
2006	034574778	32751-64792-001	6,712.00 Inactive - uncollectible	1,049.78
2005	034574883	26152-64797-001	126.02 Inactive - uncollectible	0.00
2005	034575006	27394-64806-001	1,450.94 Inactive-leased equipment	211.60
2006	034575006	27394-64806-001	1,503.46 Inactive-leased equipment	221.33
2005	034575120	25712-64815-001	95.43 Inactive - uncollectible	0.00
2007	034575120	25712-64815-001	80.09 Inactive - uncollectible	0.00
2008	034575120	25712-64815-001	91.83 Inactive - uncollectible	0.00
2005	034575359	27392-64834-001	447.93 Inactive - uncollectible	20.91
2005	034575545	25999-64837-001	427.53 Inactive - uncollectible	41.82
2005	034575561	26152-64839-001	67.13 Inactive - uncollectible	0.00
2005	034575979	28111-64856-001	86.98 Inactive - uncollectible	0.00
2005	034576002	98661-64859-001	49.41 Inactive - uncollectible	0.00
2006	034576002	98661-64859-001	92.66 Inactive - uncollectible	0.00
2006	034576029	28099-64861-001	754.21 Inactive - uncollectible	65.61
2007	034576029	28099-64861-001	651.22 Inactive - uncollectible	41.22
2005	034576614	26161-64871-001	264.07 Inactive - uncollectible	0.00
2006	034576614	26161-64871-001	262.35 Inactive - uncollectible	0.00
2007	034576614	26161-64871-001	252.09 Inactive - uncollectible	0.00
2008	034576614	26161-64871-001	259.92 Inactive - uncollectible	0.00
2005	034576835	27399-64893-001	75.23 Inactive - uncollectible	1.93
2006	034577858	98299-64909-001	731.34 Inactive - uncollectible	67.04
2007	034577858	98299-64909-001	600.00 Inactive - uncollectible	42.83
2004	034578463	27394-52027-388	5,808.50 Inactive-leased equipment	937.50

2004	034578536	27394-52027-395	179.24 Inactive-leased equipment	0.00
2005	034578749	27231-64915-001	500.33 Inactive - uncollectible	20.91
2006	034578811	27392-64921-001	245.58 Inactive - uncollectible	0.00
2004	034579711	27394-56091-859	27.79 Inactive-leased equipment	0.00
2003	034579761	27394-56091-864	79.22 Inactive-leased equipment	0.00
2004	034579761	27394-56091-864	58.41 Inactive-leased equipment	0.00
2003	034579893	27394-56091-877	49.75 Inactive-leased equipment	0.00
2004	034579893	27394-56091-877	32.71 Inactive-leased equipment	0.00
2003	034580123	27394-56091-897	72.80 Inactive-leased equipment	0.00
2004	034580123	27394-56091-897	47.37 Inactive-leased equipment	0.00
2004	034580425	27394-64939-006	489.33 Inactive-leased equipment	32.22
2004	034580441	27394-64939-007	255.14 Inactive-leased equipment	21.09
2004	034580450	27394-64939-008	154.15 Inactive-leased equipment	0.00
2005	034580581	27394-26721-690	21.54 Bankruptcy-leased equip-all claims paid	0.00
2006	034580581	27394-26721-690	16.94 Bankruptcy-leased equip-all claims paid	0.00
2004	034580816	27394-56091-808	231.28 Inactive-leased equipment	18.54
2004	034581537	27394-01829-763	36.27 Inactive-leased equipment	0.00
2003	034581545	27394-18829-764	711.16 Inactive-leased equipment	66.56
2004	034581545	27394-18829-764	554.55 Inactive-leased equipment	42.55
2004	034581553	27394-01829-765	54.94 Inactive-leased equipment	0.00
2006	034581618	27394-24523-021	1,742.12 Inactive-leased equipment	300.28
2004	034583173	27394-60960-108	120.75 Inactive-leased equipment	0.00
2004	034583505	27394-60960-130	551.58 Inactive-leased equipment	42.86
2004	034583602	27394-60960-163	79.80 Inactive-leased equipment	0.00
2006	034584340	27394-60960-301	184.19 Inactive-leased equipment	0.00
2004	034584374	27394-60960-304	75.48 Inactive-leased equipment	0.00
2004	034584935	27394-60960-231	165.11 Inactive-leased equipment	0.00
2004	034585508	27394-60960-373	19,648.95 Inactive-leased equipment	2,875.79
2004	034586377	27394-22299-534	248.88 Inactive-leased equipment	0.00
2004	034587233	27394-59382-514	106.03 Inactive-leased equipment	0.00
2004	034587241	27394-59382-515	171.11 Inactive-leased equipment	1.11
2004	034587306	27394-59381-521	369.77 Inactive-leased equipment	17.64
2006	034587306	27394-59381-521	166.29 Inactive-leased equipment	0.00
2006	034587314	27394-59382-522	7.71 Inactive-leased equipment	0.00
2004	034587322	27394-59382-523	139.39 Inactive-leased equipment	0.00
2006	034588710	27394-63687-124	151.65 Inactive-leased equipment	0.00
2004	034588736	27394-63687-126	206.49 Inactive-leased equipment	0.00
2004	034588817	27394-63687-133	816.71 Inactive-leased equipment	79.73
2004	034588973	27394-63687-143	455.95 Inactive-leased equipment	28.41
2006	034589201	27394-51938-075	635.03 Inactive-leased equipment	96.48
2004	034589481	27394-63687-175	123.67 Inactive-leased equipment	0.00
2003	034590455	27394-64955-001	1,514.72 Inactive-leased equipment	187.76
2006	034590617	27394-64945-013	357.25 Inactive-leased equipment	51.52
2006	034591397	27394-58757-005	43,513.71 Inactive-leased equipment	5,184.63

2005	034592041	27394-46916-605	65.26 Inactive-leased equipment	13.55
2005	034592105	27394-46916-609	58.98 Inactive-leased equipment	7.94
2005	034592148	27394-46916-611	41.91 Inactive-leased equipment	4.76
2006	034592229	27394-46916-617	156.30 Inactive-leased equipment	8.22
2007	034592229	27394-46916-617	145.51 Inactive-leased equipment	23.52
2005	034592521	27394-46916-634	34.56 Inactive-leased equipment	6.33
2004	034592563	27394-64953-020	317.62 Inactive-leased equipment	4.50
2004	034593594	27394-63687-222	176.56 Inactive-leased equipment	7.21
2006	034593748	27394-64945-031	124.16 Inactive-leased equipment	0.00
2006	034593781	27394-64945-035	94.98 Inactive-leased equipment	0.00
2004	034593861	27394-24443-091	1,369.76 Inactive-leased equipment	233.85
2005	034594191	27394-63910-001	49.96 Inactive-leased equipment	0.00
2004	034594566	27394-64905-001	869.34 Inactive-leased equipment	136.32
2005	034605011	27394-26721-691	35.17 Bankruptcy-leased equip-all claims paid	0.00
2006	034605011	27394-26721-691	29.94 Bankruptcy-leased equip-all claims paid	0.00
2006	034610570	27394-53216-349	91.82 Inactive-leased equipment	0.00
2005	034611606	27394-60944-002	145.84 Inactive-leased equipment	0.00
2006	034611606	27394-60944-002	156.23 Inactive-leased equipment	0.00
2006	034615032	26152-65029-001	104.41 Inactive - uncollectible	0.00
2006	034615199	25999-40360-023	104.41 Inactive - uncollectible	0.00
2007	034615199	25999-40360-023	99.51 Inactive - uncollectible	0.00
2006	034615369	27932-65051-001	532.68 Inactive - uncollectible	52.75
2007	034615369	27932-65051-001	560.10 Inactive - uncollectible	34.14
2006	034615431	27941-65056-001	388.02 Inactive - uncollectible	36.91
2006	034615598	27299-60488-002	730.28 Inactive - uncollectible	135.37
2008	034615598	27299-60488-002	669.70 Inactive - uncollectible	99.51
2009	034615598	27299-60488-002	558.91 Inactive - uncollectible	85.12
2006	034615636	27392-65074-001	73.70 Inactive - uncollectible	0.00
2007	034615636	27392-65074-001	79.79 Inactive - uncollectible	0.00
2008	034615636	27392-65074-001	81.91 Inactive - uncollectible	0.00
2006	034615679	26152-65078-001	226.76 Inactive - uncollectible	0.00
2006	034617663	25812-37868-004	739.93 Inactive - uncollectible	43.73
2006	034618538	27539-65151-001	428.50 Inactive - uncollectible	43.73
2007	034618538	27539-65151-001	405.86 Inactive - uncollectible	20.62
2008	034618538	27539-65151-001	451.11 Inactive - uncollectible	21.19
2009	034618538	27539-65151-001	451.27 Inactive - uncollectible	21.27
2010	034618538	27539-65151-001	455.00 Inactive - uncollectible	21.68
2006	034619020	26541-65165-001	647.95 Inactive - uncollectible	56.89
2007	034619020	26541-65165-001	420.75 Inactive - uncollectible	50.30
2008	034619020	26541-65165-001	329.66 Inactive - uncollectible	20.03
2006	034619127	27539-65175-001	378.50 Inactive - uncollectible	43.73
2006	034619381	27392-52329-003	125.27 Inactive - uncollectible	0.00
2007	034619381	27392-52329-003	139.24 Inactive - uncollectible	0.00
2008	034619381	27392-52329-003	143.29 Inactive - uncollectible	0.00

2006	034620605	28099-65195-001	188.87 Inactive - uncollectible	0.00
2007	034620605	28099-65195-001	179.37 Inactive - uncollectible	0.00
2008	034620605	28099-56195-001	186.72 Inactive - uncollectible	0.00
2006	034620621	28099-65195-002	611.74 Inactive - uncollectible	65.61
2007	034620621	28099-65195-002	562.33 Inactive - uncollectible	41.22
2008	034620621	28099-65195-002	579.50 Inactive - uncollectible	42.37
2006	034620940	25812-65208-001	272.24 Inactive - uncollectible	21.88
2007	034620940	25812-65208-001	289.16 Inactive - uncollectible	0.00
2008	034620940	25812-65208-001	327.68 Inactive - uncollectible	0.00
2006	034621041	27392-65215-001	95.44 Inactive - uncollectible	0.00
2006	034621075	25812-65217-001	156.25 Inactive - uncollectible	10.92
2006	034622721	25812-65230-001	2,703.74 Bankruptcy-final settlement	284.31
2006	034624805	25499-65243-001	95.44 Inactive - uncollectible	0.00
2006	034625755	26152-65258-001	94.44 Inactive - uncollectible	0.00
2006	034626662	25995-65265-001	95.44 Inactive - uncollectible	0.00
2006	034626697	27539-65267-001	49.79 Inactive - uncollectible	0.00
2006	034627596	26152-65279-001	759.06 Inactive - uncollectible	65.61
2007	034627596	26152-65279-001	705.04 Inactive - uncollectible	41.22
2006	034627642	25812-65285-001	1,072.50 Inactive - uncollectible	109.36
2006	034628304	27539-65308-001	80.90 Inactive - uncollectible	0.00
2007	034628304	27539-65308-001	80.14 Inactive - uncollectible	0.00
2008	034628304	27539-65308-001	79.55 Inactive - uncollectible	0.00
2006	034628312	27539-65308-002	80.90 Inactive - uncollectible	0.00
2006	034628339	25812-65310-001	121.30 Inactive - uncollectible	0.00
2007	034628339	25812-65310-001	120.18 Inactive - uncollectible	0.00
2006	034629050	25999-65322-002	1,703.99 Bankruptcy-inactive-no assets	306.19
2007	034629050	25999-65322-002	854.19 Bankruptcy-inactive-no assets	118.98
2006	034629106	27539-65327-001	704.17 Inactive - uncollectible	81.26
2006	034629475	25351-65358-001	78.78 Bankruptcy-inactive-no assets	0.00
2007	034629475	25351-65358-001	78.76 Bankruptcy-inactive-no assets	0.00
2006	034630210	27394-65388-001	261.28 Inactive - uncollectible	8.75
2006	034631861	27943-65410-001	208.79 Inactive - uncollectible	0.00
2006	034632123	25999-65424-001	130.39 Inactive - uncollectible	0.00
2007	034632123	25999-65424-001	127.58 Inactive - uncollectible	0.00
2006	034632182	26541-65430-001	227.65 Inactive - uncollectible	0.00
2006	034632662	27539-65441-001	304.68 Inactive - uncollectible	28.11
2007	034632662	27539-65441-001	233.80 Inactive - uncollectible	0.00
2008	034632662	27539-65441-001	194.06 Inactive - uncollectible	0.00
2006	034632697	27539-65444-001	82.32 Inactive - uncollectible	0.00
2006	034632778	26411-65450-001	142.28 Inactive - uncollectible	0.00
2006	034632883	33280-65451-001	1,090.31 Inactive - uncollectible	190.23
2006	034634193	28031-65458-001	190.83 Inactive - uncollectible	0.00
2007	034634193	28031-65458-001	192.76 Inactive - uncollectible	0.00
2006	034635297	27392-65471-001	75.60 Inactive - uncollectible	0.00

2006	034635386	26152-65473-001	147.34 Inactive - uncollectible	0.00
2007	034635386	26152-65473-001	140.51 Inactive - uncollectible	0.00
2006	034638156	27911-65483-001	190.83 Inactive - uncollectible	0.00
2007	034638156	27911-65483-001	192.76 Inactive - uncollectible	0.00
2006	034639039	27539-65500-001	320.71 Bankruptcy-inactive-no assets	21.88
2007	034639039	27539-65500-001	287.41 Bankruptcy-inactive-no assets	0.00
2008	034639039	27539-65500-001	286.59 Bankruptcy-inactive-no assets	0.00
2006	034639926	26152-65521-001	95.44 Inactive - uncollectible	0.00
2006	034639942	25351-65523-001	95.44 Inactive - uncollectible	0.00
2007	034639942	25351-65523-001	96.40 Inactive - uncollectible	0.00
2006	034639969	27299-65525-001	95.40 Inactive - uncollectible	0.00
2006	034641238	26152-65586-001	428.50 Inactive - uncollectible	43.73
2006	034641327	26159-59797-003	19.11 Inactive - uncollectible	0.00
2006	034642595	26531-65601-001	605.21 Inactive - uncollectible	80.12
2006	034642625	25812-65603-001	853.69 Inactive - uncollectible	131.22
2007	034642625	25812-65603-001	823.55 Inactive - uncollectible	103.08
2006	034646710	26152-65626-001	83.52 Inactive - uncollectible	0.00
2008	034646710	26152-65626-001	82.47 Inactive - uncollectible	0.00
2006	034646876	26531-65640-001	304.72 Inactive - uncollectible	38.01
2005	034647996	25812-51176-002	3,087.65 Inactive - uncollectible	467.59
2006	034652230	26152-65705-001	2,272.92 Inactive - uncollectible	284.31
2007	034652230	26152-65705-001	2,152.88 Inactive - uncollectible	247.38
2006	034652311	26159-65713-001	820.43 Inactive - uncollectible	87.48
2006	034652329	27392-65714-001	290.24 Inactive - uncollectible	11.15
2007	034652329	27392-65714-001	251.26 Inactive - uncollectible	0.00
2006	034656413	32751-65740-001	237.64 Inactive - uncollectible	0.00
2007	034656413	32751-65740-001	228.30 Inactive - uncollectible	0.00
2006	034657959	25921-65760-001	285.89 Inactive - uncollectible	0.00
2006	034662308	25812-65787-001	747.39 Inactive - uncollectible	109.36
2006	034670238	32751-65787-001	2,418.27 Inactive - uncollectible	349.92
2006	034671269	27299-65824-001	120.82 Inactive - uncollectible	0.00
2007	034671269	27299-65824-001	110.22 Inactive - uncollectible	0.00
2006	034671404	25511-65827-001	2,650.84 Inactive - uncollectible	406.60
2006	034674578	26152-65854-001	228.71 Inactive - uncollectible	0.00
2006	034675043	28911-65863-001	479.11 Inactive - uncollectible	25.53
2007	034675043	28911-65863-001	449.34 Inactive - uncollectible	1.67
2006	034675779	25812-65877-001	434.02 Inactive - uncollectible	21.88
2006	034675957	27311-65896-001	304.31 Inactive - uncollectible	5.99
2007	034675957	27311-65896-001	228.52 Inactive - uncollectible	0.00
2006	034677836	98661-65940-001	301.07 Inactive - uncollectible	0.00
2007	034677836	98661-65940-001	283.35 Inactive - uncollectible	0.00
2006	034678352	26541-63091-002	187.91 Inactive - uncollectible	0.00
2010	034678352	26541-63091-002	163.57 Inactive - uncollectible	0.00
2006	034678735	25812-65877-002	13.15 Inactive - uncollectible	0.00

2006	034679626	27531-66028-001	76.33 Inactive - uncollectible	0.00
2006	034679880	25999-66047-001	104.41 Inactive - uncollectible	0.00
2007	034679880	25999-66047-001	86.53 Inactive - uncollectible	0.00
2008	034679880	25999-66047-001	103.11 Inactive - uncollectible	0.00
2006	034679961	32751-66055-001	15,425.15 Inactive - uncollectible	2,143.30
2006	034680641	26531-66082-001	94.94 Inactive - uncollectible	0.00
2006	034680659	33280-66089-001	76.33 Inactive - uncollectible	0.00
2006	034680667	27538-66090-001	143.46 Inactive - uncollectible	0.00
2007	034680667	27538-66090-001	144.91 Inactive - uncollectible	0.00
2008	034680667	27538-66090-001	164.22 Inactive - uncollectible	0.00
2006	034680713	27392-66094-001	928.67 Inactive - uncollectible	87.48
2007	034680713	27392-66094-001	850.96 Inactive - uncollectible	61.84
2006	034680896	25221-66103-001	774.45 Inactive - uncollectible	65.61
2006	034681108	25812-66118-001	294.82 Inactive - uncollectible	15.42
2006	034681574	26152-66145-001	458.79 Inactive - uncollectible	17.94
2007	034681574	26152-66145-001	353.14 Inactive - uncollectible	0.00
2006	034681591	28099-66147-001	230.49 Inactive - uncollectible	0.00
2007	034681591	28099-66147-001	222.77 Inactive - uncollectible	0.00
2006	034681825	27531-66162-001	160.79 Bankruptcy-inactive-no assets	0.00
2006	034682902	27549-66231-001	865.74 Inactive - uncollectible	65.61
2007	034682902	27549-66231-001	783.78 Inactive - uncollectible	41.22
2006	034682945	27349-66233-001	304.84 Inactive - uncollectible	0.00
2006	034682961	25351-66234-001	865.74 Inactive - uncollectible	65.61
2006	034683194	27392-66272-001	230.49 Inactive - uncollectible	0.00
2006	034683208	27392-66273-001	144.07 Inactive - uncollectible	0.00
2007	034683208	27392-66273-001	121.08 Inactive - uncollectible	0.00
2006	034683224	27392-66275-001	144.07 Inactive - uncollectible	0.00
2006	034684182	26152-66315-001	7,111.38 Inactive - uncollectible	986.31
2007	034684182	26152-66315-001	5,924.45 Inactive - uncollectible	804.82
2006	034684549	84832-66336-001	102.39 Inactive - uncollectible	0.00
2006	034685081	26152-65586-002	240.41 Inactive - uncollectible	0.00
2006	034685227	28041-66356-001	129.89 Inactive - uncollectible	0.00
2007	034685227	28041-66356-001	119.15 Inactive - uncollectible	0.00
2005	034686053	27394-64953-114	477.26 Inactive-leased equipment	41.90
2006	034686053	27394-64953-114	209.43 Inactive-leased equipment	2.93
2006	034687475	27394-54918-002	2,873.38 Inactive-leased equipment	276.91
2006	034688358	25351-66405-001	501.52 Inactive - uncollectible	36.16
2007	034688358	25351-66405-001	395.70 Inactive - uncollectible	6.97
2006	034688854	27392-66423-001	173.86 Inactive - uncollectible	0.00
2005	034689125	27394-64946-123	65.44 Inactive-leased equipment	0.00
2005	034691707	27394-51938-079	56.82 Inactive-leased equipment	0.00
2006	034691979	27394-01829-768	9,082.99 Inactive-leased equipment	1,707.14
2006	034692479	27394-51938-121	229.32 Inactive-leased equipment	34.25
2006	034693106	27394-53216-377	503.50 Inactive-leased equipment	30.14

2006	034693807	27394-53216-456	34.34 Inactive-leased equipment	0.00
2004	034699236	27394-63687-228	148.70 Inactive-leased equipment	0.00
2005	034699236	27394-63687-228	84.67 Inactive-leased equipment	0.00
2004	034700366	27394-59382-543	279.86 Inactive-leased equipment	19.16
2005	034700366	27394-59382-543	135.41 Inactive-leased equipment	0.00
2004	034700536	27394-59382-544	80.99 Inactive-leased equipment	0.00
2005	034700536	27394-59382-544	46.86 Inactive-leased equipment	0.00
2004	034700587	27394-59382-546	477.32 Inactive-leased equipment	51.94
2005	034700587	27394-59382-546	233.32 Inactive-leased equipment	10.72
2004	034700617	27394-59382-547	120.64 Inactive-leased equipment	0.00
2005	034700617	27394-59382-547	68.57 Inactive-leased equipment	0.00
2005	034700633	27394-59382-548	53.13 Inactive-leased equipment	0.00
2006	034702598	26411-66464-001	94.96 Inactive - uncollectible	0.00
2007	034702598	26411-66464-001	139.33 Inactive - uncollectible	0.00
2004	034717218	27394-38747-504	61.28 Inactive-leased equipment	0.00
2004	034717234	27394-38747-505	152.36 Inactive-leased equipment	0.00
2004	034717609	27394-57003-093	87.45 Inactive-leased equipment	0.00
2004	034717650	27394-63687-233	511.98 Inactive-leased equipment	66.63
2005	034717650	27394-63687-233	277.09 Inactive-leased equipment	21.96
2005	034717676	27394-63687-234	70.27 Inactive-leased equipment	0.00
2005	034717684	27394-63687-235	175.87 Inactive-leased equipment	1.65
2005	034717706	27394-63687-236	261.55 Inactive-leased equipment	15.18
2005	034717722	27394-63687-237	264.94 Inactive-leased equipment	15.65
2005	034717781	27394-64945-054	82.84 Inactive-leased equipment	0.00
2014	034731580	28021-66650-001	3,008.85 Bankruptcy settlement	294.68
2005	034785906	27394-53216-473	156.64 Inactive-leased equipment	0.00
2006	034785906	27394-53216-473	92.44 Inactive-leased equipment	0.00
2006	034786341	27394-53216-490	384.39 Inactive-leased equipment	44.95
2005	034786589	27394-53216-514	112.21 Inactive-leased equipment	0.00
2006	034786589	27394-53216-514	265.02 Inactive-leased equipment	9.06
2006	034786651	27394-53216-521	346.55 Inactive-leased equipment	11.42
2005	034786724	27394-53216-528	55.01 Inactive-leased equipment	0.00
2006	034786724	27394-53216-528	31.01 Inactive-leased equipment	0.00
2006	034787950	27394-46916-733	80.78 Inactive-leased equipment	0.00
2006	034788557	27394-46916-771	94.32 Inactive-leased equipment	0.00
2006	034790489	27394-64945-101	704.20 Inactive-leased equipment	65.60
2005	034790527	27394-64945-105	63.78 Inactive-leased equipment	0.00
2006	034790527	27394-64945-105	45.18 Inactive-leased equipment	0.00
2006	034791094	27394-64946-174	108.82 Inactive-leased equipment	0.00
2005	034791141	27394-64946-179	202.03 Inactive-leased equipment	0.00
2006	034791141	27394-64946-179	163.86 Inactive-leased equipment	0.00
2006	034791159	27394-64946-180	43.35 Inactive-leased equipment	0.00
2005	034791655	27394-01829-826	202.65 Inactive-leased equipment	3.54
2006	034791655	27394-01829-826	175.28 Inactive-leased equipment	0.00

2006	034793275	27394-60960-594	26.61 Inactive-leased equipment	0.00
2006	034793861	27394-64953-211	509.05 Inactive-leased equipment	42.25
2006	034796452	27394-51938-188	259.60 Inactive-leased equipment	0.00
2006	034798099	27394-66433-015	180.88 Inactive-leased equipment	0.00
2005	034798129	27394-66433-018	53.36 Inactive-leased equipment	0.00
2006	034798129	27394-66433-018	41.21 Inactive-leased equipment	0.00
2006	034798331	27394-66433-023	98.77 Inactive-leased equipment	0.00
2006	034798404	27394-66433-028	404.33 Inactive-leased equipment	26.76
2006	034798595	27394-66433-044	46.99 Inactive-leased equipment	0.00
2006	034798757	27394-66433-049	75.89 Inactive-leased equipment	0.00
2006	034798765	27394-66433-050	538.26 Inactive-leased equipment	76.55
2006	034798790	27394-66433-053	456.79 Inactive-leased equipment	29.07
2006	034798820	27394-66433-056	107.72 Inactive-leased equipment	0.00
2006	034799192	27394-66433-075	61.16 Inactive-leased equipment	0.00
2006	034799231	27394-66433-077	90.24 Inactive-leased equipment	0.00
2005	034799362	27394-66433-086	106.34 Inactive-leased equipment	0.00
2006	034799362	27394-66433-086	90.38 Inactive-leased equipment	0.00
2006	034799419	27394-66433-087	233.87 Inactive-leased equipment	0.00
2006	034799559	27394-66433-099	1,496.93 Inactive-leased equipment	174.45
2006	034799567	27394-66433-100	221.18 Inactive-leased equipment	0.00
2005	034799613	27394-66433-105	380.41 Inactive-leased equipment	12.94
2006	034799613	27394-66433-105	325.71 Inactive-leased equipment	7.18
2005	034799621	27394-66433-106	154.66 Inactive-leased equipment	0.00
2006	034799621	27394-66433-106	130.84 Inactive-leased equipment	0.00
2006	034800271	27394-22299-627	48.74 Inactive-leased equipment	0.00
2006	034800671	27394-63687-242	39.44 Inactive-leased equipment	0.00
2005	034800689	27394-63687-243	166.03 Inactive-leased equipment	0.00
2006	034800689	27394-63687-243	140.24 Inactive-leased equipment	0.00
2005	034800697	27394-63687-244	18.36 Inactive-leased equipment	0.00
2006	034800697	27394-63687-244	14.32 Inactive-leased equipment	0.00
2005	034800701	27394-63687-245	337.47 Inactive-leased equipment	20.04
2006	034800701	27394-63687-245	276.60 Inactive-leased equipment	11.37
2006	034801600	27394-65005-006	7,614.40 Inactive-leased equipment	1,034.71
2006	034801618	27394-65005-007	160.88 Inactive-leased equipment	0.00
2006	034801626	27394-65005-008	56.24 Inactive-leased equipment	0.00
2006	034801634	27394-65005-009	324.51 Inactive-leased equipment	17.11
2006	034801669	27394-65005-012	474.76 Inactive-leased equipment	37.88
2006	034801782	27394-65005-024	159.04 Inactive-leased equipment	0.00
2006	034801804	27394-65005-026	143.92 Inactive-leased equipment	0.00
2006	034801812	27394-65005-027	76.02 Inactive-leased equipment	0.00
2006	034802151	27394-64946-183	94.53 Inactive-leased equipment	0.00
2006	034802169	27394-64946-184	1,354.94 Inactive-leased equipment	244.68
2006	034802193	27394-64946-187	335.98 Inactive-leased equipment	34.97
2006	034802223	27394-64946-190	123.34 Inactive-leased equipment	0.00

2006	034802231	27394-64946-191	73.23 Inactive-leased equipment	0.00
2005	034803327	27394-53216-538	226.11 Inactive-leased equipment	11.85
2006	034803360	27394-53216-542	7.52 Inactive-leased equipment	0.00
2006	034821651	27371-68179-001	31.95 Inactive - uncollectible	0.00
2007	034821651	27371-68179-001	1,760.06 Inactive - uncollectible	238.25
2008	034821651	27371-68179-001	2,904.65 Inactive - uncollectible	414.50
2009	034821651	27371-68179-001	2,404.68 Inactive - uncollectible	337.80
2014	034843981	27371-69040-001	1,216.24 Bankruptcy-all claims paid	112.50
2010	034844546	26720-69067-001	733.62 Bankruptcy-write-off per attorney	43.35
2006	034846492	27394-64946-212	289.99 Inactive-leased equipment	6.55
2007	034846492	27394-64946-212	229.26 Inactive-leased equipment	0.00
2006	034846514	27394-64946-214	248.56 Inactive-leased equipment	24.32
2007	034846514	27394-64946-214	180.30 Inactive-leased equipment	0.00
2006	034848011	27394-64945-184	70.58 Inactive-leased equipment	0.00
2006	034851062	27394-54589-158	67.96 Inactive-leased equipment	0.00
2007	034851062	27394-54589-158	46.25 Inactive-leased equipment	0.00
2006	034851071	27394-54589-159	196.34 Inactive-leased equipment	5.34
2007	034851071	27394-54589-159	102.19 Inactive-leased equipment	0.00
2006	034851097	27394-54589-160	114.90 Inactive-leased equipment	0.00
2006	034851909	27394-60960-749	93.37 Inactive-leased equipment	0.00
2007	034851909	27394-60960-749	80.61 Inactive-leased equipment	0.00
2006	034851976	27394-60960-753	230.65 Inactive-leased equipment	0.00
2007	034851976	27394-60960-753	160.32 Inactive-leased equipment	0.00
2006	034855980	27394-46916-852	29.95 Inactive-leased equipment	0.00
2007	034855980	27394-46916-852	67.94 Inactive-leased equipment	0.00
2006	034856285	27394-46916-882	202.47 Inactive-leased equipment	0.00
2007	034856285	27394-46916-882	161.86 Inactive-leased equipment	0.00
2006	034860517	27394-51938-210	157.99 Inactive-leased equipment	0.00
2007	034860517	27394-51938-210	116.39 Inactive-leased equipment	0.00
2006	034861246	27394-51938-223	279.37 Inactive-leased equipment	9.05
2007	034861246	27394-69257-001	223.03 Inactive-leased equipment	0.00
2006	034863176	27394-65013-529	1,452.06 Inactive-leased equipment	171.87
2007	034863176	27394-65013-529	1,298.16 Inactive-leased equipment	132.09
2005	034869603	27394-69257-001	3,585.75 Inactive-leased equipment	376.93
2006	034869603	27394-69257-001	2,544.85 Inactive-leased equipment	271.61
2007	034869603	27394-69257-001	1,398.79 Inactive-leased equipment	119.80
2011	034966722	25812-72046-001	99.17 Defaulted on pymt plan-moved out of county-no assets	0.00
2012	034966722	25812-72046-001	50.07 Defaulted on pymt plan-moved out of county-no assets	0.00
2014	034966722	25812-72046-001	226.83 Defaulted on pymt plan-moved out of county-no assets	0.00
2013	035001792	26145-73297-001	56.39 Bankruptcy settlement	0.01
2013	035001806	26145-73297-002	37.16 Bankruptcy settlement	0.00
2013	035010686	26145-73297-003	45.55 Bankruptcy settlement	0.00
2013	035036138	26145-73297-004	53.96 Bankruptcy settlement	0.00
2014	035036138	26145-73297-004	83.59 Bankruptcy settlement	0.00

Total

4,865,501.00

657,613.12



Board Summary Report

Date: December 8th, 2016

To: Board of County Commissioners

Through: Manisha Singh, Director of Strategy and Performance

From: Matthew Nii, Strategy and Performance Analyst

Subject: Waiver of Solicitation request for ClearPoint Strategy

Direction/Information: The Arapahoe County Department of Strategy and Performance (DSP) requests approval from the BoCC for a waiver of solicitation for the continued use of ClearPoint Strategy as the County's primary performance reporting tool for Align Arapahoe.

The request for a waiver of solicitation was presented to the BoCC during a drop-in study session on December 5th, 2016, at which time the BoCC concurred with the request. This consent action will finalize the approval of the waiver of solicitation.

Request and Recommendation

The current contract with Ascendant Strategy Management (the ClearPoint vendor) is set to expire on December 31st, 2016. Upon review of the current contract, it was determined that the initial contract Arapahoe County piggybacked on from Fort Collins did not contain cooperative language and therefore should not have been used under the County's purchasing policy. Arapahoe County searched for piggy-back opportunities with other municipal ClearPoint customers including Olathe, KS; Ft. Lauderdale, FL; and Durham, NC. None of the other municipalities have cooperative language in their contracts, which prevents the option of a piggyback. Without the ability to piggyback and without a waiver of solicitation to renew the contract, County access to ClearPoint would cease on January 1, 2017, severely obstructing the Align Arapahoe process.

In order to prevent a disruption to this vital strategy and performance management software, it is necessary to receive a waiver of solicitation to maintain continuity ClearPoint.

Background

ClearPoint is a user-friendly, cloud-based software used to collect and report performance data in a clear, concise format.

When DSP originally sought to replace the County's scorecard software (QuickScore) in 2013, DSP learned about ClearPoint from the City of Fort Collins and was impressed

with how user-friendly and functional the system was as well as the results that Fort Collins achieved using this system. The DSP and IT departments negotiated a contract in 2014, piggybacking off of the City of Fort Collins, to build a performance management system customized to Arapahoe County's strategy and performance framework. This system was built during the summer of 2014 and the Department of Strategy and Performance began rolling it out to assist in reporting measures for the County strategy and for department's operational scorecards.

Currently, all 12 departments and 5 elected offices use ClearPoint to report performance data as part of their operational scorecard process and/or for relevant measures on the County scorecard (monthly Align Arapahoe meetings).

This software was originally approved as a 2015 budget package (FY2015#3990). The original contract was for a two year period, which concludes December 31st, 2016.

Links to Align Arapahoe

ClearPoint is a tool that enables the effective and efficient planning, implementation, and evaluation of data-driven decision making related to Align Arapahoe¹. ClearPoint is the primary performance measure and reporting tool for Align Arapahoe.

Discussion

The County has been using ClearPoint to manage strategy and scorecards since 2014. During that time, DSP has devoted significant staff resources to rolling-out the tool in the departments and continuously improving how the tool is used. As each department has matured in its scorecard process, ClearPoint has been leveraged to make the scorecard process more efficient and effective.

Alternatives

Arapahoe County needs a performance reporting tool to efficiently and effectively drive results through data-driven decision making. If a waiver request is not granted, the only alternative is to cancel the contract with ClearPoint and issue a RFP. Even if ClearPoint is retained during the RFP process, this will cause a lengthy, Countywide interruption to Align Arapahoe reporting and the department scorecard process. Many departments are just now getting comfortable with using this software and starting to experience the intended benefits of a centralized performance reporting tool. Interrupting or replacing ClearPoint would significantly halt progress for Align Arapahoe. DSP strongly recommends against this alternative.

Fiscal Impact

The annual cost of ClearPoint is \$34,000 which is included in the 2016 and 2017 DSP budgets and will not require any additional county funds.

¹ Since 2009, Align Arapahoe has gone through 3 iterations. In its current form, Align Arapahoe is an umbrella term that includes efforts relating to the County strategy, performance management, and continuous improvement. County strategy (goals and objectives) is one important piece of Align Arapahoe.

Concurrence

All departments and offices use ClearPoint as a tool to manage the reporting of measures for the County strategy and/or for operational scorecards. The offices and departments affected by this recommendation include the offices of Assessor, Clerk and Recorder, Coroner, Sheriff, and Treasurer as well as the departments of BoCC Administration, Communication Services, Community Resources, County Attorney, Facilities and Fleet Management, Finance, Human Resources, Human Services, Information Technology, Open Spaces, Public Works and Development, and Strategy and Performance.

Reviewed By:

Matthew Nii, Strategy and Performance Analyst
Manisha Singh, Director of Strategy and Performance
Keith Ashby, Purchasing Manager

WAIVER OF SOLICITATION

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to waive the formal solicitation requirements as set forth in the Arapahoe County Purchasing Policies for a contract renewal with Ascendant Strategy Management for the use of ClearPoint Strategy.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.



WAIVER OF PURCHASING POLICIES

WAIVER OF SOLICITATION ☒ WAIVER OF QUOTE ☐
SELECT SOURCE ☐ FOR INFORMATION ONLY ☐

DESCRIPTION OF PROJECT: ClearPoint

PRICE: \$34,000 ANNUAL MAINTENANCE: \$ 34,000

FIXED ASSET Yes ☐ No ☒ FIXED ASSET #

COST CENTER # 107410100 G/L # 53240 IO #

JUSTIFICATION (Provide Vendor name, How were they selected, Why requesting to waive purchasing policy process): ClearPoint (vendor: Ascendant Strategy Management) is a user-friendly, cloud-based software used to collect and report performance data in a clear, concise format.

Background: Arapahoe County was impressed with how user-friendly and functional the system was, and the results that Fort Collins has driven using this system. The DSP and IT departments negotiated a contract in 2014, piggybacking off of the City of Fort Collins, to build a performance management system customized to Arapahoe County's strategy and performance framework. This system was built during the summer of 2014 and the Department of Strategy and Performance immediately began rolling it out to assist in reporting measures for the County strategy and for department's operational scorecards. Currently, all 12 departments and the Clerk and Recorder's office use ClearPoint to report performance data in relation to their operational scorecards and for key elements of the County strategy. Additionally, progress is being made to incorporate the Assessor's Office, Coroner's Office, Sheriff's Office, and Treasurer's Office in using ClearPoint to report County performance data.

This software was originally approved as a 2015 budget package (FY2015#3990). The original contract was for a two year period, which concludes December 31st, 2016.

Why we're requesting a waiver: Upon review of the contract, it was determined that the initial contract that Arapahoe County piggybacked on from Fort Collins did not contain cooperative language and therefore should not have been used under the County's purchasing policy. Arapahoe County reached out to other municipalities that use ClearPoint, including Olathe, KS; Ft. Lauderdale, FL; and Durham, NC to determine if their contracts could be piggybacked off of. None of the other municipalities we spoke with had cooperative language in their contracts. Without the ability to piggy-back and without a waiver of solicitation, our access to ClearPoint would cease on January 1, 2017, severely obstructing the Align Arapahoe process. In order to prevent a disruption to this vital strategy and performance management software, it is necessary to receive a waiver of solicitation in order to extend our contract with ClearPoint, preferably for

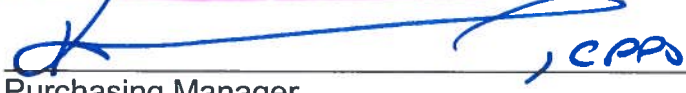
another two year period, with the expectation that we would conduct a formal solicitation for 2019.

Matthew Nii  303-738-8063
Requestor Name, Signature & Telephone Number

12/8/16
Date


Elected Official/Department Head

12/8/16
Date

, CPPD
Purchasing Manager


12/5/16
Date

Comments: _____

Waiver approved, BoCC Reso #140221. Requestor to proceed with PO Yes ☐ No ☐

Requestor to schedule BoCC Drop In & Create Board Summary Report Yes ☐ No ☐

Janet Kennedy, Director of Finance (not to exceed \$100,000) _____ Date _____


BOCC, Chair

12-5-16
Date

Requestor to schedule BoCC Consent Agenda & Board Summary Report Yes ☐ No ☐

Resolution # _____

Per BoCC Resolution #140221 of 4/8/14, Purchasing Manager has authorization for sole approval up to \$25,000 plus exemptions to Policy

PER DISCUSSION, APPROVED ONE(1) YEAR WITH OPTION
FOR THREE(3) ONE(1) YEAR RENEWALS



Board Summary Report

Date: November 15, 2016

To: Board of County Commissioners

Through: David C. Walcher, Sheriff

From: Olga Fajaros, Budget & Logistics Manager

Subject: 2017 Waiver of Bid for the Multiple Offender Program at the Arapahoe County Detention Facility

Request and Recommendation

Request the Board of County Commissioners authorize the Select Source Waiver of Purchasing Policies for Crossover Counseling to provide the Multiple Offender Program at the Justice Center Detention Facility.

This item was heard and approved by the Board of County Commissioners at a drop-in session on December 5, 2016

Background

The Multiple Offender Program has provided court-ordered drug and alcohol classes to inmates sentenced to home detention since 2001. The Multiple Offender Program was developed by Dr. Michael Maggard, Psy.D. CAC III of Crossover Counseling.

Links to Align Arapahoe

Service First – The Multiple Offender Program helps repeat offenders avoid returning to jail or prison.

Discussion

The classes focus on overcoming dependencies while living outside the jail environment. Many inmates are court-ordered to attend Drug and Alcohol classes as part of their probation. If inmates do not attend classes, they are in violation of probation and are again incarcerated. The cost of the MOP is charged to the inmate at \$32.00 per day. Dr. Maggard receives \$20.00 of the fee and Arapahoe County Sheriff's Office Detention Facility receives \$12.00 of the fee. These classes are hosted by the Detention Facility and have been effective in assisting former inmates to remain out of jail.

Alternatives

The alternative is to suspend these court-ordered classes until a completely different drug and alcohol program provided by a different doctor can be tested and found.

Fiscal Impact

The cost of the Agreement for Services is paid for by its inmate participants.

Concurrence

The Sheriff's Office Administration and Detention Services Bureau are in full support of the Waiver of Purchasing Policies for the Multiple Offender Program.

Reviewed By:

Olga Fajaros, Budget & Logistics Manager

Vincent Line, Detention Service Bureau

Louie Perea, Undersheriff

David C. Walcher, Sheriff

Finance Department

County Attorney

RESOLUTION NO. It was moved by Commissioner and duly seconded by Commissioner to approve the recommendation of the Arapahoe County Sheriff's Office and to waive the formal bid requirements as set forth in Policy Nos. 4.1 and 5.6 of the Arapahoe County Financial Management Manual and the Arapahoe County Purchasing Policies.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.

WOB-16-93



WAIVER OF PURCHASING POLICIES

WAIVER OF SOLICITATION ☐ WAIVER OF QUOTE ☐ SOLE SOURCE ☐
PROPRIETARY ☐ SELECT SOURCE ☒ FOR INFORMATION ONLY ☐

DESCRIPTION OF PROJECT: Inmate Multiple Offender Program (MOP)

PRICE: \$100,000 (Revenue) ANNUAL MAINTENANCE: \$

FIXED ASSET Yes ☐ No ☒ FIXED ASSET #

COST CENTER # 107050000 G/L # 45507

JUSTIFICATION: CrossOver Counseling - Dr. Michael Maggard Psy.D. CAC III has provided drug and alcohol abuse programs at the Arapahoe County Sheriff's Office Detention Facility since 2001. Dr. Maggard is a Certified Alcohol Counselor. Programs taught by Dr Maggard are certified through the State of Colorado Alcohol/Drug Abuse Division of Behavioral Health. Dr. Maggard developed a program titled Multiple Offender Program (MOP). The MOP is directed towards inmates in the home detention situation. The focus of this program is multiple offenders. The classes focus on overcoming dependencies while living outside the jail environment and to help them avoid becoming a repeat offender returning to prison as an inmate. Many inmates are court ordered to attend Drug and Alcohol classes as part of their parole. If inmates do not attend classes, they are in violation of parole and are again incarcerated. The cost of the MOP is charged to the inmate at \$32.00 per day. Dr. Maggard receives \$20.00 of the fee and Arapahoe County Sheriff's Office Detention Facility receives \$12.00 of the fee. These classes are hosted by the Detention Facility and have been effective in assisting former inmates to remain out of jail.

Shauna Deeble *Shauna Deeble* 720-874-4136 11/10/16
Requestor Name, Signature & Telephone Number Date

Deeble
Elected Official/Department Head Date 11/09/16

A, CPPD
Purchasing Manager Date 11/14/16

Comments: _____

Waiver approved, BoCC Reso #140221. Requestor to proceed with PO Yes ☐ No ☐
Requestor to schedule BoCC Drop In & Create Board Summary Report Yes ☒ No ☐

Janet Kennedy, Director of Finance (not to exceed \$100,000)

Date

BOCC, Chair

Date

Requestor to schedule BoCC Consent Agenda & Board Summary Report

Yes ☐ No ☐

Resolution # _____

Per BoCC Resolution #140211, Purchasing Manager has authorization for sole approval up to \$25,000 plus exemptions to Policy



Board Summary Report

Date: December 5, 2016

To: Board of County Commissioners

Subject: Appointing a replacement to fill an upcoming vacancy in Office of County Assessor

Background and Discussion

Pursuant to Section 30-11-117 of the Colorado Revised Statutes and Section 9 of Article XIV of the Colorado Constitution, in the case of a vacancy in the Office of Assessor, the Board of County Commissioners has the power to fill the vacancy by appointment until the next general election.

Arapahoe County Assessor Corbin Sakdol has submitted a letter indicating that he intends to resign, with his last day being January 6, 2017. In his letter, Assessor Corbin Sakdol respectfully requests that the Board appoint Chief Deputy Assessor Marcus Scott as the Assessor, effective January 7, 2017. A copy of the resignation letter and of Marcus Scott's CV are attached.

With the resignation of Corbin Sakdol as the Arapahoe County Assessor, the Board of County Commissioners of Arapahoe County has the power to fill this vacancy. Attached is a draft resolution for the Board's consideration appointing Marcus Scott as the Arapahoe County Assessor effective at 12:01 a.m. on January 7, 2017.

Alternatives

Only the Board of County Commissioners has the power to fill the vacancy in office of the Assessor.

Fiscal Impact

None.

RESOLUTION NO. _____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ that the Board of County Commissioners of Arapahoe County, Colorado, pursuant to the provisions of Section 9 of Article XIV of the Colorado Constitution and Section 30-11-117 of the Colorado Revised Statutes, hereby appoint Marcus Scott as Arapahoe County Assessor, in and for the County of Arapahoe, State of Colorado, for the remainder of the term expiring on the 8th day of January, 2019, to fill a vacancy in the office of the Arapahoe County Assessor to be created by the resignation of Corbin Sakdol, such appointment to be effective as of 12:01 a.m. on January 7, 2017.

The vote was:

Commissioner Bockenfeld, __; Commissioner Doty, __; Commissioner Holen, __; Commissioner Jackson, __; Commissioner Sharpe, __.

The Chair declared the motion carried and so ordered.



ARAPAHOE COUNTY
COLORADO'S FIRST

Corbin Sakdol

Assessor

OFFICE OF THE ASSESSOR

5334 South Prince Street
Littleton, Colorado 80120-1136

Phone: 303-795-4600

TDD: 303-795-4645

Fax: 303-797-1295

www.arapahoegov.com

assessor@arapahoegov.com

November 1, 2016

Board of County Commissioners
Arapahoe County Government
5334 South Prince Street
Littleton, Colorado 80120

Arapahoe County Board of County Commissioners,

After 27 years of dedicated service in the Arapahoe County Assessor's Office, and 10 years as your elected Assessor, I have made the decision to retire. Please accept this letter as official notice that my last day as the Arapahoe County Assessor will be January 6, 2017. My decision to retire from Arapahoe County is difficult, however it is based upon my multiyear succession plan and term limits that prevent me from running for election in 2018.

It is important that the leadership of the Assessor's office continue with an appointment that has the experience, qualifications and dedication to run this complex office. This office is responsible for the appraisal of over 200,000 properties including residential, highly complex commercial properties, vacant land, agricultural and business personal property. The valuation results are certified and relied upon by 360 Arapahoe County taxing districts including our county, school districts, fire districts and cities, among others.

I am extremely proud to lead the devoted women and men who work in the Assessor's Office. They deserve a leader who understands the significance of their jobs, the state statutes, the certification process, mass appraisal methods, as well as the challenging appeals process and licensing requirements, they must adhere to. The taxpayers of this great county should demand nothing less.

It has been an extreme honor that the voters elected me for three terms to serve the 600,000 citizens. I am proud of our many accomplishments. The challenging valuation and certification process has been completed annually, on time while implementing budget cutting measures. We have passed every mandatory annual state audit. We successfully completed the conversion to a new computer system saving the county several hundred thousand dollars annually. I was proud to serve as President of the Colorado Assessor's Association and on their Executive Board for many years. One of the greatest honors was being voted by my peers as the 2010 Colorado Assessor of the Year. I currently serve on the Governor appointed Statutory Advisory Committee to the Property Tax Administrator and have worked on many legislative issues.

It is important that this office not fall into the hands of an inexperienced political appointee. For this office to continue to be successful, it must be run by an individual with hands-on experience, qualifications and advanced appraisal licensing. The Board of County Commissioners (BOCC) is responsible to fill a vacancy in a county-wide elected office. I am respectfully requesting the BOCC put in process the appointment of Chief Deputy Assessor, Marcus Scott, MAI, to fill the vacancy that will be created by my retirement, and that the appointment be effective starting January 7, 2017.

I have been truly blessed to serve with many highly dedicated elected officials, county directors and staff.

Respectfully,

Corbin S. Sakdol, Assessor

MISSION

Enhancing your quality of life through exceptional delivery of services and efficient use of public funds.

Curriculum Vitae

Marc Scott, MAI

303-795-4622 ~ mscott@arapahoegov.com

EXPERIENCE

- Actively engaged in the real estate and appraisal professions for 35 years
- Experience includes commercial, industrial, multi-family residential, recreational, and special use properties
- Appraisals performed for purposes of sale/purchase, financing, estate and gift tax, business planning, ad valorem purposes and condemnation. Feasibility and marketability studies have also been performed as well as cost-benefit analyses for special improvement districts
- Appraised a wide variety of limited market properties including administrative municipal buildings, jails, prisons and detention centers, elementary schools, gondola terminals, airport hangars, grain elevators, long-term land leases, conservation easements, and transportation corridors, as well as numerous golf courses and country clubs
- Prior to joining Arapahoe County the appraisal practice was primarily litigation based with expert witness testimony provided in numerous courts and administrative tribunals, representing both private property owners and government agencies

WORK HISTORY

Arapahoe County Assessor's Office

- Chief Deputy Assessor 2013 - Present
Directs the strategic operations of the Arapahoe County Assessor's Office including compliance with state mandated reporting, process deadlines, annual reports, appraisal of real and personal properties, data collection, provides public interface and assistance for all processes. Responsibilities include management and oversight of all appraisal divisions (commercial, residential, land, agricultural, personal property) and administrative departments including audit compliance.
- Sr. Appraiser Commercial Department 2011 - 2013
Served as commercial staff appraiser with technical duties associated with the collection and analysis of market data relating to real property, and valuing property for assessment purposes. Responsibilities included preparation of USPAP compliant appraisals of complex commercial properties with expert witness testimony provided at all levels of appeal.

Asset Valuation Advisors, LLP / Centennial, CO

2003 - 2011

- Partner, commercial real estate appraisal and consulting practice

Scott, Stahl & Burbach, LLP* / Denver, CO

1988 - 2003

- Partner, commercial real estate appraisal and consulting practice; reached a maximum size of 15 appraisers in the mid 1990s
*later Scott, Stahl, Burbach & Decker, LLP

Responsibilities within these appraisal practices were comprehensive including general management of administrative staff and appraisers, negotiation of fee arrangements with clients, property inspections, data collection and analysis, appraisal review and scheduling, and coordination of larger projects with partners, as well as preparing fully documented commercial appraisal reports for established clients. Marketing of the practice included written articles, occasional speaking engagements and preparation of industry data reports such as a CBD parking survey and a semi-annual real estate investment survey newsletter

CLIENT SAMPLE

Lenders

- | | |
|------------------------------------|------------------------------------|
| • Adams Bank & Trust | American National Bank |
| • Community First Financial | Guaranty Bank and Trust Co. |
| • First National Bank of Telluride | Pueblo Bank and Trust |
| • Castle Rock Bank | Pitkin County Bank & Trust Company |
| • Telluride Financial Resources | Stearns Bank Arizona |
| • First State Bank of Taos | Citywide Banks |
| • Key Bank of Colorado | BankWest |
| • Citizens State Bank of Ouray | Lafayette Life Insurance Company |
| • Bank of Colorado | US Bank, Trust Department |

Developers / Owners / Consultants

- Union Pacific Railroad Wal-Mart Stores, Inc.

- Telluride Ski & Golf Company
- Grant Properties
- Rocky Mountain PBS
- Southern Pacific Real Estate Enterprises
- Cherokee Ranch & Castle Foundation
- Catamount Development, Inc.

Government Agencies

- Arapahoe County, Colorado
- Crowley County, Colorado
- Douglas County, Colorado
- Garfield County, Colorado
- Kit Carson County, Colorado
- Larimer County, Colorado
- City of Aurora
- City of Fort Lupton
- Telluride Gondola Transit Authority
- Perry Park Water & Sanitation District
- U.S. Department of Veterans Affairs
- Boulder County, Colorado
- City and County of Denver
- Eagle County, Colorado
- Jefferson County, Colorado
- Lake County, Colorado
- Montrose County, Colorado
- City of Evans
- City of Lone Tree
- Colorado Department of Transportation
- U.S. Department of Military Affairs
- U.S. General Services Administration

EDUCATION / PROFESSIONAL MEMBERSHIPS

- | | |
|---|----------------|
| Colorado State University | 1968 - 1972 |
| <ul style="list-style-type: none"> • Bachelor of Arts Degree in Social Sciences | |
| American Institute of Real Estate Appraisers / Appraisal Institute | 1980 - present |
| <ul style="list-style-type: none"> • All courses leading to MAI designation and numerous courses & seminars for continuing education • Chair of numerous committees, service on the Board of Directors and Officer positions of the Colorado Chapter of the Appraisal Institute • President of the Colorado Chapter of the Appraisal Institute in 2000 | |

LICENSES AND CERTIFICATIONS

- | | |
|--|------|
| • Certified General Appraiser, Colorado (#CG1313135) | 1991 |
| • MAI Member of the Appraisal Institute (#6992) | 1984 |
| • Licensed Real Estate Broker, Colorado (Currently Inactive Status) | 1976 |
| • Licensed Real Estate Salesman, Colorado | 1973 |
| • Continuing Education Requirements Completed, Appraisal Institute & State of Colorado | |

COURT TESTIMONY

- U.S. Bankruptcy Court (Denver)
- District Courts in Adams County, Arapahoe County, Denver County, Douglas County, El Paso County, Jefferson County, Montrose County
- Superior Court of Justice, Ontario, Canada
- Colorado State Board of Assessment Appeals
- Various County Boards of Equalization
- Binding Arbitration Hearings (Witness & Arbitrator)
- Court Appointed Partition Commission (Chairman)

PUBLICATIONS AND PRESENTATIONS

- Colorado Association of Tax Appraisers (CATA)
- Colorado County Attorneys Association
- Served on the Certification Steering Committee, assisted in preparation of the Sunrise application for the initial licensure of appraisers in Colorado, and provided testimony at the Colorado Legislature on that issue
- Provided testimony at the initial sunset review of the appraiser licensure program for the Department of Regulatory Agencies
- Consulted with the College of Business at Colorado State University on scholarships and other real estate related issues

COMMUNITY SERVICE

- | | |
|--|-------------|
| • Arapahoe County Open Space & Trails Advisory Board | 2005 - 2012 |
| • Aurora Colorado Municipal Building Corporation | 1988 - 1995 |



Board Summary Report

Date: December 2, 2016

To: Board of County Commissioners

From: Todd Weaver, Budget Manager

Subject: Adoption of the 2017 Budget and the Certification of Mill Levies

Request and Recommendation

The Finance Department is requesting the Board of County Commissioners adopt and appropriate the 2017 budget and certify the 2017 mill levy for Arapahoe County, the Arapahoe Law Enforcement Authority, the Arapahoe County Recreation District, Arapahoe County Water and Wastewater Public Improvement District, and all other districts within Arapahoe County.

In addition, the Finance Department is also requesting authorization for the Chairperson of the Board of County Commissioners to sign the 2017 Certification of Tax Levy Forms for Arapahoe County, the Arapahoe Law Enforcement Authority, the Arapahoe County Recreation District, and the Arapahoe County Water and Wastewater Public Improvement District.

Background

The Board of County Commissioners and the Executive Budget Committee played a significant role in providing guidance on budget development and in their review and input on issues that are included in the 2017 budget. From August through November, updates to the budget were made by the Executive Budget Committee who reviewed budget package requests from departments and elected offices. The recommendations of the Executive Budget Committee related to the 2017 budget were presented during a BOCC study session held on October 18th, 2016.

In addition, a public hearing on the 2017 budget was held on October 25th, 2016 to allow for citizen comment on the recommended budget. During a November 14th study session, the Finance Department presented the recommended changes and updates for a structurally balanced 2017 recommended budget to the Board. The Board indicated that the 2017 recommended budget should be brought forward for adoption on December 13th with the changes requested and made during the discussions in November.

The resolutions for the 2017 budget for this public hearing will incorporate these revisions but will not be available until just prior to the public hearing due to the timing of data from the Assessor's Office regarding final assessed values. **A set of draft resolutions with current budget amounts are attached to this Board Summary Report for your reference but will be updated with final figures for December 13th as final property tax values are not available yet.**

Links to Align Arapahoe

The adoption of a balanced budget is not only required by State statute but, the recommendations included in the budget and the adoption of a structurally balanced operating budget are in keeping with the County's objectives for fiscal responsibility and the responsible use of taxpayer dollars.

Discussion

Discussions regarding the content of the 2017 budget were held during several study sessions and public hearings during October and November and questions were answered, changes were made, and information clarified. The Finance Department, specifically the Budget Division, will be present to answer questions from the public or from the Board of County Commissioners related to the adoption and appropriation of the budget and the certification of mill levies for 2017.

Alternatives

Pursuant to statute, the Board of County Commissioners must adopt a budget and certify mill levies by December 15th each year. The Board must also appropriate amounts to be spent by December 31st each year.

Fiscal Impact

The fiscal impact of Board action during this public hearing will be to adopt and appropriate the 2017 budget for Arapahoe County, the Arapahoe Law Enforcement Authority, the Arapahoe County Recreation District, and the Arapahoe County Water and Wastewater Public Improvement District.

Approved By:

Janet Kennedy, Finance Director
John Christofferson, Deputy County Attorney

Tuesday, December 13, 2016

9:30 A.M.

Arapahoe County, the Arapahoe Law Enforcement Authority, the Arapahoe County Recreation District, the Arapahoe County Water and Wastewater Public Improvement District

A. County Budget – All Funds

1. Continuation of Public Hearing
2. Close Public Hearing
3. Adopt the 2017 County Budget
4. Certify the County's Mill Levies
5. Appropriate the 2017 County Budget

B. Arapahoe Law Enforcement Authority

1. Continuation of Public Hearing
2. Close Public Hearing
3. Adopt the 2017 ALEA Budget
4. Certify the ALEA Mill Levy
5. Appropriate the 2017 ALEA Budget

C. Arapahoe County Recreation District

1. Continuation of Public Hearing
2. Close Public Hearing
3. Adopt the 2017 Arapahoe County Recreation District Budget
4. Certify the Arapahoe County Recreation District Mill Levy
5. Appropriate the 2017 Arapahoe County Recreation District Budget

D. Arapahoe County Water and Wastewater Public Improvement District

1. Continuation of Public Hearing
2. Close Public Hearing
3. Adopt the 2017 Arapahoe County Water and Wastewater Public Improvement District Budget
4. Certify the Arapahoe County Water and Wastewater Public Improvement District Mill Levy
5. Appropriate the 2017 Arapahoe County Water and Wastewater Public Improvement District Budget

E. Authorization For Chair to Sign Certification of Tax Levy Forms

PROPOSED MOTIONS

The options for proposed motions to adopt the budget, certify the mill levies, and appropriate funds for spending are too numerous and varied to list here. Below are proposed motions to adopt, certify the mill levy, and appropriate funds as a group for each authority we are adopting a budget for. Alternatively, the BOCC could choose to propose a motion to take each action for each authority individually.

Arapahoe County

I move to adopt the seven (7) resolutions approving and adopting the 2017 budget, certifying the mill levies and appropriating funds for Arapahoe County.

Arapahoe Law Enforcement Authority

I move to adopt the three (3) resolutions approving and adopting the 2017 budget, certifying the mill levy and appropriating funds for Arapahoe Law Enforcement Authority.

Arapahoe County Recreation District

I move to adopt the three (3) resolutions approving and adopting the 2017 budget, certifying the mill levy and appropriating funds for Arapahoe County Recreation District.

Arapahoe County Water and Wastewater Public Improvement District

Acting as the ex officio Board of the District, I move to adopt the three (3) resolutions approving and adopting the 2017 budget, certifying the mill levy and appropriating funds for Arapahoe County Water and Wastewater Public Improvement District.

Authorize Chair to Sign the 2017 Certification of Levy Forms

I move to adopt the resolution authorizing the Chair to sign the 2017 Certification of Tax Levy forms.

DRAFT – ADOPTION OF 2017 COUNTY BUDGET – ALL FUNDS

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, pursuant to Section 29-1-107, C.R.S. as amended, the Arapahoe County Budget Officer has submitted to the Board of County Commissioners a proposed Arapahoe County Budget for the ensuing budget year; and

WHEREAS, the Board of County Commissioners has caused to be published a notice relating to a public hearing to be held on the proposed 2017 Budget, pursuant to Section 29-1-106, C.R.S. as amended; and

WHEREAS, pursuant to statute and the aforementioned notice provisions, public hearings were held before the Board of County Commissioners on October 11, 2016 and October 25, 2016, at the Arapahoe County Administration Building, 5334 South Prince Street, Littleton, Colorado, at which time evidence and testimony were presented to the Board concerning said proposed budget and mill levies; and

WHEREAS, at the October 25, 2016 public hearing, the Board adopted Resolution No. 160633 which continued the public hearing to this date; and

WHEREAS, up to and including this date, said proposed Budget has been open for inspection by the public and interested citizens and electors have been given the opportunity to file or register any objections to said proposed Budget pursuant to Section 29-1-107, C.R.S. as amended; and

WHEREAS, as a result of the November 7, 1995 election, the voters of Arapahoe County did approve a ballot question which permits the County to collect, retain and spend all proceeds from (a) regional transportation fees paid by developers to be spent on new roadway construction, (b) interest earnings on investments made by the County Treasurer, (c) grant funds, (d) permit fees for new construction and (e) all other non-tax revenue sources, to be spent on capital projects or other basic County governmental services, notwithstanding any restrictions of Section 20 of Article X of the Colorado Constitution; and

WHEREAS, the Board of County Commissioners is desirous of adopting said proposed Budget at this time; and

WHEREAS, whatever increases may have been made in the expenditures, like increases were added to the revenue so that the Budget remains in balance, as required by Section 29-1-108, C.R.S. as amended.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, Colorado to adopt the 2017 Budget as follows:

FUND TITLE (NUMBER): GENERAL FUND (10)**EXPENDITURES:****DEPARTMENT/ELECTED OFFICE:**

Administrative Services.....	\$ 19,015,832
Aid-to-Agencies.....	1,679,500
Assessor's Office.....	5,411,247
Board of County Commissioners.....	1,077,606
Board of County Commissioners Administration.....	648,465
Clerk and Recorder's Office.....	10,465,534
Communication Services.....	1,371,941
Community Resources.....	3,773,008
Coroner's Office.....	1,653,273
County Attorney.....	2,721,954
Department of Strategy and Performance.....	414,193
District Attorney.....	14,269,860
Facilities and Fleet Management.....	9,831,643
Finance	3,415,230
Human Resources.....	1,981,120
Information Technology.....	13,100,939
Open Spaces and Intergovernmental Relations.....	40,204
Public Works and Development.....	7,514,000
Sheriff's Office	72,429,122
Treasurer's Office.....	2,149,348
Tri-County Health.....	4,725,240
TOTAL EXPENDITURES	\$ 177,689,259

REVENUE:

1. From the General Property Tax Levy.....	\$ 102,849,516
2. From Sources Other than Property Tax.....	68,253,208
3. From the Public Trustee.....	300,500
4. From the Unappropriated Fund Balance.....	6,286,035
TOTAL REVENUE	\$ 177,689,259

FUND TITLE (NUMBER): BUILDING MAINTENANCE FUND (33)

EXPENDITURES	\$ 1,828,269
---------------------------	---------------------

REVENUE:

1. From the General Property Tax Levy.....	\$ 0
2. From Sources Other than Property Tax.....	1,798,000
3. From the Unappropriated Fund Balance.....	30,269
TOTAL REVENUE	\$ 1,828,269

FUND TITLE (NUMBER): SOCIAL SERVICES FUND (11)

EXPENDITURES\$ **55,538,521**

REVENUE:

1. From the General Property Tax Levy.....\$ 12,393,880
2. From Sources Other than Property Tax..... 43,423,395
3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **55,817,275**

FUND TITLE (NUMBER): ELECTRONIC FILING TECHNOLOGY FUND (12)

EXPENDITURES\$ **132,099**

REVENUE:

1. From the General Property Tax Levy.....\$ 0
2. From Sources Other than Property Tax..... 132,099
3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **132,099**

FUND TITLE (NUMBER): CASH-IN-LIEU FUND (13)

EXPENDITURES\$ **0**

REVENUE:

1. From the General Property Tax Levy.....\$ 0
2. From Sources Other than Property Tax..... 55,000
3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **55,000**

FUND TITLE (NUMBER): ARAPAHOE/DOUGLAS WORKS! FUND (15)

EXPENDITURES\$ **12,999,399**

REVENUE:

1. From the General Property Tax Levy.....\$ 0
2. From Sources Other than Property Tax..... 12,999,399
3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **12,999,399**

FUND TITLE (NUMBER): ROAD & BRIDGE FUND (16)

EXPENDITURES\$ **15,912,291**

REVENUE:

1. From the General Property Tax Levy.....\$ 5,771,399
2. From Sources Other than Property Tax..... 9,634,000
3. From the Unappropriated Fund Balance..... 506,892

TOTAL REVENUE\$ **15,912,291**

FUND TITLE (NUMBER): CONSERVATION TRUST FUND (17)

EXPENDITURES\$ **559,900**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 600,000

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **600,000**

FUND TITLE (NUMBER): CONTINGENCY FUND (18)

EXPENDITURES\$ **0**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 0

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **0**

FUND TITLE (NUMBER): COMM. NETWORK SYSTEM REPLACEMENT FUND (19)

EXPENDITURES\$ **68,250**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 68,250

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **68,250**

FUND TITLE (NUMBER): SHERIFF'S COMMISSARY FUND (20)

EXPENDITURES\$ **1,289,437**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 1,108,761

3. From the Unappropriated Fund Balance..... 180,676

TOTAL REVENUE\$ **1,289,437**

FUND TITLE (NUMBER): COMMUNITY DEVELOPMENT FUND (21)

EXPENDITURES\$ **4,649,883**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 4,649,883

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **4,649,883**

FUND TITLE (NUMBER): FORFEITED PROPERTY FUND (22)

EXPENDITURES	.....	\$	0
REVENUE:			
1. From the General Property Tax Levy.....		\$	0
2. From Sources Other than Property Tax.....			0
3. From the Unappropriated Fund Balance.....			0
TOTAL REVENUE	.....	\$	0

FUND TITLE (NUMBER): DEVELOPMENTAL DISABILITIES FUND (25)

EXPENDITURES	.....	\$	8,915,766
REVENUE:			
1. From the General Property Tax Levy.....		\$	8,915,766
2. From Sources Other than Property Tax.....			0
3. From the Unappropriated Fund Balance.....			0
TOTAL REVENUE	.....	\$	8,915,766

FUND TITLE (NUMBER): GRANT FUND (26)

EXPENDITURES	.....	\$	10,245,647
REVENUE:			
1. From the General Property Tax Levy.....		\$	0
2. From Sources Other than Property Tax.....			10,245,647
3. From the Unappropriated Fund Balance.....			0
TOTAL REVENUE	.....	\$	10,245,647

FUND TITLE (NUMBER): OPEN SPACE FUND (28)

EXPENDITURES	.....	\$	24,502,000
REVENUE:			
1. From the General Property Tax Levy.....		\$	0
2. From Sources Other than Property Tax.....			24,502,000
3. From the Unappropriated Fund Balance.....			0
TOTAL REVENUE	.....	\$	24,502,000

FUND TITLE (NUMBER): HOMELAND SECURITY FUND (29)

EXPENDITURES	.....	\$	513,175
REVENUE:			
1. From the General Property Tax Levy.....		\$	0
2. From Sources Other than Property Tax.....			513,175
3. From the Unappropriated Fund Balance.....			0
TOTAL REVENUE	.....	\$	513,175

FUND TITLE (NUMBER): ARAPAHOE COUNTY FAIR FUND (34)

EXPENDITURES\$ **404,600**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 404,600

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **404,600**

FUND TITLE (NUMBER): CAPITAL EXPENDITURE FUND (41)

EXPENDITURES\$ **10,494,454**

REVENUE:

1. From the General Property Tax Levy.....\$ 4,530,238

2. From Sources Other than Property Tax..... 5,969,839

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **10,500,077**

FUND TITLE (NUMBER): INFRASTRUCTURE FUND (42)

EXPENDITURES\$ **5,775,000**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 5,775,000

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **5,775,000**

FUND TITLE (NUMBER): LEASE PURCHASE AGREEMENTS FUND (62)

EXPENDITURES\$ **6,475,925**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 6,442,688

3. From the Unappropriated Fund Balance..... 33,237

TOTAL REVENUE\$ **6,475,925**

FUND TITLE (NUMBER): ARAPAHOE COUNTY BLDG FINANCE CORP. FUND (67)

EXPENDITURES\$ **3,000**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 0

3. From the Unappropriated Fund Balance..... 3,000

TOTAL REVENUE\$ **3,000**

FUND TITLE (NUMBER): CENTRAL SERVICES FUND (70)

EXPENDITURES\$ **5,031,560**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 5,158,525

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **5,158,525**

FUND TITLE (NUMBER): SELF-INSURANCE LIABILITY FUND (71)

EXPENDITURES\$ **1,096,250**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 1,134,560

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **1,134,560**

FUND TITLE (NUMBER): EMPLOYEE FLEX BENEFIT FUND (72)

EXPENDITURES\$ **756,600**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 756,600

3. From the Unappropriated Fund Balance..... 0

TOTAL REVENUE\$ **756,600**

FUND TITLE (NUMBER): WORKERS COMPENSATION FUND (73)

EXPENDITURES\$ **1,522,361**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 1,457,961

3. From the Unappropriated Fund Balance..... 64,400

TOTAL REVENUE\$ **1,522,361**

FUND TITLE (NUMBER): SELF-INSURANCE DENTAL FUND (74)

EXPENDITURES\$ **1,894,000**

REVENUE:

1. From the General Property Tax Levy.....\$ 0

2. From Sources Other than Property Tax..... 1,469,000

3. From the Unappropriated Fund Balance..... 425,000

TOTAL REVENUE\$ **1,894,000**

BE IT FURTHER RESOLVED that the Budget, as submitted, amended, and hereinabove summarized be and the same hereby as approved and adopted as the Budget of Arapahoe County Colorado, for the year stated above. Said Budget, as adopted, is hereby filed with the Clerk to the Board.

BE IT FURTHER RESOLVED that the above Budget for Fiscal Year 2016 is based on personnel allocations for departments and spending agencies as follows:

PERSONNEL ALLOCATIONS (FULL-TIME EQUIVALENT POSITIONS)

General Fund:

Assessor's Office.....	63.00
Board of County Commissioners.....	5.00
Board of County Commissioners Administration.....	4.00
Clerk and Recorder's Office.....	128.50
Communication Services.....	10.00
Community Resources.....	45.00
Coroner's Office.....	13.00
County Attorney.....	22.00
Department of Strategy and Performance.....	3.00
Facilities and Fleet Management.....	106.90
Finance Department	29.50
Human Resources.....	15.00
Information Technology.....	69.00
Open Spaces and Intergovernmental Relations.....	1.00
Public Works and Development.....	69.50
Sheriff's Office	636.00
Treasurer's Office.....	<u>21.00</u>
Total General Fund.....	1,241.40

Social Services Fund:

Human Services.....	532.50
---------------------	--------

Arapahoe/Douglas Works Fund:

Community Resources.....	103.00
--------------------------	--------

Road and Bridge Fund:

Public Works and Development.....	58.00
-----------------------------------	-------

Sheriff's Commissary Fund:

Sheriff's Office	7.00
------------------------	------

Community Development Fund:

Community Resources.....	3.50
--------------------------	------

Grant Fund:

Community Resources.....	37.00
Sheriff's Office	<u>1.00</u>
Total Grant Fund.....	38.00

Open Space Sales and Use Tax Fund:	
Communication Services.....	1.00
Finance	0.50
Open Spaces and Intergovernmental Relations.....	<u>17.50</u>
Total Open Space Sales and Use Tax Fund:	19.00
Homeland Security Fund:	
Sheriff's Office	<u>5.75</u>
TOTAL – ARAPAHOE COUNTY.....	2,008.15

This allocation is the authorized personnel allocation for 2017. Any changes to this allocation must be authorized by Board of County Commissioner resolution.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT – CERTIFICATION OF GENERAL FUND MILL LEVY

RESOLUTION NO. 16_____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners adopted Resolution No. 16_____, by which action the Board adopted the 2017 Budget for Arapahoe County; and

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must adopt an annual levy of taxes for the General Fund for the ensuing fiscal year and that said mill levy for the General Fund be set within the last quarter of each fiscal year; and

WHEREAS, pursuant to Section 29-1-301, C.R.S., the County cannot establish a tax levy which would raise a greater amount of revenue than was levied in the preceding year plus new construction, plus five and one-half percent plus the amount of revenue abated or refunded by the County; and

WHEREAS, pursuant to Section 39-10-114(1)(a)(I)(B), C.R.S., the Board of County Commissioners may adjust the amount of its tax levy by an additional amount to reflect the proportionate share of the total abatements and refunds made pursuant to law; and

WHEREAS, the Board has determined that such an additional tax levy for abatements and refunds will capture revenues which were needed to balance the previous year's budget, will not cause a net revenue gain to Arapahoe County, and is a sound fiscal policy to prevent any loss of government services due to an unavoidable decrease in revenues; and

WHEREAS, the County has paid \$1,037,617 in refunds or abatements between September 1, 2015 and September 1, 2016 and desires to recapture all of the amounts of refunds and abatements made during this period; and

WHEREAS, pursuant to Article X, Section 20 of the Colorado Constitution, the County may not, in future years, increase the mill levy above the mill levy for the prior year, without the approval of the voters; and

WHEREAS, when the assessed valuation in the County increases, it is necessary to decrease the overall County mill levy; and if the assessed valuation in the County would decrease, there would be a net revenue loss from the current level if the current mill levy is reduced permanently; and

WHEREAS, it is prudent to instead impose a temporary tax credit or rate reduction to allow for future unknown changes in the assessed valuation in the County; and

WHEREAS, pursuant to the Colorado Constitution, the Board may impose a temporary tax credit or rate reduction in order to collect the appropriate amount of taxes and thus avoid a future refund of taxes and the Board has determined that this temporary tax credit or rate reduction should be -1.912 mills for the upcoming fiscal year; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from County levies and the County Assessor has adjusted the County assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners is desirous of adopting said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County that there is hereby established and levied for County purposes, upon all taxable property, real, personal and mixed, tangible and intangible, in the County of Arapahoe, State of Colorado, not exempted by law, a tax for the General Fund as follows:

Mill Levy	13.261
Abatement/Refund.....	0.116
Temporary Tax Credit/Rate Reduction.....	<u>-1.912</u>
Total Adjusted Mill Levy.....	11.465

This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$8,954,986,701

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT – CERTIFICATION OF ROAD & BRIDGE FUND MILL LEVY

RESOLUTION NO. 16 ____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners adopted Resolution No. 16_____, by which action the Board adopted the 2017 Budget for Arapahoe County; and

WHEREAS, pursuant to Sections 29-1-108, 43-2-203 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must adopt an annual levy of taxes for the Road and Bridge Fund for the ensuing fiscal year and that said mill levy for the Road and Bridge Fund be set within the last quarter of each fiscal year; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from County levies and the County Assessor has adjusted the County assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners is desirous of adopting said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County that there is hereby established and levied for County purposes, upon all taxable property, real, personal and mixed, tangible and intangible, in the County of Arapahoe, State of Colorado, not exempted by Law, a County tax of **0.651** mills for the 2017 Road and Bridge Fund. This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$8,954,986,701

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT – CERTIFICATION OF SOCIAL SERVICES MILL LEVY

RESOLUTION NO. 16 ____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners adopted Resolution No. 16 ____ by which action the Board adopted the 2017 Budget for Arapahoe County; and

WHEREAS, pursuant to Sections 29-1-108, 26-1-123 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must adopt an annual levy of taxes for the Social Services Fund for the ensuing fiscal year and that said mill levy for the Social Services Fund be set within the last quarter of each fiscal year; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from County levies; and the County Assessor has adjusted the County assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners is desirous of adopting said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County that there is hereby established and levied for County purposes, upon all taxable property, real, personal and mixed, tangible and intangible, in the County of Arapahoe, State of Colorado, not exempted by law, a County tax of **1.398** mills for the 2017 Social Services Fund. This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$8,954,986,701.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT – CERTIFICATION OF CAPITAL EXPENDITURES FUND MILL LEVY

RESOLUTION NO. 16 ____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners adopted Resolution No. 16 ____ by which action the Board adopted the 2017 Budget for Arapahoe County; and

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must adopt an annual levy of taxes for the Capital Expenditure Fund for the ensuing fiscal year and that said mill levy for the Capital Expenditure Fund be set within the last quarter of each fiscal year; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from County levies and the County Assessor has adjusted the County assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners is desirous of adopting said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County that there is hereby established and levied for County purposes, upon all taxable property, real, personal and mixed, tangible and intangible, in the County of Arapahoe, State of Colorado, not exempted by law, a County tax of **0.511** mills for the 2017 Capital Expenditure Fund. This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$8,954,986,701

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT – CERTIFICATION OF DEVOPMENTAL DISABILITIES FUND MILL LEVY

RESOLUTION NO. 16 ____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners adopted Resolution No. 16 ____ by which action the Board adopted the 2017 Budget for Arapahoe County; and

WHEREAS, on November 6, 2001, the electors in Arapahoe County approved the imposition of a 1.000 mill tax to fund Developmental Disability Programs in Arapahoe County; and

WHEREAS, this levy of 1.000 mill for Developmental Disabilities Programs is not subject to the statutory 5.5% property tax limitation, or the other tax, revenue and spending limitations as imposed by Section 20 of Article X of the Colorado Constitution; and

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must adopt an annual levy of taxes for the Developmental Disabilities Fund for the ensuing fiscal year; and

WHEREAS, the Board of County Commissioners is desirous of adopting said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County that there is hereby established and levied for County purposes, upon all taxable property, real, personal and mixed, tangible and intangible, in the County of Arapahoe, State of Colorado, not exempted by law, a County tax of **1.000** mill for the 2017 Developmental Disabilities Fund. This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$9,005,824,675

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT – APPROPRIATION OF THE COUNTY BUDGET – ALL FUNDS

RESOLUTION NO. 16 ____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners adopted Resolution No. 16____, by which action the Board adopted the 2017 Annual Budget in accordance with the Local Government Budget Law, pursuant to Article 1 of Title 29, C.R.S. as amended; and

WHEREAS, the Board of County Commissioners has made provisions within the Budget for revenues in an amount equal to or greater than the total expenditures as set forth in said Budget; and

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S. as amended, the Board of County Commissioners must appropriate the revenues set forth in the Budget for the several offices, departments, boards, commissions, and other spending agencies as hereinafter set forth; and

WHEREAS, pursuant to the aforementioned statutes, such appropriations shall be made before the beginning of the fiscal year by adoption of a resolution making such appropriations.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County as follows:

That the following sums are hereby appropriated from the revenue of each fund to the several offices, departments, boards, commissions, and other spending agencies as hereinafter set forth to each fund, for the purpose stated to be effective 12:01 a.m., January 1, 2017.

FUND TITLE (NUMBER)

GENERAL FUND (10):

Department/Elected Office:

Administrative Services.....	\$ 19,015,832
Aid-to-Agencies	1,679,500
Assessor's Office	5,411,247
Board of County Commissioners	1,077,606
Board of County Commissioners Administration	648,465
Clerk and Recorder's Office	10,465,534
Communication Services	1,371,941
Community Resources	3,773,008
Coroner's Office	1,653,273
County Attorney	2,721,954
Department of Strategy and Performance	414,193
District Attorney's Office	14,269,860
Facilities and Fleet Management	9,831,643
Finance Department	3,415,230
Human Resources	1,981,120

Information Technology	13,100,939
Open Spaces & Intergovernmental Relations	40,204
Public Works and Development	7,514,000
Sheriff's Office	72,429,122
Treasurer's Office	2,149,348
Tri-County Health	4,725,240
TOTAL GENERAL FUND.....	\$ 177,689,259
BUILDING MAINTENANCE FUND (33).....	\$ 1,828,269
SOCIAL SERVICES FUND (11).....	\$ 55,538,521
ELECTRONIC FILING TECHNOLOGY FUND (12).....	\$ 132,099
ARAPAHOE/DOUGLAS WORKS! FUND (15).....	\$ 12,999,399
ROAD & BRIDGE FUND (16).....	\$ 15,912,291
CONSERVATION TRUST FUND (17).....	\$ 559,900
COMMUNICATION NTRWK SYSTEM REPLACEMENT FUND (19).....	\$ 68,250
SHERIFF'S COMMISSARY FUND (20).....	\$ 1,289,437
COMMUNITY DEVELOPMENT FUND (21).....	\$ 4,649,883
DEVELOPMENTAL DISABILITIES FUND (25)	\$ 8,915,766
GRANT FUND (26)	\$ 10,245,647
OPEN SPACE FUND (28).....	\$ 24,502,000
HOMELAND SECURITY FUND (29).....	\$ 513,175
ARAPAHOE COUNTY FAIR FUND (34).....	\$ 404,600
CAPITAL EXPENDITURE FUND (41)	\$ 10,494,454
INFRASTRUCTURE FUND (42).....	\$ 5,775,000
LEASE PURCHASE AGREEMENTS FUND (62).....	\$ 6,475,925
ARAPAHOE COUNTY BUILDING FINANCE CORPORATION FUND (67).....	\$ 3,000
CENTRAL SERVICES FUND (70).....	\$ 5,031,560
SELF-INSURANCE LIABILITY FUND (71).....	\$ 1,096,250
EMPLOYEE FLEX BENEFIT FUND (72).....	\$ 756,600
WORKERS COMPENSATION FUND (73).....	\$ 1,522,361
SELF-INSURANCE DENTAL FUND (74).....	\$ 1,894,000

BE IT FURTHER RESOLVED by the Board of County Commissioners that the Arapahoe County Finance Director is authorized to transfer funds from the Administrative Services Department account in the General Fund to any other County Department account within the General Fund for an authorized expenditure without formal approval by the Board, provided that the total of all such transfers during calendar year 2017 shall not cause the designated reserve fund to drop below its established minimum level.

BE IT FURTHER RESOLVED by the Board of County Commissioners that the Arapahoe County Finance Director is authorized to review (a) all purchase orders that are open at the end of calendar year 2016, (b) all fixed assets approved in 2016 Budget but which were not purchased in 2016, (c) all capital projects previously started but not finished in 2016, (d) all grant projects previously started but not finished in 2016, and (e) the unappropriated balance of the Infrastructure Fund, the Conservation Trust Fund, the Open Space Sales Tax Fund, the Cash-In-Lieu Fund, the Sheriff's Commissary Fund, the

Forfeited Property Fund, the Communication Network System Replacement Fund, and the Electronic Filing Technology Fund; and is authorized to identify which purchase orders, fixed assets, capital projects, grants projects, and unappropriated fund balances that should be reappropriated in 2017 and is authorized to increase the appropriation so to continue the funding of these previously appropriated needs, subject to action by the Board.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - ADOPTION OF 2017 BUDGET - ARAPAHOE LAW ENFORCEMENT AUTHORITY

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, the Arapahoe County Budget Officer has submitted a proposed 2017 Budget to the Board of County Commissioners, acting as the Arapahoe Law Enforcement Authority (ALEA) Governing Board, for its consideration; and

WHEREAS, the Board of County Commissioners has caused to be published a notice relating to a public hearing to be held on the proposed 2017 ALEA Budget, pursuant to Section 29-1-106, C.R.S. as amended; and

WHEREAS, pursuant to statute and the aforementioned notice provisions, public hearings were held before the Board of County Commissioners on October 11, 2016 and October 25, 2016 at the Arapahoe County Administration Building, 5334 South Prince Street, Littleton, Colorado, at which time evidence and testimony were presented to the Board concerning said proposed Budget and mill levies; and

WHEREAS, at the October 25, 2016 public hearing, the Board adopted Resolution No. 160633 which continued the public hearing to this date; and

WHEREAS, up to and including this date, said proposed budget has been open for inspection by the public and interested citizens and electors have been given the opportunity to file or register any objections to said proposed budget pursuant to Section 29-1-107, C.R.S. as amended; and

WHEREAS, as a result of the November 2, 1993 election, the voters of the Arapahoe Law Enforcement Authority did approve an increase in the mill levy for 1994 and subsequent fiscal years and established a minimum certified mill levy of 4.982 mills pursuant to Section 30-11-406.5, C.R.S. as amended, and Section 20 of Article X of the Colorado Constitution; and

WHEREAS, as a result of the November 3, 1998 election, the voters of the Arapahoe Law Enforcement Authority did approve a ballot question which permits the Arapahoe Law Enforcement Authority to collect, retain and spend all proceeds from non-tax revenue sources, including traffic fines and grants, for public safety and law enforcement purposes, notwithstanding any restrictions of Section 20 of Article X of the Colorado Constitution; and

WHEREAS, the Board of County Commissioners, acting as the Arapahoe Law Enforcement Authority Governing Board, is desirous of adopting said proposed budget at this time; and

WHEREAS, whatever increases may have been made in the expenditures, like increases were added to the revenues so that the budget remained in balance, as required by Section 29-1-108, C.R.S. as amended.

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, acting as the Arapahoe Law Enforcement Authority Governing Board, as follows:

Section 1: That estimated expenditures for the Law Enforcement Authority Funds are as follows:

Law Enforcement Authority Fund	\$	7,397,469
--------------------------------------	----	-----------

Section 2: That estimated revenues for the Law Enforcement Authority Fund are as follows:

1. From the Property Tax Levy	\$	6,060,677
2. From Sources Other than Property Tax		1,045,495
3. From Unappropriated Fund Balance		<u>291,297</u>
4. Total Revenues	\$	7,397,469

Section 3: That the Budget, as submitted, amended, and hereinabove summarized be and the same hereby as approved and adopted as the Budget of Arapahoe Law Enforcement Authority Fund for the year stated above. Said Budget, as adopted, is hereby filed with the Clerk to the Board.

BE IT FURTHER RESOLVED that the authorized staffing level of the Arapahoe County Law Enforcement Authority shall be 58.0 full-time equivalent employees.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - MILL LEVY CERTIFICATION – ARAPAHOE LAW ENFORCEMENT AUTHORITY

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners, acting as the Arapahoe County Law Enforcement Authority Governing Board, adopted the 2017 Budget for the Arapahoe Law Enforcement Authority; and

WHEREAS, pursuant to Titles 29, 30 and 39 C.R.S., the Arapahoe Law Enforcement Authority Governing Board must establish an annual levy of taxes for the Arapahoe Law Enforcement Authority Fund for the ensuing fiscal year and that said mill levy for the Arapahoe Law Enforcement Authority Fund be set within the last quarter of each fiscal year; and

WHEREAS, as a result of the November 2, 1993 election, the voters of the Arapahoe Law Enforcement Authority did approve an increase in the mill levy for 1994 and subsequent fiscal years and established a minimum certified mill levy of 4.982 mills pursuant to Section 30-11-406.5, C.R.S. as amended, and Section 20 of Article X of the Colorado Constitution; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from Arapahoe Law Enforcement Authority levies and the County Assessor has adjusted the Arapahoe Law Enforcement Authority assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners, acting as the Arapahoe Law Enforcement Authority Governing Board, is desirous of establishing said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Arapahoe Law Enforcement Authority Governing Board that there is hereby established for law enforcement authority purposes, upon all taxable property, real, personal and mixed, tangible and intangible, within the boundaries of the Arapahoe Law Enforcement Authority, in the County of Arapahoe, State of Colorado, not exempted by law, a tax of **4.982** mills for the Arapahoe Law Enforcement Authority for fiscal year 2017, which shall be certified to the Board of County Commissioners. This is effective 12:01 am, January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$1,228,802,920.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - APPROPRIATION OF 2017 BUDGET - ARAPAHOE LAW ENFORCEMENT AUTHORITY

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date the Board of County Commissioners, acting as the Arapahoe County Law Enforcement Authority Governing Board adopted Resolution No. 16____, by which action the Board adopted the 2017 Arapahoe Law Enforcement Authority Budget; and

WHEREAS, the Governing Board of the Arapahoe Law Enforcement Authority has made provisions within the Budget for revenues in an amount equal to or greater than the total expenditures as set forth in said Budget; and

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must appropriate the revenues set forth in the budget for the several offices, departments, boards, commissions, and other spending agencies as hereinafter set forth; and

WHEREAS, pursuant to the aforementioned statutes, such appropriations shall be made before the beginning of the fiscal year by adoption of a resolution making such appropriations.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, acting as the Governing Board of the Arapahoe Law Enforcement Authority, to appropriate the following amounts effective 12:01 a.m., January 1, 2017:

ARAPAHOE LAW ENFORCEMENT AUTHORITY

Amount of Appropriated Funds for 2017 Fiscal Year	\$ 7,397,469
---	--------------

BE IT FURTHER RESOLVED by the Board of County Commissioners that the Arapahoe County Finance Director is authorized to review (a) all purchase orders that are open at the end of calendar year 2016, (b) all fixed assets approved in 2016 Budget but which were not purchased in 2016, (c) all capital projects previously started but not finished in 2016, and (d) all grant projects previously started but not finished in 2016, and is authorized to identify which purchase orders, fixed assets, capital projects and grants projects that should be reappropriated in 2017, and is authorized to increase the appropriation so to continue the funding of these previously appropriated needs, subject to action by the Board.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - ADOPTION OF 2017 BUDGET – ARAPAHOE COUNTY RECREATION DISTRICT

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, the Arapahoe County Budget Officer has submitted a proposed 2017 Budget to the Board of County Commissioners, acting as the Board of Directors of the Arapahoe County Recreation District, for its consideration; and

WHEREAS, the Board of County Commissioners has caused to be published a notice relating to a public hearing to be held on the proposed 2017 Arapahoe County Recreation District Budget, pursuant to Section 29-1-106, C.R.S. as amended; and

WHEREAS, pursuant to statute and the aforementioned notice provisions, public hearings were held before the Board of County Commissioners on October 11, 2016 and October 25, 2016 at the Arapahoe County Administration Building, 5334 South Prince Street, Littleton, Colorado, at which time evidence and testimony were presented to the Board concerning said proposed Budget and mill levies; and

WHEREAS, at the October 25, 2016 public hearing, the Board adopted Resolution No. 160633 which continued the public hearing to this date; and

WHEREAS, up to and including this date, said proposed Budget has been open for inspection by the public and interested citizens and electors have been given the opportunity to file or register any objections to said proposed Budget pursuant to Section 29-1-107, C.R.S. as amended; and

WHEREAS, the Board of County Commissioners is desirous of adopting said proposed budget at this time; and

WHEREAS, whatever increases may have been made in the expenditures, like increases were added to the revenues so that the budget remained in balance, as required by Section 29-1-108, C.R.S. as amended.

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, acting as the Board of Directors of the Arapahoe County Recreation District, as follows:

Section 1: That estimated expenditures for the Arapahoe County Recreation District are as follows:

Arapahoe County Recreation District Fund	\$ 1,189,825
--	--------------

Section 2: That estimated revenues for the Arapahoe County Recreation District Fund are as follows:

1. From the Property Tax Levy	\$ 871,583
2. From Sources Other than Property Tax	297,581
3. From Unappropriated Fund Balance	<u>20,661</u>
4. Total Revenues	\$ 1,189,825

Section 3: That the Budget, as submitted, amended, and hereinabove summarized be and the same hereby as approved and adopted as the Budget of the Arapahoe County Recreation District Fund for the year stated above. Said Budget, as adopted, is hereby filed with the Clerk to the Board.

BE IT FURTHER RESOLVED that the authorized staffing level of the Arapahoe County Recreation District shall be 4.0 full-time equivalent employees.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - MILL LEVY CERTIFICATION – ARAPAHOE COUNTY RECREATION DISTRICT

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners acting as the Board of Directors of the Arapahoe County Recreation District adopted Resolution No. 16____, by which action the Board adopted the 2017 Budget for the Arapahoe County Recreation District; and

WHEREAS, pursuant to Titles 29, 30 and 39, C.R.S., the Board of Directors of the Arapahoe County Recreation District must establish an annual levy of taxes for the Arapahoe County Recreation District Fund for the ensuing fiscal year and that said mill levy for the Arapahoe County Recreation District Fund be set within the last quarter of each fiscal year; and

WHEREAS, pursuant to Section 29-1-301, C.R.S. as amended, the Recreation District cannot establish a tax levy which would raise a greater amount of revenue than was levied in the preceding year plus new construction, plus five and one-half percent plus the amount of revenue abated or refunded by the County; and

WHEREAS, the County staff has evaluated the total valuation of the Arapahoe County Recreation District for assessment purposes and has adjusted and reduced the mill levy in order to be in compliance with the statutory requirements of Section 29-1-301, C.R.S. as amended, and

WHEREAS, pursuant to Section 39-10-114(1)(a)(I)(B), C.R.S., the Board of County Commissioners may adjust the amount of its tax levy by an additional amount to reflect the proportionate share of the total abatements and refunds made pursuant to law; and

WHEREAS, the Board has determined that such an additional tax levy for abatements and refunds will capture revenues which were needed to balance the previous year's budget, will not cause a net revenue gain to the Arapahoe County Recreation District, and is a sound financial policy to prevent any loss of government services due to an unavoidable decrease in revenues; and

WHEREAS, the County has paid \$10,853 in refunds or abatements between September 1, 2015 and September 1, 2016 and desires to recapture all of the amounts of refunds and abatements made during this period; and

WHEREAS, pursuant to Article X, Section 20 of the Colorado Constitution, the County may not, in future years, increase the mill levy above the mill levy for the prior year, without the approval of the voters; and

WHEREAS, when the assessed valuation in the County increases, it is necessary to decrease the overall County mill levy; and if the assessed valuation in the County would decrease, there would be a net revenue loss from the current level if the current mill levy is reduced permanently; and

WHEREAS, it is prudent to instead impose a temporary tax credit or rate reduction to allow for future unknown changes in the assessed valuation of the Arapahoe County Recreation District; and

WHEREAS, pursuant to the Colorado Constitution, the Board may impose a temporary tax credit or rate reduction in order to collect the appropriate amount of taxes and thus avoid a future refund of taxes and the Board has determined that this temporary tax credit or rate reduction should be -0.112 mills for the upcoming fiscal year; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from the Arapahoe County Recreation District levies and the County Assessor has adjusted the Arapahoe County Recreation District assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners, acting as the Board of Directors of the Arapahoe County Recreation District, is desirous of establishing said aforementioned levies at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, acting as the Board of Directors of the Arapahoe County Recreation District, that there is hereby established for recreation district purposes, upon all taxable property, real, personal and mixed, tangible and intangible, in the Arapahoe County Recreation District in the County of Arapahoe, State of Colorado, not exempted by law, a tax for the Arapahoe County Recreation District as follows:

Mill Levy	0.869
Abatement/Refund	0.009
Temporary Tax Credit/Rate Reduction	<u>-0.112</u>
Total Adjusted Mill Levy	0.767

This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$1,148,131,141.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - APPROPRIATION OF 2017 BUDGET – ARAPAHOE COUNTY RECREATION DISTRICT

RESOLUTION NO. 16____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to adopt the following Resolution:

WHEREAS, by prior action on this date the Board of County Commissioners, acting as the Board of Directors of the Arapahoe County Recreation District, adopted Resolution No. 16____, by which action the Board adopted the 2017 Arapahoe County Recreation District Budget; and

WHEREAS, the Arapahoe County Recreation District has made provisions within the Budget for revenues in an amount equal to or greater than the total expenditures as set forth in said Budget; and,

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S. as amended, the Board must appropriate the revenues set forth in the budget for the several offices, departments, boards, commissions, and other spending agencies as hereinafter set forth; and

WHEREAS, pursuant to the aforementioned statutes, such appropriations shall be made before the beginning of the fiscal year by adoption of a resolution making such appropriations.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County to appropriate the following amounts effective 12:01 a.m., January 1, 2017:

ARAPAHOE COUNTY RECREATION DISTRICT

Amount of Appropriated Funds for 2017 Fiscal Year \$ 1,189,825

BE IT FURTHER RESOLVED by the Board of County Commissioners that the Arapahoe County Finance Director is authorized to review (a) all purchase orders that are open at the end of calendar year 2016, (b) all fixed assets approved in 2016 Budget but which were not purchased in 2015, (c) all capital projects previously started but not finished in 2016, and (d) all grant projects previously started but not finished in 2016, and is authorized to identify which purchase orders, fixed assets, capital projects and grants projects that should be reappropriated in 2017, and is authorized to increase the appropriation so to continue the funding of these previously appropriated needs, subject to action by the Board.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

**DRAFT - ADOPTION OF 2017 BUDGET – ARAPAHOE COUNTY WATER AND
WASTEWATER PUBLIC IMPROVEMENT DISTRICT**

RESOLUTION NO. 16____ It was moved by Commissioner/Director ____ and duly seconded by Commissioner/Director ____ to adopt the following Resolution:

WHEREAS, on November 6, 2001, the electors in the Arapahoe County Water and Wastewater Public Improvement District approved the formation of the Arapahoe County Water and Wastewater Public Improvement District; and

WHEREAS, the Board of Directors of the Arapahoe Water and Wastewater Authority has submitted a proposed 2016 budget for the Arapahoe County Water and Wastewater Public Improvement District pursuant to an intergovernmental agreement with the County; and

WHEREAS, the Board of County Commissioners, acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, has caused to be published a notice relating to a public hearing to be held on the proposed 2017 Arapahoe County Water and Wastewater Public Improvement District Budget, pursuant to Section 29-1-106, C.R.S. as amended; and

WHEREAS, pursuant to statute and the aforementioned notice provisions, public hearings were held before the Board of County Commissioners on October 11, 2016 and October 25, 2016 at the Arapahoe County Administration Building, 5334 South Prince Street, Littleton, Colorado, at which time evidence and testimony were presented to the Board concerning said proposed Budget and mill levies; and

WHEREAS, at the October 25, 2016 public hearing, the Board adopted Resolution No. 160633 continued the public hearing to this date and the Board caused notice of this public hearing as required by Section 30-20-511, C.R.S. as amended, to be posted; and

WHEREAS, up to and including this date, said proposed Budget has been open for inspection by the public and interested citizens and electors have been given the opportunity to file or register any objections to said proposed Budget pursuant to Section 29-1-107, C.R.S. as amended; and

WHEREAS, the Board of County Commissioners is desirous of adopting said proposed Budget at this time; and

WHEREAS, whatever increases may have been made in the expenditures, like increases were added to the revenues so that the Budget remained in balance, as required by Section 29-1-108, C.R.S., as amended.

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, as follows:

Section 1: That estimated expenditures for the Arapahoe County Water and Wastewater Public Improvement District Fund are as follows:

Arapahoe County Water and Wastewater Public Improvement District Fund:	\$ 9,292,005
--	--------------

Section 2: That estimated revenues for the Arapahoe County Water and Wastewater Public Improvement District Fund are as follows:

1. From the Property Tax Levy	\$ 7,672,031
2. From Sources Other than Property Tax	1,620,711
3. From Unappropriated Fund Balance	<u>0</u>
4. Total Revenues	\$ 9,292,742

Section 3: That the Budget, as submitted, amended, and hereinabove summarized be and the same hereby as approved and adopted as the Budget of the Arapahoe County Water and Wastewater Public Improvement District Fund for the year stated above. Said Budget, as adopted, is hereby filed with the Clerk to the Board.

The vote was:

Commissioner/Director Bockenfeld, ____; Commissioner/Director Doty, ____; Commissioner/Director Holen, ____; Commissioner/Director Jackson, ____; Commissioner/Director Sharpe, ____.

The Chair declared the motion carried and so ordered.

**DRAFT - MILL LEVY CERTIFICATION – ARAPAHOE COUNTY WATER AND
WASTEWATER PUBLIC IMPROVEMENT DISTRICT**

RESOLUTION NO. 16____ It was moved by Commissioner/Director ____ and duly seconded by Commissioner/Director ____ to adopt the following Resolution:

WHEREAS, by prior action on this date, the Board of County Commissioners, acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, adopted the 2016 Budget for the Arapahoe County Water and Wastewater Public Improvement District; and

WHEREAS, pursuant to Titles 29, 30 and 39, C.R.S., the Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District must establish an annual levy of taxes for the Arapahoe County Water and Wastewater Public Improvement District Fund for the ensuing fiscal year and that said mill levy for the Arapahoe County Water and Wastewater Public Improvement District Fund be set within the last quarter of each fiscal year; and

WHEREAS, this mill levy must, along with other available funds, provide adequate funding to pay the scheduled debt service of the outstanding Public Improvement District General Obligation Bonds in 2017; and

WHEREAS, the Board has exempted personal property tax schedules up to \$20,000 from the Arapahoe County Water and Wastewater Public Improvement District levies and the County Assessor has adjusted the Arapahoe County Water and Wastewater Public Improvement District assessed valuation to provide for this change in the exemption; and

WHEREAS, the Board of County Commissioners, acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, is desirous of establishing the said aforementioned levy at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners, acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, that there is hereby established for the purpose, of paying the scheduled debt service for the outstanding General Obligation bonds upon all taxable property, real, personal and mixed, tangible and intangible, in the Arapahoe County Water and Wastewater Public Improvement District in the County of Arapahoe and in the County of Douglas, State of Colorado, not exempted by law, a tax for the Arapahoe County Water and Wastewater Public Improvement District of 18.200 mills. This is effective 12:01 a.m., January 1, 2017.

BE IT FURTHER RESOLVED that the foregoing levy is made on the assessed valuation of \$430,143,035.

The vote was:

Commissioner/Director Bockenfeld, ____; Commissioner/Director Doty, ____; Commissioner/Director Holen, ____; Commissioner/Director Jackson, ____; Commissioner/Director Sharpe, ____.

The Chair declared the motion carried and so ordered.

**DRAFT - APPROPRIATION OF 2017 BUDGET – ARAPAHOE COUNTY WATER AND
WASTEWATER PUBLIC IMPROVEMENT DISTRICT**

RESOLUTION NO. 16____ It was moved by Commissioner/Director ____ and duly seconded by Commissioner/Director ____ to adopt the following Resolution:

WHEREAS, by prior action on this date the Board of County Commissioners, acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, adopted Resolution No. 16____, by which action the Board adopted the 2017 Arapahoe County Water and Wastewater Public Improvement District Budget; and

WHEREAS, the Board has made provisions within the Budget for revenues in an amount equal to or greater than the total expenditures as set forth in said Budget; and

WHEREAS, pursuant to Sections 29-1-108 and 30-25-101 *et seq.*, C.R.S., as amended, the Board must appropriate the revenues in the budget for as hereinafter set forth; and

WHEREAS, pursuant to the aforementioned statutes, such appropriations shall be made before the beginning of the fiscal year by adoption of a resolution making such appropriations.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, to appropriate the following amounts effective 12:01 a.m., January 1, 2017:

**ARAPAHOE COUNTY WATER AND WASTEWATER
PUBLIC IMPROVEMENT DISTRICT**

Amount of Appropriated Funds for 2017 Fiscal Year	\$ 9,292,005
---	--------------

BE IT FURTHER RESOLVED by the Board of County Commissioners acting as the *ex officio* Board of Directors of the Arapahoe County Water and Wastewater Public Improvement District, that the Arapahoe County Finance Director is authorized to review (a) all purchase orders that are open at the end of calendar year 2016, and (b) all capital projects previously started but not finished in 2016 and, is authorized to identify which purchase orders and capital projects that should be reappropriated in 2017, and is authorized to increase the appropriation so to continue the funding of these previously appropriated needs, subject to action by the Board.

The vote was:

Commissioner/Director Bockenfeld, ____; Commissioner/Director Doty, ____; Commissioner/Director Holen, ____; Commissioner/Director Jackson, ____; Commissioner/Director Sharpe, ____.

The Chair declared the motion carried and so ordered.

DRAFT - AUTHORIZATION FOR CHAIR TO SIGN CERTIFICATION OF TAX LEVIES

RESOLUTION NO. 16 ____ It was moved by Commissioner ____ and duly seconded by Commissioner ____ to authorize the Chair of the Board of County Commissioners to sign the Certification of Tax Levy Forms for Arapahoe County, for the Arapahoe Law Enforcement Authority, for the Arapahoe County Recreation District, and for the Arapahoe County Water and Wastewater Public Improvement District.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____; Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.



Board Summary Report

Date: December 2, 2016

To: Board of County Commissioners

From: Todd Weaver, Budget Manager

Subject: Certification of Tax Levies for Cities, Towns, School Districts and Special Districts for Fiscal Year 2017

Purpose and Recommendation

Pursuant to Sections 39-1-111 and 39-5-128, C.R.S., the Board of County Commissioners of Arapahoe County shall certify the mill levies of the cities and towns, the school districts, and the special districts within Arapahoe County for the ensuing fiscal year (2016). Cities, towns, school districts, and special districts are required by statute to submit their certification of tax levy information to the Budget Division of the Finance Department no later than December 15th of each year. In turn, the County is required to certify the tax levies to the Assessor by December 22nd and submit a report of the tax levies for the County and all cities, towns, and districts to the State of Colorado.

Background

By adopting these resolutions, the Board of County Commissioners is performing a ministerial and non-discretionary act to comply with the requirements of Sections 39-1-111 and 39-5-128, C.R.S. The Board of County Commissioners has no authority to modify the mill levies so certified to it; that the Board of County Commissioners has presumed that the above-noted cities, towns, school districts, and special districts have complied with the Colorado constitutional and statutory requirements concerning said levies; and therefore, the Board of County Commissioners assumes no liability or responsibility associated with any levy of any of the above-noted cities and towns except for the ministerial, non-discretionary act of certification.

Cities, towns, school districts, and special districts are not required to submit their levies for fiscal year 2017 until December 15th. There are generally a number of districts where follow up is required after December 15th and prior to completing the report with the approximately 360 taxing districts in Arapahoe County. Therefore, as in prior years, due to the timing of the submission of these mill levies, the levies are not present in the draft resolutions attached to this Board Summary Report and will be filled in prior to submission to the State for the Chairperson's signature.

Discussion

The Finance Department, specifically the Budget Division, will be present to answer questions from the public or from the Board of County Commissioners related to the adoption of the resolutions certifying the tax levies for cities and towns, school districts, and special districts for 2017.

Alternatives

Pursuant to statute, the Board of County Commissioners must certify tax levies to the Assessor by December 22nd each year.

Fiscal Impact

There is no fiscal impact as a result of this resolution.

Approved By:

Janet J. Kennedy, CPA, Director of Finance
John Christofferson, Deputy County Attorney

RESOLUTION NO. 16_____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to adopt the following Resolution:

WHEREAS, pursuant to Section 39-5-128, C.R.S., all cities and towns within Arapahoe County must certify to the Board of County Commissioners the levy of said city or town for the ensuing fiscal year (2017); and,

WHEREAS, the Board of County Commissioners has received said certifications from the hereinafter described cities and towns; and,

WHEREAS, pursuant to Section 39-1-111, C.R.S., the Board of County Commissioners must levy taxes for cities and towns as provided by law, no later than December 22, 2016, and,

WHEREAS, the Board of County Commissioners is desirous of levying said taxes at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County that there shall be and there is hereby levied against all taxable property, real, personal and mixed, tangible and intangible, not exempt by law within the corporate limits of each of the following cities and towns, the following tax, to wit:

[Data to be inserted when available after December 15th]

BE IT FURTHER RESOLVED that the Board of County Commissioners of Arapahoe County in certifying the mill levies of the above-noted cities and towns is performing a ministerial and non-discretionary act to comply with the requirements of Sections 39-1-111 and 39-5-128, C.R.S.; that the Board of County Commissioners has no authority to modify the mill levies so certified to it; that the Board of County Commissioners has presumed that the above-noted cities and towns have complied with the Colorado constitutional and statutory requirements concerning said levies; and therefore, that the Board of County Commissioners assumes no liability or responsibility associated with any levy of any of the above-noted cities and towns except for the ministerial, non-discretionary act of certification.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____;
Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

RESOLUTION NO. 16_____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to adopt the following Resolution:

WHEREAS, pursuant to Section 39-5-128, C.R.S., all school districts within Arapahoe County must certify to the Board of County Commissioners the levy of said school district for the ensuing fiscal year (2017); and,

WHEREAS, the Board of County Commissioners has received said certification from the hereinafter described school districts; and,

WHEREAS, pursuant to Section 39-1-111, C.R.S., the Board of County Commissioners must levy taxes for school districts as provided by law, no later than December 22, 2016; and,

WHEREAS, the Board of County Commissioners is desirous of levying said taxes at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, that there shall be and there is hereby levied against all taxable property, real, personal and mixed, tangible and intangible, not exempt by law within the boundaries of each of the following school districts, the following tax, to wit:

[Data to be inserted when available after December 15th]

BE IT FURTHER RESOLVED that the Board of County Commissioners of Arapahoe County in certifying the mill levies of the above-noted school districts is performing a ministerial and non-discretionary act to comply with the requirements of Sections 39-1-111 and 39-5-128, C.R.S.; that the Board of County Commissioners has no authority to modify the mill levies so certified to it; that the Board of County Commissioners has presumed that the above-noted school districts have complied with the Colorado constitutional and statutory requirements concerning said levies; and therefore, that the Board of County Commissioners assumes no liability or responsibility associated with any levy of any of the above-noted school districts except for the ministerial, non-discretionary act of certification.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____;
Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

RESOLUTION NO. 16_____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to adopt the following Resolution:

WHEREAS, pursuant to Section 39-5-128, C.R.S., all special districts within Arapahoe County must certify to the Board of County Commissioners the levy of said special district for the ensuing fiscal year (2017); and,

WHEREAS, the Board of County Commissioners has received said certifications from the hereinafter described special districts; and,

WHEREAS, pursuant to Section 39-1-111, C.R.S., the Board of County Commissioners must levy taxes for special districts as provided by law, no later than December 22, 2016; and,

WHEREAS, the Board of County Commissioners is desirous of levying said taxes at this time.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County, that there shall be and there is hereby levied against all taxable property, real, personal and mixed, tangible and intangible, not exempt by the law within the boundaries of each of the following special districts, the following tax, to wit:

[Data to be inserted when available after December 15th]

BE IT FURTHER RESOLVED that the Board of County Commissioners of Arapahoe County in certifying the mill levies of the above-noted special districts is performing a ministerial and non-discretionary act to comply with the requirements of Sections 39-1-111 and 39-5-128, C.R.S.; that the Board of County Commissioners has no authority to modify the mill levies so certified to it; that the Board of County Commissioners has presumed that the above-noted special districts have complied with the Colorado constitutional and statutory requirements concerning said levies; and therefore, that the Board of County Commissioners assumes no liability or responsibility associated with any levy of any of the above-noted special districts except for the ministerial, non-discretionary act of certification.

The vote was:

Commissioner Bockenfeld, ____; Commissioner Doty, ____; Commissioner Holen, ____;
Commissioner Jackson, ____; Commissioner Sharpe, ____.

The Chair declared the motion carried and so ordered.

PROPOSED MOTION

I move to adopt the three (3) resolutions to certify the tax levies for cities and towns, school districts, and special districts within Arapahoe County for fiscal year 2017 pursuant to 39-1-111 and 39-5-128, C.R.S.



Board Summary Report

Date: November 30, 2016 **Meeting Date:** December 13, 2016

To: Board of County Commissioners

Through: Jan Yeckes, Planning Division Manager

From: Julio G Iturreria, Long Range Planning Program Manager

Subject: ASI 16-001, Prosper Wastewater Treatment Plant Utility Plan Application for Site Location Application

Request and Recommendation:

The Prosper development located south of I-70 and along Watkins Road needs a wastewater treatment Facility to provide services for their development. In keeping with the State Water Quality Control Division requirements, the application, Prosper Regional Water and Wastewater Metropolitan District, submitted a lengthy document called Prosper Wastewater Treatment Plant Utility Plan Report.

In keeping with the state's procedure staff has reviewed ASI 16-001, Prosper Wastewater Treatment Plant Utility Plan in detail, and with the other agencies' signatures, staff recommends **favorably** to the Board of County Commissioners. If the Board concurs, we request that the Chair sign the application form for forwarding to the CDPHE.

In keeping with the state's procedure staff has reviewed ASI 16-001, Prosper Wastewater Treatment Plant Utility Plan in detail and with the other agencies signatures staff recommends **favorably** to the Board of County Commissioners. If the Board concurs, we request that the Chair sign the application form for forwarding to the CDPHE.

Background:

Prosper development is within the Planning Reserve for Tier 1 of the Comprehensive Plan and is subject to all of the goals and policies as provided. The area to be served by the Prosper Wastewater Treatment Plant is generally to be located west of the Catholic Church on the south-side of I-70. Because of this location no other existing district could serve this development either within Arapahoe County or in Adams County. The City of Aurora is not willing to provide services for any development outside of its boundaries.

Colorado Department Public Health and Environment (CDPHE) has guidelines that the County needs to follow as stated below:

Per Reg. 22, the county is being asked to comment as to:

(b) County if the proposed facility is located in the unincorporated area of a county. The county, through its commissioners or its designee, is requested to review and comment upon: the relationship of the treatment works to the local long-range comprehensive plan for the area as it affects water quality; the proposed site location alternatives including the location with respect to the flood plain; and the capacity to serve the planned purpose. A recommendation of approval from the county is considered to be a statement that the proposal is consistent with the water quality considerations contained in its local comprehensive plan.

As the 208 planning agency, the county is asked to comment as to:

208 Planning Agency, if designated or if such function has been delegated by the State, should comment on the consistency of the proposed treatment plant to the water quality management plan;

and...

The Arapahoe County Comprehensive Plan addresses the relationship between water quality and discharge from treatment plants into streams as it affects water quality as stated in the goals and policy as quoted below:

GOAL NCR 3 - Conserve Water Resources and Maintain High Water Quality

Arapahoe County will facilitate human health and environmental quality by conserving water resources and water quality.

Policy NCR 3.1 - Conserve Water Resources

Arapahoe County will maintain and improve water quantity and quality by implementing policies designed to increase public awareness of water conservation techniques, encourage and reward water conservation efforts, identify and conserve aquifer recharge areas, and improve the quality of water discharged to streams and other water bodies in the region (see also, Goals and Policies for Public Facilities and Services).

Strategy NCR 3.1(c) - Allow Recycling and Reuse of Water

The County will allow the use of recycled or reused water in new development projects and in rural residential uses as long as it meets State environmental standards.

The proposed treatment plant will discharge water that meets the State's water quality standards. In addition, the Prosper District plans to use reclaimed wastewater and irrigation

return flow in order to conserve water. These practices are consistent with the goal and policy of the Comprehensive Plan related to water quality.

Staff conducted a depth review of the originally proposed plan in June of 2016 and again with the revised document resubmitted in September of 2016 by Planning Staff and Tri-County Health staff in order to address the Comprehensive Plan and State Health Department issues. September 2016, Tri-County and Planning staff were delivered an updated document based upon our concerns. This recent document does address our issues to a point that all are willing to send this document to the CDPHE for their final review.

Copy of the letter send to the consultant for Prosper Wastewater Treatment Plant Utility Plan dated August 9, 2016 is attached

Discussion:

In this case the Board County of Commissioners has the responsibilities as the 208 Management Agency for the unincorporated areas of Arapahoe County to sign the Applicant Certification and Review Agencies Recommendation, Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility on behalf of Arapahoe County.

Alternatives

NA

Fiscal Impact

At this time there is no fiscal impact to Arapahoe County.

Reviewed by

This application documents has been reviewed by Warren Brown from Tri-County Health, City of Aurora Engineering Services, and Julio Iturreria, the Long Range Planning Manager from Arapahoe County Planning. The site application is currently signed by Tri-County Health with a letter from the City of Aurora Engineering Services.

Attorney Comments

If appropriate, include this section.

Reviewed By:

Julio Iturreria
Larry Mugler
Jan Yeckes
Dave Schmit
Todd Weaver
Bob Hill

By motion, the Board authorizes the Chair and Planning Division Manager or designee as the 208 Management Agency to sign the Site Location Application form, which is forwarded to the State Health Department for final approval and permitting.

Colorado Department Public Health and Environment (CDPHE) has to review the document prior to their final approval for construction of the wastewater facility.

Under CRS25-8-702. Approval for commencement of construction:

(1) No person shall commence the construction of any domestic wastewater treatment works or the enlargement of the capacity of an existing domestic wastewater treatment works, unless the site location and the design for the construction or expansion have been approved by the division.

(2) In evaluating the suitability of a proposed site location for a domestic wastewater treatment works, the division shall:

(a) Consider the local long-range comprehensive plan for the area as it affects water quality and any approved regional wastewater management plan for the area;

(b) Determine that the plant on the proposed site will be managed to minimize the potential adverse impacts on water quality; and

(c) Encourage the consolidation of wastewater treatment facilities whenever feasible.

**AUTHORIZATION FOR THE CHAIR OF THE ARAPAHOE COUNTY
COMMISSIONERS TO SIGN APPLICATION FORM SECTION 22.4 OF
REGULATION 22: NEW DOMESTIC WASTEWATER FACILITY FOR
PROSPER WASTEWATER TREATMENT FACILITY**

RESOLUTION NO. _____ It was moved by Commissioner _____ and duly seconded by Commissioner _____ to authorize the Chairman of the Board of County Commissioners, on behalf the Board of County Commissioners and as the designated 208 Management Agency for Unincorporated Arapahoe County, to sign the Colorado Department of Public Health and Environment application form “Applicant Certification and Review Agencies Recommendation, “Section 22.4 of Regulation 22 CCR 1002-22: New Domestic Wastewater Treatment Facility to recommend that the Colorado Department of Health and Environment approve the site location for the Prosper Wastewater Treatment Utility Plan.

The vote was: _____,

Commissioner Bockenfeld, _____; Commissioner Doty, _____; Commissioner Holen, _____; Commissioner Jackson, _____ and Commissioner Sharpe,_____.

The Chairman declared the motion carried and so ordered.



Water Quality Control Division Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Colorado Department
of Public Health
and Environment

Applicant Certification and Review Agencies Recommendation Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility

A. Project and System Information	
System Name	Prosper Regional Water & Sanitation Service Metropolitan District (owner)
Project Title	Prosper Wastewater Treatment Plant
County	Arapahoe

1. Applicant Certification

I certify that I am familiar with the requirement of Regulation 22 - Site Location and Design Approval Regulations for Domestic Wastewater Treatment Works, and have posted the site in accordance with the Regulations. An engineering report, as described by the regulations, has been prepared and is enclosed.

Applicant Legal Representative (e.g., Public Works Director)	Date	Typed Name	Signature
President of the Board of Directors of the District	10/19/16	Maribeth W. D'Amico	<i>Maribeth W. D'Amico</i>

The system legal representative is the legally responsible agent and decision-making authority (e.g. mayor, president of a board, public works director, owner). The Consulting Engineer is not the legal representative and cannot sign this form

2. Recommendation of Review Agencies

As required in Section 22.4(2), the application and the engineering report must be submitted to all appropriate local governments, 208 planning agencies and State agencies for review and comment prior to submittal to the Division. By signing below, the entity or agency: 1) acknowledges receipt of the proposed site location application, 2) has reviewed the proposed site location application and may elect to provide comments, and 3) has provided a recommendation concerning the application to the Division. The recommendation should be based on the factors outlined in Section 22.4(2); for example, on the consistency of the proposed site location application with the local comprehensive plan(s) as they relate to water quality and any adopted water quality management plans(s). *Please note: Review agencies are encouraged to provide project comments; however, if a review agency does not recommend approval then the agency must attach a letter describing the reason for their decision or comment on the next page.*

Signature of Management Agency, if different from other entities listed below			
Role	Date	Typed Name / Agency	Signature
			Recommend Approval? Yes <input type="checkbox"/> No <input type="checkbox"/>
Signature of County, if proposed facility is located in unincorporated areas of a county			
Role	Date	Typed Name / Agency	Signature
Long Range Planning Manager		Julio Iturreria / Arapahoe County	<i>Julio Iturreria</i>
			Recommend Approval? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Signature of City or Town, if site is located within three miles of the City/Town's boundary (if multiple, attach additional sheets as needed)			
Role	Date	Typed Name / Agency	Signature
		City of Aurora	<i>* See letter</i>
			Recommend Approval? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Signature of Local Health Authority			
Role	Date	Typed Name / Agency	Signature
Senior Environmental Health Consultant	11/8/16	Warren S. Brown, P.E.	<i>Warren S. Brown</i>
			Recommend Approval? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Revised December 2013

Section 22.4: Application Form

Page 4 of 5



Aurora Water



City of Aurora

Planning and Engineering
Engineering Services
15151 E. Alameda Pkwy., Ste. 3600
Aurora, Colorado 80012
303-739-7370

Worth Discovering • auroragov.org

October 31, 2016

Julio Iturreria, Long Range Planner
Arapahoe County Public Works and Development
6924 South Lima Street
Centennial, CO 80112-3853

Re: Site Application - Prosper Wastewater Treatment Plant

Dear Mr. Iturreria,

The Aurora Water Department is in receipt of the Site Application to the Colorado Department of Public Health and Environment, Water Quality Control Division for the above referenced project.

We would like to respond to your request for recommendation of the Application. It is our position that Aurora Water does not recommend approval of this Application.

The long term financial sustainability of an independent wastewater treatment plant owned and maintained by a private company is a concern to us as a regional service provider. We are concerned that in the event of failure, we may be asked to rectify the service scenario by utilizing our infrastructure for which capacity has not been funded or implemented.

This scenario would have significant impacts to our ability to provide service within our corporate limits which are down gradient of the proposed facility. Small wastewater treatment plants are vulnerable to a variety of failure scenarios and Aurora Water is not in a position to provide a favorable recommendation due to the risk associated with this proposal.

Feel free to call me with any questions at 720-859-4324.

Sincerely,

Vernon A. Adam, P.E.
Engineering Services Manager
Aurora Water Department

Cc: Kelley Neumann, Aurora Water
Marshall Brown, Aurora Water



ARAPAHOE COUNTY
COLORADO'S FIRST

Public Works and Development

6924 South Lima Street
Centennial, Colorado 80112-3853
Phone: 720-874-6500
Fax: 720-874-6611
TDD: 720-874-6574
www.arapahoegov.com
publicworks@arapahoegov.com

DAVID M. SCHMIT, P.E.
Director

August 9, 2016

Dewberry Engineering Inc.
Attn: Stacy Roberts, P.E.
990 South Broadway, Suite 400
Denver, Colorado 80209

Dear Ms. Roberts:

Arapahoe County staff is reviewing the Site Application/Utility Plan Report for the New Prosper Wastewater Treatment Plant (WWTP). Arapahoe County is very aware of the sixty-day time constraint given to the reviewing agencies by the State Health Department. However, in reviewing the report there are many issues that need clarification prior to our being in a position to recommend favorable consideration of the wastewater facilities by the Arapahoe County Commissioners in their capacity as the 208 Planning Agency for the subject system.

In order to further the review process, Arapahoe County Planning requests clarification of the following concerns:

GENERAL COMMENTS:

- a. Page 1, Section 22.4: Completeness Checklist under System Name is VREI, Inc. *Typically, the Prosper Metro District would be the Applicant and not VREI, Inc. which is not mentioned until page 38. Please explain the relationship between the Metro District and VREI, Inc. and any agreements that may or may not exist. Also on page 38 the description states that the 8.22 acre parcel is solely owned by VREI. We need more information to this relationship with the Metro District as well.*
- b. Page 4, Section 22.4: Application Form, a signature is necessary from the City of Aurora Engineering according to the current application. *What is the status of review by the City of Aurora? Have any comments from the city been addressed?*
- c. Historically, the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment has been opposed to proposing package treatment plans. *Did the*

applicant verify with the WQCD that this is an appropriate system for the proposed facility? How are the initial facilities incorporated into future phases/build out?

- d. *Effluent standards: Will the new system follow the new strict nutrient reduction standards? Is the total residual chlorine limit of 0.5 mg/l correct? Why not the 0.019/0.11 mg/l listed in the PELs?*
- e. *Population Density: What is the source of data for the population projections? Tables (or graphs) should show annual population growth; possibly a range of low and high growth scenarios. Some of the tables show only anticipated wastewater flows without correlation to population figures.*
- f. *Timeline: The applicant's timeline for build out does not match up with requirements. State regulations generally require that engineering and financial planning be underway by the time that a facility reaches 80 percent capacity and that construction for an expansion of capacity be underway by the time that a facility reaches 95 percent of its permitted capacity. If flow projections are accurate, work on an expansion of the wastewater treatment facilities will need to start shortly after completion of phase 1.*
- g. *Reuse: The utility plan needs more information on "reuse". Discussions about discharging to Rat Run creates confusion without a clear explanation of the proposed interrelation between the water supply and wastewater systems. The applicant mentioned "reuse" within the 1041 new communities document, however the information has not been tied to this wastewater utility plan.*
- h. *Wastewater collection system: Please provide Please provide a more complete description of the wastewater collection system. Are any sewage lift stations proposed?*
- i. *Wastewater facilities site: Please provide a preliminary site plan showing the layout of the proposed 100,000 initial phase facilities (132,500 gpd per your letter of August 2nd) and also the ultimate 3.3 MGD facility. Address site buffers and how existing treatment will be maintained during future expansions.*

The site is flanked on two sides by floodplain (Appendix A). How will site access be maintained?

- j. *Bio Solids: Please describe in detail and with greater research the propose management of biosolids. **Disposal** of biosolids, as proposed in the Utility Plan Report, is not consistent with current statewide practice of beneficial use of biosolids through land application; typically, by contract for smaller facilities such as Prosper's.*
- k. *Financial System: Please explain further the reasoning for selection of the more expensive MBR system as compared to the other treatment options and how this impacts anticipated tap fees and user charges.*

Please expand on the role of the different Prosper metropolitan districts including the use of mill levy revenue. Are bonds in place since the US BANK letter does not appear to be a letter of credit?

- l. *Odor: How will odors be dealt with during the entire development and build out of this project? Please describe how the proposed facilities will comply with the WQCD's setback polices.*

- m. Implementation: Will the initial discharge permit be limited to 60,000 gpd consistent with WQCD policy that all facilities need to be constructed for any given permitted capacity? (page 36)*
- n. Miscellaneous Comments: Verify capacity of the existing Foxridge Farms plant (page 15). Please note that the Coal Creek facility does not serve the Arapahoe County fairgrounds (page 15). The dollars text above the tables on pages 31 and 32 are erroneous. Were electric utility costs included in the annual cost estimates (Table 4-7, et al)?*

Until issues raised in this letter are satisfactorily addressed, in the form of an updated Utility Plan Report that also includes the rationale of the capacity changes listed in your August 2nd letter, we are not in a position to favorably recommend approval of the site application. Please contact us soon to discuss.

Best,

Julio Iturreria
Long Range Planner
Arapahoe County

cc: Jeff Vogel, Vogel & Associates
Dave Kurst, WQCD, CDPHE
Shelia Lynch, Tri-County Health Department
Warren Brown, Tri-County Health Department
Sherman Feher, Arapahoe County Planning
Vern Adam, City of Aurora Engineering Services

September 7, 2016

Julio Iturreria
Arapahoe County
Public Works and Development
6924 South Lima Street Centennial, Colorado 80112-3853

**Response to Comments on the Prosper Wastewater Treatment Plant
Site Application and Utility Plan**

Dear Mr. Iturreria:

Please find our responses to the August 9, 2016 Arapahoe County Public Works and Development review comments for the Prosper Wastewater Treatment Plant Site Application and Utility Plan. The revised Utility Plan is attached addressing the comments below.

a. Page 1, Section 22.4: Completeness Checklist under System Name is VREI, Inc. Typically, the Prosper Metro District would be the Applicant and not VREI, Inc. which is not mentioned until page 38. Please explain the relationship between the Metro District and VREI, Inc. and any agreements that may or may not exist. Also on page 38 the description states that the 8.22 acre parcel is solely owned by VREI. We need more information to this relationship with the Metro District as well.

Response: The application has been updated to reflect Prosper Regional Water and Sanitation Service Metropolitan District as the applicant. The first paragraph of the report has been revised to describe the Prosper Regional Water and Sanitation Service Metropolitan District as the Owner. All references to VREI, Inc. have been deleted.

b. On Page 4, Section 22.4: Application Form, a signature is necessary from the City of Aurora Engineering Services Manager. What is the status of review by the City of Aurora? Have any comments from the City been addressed?

Response: The City of Aurora has not provided specific comments regarding the proposed Prosper Waste Water Treatment plant. The only comments received by the comment deadline of August 16, 2016 were comments regarding the Sky Ranch water and waste water project.

c. Historically, the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment has been opposed to proposing package treatment plans. Did_ the applicant verify with the WQCD that this is an appropriate system for the proposed facility? How are the initial facilities incorporated into future phases/build out?

Response: Original pages 1,2,4,14,18,36; Revised Pages 2,5,13,19,37: The report has been revised to include the new design flow of 132,500 gpd (per Aug 2, 2016 letter).

The increased design flow changed the process to an in-basin MBR system rather than a package plant. The initial facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The Metropolitan Districts will determine the selected treatment process for future phases as the demand of the WWTP increases.

d. Effluent standards: Will the new system follow the new strict nutrient reduction standards? Is the total residual chlorine limit of 0.5 mg/l correct? Why not the 0.019/0.11 mg/l listed in the PELs?

Response: The new system will follow the new strict nutrient reduction standards per Table 1 of the PELs. The total residual chlorine limit has been deleted from Table 3-4 (Original page 22; Revised page 23). There is no chlorine limit per Table 1 of the PELs, there is only an in-stream standard. Per Section 4 of the report, the WWTP will utilize UV disinfection.

e. Population Density: What is the source of data for the population projections? Tables (or graphs) should show annual population growth; possibly a range of low and high growth scenarios. Some of the tables show only anticipated wastewater flows without correlation to population figures.

Response: Table 2-2 and page 11 (Original page 11; Revised page 11) has been updated to include population figures and the source of population data. The source of the data for the population projection is included in the approved Prosper 1041 "New Communities" Permit, Section 6, Coley Forrest Fiscal Impact Report. The population projection outlined in the report served as a basis for preparing Population Density information.

f. Timeline: The applicant's timeline for build out does not match up with requirements. State regulations generally require that engineering and financial planning be underway by the time that a facility reaches 80 percent capacity and that construction for an expansion of capacity be underway by the time that a facility reaches 95 percent of its permitted capacity. If flow projections are accurate, work on an expansion of the wastewater treatment facilities will need to start shortly after completion of phase 1.

Response: Original pages 6, 39; Revised Pages 6, 41, 42: An explanation of when the second phase of Phase 1 will begin has been added to the report. The timeline is based on the absorption schedule, provided in Table 2-2 of the report, and may need to be modified in the future based on the rate of development. Based on the absorption schedule, expansion of the WWTP to Phase 1 buildout (265,000 gpd) will need to start shortly after completion of the initial phase (132,500 gpd). It is important not to oversize the initial phase of the WWTP in order to reliably treat the low flow and loading encountered at the beginning of the development.

g. Reuse: The utility plan needs more information on "reuse". Discussions about discharging to Rat Run creates confusion without a clear explanation of the proposed interrelationship between the water supply and wastewater systems. The applicant mentioned "reuse" within the 1041 new communities document, however the information has not been tied to this wastewater utility plan.

Response: Original pages 2, 15; Revised Pages 2, 16: Reuse is further described in the report. Initially all of the flow will be discharged to Rat Run and a small amount will be used for on-site reuse. Off-site reuse will begin in Phase 2 of the project. Its not economically feasible to start off-site reuse at the low initial flows. However reuse of the reclaimed wastewater is a critical component of the Water Supply Plan (HRS Water Consultants, January 2014), submitted as part of the Prosper PDP.

h. Wastewater collection system: Please provide Please provide a more complete description of the wastewater collection system. Are any sewage lift stations proposed?

Response: Original Page 23; Revised Page 24: Figure 4-1 has been added to the report to show the map of the Phase 1 collection system. The report has been revised to state that the collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

i. Wastewater facilities site: Please provide a preliminary site plan showing the layout of the proposed 100,000 initial phase facilities {132,500 gpd per your letter of August 2nd) and also the ultimate 3.3 MGD facility. Address site buffers and how existing treatment will be maintained during future expansions.

The site is flanked on two sides by floodplain (Appendix A). How will site access be maintained?

Response: Original Page 36; Revised Page 37: A preliminary site plan has been included in Figure 5-2. The two drainage ways on each side of the WWTP will act as site buffers as well as landscaping that will help mask the treatment process basins. The existing treatment process will remain in operation during construction of the second treatment process train, this will be later discussed during planning and design of the second phase of Phase 1.

Original Page 9; Revised Page 9 has been revised to include a summary of the following: The site will be accessed by a temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility.

The access roadway is comprised of a gravel surface, and is identified as temporary until such time as a future paved is completed in the area. There is no specific timetable for the future permanent roadway construction.

As the access road is placed at the natural ground elevation across the 2 drainageways, it will overflow and “flood” during storm events. Maximum flow depth at the 100 yr event has been determined to be 18” at the roadway crossings. Staff personal will be trained on use of the roadway during pending and actual storm events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles.

An ultimate emergency means of access is available to the site from I-70.

Bennett Fire Department has reviewed the site plan and accessibility route and have determined it to

j. Biosolids: Please describe in detail and with greater research the proposed management of biosolids. Disposal of biosolids, as proposed in the Utility Plan Report, is not consistent with current statewide practice of beneficial use of biosolids through land application; typically, by contract for smaller facilities such as Prosper's.

Response: An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

k. Financial System: Please explain further the reasoning for selection of the more expensive MBR system as compared to the other treatment options and how this impacts anticipated tap fees and user charges.

Please expand on the role of the different Prosper metropolitan districts including the use of mil/levy revenue. Are bonds in place since the US BANK letter does not appear to be a letter of credit?

Response: The reasons for selecting the MBR system are described on Original page 34; Revised Page 36 of the report. The cost estimates are planning level and may have a margin of error of +/- 20%. The MBR system is only approximately 7% more expensive than the other alternatives, which is well within the margin of error of the cost estimates. As such, there are no anticipated impacts to anticipated tap fees and user charges.

Original page 38; Revised Page 40 of the report have been revised to include a summary of the following: The Prosper Regional Water and Sewer Metropolitan District (the "Regional Water and Sewer District") is organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sewer and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The Regional Water and Sewer District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sewer District will be limited in area and will most likely not expand through the life of the Development.

The Prosper Water and Sanitation Financing District (the "Water and Sanitation Financing District"), is comprises all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

l. Odor: How will odors be dealt with during the entire development and build out of this project? Please describe how the proposed facilities will comply with the WQCD's setback policies.

Response: Some of the WWTP facilities will be located within the WQCD's setback distances, thus odor mitigating elements will be incorporated into the design including aeration system failure alarms, covering or enclosing the digester and process basins, and providing odor control systems for the influent lift station and headworks building. This information has been added to page 31 and 32 of the report (Original Pages 29 and 30).

m. Implementation: Will the initial discharge permit be limited to 60,000 gpd consistent with WQCD policy that all facilities need to be constructed for any given permitted capacity? (page 36)

Response: No, the initial discharge permit will be for 132,500 gpd. The PELs are for the full Phase 1 buildout of 265,000 gpd, a request has been made to CDPHE to decrease the permitted design flow to 132,500 gpd. Since the low flow in the receiving stream is zero there will be no change to the anticipated PELs.

n. Miscellaneous Comments: Verify capacity of the existing Foxridge Farms plant (page 15). Please note that the Coal Creek facility does not serve the Arapahoe County fairgrounds (page 15). The dollars in the text above the tables on pages 31 and 32 are erroneous. Were electric utility costs included in the annual cost estimates (Table 4-7, etc.)?

Response: Original page 17; Revised Page 18: The capacity of the existing Foxridge Farms plant was changed to, "a design capacity of 0.13 mgd (30 day average)" per the plant's permit. The 0.643 mgd previously in the report was the planned capacity for the plant. Additionally, the rated capacity of the other plants were checked and the capacity of the Coal Creek plant was changed to, "a design capacity of 0.13 mgd (30 day average)" per the permit for that plant. The 0.06 mgd capacity previously in the report was the capacity used for the primary effluent limits for the plant.

The reference to the Coal Creek plant serving the Arapahoe County fairgrounds has been removed from the report.

Please feel free to contact me in the future should you have any additional questions or concerns at 303.951.0637 or sroberts@dewberry.com.

Sincerely,

Stacy Roberts, PE Project Manager

Cc: Warren Brown, Tri-County Health Department
Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora Page 6 of 6
Doug Camrud, CDPHE WQCD



Water Quality Control Division Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Colorado Department
of Public Health
and Environment

Regulation 22 Application Completeness Checklist Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility

Project and System Information				
Project Title		Prosper Wastewater Treatment Plant		
System Name		Prosper Regional Water & Sanitation Metropolitan District (owner)		
County		Arapahoe		
Regulation 22 Citation	Submittal Requirements	Applicant to fill out		
		Included/Addressed in Site Location Submittal? Yes/No/NA	Location in Submittal (page)	
22.4(1)	Site Application Forms including: - Signature of local authorities and 208 planning agency (see 22.4(2)) - Signature of responsible party of the proposed facility	Responsible Party	App	
22.4 (1)(b)	Engineering Report including:			
	Service Area Definition			
	22.4 (b)(i)	Service Area Definition including:		
		- Existing and Projected Population	Yes	11
		- Staging or phasing	Yes	12
		- Flow and loading projections	Yes	12
		- Relationship to other water and wastewater treatment works	Yes	15-18
	Proposed Site, Site Alternatives, Treatment Alternatives			
	22.4 (b)(ii)	Proposed Selected Site Location Description	Yes	24
		Evaluation of Alternative Sites	No	24
		Treatment Alternatives	Yes	24-29
	Preliminary Effluent Limitations			
	22.4 (b)(iii)	Preliminary Effluent Limits:		
		- Summary of PELs including issuance and expiration date	Yes	23
		- Pretreatment program or enforceable mechanism description, if applicable	NA	
	Existing Facilities within Service Area			
	22.4 (b)(iv)	Analysis of loading, capacity and performance of any relevant existing facilities within the applicant's service area	NA	
	Consolidation Analysis			
22.4 (b)(v)	Analysis of opportunities for consolidation	Yes	15-18	
Floodplain or other natural hazards				
22.4 (b)(vi)	Evidence that the proposed site and facility operations will not be adversely affected by floodplain or other natural hazard	Yes	9 & Appendix A	
Geotechnical Analysis				
22.4 (b)(vii)	Geotechnical site conditions evaluation material			
	- Soils Report for design phase which states the selected site will support the proposed facility	Yes	18 & Appendix B	
Selected Alternative Description				
22.4 (b)(viii)	Selected Alternative Description, including:			

		- Legal description of site	Yes	24 & Appendix E
		- Treatment system description	Yes	28-32, 36
		- Design capacities	Yes	13
22.4 (1)(b) continued	22.4 (b)(viii) continued	- Operational staffing needs	Yes	37
		- Process Flow Diagram	Yes	38
	Control of site legal arrangements			
	22.4 (b)(ix)	Control of site legal arrangements for project life	Yes	40
	Institution arrangements for waste treatment payment			
	22.4 (b)(x)	Institution arrangements for waste treatment payment	Yes	40
	Management Capabilities			
	22.4 (b)(xi)	Management capabilities for controlling the wastewater loading to the proposed treatment works within capacity limitations	Yes	40
	Financial System			
	22.4 (b)(xii)	Financial system information for capital and O&M costs over project life		
		- Anticipated annual budget	Yes	34-35
		- Fee and rate structure	Yes, tap fees	40
	Implementation plan and schedule			
	22.4 (b)(xiii)	Implementation plan and Schedule, including:		
		- Estimated construction time	Yes	41
		- Estimated start up date	Yes	41
	Capacity to operate and maintain the facility			
	22.4 (b)(xiv)	Demonstrate owner's capacity to operate and maintain the facility including:		
		- Emergency operations plan	Yes	41
22.4 (1)(c)	Notice of the intent to construct on private property, if applicable			
22.4 (1)(d)	Capacity sharing agreement, if applicable		NA	
22.4 (1)(e)	Service to new or expanded service area			
	-	Consistent with water quality management plan	Yes	12
22.4 (2)	Site Application Review and Comments from: (a) Management Agency (b) County (c) City or Town (d) Local Health (e) 208 Planning Agency (f) Other state or federal agencies		Yes; comments are included; waiting on signatures	
22.4 (3)	Site Location Posting Documentation (e.g., photo of the public notification sign)		No; will be submitted once complete	



Colorado Department
of Public Health
and Environment

Water Quality Control Division Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Regulation 22 Application Form Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility

A. Project and System Information					
System Name	Prosper Regional Water & Sanitation Service Metropolitan District (owner)				
Project Title	Prosper Wastewater Treatment Plant				
County	Arapahoe				
Date Fee Paid or payment attached		Invoice Number and Check Number			
Design Company Name	Dewberry Engineers, Inc.				
Design Engineer	Stacy Roberts	CO License Number	46887		
Address	990 S Broadway Suite 400 Denver, CO 80209				
Email	sroberts@dewberry.com				
Phone	303-951-0637	Fax	303-825-2322		
Applicant / Entity	Prosper Regional Water & Sanitation Service Metropolitan District				
Representative Name/Title	Jeff Vogel (developer)				
Address	475 W 12 th Ave, Suite E Denver, CO 80204				
Email	jvogel@vogelassoc.com				
Phone	303-893-4288	Fax	303-893-6792		
B. Project Information					
Location (existing or proposed site)			Proposed Project Capacity		
Brief location description	Approximately 3,350 feet Southwest of the I-70 and Watkins Road Intersection		Maximum Month Average Hydraulic Capacity in million gallons per day (MGD)	0.10 MGD	
Legal Description (e.g., Township, Range)	NW 1/4 of Section 1, Township 4 South, Range 65 West, of the 6 th Principal Meridian		Peak Hour Hydraulic Capacity in million gallons per day (MGD)	0.16 MGD	
County	Arapahoe County		Organic Capacity (lbs. BOD ₅ /day) – Treatment Facility Only	175 lbs. BOD ₅ /day	
Latitude	39.737514N				
Longitude	W104.614406W				
Funding Process	Will a State or Federal grant or loan be sought to finance any portion of the project (e.g., State Revolving Fund)?		No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	If yes, please list project number
Project Schedule and Cost Estimate					
Estimated Bid Opening Date	July 2017				
Estimated Completion Date	April 2018				
Estimated Project Cost	\$3.0M				

Project and System Information

Project Title	Prosper Wastewater Treatment Plant
System Name	Prosper Regional Water & Sanitation Service Metropolitan District (owner)
County	Arapahoe

Treatment Facility Information

1.	Type and capacity of treatment facility proposed including major processes used <i>Package Membrane Bioreactor (MBR) system with the capacity of 0.10 MGD and 175 ppd BOD. Construction of the initial package plant will include an influent lift station (located on the WWTP site), an MBR process building that includes a lab/office and maintenance shop area, and an MBR package system complete with fine screening, alum addition for phosphorus removal, and UV disinfection. The new WWTP will have the ability to meet the effluent requirements of Regulation 85.</i>
----	--

Site Information

2.	Vicinity maps of facility location which includes the following: a) 5 mile radius map: all wastewater treatment facilities, lift stations and domestic water supply intakes b) 1 mile radius map: habitable buildings, location of public and private potable water wells, an approximate indication of the topography, and neighboring land uses <i>See attached.</i>
3.	Site Location Zoning a) Present zoning of the site location? <i>Wastewater Treatment</i> b) Zoning within a one (1) mile radius of the site? <i>Low, Medium, High Density Residential, Employment (Light Industrial/Flex/Office), Open Space, Commercial Retail, Mixed Use Commercial,</i>
4.	Floodplain and Natural Hazards a) Is the facility located in a 100-year floodplain or other natural hazard area? If so, what precautions are being taken? <i>The facility is not located in a 100-year floodplain or other natural hazard area.</i> b) Has the floodplain been designated by the Colorado Water Conservation Board, Department of Natural Resources or other agency? If so, please list agency name and the designation. <i>N/A</i>
5.	Land Ownership a) Who owns the land upon which the facility will be constructed? Please attach copies of the document(s) creating authority for the applicant to construct the proposed facility at this site. <i>Prosper Regional Water & Sanitation Service Metropolitan District, see Section 5 and Appendix E of the Utility Plan Report.</i>
6.	Nearby Facilities a) Please list all municipalities and water and/or sanitation districts within 5-miles downstream of the proposed wastewater treatment facility site. <i>Response: None</i>

Treatment Facility Effluent Information**7. Effluent disposal method (check all that apply)**

- | | |
|--|---|
| <input checked="checked" type="checkbox"/> | Surface Discharge to watercourse (enter watercourse name below) |
| <input type="checkbox"/> | Groundwater Discharge |
| <input type="checkbox"/> | Land application |
| <input type="checkbox"/> | Treated Effluent Reuse (Regulation 84) |
| <input type="checkbox"/> | Evaporation |
| <input type="checkbox"/> | Other (describe below) |

Rat Run

8. Preliminary Effluent Limits (please attach a copy in Engineering Report)

a) Preliminary Effluent Limits received on:

03/16/2016

b) Preliminary Effluent Limits expiration date:

12/31/2021

9. Downstream Distances

a) Downstream distance from the discharge point to the nearest domestic water supply intake? Name of supply? Address of supply?

Distance:

Name of Supply: Two alluvial wells in close proximity to Owl Creek (see PELs provided in Appendix C of the Utility Plan Report)

Address of Supply:

b) Downstream Distance from the discharge point to the nearest other point of diversion? Name of user? Address of user?

Distance: Approximately 6 miles

Name of User: Front Range Airport

Address of User: 5200 Front Range Pkwy, Watkins, CO 80137

Project Information

10. a) What entity is financially responsible for the construction of the facility?

Prosper Regional Water & Sanitation Service Metropolitan District

11. a) What entity has the financial responsibility for owning and long term operating expense of the proposed facility?

Prosper Regional Water & Sanitation Service Metropolitan District

12. a) What entity has the responsibility for managing and operating the proposed facility after construction?

Prosper Regional Water & Sanitation Service Metropolitan District

Additional Factors

13. Please identify any additional factors that might help the Water Quality Control Division make an informed decision on your site location application.

The Prosper WWTP will be located on the Prosper Development. The Prosper Preliminary Development Plan has been approved by Arapahoe County, the Final Development Plan is in process. The WWTP will be located in Planning Area 71 of the Development and has been zoned specifically for the WWTP.



Water Quality Control Division Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Colorado Department
of Public Health
and Environment


Applicant Certification and Review Agencies Recommendation Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility

A. Project and System Information

System Name	Prosper Regional Water & Sanitation Service Metropolitan District (owner)
Project Title	Prosper Wastewater Treatment Plant
County	Arapahoe

1. Applicant Certification

I certify that I am familiar with the requirement of *Regulation 22 - Site Location and Design Approval Regulations for Domestic Wastewater Treatment Works*, and have posted the site in accordance with the Regulations. An engineering report, as described by the regulations, has been prepared and is enclosed.

Applicant Legal Representative (e.g., Public Works Director)	Date	Typed Name	Signature
Planning & Development Representative	9/7/16	Jeffrey Vogel	
The system legal representative is the legally responsible agent and decision-making authority (e.g. mayor, president of a board, public works director, owner). The Consulting Engineer is not the legal representative and <u>cannot</u> sign this form.			

2. Recommendation of Review Agencies

As required in Section 22.4(2), the application and the engineering report must be submitted to all appropriate local governments, 208 planning agencies and State agencies for review and comment prior to submittal to the Division. By signing below, the entity or agency: 1) acknowledges receipt of the proposed site location application, 2) has reviewed the proposed site location application and may elect to provide comments, and 3) has provided a recommendation concerning the application to the Division. The recommendation should be based on the factors outlined in Section 22.4(2); for example, on the consistency of the proposed site location application with the local comprehensive plan(s) as they relate to water quality and any adopted water quality management plans(s). *Please note: Review agencies are encouraged to provide project comments; however, if a review agency does not recommend approval then the agency must attached a letter describing the reason for their decision or comment on the next page.*

Signature of Management Agency, if different from other entities listed below

Role	Date	Typed Name / Agency	Signature
			Recommend Approval? Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature of County, if proposed facility is located in unincorporated areas of a county

Role	Date	Typed Name / Agency	Signature
Long Range Planning Manager		Julio Iturreria / Arapahoe County	
			Recommend Approval? Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature of City or Town, if site is located within three miles of the City/Town boundary (if multiple, attach additional sheets as needed)

Role	Date	Typed Name / Agency	Signature
Engineering Services Manager		Vern Adam / City of Aurora	
			Recommend Approval? Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature of Local Health Authority

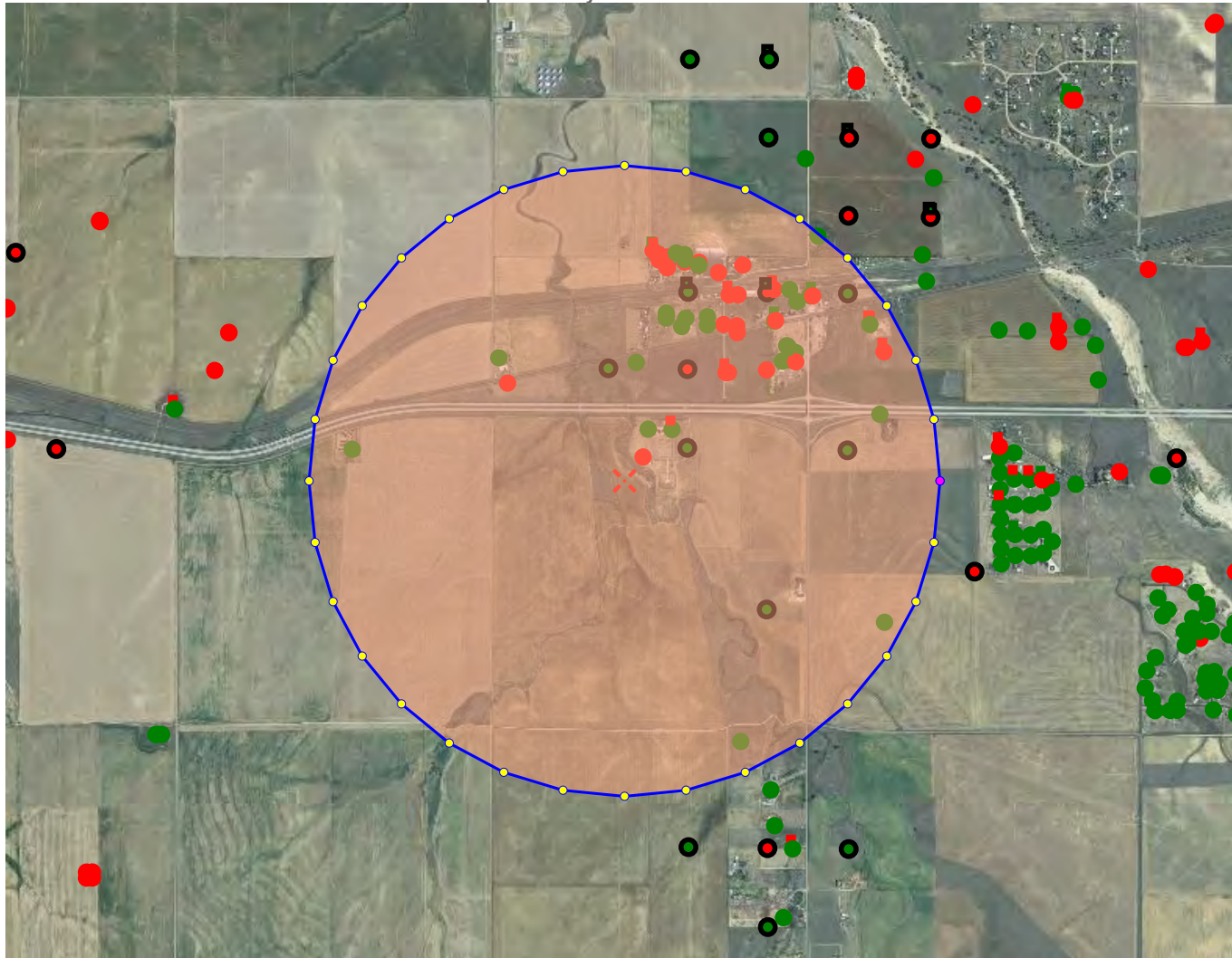
Role	Date	Typed Name / Agency	Signature
Land Use Program Coordinator		Warren Brown / Tri-County Health Department	
			Recommend Approval? Yes <input type="checkbox"/> No <input type="checkbox"/>

AQUAMAP

Colorado Division of Water Resources

Prosper WWTP 1 mile Radius

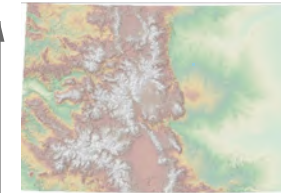
Map created by SEF 6/7/2016



20,718 ft

16,010 ft

MAP NAVIGATION



Click to create PDF
 UTM X, Zone 13: 378828
 UTM Y, Zone 13: 4088590
 Long: -106° 21' 38.4"
 Lat: 36° 56' 8.1"
 UTM and Geographic(LL)
 coordinates in NAD 83

DATA DISPLAY

<input checked="" type="checkbox"/> Background	<input type="checkbox"/> Counties	<input checked="" type="checkbox"/> Water Well Application
2011 Aerials	<input type="checkbox"/> PLSS	<input type="checkbox"/> DWR Parcels
<input checked="" type="radio"/> Low <input type="radio"/> High	<input type="checkbox"/> Roads	<input type="checkbox"/> EPA Well Notification
Transparency	<input type="checkbox"/> Hydrography	<input type="checkbox"/> Oil/Gas Well Location
	<input type="checkbox"/> County Parcels (No Public Access)	
	<input type="checkbox"/> Towns	More Data

LOCATION

Section	Township	Range	Meridian
1	4	65	Sixth
PLSS Locator		Quick Zoom	Spacing

PRINTING

Output Scale	Page Size	User
34,930	8.5x11	SEF
Title Prosper WWTP 1 mile Radius		

Note: The well locations displayed on AquaMap are based on location information provided by well permit application forms and are only as accurate as the information provided. The actual physical locations of all wells have not been field verified and may vary from the location displayed. Refer to a copy of the original well permit file, available on the Division of Water Resources website, for well location details.



Based on work developed at <http://www.carto.net>

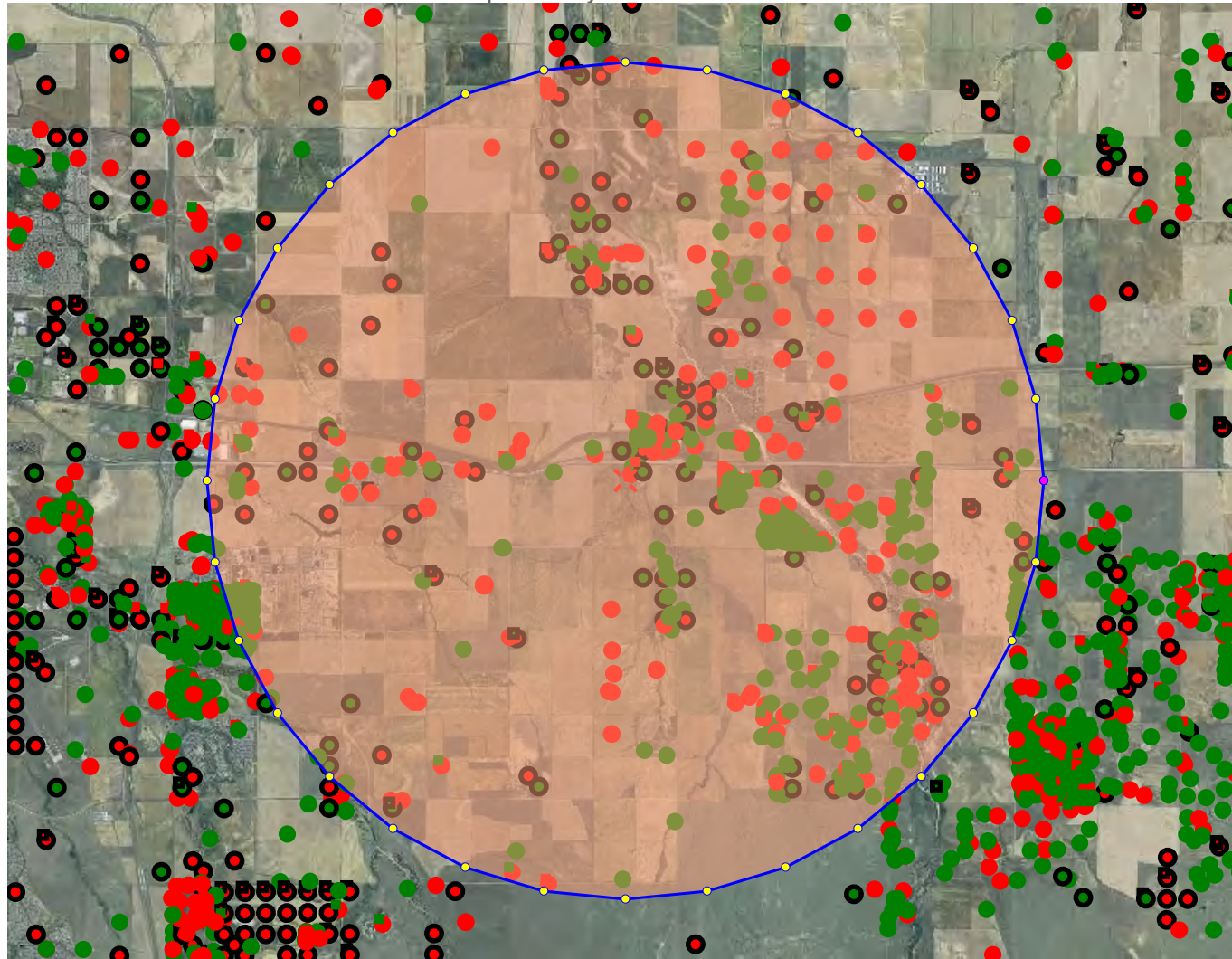
Address location by Bing Maps
 AquaMap Version 3.0.1 July 5, 2009

AQUAMAP

Colorado Division of Water Resources

Prosper WWTP 5 mile Radius

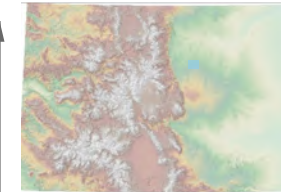
Map created by SEF 6/7/2016



Based on work developed at <http://www.carto.net>

Address location by Bing Maps
AquaMap Version 3.0.1 July 5, 2009

MAP NAVIGATION



Click to create PDF
UTM X, Zone 13: 286484
UTM Y, Zone 13: 4103981
Long: -107° 24' 4.8"
Lat: 37° 3' 28.1"
UTM and Geographic(LL)
coordinates in NAD 83

DATA DISPLAY

<input checked="" type="checkbox"/> Background	<input type="checkbox"/> Counties	<input checked="" type="checkbox"/> Water Well Application
2011 Aerials	<input type="checkbox"/> PLSS	<input type="checkbox"/> DWR Parcels
<input checked="" type="radio"/> Low <input type="radio"/> High	<input type="checkbox"/> Roads	<input type="checkbox"/> EPA Well Notification
Transparency	<input type="checkbox"/> Hydrography	<input type="checkbox"/> Oil/Gas Well Location
	<input type="checkbox"/> County Parcels (No Public Access)	
	<input type="checkbox"/> Towns	More Data

LOCATION

Section	Township	Range	Meridian
1	4	65	Sixth
PLSS Locator		Quick Zoom	Spacing

PRINTING

Output Scale	Page Size	User
131,490	8.5x11	SEF
Title Prosper WWTP 5 mile Radius		

Note: The well locations displayed on AquaMap are based on location information provided by well permit application forms and are only as accurate as the information provided. The actual physical locations of all wells have not been field verified and may vary from the location displayed. Refer to a copy of the original well permit file, available on the Division of Water Resources website, for well location details.



Prosper Wastewater Treatment Plant

Utility Plan Report

September 2016

Prepared for:

Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek S Drive
Denver, CO 80246

Prepared by:

Dewberry Engineers Inc.
990 South Broadway, Suite 400
Denver, CO 80209

Prosper Regional Water & Sanitation Service Metropolitan District

Prosper Wastewater Treatment Plant Utility Plan Report

TABLE OF CONTENTS

Section 1 Executive Summary	1
General Planning	1
Service Area and Characteristics.....	1
Wastewater Planning Criteria	1
Summary of Existing Wastewater Treatment Facilities.....	2
Consolidation Analysis	2
Wastewater Regulatory Overview	3
Receiving Stream Segment.....	3
Water Quality Standards.....	3
Evaluation of Wastewater Treatment Plant Alternatives	3
Site Analysis.....	3
Treatment Process Alternatives	4
Economic Evaluation of Alternatives.....	4
Conclusions and Recommendations.....	4
Wastewater Treatment Plant Implementation Plan	5
Staffing Plan.....	5
Legal and Institutional Arrangements.....	5
Management Capabilities.....	5
Financial System.....	5
Emergency Operations Plan.....	5
Schedule	6
Section 2 General Planning.....	7
Service Area and Characteristics.....	7
Climate	9
Elevation	9
Floodplains	9
Wetlands	10
Planned Growth	11
Flow and Loading Projections.....	12
Phasing.....	12
Metro Wastewater Reclamation District	15

Miscellaneous Facilities.....	16
Consolidation Analysis	16
Metro Wastewater Reclamation District	18
Miscellaneous Facilities.....	18
Geotechnical Report	18
Section 3 Wastewater Regulatory Overview	19
Receiving Stream Segment.....	19
Impaired Waters	20
Water Quality Standards	20
Use Classification.....	21
Low Flow Analysis	21
Numeric Standards.....	21
Section 4 Evaluations of Alternatives	24
Site Analysis.....	24
Treatment Process Alternatives	24
Treatment Process Goals and Principals	24
Process Alternatives	27
Detailed Description of Alternative Components	29
Prefabricated Influent Lift Station.....	29
Headworks Equipment.....	29
On-Site Lift Station / Flow Equalization Basin	30
Chemical Phosphorus Removal	30
Disinfection	30
Aerobic Digester	31
Odor Control	31
Non-Potable Water System	31
Drinking Water System	31
On-Site Generator.....	31
Economic Evaluation of Alternatives.....	32
Planning Level Costs.....	32
Net Present Value Analysis	35
Conclusions and Recommendations.....	36
Section 5 Implementation Plan	37
Staffing Plan.....	37
Legal and Institutional Arrangements.....	40
Management capabilities	40
Financial system	40
Emergency Operations plan.....	41

Emergency Assistance	41
Safety & Security Equipment	41
Emergency Power Supply	41
Schedule	41
Section 6 References.....	43
Appendix A Floodplain Figures	
Appendix B Geotechnical Report	
Appendix C Preliminary Effluent Limits	
Appendix D Planning Level Cost Estimates	
Appendix E Legal Documents	

LIST OF TABLES

Table 1-1 Wastewater Planning Criteria for the Prosper WWTP	2
Table 1-2 Wastewater Design Criteria for the Prosper WWTP	2
Table 1-3 Treatment Process Alternatives Net Present Value	4
Table 1-4 Estimated Project Duration	6
Table 2-1 Average Precipitation and Temperature by Month for the City of Watkins	9
Table 2-2 Phase 1 Anticipated Absorption Schedule and Plant Capacity	11
Table 2-3 Wastewater Planning Criteria for the Prosper WWTP	12
Table 2-4 Wastewater Design Criteria for the Prosper WWTP	13
Table 3-1 Facility Information for Water Quality Analysis	19
Table 3-2 Receiving Stream Information	21
Table 3-3 In-Stream Water Quality Standards for Stream Segment, COSPMS03a	21
Table 3-4 Preliminary Effluent Limits for the Prosper WWTP	23
Table 4-1 Microbiology of Enhanced Biological Phosphorus Removal	27
Table 4-2 Major Project Components to each WWTP Alternative	31
Table 4-3 Cost Factors Used to Develop the Opinion of Probable Construction Cost	33
Table 4-4 3-Stage BNR Process Opinion of Probable Construction Cost Estimate	33
Table 4-5 Sequencing Batch Reactor Opinion of Probable Construction Cost Estimate	33
Table 4-6 MBR Process Opinion of Probable Construction Cost Estimate	34
Table 4-8 Net Present Value Assumptions	35
Table 4-9 Treatment Process Alternatives Net Present Value	35
Table 5-1 Estimated Project Duration	41

LIST OF FIGURES

Figure 2-1 Location of Prosper, CO 7

Figure 2-2 Service Area for Prosper Phase 1 Full Buildout 8

Figure 2-3 Prosper Development Wetlands Map 10

Figure 2-4 Prosper WWTP Wetlands Map 11

Figure 2-5 Land Use Plan 14

Figure 2-6 Existing Wastewater Treatment Facilities..... 15

Figure 2-7 Metro Wastewater Reclamation District Service Area17

Figure 3-1 Middle South Platte River Basin Sub-basin Study Area (provided by CDPHE)20

Figure 4-1 Phase 1 Sanitary Sewer Collection System 25

Figure 4-2 Nitrogen Cycle 26

Figure 4-3 3-Stage BNR Process Schematic 27

Figure 4-4 SBR Process Schematic 28

Figure 4-5 MBR System Process Schematic 29

Figure 5-1 Process Flow Schematic 38

Figure 5-2 Site Layout 39

Section 1

Executive Summary

This utility plan presents the general planning, regulatory requirements, wastewater treatment process alternatives and recommendations, and the implementation plan for the new Prosper Wastewater Treatment Plant (WWTP). The Prosper WWTP will provide service to the new Prosper Development. The Prosper Regional Water & Sanitation Service Metropolitan District (Regional Water and Sewer District) and the Prosper Water & Sanitation Financing Metropolitan District (Water & Sanitation Financing District) will be utilized to coordinate the planning, design, construction, acquisition, financing, and operation and maintenance of the Prosper WWTP and sanitary sewer improvements for the life of the project. The Prosper Preliminary Development Plant (PDP) has been approved by Arapahoe County and the Final Development Plan (FDP) is in process. This report documents the wastewater treatment infrastructure needs and support systems required to meet the initial flows and loads from the beginning of Phase 1 of the Prosper Development through Phase 1 buildout.

GENERAL PLANNING

The Prosper community will be located in Arapahoe County, south of the intersection of I-70 and Watkins Road. The development will occur in four phases over the next thirty years, this utility plan will only address the new Prosper Wastewater Treatment Plant for Phase 1 of the development. It is anticipated that Phase 1 buildout will occur in year 2025.

Service Area and Characteristics

The service area for Prosper Phase 1 is located in the northeast portion of the Prosper development, southeast of Watkins, CO and west of Watkins Farm. The WWTP will be located northwest of the Phase 1 development. Currently, there is very limited vegetation on the Phase 1 service area and on the WWTP site as a majority of the Prosper property has been utilized for dry land and wheat farming. The WWTP will be located outside of the 100-year floodplain and there are no wetlands located on the WWTP site.

The Phase 1 Boundary encompasses approximately 275 acres, and includes single family residential homes, a community center, a school, agricultural land, and parks and open space. Phase 1 of the Prosper Development is anticipated to be completed in 2025 and have approximately 988 Single Family Equivalents (SFEs) based on the approved PDP. Final buildout is expected to occur in 2047 with approximately 11,850 SFEs.

Wastewater Planning Criteria

The Phase 1 Prosper WWTP wastewater planning criteria for years 2018, 2025, and 2037 are provided in Table 1-1. Given that that Prosper WWTP will serve a new community, 2018 values are presented as anticipated initial conditions, 2025 values are presented as Phase 1 buildout conditions, and 2037 values are presented as the 20-year outlook planning criteria. The projected max month flow and loads at the end of the 20 year planning horizon (Year 2037) are 1.64 MGD, 3,283 ppd BOD₅, 3,283 ppd TSS, and 483 ppd NH₃-N. These are conservative values based on typical municipal wastewater characteristics and similar WWTPs throughout the area.

Table 1-1 Wastewater Planning Criteria for the Prosper WWTP

Parameter	Year 2018			Year 2025			Year 2037		
	AA	MM ¹	PH	AA	MM ¹	PH	AA	MM ¹	PH
Flow, MGD	0.015	0.019	0.034	0.212	0.265	0.482	1.31	1.64	2.98
BOD ₅ , ppd	30	38		424	530		2,622	3,278	
TSS, ppd	30	38		424	530		2,622	3,278	
NH ₃ -N, ppd	3	4		42	53		262	328	

AA = average annual, MM = average day in the max month, PH = peak hour

Notes: ¹The projected MM flow and loadings are calculated based on a concentration of 300/300/30 mg/l BOD/TSS/NH₃ at average annual flow conditions.

The Prosper Phase 1 WWTP will be split into two phases to reliably treat the low flow and loadings encountered at the beginning of the development up to Phase 1 buildout wastewater projections. This facility will start service as a completely new treatment system that must meet effluent limitations under severely underloaded operating conditions. If the treatment basins are oversized biological wastewater treatment would become difficult which would require a high level of operator attention. Also, unused infrastructure and equipment would be onsite for long periods of time.

Initial wastewater design criteria is provided in Table 1-2. The initial Phase 1 Prosper WWTP will be rated for 0.1325 MGD and 265 ppd BOD₅.

Table 1-2 Wastewater Design Criteria for the Prosper WWTP

Parameter	Year 2020		
	AA	MM ¹	PH
Flow, MGD	0.106	0.1325	0.2385
BOD ₅ , ppd	212	265	
TSS, ppd	212	265	
NH ₃ -N, ppd	31	39	

AA = average annual, MM = average day in the max month, PH = peak hour

Notes: ¹The projected MM flow and loadings are calculated based on a concentration of 300/300/30 mg/l BOD/TSS/NH₃ at average annual flow conditions.

Summary of Existing Wastewater Treatment Facilities

There are no existing wastewater treatment facilities within the Prosper WWTP service area. The descriptions of existing wastewater treatment facilities in the vicinity of the project are presented in Section 2. The closest major WWTP is managed by Metro Wastewater Reclamation District (MWWRD) and is located approximately 20 miles east of the Prosper WWTP. There are other small miscellaneous WWTPs nearby.

Consolidation Analysis

The Prosper Development is a self-sustaining community outside of any existing WWTP service areas. The primary reason for not consolidating with other local WWTPs is so the Prosper community can take advantage of their own reuse water opportunities and water conservation efforts. The reuse water produced by the Prosper WWTP will contribute to approximately 32% of the total water supply for the Prosper community at full buildout. Beginning in Phase 2 of the project, treated wastewater will be reused directly for non-potable irrigation water throughout the community and indirectly by discharging treated wastewater to Box Elder Creek and exchanging it for water in the Creek via alluvial wells which will be used as a raw water source for the water treatment plant.

WASTEWATER REGULATORY OVERVIEW

Wastewater treatment facility discharges to surface and ground waters throughout the United States are subject to state and federal regulations which protect public health and maintain water quality. The condition of the receiving stream, its capacity to absorb waste loads without degradation, and actual or potential uses of the water downstream of a wastewater discharge determine the degree and often the type of wastewater treatment necessary.

Preliminary effluent discharge limits for the Prosper WWTP were determined using an assimilative water quality analysis for the receiving stream. The Preliminary Effluent Limits (PELs) were provided by CDPHE, dated March 16, 2016, and are provided in Appendix C.

Receiving Stream Segment

The Prosper WWTP will discharge to Rat Run in stream segment COSPMS03a; specifically to the South Platte Basin, Middle South Platte River Sub-basin, Stream Segment 03a. This segment is not listed on the **State's list of water quality impacted** streams and is composed of all tributaries to the South Platte River, including all wetlands.

Water Quality Standards

Colorado surface waters have been assigned use classifications to protect all current uses and maintain the highest water quality possible. Water quality standards corresponding to each use classification have been developed by the Colorado Water Quality Control Commission (WQCC) to define the maximum permissible levels of pollutants which will protect and maintain designated uses. The receiving stream classifications for river segment ID COSPMS03a is aquatic life warm 2, recreational class E, agricultural, and water supply.

Low flows in the water quality analysis were determined based on information provided by the WQCC. Although there are times of periodic flows in Rat Run upstream of the proposed WWTP, low flows are set at zero for the analysis. Therefore, consideration of full or reduced assimilative capacity is inconsequential and the WQBELs are equal to the Water Quality Standard (WQS) in the receiving stream.

Water Quality Based Effluent Limits (WQBELs) were determined by ambient water quality and the in-stream standards. The WQBELs may be incorporated into the Colorado Department of Public Safety (CDPS) permit for the Prosper WWTP contingent on analyses conducted during permit development. The Prosper WWTP will operate under permit number PEL200456.

The WQCC Regulation 85, Nutrients Management Control Regulation, applies to the Prosper WWTP because although the rated capacity will be less than 1.0 MGD, it is a brand new WWTP with discharge to a receiving stream that is classified as a water supply. More stringent effluent criteria will be required at the Prosper WWTP in terms of nitrogen and phosphorus.

EVALUATION OF WASTEWATER TREATMENT PLANT ALTERNATIVES

Site and treatment process alternatives were evaluated for the Prosper WWTP.

Site Analysis

The Prosper WWTP will be located within Planning Area 71 of the approved Prosper PDP. Planning Area 71 is currently undeveloped and consists of dry land wheat and corn fields. Planning Area 71 has been strategically located, configured and

zoned to accommodate the proposed WWTP. The WWTP is located at one of the lowest elevation points within the Prosper PDP allowing the sanitary sewer collection system to flow by gravity to the WWTP.

Treatment Process Alternatives

The Regional Water and Sewer District is committed to producing a high quality effluent that meets all proposed discharge requirements and is interested in advanced, sustainable treatment technologies. Treatment alternatives have been developed to provide nutrient removal requirements for nitrogen and phosphorus. Treatment process alternatives evaluated include (1) a 3-Stage Biological Nutrient Removal (BNR) Process, (2) a Sequencing Batch Reactor (SBR) process, and (3) a Membrane Bioreactor (MBR) process. Several support systems and facilities will also need to be provided, specifically:

1. An Influent Lift Station to be constructed at the influent of the WWTP to pump wastewater generated from the Phase 1 Prosper service area to the new Headworks Building.
2. A Headworks Building that includes an influent screen, by-pass manual screen, a grit removal system, and an influent flume.
3. An On-Site Lift Station/Equalization Basin to pump wastewater to the secondary process.
4. A Secondary Treatment Process that can meet the effluent requirements of Regulations 85.
5. A Process Building to house new blowers, process pumps, chemical feed system, UV system, and an electrical room.
6. An Aerobic Digester with sufficient capacity to stabilize solids generated in the new treatment process.
7. Administration/O&M/lab space will be provided in the Process Building as office space, an operations lab to conduct process control testing and analysis, and a shop where Plant Staff can perform maintenance and service on plant equipment.

Economic Evaluation of Alternatives

Capital, operation and maintenance (O&M), and net present values were prepared for all alternatives evaluated as a part of this analysis. The opinion of probable construction costs, annual average O&M costs, and results of the 10-year net present value (NPV) analysis for each treatment process alternative are provided in Table 1-3.

Table 1-3 Treatment Process Alternatives Net Present Value

Item	Cost, \$M		
	3-Stage BNR	SBR	MBR
Opinion of Probable Construction Cost	3.13	3.14	3.35
Average Annual O&M Cost	0.24	0.23	0.27
Net Present Value	5.07	5.02	5.53
Difference, percent	1.0	0	10.0

Conclusions and Recommendations

An MBR facility is recommended for Phase 1 of the Prosper WWTP. Although the MBR process is not the lowest cost alternative, the MBR system is recommended because it produces better and more consistent effluent quality than the other alternatives, has more process flexibility to treat low flows, and is easily and quickly expandable. The estimated opinion of probable construction cost for the Prosper WWTP is \$3.35 million and the NPV is \$5.53 million. The new WWTP will meet the effluent nutrient limits of Regulation 85 and the redundancy requirements of WPC-DR-1 State of Colorado Design Criteria for Domestic Wastewater Treatment Works.

WASTEWATER TREATMENT PLANT IMPLEMENTATION PLAN

The recommended treatment process alternative, Alternative 3 – MBR, will be rated for 0.1325 MGD and 265 ppd BOD₅, and will be capable of meeting the PELs.

A conservative step-wise approach will be taken when designing and constructing the new WWTP. The Prosper WWTP will need to reliably treat the low flows encountered at the beginning of the development, and care must be taken in implementation of the facility to not oversize the process equipment and initial infrastructure. The rated capacity of 0.1325 MGD was selected as half of the projected Phase 1 design flow of 265,000 gpd. The WWTP will be easily and quickly upgraded by installing an additional MBR treatment train as influent flows approach 0.265 MGD.

As presented in the alternatives analysis the equalization basin for the MBR alternative will not be required at the initial phase of the WWTP. As described in Sections 4 and 5, this will decrease the initial capital cost to construct the MBR alternative. The total opinion of probable construction cost for the initial phase of the WWTP is \$3.18 million.

Staffing Plan

The staffing requirement for the initial phase of the Prosper WWTP is anticipated to be two employees. The estimated staffing requirement is based on the WWTP hydraulic capacity and the fact that MBR WWTPs require little operator attention after start-up of the system. The WWTP is only staffed during the day for approximately eight hours per day, depending on the day. During unstaffed periods, e.g. night, the plant will rely on remote devices to signal a dialer to the on-call Operator-In-Charge.

At a minimum, one operator will hold a Class A Wastewater Operator's License; the highest Class achievable.

Legal and Institutional Arrangements

The legal description of the proposed WWTP site and the current commitment for title insurance is provided in Appendix E. The Regional Water and Sewer District will be the sole owner of the 8.22 acre parcel that is to be used for the Prosper WWTP. There are no additional right of way approvals required at this time.

Management Capabilities

Two of the approved districts include the Regional Water and Sewer District and the Water & Sanitation Financing District. These districts will be utilized to coordinate the planning, design, construction, acquisition, financing, and operation and maintenance of the Prosper WWTP and sanitary sewer improvements for the life of the project.

Financial System

As part of the original 1041 application for the entire Prosper development a Financial Feasibility Report for the Prosper water and sanitation improvements were estimated at \$200,000,000 for the Prosper development at buildout. Revenue projections show that this cost would be covered by a debt service mill levy and associated specific ownership taxes resulting from the levy, combined water and sewer taps fees of \$15,000 per residential tap and \$25,000 per non-residential tap, and estimated annual average facilities fees of \$1,000 per high-density and mixed-use residential unit and \$2,000 per medium-density and low-density residential unit.

Emergency Operations Plan

An Emergency Response Plan will be put in place to ensure that plant staff takes immediate and appropriate actions to limit adverse effects and protect lives and property during emergency situations. The emergency response procedures will be included in the plant O&M Manual and will provide detailed instructions for responding to power failures, flooding, fire, lightning strikes, equipment breakdowns, process failures, sewage spills, chemical spills, chemical shortages, and personnel injury.

Schedule

Planning, approval, design, Phase 1 construction, and startup and commissioning of the WWTP is estimated to have a duration of 27 months. This assumes 10 months for planning, County, and State approvals, 7 months for design, 9 months for Phase 1 construction, and 2 months for startup and commissioning (beginning May 2018). The WWTP will have to be operational prior to residents moving into the community. The estimated project schedule is provided in Table 1-4 below.

Table 1-4 Estimated Project Duration

Item	Duration	Projected Completion
Start of Planning, County, and State Approval Process		January 2016
County and State Site Application Approval Complete	10 months	November 2016
60 Percent Design Complete (Submittal to State for Approval)	5 months	April 2017
Final Design Complete	2 months	June 2017
State Approval Complete – Cleared for Construction	N/A	July 2017
Permitting and Construction	9 months	April 2018
Startup and Commissioning (Initial Phase 1)	N/A	April 2018
Planning and Design (Second Phase of Phase 1)	N/A	June 2020
Startup and Commissioning (Second Phase of Phase 1)	N/A	2021
Total Project Duration (Initial Phase 1)	27 months	

¹These dates are based on the absorption schedule provided in Table 2-2 and may be modified in the future based on the rate of development.

The second phase of the project, which will include an equalization basin and a second treatment process train, will be constructed when the WWTP reaches approximately 125,875 gpd influent flow; ninety-five percent of the WWTP permitted capacity. Planning and design of the second phase of the project is expected to occur in mid-2020, at approximately eighty percent of the WWTP permitted capacity, in accordance with the absorption schedule presented in Section 2.

Section 2

General Planning

The Prosper community will be located in Arapahoe County, Colorado and is bordered by the communities of Aurora to the west and Watkins to the north. The development will occur in four phases over the next thirty years, this utility plan will only address the new Prosper Wastewater Treatment Plant (WWTP) for Phase 1 of the development. It is anticipated that Phase 1 buildout will occur in year 2025. The Phase 1 limits are bounded by agricultural land and Interstate 70 to the north, Imboden Road (CR 101) to the east, N Watkins Road to the west, and agricultural land to the south. A general location map for Prosper, and specifically Phase 1, is presented in Figure 2-1. Figure 2-1 was provided by the developer of the Prosper Community, Vogel & Associates, and is part of the Preliminary Development Plan (PDP) that has been approved by Arapahoe County. The approved PDP will be referenced throughout this report and is available upon request.

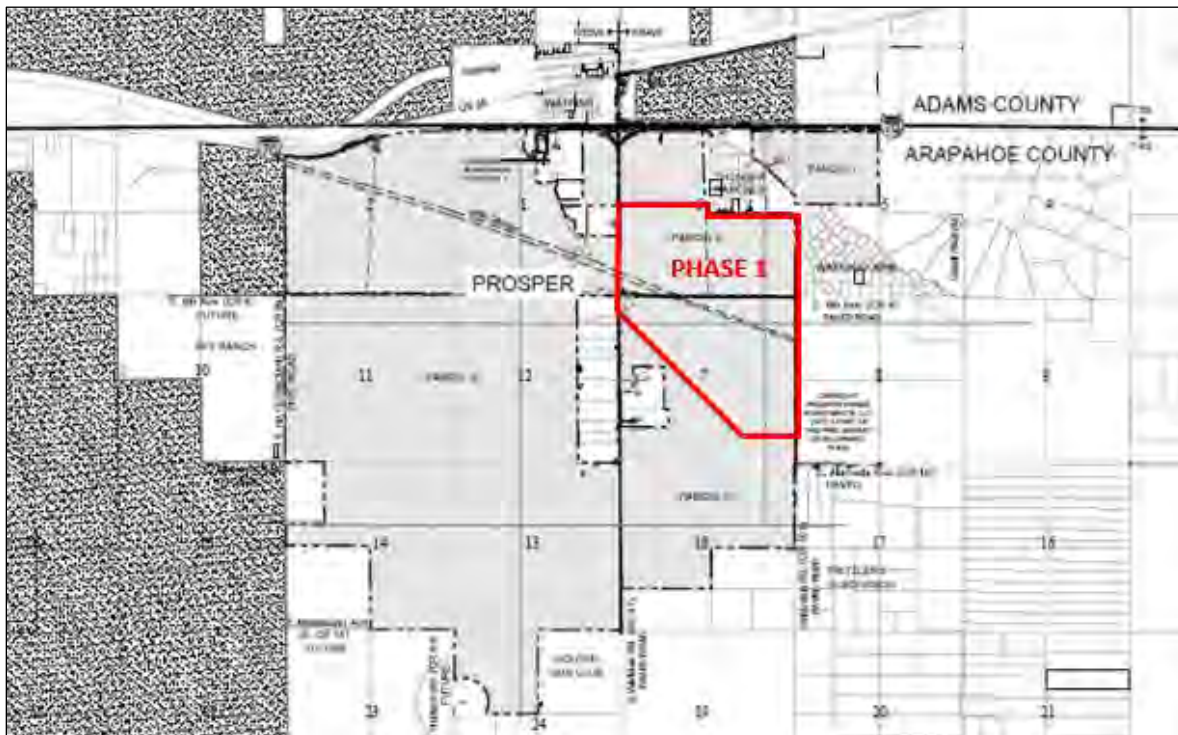
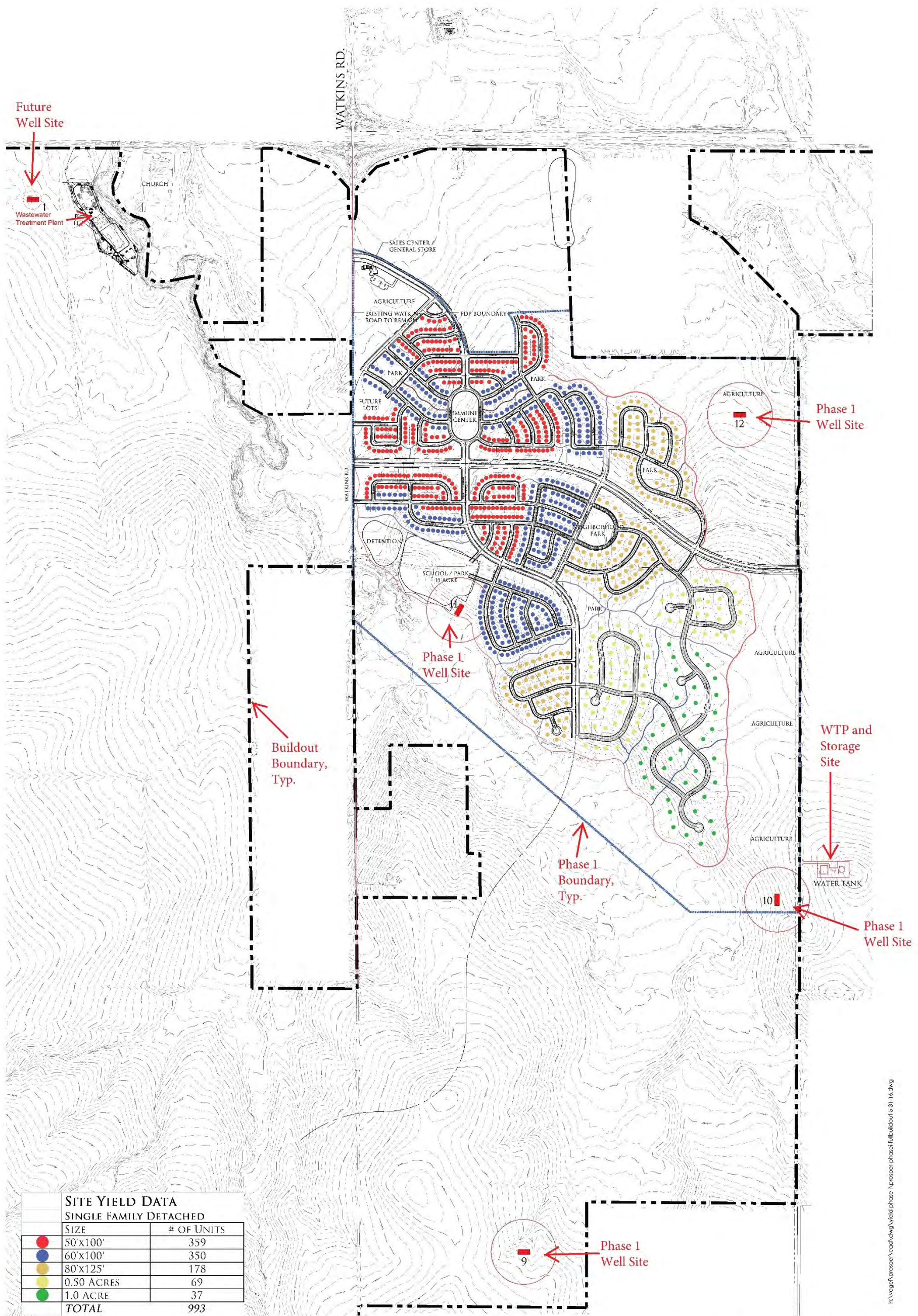


Figure 2-1 Location of Prosper, CO

SERVICE AREA AND CHARACTERISTICS

The service area for Prosper Phase 1 in detail, and in relationship to the new Prosper WWTP location, is presented in Figure 2-2 provided by Vogel & Associates. The Phase 1 Boundary encompasses approximately 275 acres, and includes single family residential homes, a community center, a school, agricultural land, and parks and open space. The boundary is primarily within parcels of land situated in section 6 and 7, T.4S., R.64W., of the 6th P.M. County of Arapahoe, State of Colorado. In general, the Phase 1 Prosper Development will be located southeast of Watkins, CO and west of Watkins Farm. East 6th Avenue will be the main roadway running east to west throughout the development. Currently, there is very limited vegetation with regard to trees on the Phase 1 service area as well as the WWTP site as a majority of the Prosper property has been utilized for dry land and wheat farming.



PROSPER PRELIMINARY YIELD ANALYSIS PHASE I FULL BUILDOUT

Figure 2-2 Service Area for Prosper Phase 1 Full Buildout

Climate

The climate in the area of Prosper is semi-arid and very dry, and evapo-transpiration exceeds the average annual precipitation. **The area’s proximity to the Rocky Mountains, as well as its lower elevation in comparison to the mountains, results in less** precipitation and fewer thunderstorms. The highest temperatures generally occur around the third week of July, and the coldest in January. The City of Watkins, the closest city to the Prosper development with recorded weather data, averages 14.7 inches of precipitation per year. The average daily temperature in the City of Watkins in July is 75°F and the average daily temperature in December is 29°F as provided in Table 2-1.

Table 2-1 Average Precipitation and Temperature by Month for the City of Watkins

Month	Average Precipitation, inches	Average Daily Temperature, °F
January	0.4	46
February	0.4	48
March	1.3	55
April	1.8	63
May	2.1	72
June	1.8	83
July	2.1	89
August	2.0	87
September	1.0	78
October	1.0	66
November	0.8	53
December	0.4	44
Annual Total/Average	15.2	51

(www.usa.com/watkins-co-weather.htm, 2010)

Elevation

The Prosper WWTP is located at approximately 5,530 feet above sea level. Elevation is important in wastewater treatment design because it impacts oxygen transfer, blower capacity, electrical equipment, and generator sizing.

Floodplains

The Federal Emergency Management Agency (FEMA) floodplain map for the area shows the WWTP site is out of the 100-year floodplain. The Flood Insurance Rate Map (FIRM), and floodplain figure provided by Vogel & Associates, is provided in Appendix A. The floodplain map indicates a 100-year flood elevation of approximately 5,520 feet near the WWTP site.

Existing drainage corridors and flood plain boundaries are to be preserved in their existing state as possible or modified as required for transportation and other infrastructure requirements.

The site will be accessed by a gravel temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility. As the access road is placed at the natural ground elevation across the 2 drainage ways, it will overflow during a flood event. Maximum flow depth at the 100 year flood event has been determined to be 18 inches at the roadway crossings. Staff personal will be trained on use of the roadway during pending and actual flood events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles. An ultimate emergency means of access is available to the site from I-70.

Wetlands

Wetlands are protected by Section 404 of the Clean Water Act. Work in wetlands may require coordination with both Federal and State water quality agencies, as well as the issuance of a permit by the US Army Corps of Engineers. Wetlands are important and sensitive environmental areas that serve many beneficial functions including ground water recharge, flood control, filtering of surface water runoff, and providing essential wildlife habitat.

According to the US Fish and Wildlife Services, wetlands areas exist on either side of the WWTP site in Rat Run and Coyote Run. There are additional wetland areas located to the west of the site and more substantial wetlands located along Box Elder Creek to the east of the site. A map of the wetlands areas around the Prosper development is presented in Figure 2-3. The extent and type of the wetlands near the WWTP is presented in Figure 2-4. There are no wetlands on the WWTP site.

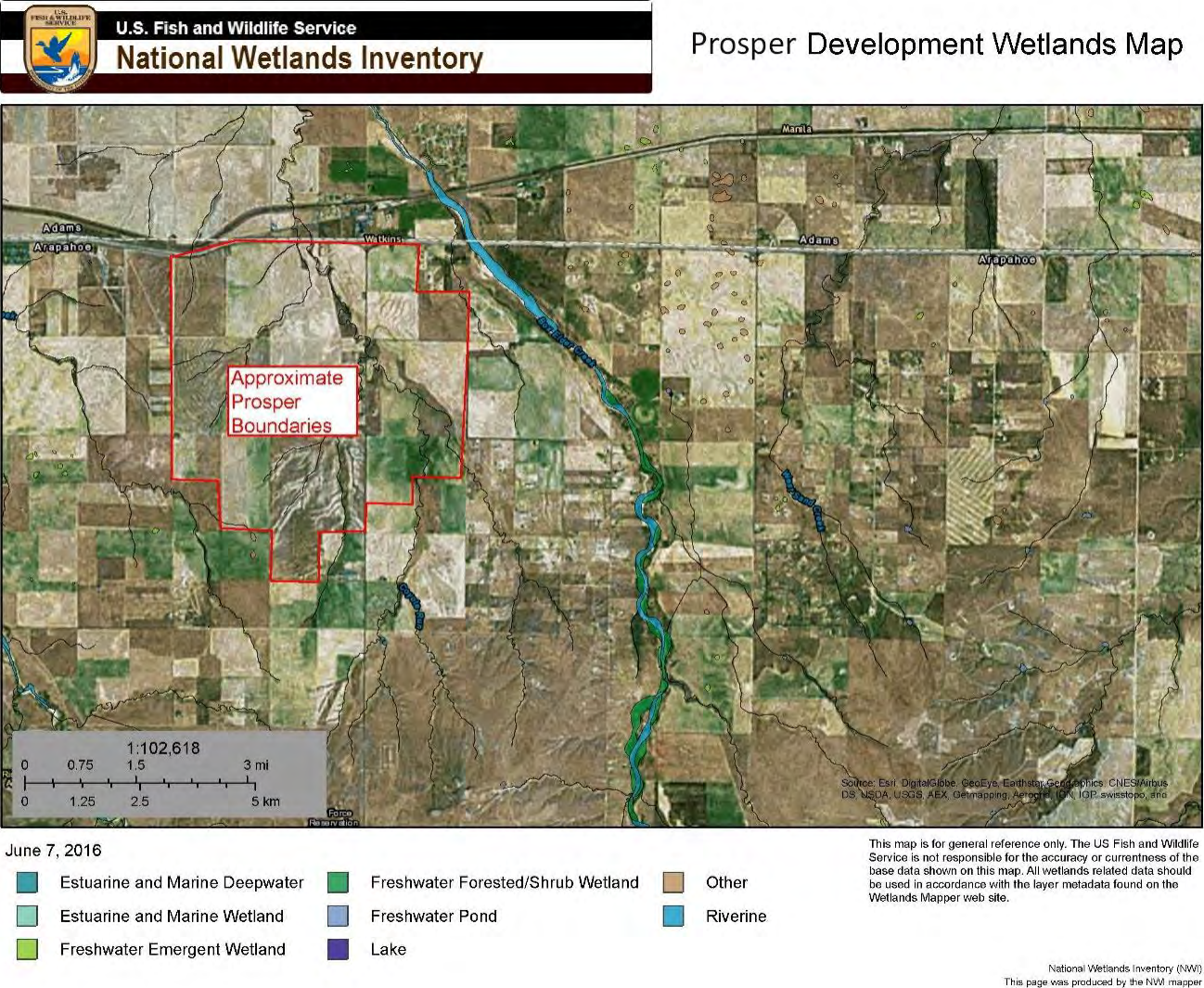
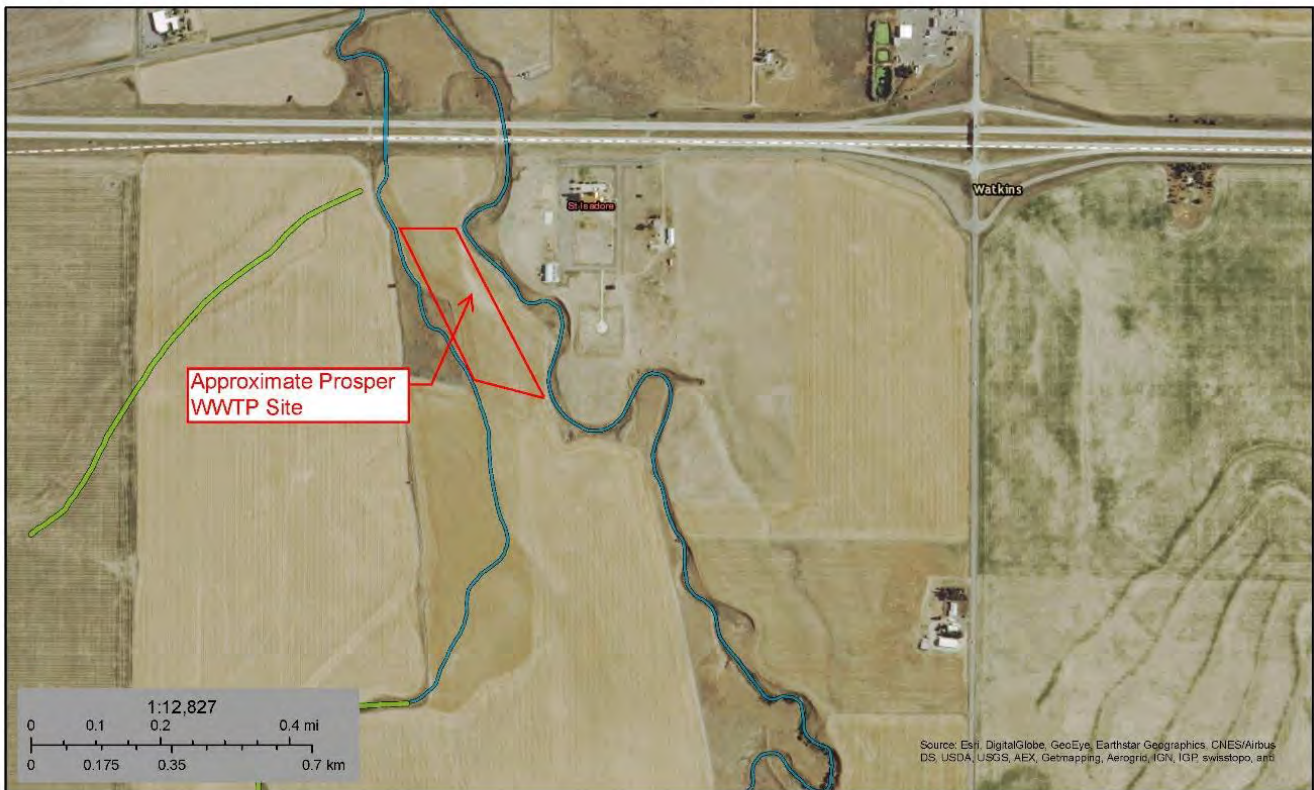


Figure 2-3 Prosper Development Wetlands Map



June 7, 2016

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Figure 2-4 Prosper WWTP Wetlands Map

Planned Growth

Phase 1 of the Prosper Development is anticipated to be completed in 2025 and have approximately 988 Single Family Equivalents (SFEs). The source of data for the population projections is included in the Prosper 1041 “New

Communities” Permit, Section 6, Coley Forrest Fiscal Impact Report (to be provided on request). The anticipated absorption schedule for Phase 1 and the associated total plant capacity is provided in Table 2-2.

Table 2-2 Phase 1 Anticipated Absorption Schedule and Plant Capacity

Year	Total SFEs	Total Population ¹	Total Plant Capacity ² (MGD)
2018	69	221	0.019
2019	188	602	0.051
2020	335	1,072	0.090
2021	482	1,543	0.129
2022	629	2,013	0.169
2023	777	2,487	0.209
2024	910	2,912	0.244
2025	988	3,162	0.265

¹An estimated 3.2 people per SFE was used to determine the total population.

² Approximately 270 gallons/day/SFE was used to determine the total plant capacity.

The Prosper Development is anticipated to grow over the next thirty years with buildout occurring in 2047 with an estimated total of 11,850 SFEs. The Prosper development will address existing and projected population demands that have been identified for the eastern metropolitan area and Interstate 70 corridor of Denver, CO. The Denver Regional Council of Governments estimates an increase in the Arapahoe County population of 288,939 by year 2035. Portions of eastern Arapahoe County and specifically the Interstate 70 eastern corridor are projected to be one of the next primary growth areas for the Denver metropolitan area. Prosper is located within the western Tier I Planning Reserve classification as designated in the Arapahoe County Comprehensive Plan. Prosper will provide additional employment opportunities, housing, commercial/retail, recreational facilities and educational services. A Land Use Plan (provided by Vogel & Associates) for the Prosper Development is presented in Figure 2-5.

The Prosper WWTP will continue to meet the requirements of Section 208 of the Federal Clean Water Act as the Prosper development grows and the WWTP is expanded. Arapahoe County and thus Prosper is part of State Planning and Management Region 3. The WQCD does the functional planning in Regions 3. The WQCD will periodically review the need to update regional water quality management plan.

Flow and Loading Projections

Flow and loading projections are based on typical municipal wastewater characteristics, Metcalf and Eddy, Inc. (2003), and similar WWTPs throughout the Colorado Front Range. The Prosper WWTP planning criteria for years 2018, 2025, and 2037 are provided in Table 2-3. Given that the Prosper WWTP will serve a new community, 2018 values are presented as anticipated initial conditions, 2025 values are presented as Phase 1 buildout conditions, and 2037 values are presented as the 20-year outlook planning criteria. The projected max month flow and loads at the end of the 20 year planning horizon (Year 2037) are 1.64 MGD, 3,278 ppd BOD₅, 3,278 ppd TSS, and 328 ppd NH₃-N.

The maximum month flows were estimated by multiplying the expected number of SFEs for each planning year by approximately 270 gallons per per day per SFE; this is a conservative estimate of wastewater production. Average annual loadings were calculated based on average concentrations of 240/240/25 BOD₅/TSS/NH₃. Peak hour flows were estimated as 2.25 the annual average flow. The concentration and multiplier values used in these estimations are typical values used in the wastewater industry.

Table 2-3 Wastewater Planning Criteria for the Prosper WWTP

Parameter	Year 2018			Year 2025			Year 2037		
	AA	MM ¹	PH	AA	MM ¹	PH	AA	MM ¹	PH
Flow, MGD	0.015	0.019	0.034	0.212	0.265	0.482	1.31	1.64	2.98
BOD ₅ , ppd	30	38		424	530		2,622	3,278	
TSS, ppd	30	38		424	530		2,622	3,278	
NH ₃ -N, ppd	3	4		42	53		262	328	

AA = average annual, MM = average day in the max month, PH = peak hour

Notes: ¹The projected MM flow and loadings are calculated based on a concentration of 300/300/30 mg/l BOD/TSS/NH₃ at average annual flow conditions.

Phasing

The Prosper Phase 1 WWTP will be split into two phases to reliably treat the low flow and loadings encountered at the beginning of the development up to Phase 1 buildout wastewater projections. The Prosper WWTP planning and design criteria will need to be reevaluated after the community begins to grow and there is a more accurate basis for the projected wastewater flow and loadings.

This facility will start service as a completely new treatment system that must meet effluent limitations under severely underloaded operating conditions. If the treatment basins are oversized biological wastewater treatment would become difficult which would require a high level of operator attention. Also, unused infrastructure and equipment would be onsite for long periods of time.

Initial wastewater design criteria is provided in Table 2-4. The initial Prosper Phase 1 WWTP will be rated for 0.1325 MGD and 265 ppd BOD₅. This design criteria was selected as half of the projected Phase 1 design flow of 265,000 gpd. Additional information regarding phasing and the MBR treatment plant alternative and rationale is provided in Sections 4 and 5.

Table 2-4 Wastewater Design Criteria for the Prosper WWTP

Parameter	Year 2020		
	AA	MM¹	PH
Flow, MGD	0.106	0.1325	0.2385
BOD ₅ , ppd	212	265	
TSS, ppd	212	265	
NH ₃ -N, ppd	31	39	

NOTES:

1. THE PLANNING AREA SUMMARY OUTLINES THE MAXIMUM DENSITY THAT CAN BE CONSTRUCTED WITHIN EACH PLANNING AREA, AS STATED IN SECTION 1.8 OF THIS PDP. DENSITY TRANSFERS ARE PERMITTED.
2. A DENSITY TRANSFER TRACKING CHART SHALL BE PROVIDED WITH EACH FINAL DEVELOPMENT PLAN.
3. MIXED USE 1 - PLANNING AREAS REQUIRE AT LEAST 50% OF ITS AREA TO BE USED FOR NON-RESIDENTIAL USES.
4. MIXED USE 2 - PLANNING AREAS REQUIRES AT LEAST 25% OF ITS AREA TO BE USED FOR NON-RESIDENTIAL USES.
5. SCHOOLS AND PARK LOCATIONS ARE PRELIMINARY AND WILL BE FINALIZED WITH EACH FINAL DEVELOPMENT PLAN.
6. DENSITY THAT IS PERMITTED IN A PLANNING AREA WHERE A RESERVOIR IS CONSTRUCTED SHALL APPLY TO THE NET DEVELOPABLE AREA.
7. THE FINAL LOCATION OF DETENTION AND WATER QUALITY PONDS WILL BE DETERMINED AT FINAL DEVELOPMENT PLAN / FINAL PLAN. FOR PRELIMINARY LOCATIONS REFER TO THE PROSPER PHASE I DRAINAGE REPORT.
8. F-ZONE AREAS CAN COUNT TOWARDS OPEN SPACE.

PLANNING AREA SUMMARY

PLANNING AREA	LAND USE	APPROX. ACRES	COMMERCIAL MAX FAR	COMMERCIAL MAX SQFT	RESIDENTIAL MAX DU ACRES	RESIDENTIAL MAX UNITS
PA-1	Commercial Retail	0.7	0.7	3,972,294		
PA-2	Commercial Retail	0.1	0.1	3,972,294		
PA-3	Mixed Use - 1	0.1	0.1	121,968	20	40
PA-4	Mixed Use - 1	0.1	0.1	229,843	20	200
PA-5	High Density Residential	29			30	400
PA-6	High Density Residential	19			30	200
PA-7	High Density Residential	17			30	140
PA-8	Medium Density Residential	28			7	182
PA-9	Medium Density Residential	46			7	215
PA-10	Medium Density Residential	23			7	161
PA-11	Medium Density Residential	43			7	301
PA-12	Low Density Residential	68			3	204
PA-13	Low Density Residential	69			3	186
PA-14	Low Density Residential	24			7	72
PA-15	Medium Density Residential	27			7	186
PA-16	Low Density Residential	36			3	198
PA-17	Low Density Residential	60			3	150
PA-18	Low Density Residential	66			3	198
PA-19	Low Density Residential	12			3	26
PA-20	Low Density Residential	11			3	45
PA-21	Low Density Residential	19			3	177
PA-22	Low Density Residential	104			3	114
PA-23	Low Density Residential	53			3	129
PA-24	Low Density Residential	24			3	72
PA-25	Low Density Residential	14			3	222
PA-26	Medium Density Residential	63			7	441
PA-27	Mixed Use - 2	11	0.7	335,412	20	165
PA-28	Medium Density Residential	15			7	105
PA-29	Medium Density Residential	28			7	196
PA-30	Medium Density Residential	17			7	119
PA-31	Medium Density Residential	69			7	420
PA-32	Low Density Residential	64			3	392
PA-33	Mixed Use - 2	22	0.7	457,380	20	225
PA-34	Medium Density Residential	19			7	546
PA-35	Mixed Use - 2	15			3	225
PA-36	Low Density Residential	102	0.7	457,380	3	306
PA-37	Low Density Residential	59			3	177
PA-38	Medium Density Residential	22			7	154
PA-39	Medium Density Residential	67			7	460
PA-40	Medium Density Residential	63			7	441
PA-41	Medium Density Residential	22			7	154
PA-42	High Density Residential	14			30	280
PA-43	Mixed Use - 2	9	0.7	214,620	30	135
PA-44	Commercial Retail	9	0.9	352,830		
PA-45	Mixed Use - 2	46	0.7	1,402,632	30	460
PA-46	Commercial Retail	9	0.9	352,830		
PA-47	Mixed Use - 2	8	0.7	243,930	30	120
PA-48	High Density Residential	15			30	300
PA-49	Medium Density Residential	49			7	343
PA-50	Medium Density Residential	65			7	455
PA-51	Medium Density Residential	19			7	133
PA-52	Medium Density Residential	35			7	245
PA-53	Medium Density Residential	23			7	161
PA-54	Medium Density Residential	79			7	553
PA-55	Mixed Use - 2	12	0.7	305,004	30	180
PA-56	Low Density Residential	118			3	254
PA-57	Medium Density Residential	109			7	742
PA-58	Medium Density Residential	18			7	126
PA-59	Medium Density Residential	79			7	553
PA-60	Medium Density Residential	91			7	637
PA-61	Medium Density Residential	45			7	315
PA-62	Commercial Retail	8	0.9	313,632		
PA-63	High Density Residential	16	0.7	884,280	30	330
PA-64	Mixed Use - 1	29	0.7	884,280	30	290
PA-65	Mixed Use - 1	25	0.7	762,300	30	250
PA-66	Commercial Retail	15	0.9	588,000		
PA-67	Mixed Use (Medical/Educational)	39	0.7	1,861,220		
PA-68	Mixed Use - 2	24	0.7	731,808	30	260
PA-69	High Density Residential	45			30	450
PA-70	High Density Residential	18	0.6	198,020	30	180
PA-71	Waste Water Treatment	9	0.6	1,910,040		
PA-72	Employment	72	0.8	2,506,056		
PA-73	Employment	63			7	441
PA-74	Medium Density Residential	63			7	441
PA-75	Medium Density Residential	63			7	441
PA-76	Medium Density Residential	32			7	224
PA-77	Mixed Use - 2	11	0.7	335,412	20	165
PA-78	Medium Density Residential	19			7	133
PA-79	Low Density Residential	28			3	168
PA-80	Employment	13	0.8	453,024		
PA-81	Employment	28	0.8	975,744		
PA-82	Employment	63	0.8	1,848,944		
PA-83	F-Zone (FZ-1, FZ-2)	662				
PA-84	Open Space (OS-1, OS-2)	144	0.25	250,080	1	4
PA-85	Open Space - Agricultural (OS-AG-1, OS-AG-11)	285	0.25	730,080	1	21
Total		5,130				

* 80% of Open Space - Agricultural must remain as open area.



CASE NO. Z12-100

PROSPER
PRELIMINARY DEVELOPMENT PLAN
PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.
COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 13 OF 42



LEGEND

- RIGHTS-OF-WAY
- Major Arterial
 - Minor Arterial
 - Boulevard
 - Connector Road
- SCHOOLS & PARKS
- School / Park
 - Community Park
 - Neighborhood Park
 - Pocket Park
- WATERWAYS
- FEMA 100 Year Floodplain
 - FEMA Floodway
 - Potential Reservoir

Land Use Districts

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-ME	Mixed Use (Medical / Educational Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural

PLANNING AREA	APPROVED DENSITY PRIOR TO TRANSFER		APPROVED DENSITY AFTER TRANSFER	
	ACRES	RESIDENTIAL UNITS	DENSITY TRANSFER	RESIDENTIAL UNITS
X				
Y				
Z				
TOTAL				

Land Use Districts	Acres	% of Total	Maximum Building Square Feet	Maximum DU's
Commercial/Retail	173	3.4%	2,000,000	
Mixed Use -1	124	2.4%	1,500,000	400
Mixed Use -2	105	2.0%	500,000	900
Mixed Use (Medical /Educational)	35	0.7%	500,000	
Employment (Light Industrial/Flex/Office)	221	4.3%	3,500,000	
Residential				
Low Density Residential	1,044	20.4%		1,500
Medium Density Residential	1,452	28.3%		5,100
High Density Residential	100	1.9%		1,100
Waste Water Treatment Plant	9	0.2%		
F-Zone	695	13.5%		
Open Space	144	2.8%		
Open Space - Agricultural	762	14.9%		
ROW	266	5.2%		
Total	5,130	100.0%	8,000,000	9,000

LAND USE PLAN

Scale: 1"=1000'

Date: NOVEMBER 10, 2015

Revision Date:

Figure 2-5 Land Use Plan

EXISTING WASTEWATER FACILITIES WITHIN SERVICE AREA

There are no existing wastewater treatment facilities within the Prosper WWTP service area. The descriptions of existing wastewater treatment facilities in the vicinity of the project are found below with their locations presented in Figure 2-6, the Metro Wastewater Reclamation District (MWWRD) is not shown for clarity.

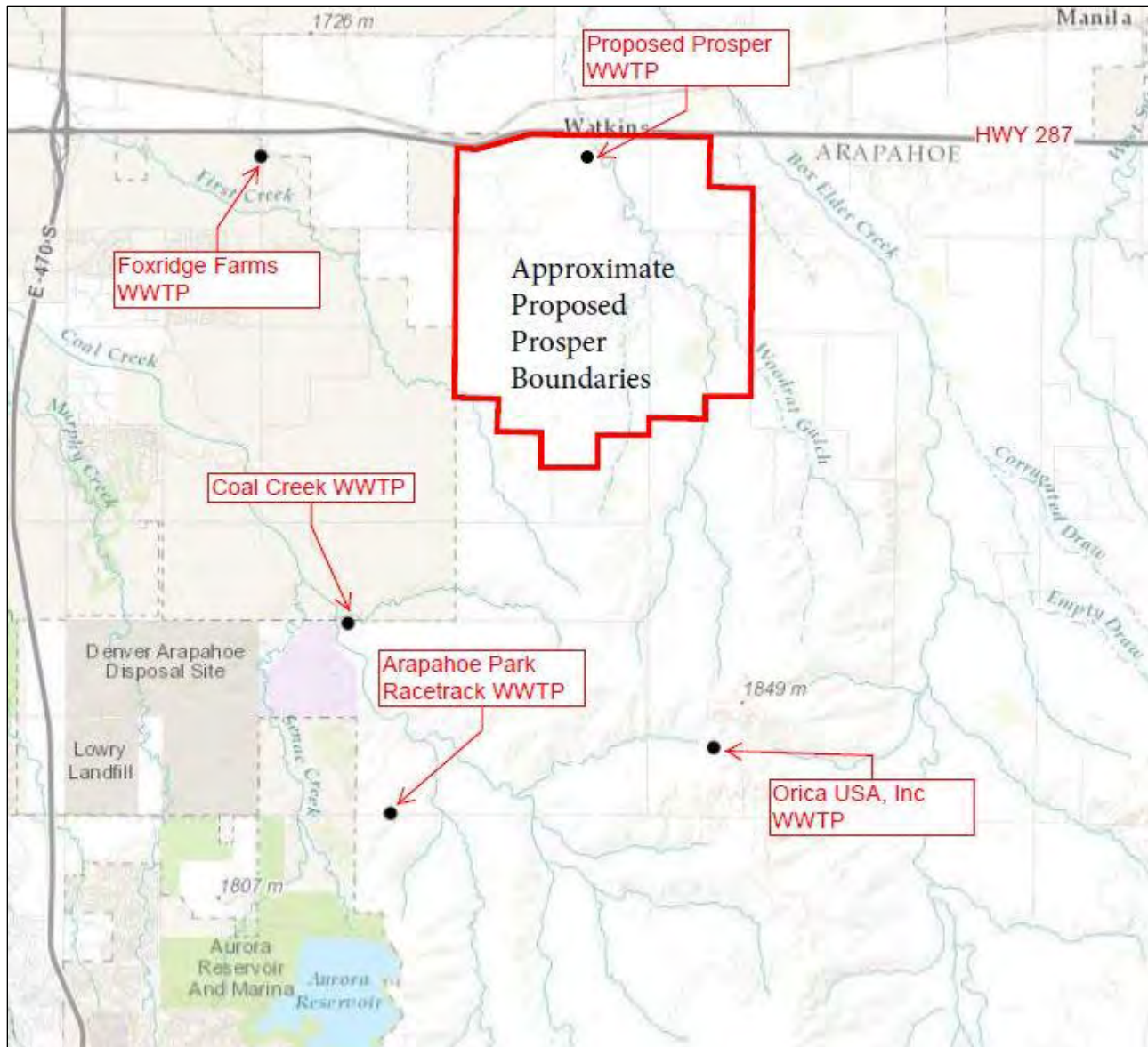


Figure 2-6 Existing Wastewater Treatment Facilities

Metro Wastewater Reclamation District

Wastewater from the area to the north and west of the Prosper development, along with the area to the east of the development along I-70, is collected by Aurora Water and sent to for treatment. The MWWRD serves 1.7 million people within 60 local governments including Denver, Arvada, Aurora, Brighton, Lakewood, Thornton, Westminster, and parts of Adams and Arapahoe County.

The MWWRD operates two treatment facilities. The Robert W. Hite Treatment Facility currently treats an average of 130 million gallons per day (mgd) and has a peak capacity of 220 mgd. The Northern Treatment Plant, opening in 2016, will have an initial peak capacity of about 24 mgd with available room for expansion up to 60 mgd. The Robert W. Hite Treatment Facility is located at 6450 York Street and discharges to the Upper South Platte Segment 15 in two locations each of which is adjacent to its site. The North Treatment Facility is located at Highway 85 and 168th Avenue and will also discharge to the Upper South Platte Segment 15 adjacent to its site. The service area boundaries for MWWRD are presented in Figure 2-7.

Miscellaneous Facilities

The Foxridge Farms community is located on I-70 approximately 3 miles west of the Prosper development and treats wastewater from the community at an onsite facility. The design capacity for this facility is 0.13 mgd (30 day average) to accommodate flows from the Foxridge Farms development.

The area to the south and east of the Prosper development is minimally populated. However, there are separate facilities serving the Arapahoe Park Race Track and Orica USA Inc. facilities. These treatment facilities are sized to treatment wastewater from these entities only.

The Coal Creek Wastewater Reclamation Facility, is managed by the Rangeview Metropolitan District/Pure Cycle and serves approximately 40 square mile of the Lowry Range, one small development and other areas by contract. The Coal Creek Wastewater Reclamation Facility has a design capacity of 0.13 mgd (30 day average).

CONSOLIDATION ANALYSIS

The Prosper Development is a self-sustaining community outside of any existing WWTP service areas. The primary reason for not consolidating with other local WWTPs is so the Prosper community can take advantage of their own reuse water opportunities and water conservation efforts. As described in the January 2014 Water Supply Plan Report prepared by HRS Water Consultants (to be provided on request), reuse water will contribute to approximately 32% of the total water supply for the Prosper Community at full buildout. An off-site reuse filter and pumping system is not included as part of the Phase 1 WWTP as it is not cost effective to install this equipment at the low initial flows. An on-site reuse system will be initially installed in Phase 1 for on-site non-potable water as described in Section 4.

Beginning in Phase 2 of the project, treated wastewater will be reused directly for non-potable irrigation water throughout the community and indirectly by discharging treated wastewater to Box Elder Creek and exchanging it for water in the Creek via alluvial wells which will be used as a raw water source for the water treatment plant. Consolidating with an existing WWTP would necessitate sending wastewater from Prosper to an offsite facility which would make reusing treated effluent infeasible due to the cost required to pump the treated effluent back to the Prosper development.

The closest major WWTP is MWWRD that is located approximately 20 miles east of the Prosper WWTP. There are other small miscellaneous WWTPs nearby, as mentioned above, however these facilities are also outside the Prosper service area. Discussion of the reasons for not consolidating with these local WWTPs are provided below.

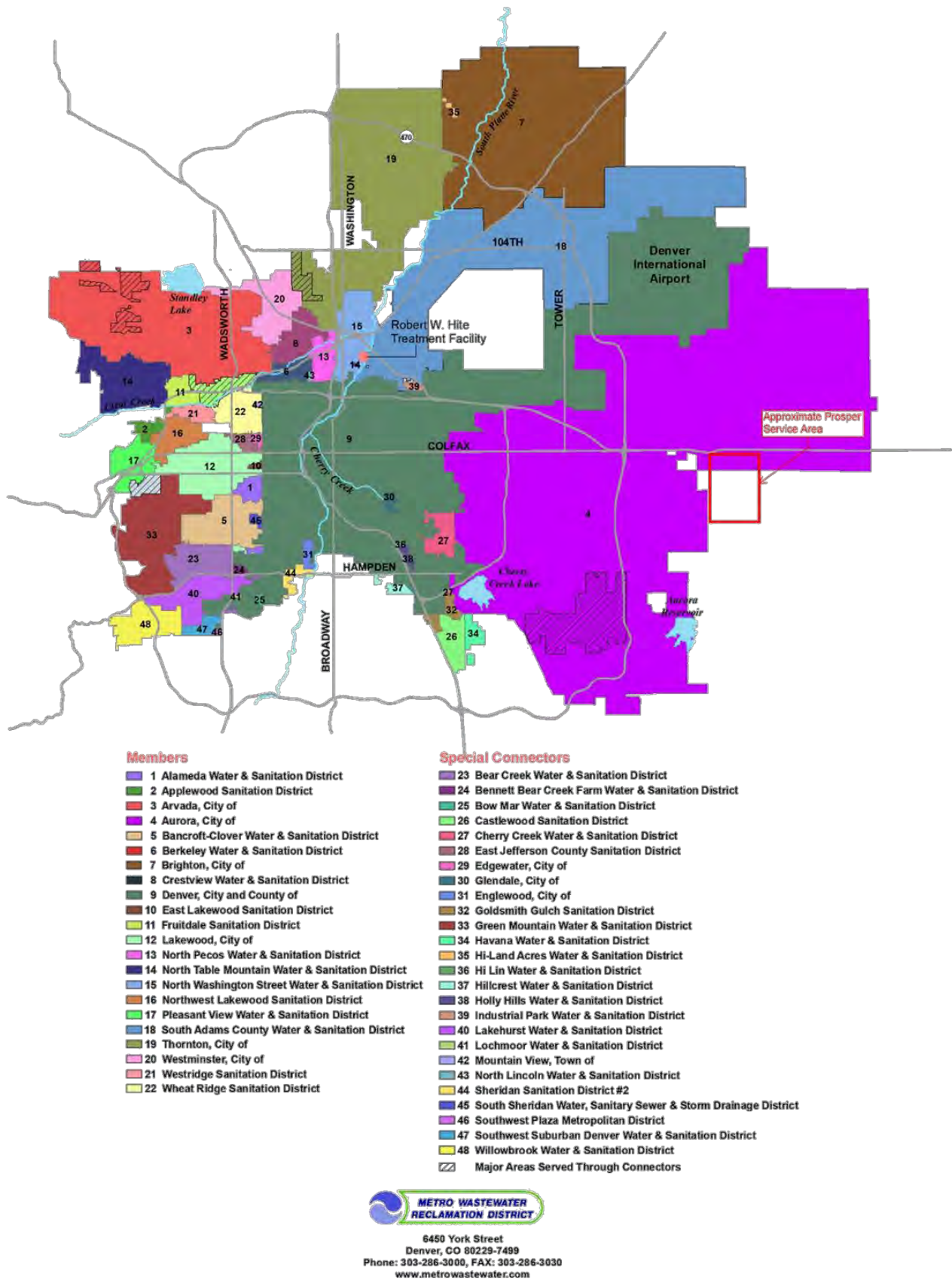


Figure 2-7 Metro Wastewater Reclamation District Service Area

Metro Wastewater Reclamation District

Although the MWWRD treatment facility is large and already constructed, the current MWWRD service boundaries do not encompass all of the Prosper development as presented in Figure 2-7. The adjacent City of Aurora is part of the MWWRD service boundaries, however, Prosper is not within the corporate boundaries of Aurora thus Prosper is not required to send wastewater flow to MWWRD. Also, as described in Section 4, onsite wastewater treatment facilitates on-site and off-site reuse water and is needed to satisfy the planned water supply criteria for the Prosper Development.

Miscellaneous Facilities

The Fox Ridge Farms, Arapahoe Race Track, Orica USA Inc., and Coal Creek Wastewater Reclamation facilities do not have excess capacity to support wastewater flows from the Prosper development. The cost of upgrading these existing facilities to treat the increased capacity would be similar to constructing the Phase 1 WWTP on the Prosper property. Sanitary sewer collection infrastructure is also be more affordable by staying on the Prosper property.

GEOTECHNICAL REPORT

The design criteria and recommendations presented in the Geotechnical Engineering Study prepared by Kumar & Associates, Inc. will be adhered to in the design of the structures included in this project. A copy of the Geotechnical Engineering Study complete with boring logs is provided in Appendix B.

If deep process tankage is required, it will be founded on a layer of crushed drain rock placed directly over nine feet of structurally placed fill. The lower five feet of structurally placed fill will be moisture conditioned on-site soil and the upper four feet will be imported non-expansive fill material. Allowable design bearing pressure on the engineered fill material is 3,000 psf. Pressure equalization valves will be installed in the base slabs of deep concrete basins to eliminate buoyant forces produced by ground water and to eliminate the need for a permanent dewatering system.

Structures that are to be founded on shallow foundations will bear on nine feet of structurally placed fill. The lower five feet of structurally placed fill will be moisture conditioned on-site soil and the upper four feet will be imported non-expansive fill material. Allowable design bearing pressure on the engineered fill material is 3,000 psf.

Bedrock will likely be encountered in the excavation of the deeply founded influent lift station. It is anticipated that the lift station will be founded on reinforced concrete drilled piers anchored into the bedrock. Drilled pier design criteria will be provided by Kumar & Associates, Inc. and will be appended to the Geotechnical Engineering Study.

The over-excavation and placement of engineered fill material is required due to the expansive potential of the on-site soil and bedrock layers. The earthwork recommendations presented in the Geotechnical Engineering Study are generally accepted construction methods to lessen the potential for excessive soil heave. The Regional Water and Sewer District has been made aware of the soil conditions and is acceptant of the earthwork that is required design and construct this facility.

Section 3

Wastewater Regulatory Overview

Wastewater treatment facility discharges to surface and ground waters throughout the United States are subject to state and federal regulations which protect public health and maintain water quality. The condition of the receiving stream, its capacity to absorb waste loads without degradation, and actual or potential uses of the water downstream of a wastewater discharge determine the degree and often the type of wastewater treatment necessary. Water quality standards, effluent discharge regulations, and an overview of current and upcoming regulations are presented in this section to establish the impact on future wastewater discharge criteria for the new Prosper Wastewater Treatment Plant (WWTP)

In Colorado, water pollution control is governed by the Colorado Water Quality Control Act of 1973, as amended. The Colorado Water Quality Control Commission (WQCC) holds primary authority to enact this policy and has delegated implementation responsibilities to the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment (CDPHE).

Preliminary effluent discharge limits for the Prosper WWTP were determined using an assimilative water quality analysis for the receiving stream. Standards and regulations presented throughout this section are in reference to the Preliminary Effluent Limits (PELs) provided by CDPHE dated March 16, 2016. The facility information used in each water quality analysis is provided in Table 3-1.

Table 3-1 Facility Information for Water Quality Analysis

Facility Name	Permit Number	Design Flow (max 30-day avg), MGD	Design Flow (max 30-day avg), cfs
Prosper WWTF	PEL200456	0.1325	0.205

RECEIVING STREAM SEGMENT

The Prosper WWTP will discharge to Rat Run in stream segment COSPMS03a; specifically to the South Platte Basin, Middle South Platte River Sub-basin, Stream Segment 03a. This segment is composed of all tributaries to the South Platte River, including all wetlands, from a point immediately below the confluence with Big Dry Creek to the Weld/Morgan County line, except for specific listings in the subbasins of the South Platte River, and in Segments 3b, 5a, 5b, 5c and 6 and presented in Figure 3-1.

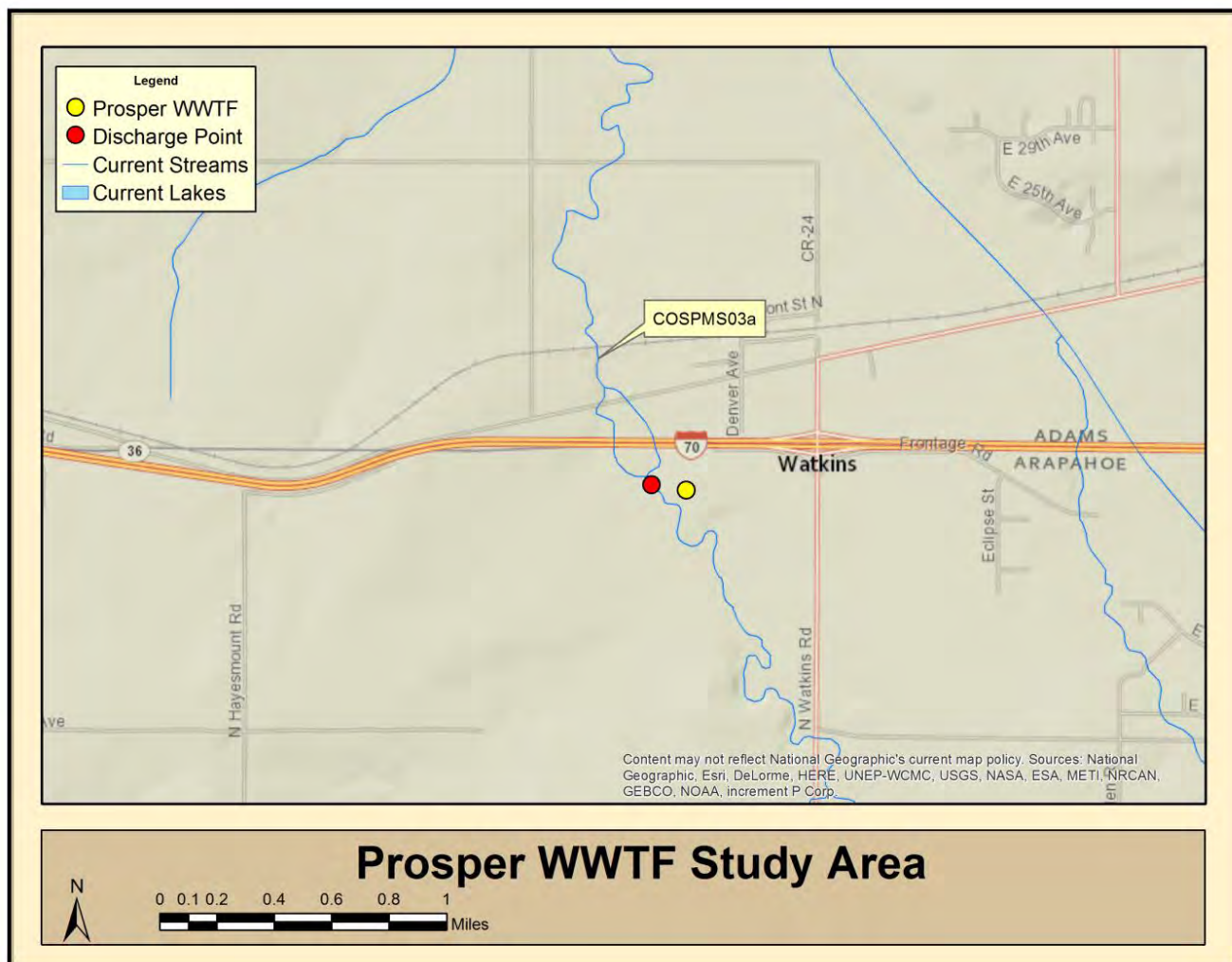


Figure 3-1 Middle South Platte River Basin Sub-basin Study Area (provided by CDPHE)

Impaired Waters

Stream segment COSPMS03a is not **currently listed on Colorado's** Section 303(d) list of water quality impacted streams. Therefore, restrictions and monitoring of water quality due to impaired waters does not apply.

WATER QUALITY STANDARDS

The state regulatory program for surface water quality consists of three tiers including (1) use classifications, (2) water quality standards, and (3) effluent discharge permits. Colorado surface waters have been assigned use classifications to protect all current uses and maintain the highest water quality possible. Water quality standards corresponding to each use classification have been developed by the Colorado Water Quality Control Commission (WQCC) to define the maximum permissible levels of pollutants which will protect and maintain designated uses. Discharge permits are issued by the Colorado Discharge Permit System (CDPS) which enforces the Colorado surface water use classifications and corresponding water quality criteria.

303(d) List of Impaired Waters

Section 303(d) of the Clean Water Act requires states to submit a list of impaired stream segments and lakes to the U. S. Environmental Protection Agency (USEPA) periodically. This list of impaired stream segments and lakes is called the "303(d) List" and is adopted by the Colorado WQCC as Regulation No. 93.

Use Classification

The receiving stream classifications for river segment ID COSPMS03a are provided in Table 3-2.

Table 3-2 Receiving Stream Information

Analysis	Receiving Stream Information	Designation	Classification(s)
Water Quality Analysis	Rat Run	Use Protected	Aquatic Life Warm 2, Recreational Class E, Agriculture, Water Supply

The modified Recreational Class E classification states that the river segment is used for primary contact recreation or has been used for such activities since November 28, 1975. The recreational classification description was modified in 1991 to specifically classify if there are activities on the river segment that are likely to involve the ingestion of water other than specifically swimming. The Class E classification includes recreational activities such as rafting, kayaking, and water-skiing.

According to the *Rationale for Classifications, Standards and Designations of the South Platte*, “stream segment COSPMS03 is designated a water supply because there are two alluvial wells in close proximity to Owl Creek and could be additional water supply intakes or alluvial wells in the segment”. Therefore, nitrate standards are evaluated in this segment.

Low Flow Analysis

To establish Water Quality Based Effluent Limits (WQBELs), Colorado requires use of low flows to assess acute and chronic conditions. The acute low flow (1E3) represents the minimum daily flow occurring with a frequency of three years. The 7-day average low flow (7E3) represents the seven-day average low flow recurring in a three year interval. The chronic low flow (30E3) represents the 30-day average flow over a three-year interval.

Low flows in the water quality analysis were determined based on information provided by the WQCC. Although there are times of periodic flows in Rat Run upstream of the Prosper WWTP, low flows are set at zero for this analysis. Therefore, consideration of full or reduced assimilative capacity is inconsequential and the WQBELs are equal to the Water Quality Standard (WQS) in the receiving stream.

Numeric Standards

The WQCC adopted numeric standards for particular stream segments developed by CDPHE. In-stream standards for Stream Segment COSPMS03a are provided in Table 3-3.

Table 3-3 In-Stream Water Quality Standards for Stream Segment, COSPMS03a

Parameter	Current Value	Units
Physical and Biological		
Dissolved Oxygen	5	mg/L
pH	6.5 – 9.0	s.u.
E. Coli	126	colonies/100 mL
Temperature March-Nov	24.2 MWAT ¹ and 29 DM ²	°C
Temperature Dec-Feb	12.1 MWAT and 14.5 DM	°C
Chlorophyll a ⁷	150	mg/m ²
Inorganic		
Ammonia (acute/chronic)	TVS ³	
Chlorine (acute)	0.019	mg/L
Chlorine (chronic)	0.011	mg/L

Table 3-3 In-Stream Water Quality Standards for Stream Segment, COSPMS03a

Parameter	Current Value	Units
Free Cyanide (acute)	0.005	mg/L
Sulfide (chronic)	0.002	mg/L
Boron (chronic)	0.75	mg/L
Nitrite (acute)	0.5	mg/L
Nitrate (acute)	10	mg/L
Chloride (chronic)	250	mg/L
Sulfate (chronic)	Water Standard ⁴	mg/L
Phosphorus*	0.17	mg/l
Metals		
Dissolved Arsenic (acute)	340	µg/L
Total Recoverable Arsenic (chronic)	0.02	µg/L
Dissolved Cadmium (acute/chronic)	TVS	
Total Recoverable Trivalent Chromium (acute)	50	µg/L
Dissolved Hexavalent Chromium (acute/chronic)	TVS	
Dissolved Copper (acute/chronic)	TVS	
Dissolved Iron (chronic)	Water Standard ⁵	µg/L
Total Recoverable Iron (chronic)	1,000	µg/L
Dissolved Lead (acute/chronic)	TVS	
Dissolved Manganese (chronic)	Water Standard ⁶	µg/L
Dissolved Manganese (acute/chronic)	TVS	
Total Recoverable Molybdenum (chronic)	160	µg/L
Total Mercury (chronic)	0.01	µg/L
Dissolved Nickel (acute/chronic)	TVS	
Dissolved Selenium (acute/chronic)	TVS	
Dissolved Silver (acute/chronic)	TVS	
Dissolved Zinc (acute/chronic)	TVS	

Notes:

¹ MWAT = Maximum Weekly Average Temperature

² DM = Daily Maximum

³ TVS = Table Value Standard

⁴ or WS, the greater of ambient water quality as of January 1, 2000 or 250 mg/l.

⁵ For WS, the greater of ambient water quality as of January 1, 2000 or 300 µg/L

⁶ For WS, the greater of ambient water quality as of January 1, 2000 or 50 µg/L

⁷ Chlorophyll a and Phosphorus only apply to facilities located upstream of those listed in WQCC Regulation 38.5(4). Note that this facility is not located upstream of any of the facilities listed in WQCC Regulation 38.5(4).

Temperature. Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S of Regulation 38.

Metals. Metals are generally shown with Table Value Standard (TVS) as their acute and chronic toxicity are known to vary with hardness and the species of fish present. The TVS's require hardness values to calculate the in-stream standards for the various metals.

As metals with standards specified as TVS are not included as parameters of concern for this facility at this time, the hardness value of the receiving water and the subsequent calculation of the TVS equations is inconsequential and is therefore omitted from the Preliminary Effluent Limit (PEL).

Preliminary Effluent Limits

Water Quality Based Effluent Limits (WQBELs) were determined by ambient water quality and the in-stream standards provided in Table 3-3. The WQBELs may be incorporated into the CDPS permit for the Prosper WWTP contingent on analyses conducted during permit development. The Prosper WWTP will operate under permit number PEL200456. The PELs for the Prosper WWTF were issued on March 16, 2016, expire on December 31, 2021, and are provided in Table 3-4. The PELs are also provided in Appendix C.

Table 3-4 Preliminary Effluent Limits for the Prosper WWTP

Parameter	Value
BOD ₅ (mg/l)	45 (7-day average), 30 (30-day average)
BOD ₅ (% removal)	85 (30-day average)
TSS, mechanical plant (mg/l)	45 (7-day average), 30 (30-day average)
TSS, mechanical plant (% removal)	85 (30-day average)
Oil and Grease (mg/l)	10 (maximum)
pH (s.u.)	6.5-9.0 (minimum-maximum)
Other Pollutants	Max Limits or WQBELs²
<i>E. coli</i> (#/100 ml)	252 (7-day geomean), 126 (30-day geomean)
Total Phosphorus (mg/l) ¹	0.7 (annual median), 1.75 (95 th percentile)
Total Inorganic Nitrogen (mg/l) ¹	10 (daily maximum), 7 (annual median), 14 (95 th percentile)
Total Ammonia	WQBELs
NH ₃ as N, (mg/l) Jan	27 (daily maximum), 6.2 (30-day average)
NH ₃ as N, (mg/l) Feb	26 (daily maximum), 6.0 (30-day average)
NH ₃ as N, (mg/l) Mar	26 (daily maximum), 5.5 (30-day average)
NH ₃ as N, (mg/l) Apr	26 (daily maximum), 5.0 (30-day average)
NH ₃ as N, (mg/l) May	26 (daily maximum), 4.3 (30-day average)
NH ₃ as N, (mg/l) Jun	26 (daily maximum), 3.8 (30-day average)
NH ₃ as N, (mg/l) Jul	24 (daily maximum), 3.1 (30-day average)
NH ₃ as N, (mg/l) Aug	26 (daily maximum), 3.2 (30-day average)
NH ₃ as N, (mg/l) Sep	27 (daily maximum), 3.5 (30-day average)
NH ₃ as N, (mg/l) Oct	26 (daily maximum), 4.1 (30-day average)
NH ₃ as N, (mg/l) Nov	27 (daily maximum), 5.1 (30-day average)
NH ₃ as N, (mg/l) Dec	27 (daily maximum), 6.1 (30-day average)

Notes:

¹ Requirements in Regulation 85.5(1)(b)

² WQBELs = Water Quality Based Effluent Limit

The WQCC Regulation 85, Nutrients Management Control Regulation, applies to the Prosper WWTP because although the rated capacity will be less than 1.0 MGD, it is a brand new WWTP with discharge to a receiving stream that is classified as a water supply. More stringent effluent criteria will be required at the Prosper WWTP in terms of nitrogen and phosphorus limits as provided in Table 3-4.

Section 4

Evaluations of Alternatives

SITE ANALYSIS

The Prosper WWTP is located within Planning Area 71 of the approved Prosper PDP as presented in Figure 2-5. Planning Area 71 is currently undeveloped and consists of dry land wheat and corn fields. Planning Area 71 has been strategically located, configured and zoned to accommodate the Prosper WWTP. The WWTP is located at one of the lowest elevation points within the Prosper PDP allowing the sanitary sewer collection system to flow by gravity to the WWTP. The collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. A map of the Phase 1 sanitary sewer collection system, originally part of the Prosper Final Development Plan Preliminary Utility Report (to be provided on request), is presented in Figure 4-1. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

The WWTP is located within the context of adjacent land uses that are comprised of existing Interstate 70, the Coyote Run drainage and the Rat Run drainage corridors. A natural grassland area is located directly north of the facility. Non-residential land uses will be located to the south of Planning Area 71.

TREATMENT PROCESS ALTERNATIVES

The Regional Water and Sewer District is committed to producing a high quality effluent that meets all proposed discharge requirements and is interested in advanced, sustainable treatment technologies. In this section, treatment alternatives are developed to provide nutrient removal requirements for nitrogen and phosphorus. Treatment process alternatives evaluated include (1) the 3-Stage Biological Nutrient Removal (BNR) Process, (2) the Sequencing Batch Reactor (SBR) process, and (3) a Membrane Bioreactor (MBR) process. Several support systems and facilities will also need to be provided, specifically,

1. An Influent Lift Station to be constructed at the influent of the WWTP to pump wastewater generated from the Phase 1 Prosper service area to the new Headworks Building.
2. A Headworks Building that includes an influent screen, by-pass manual screen, a grit removal system, and an influent flume.
3. An On-Site Lift Station/Equalization Basin to pump wastewater to the secondary process.
4. A Secondary Treatment Process that can meet the effluent requirements of Regulations 85.
5. A Process Building to house new blowers, process pumps, chemical feed system, UV system, and an electrical room.
6. An Aerobic Digester with sufficient capacity to stabilize solids generated in the new treatment process.
7. Administration/O&M/lab space will be provided in the Process Building to provide office space, an operations lab to conduct process control testing and analysis, and a shop where Plant Staff can perform maintenance and service on plant equipment.

Treatment Process Goals and Principals

The PELs for the Prosper WWTP include limits for total inorganic nitrogen (TIN) and total phosphorus (TP) as part of the recently approved Colorado nutrient criteria (Regulation 85). Regulation 85 imposes technology based effluent limits for TIN and TP on new WWTP discharges.

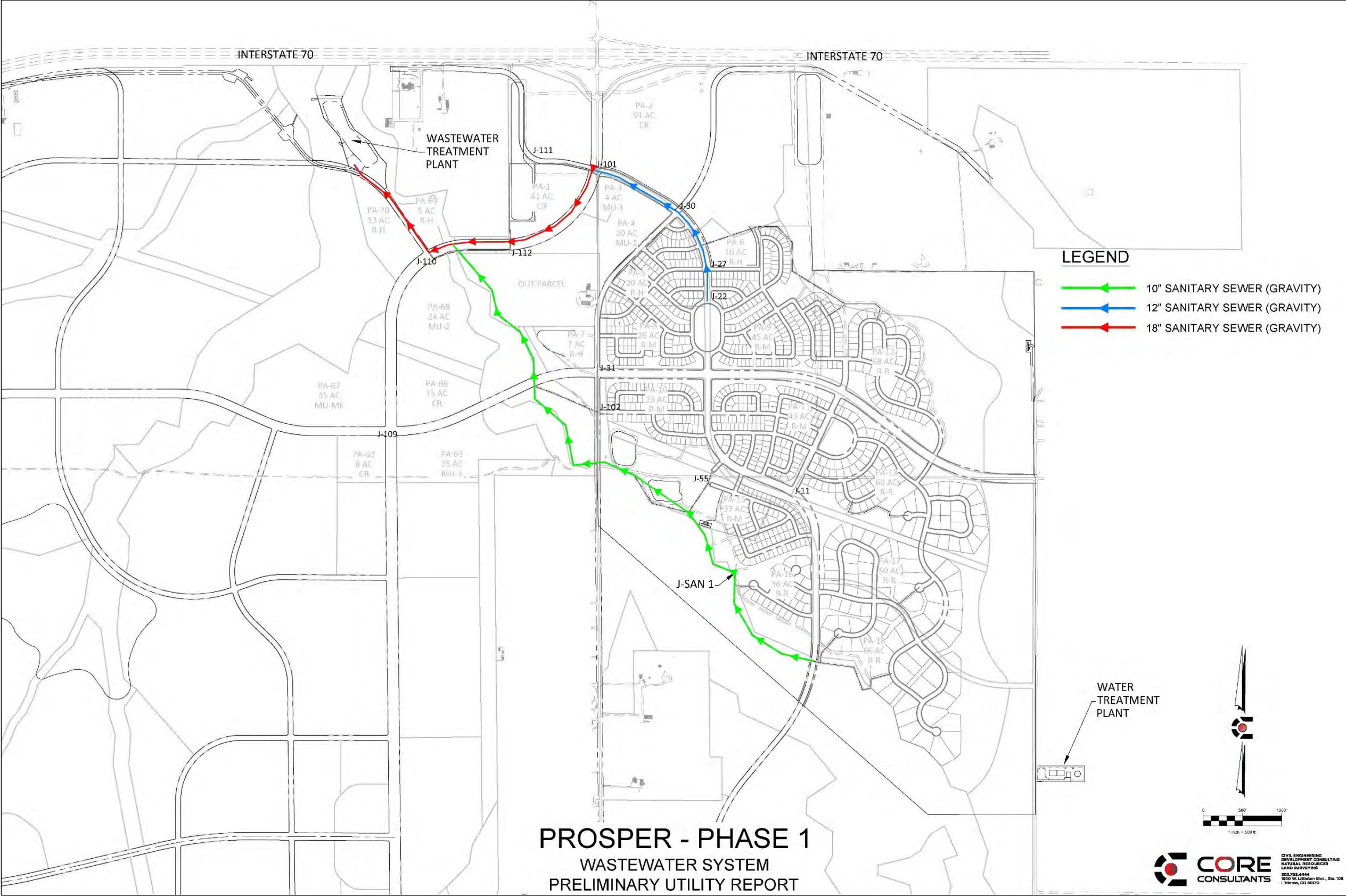


Figure 4-1 Phase 1 Sanitary Sewer Collection System

Principals of Biological Nutrient Removal. Biological nutrient removal (BNR) systems are a class of activated sludge processes that have been widely used and reliably produce high quality wastewater effluent with low nitrogen and low phosphorus concentrations. BNR systems combine anaerobic (no nitrate or oxygen present), anoxic (no dissolved oxygen present), and aerobic zones to remove organic waste and nutrients. The sequence and size of these process zones varies depending on the treatment requirements.

Ammonia. Typical municipal wastewater contains 150 to 300 mg/L of organic matter and 30 to 60 mg/L of nitrogen. Approximately forty percent of the nitrogen is organically bound and enters the treatment plant in the form of proteins. The remaining sixty percent is ammonia. Organic nitrogen can be converted to ammonia through a process known as ammonification. A graphical description of the nitrogen cycle is presented in Figure 4-2.

Ammonia is toxic to aquatic life and exerts a large oxygen demand when it enters a stream, river, or lake. Ammonia can be converted to nitrate, a less toxic nitrogen compound, by nitrifying bacteria in a two-step process known as nitrification. Nitrifying bacteria will live and grow in wastewater treatment processes under the right conditions. For activated sludge processes, the right conditions provide a Mean Cell Residence Time (MCRT) greater than five days, about 2 mg/L of dissolved oxygen, adequate influent alkalinity, and high BOD₅/N ratios.

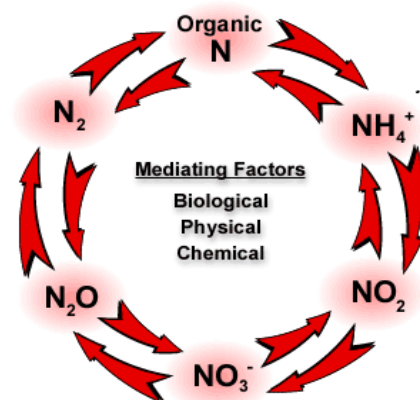


Figure 4-2 Nitrogen Cycle

Nitrate. Denitrification is the conversion of nitrate to nitrogen gas. Denitrification can be done by a large number of bacteria commonly found in wastewater treatment processes. The nitrogen gas produced is not very water soluble and passes directly into the atmosphere.

Including denitrification in WWTP designs has several advantages so denitrification does not occur in the secondary clarifiers. In nitrifying-only activated sludge systems, the flow entering the secondary clarifiers contains high nitrate concentrations and 1-3 mg/L of dissolved oxygen (DO). As the mixed liquor settles to the bottom of the clarifier and forms a sludge blanket, it depletes the available DO. Many common wastewater bacteria can use nitrate as an alternate oxygen source when the DO drops below 0.5 mg/L during denitrification. When denitrification takes place in the sludge blanket, it can cause settled sludge to float to the top of the clarifier and discharge over the effluent weirs. Often, very small pieces of settled sludge break off and are carried to the top of the clarifier as pin floc.

The nitrification process, which is accomplished by nitrifying bacteria (*Nitrosomonas* and *Nitrobacter*), consumes 7.14 pounds of alkalinity for every pound of ammonia converted to nitrate. An alkalinity surplus of about 75 mg/L must be maintained in the final effluent to ensure that nitrification is not inhibited and to prevent pH from dropping below 6.5 SU. The denitrification process restores some of the alkalinity consumed by nitrification, generating 3.5 pounds of alkalinity for every pound of nitrate converted to nitrogen gas. Incorporating an anoxic zone in the activated sludge process recovers alkalinity where it can be used by the nitrifying bacteria to oxidize ammonia.

Incorporating denitrification saves energy and results in a lower overall sludge yield compared to systems that only nitrify. Denitrification consumes 1.9 pounds of BOD₅ for every pound of nitrate converted to nitrogen gas. BOD removal requires 1.2 pounds of DO per pound of BOD₅. For every pound of nitrate that is denitrified, the amount of oxygen supplied by blowers or other aeration device can be decreased.

Phosphorus. Wastewater treatment plants in Colorado are facing TP limits of 1 mg/L as an annual median limit and 1.75 mg/L for the 95th percentile of samples from the past 12 months. Phosphorus can be removed biologically or with chemical precipitation. Enhanced Biological Phosphorus Removal (eBPR) can reliably attain effluent phosphorus limits of 0.5-0.7 mg/L. The mechanisms of eBPR are provided in Table 4-1. Chemical precipitation is needed to reach very low levels of effluent phosphorus (<0.5 mg/L) or as a backup phosphorus removal system. Incorporating eBPR into the WWTP design requires anaerobic zones upstream of the aeration basins with a hydraulic residence time between 60 and 120 minutes.

Table 4-1 Microbiology of Enhanced Biological Phosphorus Removal

Enhanced biological phosphorus removal (eBPR) systems promote growth of phosphorus accumulating organisms (PAOs) that convert soluble phosphorus into polyphosphate that is stored within the bacterial cells. Most bacteria contain 1 to 2 percent phosphorus. PAOs can contain 5 to 15 percent phosphorus. Phosphorus is removed from the system when these high PAOs are wasted from the system.
The BPR process depends on fermentation of BOD in an anaerobic reactor to produce volatile fatty acids (VFAs). PAOs use stored chemical energy (in the form of polyphosphates) to accumulate VFAs into the cell. Stored VFA's are subsequently used in the aerobic reactor as an energy source to absorb phosphorus and store it as polyphosphate within the bacterial cells. PAOs in the aerobic zone can uptake phosphorus at concentration of 4-7% of their dry body weight.
Wastewater has a limited amount of fermentable BOD needed to produce the VFAs required to remove phosphorus. For this reason, the fermentation step must be carefully designed and operated.

Process Alternatives

Alternative 1 – 3-Stage BNR Process. The 3-Stage BNR process consists of sequential sludge denitrifying, anaerobic, anoxic and aerobic treatment zones. Influent wastewater enters the anaerobic zone where it is combined with denitrified return activated sludge (RAS) from the secondary clarifiers that was denitrified in a separate sludge denitrifying (anoxic) basin. In the anaerobic zone, fermentation of the waste produces volatile fatty acids (VFAs) required for enhanced biological phosphorus removal. Next, the wastewater flows into the anoxic zone where it is mixed with recycled, nitrified mixed liquor from the aerobic zone. The bacteria use residual carbonaceous waste to reduce the nitrate to nitrogen gas (denitrification). Denitrified wastewater flows to the aerobic zone where organic matter and ammonia are oxidized to carbon dioxide and nitrate, respectively, and phosphorus uptake occurs. A large percentage of effluent from the aeration zone is recycled back to the anoxic zone for denitrification while the remainder flows to the secondary clarifier and out of the plant. Typical internal recycle rates are 200 to 400 percent of the influent flow rate. The 3-Stage BNR process schematic is presented in Figure 4-3.

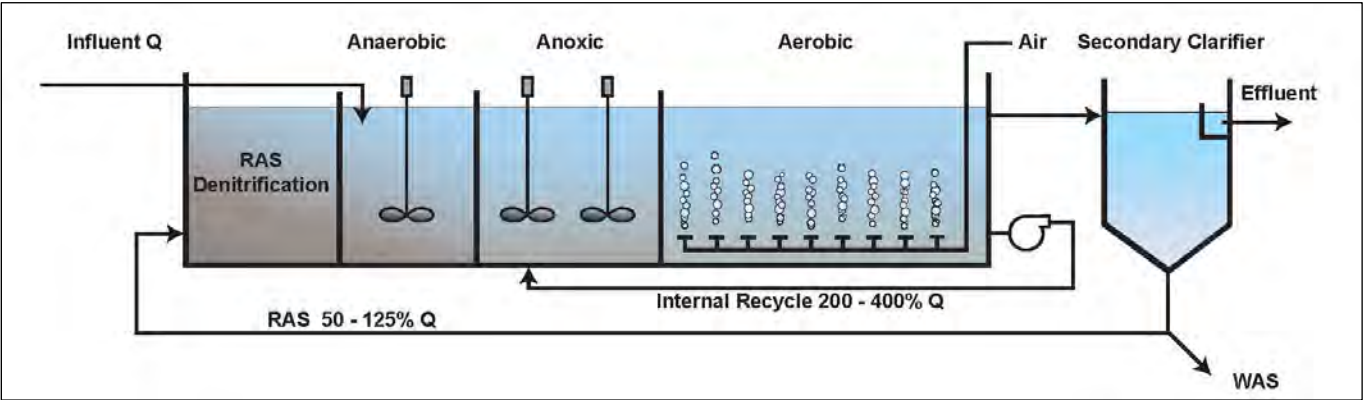


Figure 4-3 3-Stage BNR Process Schematic

Alternative 2 – Sequencing Batch Reactor (SBR). SBR systems are variable volume activated sludge processes which alternate aeration, unaerated mixing, settling, and decant cycles within a single basin. SBRs automatically vary the duration of the operational cycles in response to changing influent flow rates. Sequential cycles of aeration, sedimentation, and liquid/solids separation within each SBR reactor achieves carbonaceous oxidation, nitrification, denitrification, and biological phosphorus removal. The alternating sequence eliminates the need for secondary clarifiers and associated return sludge pumps. However, the settling and decant cycles require a larger SBR basin volume compared to conventional activated sludge processes of the same capacity.

SBR systems operate on a fill-and-draw cycle that varies in duration in response to changing influent flow rates. Aeration, sedimentation, and liquid/solids separation occur sequentially within each SBR reactor. BOD oxidation and nitrification occur during the aeration phase. After biological oxidation is complete, aeration is turned off and mixing may continue to achieve denitrification. Following denitrification, an unmixed, un-aerated phase allows the biomass to flocculate and settle to the bottom of the basin. After settling, clarified effluent is decanted from the upper 20 percent of the basin volume. All of the mixed liquor suspended solids (MLSS) are retained in the SBR basin during settling and decant periods. Waste sludge is pumped from the bottom of the SBR basin to maintain a constant sludge inventory in the system. After decanting, the SBR basin refills with wastewater to begin the next aeration cycle. The SBR process schematic is presented in Figure 4-4.

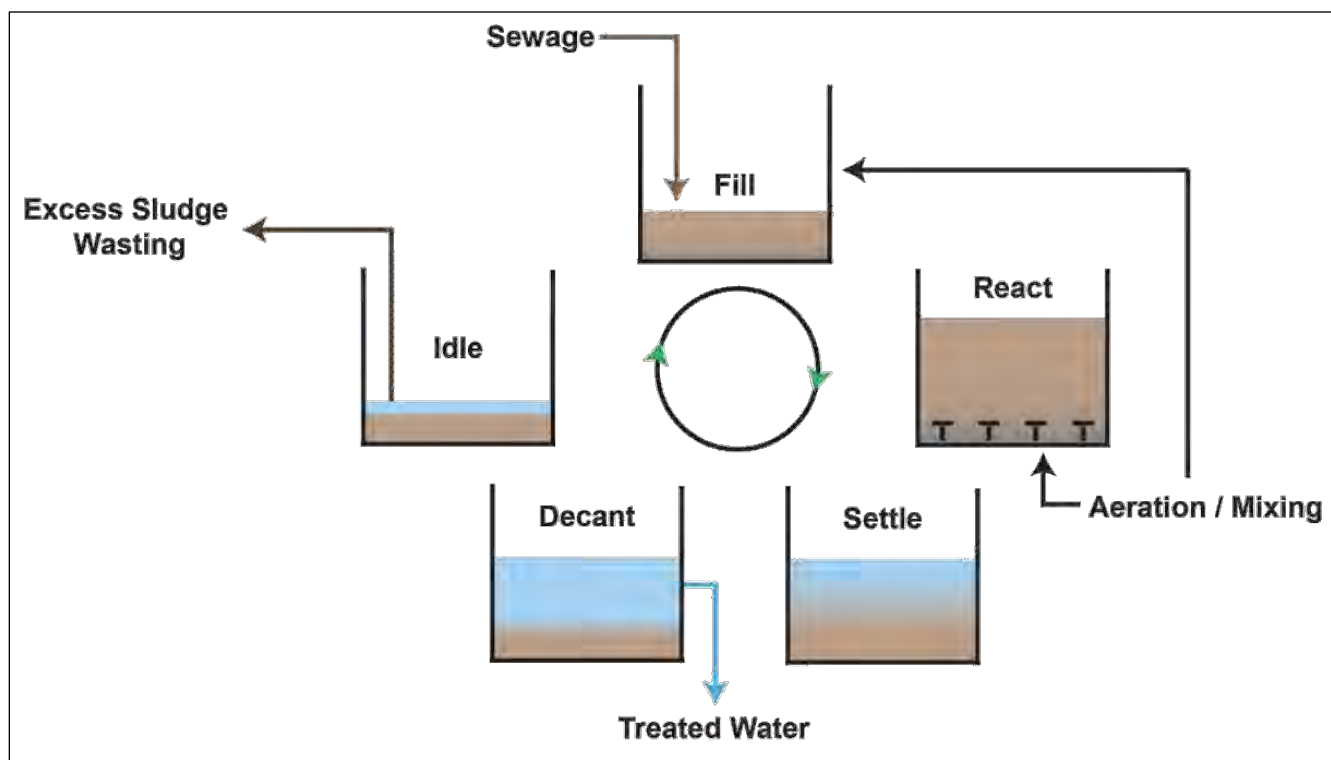


Figure 4-4 SBR Process Schematic

Alternative 3 – Membrane Bioreactor (MBR). Membrane bioreactors (MBRs) provide excellent effluent quality which would be better than BNR or SBR systems. MBRs achieve effluent BOD₅ concentrations of less than 2 mg/L and complete removal of TSS. Effluent phosphorus concentrations less than 1 mg/L can be achieved by chemical precipitation within the MBR reactor. MBR systems have much smaller aeration tanks and eliminate the need for secondary clarifiers and effluent filters. These factors reduce the total plant footprint and offset higher capital costs of the microfiltration equipment.

Membrane filters consist of synthetic polymer thin films that have pore sizes ranging from 0.04 μm to 0.1 μm . Submerged membrane filters are immersed in an activated sludge basin. Submerged membranes are available as flat-sheet, hollow fiber, or tubular membranes. MBRs operate with MLSS concentrations up to 20,000 mg/L. Coarse bubble diffusers agitate the membranes to prevent excessive buildup of MLSS solids on the membrane surface. Submerged membranes operate under a slight vacuum created by a pump. The membranes separate the treated wastewater from the MLSS, eliminating the secondary clarifier used in conventional activated sludge systems. Because secondary clarifiers are eliminated, there are no return activated sludge pumps. A portion of the MLSS is wasted periodically to prevent a buildup of solids in the tank. Fine screens (typically 2 mm orifice) are required upstream of the MBR to protect the membranes.

MBR membranes are cleaned by frequent automatic back pulse cycles which pump filtered water through the fibers in reverse to the filtration cycle. Chemical maintenance cleaning using hypochlorite occurs once per week. Recovery cleaning occurs once every three to six months and consists of soaking the membranes in a high strength citric acid solution for two to eight hours. The MBR process schematic is presented in Figure 4-5.

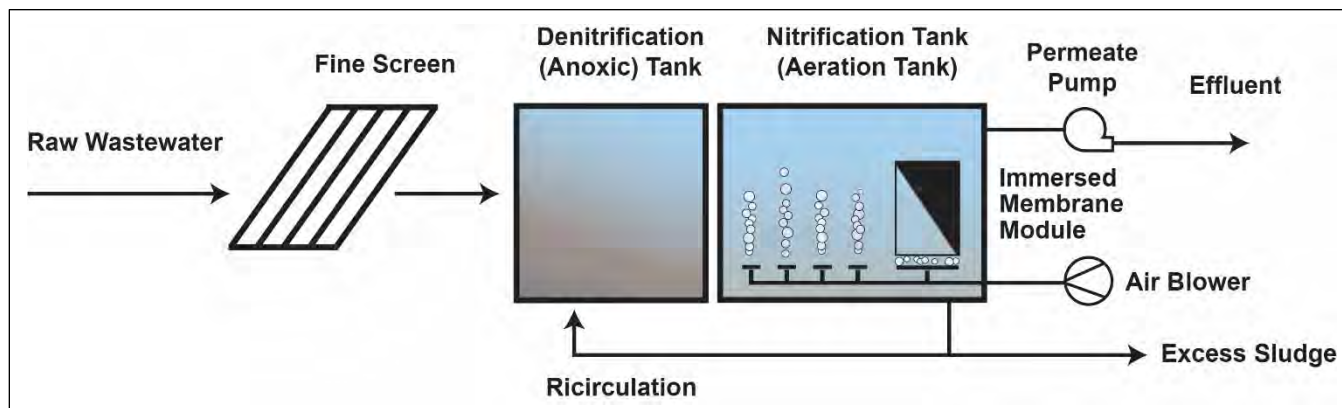


Figure 4-5 MBR System Process Schematic

DETAILED DESCRIPTION OF ALTERNATIVE COMPONENTS

Several treatment systems and some support facilities will be the same for any of the process alternatives. These common systems and support facilities are described below.

Prefabricated Influent Lift Station

The collection system will terminate approximately 25 feet below grade at the WWTP. A six foot diameter pre-fabricated lift station will be constructed approximately 30 feet deep and will house two submersible centrifugal pumps (1 duty, 1 standby) to pump the influent wastewater to the WWTP. A grinder may be used at the entrance of the pump station to protect the influent pumps.

Headworks Equipment

Influent Coarse Screens. Influent wastewater will be screened by an inclined rotary screen with an internal shaftless helical auger to convey the screenings upward into and through an inclined auger tube. The screen will be made of stainless steel with a semi-circular screen basket with 6 mm perforations. The helical auger will remove debris captured on the screen basket, compress and dewater the screened material in the inclined auger tube, and discharge into a storage bin. The screen will be equipped with a screenings washing system to spray wash water onto the screenings in the semi-circular screen basket and into the lower end of the auger tube. The influent inclined rotary screen will have an emergency overflow into a manual bar screen to maintain flow during a screen failure of the mechanical screen.

MBR Fine Screen. The MBR alternative requires fine screens with 2 mm perforations or bar openings. Fine screens will be provided as part of the MBR equipment and will be located in the MBR process building. The fine screens will be capable of fully protecting the MBR membranes without coarse screening located upstream. For the MBR alternatives, fine screens provided as part of the MBR equipment could eliminate the need for influent inclined rotary screen required for the SBR and BNR alternatives.

Grit Removal. Vortex separators would be used for grit removal for all alternatives. For the MBR alternative, the flow equalization basin would also capture grit if the vortex separators failed or were out of service. Settled grit could be removed from the equalization basin periodically by vacuum truck.

Influent Flow Meter. A new trapezoidal flume with ultrasonic level sensor will be installed to meter influent flows. The trapezoidal flume will be installed in a precast concrete vault enclosed with removable fiberglass covers for weather protection.

On-Site Lift Station / Flow Equalization Basin

An on-site lift station is required after the headworks processes to pump the wastewater to the secondary process. The site conditions do not allow for the wastewater to flow by gravity from the influent screens to effluent discharge into Rat Run. A concrete wet well with submersible centrifugal pumps would be constructed adjacent to the secondary process. The wastewater would then flow by gravity through the remainder treatment process and into Rat Run.

The on-site lift station would also operate as an equalization basin for the MBR alternative. MBR systems can tolerate up to twice the design flux for short periods so the equalization basin will ensure that the MBR operates at its optimum flow range. The equalization basin will minimize energy consumption and membrane fouling and is recommended or required for all MBR facilities. Aeration diffusers and a blower would be provided to keep the solids in suspension before sending the wastewater to the secondary process. The MBR alternative would have a larger 25,000 gallon (25 percent of average flow) flow equalization basin which could be constructed as either a steel tank or a concrete tank. Tank covers would be needed to minimize heat losses and contain potential odors. The SBR and BNR alternatives would not require flow equalization.

Chemical Phosphorus Removal

The SBR and BNR alternatives have biological phosphorus removal capabilities. Phosphorus precipitates formed in these activated sludge processes would be separated from the treated water by gravity setting in the final clarifiers or SBR basins. Precipitated phosphorus would be removed from the final clarifiers or SBR basins with the settled waste activated sludge. Waste sludge would be aerobically digested followed by off-site disposal. Although the SBR and BNR processes remove a majority of the phosphorus biologically, an effluent filter may be required to achieve the TIN and TP effluent requirements of 7 mg/l and 0.7 mg/l, respectively. The MBR alternative can remove some phosphorus biologically, but requires chemical phosphorus removal to provide consistent reliable phosphorus removal.

Biological phosphorus removal systems are required to have backup chemical phosphorus removal by the Colorado domestic wastewater plant design criteria (CDPHE WQCD document number WPC-DR-1). To comply with this requirement, coagulant storage tanks and chemical metering pumps will be constructed to provide the capability to remove phosphorus by chemical precipitation as a backup system to any of the biological phosphorus removal alternatives and as the primary phosphorus removal method for the MBR alternative.

Disinfection

Ultraviolet (UV) disinfection is preferred to hypochlorite disinfection to eliminate the potential for accidental chlorine discharges to Rat Run. UV equipment could be located in either a new equipment building for the SBR and BNR process alternatives, or in the MBR building as part of the MBR process skid for the MBR process alternative. UV disinfection would inactivate protozoa, bacteria, and virus which are found in the effluent from all of the process alternatives. Although the discharge permit contains no virus limits, virus inactivation would be needed to protect public health and environmental quality and is presumed to be met by the E. coli limitation.

Aerobic Digester

A new aerobic digester will be constructed with aeration and mixing equipment and removable flat covers. A telescoping valve in the digester will discharge settled water by gravity to the digester decant sump. Submersible pumps in the decant sump will return the settled water to the secondary treatment process.

Odor Control

Odor mitigating elements will be incorporated into the design including aeration system failure alarms, process basin covers, and odor control systems for the influent lift station and headworks building. It is anticipated that an activated carbon odor control system will be used for the influent lift station and headworks building.

Non-Potable Water System

Non-potable water will be supplied for wash down to clean equipment and basins. A vertical turbine or submersible pump will be installed in an effluent wetwell to provide disinfected reclaimed effluent for non-potable uses. A hydro-pneumatic tank will be installed either inside the new UV building or MBR building to maintain pressure and minimize pump start and stop cycles. Non-potable water distribution pipelines will be installed from the non-potable water pumps to each building and basin.

For the SBR and BNR alternatives, a self-cleaning filter would need to be installed on the non-potable pump discharge line to remove suspended solids from the reclaimed effluent prior to storage and use. For the SBR and BNR alternatives, a hypochlorite storage and metering system would be installed inside the existing disinfection building to provide a chlorine residual in the non-potable distribution system. For the MBR alternative, a metering system would be installed inside the MBR building which would pump from the MBR hypochlorite storage tank and discharge into the MBR effluent pipeline.

Drinking Water System

Drinking water will be delivered to the site by distribution piping from the new Prosper Water Treatment Plant. Drinking water will be connected into onsite distribution piping which will deliver potable water to the laboratory sink, lavatory sink, and toilet. The Hydro-pneumatic tank will maintain pressure throughout the piping system.

On-Site Generator

A diesel or natural gas generator will be provided to provide power during an emergency power outage. The generator will provide back-up power to all of the critical process equipment to ensure wastewater treatment will not be interrupted and the safety of the plant staff will be maintained.

Some treatment systems, equipment, and support facilities differ between the SBR, BNR and MBR alternatives. The major project components for the SBR, BNR, and MBR alternatives are provided in Table 4-2.

Table 4-2 Major Project Components to each WWTP Alternative

System or Equipment	BNR	SBR	MBR
Prefabricated Influent Lift Station	Lift Station w/ 2 Submersible Centrifugal Pumps	Lift Station w/ 2 Submersible Centrifugal Pumps	Lift Station w/ 2 Submersible Centrifugal Pumps
Headworks Building	New Headworks Building	New Headworks Building	New Headworks Building
Coarse screens	Rotary, perforated	Rotary, perforated	Rotary, perforated
Grit Removal	Vortex Grit Separator	Vortex Grit Separator	Vortex Grit Separator
Fine screens	None	None	Fine Screens
Influent Flume	Trapezoidal Flume w/ Ultrasonic Level Sensor	Trapezoidal Flume w/ Ultrasonic Level Sensor	Trapezoidal Flume w/ Ultrasonic Level Sensor
On-Site Lift Station/EQ Basin	Lift Station w/ 2 Submersible Centrifugal Pumps	Lift Station w/ 2 Submersible Centrifugal Pumps	EQ Basin w/ 2 Submersible Centrifugal Pumps and Provided with Aeration for Mixing

Table 4-2 Major Project Components to each WWTP Alternative

System or Equipment	BNR	SBR	MBR
Aeration Basins	Concrete Tanks Below Grade	Concrete Tanks Below Grade	Pre-fabricated Steel Tanks in MBR Building
Aeration Basin Covers	Flat Fiberglass Deck	Flat Fiberglass Deck	None
Aeration Blowers	3 Rotary screw	3 Rotary screw	w/ MBR System
Secondary Clarifiers	Two circular, 20 ft diam.	None	None
Clarifiers Covers	Flat Fiberglass Deck	None	None
Chemical Phosphorus Removal	Alum Chemical Feed System	Alum Chemical Feed System	w/ MBR System
UV Disinfection System	UV Disinfection	UV Disinfection	UV Disinfection
Equipment Building	Pre-Fabricated Steel Building, Lower Level Pumps	Pre-Fabricated Steel Building, Lower Level Pumps	Pre-Fabricated Steel Building, Slab-On-Grade
Clarifier RAS Pumps	3 Centrifugal	None	None
MLSS Recycle Pumps	3 Centrifugal	None	w/ MBR System
Waste Sludge Pumps	3 Centrifugal	3 Centrifugal	w/ MBR System
Aerobic Digesters	1 Concrete Tank provided with Aeration and Mixing	1 Concrete Tank provided with Aeration and Mixing	1 Concrete Tank provided with Aeration and Mixing
Odor Control	Aeration basin, clarifier, and digester covers. Activated Carbon system for Headworks Building	Aeration basin and digester covers. Activated Carbon system for Headworks Building	Activated Carbon system for Headworks Building
Non-potable water system	On-Site Reuse Pump and Non-Potable Distribution Piping to all Buildings and Basins	On-Site Reuse Pump and Non-Potable Distribution Piping to all Buildings and Basins	On-Site Reuse Pump and Non-Potable Distribution Piping to all Buildings and Basins
Drinking water system	Pumps and Water Distribution Piping	Pumps and Water Distribution Piping	Pumps and Water Distribution Piping
Emergency generator	New Generator for all Critical Equipment	New Generator for all Critical Equipment	New Generator for all Critical Equipment

ECONOMIC EVALUATION OF ALTERNATIVES

Planning Level Costs

Capital, operation and maintenance (O&M), and net present values were prepared for all alternatives evaluated as a part of this analysis. Assumptions utilized in the analysis are detailed below. Detailed planning level cost estimates for the alternatives analysis are provided in Appendix D.

Capital Costs. Construction costs are based on the quantities of raw materials, construction labor, major equipment, supplies, excavation, and contractor’s markup for overhead and profit. During the planning and design process, these items provide a rational basis to estimate total construction costs and develop project budgets. Construction cost estimates were developed with cost data from recently completed projects, published literature, and equipment manufacturer’s quotations.

The itemized construction cost estimates contain contingencies to allow for unknown or uncertain conditions. At present, many project components and details cannot be determined. The contingency factor accounts for hidden or unknown physical conditions such as conflicting utilities and construction details which cannot be identified, predicted, or accurately estimated but are likely to occur based on experience with similar projects. Contingencies vary with the level of detail associated with the planning, budgeting, or design process. As a project becomes more defined, unknowns are identified and contingency factors decrease.

The construction cost estimates represent “order-of-magnitude” costs for each alternative. The American National Standards Institute (ANSI) and the American Association of Cost Engineers (AACE) define order-of-magnitude estimates as “an

approximate estimate made without detailed engineering data”. The AACE recommends that planning reports include a contingency of 20 to 40 percent. Cost estimates for final engineered plans may have contingencies reduced to 10 to 15 percent based on detailed design information. Based on the current level of uncertainty associated with this project, a contingency factor of 25 percent of estimated construction costs has been assumed. The cost factors provided in Table 4-3 have been added to the materials and equipment costs to develop an opinion of probable construction cost for each alternative.

Table 4-3 Cost Factors Used to Develop the Opinion of Probable Construction Cost

Cost Factor	Percent Value	Description	Calculation
Mobilization/ Demobilization	3	Contractor cost (Subtotal + 3%)	Percent of (Equipment & Material Subtotal)
Contractor Overhead & Profit	15	Markup on subcontracts, materials, & labor	Percent of (Equipment & Material Subtotal + Mobilization/Demobilization)
Bonding & Insurance	2	Contractor cost	Percent of (Equipment & Material Subtotal + Mobilization/Demobilization + Contractor Overhead & Profit)
Contingencies	25	Unknown conditions & conflicting utilities	Percent of (Equipment & Material Subtotal + Mobilization/Demobilization + Contractor Overhead & Profit + Bonding & Insurance)

Alternative 1 – 3-Stage BNR Process Capital Costs. The estimated opinion of probable construction cost for the major components of the new 3-Stage BNR process is approximately \$3.13 million with the cost details provided in Table 4-4.

Table 4-4 3-Stage BNR Process Opinion of Probable Construction Cost Estimate

Item	Cost, US\$
Site/ Civil	422,500
Structural/Architectural	617,400
Process	712,300
HVAC	49,400
Electrical	270,200
Total Materials and Equipment	2,071,800
Opinion of Probable Construction Cost¹	3,127,100

¹ Construction cost includes mobilization/demobilization, contractor overhead and profit, insurance, bonds, and contingency.

Costs for the construction of the 3-Stage BNR process include a new influent lift station, headworks building, on-site lift station, process building, new treatment basin construction, mechanical equipment required such as valves, pumps, blowers and mixers, two secondary clarifiers, two aerobic digesters, UV disinfection, and associated civil work.

Alternative 2 – SBR Process Capital Costs. The estimated opinion of probable construction cost for the major components of the new SBR process is approximately \$3.14 million with the cost details provided in Table 4-5.

Table 4-5 Sequencing Batch Reactor Opinion of Probable Construction Cost Estimate

Item	Cost, US\$
Site/ Civil	342,400
Structural/Architectural	541,900
Process	874,800
HVAC	49,400
Electrical	271,300
Total Materials and Equipment	2,079,800
Opinion of Probable Construction Cost¹	3,139,200

¹ Construction cost includes mobilization/demobilization, contractor overhead and profit, insurance, bonds, and contingency.

Costs for the construction of the SBR process include a new influent lift station, headworks building, on-site lift station, process building, new treatment basin construction, mechanical equipment required such as valves, pumps, blowers and mixers, two aerobic digesters, UV disinfection, and associated civil work.

Alternative 3 – MBR Process Capital Costs. The estimated opinion of probable construction cost for the new MBR process is approximately \$3.35 million with the cost details provided in Table 4-6.

Table 4-6 MBR Process Opinion of Probable Construction Cost Estimate

Item	Cost, US\$
Site/ Civil	253,300
Structural/Architectural	595,000
Process	1,171,800
HVAC	84,000
Electrical	229,800
Total Materials and Equipment	2,333,900
Opinion of Probable Construction Cost¹	3,351,100

¹ Construction cost includes mobilization/demobilization, contractor overhead and profit, insurance, bonds, and contingency.

Costs for the construction of the MBR process include a new influent lift station, headworks building, equalization basin/on-site lift station, MBR building, mechanical equipment required such as valves, pumps, and blowers, two aerobic digesters, UV disinfection, and associated civil work.

Operation and Maintenance Costs. Estimates of operation and maintenance (O&M) costs are provided for each piece of equipment in this evaluation. Operation and maintenance costs include an estimate of power consumption, chemical costs, structural and equipment maintenance/replacement costs. O&M estimates were utilized in the net present value (NPV) analysis.

Estimated annual costs for operation and maintenance of the BNR and MBR alternatives are provided in Table 4-7. O&M costs for the MBR are approximately twelve percent higher than those for the BNR facility. The increased O&M costs for the MBR are due to the costs of membrane replacement and higher energy use of the equipment, specifically the blowers which are utilized for aeration.

Table 4-7 Annual Cost of Alternatives

Item	Annual Cost Factor	SBR	BNR	MBR
Capital Investment				
Structures		778,400	869,100	518,300
Equipment (mech, HVAC, elec)		1,226,700	1,119,900	1,601,000
Operating Factors				
Total WWTP horsepower	hp	60.5	90.5	150
Power use @ 0.5 x total HP	kWh/yr	197,600	295,600	490,000
Total Building Area	sf	1,500	1,500	3,400
Natural gas consumption	therms/yr	1,800	1,800	3,600
Annual Costs				
Administration & Legal		100,000	100,000	100,000
Operations Labor		50,000	50,000	50,000
Maintenance				
Collection and Transmission		20,000	20,000	20,000

Table 4-7 Annual Cost of Alternatives

Item	Annual Cost Factor	SBR	BNR	MBR
Structures	2%	15,600	17,400	10,400
Equipment	2%	24,500	22,400	32,000
Membrane replacement		0	0	7,500
UV Lamps		1,000	1,000	0
Subtotal		211,100	210,800	219,900
Utilities				
Treatment process operation	\$0.08/kWh	15,800	23,600	39,200
Lighting	15.5 kWh/sf-yr	1,900	1,900	4,200
Heating, \$0.30/therm	1.2 therms/sf-yr	540	540	1,100
Chemicals				
Membrane Cleaning		0	0	1,500
Alum		500	500	500
Sludge Disposal		2,500	2,500	2,000
Total		232,300	239,800	268,400
Difference, percent		0	3.23	11.91

Net Present Value Analysis

Net present values were calculated for each alternative by adding the construction cost and the present value of the estimated 10 year WWTP O&M cost. It is anticipated the WWTP will require an upgrade within the next 10 years so the net present value analysis was calculated over 10 years instead of a 20 year life cycle. Assumptions used to calculate the NPV are provided in Table 4-8.

Table 4-8 Net Present Value Assumptions

Item	Value
Interest Rate, percent	4.0
Project Design Life, years	10

The results of the net present value (NPV) analysis for each treatment process alternative are provided in Table 4-9.

Table 4-9 Treatment Process Alternatives Net Present Value

Item	Cost, \$M		
	3-Stage BNR	SBR	MBR
Opinion of Probable Construction Cost	3.13	3.14	3.35
Average Annual O&M Cost	0.24	0.23	0.27
Net Present Value	5.07	5.02	5.53
Difference, percent	1.0	0	10.0

The NPV includes the opinion of probable construction cost for all of the facilities and equipment at the WWTP for the next ten years of operation. Tertiary filtration costs are not included in this analysis due to the uncertainty associated with when this technology may be required.

The alternative with the lowest NPV is Alternative 2 – SBR Process (\$5.02 million) followed by Alternative 1 – 3-Stage BNR Process (\$5.07 million). Alternative 3 – MBR Process is the most expensive alternative on a NPV basis (\$5.53 million).

CONCLUSIONS AND RECOMMENDATIONS

An MBR facility is recommended for the Prosper WWTP. Although the MBR process is not the lowest cost alternative, the reasons for recommending the MBR system is described below.

- Ease of operation and operational flexibility. This facility will start service as a completely new treatment system that must meet effluent limitations under severely underloaded operating conditions. In this type of situation, the MBR system offers the significant operational advantage of being insensitive to sludge settleability characteristics. The other alternatives rely heavily on the ability of the mixed liquor solids to settle by gravity, and maintaining a good settling sludge can be difficult when the facility is operating at very low flow. In comparison, the MBR system will provide excellent effluent quality regardless of sludge settleability. In addition, the MBR systems ability to operate over a comparatively wide range of MLSS concentrations offers significant operational flexibility.
- Small footprint and fewer below grade facilities required. As discussed in Section 2, the site soil conditions are poor containing predominately clayey overburdened soils with a high swell potential. The potential for soil related movement of site structures is a concern. The MBR system will require fewer and smaller structures than the other alternatives, and thus the MBR system mitigates the risk associated with the poor site conditions.
- Better effluent quality. The Prosper development is committed to producing the best effluent quality possible at a **“reasonable” cost. The MBR system, although slightly more costly, achieves this goal.** It would provide better effluent water quality than the other alternative and would also increase metals removal in the future without adding effluent filters. Future discharge limits for metals, nitrogen, and phosphorus could result in effluent filtration needing to be added to the SBR and BNR alternatives which would make these alternatives more expensive than the MBR system.

Based on better and more consistent effluent quality than the other alternatives and process flexibility to treat low flows, an MBR facility appears to be the best available treatment system and is recommended for the initial phase of the Prosper WWTP. The estimated opinion of probable construction cost for the Prosper WWTP is \$3.35 million and the NPV is \$5.53 million. The new WWTP will meet the effluent nutrient limits of Regulation 85 and the redundancy requirements of WPC-DR-1 State of Colorado Design Criteria for Domestic Wastewater Treatment Works. A detailed plan to implement the new infrastructure is provided in Section 5.

Section 5

Implementation Plan

This Section presents the Implementation Plan for the recommended WWTP and its supporting Management Districts. The recommended treatment process alternative, Alternative 3 – MBR, will be rated for 0.1325 MGD and 265 ppd BOD₅, and will be capable of meeting the PELs provided in Section 3. A process flow diagram is presented in Figure 5-1. A preliminary site plan is presented in Figure 5-2. The initial Phase 1 facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. The Regional Water and Sewer District will determine the selected treatment process for future phases as the demand of the WWTP increases.

A conservative step-wise approach will be taken when designing and constructing the new WWTP. The Prosper WWTP will need to reliably treat the low flows encountered at the beginning of the development, and care must be taken in implementation of the facility to not oversize the process equipment and initial infrastructure. The rated capacity of 0.1325 MGD was selected as half of the projected Phase 1 design flow of 265,000 gpd. If the absorption schedule presented in Section 2 proves to be accurate a near term expansion will need to be completed by 2021. The MBR alternative was selected in part as the WWTP facilities can be easily and quickly upgraded by installing an additional MBR treatment train.

Although the process flow diagram and alternatives analysis presented in Section 4 includes a new equalization basin for the MBR alternative, this infrastructure will not be required at the initial phase of the WWTP. This will decrease the initial capital cost to construct the MBR alternative. The total opinion of probable construction cost for the initial phase of the WWTP is \$3.18 million.

The MBR system can operate over a range of MLSS concentrations and in the early phases of the facility operation when influent flow is much less than the design capacity, sludge can be stored for a period of time in the MBR process tankage. Waste sludge will be periodically pumped to the aerobic digester where the solids will be reduced to produce Class B biosolids. The Class B biosolids will be hauled by a contract sludge hauler for land application. Also, at lower flows flow equalization will not be necessary.

STAFFING PLAN

The staffing requirement for the initial phase of the Prosper WWTP is anticipated to be two employees. The estimated staffing requirement is based on the WWTP hydraulic capacity and the fact that MBR WWTPs require little operator attention after start-up of the system. The WWTP is only staffed during the day for approximately eight hours per day, depending on the day. During unstaffed periods, e.g. night, the plant will rely on remote devices to signal a dialer to the on-call Operator-In-Charge. **At a minimum, one operator will hold a Class A Wastewater Operator's License; the highest Class achievable.**

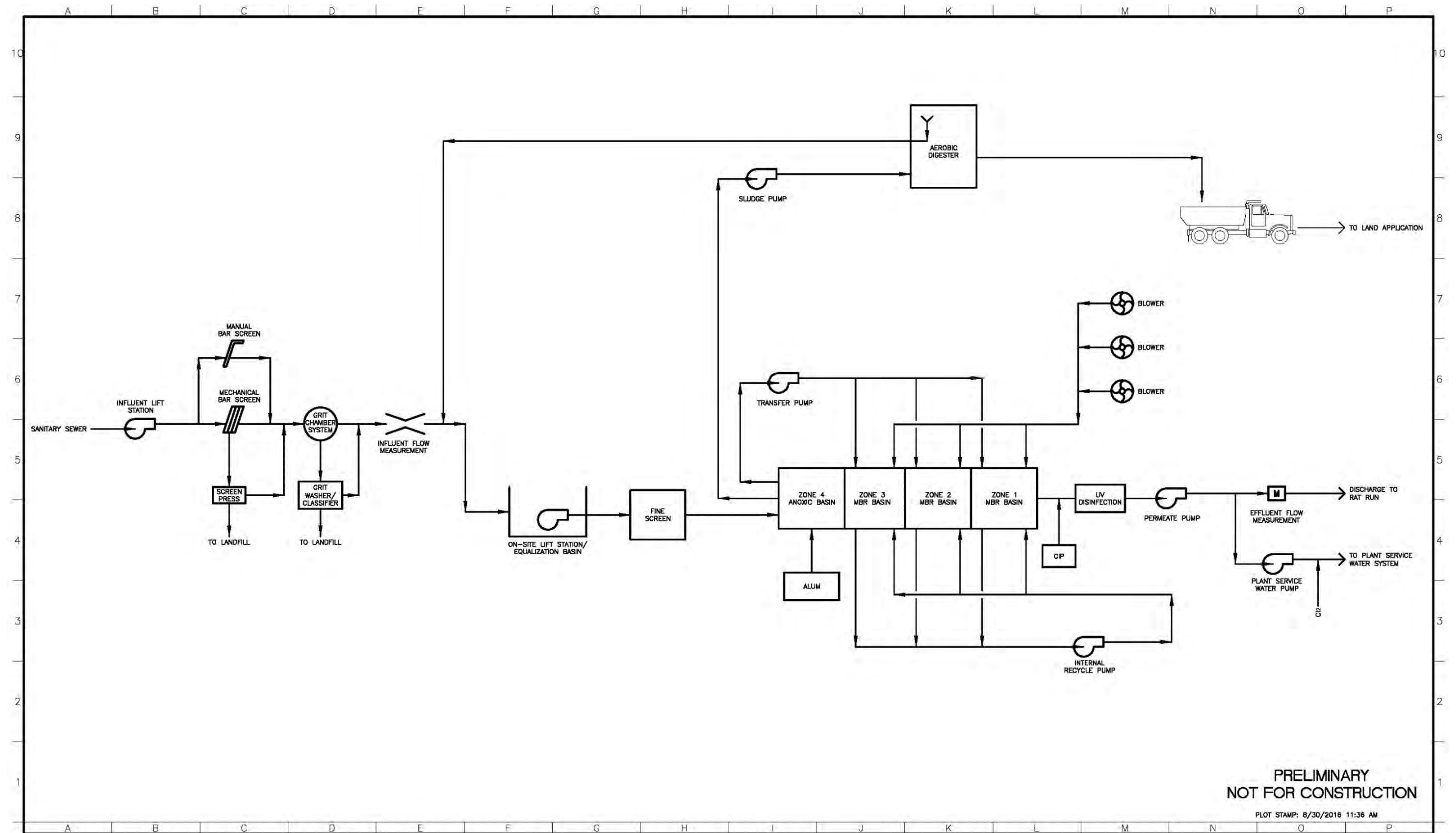


Figure 5-1 Process Flow Schematic

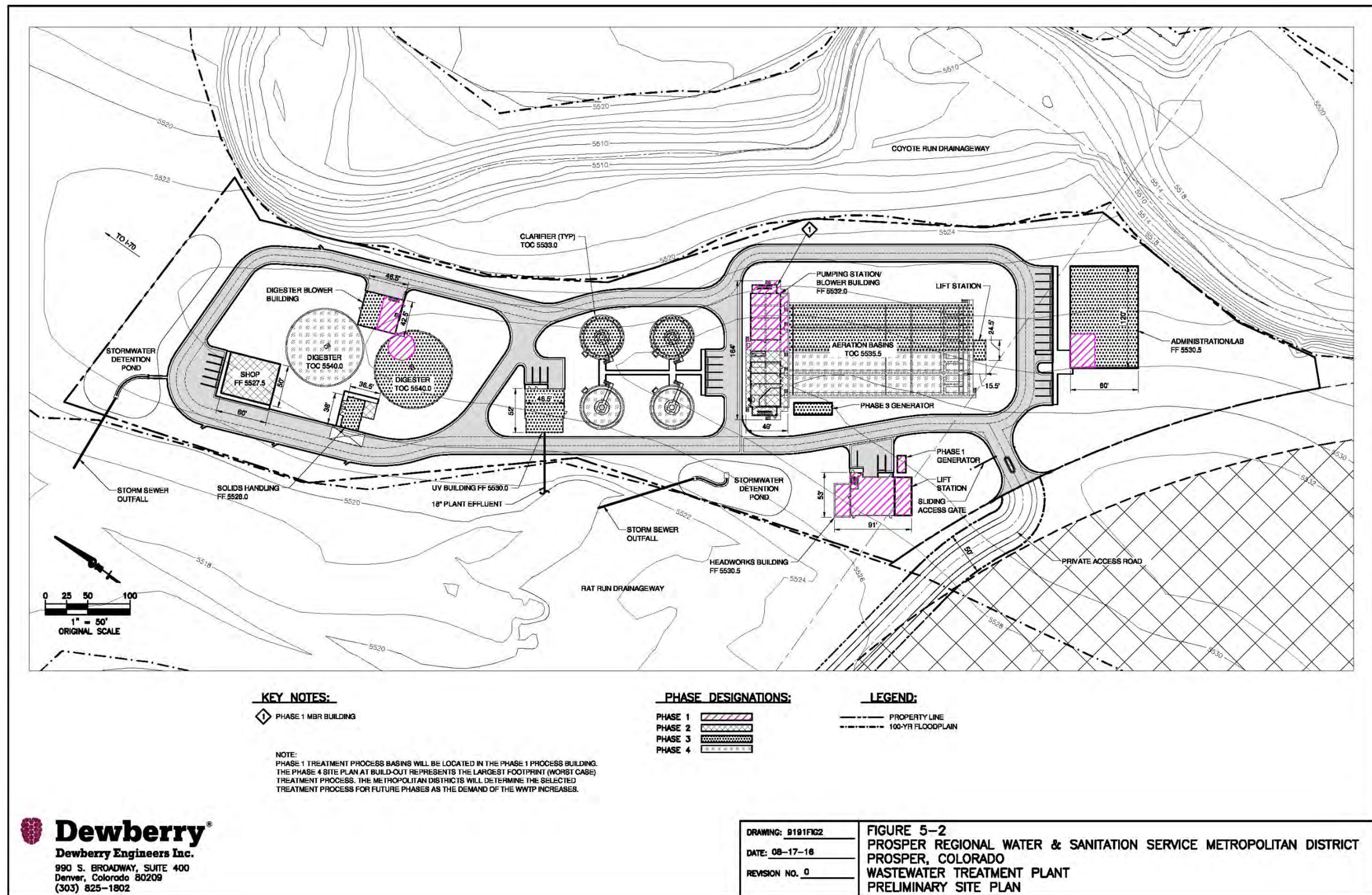


Figure 5-2 Site Layout

LEGAL AND INSTITUTIONAL ARRANGEMENTS

The legal description of the Prosper WWTP site and the current commitment for title insurance is provided in Appendix E. The Regional Water and Sewer District will be the sole owner of the 8.22 acre parcel that is to be used for the Prosper WWTP site. There are no additional right of way approvals required at this time. Prosper will include six metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning, design, financing, and construction of the Prosper WWTP. The Districts include approved service and financial plans that outline specifics regarding the functions and bonding capacity for each district.

MANAGEMENT CAPABILITIES

Two of the approved districts include the Regional Water and Sewer District and the Water & Sanitation Financing District. These districts will be utilized to coordinate the planning, design, construction, acquisition, financing, and operation and maintenance of the Prosper WWTP and sanitary sewer improvements for the life of the project.

The majority of the wastewater received by the WWTP will be from residential areas. Additional loadings will be from commercial, schools, a community center, and light industrial areas. There are not expected to be significant industrial users in the service area. MBRs have been proven to treat wastewater from the sources that will make up Prosper and all effluent requirements are expected to be met by the WWTP. Any flows or loadings above those not expected will be controlled by ordinances or contracts as necessary. At this point there are no ordinances or contracts in place because any extraneous flows are unknown at this time.

FINANCIAL SYSTEM

As part of the original 1041 application (to be provided on request) for the entire Prosper development a Financial Feasibility Report was created showing the financial viability of the whole development. As part of this Report water and sanitation improvements were estimated at \$200,000,000 for the Prosper development at buildout. Revenue projections show that this cost would be covered by a debt service mill levy and associated specific ownership taxes resulting from the levy, combined water and sewer taps fees of \$15,000 per residential tap and \$25,000 per non-residential tap, and estimated annual average facilities fees of \$1,000 per high-density and mixed-use residential unit and \$2,000 per medium-density and low-density residential unit.

The Regional Water and Sewer District will fund the WWTP improvements out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of the WWTP out of monthly service charges paid by all service users.

The Water and Sanitation Financing District will provide funds to support the financing of the WWTP improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of WWTP improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

There is not specific expense and revenue information at this time. The Water & Sanitation Financing District will generate detailed budget projections accounting for all expenses, revenues, and outstanding debts once the development has been approved to move forward.

EMERGENCY OPERATIONS PLAN

An Emergency Response Plan will be put in place to ensure that plant staff takes immediate and appropriate actions to limit adverse effects and protect lives and property during emergency situations. The emergency response procedures will be included in the plant O&M Manual and will provide detailed instructions for responding to power failures, flooding, fire, lightning strikes, equipment breakdowns, process failures, sewage spills, chemical spills, chemical shortages, and personnel injury.

Emergency Assistance

The operator notifies designated authorities of each emergency. In case of personal injury or if fire protection, rescue, or other assistance is needed, plant staff are instructed to contact the local fire department or other emergency assistance. A contact list will be posted at the plant for ready accessibility. Mutual aid agreements with outside organizations for specialized assistance will be identified in the plant O&M Manual.

Safety & Security Equipment

Safety equipment, such as fire extinguishers and self-contained breathing apparatus, will be provided at critical locations in the plant. Electrical disconnect switches will be located immediately adjacent to all motorized equipment to allow immediate shutdown and isolation of damaged equipment. Alarm signals will be generated by automatic monitoring instruments. The plant O&M Manual will provide an inventory of available emergency equipment. The WWTP site will be fenced off with a security gate at the front entrance.

Emergency Power Supply

An emergency generator sized to support all critical equipment required for plant operation will be installed. In the event of a power outage the generator will start and provide power to all required equipment until normal power is restored. A specific list of required equipment will be created during design.

SCHEDULE

County and State approval, design, and construction of the WWTP is estimated to have a duration of approximately 27 months. The estimated project duration is provided in Table 5-1.

Table 5-1 Estimated Project Duration

Item	Duration	Projected Completion
Start of Planning, County, and State Approval Process		January 2016
County and State Site Application Approval Complete	10 months	November 2016
60 Percent Design Complete (Submittal to State for Approval)	5 months	April 2017
Final Design Complete	2 months	June 2017
State Approval Complete – Cleared for Construction	N/A	July 2017
Permitting and Construction	9 months	April 2018
Startup and Commissioning (Initial Phase 1)	N/A	April 2018
Planning and Design (Second Phase of Phase 1)	N/A	June 2020 ¹
Startup and Commissioning (Second Phase of Phase 1)	N/A	2021 ¹
Total Project Duration (Initial Phase 1)	27 months	

¹These dates are based on the absorption schedule provided in Table 2-2 and may be modified in the future based on the rate of development.

The total duration assumes 10 months for planning, County, and State approvals, 7 months for design (starting November 2016), 9 months for Phase 1 construction, and 2 months for startup and commissioning (beginning May 2018). The new WWTP will have to be operational prior to residents moving into the community.

The second phase of the project, which will include an equalization basin and a second treatment process train, will be constructed when the WWTP reaches approximately 125,875 gpd influent flow; ninety-five percent of the WWTP permitted capacity. Planning and design of the second phase of the project is expected to occur in mid-2020, at approximately eighty percent of the WWTP permitted capacity, in accordance with the absorption schedule presented in Section 2.

Section 6

References

Acob, Tristan (March 2016). PEL 200456, Prosper WWTF Preliminary Effluent Limit.

CDPHE, 2002. Nutrient Criteria Development Plan for Colorado published by the Colorado Department of Public Health and Environment (CDPHE) on September 26, 2002.

CDPHE, 2008c. Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment Policy No. WQP-23 dated July 3, 2008.

CDPHE, 2010. Aquatic Life Use Attainment – Methodology to Determine Use Attainment for Rivers and Streams, Policy Statement 10-1, CDPHE, October 12, 2010

CDPHE, 2012a. Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD) Water Pollution Control Policy No. WPC-DR-1, **“State of Colorado Design Criteria for Domestic Wastewater Treatment Works.”**

CDPHE, 2012b. Regulation No. 85 – The Nutrients Management Control Regulation (5CCR 1002-85 Effective September 30, 2012. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2012c. Regulation No. 93 – **Colorado’s Section 303(d) List of Impaired Waters and Monitoring and Evaluation List** (5CCR 1002-93 Effective March 30, 2012. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2013. Regulation No. 31 – The Basic Standards and Methodologies for Surface Water (5CCR 1002-31 Effective January 31, 2013. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2013. Regulation No. 84 – Reclaimed Water Control Regulation (Effective July 30, 2013. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2014. Regulation No. 38 – Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin (5CCR 1002-38 Effective June 30, 2014). Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

Clarion Associates Department of Development Services and Infrastructure Management Planning Division (June 19, 2001). Arapahoe County Comprehensive Plan. <https://www.arapahoegov.com/DocumentCenter/View/330>

Colorado Department of Public Health and Environment (September 15, 2012). Design Criteria for Domestic Wastewater Treatment Works, (CDPHE WQCD document number WPC-DR-1), Denver, Colorado.

Colorado Division of Water Resources, Department of Natural Resources AquaMap (June 2016). 1-mile and 5-mile Vicinity Maps.

Dewberry Engineers, Inc (May 2016). Prosper Water Treatment Plan Arapahoe County 1041 Application Submittal, Denver, Colorado.

Engineering News Record (October, 2013). Construction Economics, McGraw-Hill, New York, New York.

Federal Emergency Management Agency (2010). Flood Insurance Rate Map, Weld County Colorado. Washington, D.C.

Googlemaps.com (2016). Map of area surround Prosper development. www.googlemaps.com

HRS Water Consultants, Inc. (January 2014). Prosper, Colorado Water Supply Plan Report.

International Code Council (2012). International Building Code (IBC), Falls Church, Virginia.

Metcalf and Eddy, Inc. (2003). Wastewater Engineering: Treatment and Reuse, McGraw Hill, New York, New York.

National Fire Protection Association (2012). NFPA 820: Standard for Fire Protection in Wastewater Treatment and Collection Facilities, Quincy, Massachusetts.

Sprague, L.A. and Battaglin W.A. (January 2005). Wastewater Chemicals in Colorado Streams and Ground Water, Fact Sheet 2004–3127, U.S. Geological Survey, Lakewood, Colorado.

USA.com, 2015. Watkins, CO Weather, Annual Average Temperature and Precipitation, <http://www.usa.com/watkins-co-weather.htm>

U.S. Fish and Wildlife, 2015a. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>

U.S. Fish and Wildlife, 2015b. Endangered Species Black-Tailed Prairie Dog. <http://www.fws.gov/mountain-prairie/species/mammals/btprairiedog/>

United States Environmental Protection Agency, 2001. Nutrient Criteria Recommendations and EcoRegions Criteria Documents. Published in Federal Register on January 9, 2001.

United States Environmental Protection Agency, 2002. Summary Table for the Nutrient Criteria Documents, http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/2007_09_27_criteria_nutrient_ecoregions_umtable.pdf

United States Environmental Protection Agency (August 2010). Treating Contaminants of Emerging Concern, A Literature Review Database, EPA-820-R-10-002, Office of Water, Washington, DC.

United States Environmental Protection Agency, 2015. Title 40 Protection of Environment, Subchapter O, Part 503 Standards for the Use or Disposal of Sewage Sludge. <http://www.ecfr.gov/cgi-bin/text-idx?SID=bab8d75ab37a4739906a4662399e7a4c&mc=true&node=pt40.30.503&rgn=div5>.

Vogel & Associates (October 2014). Prosper Arapahoe County 1041 Application.

Water Environment Federation (2010). Design of Municipal Wastewater Treatment Plants, WEF Manual of Practice No. 8, Water Environment Federation, Alexandria, Virginia.

Appendix A

Floodplain Figures

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.
COUNTY OF ARAPAHOE, STATE OF COLORADO



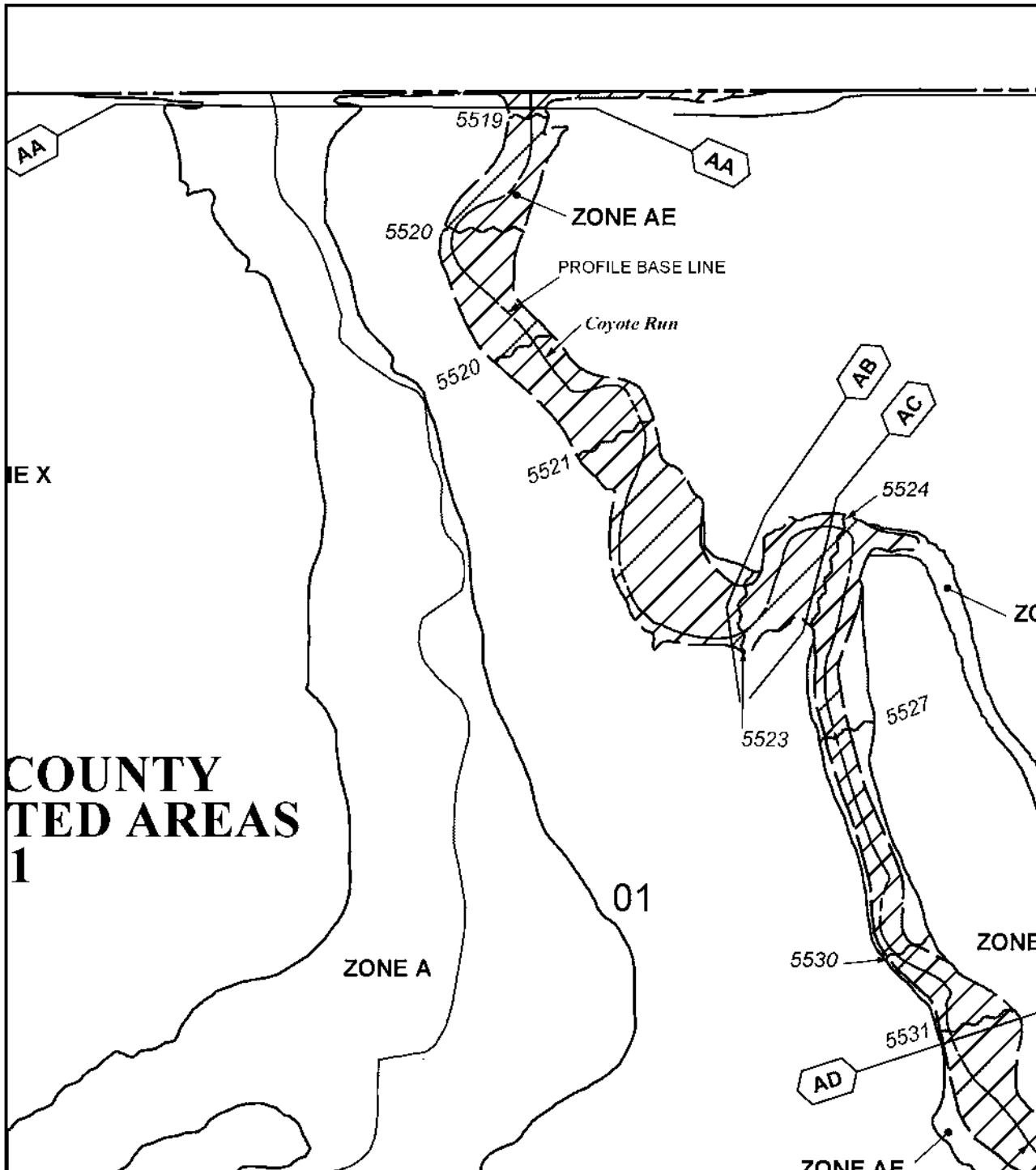
Revision Date:



Scale in Feet



VOGEL & ASSOCIATES
475 W. 12th Avenue - Suite E
Denver, Colorado 80204-3688
(303) 893-4288



MAP SCALE 1" = 500'

250 0 500 1000 FEET
METERS

INFIP

PANEL 0226K

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
ARAPAHOE COUNTY,
COLORADO
AND INCORPORATED AREAS

PANEL 226 OF 725

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ARAPAHOE COUNTY	080011	0226	K
AURORA CITY OF	080002	0226	K

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
08005C0226K

MAP REVISED
DECEMBER 17, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix B

Geotechnical Report



Kumar & Associates, Inc.
Geotechnical and Materials Engineers
and Environmental Scientists



2390 South Lipan Street
Denver, CO 80223
phone: (303) 742-9700
fax: (303) 742-9666
email: kadenver@kumarus.com
www.kumarus.com

Office Locations: Denver (HQ), Colorado Springs, Fort Collins, and Frisco, Colorado

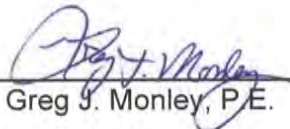
GEOTECHNICAL ENGINEERING STUDY
AND PAVEMENT THICKNESS DESIGN
PROPOSED WASTEWATER TREATMENT PLANT
SOUTH OF INTERSTATE 70 AND
EAST OF HUDSON ROAD
WATKINS, COLORADO

Prepared By:

Joshua L. Barker, P.E.



Reviewed By:


Greg J. Monley, P.E.

Prepared For:

VREI, Inc.
5641 North Broadway
Denver, Colorado 80216

C/O: Mr. Jeff Vogel

Project No. 16-3-126

May 20, 2016

TABLE OF CONTENTS

SUMMARY	1
PURPOSE AND SCOPE OF WORK	2
PROPOSED CONSTRUCTION	2
SITE CONDITIONS	3
SUBSURFACE CONDITIONS	3
LABORATORY TESTING	4
GEOTECHNICAL ENGINEERING CONSIDERATIONS	5
FOUNDATION RECOMMENDATIONS	8
FLOOR SLABS	10
SEISMIC DESIGN CRITERIA	13
FOUNDATION WALLS AND RETAINING STRUCTURES	13
WATER SOLUBLE SULFATES	14
BURIED METAL CORROSION	14
SURFACE DRAINAGE	15
SITE GRADING	16
UNDERDRAIN SYSTEM	20
PAVEMENT DESIGN	21
DESIGN AND CONSTRUCTION SUPPORT SERVICES	24
LIMITATIONS	25

FIG. 1 – LOCATION OF EXPLORATORY BORINGS

FIGS. 2 through 4 – LOGS OF EXPLORATORY BORINGS, LEGEND AND NOTES

FIGS. 5 through 7 – SWELL-CONSOLIDATION TEST RESULTS

FIG. 8 – RESISTIVITY TEST RESULTS

TABLE I – SUMMARY OF LABORATORY TEST RESULTS

APPENDIX A – RE-DOX and SULFIDES TEST RESULTS

SUMMARY

1. A total of 20 exploratory borings were drilled for this study. The borings generally encountered a few inches of topsoil underlain by about 2 to 9 feet of fill material. The upper 1 to 2 feet of fill likely lies within the till zone of the agricultural field. Fill materials below the till zone are likely the result of sedimentation deposits associated with the nearby drainages. The fill materials were underlain by natural predominantly clayey overburden soils containing frequent interbeds of silty sand to poorly graded sand with silt. The natural overburden soils continued to the explored depths of about 20 to 30 feet in fifteen of the borings. The remaining five borings encountered claystone bedrock underlying the natural overburden soils at depths ranging from about 28 to 36 feet below the existing ground surface. The claystone bedrock continued to the explored depths in these borings ranging from about 30 to 40 feet.

Groundwater was encountered in five of the borings at the time of drilling at depths ranging from about 27 to 29 feet below the ground surface. Subsequent water level measurements made 14 days after drilling encountered groundwater in seven of the borings at depths ranging from about 21 to 27 feet.

2. Shallow spread footing foundations are feasible for structures on the site. Footings should be designed for a net allowable bearing pressure of 3,000 psf when placed on at least 6 feet of properly compacted structural fill material extending to natural soils. Additionally, the spread footings should be designed to provide a minimum of 800 psf dead load pressure to the bearing surface.
3. Slab-on-grade construction will be acceptable across the site. Overexcavation and replacement will be necessary due to nil to moderate swell potential combined with low swell potential.
4. Structures which are laterally supported and can be expected to undergo only a moderate amount of deflection should be designed for an at-rest lateral earth pressure computed on the basis of an equivalent fluid unit weight of 70 pcf for backfill consisting of the on-site soils and 65 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria. Cantilevered retaining structures which can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 55 pcf for backfill consisting of the on-site soils and 40 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria.
5. We recommend that all pavement sections be underlain by at least 3 feet of properly compacted fill material. The following table presents the minimum pavement thickness recommendations for this facility and roadways.

Paved Area	Full Depth Asphalt (inches)	Composite Section Asphalt/ABC (inches)	PCCP (inches)
Light Duty	6	3.5 / 8.0	6.0
Heavy Duty	7.5	5.0 / 9.0	7.0

ABC – Aggregate Base Course

PCCP – Portland Cement Concrete Pavement

PURPOSE AND SCOPE OF WORK

This report presents the results of a geotechnical engineering study for the proposed Watkins Wastewater Treatment Plant (WWTP) to be associated with the proposed Prosper Development located south of Interstate 70 (I-70) and east of Hudson Road in Watkins, Colorado. The project site is generally shown on Fig. 1. The study was conducted for the purpose of developing recommendations for foundations, floor slabs, site grading and pavements. The study was conducted in accordance with the scope of work presented in our Proposal No. P3-16-153 dated April 12, 2014.

A field exploration program consisting of exploratory borings was conducted to obtain information on subsurface conditions. Samples of the soils and bedrock obtained during the field exploration program were tested in the laboratory to determine their classification and engineering characteristics. The results of the field exploration program and laboratory testing were analyzed to develop geotechnical engineering recommendations for use in site earthwork and in design and construction of the proposed structures.

This report has been prepared to summarize the data obtained during this study and to present our conclusions and recommendations based on the proposed construction and the subsurface conditions encountered. Design parameters and a discussion of geotechnical engineering considerations related to construction of the proposed structures are included in the report.

PROPOSED CONSTRUCTION

The WWTP is being constructed to serve the proposed Prosper Development. The site plan that we have been provided indicates that the WWTP will consist of the following structures:

Building	Approximate Area (Sq. Ft.)
Admin/Lab	9,600
Aeration Basins	23,492
Headworks	3,246
Pumping Station	5,335
Clarifiers (4)	8,714
UV/Reuse	2,382
Digester Blower	1,976
Digesters (2)	13,489
Solids Handling	1,121
Shop	3,000

Based upon the site plan provided, it appears that many of the structures will have finished floor elevations and exterior ground surface elevations higher than the existing ground surface by nil to about 9 feet. Additionally, there will be a network of paved roadways and parking areas planned to connect the structures on the site as well as connecting the site to a proposed roadway to be constructed near the southeast corner of the site

If the proposed construction varies significantly from that described above or depicted in this report, we should be notified to reevaluate the recommendations provided herein.

SITE CONDITIONS

At the time of our field exploration program, the site was vacant of structures and was harvested agricultural ground. The project site is bounded on the east and west by identified drainage ways. Specifically, the Urban Drainage and Flood Control District (UDFCD) has identified the drainage immediately to the west as the Rat Run drainage and the drainage to the east is identified as the Coyote Run drainage. Neither drainage had water flowing at the time of drilling. Both drainages appeared to flow towards the north. A church and cemetery were located immediately east of the Coyote Run drainage. Interstate 70 generally formed the northern site boundary. Agricultural fields surrounded the site in all remaining directions. The project site appeared to have a gentle slope down towards the north and west, although moderate slopes were noted near the two drainages the flanked the site.

SUBSURFACE CONDITIONS

The subsurface conditions at the site were explored by drilling a total of 20 exploratory borings to depths ranging from about 20 to 40 feet at the approximate locations shown on Fig. 1. Graphic logs of the borings are presented on Figs. 2 and 3, and a legend and notes describing the soils encountered are presented on Fig. 4.

Subsurface Soil Conditions: The borings generally encountered a few inches of topsoil underlain by about 2 to 9 feet of existing fill material. The upper 1 to 2 feet of existing fill likely lies within the till zone of the agricultural field. Fill materials below the till zone do not appear to be man-placed and are likely the result of sedimentation deposits associated with the nearby drainages. The fill materials were underlain by natural predominantly clayey overburden soils containing occasional granular lenses. The natural overburden soils continued to the explored depths of about 20 to 30 feet in fifteen of the borings. The remaining five borings (Borings 12,

14 through 16, and 17) encountered claystone bedrock underlying the natural overburden soils at depths ranging from about 28 to 36 feet below the existing ground surface. The claystone bedrock continued to the explored depths in these borings ranging from about 30 to 40 feet.

The fill material consisted of lean clay to sandy lean clay and appeared to be on-site or transported to the site from nearby locations by either natural forces or by mechanized equipment. The fill materials ranged from slightly moist to moist and were light brown to brown. The lateral extent and depth of existing fill beyond the borings, and degree of compaction of the existing fill materials are not known. However, based on sampler penetration resistance, the existing fills generally appeared to have highly varied compaction ranging from well below to near the assumed maximum dry density of the material.

The natural overburden soils generally consisted of lean clay to clayey sand with occasional silty and/or sandy lenses and layers. The natural soils were fine to coarse grained and moist to wet below groundwater, and ranged from light brown to brown. Based on sampler penetration resistance, the natural clayey soils were medium to hard in consistency and the granular soils were medium dense to dense. The claystone bedrock was fine grained, moist and was weathered to hard consistency. The claystone bedrock ranged from blue to gray.

Groundwater Conditions: Groundwater was encountered in five of the borings at the time of drilling at depths ranging from about 27 to 29 feet below the ground surface. Subsequent water level measurements made 14 days after drilling encountered groundwater in seven of the borings at depths ranging from about 21 to 27 feet. Groundwater levels are expected to fluctuate with time, and may fluctuate upward after wet weather or subsequent to landscape irrigation. Given the occasional granular lenses and layers encountered in the borings, it is also possible that localized seasonal perched groundwater conditions could exist at varying depths above those encountered or measured during this study.

LABORATORY TESTING

Laboratory testing was performed on selected soil samples obtained from the borings to determine in-situ soil moisture content and dry density, Atterberg limits, gradation characteristics, swell-consolidation characteristics, and concentration of water soluble sulfates. The results of the laboratory tests are shown to the right of the logs on Figs. 2 through 4 and summarized in Table I. The results of specific tests are graphically plotted on Figs. 5 through 8. The testing was conducted in general accordance with recognized test procedures, primarily those of the American Society for Testing of Materials (ASTM).

Swell-Consolidation: Swell-consolidation tests were conducted on selected samples of the overburden soils in order to evaluate their compressibility and swell characteristics under loading and when submerged in water. Each sample was prepared and placed in a confining ring between porous discs, subjected to a surcharge pressure of 1,000 psf, and allowed to consolidate before being submerged. The sample height was monitored until deformation practically ceased under each load increment.

Results of the swell-consolidation tests are plotted as a curve of the final strain at each increment of pressure against the log of the pressure and are presented on Figs. 5 through 7. Based on the results of the laboratory swell-consolidation testing, samples of the natural soils generally exhibited a low to moderate potential for additional compression to a moderate swell potential upon wetting. Based on the sampler penetration resistance values and in-situ dry densities of the samples and our experience, we believe that the additional compression exhibited by some of the samples upon wetting was largely the result of sample disturbance and likely does not represent the actual compressibility of the on-site soils; however, the contractor and should be aware that there is a potential for collapsible soils and if encountered need to be addressed per the recommendations in the site grading section of this report. A sample of the claystone bedrock also exhibited moderate swell potential when loaded and wetted under similar conditions.

Index Properties: Samples were classified into categories of similar engineering properties in general accordance with the Unified Soil Classification System. This system is based on index properties, including liquid limit and plasticity index and gradation characteristics. Values for moisture content, dry density, liquid limit and plasticity index, and the percent of soil passing the U.S. No. 4 and No. 200 sieves are presented in Table I and adjacent to the corresponding sample on the boring logs.

GEOTECHNICAL ENGINEERING CONSIDERATIONS

Based on conditions encountered in the borings, it appears that the site has about 28 to 36 feet of fill and natural clayey overburden soils that exhibit low to moderate swell potential. The site, in its present condition, is considered unsuitable for support of foundations, slab-on-grade floors, and pavements. The existing fills are considered non-engineered and unsuitable in their current state for support of foundations and slab-on-grade. The existing soils, including the

existing fills, and the underlying bedrock exhibited a potential to swell. Our experience in the area also indicates that there can be soils and bedrock with high swell potential.

In our opinion, with proper site preparation, shallow spread footing foundations and slab-on-grade construction should be feasible. Proper site preparation should include complete removal of existing non-engineered fills where present within the proposed building footprints and beneath other structures, down to the natural soils and replacement with compacted structural fill. Although complete removal would be preferable beneath pavement areas, partial removal of existing fills below planned pavement subgrade may be considered provided the Owner accepts the potential for pavement settlement and associated distress that could occur over time if and where existing fills are left in place and not replaced by properly compacted fill.

Site preparation should also include providing a layer of compacted structural fill below spread footing foundations and slab on grade floors. Including a minimum thickness of structural fill would result in more uniform bearing conditions beneath footings and floor slab support, and in more predictable foundation settlement. Depending on site finished grades, some overexcavation into natural soils may be required in places.

Excavated existing fills and natural overburden soils should be suitable for use as site grading fill and may be suitable for use as structural fill beneath buildings and other structures provided they can be properly moisture conditioned and compacted. Claystone may be suitable for use as site grading fill provided the claystone has a maximum size of 2 inches, a liquid limit less than 40 and can be broken down into a soil-like consistency, but claystone should not be used for structural fill beneath buildings or other structures, and should not be used as compacted fill within two feet of the subgrade elevation in pavement or exterior flatwork areas.

Heave Potential Considerations: Potential slab movements can be mitigated to a certain degree by providing a zone of non- to low-swelling, low-permeability structural fill directly beneath the slab. Heave estimate calculations can be useful in evaluating the relative effectiveness of varying the thickness of an underslab fill layer. However, such calculations cannot address the uncertainty in the potential depth and degree of wetting that may occur under a floor slab, or the variability of swell potential across a site, which is frequently erratic. We have performed calculations to demonstrate the potential for slab movement if the underslab soils should be thoroughly wetted to significant depth below the depth of the structural fill layer.

The following table presents estimates of potential heave based on the results of swell-consolidation tests using analysis methods generally accepted for assessing heave potential in the Colorado Front Range. Both depth of wetting and depth of structural fill were considered as variables in the analysis.

ALTERNATIVE	SLAB HEAVE IN INCHES		
	10 feet wetting	15 feet wetting	20 feet wetting
No Structural Fill Layer	4.1	5.4	6.5
5 feet of M/C	2.0	3.3	4.4
9 feet of M/C	1.1	2.4	3.5
4 feet N/E over 5 feet M/C	0.7	2.0	3.1

M/C = Moisture Conditioned On-Site soil

N/E = Imported Non-Expansive Fill

The heave potential calculations demonstrate that significant heave should be expected if wetting of untreated underslab soils occurs to significant depth below the bottom of the underslab fill layer. However, our experience indicates that the large majority of similar structures underlain by similar subsoils do not experience extreme moisture increases in the underslab soils to significant depth provided that good surface and subsurface drainage is designed, constructed, and maintained, and that good irrigation practices are followed. However, wetting can also occur as a result of unforeseeable influences such as plumbing breaks, or in some cases even due to off-site influences such as flooding of the nearby drainages.

Proper surface drainage during and after construction is very important to mitigate wetting of the subgrade soils. We recommend that landscape areas adjacent to the building be provided with the maximum slope possible to promote good surface drainage. A means of allowing water to readily leave the landscape areas, such as drain pans or chases through a sidewalk, are recommended. All efforts possible should be made to ensure that surface water on the site is allowed to sheet-flow to an off-site location such as a storm sewer inlet or water quality pond located as far from the building as possible. It is critical to the performance of the structure and surrounding pavement that the pavement surfaces be properly maintained. Proper maintenance may include sealing of cracks that appear in the pavement surface. More aggressive cleaning and sealing techniques may be required if larger cracks develop.

Considering the above discussion, we believe slab-on-grade construction may be used for the project, provided that the risk of slab movement and associated distress is recognized and

accepted by the owner, and the measures herein are taken to reduce the damage which could result from movement should the underslab materials be subjected to excessive moisture increases. The intent of our recommendations is to provide for a condition where there is a good chance slab heave movements will not exceed 1 inch and it is unlikely they will exceed 2 inches unless extreme wetting is allowed. Barring unforeseen events, we do not believe extreme wetting is likely to occur if the surface drainage and irrigation recommendations presented in this report are followed. It is also very important to provide the recommended isolation between the structure and the slab-on-grade floors to reduce damage in the event that heaving occurs. Slab-on-grade floors should not be used if architectural finishes that will not tolerate upward slab movement are planned.

For the slab on grade alternative, we recommend the existing expansive soils be overexcavated to a depth of at least 9 feet below the floor slab subgrade elevation. The lower 5 feet of the zone of subexcavation should consist of moisture conditioned on-site overburden soils. The upper 4 feet of the zone of subexcavation should consist of imported non-expansive material meeting the criteria presented in the "Site Grading" section of this report. All fill materials should be placed and compacted according to the material and placement criteria presented in the "Site Grading" section of this report. The zone of subexcavation should extend laterally outside of all building lines a minimum of 10 feet.

FOUNDATION RECOMMENDATIONS

The design and construction criteria presented below should be observed for a spread footing foundation system. The construction details should be considered when preparing project documents.

1. Considering the subsurface conditions encountered in the exploratory borings and the nature of the proposed construction, and the results of heave potential calculations discussed above, we recommend the structures be founded on spread footings placed on at least 6 feet of properly compacted structural fill extending to natural soils.. Areas of loose or soft material or existing fill encountered within the foundation excavation should be removed and replaced with structural fill meeting the material and placement requirements outlined in the "Site Grading" section of this report. New structural fill should extend down from the edges of the footings at a 1 horizontal to 1 vertical projection.

2. Footings supported on properly compacted structural fill as recommended herein should be designed for an allowable soil bearing pressure of 3,000 psf and a minimum dead load pressure of 800 psf. In order to satisfy the minimum dead load pressure and minimum footing width criteria recommended herein, it may be necessary to concentrate loads by using a grade beam and pad or similar foundation design. If this system is used, a void should be provided beneath the grade beams between pads.
3. Spread footings placed on natural soils or properly compacted structural fill should have a minimum footing width of 16 inches for continuous footings and 24 inches for isolated pads.
4. Based on experience, we estimate total settlement for footings designed and constructed as discussed in this section will be 1 inch or less. Differential settlements across the building footprints are estimated to be approximately $\frac{1}{2}$ to $\frac{3}{4}$ of the total settlement.
5. Exterior footings and footings beneath unheated areas should be provided with adequate soil cover above their bearing elevation for frost protection. Placement of foundations at least 36 inches below the exterior grade is typically used in this area.
6. The lateral resistance of a spread footing placed on properly compacted structural fill material will be a combination of the sliding resistance of the footing on the foundation materials and passive earth pressure against the side of the footing. Resistance to sliding at the bottoms of the footings can be calculated based on a coefficient of friction of 0.3. Passive pressure against the sides of the footings can be calculated using an equivalent fluid unit weight of 190 pcf. These lateral resistance values are working values.

Compacted fill placed against the sides of the footings to resist lateral loads should consist of on-site material moisture conditioned to within 0 to +3 percentage points above the optimum moisture content, or imported non-expansive material moisture conditioned to +/- 2 percentage points of optimum moisture content, and compacted to at least 95% of the standard Proctor (ASTM D 698) maximum dry density.

7. Care should be taken to provide adequate surface drainage during the excavation of footings, and the contractor should have equipment available for removing water from

excavations following precipitation, if needed. Footing excavations that are inundated as a result of uncontrolled surface runoff may soften, requiring possible moisture conditioning and recompaction of the exposed subgrade soils, or removal of soft subgrade soils and replacement with new compacted structural fill.

8. Areas of loose and/or soft material or deleterious substances encountered within the foundation excavation should be removed and the footings extended to adequate natural bearing material. Alternatively, the loose and/or soft material or deleterious substances may be removed and replaced compacted as outlined in the "Site Grading" section of this report. New fill should extend down from the edges of the footings at a 1 horizontal to 1 vertical projection.
9. The results of our field exploration indicate existing non-engineered fill may be encountered in foundation excavations below the proposed foundation bearing elevations. The existing fill material should be removed and the footings extended to adequate natural bearing material. As an alternate, the existing fill may be removed and replaced with properly compacted structural fill as outlined in the "Site Grading" section of this report. New fill should extend down from the edges of the footings at a 1 horizontal to 1 vertical projection.
10. Care should be taken when excavating the foundations to avoid disturbing the supporting materials
11. A representative of the geotechnical engineer should observe all footing excavations, observe and test compaction, and evaluate the suitability of all fill materials prior to concrete placement.

FLOOR SLABS

Floor slabs present a difficult problem where expansive soils are present near floor slab elevation because sufficient dead load cannot be imposed on them to resist the uplift pressure generated when the materials are wetted and expand. Based on the moisture-volume change characteristics of the clayey soils encountered, a structural floor above a well-ventilated void or crawl space would provide the most effective method of mitigating the risk of floor slab movement. The floor would be supported on grade beams and piers the same as the building structure.

Considering the type of development planned and cost factors associated with structural floors, slab-on-ground construction may be considered as an alternative for the floor slabs provided the increased risk of distress resulting from floor slab movement is accepted by the owner. The “Geotechnical Engineering Considerations” section of this report provides discussion of potential heaving movement magnitudes to help the owner evaluate the risk potential and aid in the decision making process. If slab on grade is selected, we recommend providing a minimum of 9 feet of properly compacted structural fill below the floor slab as discussed above.

The following measures should be taken to reduce damage that could result from movement should the underslab materials be subjected to moisture changes.

1. Floor slabs should be separated from all bearing walls and columns with expansion joints that allow unrestrained vertical movement.
2. Interior nonbearing partitions resting on floor slabs should be provided with slip joints so that, if the slabs move, the movement cannot be transmitted to the upper structure. This detail is also important for wallboards, stairways and door frames. Slip joints which will allow at least 2 inches of vertical movement are recommended.

If wood or metal stud partition walls are used, the slip joints should preferably be placed at the bottoms of the walls so differential slab movement won't damage the partition wall. If slab bearing masonry block partitions are constructed, the slip joints will have to be placed at the tops of the walls. If slip joints are provided at the tops of walls and the floors move, it is likely the partition walls will show signs of distress, such as cracking. An alternative, if masonry block walls or other walls without slip joints at the bottoms are required, is to found them on grade beams and piers and to construct the slabs independently of the foundation. If slab bearing partition walls are required, distress may be reduced by connecting the partition walls to the exterior walls using slip channels. Floor slabs should not extend beneath exterior doors or over foundation grade beams, unless saw cut at the beam after construction.

3. Floor slab control joints should be used to reduce damage due to shrinkage cracking. Joint spacing is dependent on slab thickness, concrete aggregate size, and slump, and should be consistent with recognized guidelines such as those of the Portland Cement Association (PCA) or American Concrete Institute (ACI). We suggest joints be provided

on the order of 12 to 15 feet apart in both directions. The requirements for slab reinforcement should be established by the designer based on experience and the intended slab use.

4. If moisture-sensitive floor coverings will be used, mitigation of moisture penetration into the slabs, such as by use of a vapor barrier, may be required. If an impervious vapor barrier membrane is used, special precautions will be required to prevent differential curing problems which could cause the slabs to warp. This topic is addressed by ACI 302.1R.
5. All plumbing lines should be tested before operation. Where plumbing lines enter through the floor, a positive bond break should be provided. Flexible connections should be provided for slab-bearing mechanical equipment.

The precautions and recommendations itemized above will not prevent the movement of floor slabs if the underlying expansive materials are subjected to moisture increases. However, the precautions should reduce the damage if such movement occurs.

Exterior Flatwork: It is extremely important that exterior slabs-on-grade and pavements be isolated from the building foundations. Many expansive soil related problems are related to ineffective isolation between pavements/floor slabs and foundation-supported components of structures. Careful design detailing is necessary at locations such as exterior stairway landings and entry points.

Exterior flatwork adjacent to structures that is relatively sensitive to movement, such as entry areas, should be overexcavated and provided with underslab fill of the same type and to the same depth as for the building slabs. Less sensitive areas of flatwork, such as sidewalks away from doorways and flatwork away from buildings, may be prepared the same as pavement subgrade areas as recommended below.

Our experience with buildings and construction similar to this project indicate that interior floor slabs are frequently analyzed assuming a soil resistance pressure distribution. Soil resistance pressure distribution should be computed using a method which models the soil-structure interaction, such as the beam on an elastic foundation procedure. A modulus of vertical subgrade reaction equal to 110 pci may be used for the on-site or structural fill placed as recommended in the "Site Grading" section of this report. The modulus value given is for a 1-

foot square plate and must be corrected for mat shape and size. It should be noted that the modulus value provided is for soils located interior to the building that will not undergo significant moisture changes or be subjected to freeze thaw cycles.

SEISMIC DESIGN CRITERIA

The Colorado Front Range is located in a low seismic activity area. The soil profile will generally consist of about 28 to 36 feet of relatively stiff overburden soils overlying claystone bedrock. It is assumed that the bedrock materials extend to depths greater than 100 feet. The overburden soils classify between Site Class C and Site Class D in accordance with International Building Code (IBC) 2012, which references ASCE 7 – 2010 for Seismic Site Class determination. The bedrock at the site will classify as Site Class C. Based on our experience with similar profiles (including shear wave velocities measured for similar subsurface profiles), and the weighted average of estimated shear wave velocities calculated for the upper 100 feet of the site, we recommend a design soil profile of IBC Site Class C be used for design. Based on site seismicity, the subsurface profile, and the depth to groundwater, liquefaction is not a design consideration.

FOUNDATION WALLS AND RETAINING STRUCTURES

Structures which are laterally supported and can be expected to undergo only a moderate amount of deflection should be designed for an at-rest lateral earth pressure computed on the basis of an equivalent fluid unit weight of 70 pcf for backfill consisting of the on-site clayey soils and 65 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria.

Cantilevered retaining structures which can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 55 pcf for backfill consisting of the on-site predominantly granular soils and 40 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria.

All foundation and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent buildings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. The buildup of water behind a wall or an upward sloping backfill surface will increase the lateral pressure imposed on a foundation wall or retaining structure.

We recommend free-draining granular soils be used to construct a 1-foot thick drainage zone behind the walls. Geotextile drainage boards adhered to the walls may be used in lieu of the free-draining granular soils. The drainage zone should be incorporated in the underdrain system. Subsurface drainage recommendations are discussed in more detail in the "Underdrain System" section of this report.

The zone of backfill used behind foundation and retaining walls should be sloped from the base of the wall at an angle of at least 45 degrees from the vertical. The upper 1 to 2 feet of the wall backfill should be a relatively impervious soil or a pavement or flatwork structure should be provided to prevent surface water infiltration into the backfill.

On-site or imported fine-grained fill materials placed against the retaining structures should be a nonexpansive material.

Foundation and retaining wall backfill and fill placed against the sides of the footings to resist lateral loads should be placed and compacted according to the criteria presented in the "Site Grading" section of this report.

WATER SOLUBLE SULFATES

The concentration of water soluble sulfates measured in samples of the overburden soils obtained from the exploratory borings ranged from 0.0% to 0.01%. These concentrations of water soluble sulfates represent a Class 0 to Class 1 severity exposure to sulfate attack on concrete exposed to these materials. The degree of attack is based on a range of Class 0, Class 1, Class 2, and Class 3 severity exposure as presented in ACI 201.

Based on the laboratory data and our experience, we recommend all concrete exposed to the on-site materials meet the cement requirements for Class 1 exposure as presented in ACI 201. Alternatively, the concrete could meet the Colorado Department of Transportation's (CDOT) cement requirements for Class 1 exposure as presented in Section 601.04 of the CDOT Standard Specifications for Road and Bridge Construction (2011).

BURIED METAL CORROSION

The potential corrosive environment for metal placed beneath the ground surface at the site was evaluated based on data collected during our field exploration and criteria presented in the

Handbook of Steel Drainage and Highway Construction Products published by the American Iron and Steel Institute. The data includes soil group classification, electrical resistivity, limited chemical analysis, and Redox potential.

The soils encountered predominantly consist of clayey materials with water contents generally less than 20%. The general characteristics of the soils and bedrock indicate they are “Badly” corrosive.

Electrical resistivity measurements conducted at the site indicate minimum resistivity values of between 204 and 379 ohm-centimeters with in-situ resistivity values of between 350 and 530 ohm-centimeters. Soil resistivities of less than 2,000 ohm-centimeters are classified as having bad corrosion resistance.

Non-detect conditions were found for chlorides when two samples were tested. Results of Redox testing and sulfides testing indicated a redox potentials ranging from 222 to 254 mv and a negative on sulfides. Results of the Redox and sulfides testing are presented in Appendix A.

The data obtained in our study indicates the subsurface conditions will be strongly aggressive towards iron and other buried metals based on a scale published in "Corrosion of Building Materials" by Dietbert Knofel.

We recommend a qualified corrosion engineer review the information presented above to design an appropriate level of corrosion protection for buried metal.

SURFACE DRAINAGE

Proper surface drainage is very important for acceptable performance of site structures during construction and after the construction has been completed. Drainage recommendations provided by local, state and national entities should be followed based on the intended use of each structure. The following recommendations should be used as guidelines and changes should be made only after consultation with the geotechnical engineer.

1. Excessive wetting or drying of the foundation and slab subgrade(s) should be avoided during construction.
2. Exterior backfill meet the material and placement requirements outlined in the “Site Grading” section of this report.

3. Care should be taken when compacting around the foundation walls and underground structures to avoid damage to the structures. Hand compaction procedures, if necessary, should be used to prevent lateral pressures from exceeding the design values.
4. The ground surface surrounding the exterior of site structures should be sloped to drain away from the foundations in all directions. We recommend a minimum slope of 12 inches in the first 10 feet in unpaved areas. Site drainage beyond the 10-foot zone should be designed to promote runoff and reduce infiltration. A minimum slope of 3 inches in the first 10 feet is recommended in the paved areas. These slopes may be changed as required for handicap access points in accordance with the Americans with Disabilities Act.
5. The upper 2 feet of the backfill should be relatively impervious material compacted as recommended above to limit infiltration of surface runoff.
6. Ponding of water should not be allowed in backfill material or in a zone within 10 feet of the building foundations.
7. Roof downspouts and drains should discharge well beyond the limits of all backfill.
8. Landscaping which requires relatively heavy irrigation and lawn sprinkler heads should be located at least 10 feet from foundations. Irrigation schemes are available which allow placement of lightly irrigated landscape near foundation walls in moisture sensitive soil areas. Drip irrigation heads with main lines located at least 10 feet from the foundation walls are acceptable provided irrigation quantities are limited.
9. Plastic membranes should not be used to cover the ground surface adjacent to foundation walls.

SITE GRADING

Based upon the existing topography and planned site finished grades, as indicated on Fig. 1, site grading will result in permanent cuts in the native soils ranging up to about 5 or 6 feet in depth, and site fills as thick as about 9 to 10 feet. In general, site grades will be elevated from the current elevations.

Cut and Fill Slopes: The site specifically and the area in general is gently to moderately sloping. Permanent unretained cuts in the overburden soils less than 20 feet in height should be sloped at 3 horizontal to 1 vertical, or flatter. For shallow cuts in the existing overburden soils, we do not anticipate seepage will be encountered; however, there is potential for seepage from perched water conditions.

Permanent fills up to 20 feet in height can be used if the fill slopes do not exceed 3 horizontal to 1 vertical and the fills are properly compacted. The ground surface underlying all fills should be carefully stripped to remove all organic matter, scarified to a minimum depth of 12 inches and compacting to 95% of the standard Proctor (ASTM D698) maximum dry density at moisture contents near optimum. Fills should be benched into existing slopes that are inclined greater than 4 horizontal to 1 vertical. The vertical bench height between horizontal benches should be between 2 feet and 3 feet.

Slope stability analyses should be performed to evaluate the stability of cut or fill slopes exceeding 20 feet. If a detailed stability analysis is required, we should be notified. The geotechnical engineer should also be notified if groundwater seepage is encountered in cut slopes during excavation to assess whether flatter slopes are necessary.

Good surface drainage should be provided around all permanent cuts and fills to direct surface runoff away from the slope faces. Fill slopes, cut slopes and other stripped areas should be protected against erosion by vegetation or other methods.

Temporary Excavations: We assume that the site excavations will be constructed by generally over-excavating the side slopes to a stable configuration where enough space is available. All excavations greater than 4 feet and less than 20 feet in depth should be constructed in accordance with OSHA requirements, as well as state, local and other applicable requirements. OSHA requires excavations or trenching over 20 feet deep be designed by a registered professional engineer.

The existing fills generally classify as OSHA Type C soils and the natural clayey soils generally classify as OSHA Type B soils.

If unstable soil conditions or groundwater are encountered, the geotechnical engineer should be notified so that additional recommendations can be provided, if necessary. Excavated slopes

may soften or loosen due to construction traffic and erode from surface runoff. Measures to keep surface runoff from excavation slopes, including diversion berms, should be considered.

Material Specifications: The following material specifications are presented for fills on the project site. A geotechnical engineer should evaluate the suitability of all proposed import fill material, if required, for the project prior to placement.

1. Structural Fill Beneath Building Foundations and Slabs: Fill placed beneath building foundations, floor slabs and exterior flatwork should consist of on-site overburden soils free of claystone bedrock. Imported soils meeting the criteria below area also acceptable for use as structural fill below foundation elements. (See Material Suitability below for import description and criteria).
2. Pavement Subgrade: Materials placed within 3 feet of the pavement subgrade elevation may consist of the on-site soils exclusive of claystone. Excavated, on-site claystone bedrock material may be used in deeper fills, outside of building limits, at depths greater than 3 feet from the proposed pavement subgrade elevation. Claystone bedrock, as well as other on-site materials not suitable for use as structural fill, may be used in fill areas outside of building footprints and pavement subgrades.
3. Pipe Bedding Material: Pipe bedding material should be a free draining, coarse grained sand and/or fine gravel. The on-site soils are generally non to very cohesive, fine grained soils and are susceptible to erosion and scour.
4. Aggregate Base Course: Material should be crushed stone, crushed slag, recycled concrete, crushed gravel or natural gravel which conforms to CDOT Specifications for Class 6 or Class 5 criteria for aggregate base course.
5. Utility Trench Backfill: Material excavated from the utility trenches may be used for backfill provided it does not contain unsuitable material or particles larger than 4 inches.
6. Material Suitability: The upper 4 feet of material placed below floor slabs and exterior flatwork should consist of an imported non-expansive material. Fills placed below that level, below foundation elements and pavements, and elsewhere on the site should consist of on-site soil satisfying requirements for properly compacted, moisture-conditioned on-site overburden soils presented below.

Imported non-expansive fill should contain less than 50% passing the No. 200 sieve, have a maximum liquid limit of 35 and a maximum plasticity index of 10. Also, the swell potential when remolded to 98% of the ASTM D 698 standard Proctor maximum dry density at optimum moisture content should be less than ½% under a 1,000 pcf surcharge pressure.

Imported fill to be used away from building or structure limits, if necessary, contain less than 70% passing the No. 200 sieve, have a maximum liquid limit of 40 and a maximum plasticity index of 15, and a maximum swell potential of 1% when remolded as described above.

All fill material should be free of vegetation, brush, sod and other deleterious substances and should not contain rocks, debris or lumps having a diameter of more than 4 inches. Rocks, debris or lumps should be dispersed throughout the fill and "nesting" of these materials should be avoided. The geotechnical engineer should evaluate the suitability of proposed import fill materials prior to placement.

Placement and Compaction Specifications: We recommend the following compaction criteria be used on the project:

1. *Moisture Content:* Compaction of all fill materials should be compacted as outlined below with moisture contents between 0 percentage point below the optimum moisture content and 3 percentage points above optimum moisture for clayey material and within -2 to +2 percentage points of optimum for granular soils.

The contractor should be aware that the on-site fine-grained soils used as on-site fill may become somewhat unstable and deform under wheel loads if placed near the upper end of the moisture range(s). Some fill instability is not a concern in deeper fills provided the required density is achieved; instability is a concern primarily in the upper 2 to 3 feet of pavement subgrade fill.

2. *Placement and Degree of Compaction:* Structural fill beneath foundations and slab-on-grade floors, fill adjacent to shallow spread footing foundations, and wall backfill should be placed in less than 8-inch loose lifts as necessary.

The following compaction criteria should be followed during construction:

	Percentage of Maximum Standard Proctor Density (ASTM D-698)
<u>Fill Location</u>	
Beneath Spread Footing Foundations	100%
Beneath Building Floor Slabs	
Fill less Than 8 Feet below finished grade	95%
Fill more Than 8 Feet below finished grade	98%
Adjacent to Spread Footing Foundations	95%
Wall Backfill	
Backfill Less than 8 Feet below finished grade	95%
Settlement Sensitive Areas	98% ¹
Exterior Backfill More than 8 Feet below finished grade	98% ¹
Beneath Pavements and Settlement-Sensitive Hardscape Areas	
Fill Less Than 8 Feet below finished grade	95%
Fill More Than 8 Feet below finished grade	98%
Utility Trenches	
Interior	95%
Exterior – Backfill Less Than 15 Feet thick	95%
Exterior - Backfill More Than 15 Feet Thick	98%
Landscape and Other Areas	95%
¹ Some difficulty could be encountered achieving adequate compaction with small equipment to avoid exerting excessive compaction stresses on walls.	

3. *Subgrade Preparation:* Areas receiving new fill should be prepared as recommended in specific sections of this report to provide a uniform base for fill placement. All other areas to receive new fill not specifically addressed herein should be scarified to a depth of at least 8 inches and recompact to at least 95% of the standard Proctor (ASTM D 698) maximum dry density at moisture contents recommended above.

A representative of the geotechnical engineer should observe and test fill placement. Structural fills beneath buildings and foundations should be observed and tested on a full-time basis. Full time observation and testing is a critical component to reducing the risk of post-construction settlement of the fills.

UNDERDRAIN SYSTEM

Although groundwater was measured at depth ranging from 21 feet to 27 feet, which we understand is several feet below the bottom of the proposed below-grade structures, exterior perimeter underdrains around those structures are recommended to drain water from irrigation, water-line breaks or infiltration following heavy precipitation. This is particularly important given the moderate swell potential of the clayey soils. We recommend that buildings and structures with below grade elements that extend below the finished ground surface elevation be protected by an underdrain system. Although groundwater was not encountered in our explorations at

depths near the assumed lower floor levels of the buildings, it has been our experience that local perched groundwater may develop above clay lenses and layers during times of heavy precipitation, snow melt, or seasonal irrigation. If an underdrain system is not constructed, the below ground walls should be designed for the full hydrostatic pressure conditions. We also recommend a standby pump be available to discharge water that may develop in the below ground areas.

The drain system should consist of rigid drainpipe placed in the bottom of a trench or the exterior side of the below grade parking structure and surrounded above the invert level with free-draining granular material that is wrapped in a non-woven filter fabric. Free-draining granular material used in the drain system should contain less than 5% passing the No. 200 sieve, less than 35% passing the No. 4 sieve and have a maximum size of 2 inches. The free-draining backfill should be hydraulically connected to the drainage zone on the exterior face of the walls discussed above. The perimeter drains should be at least 4 inches in diameter. The drain lines should be placed at least 1 foot below the floor level and graded to sumps at a minimum slope of 1/2%. The granular underdrain system should be sloped to a sump or multiple sumps where water can be removed by pumping or gravity drainage. Given the depth of ground water below the below-grade structures, only small, periodic flows associated with irrigation, and possibly higher flows caused by flooding and/or water line breaks are anticipated. Therefore, sump pumps designed for a total capacity of about 10 gpm should be adequate. However, the sump pits and electrical power system for the pumps should be designed to accommodate larger pumps having a total capacity ranging up to 50 gpm to handle larger peak flows, if needed.

Standby pump capacity should be provided in the event of pump failure. We also believe an oversized pump capacity is desirable in the event groundwater conditions change.

PAVEMENT DESIGN

A pavement section is a layered system designed to distribute concentrated traffic loads to the subgrade. Performance of the pavement structure is directly related to the physical properties of the subgrade soils and traffic loadings. Soils are represented for pavement design purposes by means of a soil support value for flexible pavements and a modulus of subgrade reaction for rigid pavements. Both values are empirically related to strength.

Subgrade Materials: Based on the results of the field and laboratory studies, the majority of the subgrade materials at the site classify between A-2-4 and A-7-6 with group indices between 0

and 24 in accordance with the American Association of State Highway and Transportation Officials (AASHTO) classification. Soils classifying as A-2-4 and A-4 would generally be considered to provide fair subgrade support, while soils classifying as A-6 and A-7-6 would generally be considered to provide poor subgrade support. The probable subgrade soils are expected to consist primarily of compacted fill composed of material generally classifying as A-6 and A-7-6 soils. For design purposes, a resilient modulus value of 3,025 psi was selected for flexible pavements and a modulus of subgrade reaction of 40 pci was selected for rigid pavements.

Design Traffic: Since anticipated traffic loading information was not available at the time of this report preparation, an 18-kip equivalent single axle loading (ESAL) value of 73,000 was assumed for the paved parking surfaces and an ESAL of 219,000 was assumed for truck routes. The values are selected based on our past experience for facilities of this nature. We believe that the ESAL values of 36,500 and 219,000 should be considered to classify as Light Duty and Heavy Duty pavement sections, respectively. The Heavy Duty pavement section should be constructed in locations of heavy vehicular traffic movements such as truck and tanker routes.

If estimated daily traffic volumes for the development are known to be different from those assumed, we should be provided with this information in order to reevaluate the pavement sections provided below.

Pavement Design: The following table presents the minimum pavement thickness recommendations for this development.

Paved Area	Full Depth Asphalt (inches)	Composite Section Asphalt/ABC (inches)	PCCP (inches)
Light Duty	6	3.5 / 8.0	6.0
Heavy Duty	7.5	5.0 / 9.0	7.0

ABC – Aggregate Base Course
PCCP – Portland Cement Concrete Pavement

Truck loading docks, trash pick-up areas and other areas where truck turning movements are concentrated should be paved with 7 inches of Portland cement concrete. The concrete pavement should contain sawed or formed joints to $\frac{1}{4}$ of the depth of the slab at a maximum

distance of 12 feet on center. Concrete pavements may be a suitable alternative for parking lots, fuel center and delivery areas.

The above Portland cement concrete pavement thicknesses are presented as un-reinforced slabs. Based on projects with similar heavy vehicular loading, we recommend that dowels be provided at transverse and longitudinal joints within the slabs located in the travel lanes of heavily loaded vehicles. Additionally, curbs and/or pans should be tied to the slabs. The dowels and tie bars will help minimize the risk for differential movements between slabs to assist in more uniformly transferring axle loads to the subgrade. The Colorado Department of Transportation (CDOT) provides some guidance on dowel and tie bar placement in the current Standard Specifications for Road and Bridge Construction as well as in the current Standard Plans: M&S Standards. It is critical to the performance of the concrete pavement that the joints are properly sealed and maintained to minimize the infiltration of surface water, especially if dowels and tie bars are not installed.

The pavement thicknesses were calculated using the DARWin™ software program based on the design parameters listed above. Results of the program are presented in the Appendix of this report.

Subgrade Preparation: We recommend that areas of pavement be underlain by at least 3 feet of properly moisture conditioned compacted structural fill.

Pavement subgrade materials across significant portions of the site may consist of existing non-engineered fills. Ideally, all non-engineered fill beneath pavements should be removed and replaced with compacted fill consistent the material described in this report. However, a partial fill removal option may be considered, particularly in areas of relatively deep fill. If a partial removal option is selected, we recommend that areas of existing fill within proposed pavement areas be sub-excavated to a minimum depth of 3 feet below the proposed subgrade elevation.

The owner should be aware that partial subexcavation and replacement of existing fills and/or limited subexcavation of claystone bedrock or natural clay soils will reduce but not eliminate potential movement of pavements should moisture levels increase within these materials where present beneath the replacement fill and/or pavement. Also, the owner should be aware that rigid PCCP will be less tolerant of differential settlement- or heave-related movement than flexible pavements. Where rigid PCCP is constructed over existing fills, claystone or natural clay soils, providing reinforcing and doweling as discussed in the previous section of this report

would help reduce the risk of pavement distress due to differential settlement- or heave-related movement.

Prior to placing new fill or the pavement section, the entire subgrade area should be scarified to a depth of 8 inches, adjusted to a moisture content near optimum and compacted to at least 95% of the standard Proctor (ASTM D 698) maximum dry density. Fill placed beneath the pavement should meet the material and compaction requirements for structural fill presented in the "Site Grading" section of this report.

The pavement subgrade should be proofrolled with a heavily loaded pneumatic-tired vehicle. Pavement design procedures assume a stable subgrade. Areas that deform excessively under heavy wheel loads are not considered stable and should be removed and replaced to achieve a stable subgrade prior to paving. The contractor should be aware that the clay soils, including on-site and imported materials, may become somewhat unstable and deform under wheel loads if placed near the upper end of the moisture range.

Drainage: The collection and diversion of surface drainage away from paved areas is extremely important to the satisfactory performance of pavement. Drainage design should provide for the removal of water from paved areas and prevent the wetting of the subgrade soils.

DESIGN AND CONSTRUCTION SUPPORT SERVICES

Kumar & Associates, Inc. should be retained to review the project plans and specifications for conformance with the recommendations provided in our report. We are also available to assist the design team in preparing specifications for geotechnical aspects of the project, and performing additional studies if necessary to accommodate possible changes in the proposed construction.

We recommend that Kumar & Associates, Inc. be retained to provide observation and testing services to document that the intent of this report and the requirements of the plans and specifications are being followed during construction, and to identify possible variations in subsurface conditions from those encountered in this study so that we can re-evaluate our recommendations, if needed.

LIMITATIONS

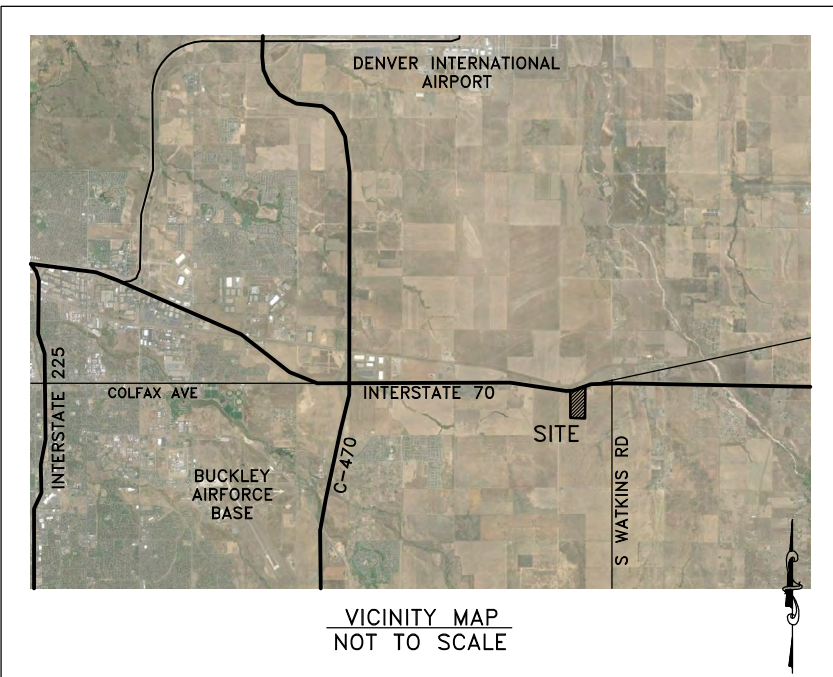
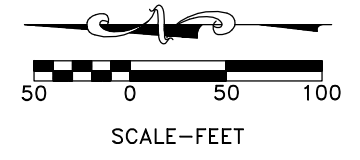
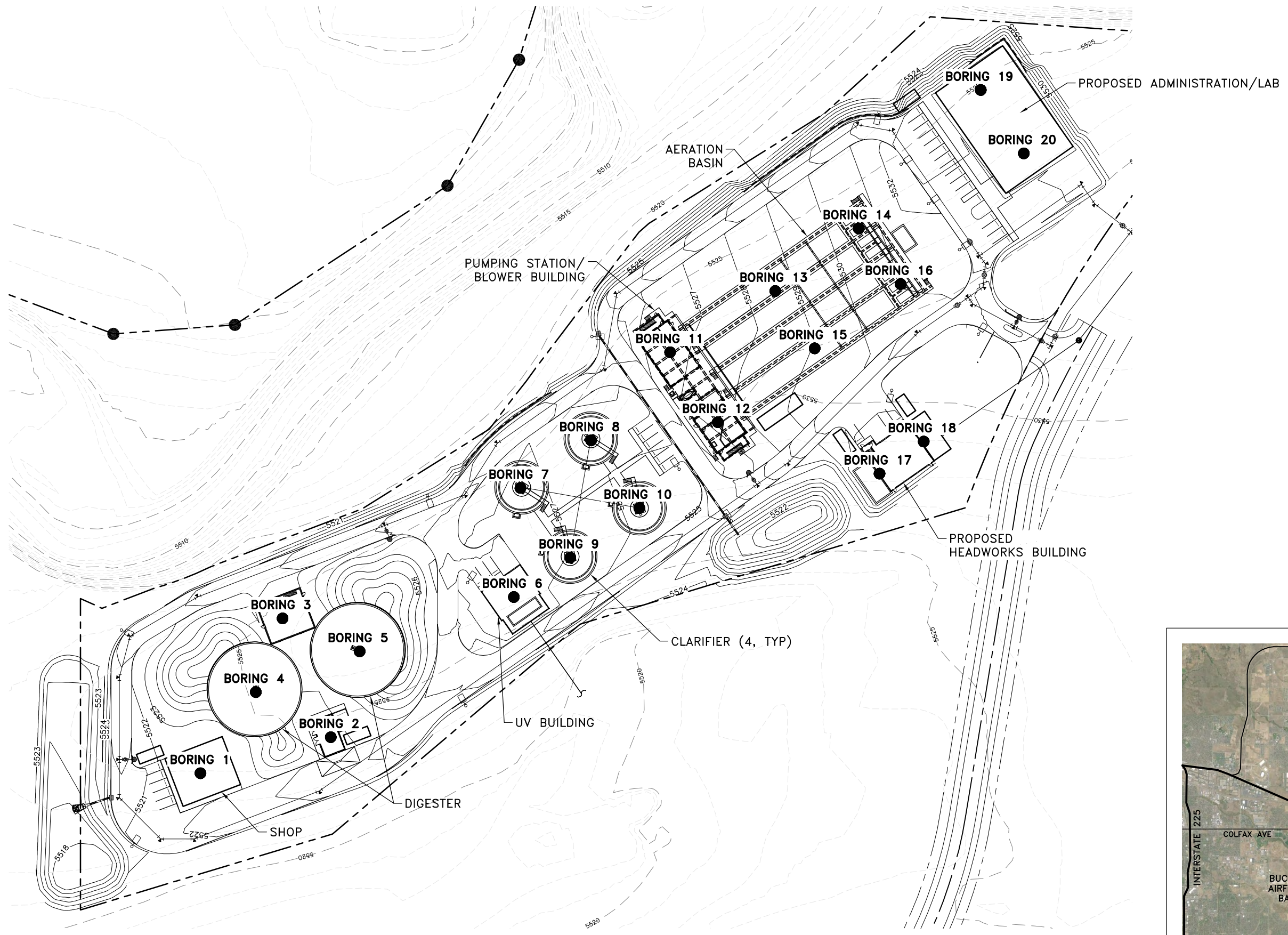
This study has been conducted in accordance with generally accepted geotechnical engineering practices in this area for exclusive use by the client for design purposes. The conclusions and recommendations submitted in this report are based upon data obtained from the exploratory borings at the locations indicated on Fig. 1, and the proposed construction. This report may not reflect subsurface variations that occur between the explorations, and the nature and extent of variations across the site may not become evident until site grading and excavations are performed. If during construction, fill, soil, rock or water conditions appear to be different from those described herein, Kumar & Associates, Inc. should be advised at once so that a re-evaluation of the recommendations presented in this report can be made. Kumar & Associates, Inc. is not responsible for liability associated with interpretation of subsurface data by others.

The scope of services for this project does not include any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such contamination, other studies should be undertaken.

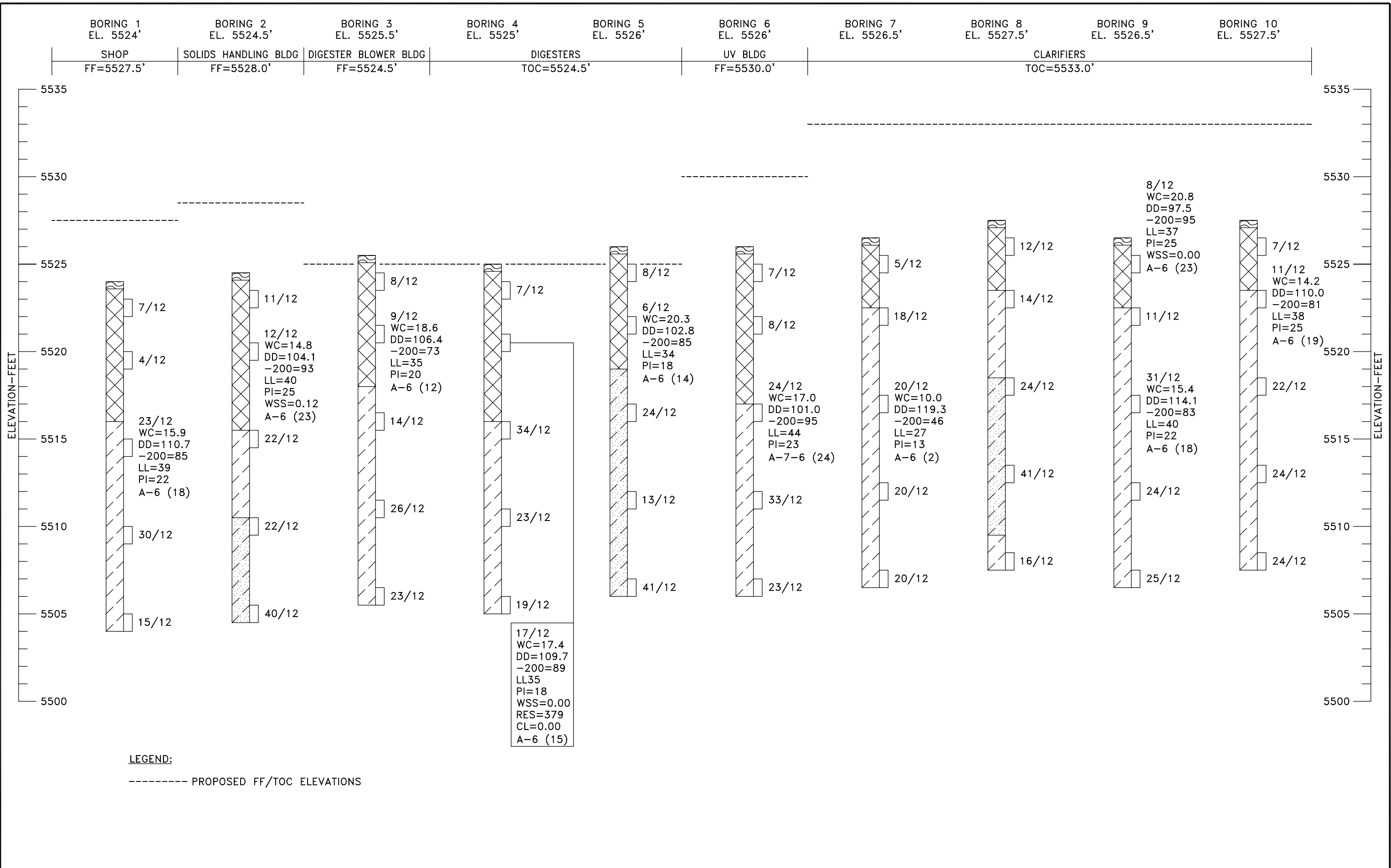
JLB/jw

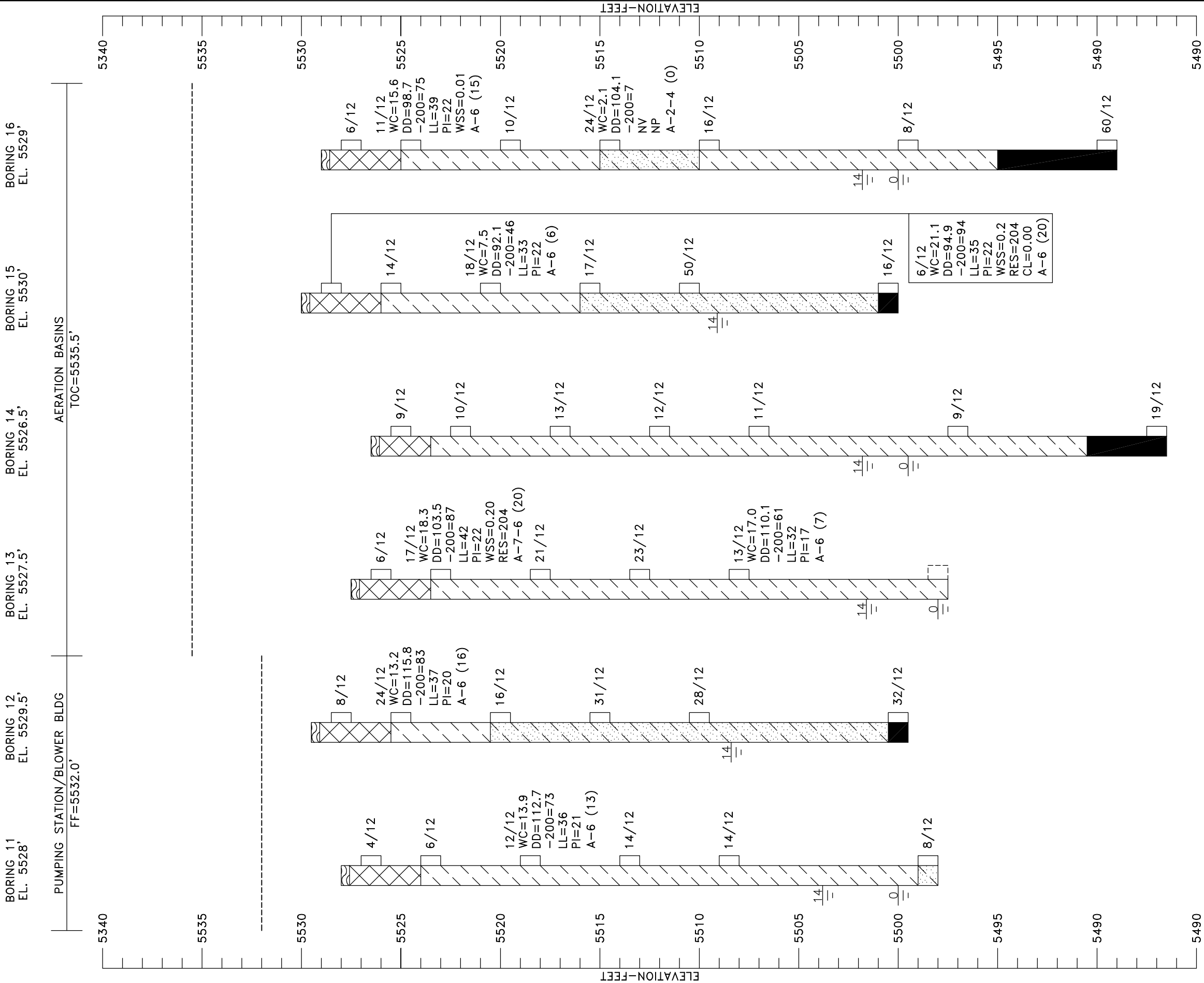
cc: Book, file

May 20, 2016 - 03:00pm
V:\Projects\2016\16-3-126 Watkins Water Treatment Plant\Drafting\163126-01.dwg

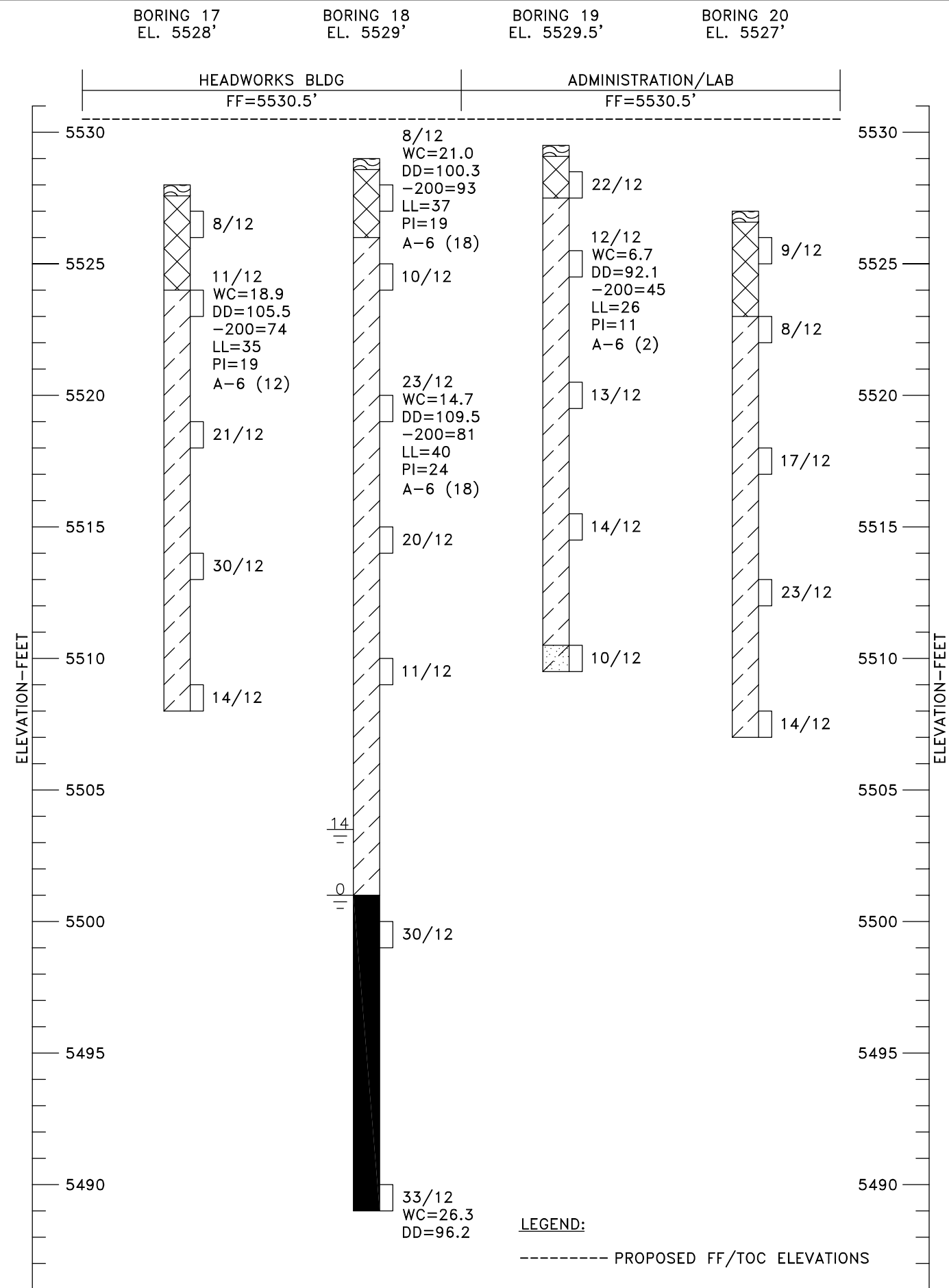


May 20, 16T - 15:01pm
C:\Users\mromero\appdata\local\temp\AcPublish_2700\163126-02 to 04.dwg











May 20, 16T - 15:01pm
C:\Users\mromero\appdata\local\temp\AcPublish_2700\163126-02 to 04.dwg

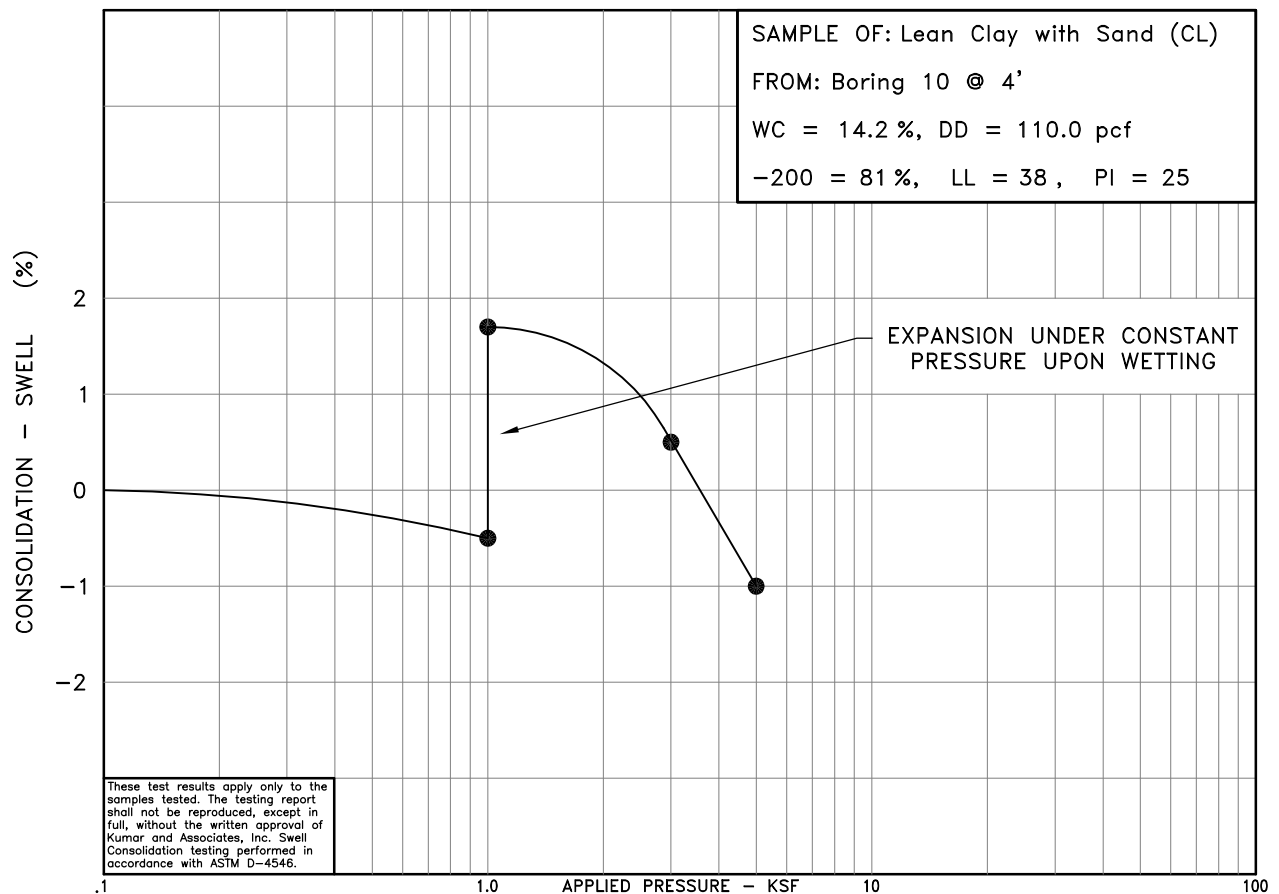
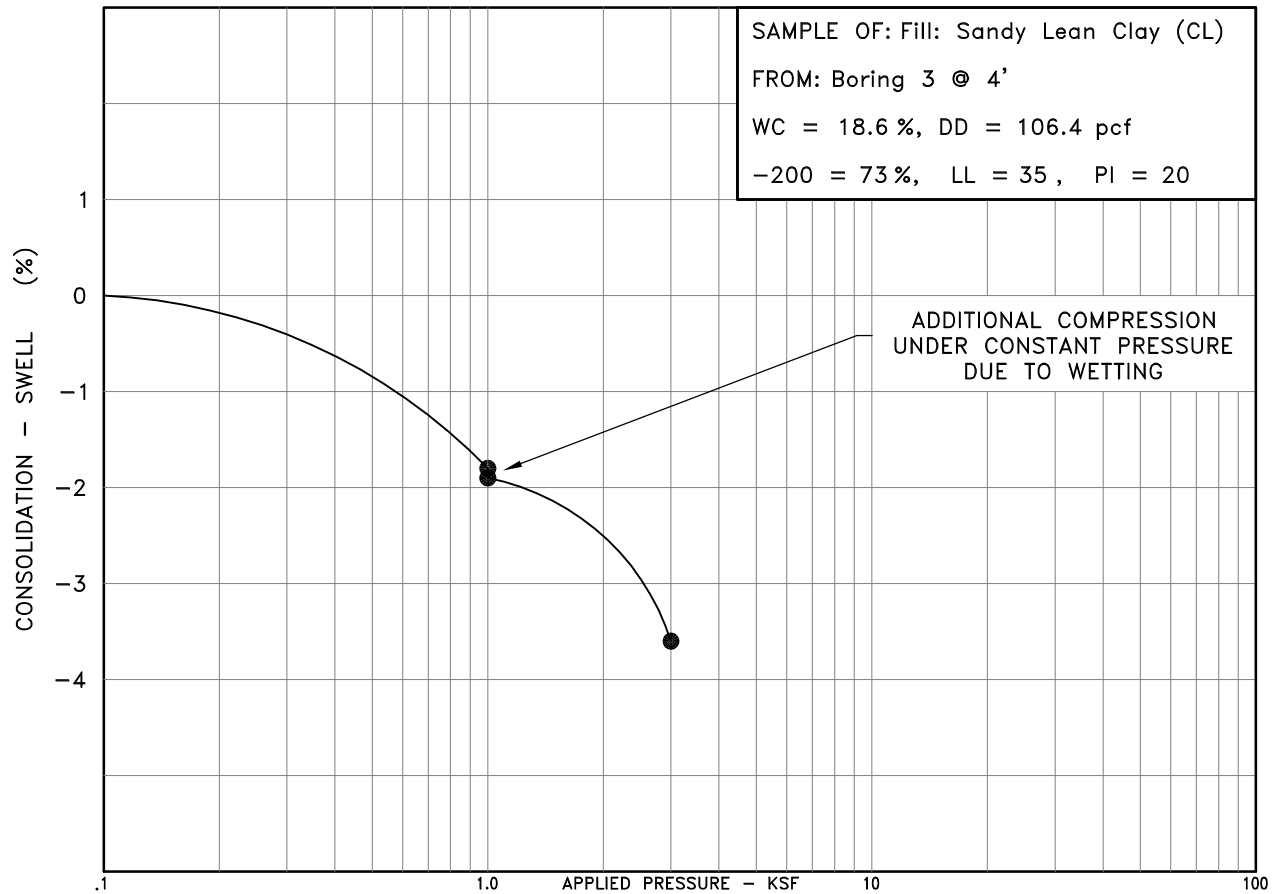


LEGEND

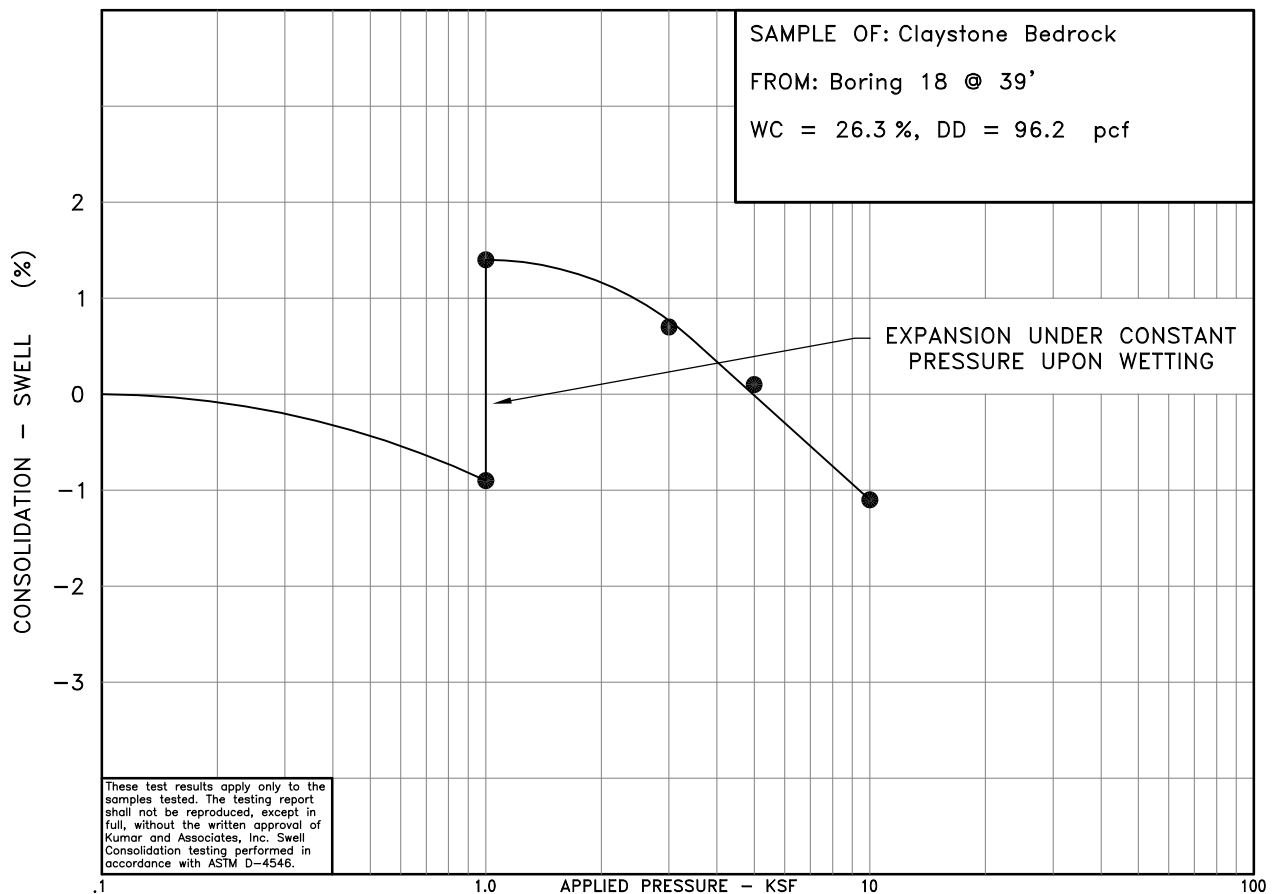
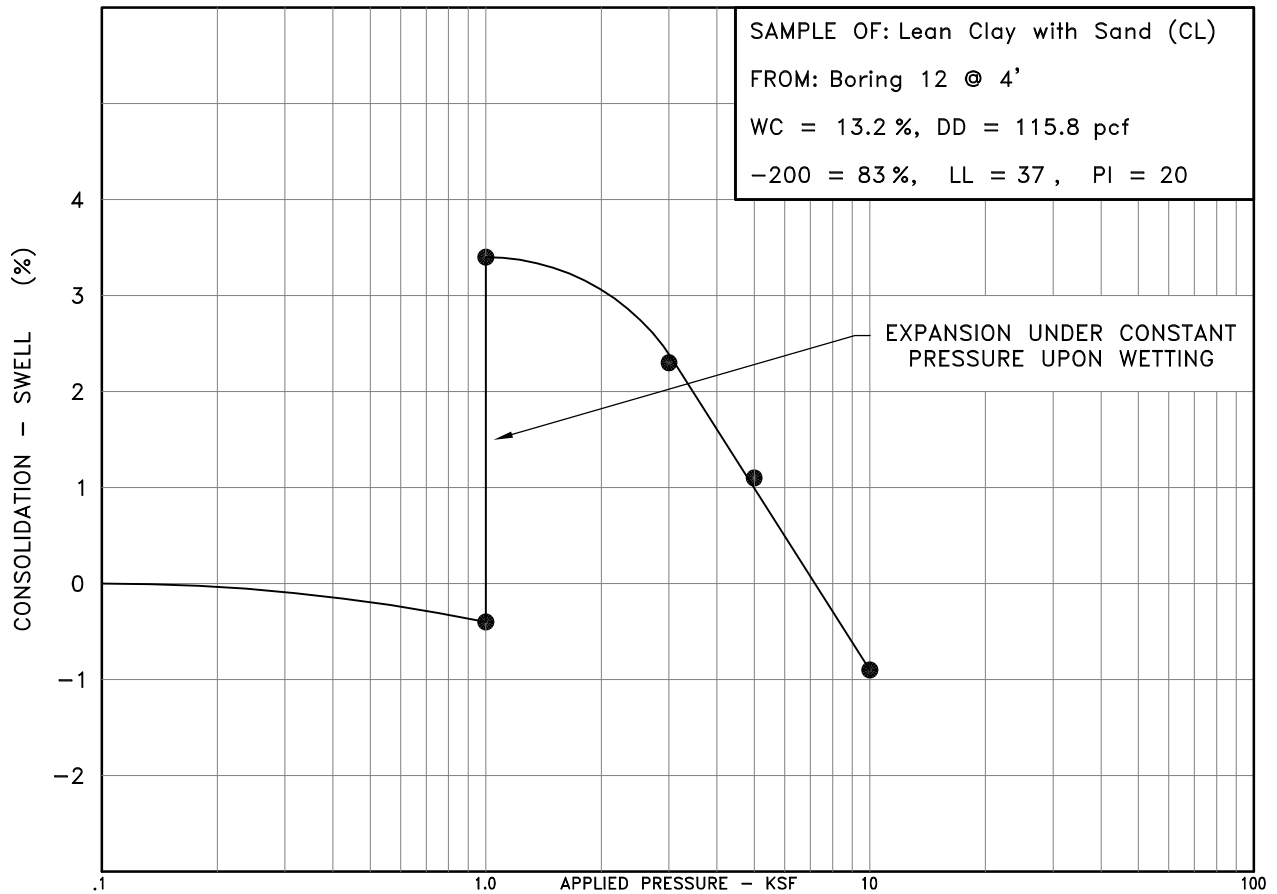
-  TOPSOIL.
-  FILL: LEAN CLAY (CL) TO SANDY LEAN CLAY (CL), FINE TO MEDIUM GRAINED, SLIGHTLY MOIST TO MOIST, BROWN.
-  LEAN CLAY (CL) TO CLAYEY SAND (SC), FINE TO COARSE GRAINED, MEDIUM TO HARD, MOIST TO WET, LIGHT BROWN TO BROWN, OCCASIONAL GRAVEL AND POORLY GRADED SAND LENSES.
-  CLAYEY SAND (SC), OCCASIONAL SILTY LENSES, FINE TO COARSE GRAINED, MEDIUM DENSE TO DENSE, MOIST TO WET, LIGHT BROWN TO BROWN.
-  CLAYSTONE BEDROCK, FINE GRAINED, WEATHERED TO HARD, MOIST, BLUE TO GRAY.
-  DRIVE SAMPLE, 2-INCH I.D. CALIFORNIA LINER SAMPLE.
- 7/12 DRIVE SAMPLE BLOW COUNT. INDICATES THAT 7 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE THE SAMPLER 12 INCHES.
- $\frac{14}{-}$ DEPTH TO WATER LEVEL AND NUMBER OF DAYS AFTER DRILLING MEASUREMENT WAS MADE.

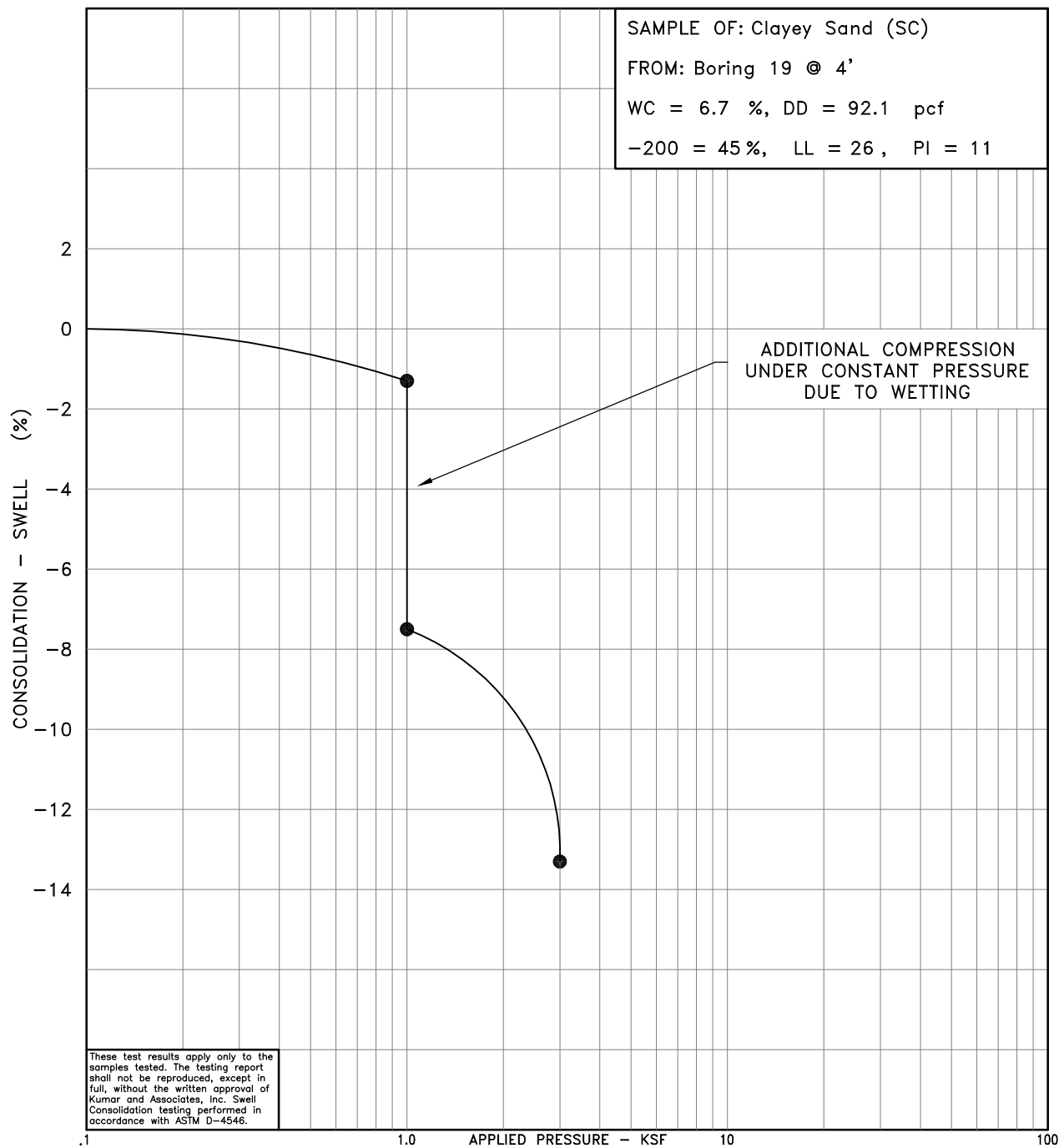
NOTES

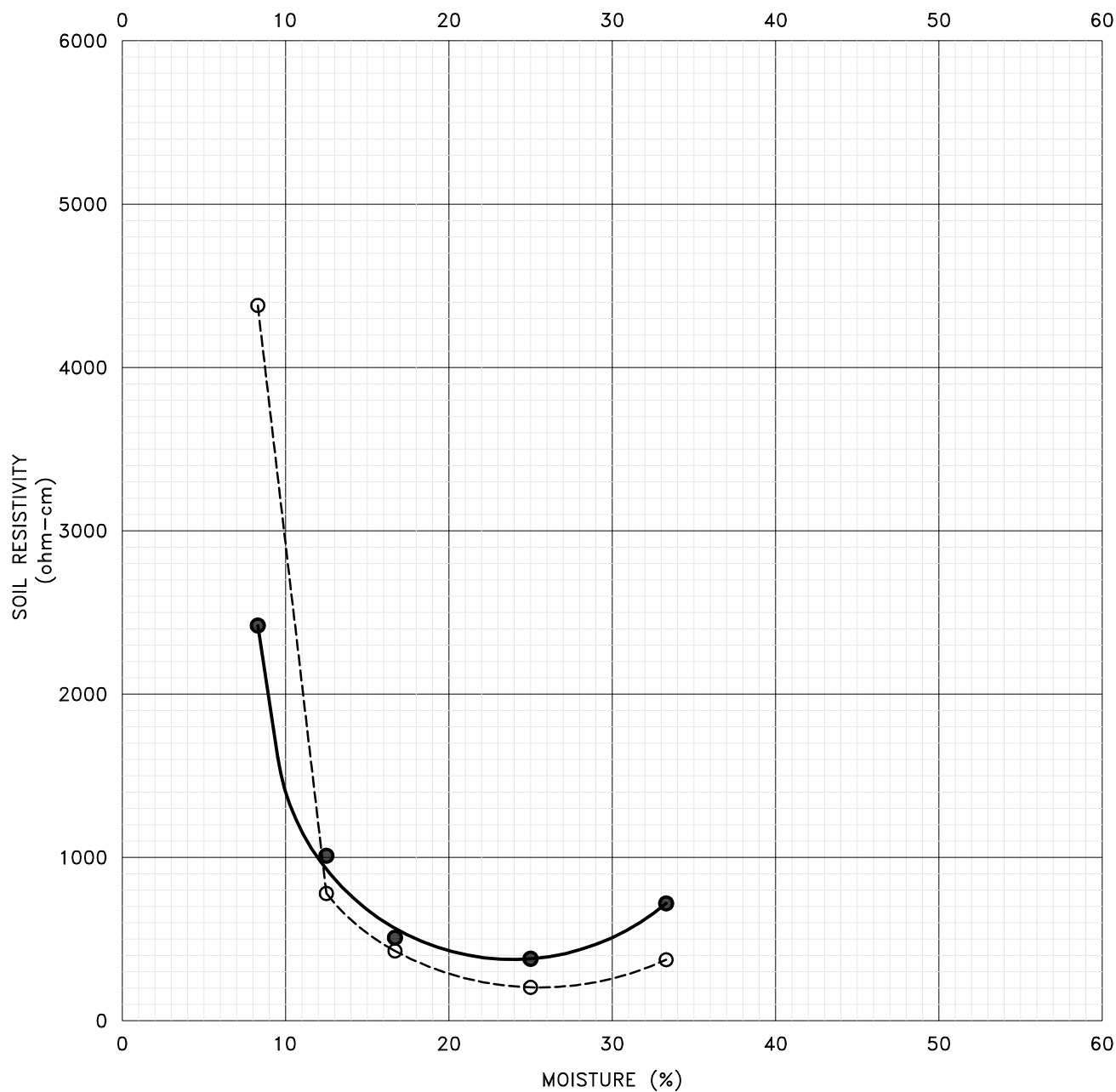
1. THE EXPLORATORY BORINGS WERE DRILLED ON APRIL 25 AND 26, 2016 WITH A 4-INCH DIAMETER CONTINUOUS FLIGHT POWER AUGER.
2. THE LOCATIONS OF THE EXPLORATORY BORINGS WERE MEASURED APPROXIMATELY BY PACING FROM FEATURES SHOWN ON THE SITE PLAN PROVIDED.
3. THE ELEVATIONS OF THE EXPLORATORY BORINGS WERE OBTAINED BY INTERPOLATION BETWEEN CONTOURS ON THE SITE PLAN PROVIDED.
4. THE EXPLORATORY BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
5. THE LINES BETWEEN MATERIALS SHOWN ON THE EXPLORATORY BORING LOGS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES AND THE TRANSITIONS MAY BE GRADUAL.
6. GROUNDWATER LEVELS SHOWN ON THE LOGS WERE MEASURED AT THE TIME AND UNDER CONDITIONS INDICATED. FLUCTUATIONS IN THE WATER LEVEL MAY OCCUR WITH TIME.
7. LABORATORY TEST RESULTS:
WC = WATER CONTENT (%) (ASTM D 2216);
DD = DRY DENSITY (pcf) (ASTM D 2216);
+4 = PERCENTAGE RETAINED ON NO. 4 SIEVE (ASTM D 422);
-200= PERCENTAGE PASSING NO. 200 SIEVE (ASTM D 1140);
LL = LIQUID LIMIT (ASTM D 4318);
PI = PLASTICITY INDEX (ASTM D 4318);
NP = NON-PLASTIC (ASTM D 4318);
NV = NO LIQUID LIMIT VALUE (ASTM D 4318);
RES = MINIMUM LABORATORY RESISTIVITY (ohm-cm.) (ASTM G 57);
WSS = WATER SOLUBLE SULFATES (%) (CP-L 2103);
pH = HYDROGEN ION CONCENTRATION (ASTM E 70);
A-2-6 (0) = AASHTO CLASSIFICATION (GROUP INDEX) (AASHTO M 145);
CL = CHLORIDE CONTENT (%) (AASHTO T 291).



These test results apply only to the samples tested. The testing report shall not be reproduced, except in full, without the written approval of Kumar and Associates, Inc. Swell Consolidation testing performed in accordance with ASTM D-4546.







CURVE SYMBOL	SAMPLE IDENTIFICATION	SOIL OR BEDROCK TYPE	MINIMUM RESISTIVITY (ohm-cm)	RESISTIVITY AT IN SITU MOISTURE CONTENT (ohm-cm)
●	BORING 4 @ 4 FT.	Fill: Lean Clay (CL)	379	530
○	BORING 13 @ 4 FT.	Lean Clay (CL)	204	350

Table I
Summary of Laboratory Test Results

Project No.: 16-3-126
Project Name: Watkins Wastewater Treatment Plant (Prosper Development)
Date Sampled: April 25 and 26, 2016
Date Received: May 3, 2016

Sample Location		Date Tested	Natural Moisture Content (%)	Natural Dry Density (pcf)	Percent Passing No. 200 Sieve	Atterberg Limits		Water Soluble Sulfates (%)	Minimum Electrical Resistivity (ohm-cm)	Chloride Concentration (%)	AASHTO Classification (Group Index)	Soil or Bedrock Type
Boring	Depth (Feet)					Liquid Limit (%)	Plasticity (%)					
1	9	5/4/16	15.9	110.7	85	39	22				A-6 (18)	Lean Clay (CL)
2	4	5/5/16	14.8	104.1	93	40	25	0.12			A-6 (23)	Fill: Lean Clay (CL)
3	4	5/5/16	18.6	106.4	73	35	20				A-6 (12)	Fill: Sandy Lean Clay (CL)
4	4	5/6/16	17.4	109.7	89	35	18	0	379	0	A-6 (15)	Fill: Lean Clay (CL)
5	4	5/5/16	20.3	102.8	85	34	18				A-6 (14)	Fill: Lean Clay (CL)
6	9	5/5/16	17.0	101.0	95	44	23				A-7-6 (24)	Lean Clay (CL)
7	9	5/5/16	10.0	119.3	46	27	13				A-6 (2)	Clayey Sand (SC)
9	1	5/5/16	20.8	97.6	95	37	25	0			A-6 (23)	Fill: Lean Clay (CL)
9	9	5/5/16	15.4	114.1	83	40	22				A-6 (18)	Lean Clay with Sand (CL)
10	4	5/5/16	14.2	110.0	81	38	25				A-6 (19)	Lean Clay with Sand (CL)
11	9	5/5/16	13.9	112.7	73	36	21				A-6 (13)	Sandy Lean Clay (CL)
12	4	5/5/16	13.2	115.8	83	37	20				A-6 (16)	Lean Clay with Sand (CL)
13	4	5/5/16	18.3	103.5	87	42	22				A-7-6 (20)	Fill: Lean Clay (CL)
13	19	5/5/16	17.0	110.1	61	32	17				A-6 (7)	Clayey Sand (SC)
15	1	5/5/16	21.1	94.9	94	35	22	0.2	204	0	A-6 (20)	Lean Clay (CL)
15	9	5/5/16	7.5	92.1	46	33	22				A-6 (6)	Clayey Sand (SC)
16	4	5/5/16	15.6	98.7	75	39	22	0.01			A-6 (15)	Sandy Lean Clay (CL)
16	14	5/5/16	2.1	104.1	7	NV	NP				A-2-4 (0)	Poorly Graded Sand with Silt (SP-SM)
17	4	5/6/16	18.9	105.5	74	35	19				A-6 (12)	Sandy Lean Clay (CL)
18	1	5/5/16	21.0	100.3	93	37	19				A-6 (18)	Lean Clay (CL)
18	9	5/5/16	14.7	109.5	81	40	24				A-6 (18)	Lean Clay with Sand (CL)
18	39	5/5/16	26.3	96.2								Claystone Bedrock
19	4	5/5/16	6.7	92.1	45	26	11				A-6 (2)	Clayey Sand (SC)

APPENDIX A

RE-DOX AND SULFIDES TEST RESULTS

Analytical Results

TASK NO: 160512004

Report To: Josh Barker

Company: Kumar & Associates
2390 S. Lipan Street
Denver CO 80223

Bill To: Josh Barker

Company: Kumar & Associates
2390 S. Lipan Street
Denver CO 80223

Task No.: 160512004
Client PO:
Client Project: Watkins WTP

Date Received: 5/12/16
Date Reported: 5/19/16
Matrix: Soil - Geotech

Customer Sample ID B4 @ 4ft.
Lab Number: 160512004-01

Test	Result	Method
Redox Potential	254 mv	ASTM D1498
Sulfide	Negative	AWWA C105

Customer Sample ID B13 @ 4ft.
Lab Number: 160512004-02

Test	Result	Method
Redox Potential	222 mv	ASTM D1498
Sulfide	Negative	AWWA C105

Abbreviations/ References:

AASHTO - American Association of State Highway and Transportation Officials.
ASTM - American Society for Testing and Materials.
ASA - American Society of Agronomy.
DIPRA - Ductile Iron Pipe Research Association Handbook of Ductile Iron Pipe.



DATA APPROVED FOR RELEASE BY

Appendix C

Preliminary Effluent Limits



Stacy Roberts, PE
Dewberry Engineers Inc.
990 South Broadway, Suite 400
Denver, CO 80209

TO: Stacy Roberts

FROM: WQCD Contact: Tristan Acob, 303-692-6398, tristanacob@state.co.us

DATE: 3/16/2016

RE: PEL200456, Prosper WWTF Preliminary Effluent Limit

The Water Quality Control Division (Division) of the Colorado Department of Public Health and Environment has prepared, per your request, the Preliminary Effluent Limits (PELs) for the proposed Prosper wastewater treatment facility (WWTF). These effluent limits were developed as detailed in the attached document, for use as one of the submittals in your application for Site Approval.

With a hydraulic design capacity of 0.2646 million gallons per day (MGD) and discharge into Rat Run a tributary to Box Elder Creek, which is identified as stream segment COSPMS03a, the Prosper WWTF may be covered by a general permit.

PELs developed for this facility are based on the water quality standards for the receiving stream identified in the PEL application, and/or on technology based limitations established in the *Regulations for Effluent Limitations* (Regulation No. 62). The water quality standard based limitations presented in this PEL may be incorporated into a CDPS permit contingent on analyses conducted during permit development. The technology based limitations will also be incorporated into the permit unless a more stringent limitation is applied.

As explained in the attached document, these limitations have been developed based on the water quality standards for the receiving stream, the ambient water quality of the receiving stream, the calculated low flows, the stated design flow of the facility, technology based limitations established in the *Regulations for Effluent Limitations* (Regulation No. 62), applicable federal Effluent Limitation Guidelines (ELGs), and where necessary the antidegradation regulations, mixing zone policies, and any designation of a receiving stream by the US Fish and Wildlife Service as habitat for federally listed threatened and endangered (T&E) fish. A determination of which PELs ultimately apply in a permit will be dependent on decisions made by the permittee regarding treatment facilities, discharge type, industrial contributions, receiving streams, design flows, or other information presented to the Division at the time of application.

Table 1 contains a summary of the limitations that have been developed in this PEL, for which the proposed treatment facility will be evaluated against, under the Site Approval Process. This evaluation will include a determination of whether the proposed treatment facility as designed, can meet these limitations. A new wastewater treatment facility will be expected to meet the limitations for these parameters upon commencement of discharge.



Table 1 Preliminary Effluent Limits for Evaluation under the Site Approval Process Discharge to Rat Run at a Design Flow of 0.2646 MGD	
BOD ₅ (mg/l)	45 (7-day average), 30 (30-day average)
BOD ₅ (% removal)	85 (30-day average)
TSS, mechanical plant (mg/l)	45 (7-day average), 30 (30-day average)
TSS, mechanical plant (% removal)	85 (30-day average)
Oil and Grease (mg/l)	10 (maximum)
pH (s.u.)	6.5-9.0 (minimum-maximum)
<i>Other Pollutants</i>	<i>Max. Limits or WQBELs</i>
E. coli (#/100 ml)	252 (7-day geomean), 126 (30-day geomean)
TRC (mg/l)	0.019 (daily maximum), 0.011 (30-day average)
Total Inorganic Nitrogen as N (mg/l)	10 (daily maximum), 7 (annual median), 14 (95 th percentile)
Total Phosphorus (mg/l)	0.7 (annual median), 1.75 (95 th percentile)
<i>Total Ammonia</i>	<i>WQBELs</i>
NH ₃ as N, Tot (mg/l) Jan	27 (daily maximum), 6.2 (30-day average)
NH ₃ as N, Tot (mg/l) Feb	26 (daily maximum), 6.0 (30-day average)
NH ₃ as N, Tot (mg/l) Mar	26 (daily maximum), 5.5 (30-day average)
NH ₃ as N, Tot (mg/l) Apr	26 (daily maximum), 5.0 (30-day average)
NH ₃ as N, Tot (mg/l) May	26 (daily maximum), 4.3 (30-day average)
NH ₃ as N, Tot (mg/l) Jun	26 (daily maximum), 3.8 (30-day average)
NH ₃ as N, Tot (mg/l) Jul	24 (daily maximum), 3.1 (30-day average)
NH ₃ as N, Tot (mg/l) Aug	26 (daily maximum), 3.2 (30-day average)
NH ₃ as N, Tot (mg/l) Sep	27 (daily maximum), 3.5 (30-day average)
NH ₃ as N, Tot (mg/l) Oct	26 (daily maximum), 4.1 (30-day average)
NH ₃ as N, Tot (mg/l) Nov	27 (daily maximum), 5.1 (30-day average)
NH ₃ as N, Tot (mg/l) Dec	27 (daily maximum), 6.1 (30-day average)



Preliminary Effluent Limitations
Box Elder Creek
Prosper Farms Investment LLC, Prosper WWTF
Tristan Acob
March 16, 2016

Table of Contents

I. PRELIMINARY EFFLUENT LIMITATIONS SUMMARY	2
II. INTRODUCTION	3
III. WATER QUALITY STANDARDS.....	4
<i>Narrative Standards</i>	4
<i>Standards for Organic Parameters and Radionuclides</i>	4
<i>Salinity and Phosphorus</i>	5
<i>Temperature</i>	6
<i>Segment Specific Numeric Standard</i>	6
<i>Table Value Standards and Hardness Calculations</i>	7
<i>Total Maximum Daily Loads and Regulation 93 - Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List</i>	7
IV. RECEIVING STREAM INFORMATION	7
<i>Low Flow Analysis</i>	7
<i>Mixing Zones</i>	8
<i>Ambient Water Quality</i>	8
V. FACILITY INFORMATION AND POLLUTANTS EVALUATED	9
<i>Facility Information</i>	9
<i>Pollutants of Concern</i>	9
VI. DETERMINATION OF WATER QUALITY BASED EFFLUENT LIMITATIONS (WQBELs)	10
<i>Technical Information</i>	10
<i>Calculation of WQBELs</i>	11
VII. ANTIDegradation EVALUATION	13
VIII. TECHNOLOGY BASED LIMITATIONS	13
<i>Federal Effluent Limitation Guidelines</i>	13
<i>Regulations for Effluent Limitations</i>	13
<i>Nutrient Effluent Limitation Considerations</i>	14
IX. REFERENCES	16

**I. Preliminary Effluent Limitations Summary**

Table A-1 includes summary information related to this PEL. This summary table includes key regulatory starting points used in development of the PEL such as: receiving stream information; threatened and endangered species; 303(d) and Monitoring and Evaluation listings; low flow and facility flow summaries; and a list of parameters evaluated.

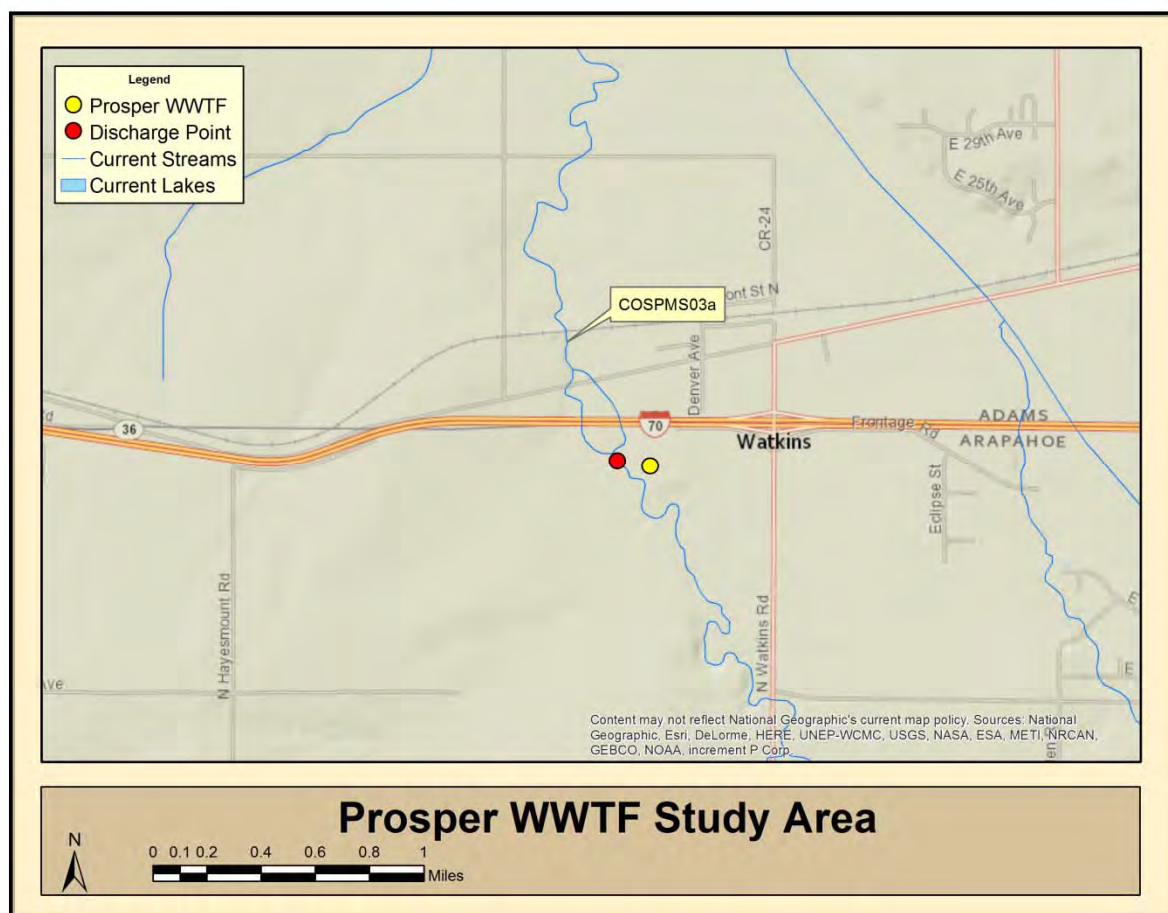
Table A-1 PEL Summary					
Facility Information					
Facility Name		Permit Number	Design Flow (max 30-day ave, MGD)	Design Flow (max 30-day ave, CFS)	
Prosper WWTF		PEL200456	0.2646	0.41	
Receiving Stream Information					
Receiving Stream Name	Segment ID	Designation	Classification(s)		
Rat Run	COSPMS03a	Use Protected	Aquatic Life Warm 2 Recreation Class E Agriculture Water Supply		
Low Flows (cfs)					
Receiving Stream Name	1E3 (1-day)	7E3 (7-day)	30E3 (30-day)	Ratio of 30E3 to the Design Flow (cfs)	
Rat Run	0	0	0	0:1	
Regulatory Information					
T&E Species	303(d) (Reg 93)	Monitor and Eval (Reg 93)	Existing TMDL	Temporary Modification(s)	Control Regulation
No	None	None	None	As(ch)=hybrid; expiration date of 12/31/21	Regulation 85
Pollutants Evaluated					
Ammonia, <i>E. coli</i> , TRC, Nutrients					



II. Introduction

The Preliminary Effluent Limitations (PEL) of Rat Run a tributary to the Box Elder Creek near the Prosper Wastewater Treatment Facility (WWTF), located in Arapahoe County, is intended to determine the assimilative capacities available for pollutants found to be of concern. This PEL describes how the water quality based effluent limits (WQBELs) are developed. These parameters may or may not appear in the permit with limitations or monitoring requirements, subject to other determinations such as reasonable potential analysis, evaluation of federal effluent limitation guidelines, implementation of state-based technology based limits, mixing zone analyses, 303(d) listings, threatened and endangered species listing, or other requirements as discussed in the permit rationale. Figure A-1 contains a map of the study area evaluated as part of this PEL.

FIGURE A-1



The Prosper WWTF is a new WWTF proposing to discharge to Rat Run, which is stream segment COSPMS03a. This means the South Platte Basin, Middle South Platte River Sub-basin, Stream Segment 03a. This segment is composed of the "All tributaries to the South Platte River, including all wetlands, from a point immediately below the confluence with Big Dry Creek to the Weld/Morgan County line, except for specific listings in the subbasins of the South Platte River, and in Segments 3b, 5a, 5b, 5c, and 6". Stream segment COSPMS03a is classified for Aquatic Life Warm 2, Recreation Class E, Water Supply, and Agriculture.



Information used in this assessment includes data gathered from the Prosper WWTF, the Division, and communications with the local water commissioner. The data used in the assessment consist of the best information available at the time of preparation of this PEL analysis.

III. Water Quality Standards

Narrative Standards

Narrative Statewide Basic Standards have been developed in Section 31.11(1) of the regulations, and apply to any pollutant of concern, even where there is no numeric standard for that pollutant. Waters of the state shall be free from substances attributable to human-caused point source or nonpoint source discharges in amounts, concentrations or combinations which:

for all surface waters except wetlands;

(i) can settle to form bottom deposits detrimental to the beneficial uses. Depositions are stream bottom buildup of materials which include but are not limited to anaerobic sludge, mine slurry or tailings, silt, or mud; or (ii) form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses; or (iii) produce color, odor, or other conditions in such a degree as to create a nuisance or harm existing beneficial uses or impart any undesirable taste to significant edible aquatic species or to the water; or (iv) are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life; or (v) produce a predominance of undesirable aquatic life; or (vi) cause a film on the surface or produce a deposit on shorelines; and for surface waters in wetlands;

(i) produce color, odor, changes in pH, or other conditions in such a degree as to create a nuisance or harm water quality dependent functions or impart any undesirable taste to significant edible aquatic species of the wetland; or (ii) are toxic to humans, animals, plants, or aquatic life of the wetland.

In order to protect the Basic Standards in waters of the state, effluent limitations and/or monitoring requirements for any parameter of concern could be put in CDPS discharge permits.

Standards for Organic Parameters and Radionuclides

Radionuclides: Statewide Basic Standards have been developed in Section 31.11(2) and (3) of The Basic Standards and Methodologies for Surface Water to protect the waters of the state from radionuclides and organic chemicals.

In no case shall radioactive materials in surface waters be increased by any cause attributable to municipal, industrial, or agricultural practices or discharges to as to exceed the following levels, unless alternative site-specific standards have been adopted. Standards for radionuclides are shown in Table A-2.



Table A-2 Radionuclide Standards	
Parameter	Picocuries per Liter
Americium 241*	0.15
Cesium 134	80
Plutonium 239, and 240*	0.15
Radium 226 and 228*	5
Strontium 90*	8
Thorium 230 and 232*	60
Tritium	20,000

*Radionuclide samples for these materials should be analyzed using unfiltered (total) samples. These Human Health based standards are 30-day average values for both plutonium and americium.

Organics: The organic pollutant standards contained in the Basic Standards for Organic Chemicals Table are applicable to all surface waters of the state for the corresponding use classifications, unless alternative site-specific standards have been adopted. These standards have been adopted as “interim standards” and will remain in effect until alternative permanent standards are adopted by the Commission. These interim standards shall not be considered final or permanent standards subject to antibacksliding or downgrading restrictions. Although not reproduced in this PEL, the specific standards for organic chemicals can be found in Regulation 31.11(3).

In order to protect the Basic Standards in waters of the state, effluent limitations and/or monitoring requirements for radionuclides, organics, or any other parameter of concern could be put in CDPS discharge permits.

The aquatic life standards for organics apply to all stream segments that are classified for aquatic life. The water supply standards apply only to those segments that are classified for water supply. The water + fish standards apply to those segments that have a Class 1 aquatic life and a water supply classification. The fish ingestion standards apply to Class 1 aquatic life segments that do not have a water supply designation. The water + fish and the fish ingestion standards may also apply to Class 2 aquatic life segments, where the Water Quality Control Commission has made such determination.

Because Rat Run is classified for Aquatic Life Warm 2, with a water supply designation, the water + fish and aquatic life standards apply to this discharge.

Salinity

The Division’s policy, Implementing Narrative Standards in Discharge Permits for the Protection of Irrigated Crops, may be applied to discharges where an agricultural water intake exists downstream of a discharge point. Limitations for electrical conductivity and sodium absorption ratio may be applied in accordance with this policy.



Nutrients

Total Phosphorus and Total Inorganic Nitrogen: Regulation 85, the Nutrients Management Control Regulation has been adopted by the Water Quality Control Commission and became effective September 30, 2012. This regulation contains requirements for phosphorus and Total Inorganic Nitrogen (TIN) concentrations for some point source dischargers. Limitations for phosphorus and TIN may be applied in accordance with this regulation.

Temperature

Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S.

Segment Specific Numeric Standards

Numeric standards are developed on a basin-specific basis and are adopted for particular stream segments by the Water Quality Control Commission. The standards in Table A-3 have been assigned to stream segment COSPMS03a in accordance with the *Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin*.

Table A-3 In-stream Standards for Stream Segment COSPMS03a
<i>Physical and Biological</i>
Dissolved Oxygen (DO) = 5 mg/l, minimum
pH = 6.5 - 9 su
<i>E. coli</i> chronic = 126 colonies/100 ml
Temperature March-Nov = 24.2° C MWAT and 29° C DM
Temperature Dec-Feb = 12.1° C MWAT and 14.5° C DM
Chlorophyll <i>a</i> * = 150 mg/m ²
<i>Inorganic</i>
Total Ammonia acute and chronic = TVS
Chlorine acute = 0.019 mg/l
Chlorine chronic = 0.011 mg/l
Free Cyanide acute = 0.005 mg/l
Sulfide chronic = 0.002 mg/l
Boron chronic = 0.75 mg/l
Nitrite acute = 0.5 mg/l
Nitrate acute = 10 mg/l
Chloride chronic = 250 mg/l
Sulfate chronic = For WS, the greater of ambient water quality as of January 1, 2000 or 250 mg/l
Phosphorus* = 0.17 mg/l
<i>Metals</i>
Dissolved Arsenic acute = 340 µg/l
Total Recoverable Arsenic chronic = 0.02 µg/l
Dissolved Cadmium acute and chronic = TVS
Total Recoverable Trivalent Chromium acute = 50 µg/l
Dissolved Hexavalent Chromium acute and chronic = TVS
Dissolved Copper acute and chronic = TVS



Table A-3 In-stream Standards for Stream Segment COSPMS03a
<i>Physical and Biological</i>
Dissolved Iron chronic = For WS, the greater of ambient water quality as of January 1, 2000, or 300 µg/l
Total Recoverable Iron chronic = 1000 µg/l
Dissolved Lead acute and chronic = TVS
Dissolved Manganese chronic = For WS, the greater of ambient water quality as of January 1, 2000, or 50 µg/l
Dissolved Manganese acute and chronic = TVS
Total Recoverable Molybdenum chronic = 160 µg/l
Total Mercury chronic = 0.01 µg/l
Dissolved Nickel acute and chronic = TVS
Dissolved Selenium acute and chronic = TVS
Dissolved Silver acute and chronic = TVS
Dissolved Zinc acute and chronic = TVS

*Chlorophyll *a* and phosphorus only apply to facilities listed at 38.5(4). Note that this facility is not located upstream of any of the facilities listed in 38.5(4).

Table Value Standards and Hardness Calculations

As metals with standards specified as TVS are not included as parameters of concern for this facility at this time, the hardness value of the receiving water and the subsequent calculation of the TVS equations is inconsequential and is therefore omitted from this PEL.

Total Maximum Daily Loads and Regulation 93 - Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List

This stream segment is not listed on the Division's 303(d) list of water quality impacted streams and is not on the monitoring and evaluation list.

IV. Receiving Stream Information

Low Flow Analysis

The Colorado Regulations specify the use of low flow conditions when establishing water quality based effluent limitations, specifically the acute and chronic low flows. The acute low flow, referred to as 1E3, represents the one-day low flow recurring in a three-year interval, and is used in developing limitations based on an acute standard. The 7-day average low flow, 7E3, represents the seven-day average low flow recurring in a 3 year interval, and is used in developing limitations based on a Maximum Weekly Average Temperature standard (MWAT). The chronic low flow, 30E3, represents the 30-day average low flow recurring in a three-year interval, and is used in developing limitations based on a chronic standard.

Although there is periodic flow in Rat Run upstream of the Prosper WWTF, the 1E3 and 30E3 monthly low flows are set at zero based on information provided by the local Water Commissioner. For this analysis, low flows are summarized in Table A-4.



Table A-4 Low Flows for Rat Run at the Prosper WWTF													
<i>Low Flow (cfs)</i>	<i>Annual</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
1E3 Acute	0	0	0	0	0	0	0	0	0	0	0	0	0
7E3 Chronic	0	0	0	0	0	0	0	0	0	0	0	0	0
30E3 Chronic	0	0	0	0	0	0	0	0	0	0	0	0	0

The ratio of the low flow of Rat Run to the Prosper WWTF design flow is 0:1.

Note that since the low flow has been determined to be zero, the ambient water quality discussion is unnecessary and has therefore been deleted in this PEL. This is explained in more detail under the Technical Information discussion in Section VI.

Mixing Zones

The amount of the available assimilative capacity (dilution) that may be used by the permittee for the purposes of calculating the WQBELs may be limited in a permitting action based upon a mixing zone analysis or other factor. These other factors that may reduce the amount of assimilative capacity available in a permit are: presence of other dischargers in the vicinity; the presence of a water diversion downstream of the discharge (in the mixing zone); the need to provide a zone of passage for aquatic life; the likelihood of bioaccumulation of toxins in fish or wildlife; habitat considerations such as fish spawning or nursery areas; the presence of threatened and endangered species; potential for human exposure through drinking water or recreation; the possibility that aquatic life will be attracted to the effluent plume; the potential for adverse effects on groundwater; and the toxicity or persistence of the substance discharged.

Unless a facility has performed a mixing zone study during the course of the previous permit, and a decision has been made regarding the amount of the assimilative capacity that can be used by the facility, the Division assumes that the full assimilative capacity can be allocated. Note that the review of mixing study considerations, exemptions and perhaps performing a new mixing study (due to changes in low flow, change in facility design flow, channel geomorphology or other reason) is evaluated in every permit and permit renewal.

If a mixing zone study has been performed and a decision regarding the amount of available assimilative capacity has been made, the Division may calculate the water quality based effluent limitations (WQBELs) based on this available capacity. In addition, the amount of assimilative capacity may be reduced by T&E implications.

Since the receiving stream has a zero low flow as calculated above, the WQBELs would be equal to the WQS, and therefore consideration of full or reduced assimilative capacity is inconsequential.

Ambient Water Quality

The Division evaluates ambient water quality based on a variety of statistical methods as prescribed in Section 31.8(2)(a)(i) and 31.8(2)(b)(i)(B) of the *Colorado Department of Public Health and Environment Water Quality Control Commission Regulation No. 31*, and as outlined in



the Division's Policy for Characterizing Ambient Water Quality for Use in Determining Water Quality Standards Based Effluent Limits (WQP-19). The ambient water quality was not assessed for Rat Run because the background in-stream low flow condition is zero, and because no ambient water quality data are available for Rat Run upstream of the Prosper WWTF discharge.

V. Facility Information and Pollutants Evaluated

Facility Information

The Prosper WWTF is a new WWTF proposed to be located in the NW ¼, NE ¼, Section 6, T4S, R65W; south of Interstate 70 and west of N Watkins Road in Arapahoe County. The current design capacity of the facility is 0.2646 MGD (0.41 cfs). Wastewater treatment is proposed to be accomplished using a mechanical wastewater treatment process. The technical analyses that follow include assessments of the assimilative capacity based on this design capacity.

An assessment of Division records indicate that there are 8 facilities discharging to the same stream segment or other stream segments immediately upstream or downstream from this facility. Several of these facilities are covered by general permits and have limitations set at the water quality standards. These facilities were not modeled in this PEL as they have a minimal impact on the ambient water quality. Some facilities, although on the same stream segment, actually discharge to a different receiving stream and therefore were not considered in this PEL. The nearest discharger was:

- Front Range Airport WWTF (CO0047741), which discharges to the Bear Gulch, which then flows to the Box Elder Creek.

Due to the in-stream low flow of zero, the assimilative capacities during times of low flow are not affected by nearby contributions. Therefore, modeling nearby facilities in conjunction with this facility was not necessary.

Pollutants of Concern

Pollutants of concern may be determined by one or more of the following: facility type; effluent characteristics and chemistry; effluent water quality data; receiving water quality; presence of federal effluent limitation guidelines; or other information. Parameters evaluated in this PEL may or may not appear in a permit with limitations or monitoring requirements, subject to other determinations such as a reasonable potential analysis, mixing zone analyses, 303(d) listings, threatened and endangered species listings or other requirement as discussed in a permit rationale.

There are no site-specific in-stream water quality standards for BOD₅ or CBOD₅, TSS, percent removal, and oil and grease for this receiving stream. Thus, assimilative capacities were not determined for these parameters. The applicable limitations for these pollutants can be found in Regulation No. 62 and will be applied in the permit for the WWTF.

The following parameters were identified by the Division as pollutants to be evaluated for this facility:



- Total Residual Chlorine
- *E. coli*
- Nitrate
- Ammonia
- Temperature

Based upon the size of the discharge, the lack of industrial contributors, dilution provided by the receiving stream and the fact that no unusually high metals concentrations are expected to be found in the wastewater effluent, metals are not evaluated further in this Preliminary Effluent Limitations.

According to the *Rationale for Classifications, Standards and Designations of the South Platte*, stream segment COSPMS03a is designated a water supply because there are two alluvial wells in close proximity to Owl Creek and could be additional water supply intakes or alluvial wells in the segment. Thus, the nitrate standard is further evaluated as part of this PEL.

During assessment of the facility, nearby facilities, and receiving stream water quality, no additional parameters were identified as pollutants of concern.

VI. Determination of Water Quality Based Effluent Limitations (WQBELs)

Technical Information

Note that the WQBELs developed in the following paragraphs, are calculations of what an effluent limitation may be in a permit. The WQBELs for any given parameter, will be compared to other potential limitations (federal Effluent Limitations Guidelines, State Effluent Limitations, or other applicable limitation) and typically the more stringent limit is incorporated into a permit. If the WQBEL is the more stringent limitation, incorporation into a permit is dependent upon a reasonable potential analysis.

In-stream background data and low flows evaluated in Sections II and III are used to determine the assimilative capacity of Rat Run near the Prosper WWTF for pollutants of concern, and to calculate the WQBELs. For all parameters except ammonia, it is the Division's approach to calculate the WQBELs using the lowest of the monthly low flows (referred to as the annual low flow) as determined in the low flow analysis. For ammonia, it is the standard procedure of the Division to determine monthly WQBELs using the monthly low flows, as the regulations allow the use of seasonal flows.

The Division's standard analysis consists of steady-state, mass-balance calculations for most pollutants and modeling for pollutants such as ammonia. The mass-balance equation is used by the Division to calculate the WQBELs, and accounts for the upstream concentration of a pollutant at the existing quality, critical low flow (minimal dilution), effluent flow and the water quality standard. The mass-balance equation is expressed as:

$$M_2 = \frac{M_3Q_3 - M_1Q_1}{Q_2}$$



Where,

Q_1 = Upstream low flow (1E3 or 30E3)

Q_2 = Average daily effluent flow (design capacity)

Q_3 = Downstream flow ($Q_1 + Q_2$)

M_1 = In-stream background pollutant concentrations at the existing quality

M_2 = Calculated WQBEL

M_3 = Water Quality Standard, or other maximum allowable pollutant concentration

When Q_1 equals zero, Q_2 equals Q_3 , and the following results:

$$M_2 = M_3$$

Because the low flow (Q_1) for Rat Run is zero, the WQBELs for Rat Run for the pollutants of concern are equal to the in-stream water quality standards.

A more detailed discussion of the technical analysis is provided in the pages that follow.

Calculation of WQBELs

Using the mass-balance equation provided in the beginning of Section VI, the acute and chronic low flows set out in Section IV, ambient water quality as discussed in Section IV, and the in-stream standards shown in Section III, the WQBELs for were calculated. The data used and the resulting WQBELs, M_2 , are set forth in Table A-5a for the chronic WQBELs and A-5b for the acute WQBELs.

Where a WQBEL is calculated to be a negative number and interpreted to be zero, or when the ambient water quality exceeds the in-stream standard, the Division standard procedure is to allocate the water quality standard to prevent further degradation of the receiving waters.

Chlorine: There are no point sources discharging total residual chlorine within one mile of the Prosper WWTF. Because chlorine is rapidly oxidized, in-stream levels of residual chlorine are detected only for a short distance below a source. Ambient chlorine was therefore assumed to be zero.

***E. coli*:** There are no point sources discharging *E. coli* within one mile of the Prosper WWTF. Thus, WQBELs were evaluated separately. For *E. coli*, the Division establishes the 7-day geometric mean limit as two times the 30-day geometric mean limit and also includes maximum limits of 2,000 colonies per 100 ml (30-day geometric mean) and 4,000 colonies per 100 ml (7-day geometric mean). This 2000 colony limitation also applies to discharges to ditches.

Temperature: The 7E3 low flow is 0 in all twelve months, so the discharge is to an effluent dependent (ephemeral stream without the presence of wastewater) water, therefore in accordance with Regulation 31.14(14), no temperature limitations are required.

Nitrate / Total Inorganic Nitrogen (T.I.N.): An acute nitrate standard of 10 mg/l is assigned to this segment. Because nitrite and ammonia can also form nitrate, compliance with the nitrate



standard is achieved through imposition of a Total Inorganic Nitrogen (T.I.N.) limit. T.I.N. effectively measures nitrate and its precursors including nitrite and ammonia.

Table A-5a Chronic WQBELs						
<i>Parameter</i>	<i>Q₁ (cfs)</i>	<i>Q₂ (cfs)</i>	<i>Q₃ (cfs)</i>	<i>M₁</i>	<i>M₃</i>	<i>M₂</i>
<i>E. coli</i> (#/100 ml)	0	0.41	0.41	1	126	126
TRC (mg/l)	0	0.41	0.41	0	0.011	0.011

Table A-5b Acute WQBELs						
<i>Parameter</i>	<i>Q₁ (cfs)</i>	<i>Q₂ (cfs)</i>	<i>Q₃ (cfs)</i>	<i>M₁</i>	<i>M₃</i>	<i>M₂</i>
<i>E. coli</i> (#/100 ml)*						252
TRC (mg/l)	0	0.41	0.41	0	0.019	0.019
Total Inorganic Nitrogen as N (mg/l)	0	0.41	0.41	0	10	10

*The acute WQBEL for *E. coli* is two times the chronic WQBEL.

Ammonia: The Ammonia Toxicity Model (AMMTOX) is a software program designed to project the downstream effects of ammonia and the ammonia assimilative capacities available to each discharger based on upstream water quality and effluent discharges. To develop data for the AMMTOX model, an in-stream water quality study should be conducted of the upstream receiving water conditions, particularly the pH and corresponding temperature, over a period of at least one year.

There were no pH or temperature data available for Rat Run or the Prosper WWTF that could be used as adequate input data for the AMMTOX model. Therefore, the Division standard procedure is to rely on statistically-based, regionalized data for pH and temperature compiled from similar facilities and receiving waters.

The AMMTOX may be calibrated for a number of variables in addition to the data discussed above. The values used for the other variables in the model are listed below:

- Stream velocity = $0.3Q^{0.4d}$
- Default ammonia loss rate = 6/day
- pH amplitude was assumed to be medium
- Default times for pH maximum, temperature maximum, and time of day of occurrence
- pH rebound was set at the default value of 0.2 su per mile
- Temperature rebound was set at the default value of 0.7 degrees C per mile.

The results of the ammonia analyses for the Prosper WWTF are presented in Table A-6.



Table A-6 AMMTOX Results for Rat Run at the Prosper WWTF		
Month	Total Ammonia Chronic (mg/l)	Total Ammonia Acute (mg/l)
January	6.2	27
February	6.0	26
March	5.5	26
April	5.0	26
May	4.3	26
June	3.8	26
July	3.1	24
August	3.2	26
September	3.5	27
October	4.1	26
November	5.1	27
December	6.1	27

VII. Antidegradation Evaluation

As set out in *The Basic Standards and Methodologies for Surface Water*, Section 31.8(2)(b), an antidegradation analysis is required except in cases where the receiving water is designated as "Use Protected." Note that "Use Protected" waters are waters "that the Commission has determined do not warrant the special protection provided by the outstanding waters designation or the antidegradation review process" as set out in Section 31.8(2)(b). The antidegradation section of the regulation became effective in December 2000, and therefore antidegradation considerations are applicable to this PEL analysis.

According to the *Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin*, stream segment COSPMS03a is Use Protected. Because the receiving waters are designated as Use Protected, no antidegradation review is necessary in accordance with the regulations. Thus, for purposes of this WQA analysis, antidegradation review requirements have been met and no further antidegradation evaluation is necessary.

VIII. Technology Based Limitations

Federal Effluent Limitation Guidelines

The Federal Effluent Limitation Guidelines for domestic wastewater treatment facilities are the secondary treatment standards. These standards have been adopted into, and are applied out of, Regulation 62, the Regulations for Effluent Limitations.

Regulations for Effluent Limitations

Regulation No. 62, the Regulations for Effluent Limitations, includes effluent limitations that apply to all discharges of wastewater to State waters, with the exception of storm water and agricultural return flows. These regulations are applicable to the discharge from the proposed discharge.



Table A-7 contains a summary of the applicable limitations for pollutants of concern at this facility.

Table A-7 Regulation 62 Based Limitations			
<i>Parameter</i>	<i>30-Day Average</i>	<i>7-Day Average</i>	<i>Instantaneous Maximum</i>
BOD ₅	30 mg/l	45 mg/l	NA
TSS, mechanical plant	30 mg/l	45 mg/l	NA
BOD ₅ Percent Removal	85%	NA	NA
TSS Percent Removal	85%	NA	NA
Total Residual Chlorine	NA	NA	0.5 mg/l
pH	NA	NA	6.0-9.0 s.u.
Oil and Grease	NA	NA	10 mg/l

Nutrient Effluent Limitation Considerations

WQCC Regulation No. 85, the new *Nutrients Management Control Regulation*, includes technology based effluent limitations for total inorganic nitrogen and total phosphorus that currently, or will in the future, apply to many domestic wastewater discharges to State surface waters. These effluent limits for dischargers are to start being implemented in permitting actions as of July 1, 2013, and are shown in the two tables below:

Effluent Limitations Table at 85.5(1)(a)(iii)

For all Domestic Wastewater Treatment Works not identified in subsections (a)(i) or (ii) above (in Reg. 85) and discharging prior to May 31, 2012 or for which a complete request for preliminary effluent limits has been submitted to the Division prior to May 31, 2012, the following numeric limits shall apply:

<i>Parameter</i>	<i>Parameter Limitations</i>	
	<i>Annual Median ¹</i>	<i>95th Percentile ²</i>
<i>Total Phosphorus</i>	<i>1.0 mg/l</i>	<i>2.5 mg/l</i>
<i>Total Inorganic Nitrogen³</i>	<i>15 mg/l</i>	<i>20 mg/l</i>

1 Running Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

Effluent Limitations Table at 85.5(1)(b)

For New Domestic Wastewater Treatment Works which submit a complete request for preliminary effluent limits to the Division on or after May 31, 2012, the following numeric limits shall apply:

<i>Parameter</i>	<i>Parameter Limitations</i>	
	<i>Annual Median ¹</i>	<i>95th Percentile ²</i>
<i>Total Phosphorus</i>	<i>0.7 mg/l</i>	<i>1.75 mg/l</i>
<i>Total Inorganic Nitrogen³</i>	<i>7 mg/l</i>	<i>14 mg/l</i>

1 Running Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.



Requirements in Reg. 85 also apply to non-domestic wastewater for industries in the Standard Industrial Class 'Major Group 20,' and any other non-domestic wastewater where the facility is expected, without treatment, to discharge total inorganic nitrogen or total phosphorus concentrations in excess of the numeric limits listed in 85.5 (1)(a)(iii). The facility must investigate, with the Division's approval, whether different considerations should apply.

All permit actions based on this PEL will occur after the July 1, 2013 permit implementation date of Reg. 85. Therefore, total inorganic nitrogen and total phosphorus effluent limitations potentially imposed because of Reg. 85 must be considered. However, also based on Reg. 85, there are direct exemptions from these limitations for smaller domestic facilities that discharge less than or equal to 1 million gallons per day (MGD), or are a domestic facility owned by a disadvantaged community.

Delayed implementation (until 5/31/2022) is also specified in Reg. 85 to occur for domestic WWTFs that discharge more than 1 MGD, and less than or equal to 2.0 MGD, or have an existing watershed control regulations (such as WQCC Reg.'s 71-74), or where the discharge is to waters in a low-priority 8-digit HUC.

For all other larger domestic WWTFs, the nutrient effluent limitations from the two tables above will apply, unless other considerations allowed by Reg. 85 at 85.5(3) are utilized to show compliance with exceptions or variances to these limitations.

Even though the proposed design capacity of the proposed Prosper WWTF is <1.0 MGD (0.2646 MGD), the facility is required to address the new technology based effluent limits at 85.5(1)(b). This is because the proposed Prosper WWTF is a new facility and the Regulation 85 technology based limits applied as of 7/1/2013. Because there is such limited stream data for this segment, it is not currently known what if any assimilative capacity for TN or TP exists. It was not possible to calculate WQBELs for the proposed discharge at this time.

The Division wishes to encourage the proposed Prosper WWTF to start working on nutrient control with the other dischargers along Box Elder Creek. These dischargers along the Box Elder Creek have the potential to create future nutrient issues in the Middle South Platte River watershed. The Division encourages these entities to all work together to create the most efficient and cost effective solutions for nutrient control in the Middle South Platte River watershed.

Supplemental Reg. 85 Nutrient Monitoring

Reg. 85 also requires that some monitoring for nutrients in wastewater effluent and streams take place, independent of what nutrient effluent limits or monitoring requirements may be established in a discharge permit. The requirements for the type and frequency of this monitoring are set forth in Reg. 85 at 85.6. This nutrient monitoring is not currently required by a permitting action, but is still required to be done by the Reg. 85 nutrient control regulation. Nutrient monitoring for the Reg. 85 control regulation is currently required to be reported to the WQCD Environmental Data Unit.



IX. References

Regulations:

The Basic Standards and Methodologies for Surface Water, Regulation 31, Colorado Department Public Health and Environment, Water Quality Control Commission, effective January 31, 2013.

Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Regulation No. 31, Colorado Department Public Health and Environment, Water Quality Control Commission, effective March 1, 2016.

Regulations for Effluent Limitations, Regulation 62, CDPHE, WQCC, July 30, 2012.

Nutrients Management Control Regulation, Regulation 85, Colorado Department Public Health and Environment, Water Quality Control Commission, effective September 30, 2012.

Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List, Regulation 93, Colorado Department Public Health and Environment, Water Quality Control Commission, effective March 30, 2012.

Policy and Guidance Documents:

Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance, Colorado Department Public Health and Environment, Water Quality Control Division, December 2001.

Memorandum Re: First Update to (Antidegradation) Guidance Version 1.0, Colorado Department Public Health and Environment, Water Quality Control Division, April 23, 2002.

Rationale for Classifications, Standards and Designations of Segments of the Middle South Platte River, Colorado Department Public Health and Environment, Water Quality Control Division, effective October 29, 2002.

Policy Concerning Escherichia coli versus Fecal Coliform, CDPHE, WQCD, July 20, 2005.

Colorado Mixing Zone Implementation Guidance, Colorado Department Public Health and Environment, Water Quality Control Division, effective April 2002.

Policy for Conducting Assessments for Implementation of Temperature Standards in Discharge Permits, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-23, effective July 3, 2008.

Implementing Narrative Standards in Discharge Permits for the Protection of Irrigated Crops, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-24, effective March 10, 2008.

Policy for Characterizing Ambient Water Quality for Use in Determining Water Quality Standards Based Effluent Limits, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-19, effective May 2002.

Appendix D

Planning Level Cost Estimates

Appendix D

Planning Level Cost Estimates

Table D.1 Sequencing Batch Reactor Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork SBR Basin	6,330	CY	30	1	189,900
Earthwork Process Bldg	3,330	CY	30	1	99,900
Civil Subtotal					189,900
Architectural/Structural					
Concrete SBR Basin	401	CY	450	1	180,300
Basin Covers	1,568	SF	35	1	55,000
Process Building Structure	1000	SF	150	1	150,000
Misc. Metals	1	LS	11,600	1	11,600
Architectural/Structural Subtotal					396,900
Mechanical					
SBR Package	2	Total	390,000	1.25	487,500
Piping	1	LS	30,000	1.2	36,000
Mechanical Subtotal					523,500
HVAC	12%	Percent			19,400
Electrical	15%	Percent			167,000
Subtotal					1,321,700
Mobilization/Demobilization	3%	Percent			39,700
Bonds & Insurance	2%	Percent			26,400
Contractor OH&P	15%	Percent			198,000
Subtotal					1,585,800
Contingency	25%	Percent			396,000
Total Probable Construction Cost					1,981,800

Table D.2 3-Stage BNR Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork BNR Basins	4,970	CY	30	1	149,000
Earthwork Clarifiers	700	CY	30	1	21,000
Earthwork Process Building	3,330	CY	30	1	100,000
Civil Subtotal					270,000
Architectural/Structural					
Concrete (AB)	305	CY	450	1	137,000
Concrete (SC)	177	CU	450	1	80,000
Process Building Structure	1000	SF	150	1	150,000
AB Covers	1,443	SF	35	1	51,000
SC Cover, Flat FRP	2	EA	21,375	1	42,800
Misc. Metals	1	LS	11,600	1	11,600
Structural Subtotal					472,400
Mechanical					
3 HP Recycle Pumps	2	EA	6,900	1	14,000
1 HP Mixers	2	EA	4,600	1	9,000
2 HP Mixers	2	EA	5,800	1	12,000
2 HP RAS Pumps	3	EA	6,900	1	21,000
1 HP WAS Pumps	2	EA	5,800	1	12,000
Diffusers	120	EA	21	1	3,000
Diffusers	70	EA	20	1	1,000
Blowers (20 HP)	3	EA	16,200	1	49,000
Blowers (10 HP)	2	EA	17,300	1	35,000
Secondary Clarifier	2	EA	62,000	1	124,000
3 HP Filter Pumps	3	EA	6,900	1	21,000
3 HP Digester Pump	2	EA	5,800	1	12,000
Piping	1	LS	40,000	1.2	48,000
Mechanical Subtotal					361,000
HVAC	12%	Percent			19,400
Electrical	15%	Percent			166,000
Subtotal					1,288,800
Mobilization/Demobilization	3%	Percent			39,000
Bonds & Insurance	2%	Percent			26,000
Contractor OH&P	15%	Percent			193,000
Subtotal					1,546,800
Contingency	25%	Percent			387,000
Total Probable Construction Cost					1,933,800

Table D.3 Membrane Bioreactor Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork Process Building	3,360	CY	30	1	100,800
Civil Subtotal					100,800
Architectural/Structural					
Process Building Structure	3,000	SF	150	1	450,000
Structural Subtotal					450,000
Mechanical					
MBR System	1	EA	817,806	1.02	834,200
Piping	1	LS	20,000	1.2	24,000
Mechanical Subtotal					858,200
HVAC	12%	Percent			54,000
Electrical	15%	Percent			211,000
Subtotal					1,674,000
Mobilization/Demobilization	5%	Percent			83,700
Bonds & Insurance	2%	Percent			33,500
Contractor OH&P	15%	Percent			251,000
Subtotal					2,042,200
Contingency	25%	Percent			344,000
Total Probable Construction Cost					2,386,200

Table D.4 Headworks/Influent Lift Station Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Lift Station Earthwork	110	CY	30	1	3,300
Headworks Earthwork	2,664	CY	30	1	79,920
Civil Subtotal					83,220
Architectural/Structural					
Headworks Building Structure	800	SF	150	1	120,000
Structural Subtotal					120,000
Mechanical					
Headworks					
Mech. Bar Screen	1	EA	76,000	1.2	91,000
Manual Bar Screen	1	EA	9,000	1.2	10,800
Grit Vortex Separator + Pump	1	EA	80,000	1.2	96,000
Influent Lift Station Tank & Pumps	1	EA	150,000	1.2	180,000
Mechanical Subtotal					377,800
HVAC	12%	Percent			14,000
Electrical	15%	Percent			87,200
Subtotal					682,220
Mobilization/Demobilization	3%	Percent			20,500
Bonds & Insurance	2%	Percent			13,600
Contractor OH&P	15%	Percent			102,000
Subtotal					818,320
Contingency	25%	Percent			205,000
Total Construction Cost					1,023,320

Table D.5 Equalization Basin and On-Site Lift Station Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork	850	CY	30	1	25,500
Civil Subtotal					25,500
Architectural/Structural					
Concrete Wet Well	84	CY	450	1	38,000
Structural Subtotal					38,000
Mechanical					
EQ Blower	1	EA	10,000	1.2	12,000
MBR Feed or Influent Pump	2	EA	5,000	1.2	12,000
Mechanical Subtotal					24,000
HVAC	0%	Percent			0
Electrical	15%	Percent			13,100
Subtotal					100,600
Mobilization/Demobilization	3%	Percent			3,000
Insurance & Bonds	2%	Percent			2,000
Contractor OH&P	15%	Percent			15,000
Subtotal					120,600
Contingency	25%	Percent			30,000
Total Construction Cost					150,600

Table D.6 Common Systems Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Grading	1	LS	5,800	1	5,800
Aerobic Digester Earthwork	350	CY	30	1	10,500
Site Piping	500	LF	80	1	40,000
Paving, Recycled Concrete	670	SY	35	1	23,500
Civil Subtotal					79,800
Architectural/Structural					
Lab/Office Furnishings	1	LS	25,000	1	25,000
Influent Flume Precast Vault 6 x 12	1	LS	3,000	1.3	3,900
Vault Covers	72	SF	35	1	3,000
Subtotal					31,900
Mechanical					
Influent Flume	1	EA	3,000	1.3	3,900
Alum Feed System	1	LS	2,900	1.1	3,200
Aerobic Digester Equipment	1	LS	25,000	1	25,000
Non-Potable Pumps (5 HP)	2	EA	5,800	1	11,600
Piping	1	LS	32,300	1.2	38,800
Mechanical Subtotal					82,500
HVAC	15%	Percent			16,000
Electrical	15%	Percent			16,100
Subtotal					219,400
Mobilization/Demobilization	5%	Percent			11,000
Bonds & Insurance	2%	Percent			
Contractor OH&P	10%	Percent			21,900
Subtotal					252,300
Contingency	20%	Percent			50,000
Construction Cost					302,300
Engineering	16%	Percent			48,000
Total					350,300

Table D.7 Summary of Cost Estimates

Item	Sequencing Batch Reactor (SBR)		3-stage BNR		Membrane Bioreactor (MBR)	
	Quantity	Cost, \$	Quantity	Cost, \$	Quantity	Cost, \$
Common Site Work						
Grading, LS	1	5,800	1	5,800	1	5,800
Site Piping, LF	500	40,000	500	40,000	500	40,000
Paving, SY	670	23,500	670	23,500	670	23,500
Headworks/Influent Lift Station						
Civil, LS		83,220		83,220		83,220
Structural, LS		120,000		120,000		120,000
Mechanical Equipment, LS		101,800	1	101,800	1	101,800
Flume, LS	1	10,800	1	10,800	1	10,800
Secondary Process						
Onsite Lift Station or EQ Basin						
Lift Station	1	65,100	1	65,100		
EQ Basin					1	100,600
Civil, LS		189,900		270,000		100,800
Structural, LS		396,900		472,400		450,000
Mechanical Equipment, LS	1	523,500	1	361,000	1	858,200
Alum Feed System, LS	1	3,200	1	3,200	w/ MBR	
Disinfection						
UV System, LS	1	70,000	1	70,000	w/ MBR	
Effluent Filter, LS	1		1		not required	
Aerobic Digesters	2	50,000	2	50,000	2	50,000
Non-Potable Water						
Pumps, EA	2	11,600	2	11,600	2	11,600
Piping, LS	1	38,800	1	38,800	1	38,800
Lab/Office, LS	1	25,000	1	25,000	1	25,000
Subtotal		1,759,120		1,752,220		2,020,120
HVAC (buildings only)	20%	49,400	20%	49,400	20%	84,000
Electrical	15%	271,278	15%	270,200	15%	229,800
Subtotal		2,079,798		2,071,820		2,333,920
Mobilization, Insurance & Bonds	5%	104,000	5%	103,600	5%	116,700
Contractor OH&P	15%	327,600	15%	326,300	15%	367,600
Contingency	25%	627,800	25%	625,400	25%	532,900
Total Probable Construction Cost		3,139,198		3,127,120		3,351,120

Appendix E

Legal Documents

Exhibit "A"

Legal Description:

A parcel of Land situated in the NW $\frac{1}{4}$ of Section 1, Township 4 South, Range 65 West, of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Commencing at the NW corner of said Section 1, whence the N $\frac{1}{4}$ corner of said Section 1 bears N89°49'24"E a distance of 2640.14 feet, with all bearings contained herein relative to;
Thence S75°35'47"E a distance of 1773.68 feet to the **Point of Beginning**;
Thence N90°00'00"E a distance of 304.24 feet;
Thence S24°21'17"W a distance of 23.12 feet;
Thence S20°55'23"E a distance of 53.88 feet to a point of non-tangent Curve;
Thence along a Curve to the left whose chord bears S20°55'23"E a distance of 59.10 feet, said Curve having a central angle of 09°56'06", a radius of 341.25 feet, an arc length of 59.17 feet;
Thence S20°55'23"E non-tangent to the last described Curve a distance of 158.97 feet;
Thence S32°01'43"E a distance of 147.01 feet;
Thence S52°47'32"E a distance of 42.94 feet to a point of non-tangent Curve;
Thence along a Curve to the left whose chord bears S52°47'32"E a distance of 31.47 feet, said Curve having a central angle of 06°06'03", a radius of 295.64 feet, an arc length of 31.48 feet;
Thence S52°47'32"E non-tangent to the last described Curve a distance of 167.18 feet;
Thence S40°52'11"E a distance of 13.05 feet;
Thence S32°02'59"E a distance of 202.63 feet;
Thence S42°28'07"E a distance of 139.69 feet;
Thence S04°01'11"W a distance of 206.73 feet;
Thence S10°20'05"E a distance of 98.37 feet;
Thence S45°33'17"W a distance of 36.78 feet to a point of non-tangent Curve;
Thence along a Curve to the left whose chord bears N57°10'32"W a distance of 543.41 feet, said Curve having a central angle of 25°27'37", a radius of 1233.00 feet, an arc length of 547.90 feet;
Thence N16°48'09"W non-tangent to the last described Curve a distance of 393.05 feet;
Thence N40°15'18"W a distance of 317.16 feet;
Thence N16°46'03"W a distance of 257.31 feet to the **Point of Beginning**.

Parcel Contains (358,123 Square Feet) 8.2214 Acres.

Date Prepared: December 21, 2015

Date Of Last Revision:

Prepared By: Brett L. Miller, PLS No. 27609

For And On Behalf Of
Engineering Service Company
1300 South Potomac Street, Suite 126
Aurora, Colorado 80012
Phone: (303) 337-1393



ILLUSTRATION FOR "EXHIBIT A"

POINT OF COMMENCEMENT

NW CORNER OF SECTION 1,
T.4S., R.65W., OF THE 6TH P.M.
(FOUND 3 1/4" ALUMINUM CAP
L.S. NO. 25618 SET IN 1991)

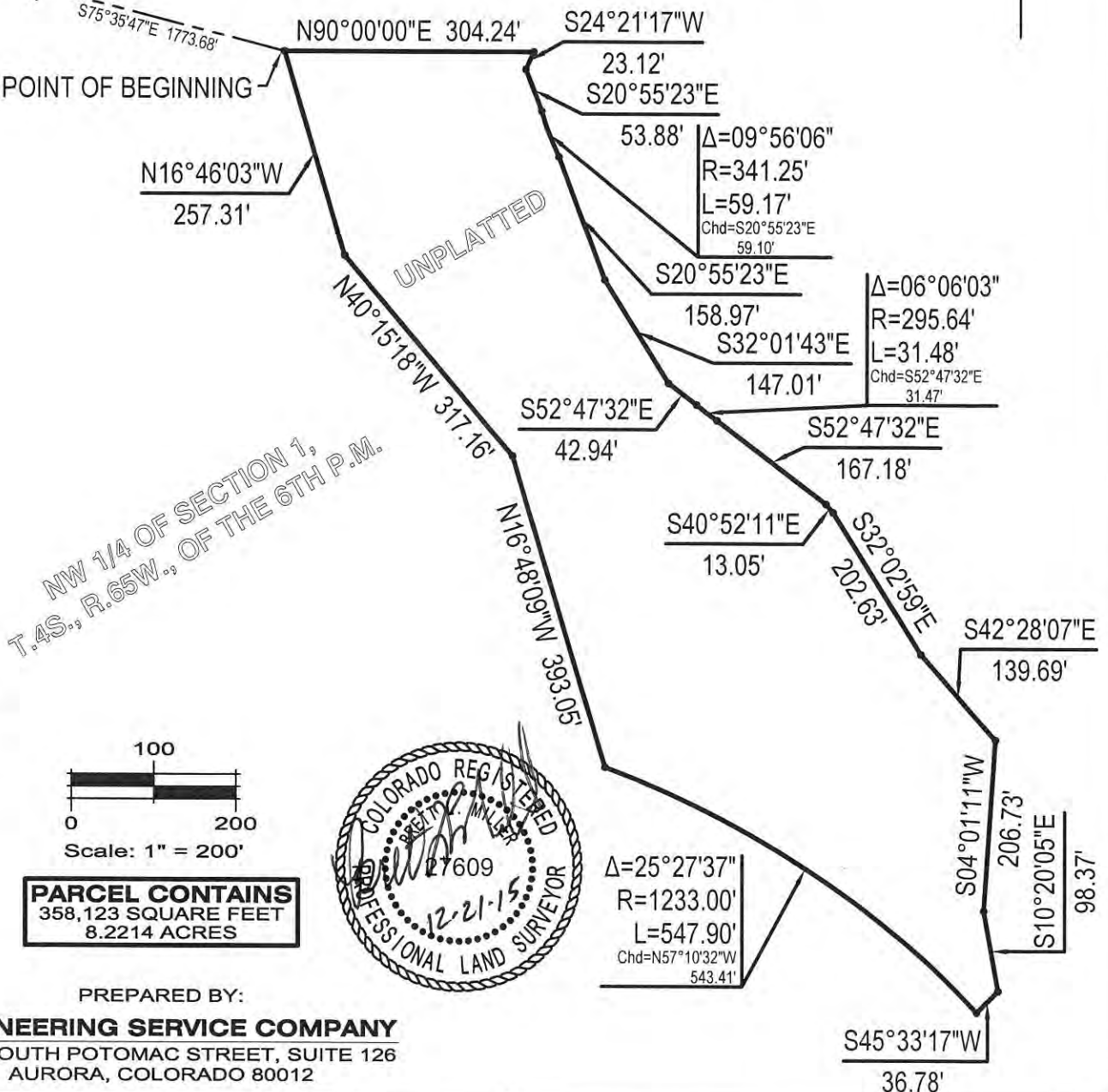
INTERSTATE HIGHWAY 70

(PUBLIC R.O.W. VARIES)

N 1/4 CORNER OF SECTION 1,
T.4S., R.65W., OF THE 6TH P.M.
(FOUND 3 1/4" ALUMINUM CAP
L.S. NO. 25618 SET IN 1991)

N89°49'24"E 2640.14' (BASIS OF BEARINGS)
NORTH LINE OF THE NW 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M.

POINT OF BEGINNING



COUNTY OF ARAPAHOE

NOTE: THIS EXHIBIT DOES NOT REPRESENT A
MONUMENTED SURVEY. IT IS INTENDED
ONLY TO DEPICT THE ATTACHED DESCRIPTION.

DRAWN BY: SAM	SCALE: 1"=200'	R.O.W. FILE#
CHECKED BY: BLM	DATE: 12/21/2015	

PARCEL EXHIBIT

A PARCEL OF LAND SITUATED IN THE NW 1/4 OF
SECTION 1, T.4S., R.65W., OF THE 6TH P.M.
COUNTY OF ARAPAHOE, STATE OF COLORADO



First American Title Insurance Company - NCS
2626 Howell Street, 10th Floor
Dallas, Texas 75204
Phone: (214)855-8888 Fax: (214)855-8848

DATE: March 16, 2016
FILE NUMBER: 1002-180270-RTT
PROPERTY ADDRESS: , CO
OWNER/BUYER: Prosper Farms Investments/To Be Determined
YOUR REFERENCE NUMBER:
ASSESSOR PARCEL NUMBER:

PLEASE REVIEW THE ENCLOSED MATERIAL COMPLETELY AND TAKE NOTE OF THE FOLLOWING TERMS CONTAINED THEREIN:

Transmittal:

Revision No.:

Schedule A:

Schedule B - Section 1 Requirements:

Schedule B - Section 2 Exceptions:

Should you have any questions regarding these materials, please contact Republic Title of Texas, Inc. at the above phone number. We sincerely thank you for your business.

To: Furniture Row Companies
5641 N Broadway
Denver, CO 80216

ATTN: Sarah Jane Worrell
PHONE: (303)566-8000
MOBILE:
FAX: (303)566-8099
E-MAIL: SJWorrell@republictitle.com
DELIVERY: E-MAIL

ALTA Commitment Form**COMMITMENT FOR TITLE INSURANCE**

Issued by

First American Title Insurance Company

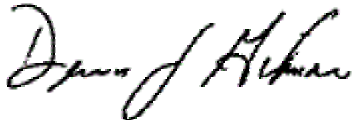
First American Title Insurance Company, a Nebraska corporation ("Company"), for a valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedules A and B and to the Conditions of this Commitment.

This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

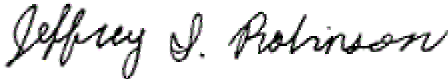
All liability and obligation under this Commitment shall cease and terminate six (6) months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

IN WITNESS WHEREOF, First American Title Insurance Company has caused its corporate name and seal to be affixed by its duly authorized officers on the date shown in Schedule A.

First American Title Insurance Company

Dennis J. Gilmore
President



Jeffrey S. Robinson
Secretary

COMMITMENT FOR TITLE INSURANCE FORM SCHEDULE A

1. Effective Date: February 29, 2016 at 7:30 a.m.
 - a. ALTA Owner's Policy (06-17-06) TBD

Proposed Insured:
To Be Determined
 - b. ALTA Loan Policy (06-17-06) TBD

Proposed Insured:
A Lender To Be Determined
2. The estate or interest in the Land described or referred to in this Commitment is:

Fee Simple, as to Parcels ONE, TWO, and THREE through TEN-A, ELEVEN-A, TWELVE through FOURTEEN and Easement as to Parcels TWO-A, TEN-B, AND ELEVEN-B
3. Title to the estate or interest in the Land is at the Effective Date vested in:

Prosper Farms Investments, a Colorado limited liability company
4. The Land referred to in this Commitment is described as follows:

See Exhibit "A" attached hereto and made a part hereof.

For informational purposes only: vacant land, and (East Colfax-no site address) Arapahoe County and vacant land, Adams County

For informational purposes only: Vesting deeds recorded in Arapahoe County on October 28, 2011 at Reception Numbers: D1106043, D1106045, D1106047, D1106049, D1106051, D1106053, D1106055, D1106059, D1106061, D1106063, D1106065, D1106067, D1106057 and re-recorded on November 18, 2011 at Reception Number D1114350.

Vesting deed recorded in Adams County on October 28, 2011 at Reception Number 2011000070767.

EXHIBIT A

Commitment No.: 1002-180270-RTT

The land referred to in Schedule A is situated in the County of Adams, State of Colorado and is described as follows:

PARCEL ONE: (BEHRENS):

That part of Section 31, Township 3 South, Range 64 West of the 6th P.M., County of Adams, State of Colorado. more particularly described as follows:

COMMENCING at the Southeast Corner of said Section 31;

Thence North 00°10'57" West 276.27 feet to the Northerly right of way line of Interstate Highway 70 as shown on CDOT Project 1095-1(2) and the TRUE POINT OF BEGINNING;

Thence along said Northerly right of way line North 89°28'39" West, 4689.05 feet; Thence continuing along said Northerly right of way line North 74°37'00" West, 323.03 feet;

Thence North 00°05'14" East, 1388.83 feet to the Southerly right of way line of US. Highway 36 and State Highway 40 as shown on FAP 149 C;

Thence along said Southerly right of way line North 78°06'22" East, 5098.33 feet to the adjudicated East line of said Section 31 as shown in the Dependent Resurvey of Township 3 South, Range 64 West, executed by the Commissioners of the Court, 1st Judicial District, Colorado, dated October 4, 1920;

Thence along said adjudicated East line South 00°32'26" East, 182.63 feet to the East Quarter Corner of said Section 31 as shown in said Dependent Resurvey;

Thence continuing along said East line as shown in said Dependent Resurvey South 00°10'57" East, 2385.41 feet TRUE POINT OF BEGINNING.

LESS AND EXCEPT the following described Parcels of land:

EXCEPTED Parcel ONE-A:

A parcel of land being a part of Section 31, Township 3 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, being more particularly described as follows:

COMMENCING: at the Southwest Corner of said Section 31;

Thence along the West line of said Section 31 North 00°01'23" East., 1614.12 feet to the intersection of the extended Southerly right of way line of U S Highway 36 and State Highway 30 as shown on FAP 149 C;

Thence along said Southerly right-of way line and Southerly right-of-way line extended North 78°06'23" East, 998.45 feet;

Thence South 11°53'37" East, 305.00 feet;

Thence North 78°06'23" East 15.00 feet to a point 305 feet Southerly of said Southerly right-of-way line and the TRUE POINT OF BEGINNING;

Thence continuing North 78°06'23" East 315.00 feet parallel with said Southerly right-of-way line;

Thence South 11°53'37" East, 225.00 feet;

Thence South 78°06'23" West, 330.00 feet;

Thence North 11°53'37" West. 210.00 feet, to a point of curvature;

Thence along the arc of a curve to the right, whose center bears North 78°06'23" East, 15.00 feet through a central angle of 90°00'00", an arc length of 23.56 feet, whose chord bears North. 33°06'23" East, 21.21 feet to the TRUE POINT OF BEGINNING:

EXCEPTED Parcel ONE-B: (RIGHT OF WAY)

EXCEPT: A Strip of Land Thirty (30) Feet in width being the easterly 30 feet of Section 31, Township 3 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, lying Southerly of the Southerly right of way line of U.S. Highway 36 and State Highway 40 as shown on FAP 149 C and Northerly of a line 374 feet South of and Parallel with the North line of the Southwest Quarter of Section 32, Township 3 South, Range 64 West of the Sixth Principal Meridian, being more particularly described as follows: BEGINNING at said adjudicated East Quarter Corner of said Section 31; Thence along said adjudicated East line as shown in said Dependent Resurvey, South 00°10'57" East 374.07 feet

to a line parallel with and 374.00 feet Southerly of the North line of the Southwest 1/4 of Section 32, Township 3 South, Range 64 West;
Thence along said parallel line North 89°04'28" West, 30.01 feet to a line parallel with and 30.00 feet Westerly of said adjudicated East line of Section 31; Thence along said parallel line with and 30.00 feet Westerly of said adjudicated East line of Section 31 North 00°10'57" West, 373.40 feet;
Thence along said parallel line North 00°03'26" West, 176.51 feet to a point on said Southerly right of way line;
Thence along said Southerly right-of-way line North 78°06'23" East, 30.60 feet to a point on said adjudicated East line of Section 31;
Thence along said adjudicated East line as shown in said Dependent Resurvey, South 00°32'26" West 182.63 feet to the POINT OF BEGINNING.

Note: The foregoing description was created by: Albert V. Valletta, Jr., PLS 23524, on behalf of WESTERN STATES SURVEYING, INC, Survey dated August 3, 2005, Job No. 9734-005

PARCEL TWO: (BRENNAN):

The East Half of Section 14, Township 4 South, Range 65 West, of the 6th Principal Meridian, County of Arapahoe, State of Colorado.

PARCEL TWO-A:

Easement for ingress and egress and access purposes as set forth in Access Easement Agreement recorded October 28, 2003, at Reception No. B3234045,
County of Arapahoe,
State of Colorado.

PARCEL THREE: (BRYCE AND HAWTHORNE):

Parcel THREE-A:

A parcel of land located in Section 8, Township 4 South, Range 64 West of the Sixth Principal Meridian, County of Arapahoe, State of Colorado, being more particularly described as follows:

Basis of Bearings: The north line of the northwest one-quarter of said Section 8, monumented at the west end by a 2.5 inch aluminum cap stamped "PLS 28656 1995" and on the east end by a 2 inch aluminum cap stamped "LS 25937 1999", with the line considered to bear S89°12'13"E.

Commencing at the west one-quarter corner of Section 8;
thence S88°55'29"E along the north line of the southwest one-quarter of said Section 8, a distance of 30.00 feet to the easterly right-of-way line of North Imboden Mile Road and the point of beginning;
thence S88°55'29"E continuing along the said north line of the southwest one-quarter of Section 8, a distance of 2628.21 feet to the calculated center one-quarter corner;
thence S00°40'54"W along the east line of the said southwest one-quarter of Section 8, a distance of 2613.17 feet to the point on the northerly right-of-way line of Alameda Avenue;
thence N88°55'08"W along said northerly right-of-way line of Alameda Avenue a distance of 2627.70 feet to a point on the said easterly right-of-way line of North Imboden Mile Road;
thence N00°40'13"E along the said easterly right-of-way line of North Imboden Mile Road, a distance of 2612.91 feet to the point of beginning;

LESS AND EXCEPT any portion that may lie within the parcel described as follows:

EXCEPT: A parcel of land located in the southwest quarter of Section 8, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Basis of Bearing: For the purposes of this description the south line of the southwest quarter of said Section 8 is assumed to bear N 88°55'08" W as shown on land survey plat No. 03390 deposited by PLS 37051 on January 11, 2007 in the records of the clerk and recorder of Arapahoe County, Colorado.

Beginning at the southwest quarter corner of said Section 8; thence S 88°55'08" E along the south line of said southwest quarter a distance of 2657.69 feet to the south quarter corner of said Section 8; thence N 00°40'54" E along the east line of said southwest quarter a distance of 30.00 feet; thence N 88°55'08" W along a line 30.00 feet north of and parallel with the south line of said southwest quarter a distance of 2627.70 feet to a point 30.00 feet east of, as measured perpendicularly, the west line of said southwest quarter; thence N 00°40'13" E along a line 30.00 feet east of and parallel with the west line of said southwest quarter a distance of 2612.91 feet to a point on the north line of said southwest quarter; thence N 88°55'29" W along the north line of southwest quarter a distance of 30.00 feet to the west quarter of said Section 8; thence S 00°40'13" W along the west line of said southwest quarter a distance of 2642.91 feet to the point of beginning.
County of Arapahoe,
State of Colorado.

Parcel THREE-B:

A parcel of land located in the southwest quarter of Section 8, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Basis of Bearing: For the purposes of this description the south line of the southwest quarter of said Section 8 is assumed to bear N 88°55'08" W as shown on land survey plat No. 03390 deposited by PLS 37051 on January 11, 2007 in the records of the clerk and recorder of Arapahoe County, Colorado.

Beginning at the southwest quarter corner of said Section 8; thence S 88°55'08" E along the south line of said southwest quarter a distance of 2657.69 feet to the south quarter corner of said Section 8; thence N 00°40'54" E along the east line of said southwest quarter a distance of 30.00 feet; thence N 88°55'08" W along a line 30.00 feet north of and parallel with the south line of said southwest quarter a distance of 2627.70 feet to a point 30.00 feet east of, as measured perpendicularly, the west line of said southwest quarter; thence N 00°40'13" E along a line 30.00 feet east of and parallel with the west line of said southwest quarter a distance of 2612.91 feet to a point on the north line of said southwest quarter; thence N 88°55'29" W along the north line of southwest quarter a distance of 30.00 feet to the west quarter of said Section 8; thence S 00°40'13" W along the west line of said southwest quarter a distance of 2642.91 feet to the point of beginning;
County of Arapahoe,
State of Colorado.

PARCEL FOUR: (CARRUTHERS):

The North 1/2 of Lot 2 and the Northeast 1/4 of the Southwest 1/4 of Section 18, Township 4 South, Range 64 West, of the 6th Principal Meridian,
EXCEPT any portion thereof lying within Watkins Road,
County of Arapahoe, State of Colorado.

PARCEL FIVE: (FISCHAUS):

Parcel FIVE-A:

That part of the Northwest 1/4 of Section 2, Township 4 South, Range 65 West lying Southerly of U.S. Highway 36 and 40,
County of Arapahoe, State of Colorado.

Parcel FIVE-B:

The South 1/2 and the Northeast 1/4 of Section 2, Township 4 South, Range 65 West,

County of Arapahoe, State of Colorado,

EXCEPT any portion of said Parcels FIVE-A and FIVE-B lying within property as set forth on the following described deeds:

EXCEPT: Deed recorded December 29, 1930, in Book 307, at Page 585;

EXCEPT: recorded January 5, 1931, in Book 309, at Page 38;

EXCEPT: recorded May 18, 1958, in Book 967, at Page 519;

Deed recorded September 10, 1958, in Book 1082, at Page 229; and

ALSO EXCEPT the South 30 feet and the West 30 feet of said Section 2 for County Roads.

County of Arapahoe, State of Colorado,

PARCEL SIX: (KISSLER):

PARCEL SIX-A

All of Section 7, Township 4 South, Range 64 West of the 6th P.M., except that certain parcel of land conveyed to Richard J. Pachello and Carol Ann Pachello being more particularly described as follows:

A parcel of land located in Section 7, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Commencing at the Southwest corner of said Section 7;

thence North 00°00'00" East along the West line of the said Section 7, a distance of 1146.37 feet;

thence South 89°01'22" East a distance of 30.00 feet to the point of beginning, said point being on the Easterly right of way line of Watkins Road;

thence North 00°00'00" East along said right of way line and parallel with the West line of said Section 7, a distance of 558.18 feet;

thence South 89°01'22" East a distance of 1522.21 feet;

thence South 00°00'00" East a distance of 558.18 feet;

thence North 89°01'22" West a distance of 1522.21 feet to the point of beginning,

LESS AND EXCEPT any portion thereof lying within Watkins Road,

County of Arapahoe,

State of Colorado,

PARCEL SIX-B

North 1/2 of Section 18,

Township 4 South,

Range 64 West of the 6th P.M.,

County of Arapahoe,

State of Colorado.

LESS AND EXCEPT that portion conveyed in General Warranty Deed recorded September 30, 2004, at Reception No. B4172669 to Gary A. Van Dyk and Dorothy M. Van Dyk by Furniture Row COLO, LLC, a Colorado limited liability company being more particularly described as follows:

EXCEPT: A parcel of land situated in the West 1/2 of Section 7, Township 4, South, Range 64 West, of the 6th Principal Meridian, County of Arapahoe, State of Colorado more particularly described as follows:

Commencing at the West 1/4 corner of Said Section 7; Thence S00°04'02" E along the West line of the SW 1/4 of said Section 7 a distance of 386.45 feet; Thence S89°06'55"E a distance of 30.00 feet to the Easterly R.O.W line of Watkins Road, said point being the Point of Beginning; Thence continuing S89°06'55"E parallel with the East-West centerline of the West 1/2 of said Section 7 a distance of 407.70 feet; Thence N00°04'02"W parallel with said West line of the SW 1/4 a distance of 386.45 feet to a point lying on said East West centerline of the West 1/2; Thence N00°04'34"W parallel with the West line of the NW 1/4 of said Section 7 a distance of 413.55 feet; Thence S89°06'55"E parallel with said East-West centerline a distance of 963.08 feet; Thence S00°04'34"E parallel with said West line of the NW 1/4 a distance of 413.55 feet to a point lying said East-West centerline; Thence S00°04'02"E parallel with said West line of the SW1/4 a distance of 937.05 feet; Thence N89°05'24"W parallel with the South line of

said SW 1/4 a distance of 1370.80 feet to the said Easterly R.O.W. line of Watkins Road; Thence N00°04'02"W parallel with said West line of the SW 1/4 and along said Easterly R.O.W. line a distance of 550.0 feet to the Point of Beginning.

Note: The foregoing description was created by: Charles N. Beckstrom, PLS No. 33202, on behalf of Engineering Service Company, Survey dated September 24, 2004, Job No. 04125.

AND LESS AND EXCEPT that portion conveyed to Arapahoe County, Colorado, a corporate body politic in Quit Claim Deed recorded April 14, 2010, at Reception No. D0035316 being more particularly described as follows:

EXCEPT: A parcel of land being a portion of the Northeast quarter of Section 18, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado more particularly described as follows:

Beginning at the Northeast corner of the Northeast quarter of said Section 18; thence Westerly along the North line of the Northeast quarter of said Section 18 a distance of 30 feet; thence Southerly along a line 30.00 feet West and parallel with the East line of said Northeast quarter to a point on the South line of said Northeast quarter; thence Easterly along the South line of said Northeast quarter a distance of 30.00 feet to the Southeast corner of said Northeast quarter; thence Northerly along the East line of said Northeast quarter to the point of beginning.

AND LESS AND EXCEPT any portion thereof lying within Watkins Road.

PARCEL SEVEN: (LINNEBUR-WEHLEN):

Parcel SEVEN-A:

SECTION 1, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EXCEPT THE EASTERLY 25 FEET THEREOF, AND EXCEPT THOSE PORTIONS DESCRIBED IN DEEDS RECORDED AUGUST 19, 1958 IN BOOK 1078 AT PAGE 398; OCTOBER 11, 1965 IN BOOK 1626 AT PAGE 53; AND JUNE 23, 1982 IN BOOK 3647 AT PAGE 387, COUNTY OF ARAPAHOE, STATE OF COLORADO,

LESS AND EXCEPT any portion thereof lying within Watkins Road,

Parcel SEVEN-B:

A PARCEL OF LAND SITUATED IN THE NE 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M., COUNTY OF ARAPAHOE, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M.; THENCE S00°32'30"W ALONG THE EAST LINE OF SAID NE 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M., A DISTANCE OF 1619.90 FEET; THENCE N89°27'30"W A DISTANCE OF 25.00 FEET TO A POINT ON THE WEST R.O.W. LINE OF WATKINS ROAD AND THE POINT OF BEGINNING; THENCE S00°32'30"W ALONG SAID WEST R.O.W. LINE A DISTANCE OF 809.07 FEET; THENCE N89°27'36"W A DISTANCE OF 1771.67 FEET; THENCE N19°11'35"W A DISTANCE OF 227.88 FEET; THENCE S80°27'36"E A DISTANCE OF 743.91 FEET; THENCE N00°25'36"W A DISTANCE OF 2179.29 FEET TO A POINT ON THE SOUTHERLY R.O.W. LINE INTERSTATE HIGHWAY 70; THENCE THE FOLLOWING FIVE (5) COURSES ALONG SAID SOUTHERLY R.O.W. LINE OF INTERSTATE HIGHWAY 70; THENCE S89°21'23"E A DISTANCE OF 191.23 FEET; THENCE S69°42'02"E A DISTANCE OF 683.06 FEET; THENCE S42°32'30"E A DISTANCE OF 366.00 FEET; THENCE S00°32'30"W A DISTANCE OF 300.00 FEET; THENCE S13°29'30"E A DISTANCE OF 103.10 FEET TO A POINT ON SAID WESTERLY R.O.W. LINE OF WATKINS ROAD; THENCE S00°32'30"W ALONG SAID WESTERLY R.O.W. LINE A DISTANCE OF 686.10 FEET TO THE POINT OF BEGINNING.,

LESS AND EXCEPT any portion thereof lying within Watkins Road.

Parcel SEVEN-C:

THE WEST 1/2 OF THE EAST 1/2 AND THE NORTHWEST 1/4 OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EXCEPT ANY PORTION LYING WITHIN ANY EXISTING ROAD,

COUNTY OF ARAPAHOE, STATE OF COLORADO.

PARCEL EIGHT: (LUTHER):

A parcel of land lying within Section 6, Township 4 South, Range 64 West of the Sixth Principal Meridian, County of Arapahoe, State of Colorado being more particularly described as follows:

Commencing at the West Quarter Corner of Section 6;
Thence South 89°12'21" East, 30.00 feet, along the East-West Centerline of said Section 6 to the Point of Beginning;
Thence North 00°25'54" East, 1719.28 feet, 30 feet Easterly of and parallel with the Westerly line of the Northwest Quarter of said Section 6, to a point on the Southeasterly right of way line of Colorado Department of Highways as described in Book 1090 at Page 127 of the Arapahoe County records;
Thence North 14°25'00" East, 85.65 feet, along: the Southeasterly line;
Thence North 00°25'54" East, 300.00 feet, along said Southeasterly line;
Thence North 43°50'30" East 363.50 feet, along said Southeasterly line;
Thence North 71°29'30" East, 693.90 feet, along said Southeasterly line;
Thence South 89°08'28" East, 1704.11 feet, along said Southeasterly line to the Westerly line of parcel of land as described in Case #34518 of the Arapahoe County District Court;
Thence South 01°35'01" East, 2597.99 feet, along said Westerly line to a point on said East-West Centerline;
Thence North 89°12'21" West 2722.31 feet, along said East-West Centerline to the Point of Beginning,
LESS AND EXCEPT any portion thereof lying within Watkins Road.
County of Arapahoe, State of Colorado,

PARCEL NINE: (MCCLUSKEY):

Section 11,
Township 4 South,
Range 65 West of the 6th P.M.,
County of Arapahoe,
State of Colorado.

PARCEL TEN: (STEWART):

Parcel TEN-A:

That part of the East 1/2 of the Northeast 1/4 of Section 6, and part of the Northwest 1/4 of Section 5, all in Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, being more particularly described as follows:

Beginning at the North 1/4 corner of said Section 5;
Thence North 89°00'30" West along the North line of said Northwest 1/4 of Section 5, a distance of 2654.16 feet to the Northwest corner of said Section 5;
Thence South 00°03'30" East along the East line of the Northeast 1/4 of said Section 6, a distance of 23.80 feet to the True Point of Beginning;
Thence North 89°09'00" West along the South line of Tract No. 8 of the Department of Highways, State of Colorado, Project No. 1 095-1(2), conveyed by Deed recorded July 7, 1958 in Book 1071 at Page 356, Arapahoe County records, a distance of 1334.46 feet to the West line of the East 1/2 of the Northeast 1/4 of said Section 6; Thence South 00°01'41" West along said West line of the East 1/2 of the Northeast 1/4 of Section 6, a distance of 853.41 feet;
Thence South 60°00'00" East, a distance of 448.82 feet;
Thence South 43°44'49" East, a distance of 1371.16 feet to said East line of the Northeast 1/4 of Section 6; Thence South 00°03'30" East along said East line of the Northeast 1/4 of Section 6, a distance of 244.75 feet to a point 300.00 feet Northerly of the West 1/4 corner of said Section 5;
Thence South 89°08'07" East parallel with the South line of said Northwest 1/4 of Section 5, a distance of 2655.83 feet to the East line of said Northwest 1/4 of Section 5;
Thence North 00°06'08" West along said East line of the Northwest 1/4 of Section 5, a distance of

2294.02 feet to a point 17.23 feet Southerly of said North 1/4 corner of Section 5, said point being the Southeast corner of Tract No. 9 of the Department of Highways, State of Colorado, Project No. 1 095-1(2), conveyed by Deed recorded July 7, 1958 in Book 1071 at Page 356, Arapahoe County records; Thence North 89°09'00" West along the South line of said Tract No. 9, of the Department of Highways, State of Colorado, Project No. 1 095-1(2), conveyed by Deed recorded July 7, 1958 in Book 1071 at Page 356, Arapahoe County records, a distance of 2654.06 feet to the True Point of Beginning, County of Arapahoe, State of Colorado.

Parcel TEN-B:

Beneficial non-exclusive easement for vehicular ingress and egress as described in Declaration of Reciprocal Easements recorded March 6, 1996, at Reception No. A6027753.

PARCEL ELEVEN: (VAN DYK PARCEL):

Parcel ELEVEN-A:

The Northwest 1/4 of Section 14, Township 4 South, Range 65 West of the 6th Principal Meridian, EXCEPT that part of said land conveyed in Deed recorded October 12, 1999, under Reception No. A9165902, and re-recorded December 29, 1999, at Reception No. A9202445 AND EXCEPT that portion of said land conveyed to Faith Presbyterian Church in Warranty Deed and Option to Purchase recorded October 22, 2009, at Reception No. B9116094 and Corrective and Restated Warranty Deed and Option to Purchase recorded December 07, 2010, at Reception No. D0126719, County of Arapahoe, State of Colorado.

Parcel ELEVEN-B:

A non-exclusive easement for pedestrian and vehicular ingress and egress as set forth in Access Easement Agreement recorded October 28, 2003, at Reception No. B3234045, County of Arapahoe, State of Colorado.

PARCEL TWELVE: (VAN DYK PARCEL):

A parcel of land lying within Section 6, Township 4 South Range 64 West of the Sixth Principal Meridian, Arapahoe County, State of Colorado being more particularly described as follows:

NOTE: For the purpose of this description the bearings are based on the East-West centerline, of said Section 6, assumed to bear South 89°12'21" East, monumented at the West Quarter corner with a 2 ½" aluminum cap stamped with PLS 28656 in a Range Box and a 2" aluminum cap on a #6 rebar stamped LS 25937 on the East Quarter corner.

Parcel TWELVE-A:

Commencing at the West Quarter corner of said Section 6;

Thence South 89°12'21" East 30.00 feet along the East-West centerline of said Section 6 to the Point of Beginning;

Thence continuing South 89°12'21" East 2868.24 feet along said East-West centerline to the center Quarter corner of said Section 6;

Thence South 00°05'35" West 2610.10 feet along the Easterly line of the Southwest Quarter said Section 6 to a point on the Northerly right of way line of East 6th Avenue;

Thence North 89°07'43" West 1971.83 feet along said Northerly right of way line to a point of tangent curvature;

Thence Westerly along the arc of a curve to the right, whose center bears North 00°52'17" East 1818.20 feet through a central angle of 10°43'21" an arc length of 340.27 feet, whose chord bears North 83°46'02" West 339.77 feet, continuing along said Northerly right of way line;

Thence North 78°24'21" West 385.77 feet, continuing along said Northerly right of way line to a point of tangent curvature;

Thence Westerly along the arc of a curve to the left, whose center bears South 11°35'39" West 1079.50 feet through a central angle of 06°31'18" an arc length of 122.88 feet whose chord bears North 89°40'00" West 122.81 feet continuing along said Northerly right of way line to a point of tangency,

Thence North 84°55'40" West 73.06 feet continuing along said Northerly right of way line to a point 30 feet Easterly of the Westerly line of the Southwest Quarter of said Section 6; Thence North 00°24'42" East 2481.24 feet, 30 feet Easterly of an parallel with said Westerly line to the Point of Beginning,

County of Arapahoe,
State of Colorado

Being sometimes described as follows;

A parcel of land lying in the Southwest ¼ of Section 6, Township 4 South, Range 64 West of the Sixth Principal Meridian County of Arapahoe, State of Colorado, being more particularly described as follows:

Commencing at the Northwest corner of said Southwest ¼ of said Section 6; Thence South 89°12'22" East 30.00 feet along the North line of said Southwest ¼ to the Point of Beginning, said point lying on the Easterly right of way line of Watkins Road:
Thence continuing South 89°12'22" East 2868.15 feet along said North. line to the Northeast corner of said Southwest ¼:
Thence South 00°05'30" West 2610.10 feet along the Easterly line of said Southwest 1/4 to a point on the Northerly right of way line of East 6th Avenue; Thence North 89°07'41" West 1971.76 feet along said Northerly right of way line to a point of curve;
Thence along the arc of a curve to the right and along said Northerly right of way line, said curve having a central angle of 10°43'20", a radius of 1818.20 feet an arc length of 340.25 feet, a chord bearing of North 83°46'01" West and a chord distance of 339.76 feet to a point of tangent;
Thence North 78°24'21" West along said tangent and continuing along said Northerly right of way line a distance of 385.82 feet to a point of curve;
Thence along the arc of a curve to the left and along said Northerly right of way line, said curve having a central angle of 6°31'18", a radius of 1079.50 feet, an arc length of 122.87 feet, a chord bearing of North 81°40'01" West and a chord distance of 122.81 feet to a point of tangent;
Thence North 84°55'40" West continuing along said Northerly right of way line a distance of 73.06 feet to a point 30 feet Easterly of the Westerly line of said Southwest ¼;
Thence North 00°24'42" East 30 feet Easterly of and parallel with said Westerly line a distance of 2481.26 feet to the Point of Beginning, County of Arapahoe, State of Colorado.

Parcel TWELVE-B:

Commencing at the Southwest corner of said Section 6; Thence South 89°07'43" East 30.00 feet along the Southerly line of the Southwest Quarter of said Section 6 to the Point of Beginning, said point being 30 feet Easterly of the Westerly line of said Section 6; Thence North 00°24'42" East 94.63 feet, 30 feet Easterly of and parallel with said Westerly line to point on the Southerly right of way line of East 6th Avenue; Thence South 84°55'40" East 68.17 feet along said Southerly right of way line to a point of tangent curvature; thence Easterly along the arc of a curve to the right whose center bears South 05°04'21" West 1019.50 feet through a central angle of 06°31'18" an arc length of 116.05 feet whose chord bears South 81°40'00" East 115.98 feet continuing along said Southerly right of way line to the point of tangency; Thence South 78°24'21" East 385.77 feet, continuing along said Southerly right of way line to a point of tangent curvature; Thence Easterly along the arc of a curve to the left whose center bears North 11°35'39" East 1878.20 feet through a central angle of 00°28'06", an arc length of 15.35 feet, whose chord bears South 78°38'22" East 15.35 feet, continuing along said Southerly right of way line to a point of non-tangency, said point being on the Southerly line of said Southwest Quarter; thence North 89°07'43" West 576.22 feet along said Southerly line, to the Point of Beginning County of Arapahoe, State of Colorado,

Parcel TWELVE-C:

A parcel of land lying in the Southwest ¼ of Section 6, Township 4 South, Range 64 West of the Sixth Principal Meridian County of Arapahoe, State of Colorado, being more particularly described as follows:

Commencing at the Northwest corner of said Southwest ¼ of said Section 6; Thence South 89°12'22" East 30.00 feet along the North line of said Southwest ¼ to the Point of Beginning, said point lying on the Easterly right of way line of Watkins Road:
Thence continuing South 89°12'22" East 2868.15 feet along said North. line to the Northeast corner of said Southwest ¼:
Thence South 00°05'30" West 2610.10 feet along the Easterly line of said Southwest 1/4 to a point on

the Northerly right of way line of East 6th Avenue; Thence North 89°07'41" West 1971.76 feet along said Northerly right of way line to a point of curve;
Thence along the arc of a curve to the right and along said Northerly right of way line, said curve having a central angle of 10°43'20", a radius of 1818.20 feet an arc length of 340.25 feet, a chord bearing of North 83°46'01" West and a chord distance of 339.76 feet to a point of tangent;
Thence North 78°24'21" West along said tangent and continuing along said Northerly right of way line a distance of 385.82 feet to a point of curve;
Thence along the arc of a curve to the left and along said Northerly right of way line, said curve having a central angle of 6°31'18", a radius of 1079.50 feet, an arc length of 122.87 feet, a chord bearing of North 81°40'01" West and a chord distance of 122.81 feet to a point of tangent;
Thence North 84°55'40" West continuing along said Northerly right of way line a distance of 73.06 feet to a point 30 feet Easterly of the Westerly line of said Southwest ¼;
Thence North 00°24'42" East 30 feet Easterly of and parallel with said Westerly line a distance of 2481.26 feet to the Point of Beginning, County of Arapahoe, State of Colorado.

Commencing at the Southwest Corner of said Southwest 1/4; thence South 89°07'41" East along the Southerly line of said Southwest 1/4 a distance of 30.00 feet to the Point of Beginning, said point being 30 feet Easterly of the Westerly line of said Southwest 1/4; Thence North 00°24'42" East, 30 feet Easterly of and parallel with said Westerly line a distance of 94.63 feet to a point on the Southerly right of way line of East 6th Avenue;
Thence South 84°55'40" East along said Southerly right of way line a distance of 68.17 feet to a point of curve;
Thence along a curve to the right and along said Southerly right of way line, said curve having a central angle of 6°31'18", a radius of 1019.50 feet an arc length of 116.04 feet, a chord bearing of South 81°40'01" East and a chord distance of 115.98 feet to a point of tangent;
Thence South 78°24'21" East along said tangent and along said Southerly right of way line a distance of 385.77 feet to a point of curve;
Thence along a curve to the left along said Southerly right of way line said curve having a central angle of 00°28'10", a radius of 1878.20 feet, an arc length of 15.39 feet, a chord bearing of South 78°38'26" East and a chord distance of 15.39 feet to a point of non-tangency said point being on the Southerly line of said Southwest 1/4;
Thence North 89°07'41" West along said South line a distance of 576.40 feet to the Point of Beginning, County of Arapahoe, State of Colorado.

Note: The foregoing description was created by: Charles N. Beckstrom, PLS No. 33202, on behalf of Engineering Service Company, Survey dated August 16, 2004, Job No. 04125-C.

PARCEL THIRTEEN: (VAN DYK KIDS PARCEL):

A parcel of land lying within the Southeast Quarter of Section 6, Township 4 South, Range 64 West of the 6th P.M., County of Arapahoe, State of Colorado, being more particularly described as follows:

Beginning at the Northeast corner of the Southeast ¼ of said Section 6;
Thence South 00°04'21" East along the East line of said Southeast 1/4 a distance of 2613.81 feet to the Northerly right of way, line of East 6th Avenue, said point lying 30.00 feet North of the South line of said Southeast 6;
Thence North 89°07'49" West parallel and 30.00 feet North of said South line and along the Northerly right of way line of East 6th Avenue a distance of 2684.20 feet to the Westerly line of said Southeast 1/4;
Thence North 00°05'30" East along said West line a distance of 2610.15 feet to the Northwest corner of said Southeast 1/4;
Thence South 89°12'22" East along the North line of said Southeast 1/4 a distance of 2676.66 feet to the point of beginning, County of Arapahoe, State of Colorado.

Note: The foregoing description was created by: Charles N. Beckstrom, PLS No. 33202, on behalf of Engineering Service Company, Survey dated August 16, 2004, Job No. 04125-C

PARCEL FOURTEEN: (WEIMER WHEATFIELD PARCEL):

Parcel FOURTEEN-A:

The Southwest $\frac{1}{4}$ of Section 12, Township 4 South, Range 65 West of the 6th Principal Meridian,
County of Arapahoe, State of Colorado.

Parcel FOURTEEN-B:

Section 13, Township 4 South, Range 65 West of the 6th Principal Meridian, County of Arapahoe, State of
Colorado,
LESS AND EXCEPT any portion thereof lying within Watkins Road,

Parcel FOURTEEN-C:

The Northwest $\frac{1}{4}$ of Section 24, Township 4 South, Range 65 West of the 6th Principal Meridian EXCEPT
a circular tract of land having a radius of 750 feet from a center point which bears North 43°02'30" East,
479.52 feet from the West $\frac{1}{4}$ corner of Section 24, Township 4 South, Range 65 West of the 6th Principal
Meridian and EXCEPT roads,
County of Arapahoe, State of Colorado.

COMMITMENT FOR TITLE INSURANCE FORM
SCHEDULE B
SECTION ONE
REQUIREMENTS

The following requirements must be met:

1. Pay the agreed amounts for the interest in the land and/or the mortgage to be insured.
2. Pay us the premiums, fees and charges for the policy.
3. Payment of all taxes and assessments now due and payable.
4. Recordation of a Warranty Deed satisfactory to the Company, from Prosper Farms Investments, LLC, a Colorado limited liability company, vesting fee simple title in and to A Purchaser To Be Determined.
5. Recordation of a Deed of Trust satisfactory to the Company, from A Borrower To Be Determined, to the Public Trustee of Adams and Arapahoe County, for the benefit of the proposed insured lender.
6. Recordation of a Release of the Deed of Trust from F. R. Exchanges, Inc., a Colorado corporation to the Public Trustee of Arapahoe County for the use of William L Turnage, as Personal Representative of the Estate of Edwin Fischahs, deceased to secure an indebtedness in the principal sum of \$1,457,200.00, and any other amounts and/or obligations secured thereby, dated August 26, 1999 and recorded August 30, 1999 at Reception No. A9141568.

NOTE: Assignment of Deed of Trust in connection therewith recorded August 30, 1999 at Reception No. A9141569.

7. Recordation of a Release of the Deed of Trust from Furniture Row USA, LLC, a Colorado limited liability company to the Public Trustee of Arapahoe County for the use of Farm Credit of Southern Colorado to secure an indebtedness in the principal sum of \$4,500,000.00, and any other amounts and/or obligations secured thereby, dated June 10, 2010 and recorded June 11, 2010, at Reception No. D0055813.

NOTE: Waiver of Priority of Mortgage Lien in connection therewith recorded January 21, 2011, at Reception No. D1007850.

8. Receipt by the Company of the following documentation for Prosper Farms Investments, LLC, a Colorado limited liability company:

Operating Agreement, and all amendments thereto, if any.

9. Receipt by the Company of a satisfactory Final Affidavit and Indemnity, executed by Prosper Farms Investments, LLC, a Colorado limited liability company.

10. Receipt by the Company of a satisfactory Final Affidavit and Indemnity, executed by A Borrower To Be Determined.
11. Receipt by the Company of an ALTA/ACSM Land Title Survey, certified to First American Title Insurance Company, and in form and content satisfactory to the Company. The Company reserves the right to make further requirements and/or exceptions upon review of this survey.

NOTE: This commitment is subject to further requirements and/or exceptions upon disclosure to the Company of the identity of the proposed insured purchaser.

NOTE: Upon satisfaction of the requirements, approved by the Company and herein set forth, Exceptions 1-3 will be modified and/or deleted.

COMMITMENT FOR TITLE INSURANCE FORM**SCHEDULE B****SECTION TWO****EXCEPTIONS**

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

1. Any facts, rights, interests or claims which are not shown by the Public Records, but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
2. Easements, or claims of easements, not shown by the Public Records.
3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the Land would disclose, and which are not shown by the public records.
4. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown in the Public Records.
5. Any and all unpaid taxes, assessments and unredeemed tax sales.
6. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof.

Exceptions 7 - 27 pertain to Parcel 1: Behrens Parcel (Adams County)

7. Reservations by the Union Pacific Land Company of (1) oil, coal and other minerals underlying the land, (2) the exclusive right to prospect for, mine and remove oil, coal and other minerals, and (3) the right of ingress and egress and regress to prospect for, mine and remove oil, coal and other minerals, all as contained in Deed recorded May 11, 1909 in Book 25 at Page 215 and Release and Quit Claim Deed to Union Pacific Land Resources Corporation recorded November 23, 1998 in Book 5547 at Page 272, and any and all assignments thereof or interests therein.
8. Right to deny or restrict each and every right of access to and from the land insured hereby, directly onto abutting street or highway designated as Interstate 70, (Colorado State Highway No. 8), recorded January 8, 1959 in Book 754 at Page 280.
9. Any rights, interest or easements in favor of the State of Colorado, which exists or are claimed to exist in and over the present and past bed, banks or waters of Box Elder Creek.
10. An undivided 100% interest in all oil, gas and associated liquid hydrocarbons conveyed to Champlin Petroleum Company, a Delaware corporation by Mineral Deed, recorded January 20, 1976 in Book 2041 at Page 115, and any and all assignments thereof or interests therein.

11. An Oil and Gas Lease, from Champlin Petroleum Company as Lessor(s) to Amoco Production Company as Lessee(s) dated October 31, 1975, recorded January 20, 1976 in Book 2041 at Page 119, and any and all assignments thereof or interests therein.

Affidavit showing Production recorded August 13, 1976 in Book 2083 at Page 85 in connection with the above Oil and Gas Lease.

12. Terms, conditions, provisions, agreements and obligations specified under the Purchase & Sale Agreement by and between the City of Aurora and Box Elder Investment Company, a Colorado limited partnership, Amcor Investments Corporation, a California and Ralph D. Kaufman, Shirleen D. Jensen and Stephen K. Small recorded March 18, 1987 in Book 3298 at Page 473.
13. Terms, conditions, provisions, agreements and obligations specified under the Agreement by and between Ralph Kaufman, Shirleen D. Jensen and Stephen K. Small and the City of Aurora recorded November 25, 1988 in Book 3512 at Page 765.
14. An easement for access, utilities and incidental purposes granted to Frontier Bank of Denver by Ralph D. Kaufman, Shirleen D. Jensen and Stephen K. Small by Easement Deed recorded January 9, 1989 in Book 3525 at Page 419.

Note: Easement Deed recorded March 12, 1993 in Book 4037 at Page 765 corrects the description in the above easement and Easement Deed recorded October 4, 2000 in Book 6277 at Page 824 being Reception No. C0717694.

15. Terms, conditions, provisions, agreements and obligations contained in the Amendment to Adams County Zoning and Regulations, Case No. 23-91-RA-Front Range Airport Influence Zone recorded May 23, 1991 in Book 3780 at Page 622.
16. An easement for utilities and incidental purposes granted to Public Service Company of Colorado by the instrument recorded June 17, 1996 in Book 4773 at Page 46.
17. An easement for utilities and incidental purposes granted to Public Service Company of Colorado by the instrument recorded September 30, 1996 in Book 4847 at Page 47.
18. The effect of Annexation Ordinance 88-34 recorded May 20, 1988 in Book 3448 at Page 810 and Plat recorded May 20, 1988 at Reception No. B815948 and Annexation Ordinance 88-35 recorded May 20, 1988 in Book 3448 at Page 813 and Plat recorded May 20, 1988 at Reception No. B815950 and Annexation Ordinance 88-36 recorded May 20, 1988 in Book 3448 at Page 816 and Plat recorded May 20, 1988 at Reception No. B815952 and Annexation Ordinance 88-37 recorded May 20, 1988 in Book 3448 at Page 819 and Plat recorded May 20, 1988 at Reception No. B815954.
19. An easement for access and incidental purposes granted to D and L Construction, Inc., a Colorado corporation by the instrument recorded July 17, 1997 in Book 5055 at Page 848 and as conveyed to Powell Professional Partnership, a Colorado partnership by the instrument recorded January 7, 1998 in Book 5203 at Page 1.
20. Terms, conditions, provisions, agreements and obligations contained in the Pipeline Easement Agreement recorded October 16, 2000 in Book 6290 at Page 34.
21. Any assessment or lien of Bennett Park and Recreation District, as disclosed by the instrument recorded January 22, 2001 at Reception No. C0753045.

22. Terms, conditions, provisions, agreements and obligations contained in the Ordinance No. 2001-52 Rezoning Land from Planned Development to Northeast Plains Zone District recorded November 5, 2001 at Reception No. C0882066.
23. Request for Notification of Surface Development filed by RME Petroleum Company and RME Land Corp., recorded May 20, 2002 at Reception No. C0971793.
24. An easement for water drainage and incidental purposes granted to Watkins Storage Company, LLC by the instrument recorded July 22, 2002 at Reception No. C0999666.
25. The following matters as disclosed by ALTA/ACSM Land Title Survey prepared by Western States Surveying, Inc. on August 04, 2005, Job No. 20302-002, as follows:
 - a.) Apparent easements for overhead electric lines, power poles and electric meter lying outside of a recorded easement.
 - b.) Water wells
 - c.) Underground utilities running along the Northerly and Easterly portion of said premises as disclosed by underground markers.
26. Any loss, claim or damage, including the rights, interest or claims of others resulting from the conflicting location of the East Section line of Section 31, Township 3 South, Range 64 West of the 6th P.M., Adams County, Colorado and the two sets of monuments used for the East Quarter Corner of said Section as created by Dependent Resurvey of Township 3 South, Range 64 West, 1st Judicial District, Case No. 1467, dated October 4, 1920 and monument set by Cecil Crowe, PE & LS 12330 on April 11, 1986 and as located on ALTA/ACSM Land Title Survey prepared by Western States Surveying, Inc. on August 04, 2005, Job No. 20302-002.
27. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use and Occupancy of Land recorded May 27, 2015 at Reception No. 2015000039423.

Exceptions 28 - 32 Pertains to Parcel 2: Brennan Parcel (Arapahoe County)

28. Terms, conditions, provisions, agreements and obligations specified under the Access Easement Agreement by and between McCluskey Family Living Trust, G.A. Van Dyk and Dorothy Margaret Van Dyk and Billie Marie Brennan and Dewitt Brennan recorded October 28, 2003 at Reception Number B3234045.
29. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Memorandum of Surface Use Agreement recorded December 28, 2010, at Reception No. D0135149.
30. Paid-Up Oil and Gas Lease recorded December 28, 2010, at Reception No. D0135150, and any and all assignments thereof or interest therein..

NOTE: Assignment and Bill of Sale in connection therewith recorded December 21, 2012 at Reception No. D2147994.

31. Terms, conditions, provisions, obligations and agreements as set forth in the Order recorded August 15, 2013 at Reception No. D3103482 and August 15, 2013 at Reception No. D3103483.
32. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144321.

Exceptions 33 - 41 pertain to Parcel 3: Bryce and Hawthorne Parcel (Arapahoe County)

33. Reservations of (1) right of proprietor of any penetrating vein or lode to extract his ore; and (2) right of way for any ditches or canals constructed by authority of the United States, in U.S. Patent recorded January 13, 1896 in Book A57 at Page 100.
34. Any assessment or lien of West Arapahoe Soil and Conservation District, as disclosed by the instrument recorded December 27, 1955 in Book 948 at Page 214.
35. Any assessment or lien of Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
36. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Memorandum of Surface Use Agreement recorded December 28, 2010, at Reception No. D0135148.
37. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Affidavit of Non-Development recorded October 1, 2013 at Reception No. D3122332.
38. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded May 21, 2014 at Reception NO. D4042797.
39. Mineral rights as conveyed by Bargain and Sale Deed recorded October 6, 2014 at Reception No. D4093205, and any and all assignments thereof or interests therein.
40. Oil and Gas Lease recorded October 28, 2014 at Reception No. D4101519.
41. Oil and Gas Lease recorded November 5, 2014 at Reception No. D4104039.

Exceptions 42 - 47 pertain to Parcel 4: Carruthers. (Arapahoe County)

42. Right of way for ditches and canals as constructed by the authority of the United States, as reserved in United States Patent recorded December 4, 2013 at Reception No. D3145413.
43. An easement for communication systems and incidental purposes, 16.5 feet in width runs along either side of the North property line, granted to the Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 509.
44. Any assessment or lien of the Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
45. Terms, conditions, provisions, agreements and obligations specified under the Easement to Conduct Exploratory Operations, Option for Gas Storage Grant, Oil and Gas Lease by and between Douglas A. Carruthers and Public Service Company of Colorado, a corporation recorded July 2, 1963 in Book 1441 at Page 561.
46. Terms, conditions, provisions, obligations and agreements as set forth in the Findings of Facts, Conclusions of Law, Ruling of Referee, and Decree recorded March 23, 2006, at Reception No. B6045138.
47. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded September 17, 2013 at Reception No. D3116432.

Exceptions 48 - 61 pertain to Parcel 5: Fischau. (Arapahoe County)

48. Right of way for pipeline granted to the Colorado Interstate Gas Company in instrument recorded June 7, 1947 in Book 579 at Page 355 (Affects NW1/4 of said Section 2 and the NE 1/4 of said Section 2

Note: Partial release of Right-of-Way Agreement recorded April 24, 1979 in Book 2977 at Page 67.

49. The effect of the inclusion of the subject property in the Aurora Hospital District, as disclosed by the instrument recorded June 28, 1962 in Book 1351 at Page 259.
50. An undivided 1/4 interest in the proportions of an undivided 1/8 to each of the grantees named within the instrument recorded February 19, 1971 in Book 1909 at Page 614 of all oil, gas and other minerals lying in and under the S1/2 and any and all assignments thereof or interests therein.
51. An easement for a pipe line and additional pipe line for the transportation of oil, gas, petroleum or any of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded 12, 1973 in Book 2117 at Page 787, upon the terms and conditions set forth in the instrument.
52. An easement for a pipe line for the transportation of oil, gas, water, any other substances whether fluid or solid and incidental purposes granted to Amoco Pipeline Company, a Maine corporation by the instrument recorded May 23, 1974 in Book 2240 at Page 741, upon the terms and conditions set forth in the instrument.
53. Terms, conditions, provisions, agreements, obligations and right of way specified under the Right of Way Agreement recorded June 18, 1996 at Reception No. A6076896.
54. Terms, conditions, and provisions of unrecorded Lease Agreement between William L Turnage, as Personal Representative of the Estate of Edwin Fischahs, deceased as Lessor, and Gray A. Van Dyk as Lessee, dated July 16, 1999.
55. An easement for utilities and incidental purposes granted to Williams Communication, Inc., a Delaware Corporation by the instrument recorded November 2, 1998 at Reception No. A8174205.
56. The following matters as set forth on ALTA/ACSM survey by Western States Surveying, Inc. dated May 21, 1999 and last revised August 18, 1999, Job No. 9940-001:
- a) Access road running along the North property line lies within highway right-of-way.
 - b) Dirt crop roads running along the South and West lines of said Section 2 encroach over the section line.
 - c) Colorado Interstate Gas lines run through the Southeast quarter of said Section 2.
 - d) Utility lines run along the North, South and West property lines.
 - e) Discrepancies in property line measurements to the existing monuments set for the South right-of-way line of Interstate 70.
57. Terms and conditions including right to limit access by the Department of Highways, State of Colorado as set forth on instrument recorded September 2, 1958 in Book 1080 at Page 568.

58. An easement and right of way agreement for communication facilities and incidental purposes granted to The Mountain State Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 501.
 59. Terms, conditions, provisions, obligations and agreements as set forth in the Order: Judgement and Decree Quieting Title recorded February 24, 2014 at Reception No. D4014617.
 60. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Affidavit of Surface Inspection recorded April 29, 2014 at Reception No. D4035093.
 61. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use, and Occupancy recorded December 8, 2014 at Reception No. D4114699.
- Exceptions 62 - 76 pertain to Parcel 6: Kissler Parcel. (Arapahoe County)
62. Right of way for ditches and canals as constructed by the authority of the United States, as reserved in United States Patent recorded December 4, 2013 at Reception No. D3145413.
 63. Mineral reservation of all coal and other minerals as contained in Deed from Union Pacific Land Company, March 8, 1912 in Book 66 at Page 8, Quit Claim Deed to Union Pacific Land Resources, a Utah corporation recorded April 16, 1971 in Book 1920 at Page 247 and Release and Quit Claim Deed recorded November 28, 1998 at Reception No. A8189797 (affects Section 7)
 64. An easement for gas pipeline and incidental purposes granted to Colorado Interstate Gas Company by the instrument recorded May 20, 1947 in Book 578 at Page 111.
 65. An easement for utilities and incidental purposes granted to the Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 495.
 66. An easement for utilities and incidental purposes granted to the Mountain States Telephone and Telegraph Company by the instrument recorded October 26, 1972 in Book 2070 at Page 140.
 67. An easement for oil and gas pipeline and incidental purposes granted to Chase Transportation Company by the instrument recorded October 25, 1972 in Book 2181 at Page 702.
 68. An easement for oil and gas pipeline and incidental purposes granted to Amoco Pipeline Company by the instrument recorded May 23, 1974 in Book 2240 at Page 733.
 69. An easement for oil and gas pipeline and incidental purposes granted to Diamond Shamrock Pipeline Company by the instrument recorded September 6, 1995 in Book 8095 at Page 34.
 70. An easement for underground communication system and incidental purposes granted to Williams Communications, Inc. by the instrument recorded October 8, 1998 at Reception No. A8161034.
 71. Request for Notification of Surface Development recorded May 16, 2002 at Reception No. B2090857.
 72. Right of way 30 feet in width for East Alameda Avenue, East 6th Avenue, Watkins Road and Imboden Mile Road.
 73. Terms, conditions, provisions, obligations and agreements as set forth in the Findings of Facts, Conclusions of Law, Ruling of Referee, and Decree recorded February 21, 2006, at Reception No. B6022188.

- 74. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Colorado Interstate Gas Company Cathodic Protection Unit Easement recorded August 28, 2006, at Reception No. B6123884.
- 75. Oil and Gas Lease recorded December 21, 2012 at Reception No. D2147993.
- 76. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded September 17, 2013 at Reception No. D3116432.

Exceptions 77-103 pertain to Parcel 7: Linnebur-Wehlen. (Arapahoe County)

- 77. Reservation of all mineral lands as set forth in United State Patent recorded March 19, 2014 at Reception No. D4022050.
- 78. Reservations by the Union Pacific Land Company of (1) oil, coal and other minerals underlying the land; (2) the exclusive right to prospect for, mine and remove oil, coal and other minerals; and (3) the right of ingress and egress and regress to prospect for, mine and remove oil, coal and other minerals, all as contained in deed recorded September 20, 1889 in Book 66 at Page 23 of the records of the Clerk and Recorder for Arapahoe County, Colorado, and any and all assignments thereof or interests therein.

Note: Quit Claim Deed in connection with said reservations recorded April 16, 1971 in Book 1920 at Page 247.

Note: Mineral Deed in connection with said reservations recorded January 14, 1976 in Book 2410 at Page 77.

- 79. An easement for right-of-way and incidental purposes granted to American Telephone and Telegraph Company by the instrument recorded March 19, 1929 in Book 278 at Page 325.
- 80. An easement for right-of-way and incidental purposes granted to Colorado Interstate Gas Company by the instrument recorded October 17, 1947 in Book 591 at Page 152.
- 81. Each and every right or rights of access to and from any part of the right-of-way for Colorado State Highway No. 8 (Interstate 70) as contained in instrument recorded August 14, 1958 in Book 1078 at Page 60.
- 82. An easement for right-of-way and incidental purposes granted to Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 503.
- 83. Any assessment or lien of Aurora Hospital District, as disclosed by the instrument recorded June 28, 1962 in Book 1351 at Page 259; and of Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
- 84. Terms, agreements, provisions, conditions and obligations as contained in Agreement recorded March 29, 1973 in Book 2113 at Page 576.
- 85. An easement for right-of-way and incidental purposes granted to Chase Transportation Company by the instrument recorded March 29, 1973 in Book 2113 at Page 581.
- 86. Easement Agreement, together with the provisions therein contained, as granted to Amoco Pipeline Company in instrument recorded May 23, 1974 in Book 2240 at Page 719.

87. Oil and Gas Lease between Champlin Petroleum Company and Amoco Production Company, recorded January 22, 1976 in Book 2412 at Page 347, and any and all assignments thereof or interest therein.

Note: Affidavit of Lease Extension in connection with said Oil and Gas Lease recorded February 9, 1981 in Book 3363 at Page 424.

Note: Affidavit of Production in connection with said Oil and Gas Lease recorded April 22, 1981 in Book 3400 at Page 733

88. Right-of-way for ditches or canals constructed by the authority of the United States as reserved in United States Patent recorded January 22, 1901 in Book A57 at Page 207.
89. The right of proprietor of a vein or lode to extract or remove his ore should the same be found to penetrate or intersect the premises thereby granted as reserved in United States patent recorded January 22, 1901 in Book A57 at Page 207; and any and all assignments thereof or interests therein.
90. Reservations of right of way for any ditches or canals constructed by authority of the United States, in U.S. Patent recorded March 24, 1893 in Book A57 at Page 483.
91. The right of proprietor of a vein or lode to extract or remove his ore should the same be found to penetrate or intersect the premises thereby granted as reserved in United States patent recorded March 24, 1893 in Book A57 at Page 483; and any and all assignments thereof or interests therein.
92. An easement for right-of-way and incidental purposes granted to American Telephone and Telegraph Company by the instrument recorded June 4, 1929 in Book 284 at Page 140.
93. An Easement and Release as granted to U.S. West Communications, Inc. by the instrument recorded April 2, 1992 in Book 6424 at Page 330; and Release recorded in Book 6417 at Page 629.
94. Terms, agreements, provisions, conditions and obligations as contained in Right-of-way Agreement by and between Gene L. Linnebur and Shirley M. Linnebur and Diamond Shamrock Pipeline Company recorded March 26, 1996 at Reception No. A6036205. (South 1/2 of Section 1).
95. Terms, agreements, provisions, conditions and obligations as contained in Right-of-way Agreement by and between Gene L. Linnebur and Shirley M. Linnebur and Williams Communications, Inc., recorded October 20, 1998 at Reception No. A8167214.
96. Conveyances and Reservations of Release and Quit Claim Deed from Union Pacific Railroad Company to Union Pacific Land Resources Company recorded November 23, 1998 at Reception No. A8189797.
97. The effect of Notice of Request for Notification of Surface Development recorded May 16, 2002 at Reception No. B2090859.
98. Right-of-way to American Telephone and Telegraph Company recorded in Book 464 at Page 379.
99. The effect of Discontinuance Map of Town of Watkins recorded November 29, 2006 at Reception No. B6167936.

- 100. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded February 24, 2014 at Reception No. D4014687.
- 101. Oil and Gas Lease recorded December 21, 2012 at Reception No. D2147993.
- 102. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded April 29, 2014 at Reception No. D4035094.
- 103. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use, and Occupancy recorded December 8, 2014 at Reception No. D4114699.

Exceptions 104 - 108 pertain to Parcel 8: Luther.

- 104. The right of proprietor of a vein or lode to extract or remove his ore should the same be found to penetrate or intersect the premises thereby granted as reserved in United States patent recorded on March 23, 1981 in Book 3383 at Page 715, and any and all assignments thereof or interest therein.
- 105. An easement to construct, operate, maintain, replace and remove such communication system as the grantees may from time to time require consisting of underground conduit, cables, wires, manholes, surface testing terminals and markers and incidental purposes granted to The Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 505 and as Shown on ALTA/ACSM Land Title Survey prepared Engineering Service Company on May 11, 2006 Survey No. 06067-C.
- 106. An easement to construct, reconstruct, renew, operate, maintain, inspect, alter, repair, remove and re-lay a pipe line and additional pipe lines for the transportation of oil, gas, petroleum or any of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded April 12, 1973 in Book 2117 at 764. Assignment of Rights of Way and Permits recorded January 18, 2005 at Reception Number B5007379 and B5007380.
- 107. House Lease between Luther Seminary and Regy Snyder, as tenant only, dated September 1, 2004.
- 108. Paid-Up Oil and Gas Lease recorded December 28, 2010, at Reception No. D0135151.

NOTE: Affidavit of Production in connection therewith recorded April 13, 2015 at Reception No. D5035879.

Exceptions 109 - 122 pertain to Parcel 9: McCluskey. (Arapahoe County)

- 109. Reservation of all oil, coal and other minerals; thence exclusive right to prospect; the right of ingress, egress and regress; and other reservations under Deed from Union Pacific Land Company to J. M. Gingrich recorded April 5, 1910 in Book 36 at Page 197.
- 110. Any assessment or lien of Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
- 111. Reservations and Grants of Deed from Union Pacific Railroad Company to Union Pacific Land Resources Corporation recorded April 16, 1971 in Book 1920 at Page 247. As modified by Release and Quit Claim Deed recorded November 23, 1998 at Reception No. 8189797.

112. Terms conditions, provisions, agreements and obligations specified under the Easement and Right-of-Way by and between Florence Marie McCluskey and G. A. VanDyk and recorded May 8, 1975 in Book 2332 at Page 764.
 113. Mineral Conveyance to Champlin Petroleum Company recorded January 14, 1978 in Book 2410 at Page 77.
 114. The effect of Notification of Surface Development by RME Land Corp. (Fka Union Pacific Land Resources Corporation) recorded May 16, 2002 at Reception No. B2090860.
 115. An Oil and Gas Lease, from Champlin Petroleum Company as Lessor(s) to Amoco Production Company as Lessee(s) dated October 23, 1975, recorded January 6, 1976 in Book 2412 at Page 347 (Book 2039 at Page 181, Adams County) and Ratification of Lease recorded January 14, 1991 in Book 6080 at Page 258 (Book 3735 at Page 141, Adams County), and any and all assignments thereof or interests therein.
 116. An easement for right-of-way and incidental purposes granted to American Telephone and Telegraph Company by the instrument recorded June 4, 1929 in Book 284 at Page 142.
 117. The following matters disclosed on survey dated September 8, 2003 by Burdick Engineering Consultants, Inc., Job No. 94511:
 - A) Any easement rights by reason of underground electric line crossing subject property at Southwest corner.
 - B) Any easement rights for the use of the public over the Northerly 30 feet of subject property.
 - C) Any easement rights by reason of two-track road 12 feet in width along the North boundary line.
 118. Terms, conditions, burdens and obligations contained in Access Easement Agreement recorded October 28, 2003 at Reception No. B3234045
 119. Terms, conditions, provisions, obligations and agreements as set forth in the Findings of Facts, Conclusions of Law, Ruling of Referee, and Decree recorded February 21, 2006, at Reception No. B6022187.
 120. Appurtenant rights of upper and lower owners in and to the free and unobstructed flow of the water of the Box Elder Creek extending through the land, without diminution.
 121. Oil and Gas Lease recorded December 21, 2002 at Reception No. D2147993.
 122. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded January 8, 2014 at Reception No. D4001767.
- Exceptions 123 - 130 pertain to Parcel 10: Stewart Parcel. (Arapahoe County)
123. Lack of access to Colorado Highway No. 8 (now known as Interstate I-70) as set forth in Deed recorded July 7, 1958 in Book 1071 at Page 358.
 124. An easement and right of way for utilities as granted to The Mountain States and Telephone and Telegraph Company in instrument recorded May 13, 1960 in Book 1189 at Page 513.
 125. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Declaration of Reciprocal Easements recorded March 06, 1996 at Reception No. A6027753.

126. Terms, conditions, provisions, obligations and agreements as set forth in the Aircraft Activity Covenant with Disclosure recorded June 13, 2001 at Reception No. B1094411 and re-recorded September 12, 2001 at Reception No. B1154717.
127. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Memorandum Giving Notice of Oil and Gas Lease recorded July 06, 2010 at Reception No. D0064421.

NOTE: Assignment of Overriding Royalty Interests in connection therewith recorded April 15, 2011 at Reception No. D1036327 and Correction Assignment of Overriding Royalty Interests recorded June 23, 2011 at Reception No. D1059356.

NOTE: Assignment, Bill of Sale and Conveyance in connection therewith recorded May 12, 2011 at Reception No. D1045360.

NOTE: Correction to Assignment of Oil and Gas Leases in connection therewith recorded June 23, 2011 at Reception No. D1059381.

128. Oil and Gas Lease recorded September 1, 2010, at Reception No. D0086115.
129. Any rights, interests, or claims which may exist or arise by reason of the following facts shown on the ALTA/ACSM Land Title Survey dated August 31, 2010, prepared by Alpha Surveying Company, as Job Number 5-4s4-19:
- a) Any loss or damage arising from the fact that the fence lines on or near the perimeter of subject property do not coincide with the exact property lines.
 - b) Encroachment of fences onto the property adjacent and to the South and East of subject property.
 - c) Apparent easement for Highway Billboard as shown on the survey.
130. Oil and Gas Lease recorded December 31, 213 at Reception No. D3153251.
- Exceptions 131 - 134 pertain to Parcel 11: Van Dyk (108ac). (Arapahoe County)
131. Reservations as contained in Patent of the United States recorded October 5, 1915 in Book 78 at Page 528.
132. The effect of Notice setting forth description of area of Arapahoe County, Colorado subject to building code recorded October 7, 1963 under Reception No. 880751.
133. Terms, conditions, burdens and obligations contained in Access Easement Agreement recorded October 28, 2003 at Reception No. B3234045.
134. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144321.
- Exceptions 135 - 142 pertain to Parcel 12: Van Dyk (170ac). (Arapahoe County)
135. An easement to construct, operate, maintain, replace and remove such communication systems as the grantees may from time to time require consisting of underground conduit, cables, wires, manholes, surface testing terminals and markers and incidental purposes granted to The

Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 505.

136. Any assessment or lien of The Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
137. An easement to construct, reconstruct, renew, operate, maintain, inspect, alter, repair, remove and re-lay a pipe line and additional pipe lines for the transportation of oil, gas, petroleum, or any of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded April 12, 1973 in Book 2117 at Page 764.
138. An easement for the transportation of oil, gas, water, any other substances whether fluid or solid and incidental purposes granted to Amoco Pipeline Company by the instrument recorded May 23, 1974 in Book 2240 at Page 731.
139. An easement for underground communication system(s) and incidental purposes granted to Williams Communications, Inc., a Delaware corporation by the instrument recorded November 24, 1998 at Reception No. A8190324.
140. Terms, conditions, provisions, agreements, and obligations specified under the Deferred Payment of Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles J. Taft, Susan K. Taft, Charles H. Taft, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 36.
141. Terms, conditions, provisions, agreements, and obligations specified under the Deferred Payment of Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles I. Taft, Susan K. Taft, Charles H. Tall, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 41.
142. The following matters disclosed by ALTA/ACSM Land Title Survey prepared by Engineering Services Company, Charles N. Beckstrom, Professional Land Surveyor, P.L.S. No. 33202, dated August 16, 2004 Survey No. 04,120-C:
 - a. Telephone pedestals along the Southerly and Westerly portion of Parcel A.
 - b. Six foot wood fence enclosure, electric transformers, concrete and manhole located in the Southwest portion of Parcel A.
 - c. Telephone markers along the Southerly and Westerly portion of Parcel A.
 - d. Gas markers along the Southerly and Westerly portion of Parcel A.
 - e. Underground gas lines affecting the Southerly portion of Parcel A.

Exceptions 143 - 149 pertain to Parcel 13: Van Dyk Kids. (Arapahoe County)

143. An easement to construct, operate, maintain, replace and remove such communication systems as the grantees may from time to time require consisting of underground conduit, cables, wires, manholes, surface testing terminals and markers and incidental purposes granted to The Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 505.
144. Any assessment or lien of The Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
145. An easement to construct, reconstruct, renew, operate, maintain, inspect, alter, repair, remove and re-lay a pipe line and additional pipe lines for the transportation of oil, gas, petroleum or any

of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded April 12, 1973 in Book 2117 at Page 764.

146. Terms, conditions, provisions, agreements and obligations specified under the Deferred Payment Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles J. Taft, Susan K. Taft, Charles H. Taft, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 36.
147. Terms, conditions, provisions, agreements and obligations specified under the Deferred Payment Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles J. Taft, Susan K. Taft, Charles H. Taft, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 41.
148. An easement for public ingress and egress and incidental purposes granted to Watkins Development Farm, LLC, a Colorado limited liability company by the instrument recorded June 8, 2000 at Reception No. B0069063.

Note: Affidavit to Correct Easement recorded September 15, 2004 at Reception No. B4164313.

149. The following matters are disclosed by ALTA/ACSM Land Title Survey prepared by Engineering Service Company, Charles N. Beckstrom, Professional Land Surveyor, P.L.S. No. 33202, dated August 16, 2004 Survey No. 04, 120-C:
 - a. Apparent easement for two track dirt road 8 feet in width along the Easterly property line.
 - b. Fences on Easterly property line do not conform to property line.
 - c. 2.5 foot encroachment of asphalt drive along the Northwest portion of the North property line.

Exceptions 150 - 162 pertain to Parcel 14:Weimer Wheatfield. (Arapahoe County).

150. Reservation of all mineral lands as set forth in United State Patent recorded April 8, 2014 at Reception No. D4028519.
151. The Effect of Notice recorded October 7, 1963 under Reception No. 880751.
152. Right of the proprietor of a vein or lode to extract and remove his ore therefrom. Should the same be found to penetrate or intersect the premises hereby granted, and a right of way for ditches or canals constructed by the Authority of the United States, as reserved in United States Patent recorded May 17, 1897 as Application No. 16023.
(Affects Section 12)
153. Mineral Deed to Champlen Petroleum Company recorded January 22, 1976 in Book 2412 at Page 351.
154. Right of way for ditches or canals constructed by the Authority of the United States as reserved in United States Patent of Record.

Note: Patent Number 222010 dated August 24, 1911. (Affects Section 24)

155. Reservations of all mineral and coal rights in and/or under said Land in Deed recorded March 4, 1950 in Book 666 at Page 466.

156. Request for Notification of Surface Development as evidenced by Instrument recorded May 16, 2002 under Reception No. B2090861.
157. Rights of the County of Arapahoe and the public in and to that portion of Section 13 lying within Watkins Road.
158. Terms, conditions, provisions, burdens, obligations and easements as set forth and granted in restrictive perpetual easement recorded April 09, 1991 in Book 6129 at Page 524.
159. The effect of discontinuance Map of Town of Watkins, recorded November 29, 2006, under Reception No. B6167936.
160. Any rights, interests, or claims which may exist or arise by reason of the following facts shown on the ALTA/ACSM Land Title Survey dated August 18, 2011, prepared by Engineering Service Company, as Job Number 11082C:
 - A) Any loss or damage arising from the fact that the fence lines on or near the perimeter of subject property do not coincide with the exact property lines.
161. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144332.
162. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded February 24, 2014 at Reception No. D4014687.

The following Exceptions Identify Each Parcel It Pertains to:

163. Oil and Gas Lease, as evidenced by Memorandum of Agreement and Lease recorded December 21, 2012 at Reception No. D2147993 of the Arapahoe County records, and any and all assignments thereof or interest therein (As to Parcels 1, 6, 7 9 12 14).
164. Oil and Gas Lease, as evidenced by Memorandum of Agreement and Lease recorded December 26, 2012 at Reception No. 2012000097994 of the Adams County records, and any and all assignments thereof or interest therein (As To Parcel 1).
165. Terms, conditions, provisions, obligations and agreements as set forth in the Special Warranty Deed, Assignment, Bill of Sale and Conveyance recorded January 14, 2013 at Reception No. D3005790 (As to Parcels 4,6, 7,8,10, 12,13,14).
166. Terms, conditions, provisions, obligations and agreements as set forth in the Surface Use Agreement RE: Setbacks recorded July 29, 2013 at Reception No. D3095288 (As to Parcels 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14).
167. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded August 27, 2014 at Reception No. D4079302 (As to Parcels 2, 4, 5, 6, 7,8, 9, 10, 12, 13, 14).
168. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded August 27, 2014 at Reception No. D4079303 and Amendments thereto recorded April 30, 2015 at Reception No. D5043056, September 28, 2015 at Reception No. D5109906 (As to Parcels 2, 3, 4, 5, 6, 7,8, 9, 10, 12, 13, 14).

169. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Surface Use and Compensation Agreement recorded August 27, 2014 at Reception No. D4079306 (As to Parcels 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14).
170. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use, and Occupancy recorded November 18, 2014 at Reception No. D4108584 (2, 3, 7, 9, 14).
171. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 1, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066176 (As to Parcels 5, 7, 8, 14).
172. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 2, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066177 (As to Parcels 2, 5, 7, 8, 9, 12, 14) .
173. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 3, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066178 (As to Parcels 4, 6, 10, 12, 13, 14).
174. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 4, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066179 (As to Parcels 2, 5, 7, 9, 14).
175. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Water and Sanitation Financing Metropolitan District, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066181 (2, 4, 5, 6, 7, 9, 10, 12, 13, 14) .
176. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Park & Recreation Financing Metropolitan District, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066182 (2, 4, 5, 6, 7, 9, 10, 12, 13, 14).
177. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144321.
178. Water rights, claims or title to water, whether or not shown by the public records.
179. Existing leases and tenancies. (As to all Parcels)

EXHIBIT B
Statement of Charges

ALTA Owner Policy - 2006	TBD
Tax Certification (\$25 per parcel)	\$ 625.00
Deletion of Standard Exceptions 1-3	\$ 60.00
Deletion of Standard Exception 4	(Underwriting Approval Required)

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at <http://www.alta.org/>.



First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

DISCLOSURE STATEMENT

Pursuant to C.R.S 30-10-406(3)(a) all documents received for recording or filing in the Clerk and Recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one-half of an inch. The Clerk and Recorder will refuse to record or file any document that does not conform to the requirements of this section.

NOTE: If this transaction includes a sale of the property and the price exceeds \$100,000.00, the seller must comply with the disclosure/withholding provisions of C.R.S. 39-22-604.5 (Non-residential withholding).

NOTE: Colorado Division of Insurance Regulations 3-5-1, requires that "Every title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed." Provided that First American Title Insurance Company conducts the closing of the insured transaction and is responsible for recording the legal documents from the transaction.

Pursuant to C.R.S. 10-11-122, the company will not issue its policy or policies of title insurance contemplated by this commitment until it has been provided a Certificate of Taxes due or other equivalent documentation from the County Treasurer or the County Treasurer's authorized agent; or until the Proposed Insured has notified or instructed the company in writing to the contrary.

The subject property may be located in a special taxing district. A Certificate of Taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent. Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor.

NOTE: Pursuant to CRS 10-11-123, notice is hereby given:

This notice applies to owner's policy commitments containing a mineral severance instrument exception, or exceptions, in Schedule B, Section 2.

- A. That there is recorded evidence that a mineral estate has been severed, leased, or otherwise conveyed from the surface estate and that there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property; and
- B. That such mineral estate may include the right to enter and use the property without the surface owner's permission.

NOTE: Pursuant to Colorado Division of Insurance Regulations 3-5-1, Affirmative mechanic's lien protection for the Owner may be available (typically by deletion of Exception no. 4 of Schedule B, Section 2 of the Commitment from the Owner's Policy to be issued) upon compliance with the following conditions:

- A. The land described in Schedule A of this commitment must be a single family residence which includes a condominium or townhouse unit.
- B. No labor or materials have been furnished by mechanics or material-men for purposes of construction on the land described in Schedule A of this Commitment within the past 6 months.
- C. The Company must receive an appropriate affidavit indemnifying the Company against un-filed mechanic's and material-men's liens.
- D. The Company must receive payment of the appropriate premium.

- E. If there has been construction, improvements or major repairs undertaken on the property to be purchased within six months prior to the Date of the Commitment, the requirements to obtain coverage for unrecorded liens will include: disclosure of certain construction information; financial information as to the seller, the builder and or the contractor; payment of the appropriate premium, fully executed Indemnity Agreements satisfactory to the company, and, any additional requirements as may be necessary after an examination of the aforesaid information by the Company.

No coverage will be given under any circumstances for labor or material for which the insured has contracted for or agreed to pay.

NOTE: Pursuant to C.R.S. 38-35-125(2) no person or entity that provides closing and settlement services for a real estate transaction shall disburse funds as a part of such services until those funds have been received and are available for immediate withdrawal as a matter of right.

NOTE: C.R.S. 39-14-102 requires that a real property transfer declaration accompany any conveyance document presented for recordation in the State of Colorado. Said declaration shall be completed and signed by either the grantor or grantee.

Nothing herein contained will be deemed to obligate the company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.

NOTE: Pursuant to CRS 10-1-128(6)(a), It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policyholder or claimant for the purpose of defrauding or attempting to defraud the policyholder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado division of insurance within the department of regulatory agencies.

September 7, 2016

Julio Iturreria
Arapahoe County
Public Works and Development
6924 South Lima Street
Centennial, Colorado 80112-3853

Response to Comments on the Prosper Wastewater Treatment Plant
Site Application and Utility Plan

Dear Mr. Iturreria:

Please find our responses to the August 9, 2016 Arapahoe County Public Works and Development review comments for the Prosper Wastewater Treatment Plant Site Application and Utility Plan. The revised Utility Plan is attached addressing the comments below.

- a. *Page 1, Section 22.4: Completeness Checklist under System Name is VREI, Inc. Typically, the Prosper Metro District would be the Applicant and not VREI, Inc. which is not mentioned until page 38. Please explain the relationship between the Metro District and VREI, Inc. and any agreements that may or may not exist. Also on page 38 the description states that the 8.22 acre parcel is solely owned by VREI. We need more information to this relationship with the Metro District as well.*

Response: The application has been updated to reflect Prosper Regional Water and Sanitation Service Metropolitan District as the applicant. The first paragraph of the report has been revised to describe the Prosper Regional Water and Sanitation Service Metropolitan District as the Owner. All references to VREI, Inc. have been deleted.

- b. *On Page 4, Section 22.4: Application Form, a signature is necessary from the City of Aurora Engineering Services Manager. What is the status of review by the City of Aurora? Have any comments from the City been addressed?*

Response: The City of Aurora has not provided specific comments regarding the proposed Prosper Waste Water Treatment plant. The only comments received by the comment deadline of August 16, 2016 were comments regarding the Sky Ranch water and waste water project.

- c. *Historically, the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment has been opposed to proposing package treatment plans. Did the applicant verify with the WQCD that this is an appropriate system for the proposed facility? How are the initial facilities incorporated into future phases/build out?*

Response: Original pages 1,2,4,14,18,36; Revised Pages 2,5,13,19,37: The report has been revised to include the new design flow of 132,500 gpd (per Aug 2, 2016 letter).

The increased design flow changed the process to an in-basin MBR system rather than a package plant. The initial facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The Metropolitan Districts will determine the selected treatment process for future phases as the demand of the WWTP increases.

- d. *Effluent standards: Will the new system follow the new strict nutrient reduction standards? Is the total residual chlorine limit of 0.5 mg/l correct? Why not the 0.019/0.11 mg/l listed in the PELs?*

Response: The new system will follow the new strict nutrient reduction standards per Table 1 of the PELs. The total residual chlorine limit has been deleted from Table 3-4 (Original page 22; Revised page 23). There is no chlorine limit per Table 1 of the PELs, there is only an in-stream standard. Per Section 4 of the report, the WWTP will utilize UV disinfection.

- e. *Population Density: What is the source of data for the population projections? Tables (or graphs) should show annual population growth; possibly a range of low and high growth scenarios. Some of the tables show only anticipated wastewater flows without correlation to population figures.*

Response: Table 2-2 and page 11 (Original page 11; Revised page 11) has been updated to include population figures and the source of population data. The source of the data for the population projection is included in the approved Prosper 1041 "New Communities" Permit, Section 6, Coley Forrest Fiscal Impact Report. The population projection outlined in the report served as a basis for preparing Population Density information.

- f. *Timeline: The applicant's timeline for build out does not match up with requirements. State regulations generally require that engineering and financial planning be underway by the time that a facility reaches 80 percent capacity and that construction for an expansion of capacity be underway by the time that a facility reaches 95 percent of its permitted capacity. If flow projections are accurate, work on an expansion of the wastewater treatment facilities will need to start shortly after completion of phase 1.*

Response: Original pages 6, 39; Revised Pages 6, 41, 42: An explanation of when the second phase of Phase 1 will begin has been added to the report. The timeline is based on the absorption schedule, provided in Table 2-2 of the report, and may need to be modified in the future based on the rate of development. Based on the absorption schedule, expansion of the WWTP to Phase 1 buildout (265,000 gpd) will need to start shortly after completion of the initial phase (132,500 gpd). It is important not to oversize the initial phase of the WWTP in order to reliably treat the low flow and loading encountered at the beginning of the development.

- g. *Reuse: The utility plan needs more information on "reuse". Discussions about discharging to Rat Run creates confusion without a clear explanation of the proposed interrelationship between the water supply and wastewater systems. The applicant mentioned "reuse" within the 1041 new communities document, however the information has not been tied to this wastewater utility plan.*

Response: Original pages 2, 15; Revised Pages 2, 16: Reuse is further described in the report. Initially all of the flow will be discharged to Rat Run and a small amount will be used for on-site reuse. Off-site reuse will begin in Phase 2 of the project. Its not economically feasible to start off-site reuse at the low initial flows. However reuse of the reclaimed wastewater is a critical component of the Water Supply Plan (HRS Water Consultants, January 2014), submitted as part of the Prosper PDP.

- h. *Wastewater collection system: Please provide Please provide a more complete description of the wastewater collection system. Are any sewage lift stations proposed?*

Response: Original Page 23; Revised Page 24: Figure 4-1 has been added to the report to show the map of the Phase 1 collection system. The report has been revised to state that the collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

- i. *Wastewater facilities site: Please provide a preliminary site plan showing the layout of the proposed 100,000 initial phase facilities {132,500 gpd per your letter of August 2nd) and also the ultimate 3.3 MGD facility. Address site buffers and how existing treatment will be maintained during future expansions.*

The site is flanked on two sides by floodplain (Appendix A). How will site access be maintained?

Response: Original Page 36; Revised Page 37: A preliminary site plan has been included in Figure 5-2. The two drainage ways on each side of the WWTP will act as site buffers as well as landscaping that will help mask the treatment process basins. The existing treatment process will remain in operation during construction of the second treatment process train, this will be later discussed during planning and design of the second phase of Phase 1.

Original Page 9; Revised Page 9 has been revised to include a summary of the following: The site will be accessed by a temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility.

The access roadway is comprised of a gravel surface, and is identified as temporary until such time as a future paved is completed in the area. There is no specific timetable for the future permanent roadway construction.

As the access road is placed at the natural ground elevation across the 2 drainageways, it will overflow and “flood” during storm events. Maximum flow depth at the 100 yr event has been determined to be 18” at the roadway crossings. Staff personal will be trained on use of the roadway during pending and actual storm events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles.

An ultimate emergency means of access is available to the site from I-70.

Bennett Fire Department has reviewed the site plan and accessibility route and have determined it to be sufficient.

- j. *Biosolids: Please describe in detail and with greater research the proposed management of biosolids. Disposal of biosolids, as proposed in the Utility Plan Report, is not consistent with current statewide practice of beneficial use of biosolids through land application; typically, by contract for smaller facilities such as Prosper's.*

Response: An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

- k. *Financial System: Please explain further the reasoning for selection of the more expensive MBR system as compared to the other treatment options and how this impacts anticipated tap fees and user charges.*

Please expand on the role of the different Prosper metropolitan districts including the use of mil/levy revenue. Are bonds in place since the US BANK letter does not appear to be a letter of credit?

Response: The reasons for selecting the MBR system are described on Original page 34; Revised Page 36 of the report. The cost estimates are planning level and may have a margin of error of +/- 20%. The MBR system is only approximately 7% more expensive than the other alternatives, which is well within the margin of error of the cost estimates. As such, there are no anticipated impacts to anticipated tap fees and user charges.

Original page 38; Revised Page 40 of the report have been revised to include a summary of the following: The Prosper Regional Water and Sewer Metropolitan District (the "Regional Water and Sewer District") is organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sewer and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The Regional Water and Sewer District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sewer District will be limited in area and will most likely not expand through the life of the Development.

The Prosper Water and Sanitation Financing District (the "Water and Sanitation Financing District"), is comprises all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

- l. *Odor: How will odors be dealt with during the entire development and build out of this project? Please describe how the proposed facilities will comply with the WQCD's setback policies.*

Response: Some of the WWTP facilities will be located within the WQCD's setback distances, thus odor mitigating elements will be incorporated into the design including aeration system failure alarms, covering or enclosing the digester and process basins, and providing odor control systems for the influent lift station and headworks building. This information has been added to page 31 and 32 of the report (Original Pages 29 and 30).

- m. *Implementation: Will the initial discharge permit be limited to 60,000 gpd consistent with WQCD policy that all facilities need to be constructed for any given permitted capacity? (page 36)*

Response: No, the initial discharge permit will be for 132,500 gpd. The PELs are for the full Phase 1 buildout of 265,000 gpd, a request has been made to CDPHE to decrease the permitted design flow to 132,500 gpd. Since the low flow in the receiving stream is zero there will be no change to the anticipated PELs.

- n. *Miscellaneous Comments: Verify capacity of the existing Foxridge Farms plant (page 15). Please note that the Coal Creek facility does not serve the Arapahoe County fairgrounds (page 15}. The dollars in the text above the tables on pages 31 and 32 are erroneous. Were electric utility costs included in the annual cost estimates (Table 4-7, eta/)?*

Response: Original page 17; Revised Page 18: The capacity of the existing Foxridge Farms plant was changed to, "a design capacity of 0.13 mgd (30 day average)" per the plant's permit. The 0.643 mgd previously in the report was the planned capacity for the plant.

Additionally, the rated capacity of the other plants were checked and the capacity of the Coal Creek plant was changed to, "a design capacity of 0.13 mgd (30 day average)" per the permit for that plant. The 0.06 mgd capacity previously in the report was the capacity used for the primary effluent limits for the plant.

The reference to the Coal Creek plant serving the Arapahoe County fairgrounds has been removed from the report.

Please feel free to contact me in the future should you have any additional questions or concerns at 303.951.0637 or sroberts@dewberry.com.

Sincerely,



Stacy Roberts, PE
Project Manager

Cc: Warren Brown, Tri-County Health Department
Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora

Doug Camrud, CDPHE WOCD

August 26, 2016

Warren S. Brown, P.E.
Senior Environmental Health Consultant
Tri-County Health Department
6162 S. Willow Dr., Suite 100
Greenwood Village, CO 80111

Response to Comments on the Prosper Wastewater Treatment Plant
Site Application and Utility Plan TCHD Case No. 3966

Dear Mr. Brown:

Please find our responses to the August 9, 2016 Tri-County Health Department review comments for the Prosper Wastewater Treatment Plant Site Application and Utility Plan TCHD Case No. 3966.

- 1. Page 1, Section 22.4: Completeness Checklist under System Name is VREI, Inc. Typically, the Prosper Metro District would be the Applicant and not VREI, Inc. which is not mentioned until page 38. Also on page 38, the description states that the 8.22 acre parcel is solely owned by VREI. Please explain the relationship between the Metro District and VREI, Inc. and any agreements that may or may not exist.*

Response: The application has been updated to reflect Prosper Regional Water and Sanitation Service Metropolitan District as the applicant. The first paragraph of the report has been revised to describe the Prosper Regional Water and Sanitation Service Metropolitan District as the Owner. All references to VREI, Inc. have been deleted.

- 2. On Page 4, Section 22.4: Application Form, a signature is necessary from the City of Aurora Engineering Services Manager. What is the status of review by the City of Aurora? Have any comments from the City been addressed?*

Response: The City of Aurora has not provided specific comments regarding the proposed Prosper Waste Water Treatment plant. The only comments received by the comment deadline of August 16, 2016 were comments regarding the Sky Ranch water and waste water project.

- 3. Wastewater Planning Criteria and Population Density. The Utility Plan Report includes several tables which project wastewater flows for various years during the planning horizon for the project. The basis for determining wastewater flows is typically population projections. However, the tables do not indicate population projections nor per capita wastewater flows. Please provide tables (or graphs) which show: annual population growth; per capita flows; total flows; and indicate the source of the data for population projections. Please consider showing a range of low and high growth scenarios.*

Response: Table 2-2 and page 11 (Original page 11; Revised page 11) has been updated to include population figures and the source of population data. The source of the data for the

population projection is included in the approved Prosper 1041 “New Communities” Permit, Section 6, Coley Forrest Fiscal Impact Report. The population projection outlined in the report served as a basis for preparing Population Density information.

4. *Timeline: Per Table 2-2, the anticipated absorption schedule and plant capacity is 0.09 million gallons/day (mgd) by the year 2020. However, under the heading “Schedule” on page 39 of Section 5, the narrative states: “... the second phase of the project will be implemented when the WWTP reaches approximately 60,000 gallons per day (0.06 mgd), which is expected to occur by mid-2020...” Please address this discrepancy:*

The following components will not be implemented until the flow reaches 60,000 gallons/day: screening, grit removal, flow equalization and digester facilities. TCHD questions how flows at that level can be managed without those components.

Table 5-1 indicates that it will take 27 months from planning to completion of the first phase of the WWTP, with a projected completion date of April 2018. In your letter of August 2, 2016 to Julio Iturreria, you indicate that the phase 1 design capacity will be increased from 0.10 mgd to 0.1325 mgd. CDPHE requires that planning for expansion begin at 80% of design flow and construction begin at 95% of design flow. Given that Table 2-2 projects flow at 0.129 mgd (97% capacity) in 2021, you will need to start the approval process for phase 2 shortly after completion of phase 1.

Response: Original pages 6, 39; Revised Pages 6, 41, 42: An explanation of when the second phase of Phase 1 will begin has been added to the report. The timeline is based on the absorption schedule, provided in Table 2-2 of the report, and may need to be modified in the future based on the rate of development. Based on the absorption schedule, expansion of the WWTP to Phase 1 buildout (265,000 gpd) will need to start shortly after completion of the initial phase (132,500 gpd). It is important not to oversize the initial phase of the WWTP in order to reliably treat the low flow and loading encountered at the beginning of the development.

Section 5 has been revised to include screening, grit removal, and digester facilities for the initial phase of the WWTP.

5. *Wastewater Reuse: The utility plan needs more information on “reuse”. The applicant mentioned “reuse” within the 1041 new communities document; however, the proposal to discharge WWTP effluent to Rat Run is inconsistent with any plan to re-use treated wastewater. Please clarify this inconsistency.*

Response: Original pages 2, 15; Revised Pages 2, 16: Reuse is further described in the report. Initially all of the flow will be discharged to Rat Run and a small amount will be used for on-site reuse. Off-site reuse will begin in Phase 2 of the project. Its not economically feasible to start off-site reuse at the low initial flows. However reuse of the reclaimed wastewater is a critical component of the Water Supply Plan (HRS Water Consultants, January 2014), submitted as part of the Prosper PDP.

6. *WWTP Impact on Well: Figure 2-2 indicates a “future well site” a short distance downstream from the WWTP discharge. TCHD is concerned about the WWTP discharge impacting the well, even if the well is completed in a deep aquifer.*

Response: The indicated well will be relocated to the west of the WWTP site, as shown on the revised Figure 2-2, up gradient from the WWTP discharge. Any surface contamination from the WWTP discharge or other sources will not reach the deep aquifers where the wells are completed due to the deep depth of the well, the well construction which seals the well from surface contamination, and the very low vertical permeability of the bedrock sediments.

7. *Wastewater collection system: Please provide a more complete description of the wastewater collection system. Are any sewage lift stations proposed? If so, please indicate where will these be located and when they will be required.*

Response: Original Page 23; Revised Page 24: Figure 4-1 has been added to the report to show the map of the Phase 1 collection system. The report has been revised to state that the collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

8. *WWTP Process Schematic and Site Plan. Figure 4-4 MBR System Process Schematic and Figure 5-1 Process Flow Schematic, indicate the layout of the proposed WWTP. However, the WWTP layout depicted in Figure 1 of the Kumar report is not consistent with Figures 4-4 or 5-1. Since the layouts are different, are the geotechnical borings depicted in the Kumar Report still sufficient to characterize the subsurface conditions for the actual WWTP? Will the Kumar report need to be revised?*

Response: Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The geotechnical borings depicted in the Kumar Report are still sufficient and do not need to be revised.

9. *WWTP Phasing: Based on our understanding of the plan, the Phase 1 WWTP will be comprised of package components, followed by permanent facilities as flows to the WWTP reach 60,000 gallons/day. In order to better understand and evaluate the various phases of the WWTP, please provide site plans showing the anticipated stages of plant construction, starting with the “package phase” through final permanent plant components. In addition, please address site buffers and how existing treatment will be maintained during future expansions.*

Response: Original pages 1,2,4,14,18,36; Revised Pages 2,5,13,19,37: The report has been revised to include the new design flow of 132,500 gpd (per Aug 2, 2016 letter).

The increased design flow changed the process to an in-basin MBR system rather than a package plant. The initial facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The Metropolitan Districts will determine the selected treatment process for future phases as the demand of the WWTP increases.

The two drainage ways on each side of the WWTP will act as site buffers as well as landscaping that will help mask the treatment process basins. The existing treatment process

will remain in operation during construction of the second treatment process train, this will be later discussed during planning and design of the second phase of Phase 1.

10. *The site is flanked on two sides by floodplain (Appendix A). How will site access be maintained?*

Response: Original Page 9; Revised Page 9 has been revised to include a summary of the following: The site will be accessed by a temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility.

The access roadway is comprised of a gravel surface, and is identified as temporary until such time as a future paved is completed in the area. There is no specific timetable for the future permanent roadway construction.

As the access road is placed at the natural ground elevation across the 2 drainageways, it will overflow and “flood” during storm events. Maximum flow depth at the 100 yr event has been determined to be 18” at the roadway crossings. Staff personnel will be trained on use of the roadway during pending and actual storm events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles.

An ultimate emergency means of access is available to the site from I-70.

Bennett Fire Department has reviewed the site plan and accessibility route and have determined it to be sufficient.

11. *Waste Sludge: On page 29 of the plan, under the heading “Aerobic Digesters” it states: “For Phase 1 of the WWTP a vac truck will periodically remove the settled sludge from the digesters and haul off site for disposal.” However, under the heading Schedule on page 39 of Section 5, the narrative states: “The second phase of the project, which will include....and digester facilities, will be implemented when the WWTP reaches approximately 60,000 gpd influent flow”. Please clarify this inconsistency regarding when the digesters will be constructed. Since landfills cannot accept waste sludge, the most likely site for sludge disposal is another WWTP. Please provide more specificity on the disposal location for waste sludge.*

Response: “For Phase 1 of the WWTP a vac truck will periodically remove the settled sludge from the digesters and haul off site for disposal.” has been deleted from under the “Aerobic Digesters” heading. An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

12. *Biosolids: The layout of the WWTP, as shown in Figure 5-1, Process Flow Schematic, depicts biosolids from the aerobic digester being landfilled. Please describe in detail and with greater research the proposed management of biosolids. Disposal of biosolids is not consistent with the current statewide practice of beneficial use of biosolids through land application; typically, by contract for smaller facilities such as Prosper’s.*

Response: Figure 5-1 has been revised to say “to land application”. An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

13. *Financial System: Please explain further the reasoning for selection of the more expensive MBR system as compared to the other treatment options and how this impacts anticipated tap fees and user charges.*

Response: The reasons for selecting the MBR system are described on Original page 34; Revised Page 36 of the report. The cost estimates are planning level and may have a margin of error of +/- 20%. The MBR system is only approximately 7% more expensive than the other alternatives, which is well within the margin of error of the cost estimates. As such, there are no anticipated impacts to anticipated tap fees and user charges.

14. *Metro District's Role: Please expand on the role of the different Prosper metropolitan districts including the use of mill levy revenue. Are bonds in place since the US BANK letter, located as page 1 of Appendix E, does not appear to be a letter of credit?*

Response: Original page 38; Revised Page 40 of the report have been revised to include a summary of the following: The Prosper Regional Water and Sewer Metropolitan District (the “Regional Water and Sewer District”) is organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sewer and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The Regional Water and Sewer District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sewer District will be limited in area and will most likely not expand through the life of the Development.

The Prosper Water and Sanitation Financing District (the “Water and Sanitation Financing District”), is comprises all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

15. *Odors: How will odors from the WWTP be dealt with during the entire development and build out of this project? Please describe how the proposed facilities will comply with the CDPHE Water Quality Control Division's setback policies.*

Response: Some of the WWTP facilities will be located within the WQCD's setback distances, thus odor mitigating elements will be incorporated into the design including

aeration system failure alarms, covering or enclosing the digester and process basins, and providing odor control systems for the influent lift station and headworks building. This information has been added to page 31 and 32 of the report (Original Pages 29 and 30).

16. *Implementation: Will the initial discharge permit be limited to 60,000 gpd consistent with WQCD policy that all facilities need to be constructed for any given permitted capacity? (page 36)*

Response: No, the initial discharge permit will be for 132,500 gpd. The PELs are for the full Phase 1 buildout of 265,000 gpd, a request has been made to CDPHE to decrease the permitted design flow to 132,500 gpd. Since the low flow in the receiving stream is zero there will be no change to the anticipated PELs.

17. *Consolidation Analysis-Metropolitan Wastewater Reclamation District (MWWRD): The narrative states: "It is assumed the MWWRD facilities have not been upgraded to accommodate wastewater flows outside of their current service boundary; and; ".....it is assumed that the existing infrastructure does not have the capacity to carry the increased flows from the Prosper service area." TCHD requests that you verify, rather than assume, whether or not MWWRD has capacity.*

Response: The narrative "It is assumed the MWWRD facilities have not been upgraded to accommodate wastewater flows outside of their current service boundary; and; ".....it is assumed that the existing infrastructure does not have the capacity to carry the increased flows from the Prosper service area." has been deleted from the report and replaced with "The adjacent City of Aurora is part of the MWWRD service boundaries, however, Prosper is not within the corporate boundaries of Aurora thus Prosper is not required to send wastewater flow to MWWRD. Also, as described in Section 4, onsite wastewater treatment facilitates on-site and off-site reuse water and is needed to satisfy the planned water supply criteria for the Prosper Development."

This is further described in the City of Aurora referral letter provided as part of the Prosper WWTP 1041 Report (to be provided on request.)

18. *In Figure 2-3, Prosper Development Wetlands Map. The word "Prosper" is misspelled in the title.*

Response: The title of Figure 2-3 has been corrected.

Please feel free to contact me in the future should you have any additional questions or concerns at 303.951.0637 or sroberts@dewberry.com.

Sincerely,



Stacy Roberts, PE
Project Manager

Cc: Julio Iturreria, Arapahoe County

Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora
Doug Camrud, CDPHE WQCD



Dewberry Engineers Inc. | 303.825.1802
990 South Broadway, Suite 400 | 303.825.2322 fax
Denver, CO 80209 | www.dewberry.com

August 2, 2016

Arapahoe County
Public Works and Development
Attn: Julio Iturreria
6924 South Lima Street
Centennial, CO 80112

Mr. Julio Iturreria,

The purpose of this letter is to inform you of a proposed revision to the Prosper WWTP Utility Plan Report submitted to you on June 16, 2016. The revision increases the design flows and loading for the initial phase of the proposed Prosper Wastewater Treatment Plant (WWTP) as summarized below. A revised report will be submitted to the Colorado Department of Public Health and Environment (CDPHE) with the following revisions:

Prosper WWTP Utility Plan Report – June 2016:
Design Maximum Month Flow = 100,000 gpd
Design Peak Hour Flow = 160,000 gpd
Design Loading = 175 lbs/day

Prosper WWTP Utility Plan Report – August 2016 (to be submitted to CDPHE):
Design Maximum Month Flow = 132,500 gpd
Design Peak Hour Flow = 238,500 gpd
Design Loading = 265 lbs/day

The total plant capacity for Phase 1 of the Prosper WWTP is 265,000 gpd as described in the original Utility Plan Report. This capacity is unchanged, and the revision only impacts the sizing of the initial phase of the treatment plant construction and not the overall capacity requirements for the Phase 1 Prosper development. The design flow and loadings have been revised to reflect one half of the total design flow; 132,500 gpd.

The revised design criteria does not change the recommended treatment alternative (MBR) however it will increase the size of the MBR process basins and some process equipment. The size of the process buildings and ancillary items presented in Section 4 of the report will remain unchanged. The new total opinion of probable construction cost for the initial phase of the WWTP is \$3.1 million; approximately \$230,000 more than what was originally presented in Section 5 of the report.

We hope that this revision is perceived as minor and does not prolong your review process. Please contact me at 303.951.0637 at your earliest convenience if you should have any questions or specific concerns regarding the revised design criteria for the Prosper WWTP.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts".

Stacy Roberts, P.E.

VREI, Inc.
Prosper Wastewater Treatment Plant Utility Plan Report Revision
August 2, 2016

Cc:
Vern Adam, PE, Aurora Water Department, Planning and Engineering Services
Sheila Lynch, Tri-County Health Department



Dewberry Engineers Inc. | 303.825.1802
990 South Broadway, Suite 400 | 303.825.2322 fax
Denver, CO 80209 | www.dewberry.com

September 7, 2016

Arapahoe County
Public Works and Development
Attn: Julio Iturreria
6924 South Lima Street
Centennial, CO 80112

Mr. Julio Iturreria,

Dewberry Engineers Inc. (Dewberry) is pleased to submit the following revised Site Application/Utility Plan Report for the new Prosper Wastewater Water Treatment Plant (WWTP). Point-by-point response **letters, addressing Arapahoe County's and Tri-County Health's comments to the original report, is** included as part of this submittal.

Per Colorado Department of Public Health and Environment (CDPHE) Regulation 22.4, please provide your **recommend approval by signing and dating the revised site application on the provided signature line. An updated signature form is included as part of this submittal to show the Prosper Regional Water & Sanitation Service Metropolitan as the Owner of the WWTP.**

Thank you for your time and consideration. Please feel free to contact me at 303.951.0637 if you should have any questions or specific concerns regarding this revised site application.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts".

Stacy Roberts, P.E.

Attachments: Site Application_rev1
Site Application Completeness Checklist_rev1
Prosper WWTP Utility Plan Report_rev1
Letters of Point-by-Point Response



Dewberry Engineers Inc. | 303.825.1802
990 South Broadway, Suite 400 | 303.825.2322 fax
Denver, CO 80209 | www.dewberry.com

September 1, 2016

Aurora Water Department
Planning and Engineering Services
Attn: Vern Adam, PE
15151 East Alameda Avenue, Suite 3600
Aurora, CO 80012

Mr. Vern Adam,

The intent of this letter is to follow-up further to determine if the City of Aurora (City) has prepared any comments regarding the Site Application/Utility Plan Report for the new Prosper Wastewater Water Treatment Plant (WWTP). The above referenced report was submitted to the City on June 16, 2106 for review and comment. Comments were not received during the 30-day review deadline which was August 16th, 2016, which has precipitated this follow-up letter. Dewberry did receive an email on August 17, 2016 indicating that comments were provided to the City Planning Department and the comments provided in the email were related to the Sky Ranch development and not Prosper.

If there are no comments regarding the Prosper WWTP Site Application/Utility Plan Report, please return the Application Certification and Review Agencies Recommendation form with your original signature of approval. This form was submitted as part of the original submittal on June 16, 2016, please let me know if you need me to send this again.

Thank you for your time and consideration. Please feel free to contact me at 303.951.0637 if you should have any questions or specific concerns regarding this request.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts". The signature is stylized with a cursive-like flow.

Stacy Roberts, P.E.



Dewberry Engineers Inc.
990 South Broadway, Suite 400
Denver, CO 80209

303.825.1802
303.825.2322 fax
www.dewberry.com

September 7, 2016

Colorado Department of Public Health and Environment
Water Quality Control Division
Attn: Doug Camrud
4300 Cherry Creek South Drive
Denver, CO 80246

Mr. Doug Camrud,

Dewberry Engineers Inc. (Dewberry) is pleased to submit the following Site Application/Utility Plan Report for the new Prosper Wastewater Water Treatment Plant (WWTP). Details of the wastewater treatment infrastructure needs and support systems are provided in the enclosed documents.

The intent of this submittal is to get the Site Application into the queue for review by the WQCD. The outside referral agencies have been contacted and their comments to the Utility Plan Report are included in this submittal. **Point-by-Point response letters, addressing the referral agency's comments, is also included as part of this submittal. The referral agency signatures will be submitted once they're received.** The public notification sign is also in the process of being posted at the WWTP site; posting documentation will be submitted once complete.

During the referral agency review period, the WWTP design flows and loadings were revised to be approximately one-half of the total design flow of Phase 1 of the project. A letter was provided to the referral agencies to inform them of this change and is included as part of this submittal. The revised design flow requires that the PELs be changed to 132,500 gpd. The existing PELs are for the total design flow of Phase 1; 264,600 gpd. Correspondence with CDPHE confirmed this revision will not change the PELs, as the low flow of the receiving stream is zero, and can be revised during the Site Application review process.

Thank you for your time and consideration. Please feel free to contact me at 303.951.0637 if you should have any questions or specific concerns regarding this site application.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts".

Stacy Roberts, P.E.

Cc: Julio Iturreria, Arapahoe County
Warren Brown, Tri-County Health Department
Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora

Attachments: Site Application
Site Application Completeness Checklist

Prosper WWTP
Site Application/Utility Plan Report Submittal
September 7, 2016

Prosper WWTP Utility Plan Report
Referral Agency Point-by-Point Response Letters
Letter Describing Change in Design Flow



Colorado Department
of Public Health
and Environment

Water Quality Control Division Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Regulation 22 Application Form Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility

A. Project and System Information					
System Name		Prosper Regional Water & Sanitation Service Metropolitan District (owner)			
Project Title		Prosper Wastewater Treatment Plant			
County		Arapahoe			
Date Fee Paid or payment attached		Invoice Number and Check Number			
Design Company Name		Dewberry Engineers, Inc.			
Design Engineer		Stacy Roberts	CO License Number	46887	
Address		990 S Broadway Suite 400 Denver, CO 80209			
Email		sroberts@dewberry.com			
Phone		303-951-0637	Fax	303-825-2322	
Applicant / Entity		Prosper Regional Water & Sanitation Service Metropolitan District			
Representative Name/Title		Jeff Vogel (developer)			
Address		475 W 12 th Ave, Suite E Denver, CO 80204			
Email		jvogel@vogelassoc.com			
Phone		303-893-4288	Fax	303-893-6792	
B. Project Information					
Location (existing or proposed site)			Proposed Project Capacity		
Brief location description		Approximately 3,350 feet Southwest of the I-70 and Watkins Road Intersection	Maximum Month Average Hydraulic Capacity in million gallons per day (MGD)		0.10 MGD
Legal Description (e.g., Township, Range)		NW 1/4 of Section 1, Township 4 South, Range 65 West, of the 6 th Principal Meridian	Peak Hour Hydraulic Capacity in million gallons per day (MGD)		0.16 MGD
County		Arapahoe County	Organic Capacity (lbs. BOD ₅ /day) – Treatment Facility Only		175 lbs. BOD ₅ /day
Latitude		39.737514N			
Longitude		W104.614406W			
Funding Process	Will a State or Federal grant or loan be sought to finance any portion of the project (e.g., State Revolving Fund)?		No	<input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
			If yes, please list project number		
Project Schedule and Cost Estimate					
Estimated Bid Opening Date		July 2017			
Estimated Completion Date		April 2018			
Estimated Project Cost		\$3.0M			

Project and System Information

Project Title	Prosper Wastewater Treatment Plant
System Name	Prosper Regional Water & Sanitation Service Metropolitan District (owner)
County	Arapahoe

Treatment Facility Information

1. **Type and capacity of treatment facility proposed including major processes used**
Package Membrane Bioreactor (MBR) system with the capacity of 0.10 MGD and 175 ppd BOD. Construction of the initial package plant will include an influent lift station (located on the WWTP site), an MBR process building that includes a lab/office and maintenance shop area, and an MBR package system complete with fine screening, alum addition for phosphorus removal, and UV disinfection. The new WWTP will have the ability to meet the effluent requirements of Regulation 85.

Site Information

2. **Vicinity maps of facility location which includes the following:**
a) 5 mile radius map: all wastewater treatment facilities, lift stations and domestic water supply intakes
b) 1 mile radius map: habitable buildings, location of public and private potable water wells, an approximate indication of the topography, and neighboring land uses
See attached.
3. **Site Location Zoning**
a) Present zoning of the site location?
Wastewater Treatment
b) Zoning within a one (1) mile radius of the site?
Low, Medium, High Density Residential, Employment (Light Industrial/Flex/Office), Open Space, Commercial Retail, Mixed Use Commercial,
4. **Floodplain and Natural Hazards**
a) Is the facility located in a 100-year floodplain or other natural hazard area? If so, what precautions are being taken?
The facility is not located in a 100-year floodplain or other natural hazard area.
b) Has the floodplain been designated by the Colorado Water Conservation Board, Department of Natural Resources or other agency? If so, please list agency name and the designation.
N/A
5. **Land Ownership**
a) Who owns the land upon which the facility will be constructed? Please attach copies of the document(s) creating authority for the applicant to construct the proposed facility at this site.
Prosper Regional Water & Sanitation Service Metropolitan District, see Section 5 and Appendix E of the Utility Plan Report.
6. **Nearby Facilities**
a) Please list all municipalities and water and/or sanitation districts within 5-miles downstream of the proposed wastewater treatment facility site.
Response: None

Treatment Facility Effluent Information**7. Effluent disposal method (check all that apply)**

- | | |
|--|---|
| <input checked="checked" type="checkbox"/> | Surface Discharge to watercourse (enter watercourse name below) |
| <input type="checkbox"/> | Groundwater Discharge |
| <input type="checkbox"/> | Land application |
| <input type="checkbox"/> | Treated Effluent Reuse (Regulation 84) |
| <input type="checkbox"/> | Evaporation |
| <input type="checkbox"/> | Other (describe below) |

Rat Run

8. Preliminary Effluent Limits (please attach a copy in Engineering Report)

a) Preliminary Effluent Limits received on:

03/16/2016

b) Preliminary Effluent Limits expiration date:

12/31/2021

9. Downstream Distances

a) Downstream distance from the discharge point to the nearest domestic water supply intake? Name of supply? Address of supply?

Distance:

Name of Supply: Two alluvial wells in close proximity to Owl Creek (see PELs provided in Appendix C of the Utility Plan Report)

Address of Supply:

b) Downstream Distance from the discharge point to the nearest other point of diversion? Name of user? Address of user?

Distance: Approximately 6 miles

Name of User: Front Range Airport

Address of User: 5200 Front Range Pkwy, Watkins, CO 80137

Project Information

10. a) What entity is financially responsible for the construction of the facility?

Prosper Regional Water & Sanitation Service Metropolitan District

11. a) What entity has the financial responsibility for owning and long term operating expense of the proposed facility?

Prosper Regional Water & Sanitation Service Metropolitan District

12. a) What entity has the responsibility for managing and operating the proposed facility after construction?

Prosper Regional Water & Sanitation Service Metropolitan District

Additional Factors

13. Please identify any additional factors that might help the Water Quality Control Division make an informed decision on your site location application.

The Prosper WWTP will be located on the Prosper Development. The Prosper Preliminary Development Plan has been approved by Arapahoe County, the Final Development Plan is in process. The WWTP will be located in Planning Area 71 of the Development and has been zoned specifically for the WWTP.



Water Quality Control Division Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Colorado Department
of Public Health
and Environment


Applicant Certification and Review Agencies Recommendation Section 22.4 of Regulation 22: New Domestic Wastewater Treatment Facility

A. Project and System Information

System Name	Prosper Regional Water & Sanitation Service Metropolitan District (owner)
Project Title	Prosper Wastewater Treatment Plant
County	Arapahoe

1. Applicant Certification

I certify that I am familiar with the requirement of *Regulation 22 - Site Location and Design Approval Regulations for Domestic Wastewater Treatment Works*, and have posted the site in accordance with the Regulations. An engineering report, as described by the regulations, has been prepared and is enclosed.

Applicant Legal Representative (e.g., Public Works Director)	Date	Typed Name	Signature
Planning & Development Representative	9/7/16	Jeffrey Vogel	
The system legal representative is the legally responsible agent and decision-making authority (e.g. mayor, president of a board, public works director, owner). The Consulting Engineer is not the legal representative and <u>cannot</u> sign this form.			

2. Recommendation of Review Agencies

As required in Section 22.4(2), the application and the engineering report must be submitted to all appropriate local governments, 208 planning agencies and State agencies for review and comment prior to submittal to the Division. By signing below, the entity or agency: 1) acknowledges receipt of the proposed site location application, 2) has reviewed the proposed site location application and may elect to provide comments, and 3) has provided a recommendation concerning the application to the Division. The recommendation should be based on the factors outlined in Section 22.4(2); for example, on the consistency of the proposed site location application with the local comprehensive plan(s) as they relate to water quality and any adopted water quality management plans(s). *Please note: Review agencies are encouraged to provide project comments; however, if a review agency does not recommend approval then the agency must attached a letter describing the reason for their decision or comment on the next page.*

Signature of Management Agency, if different from other entities listed below

Role	Date	Typed Name / Agency	Signature
Recommend Approval?			Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature of County, if proposed facility is located in unincorporated areas of a county

Role	Date	Typed Name / Agency	Signature
Long Range Planning Manager		Julio Iturreria / Arapahoe County	
Recommend Approval?			Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature of City or Town, if site is located within three miles of the City/Town boundary (if multiple, attach additional sheets as needed)

Role	Date	Typed Name / Agency	Signature
Engineering Services Manager		Vern Adam / City of Aurora	
Recommend Approval?			Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature of Local Health Authority

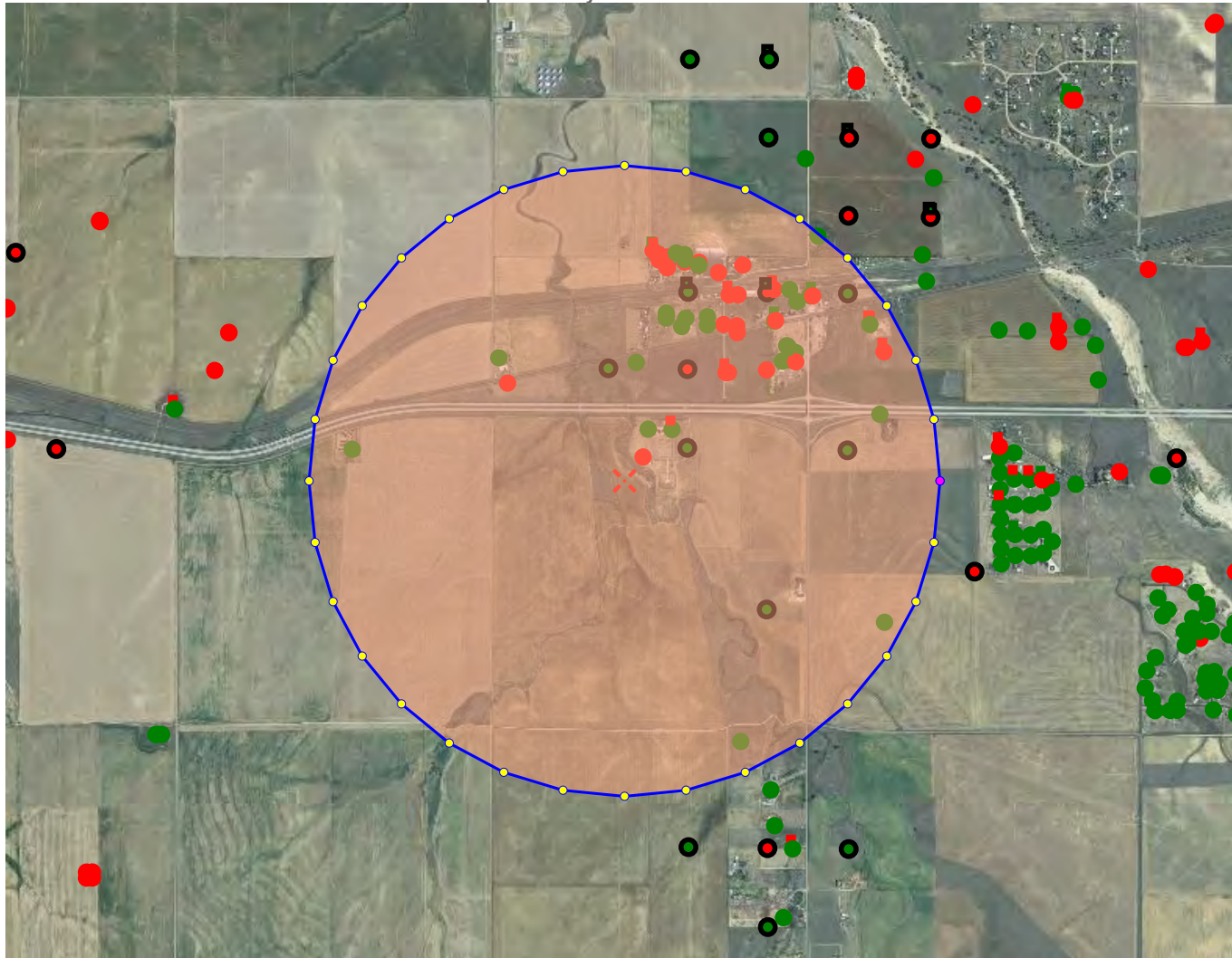
Role	Date	Typed Name / Agency	Signature
Land Use Program Coordinator		Warren Brown / Tri-County Health Department	
Recommend Approval?			Yes <input type="checkbox"/> No <input type="checkbox"/>

AQUAMAP

Colorado Division of Water Resources

Prosper WWTP 1 mile Radius

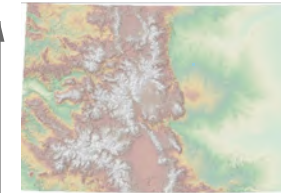
Map created by SEF 6/7/2016



20,718 ft

16,010 ft

MAP NAVIGATION



Click to create PDF
 UTM X, Zone 13: 378828
 UTM Y, Zone 13: 4088590
 Long: -106° 21' 38.4"
 Lat: 36° 56' 8.1"
 UTM and Geographic(LL)
 coordinates in NAD 83

DATA DISPLAY

<input checked="" type="checkbox"/> Background	<input type="checkbox"/> Counties	<input checked="" type="checkbox"/> Water Well Application
2011 Aerials	<input type="checkbox"/> PLSS	<input type="checkbox"/> DWR Parcels
<input checked="" type="radio"/> Low <input type="radio"/> High	<input type="checkbox"/> Roads	<input type="checkbox"/> EPA Well Notification
Transparency	<input type="checkbox"/> Hydrography	<input type="checkbox"/> Oil/Gas Well Location
	<input type="checkbox"/> County Parcels (No Public Access)	
	<input type="checkbox"/> Towns	More Data

LOCATION

Section	Township	Range	Meridian
1	4	65	Sixth
PLSS Locator	Quick Zoom	Spacing	

PRINTING

Output Scale	Page Size	User
34,930	8.5x11	SEF
Title Prosper WWTP 1 mile Radius		

Note: The well locations displayed on AquaMap are based on location information provided by well permit application forms and are only as accurate as the information provided. The actual physical locations of all wells have not been field verified and may vary from the location displayed. Refer to a copy of the original well permit file, available on the Division of Water Resources website, for well location details.



Based on work developed at <http://www.carto.net>

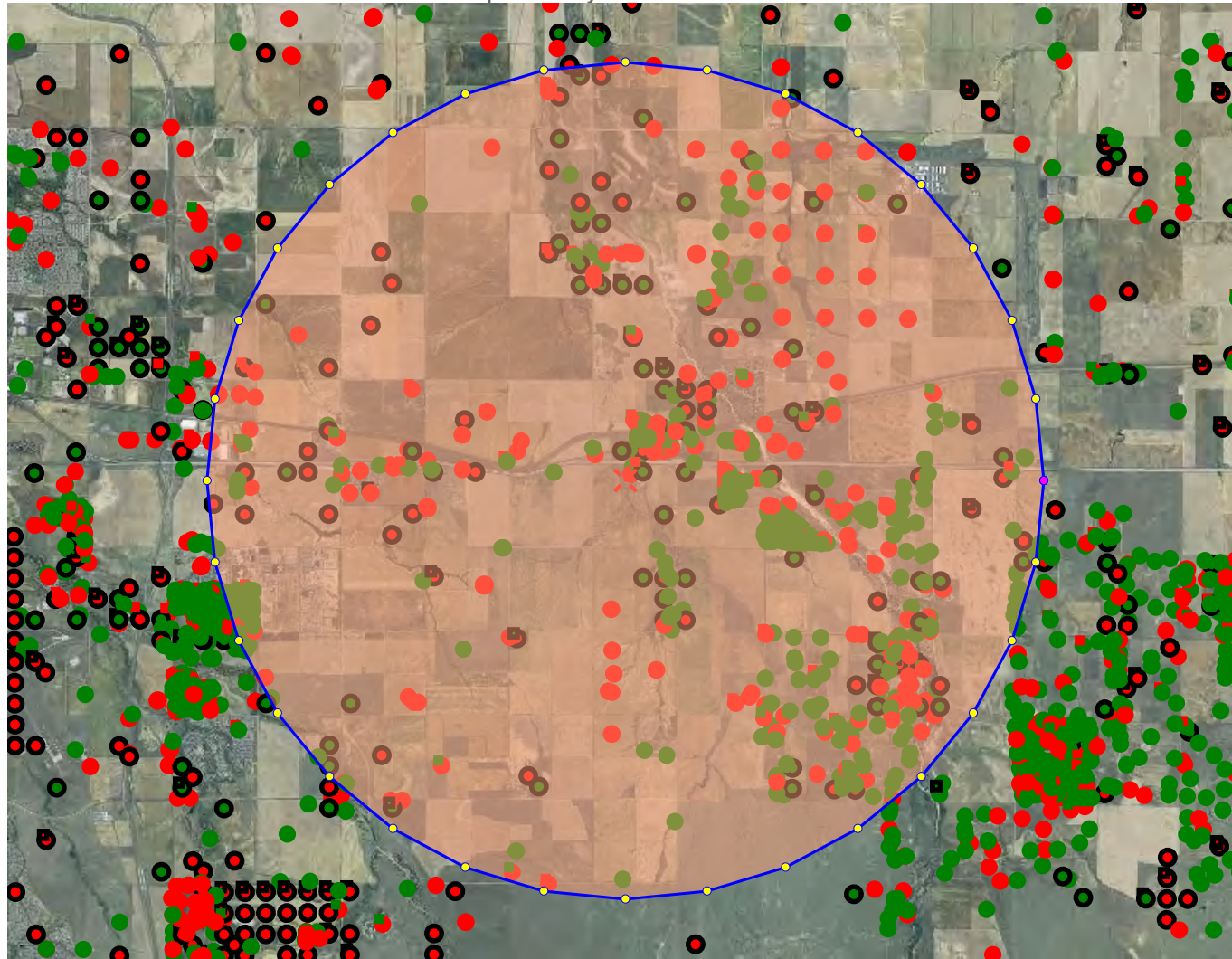
Address location by Bing Maps
 AquaMap Version 3.0.1 July 5, 2009

AQUAMAP

Colorado Division of Water Resources

Prosper WWTP 5 mile Radius

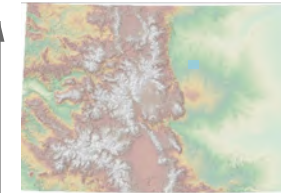
Map created by SEF 6/7/2016



Based on work developed at <http://www.carto.net>

Address location by Bing Maps
AquaMap Version 3.0.1 July 5, 2009

MAP NAVIGATION



Click to create PDF
UTM X, Zone 13: 286484
UTM Y, Zone 13: 4103981
Long: -107° 24' 4.8"
Lat: 37° 3' 28.1"
UTM and Geographic(LL)
coordinates in NAD 83

DATA DISPLAY

<input checked="" type="checkbox"/> Background	<input type="checkbox"/> Counties	<input checked="" type="checkbox"/> Water Well Application
2011 Aerials	<input type="checkbox"/> PLSS	<input type="checkbox"/> DWR Parcels
<input checked="" type="radio"/> Low <input type="radio"/> High	<input type="checkbox"/> Roads	<input type="checkbox"/> EPA Well Notification
Transparency	<input type="checkbox"/> Hydrography	<input type="checkbox"/> Oil/Gas Well Location
	<input type="checkbox"/> County Parcels (No Public Access)	
	<input type="checkbox"/> Towns	More Data

LOCATION

Section	Township	Range	Meridian
1	4	65	Sixth
PLSS Locator	Quick Zoom	Spacing	

PRINTING

Output Scale	Page Size	User
131,490	8.5x11	SEF
Title Prosper WWTP 5 mile Radius		

Note: The well locations displayed on AquaMap are based on location information provided by well permit application forms and are only as accurate as the information provided. The actual physical locations of all wells have not been field verified and may vary from the location displayed. Refer to a copy of the original well permit file, available on the Division of Water Resources website, for well location details.



Prosper Wastewater Treatment Plant

Utility Plan Report

September 2016

Prepared for:

Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek S Drive
Denver, CO 80246

Prepared by:

Dewberry Engineers Inc.
990 South Broadway, Suite 400
Denver, CO 80209

Prosper Regional Water & Sanitation Service Metropolitan District

Prosper Wastewater Treatment Plant Utility Plan Report

TABLE OF CONTENTS

Section 1 Executive Summary	1
General Planning	1
Service Area and Characteristics.....	1
Wastewater Planning Criteria	1
Summary of Existing Wastewater Treatment Facilities.....	2
Consolidation Analysis	2
Wastewater Regulatory Overview	3
Receiving Stream Segment.....	3
Water Quality Standards.....	3
Evaluation of Wastewater Treatment Plant Alternatives	3
Site Analysis.....	3
Treatment Process Alternatives	4
Economic Evaluation of Alternatives.....	4
Conclusions and Recommendations.....	4
Wastewater Treatment Plant Implementation Plan	5
Staffing Plan.....	5
Legal and Institutional Arrangements.....	5
Management Capabilities.....	5
Financial System.....	5
Emergency Operations Plan.....	5
Schedule	6
Section 2 General Planning.....	7
Service Area and Characteristics.....	7
Climate	9
Elevation	9
Floodplains	9
Wetlands	10
Planned Growth	11
Flow and Loading Projections.....	12
Phasing.....	12
Metro Wastewater Reclamation District	15

Miscellaneous Facilities.....	16
Consolidation Analysis	16
Metro Wastewater Reclamation District	18
Miscellaneous Facilities.....	18
Geotechnical Report	18
Section 3 Wastewater Regulatory Overview	19
Receiving Stream Segment.....	19
Impaired Waters	20
Water Quality Standards	20
Use Classification.....	21
Low Flow Analysis	21
Numeric Standards.....	21
Section 4 Evaluations of Alternatives	24
Site Analysis.....	24
Treatment Process Alternatives	24
Treatment Process Goals and Principals	24
Process Alternatives	27
Detailed Description of Alternative Components	29
Prefabricated Influent Lift Station.....	29
Headworks Equipment.....	29
On-Site Lift Station / Flow Equalization Basin	30
Chemical Phosphorus Removal	30
Disinfection	30
Aerobic Digester	31
Odor Control	31
Non-Potable Water System	31
Drinking Water System	31
On-Site Generator.....	31
Economic Evaluation of Alternatives.....	32
Planning Level Costs.....	32
Net Present Value Analysis	35
Conclusions and Recommendations.....	36
Section 5 Implementation Plan	37
Staffing Plan.....	37
Legal and Institutional Arrangements.....	40
Management capabilities	40
Financial system	40
Emergency Operations plan.....	41

Emergency Assistance	41
Safety & Security Equipment	41
Emergency Power Supply	41
Schedule	41
Section 6 References.....	43
Appendix A Floodplain Figures	
Appendix B Geotechnical Report	
Appendix C Preliminary Effluent Limits	
Appendix D Planning Level Cost Estimates	
Appendix E Legal Documents	

LIST OF TABLES

Table 1-1 Wastewater Planning Criteria for the Prosper WWTP	2
Table 1-2 Wastewater Design Criteria for the Prosper WWTP	2
Table 1-3 Treatment Process Alternatives Net Present Value	4
Table 1-4 Estimated Project Duration	6
Table 2-1 Average Precipitation and Temperature by Month for the City of Watkins	9
Table 2-2 Phase 1 Anticipated Absorption Schedule and Plant Capacity	11
Table 2-3 Wastewater Planning Criteria for the Prosper WWTP	12
Table 2-4 Wastewater Design Criteria for the Prosper WWTP	13
Table 3-1 Facility Information for Water Quality Analysis	19
Table 3-2 Receiving Stream Information	21
Table 3-3 In-Stream Water Quality Standards for Stream Segment, COSPMS03a	21
Table 3-4 Preliminary Effluent Limits for the Prosper WWTP	23
Table 4-1 Microbiology of Enhanced Biological Phosphorus Removal	27
Table 4-2 Major Project Components to each WWTP Alternative	31
Table 4-3 Cost Factors Used to Develop the Opinion of Probable Construction Cost	33
Table 4-4 3-Stage BNR Process Opinion of Probable Construction Cost Estimate	33
Table 4-5 Sequencing Batch Reactor Opinion of Probable Construction Cost Estimate	33
Table 4-6 MBR Process Opinion of Probable Construction Cost Estimate	34
Table 4-8 Net Present Value Assumptions	35
Table 4-9 Treatment Process Alternatives Net Present Value	35
Table 5-1 Estimated Project Duration	41

LIST OF FIGURES

Figure 2-1 Location of Prosper, CO 7

Figure 2-2 Service Area for Prosper Phase 1 Full Buildout 8

Figure 2-3 Prosper Development Wetlands Map 10

Figure 2-4 Prosper WWTP Wetlands Map 11

Figure 2-5 Land Use Plan 14

Figure 2-6 Existing Wastewater Treatment Facilities..... 15

Figure 2-7 Metro Wastewater Reclamation District Service Area17

Figure 3-1 Middle South Platte River Basin Sub-basin Study Area (provided by CDPHE)20

Figure 4-1 Phase 1 Sanitary Sewer Collection System 25

Figure 4-2 Nitrogen Cycle 26

Figure 4-3 3-Stage BNR Process Schematic 27

Figure 4-4 SBR Process Schematic 28

Figure 4-5 MBR System Process Schematic 29

Figure 5-1 Process Flow Schematic 38

Figure 5-2 Site Layout 39

Section 1

Executive Summary

This utility plan presents the general planning, regulatory requirements, wastewater treatment process alternatives and recommendations, and the implementation plan for the new Prosper Wastewater Treatment Plant (WWTP). The Prosper WWTP will provide service to the new Prosper Development. The Prosper Regional Water & Sanitation Service Metropolitan District (Regional Water and Sewer District) and the Prosper Water & Sanitation Financing Metropolitan District (Water & Sanitation Financing District) will be utilized to coordinate the planning, design, construction, acquisition, financing, and operation and maintenance of the Prosper WWTP and sanitary sewer improvements for the life of the project. The Prosper Preliminary Development Plant (PDP) has been approved by Arapahoe County and the Final Development Plan (FDP) is in process. This report documents the wastewater treatment infrastructure needs and support systems required to meet the initial flows and loads from the beginning of Phase 1 of the Prosper Development through Phase 1 buildout.

GENERAL PLANNING

The Prosper community will be located in Arapahoe County, south of the intersection of I-70 and Watkins Road. The development will occur in four phases over the next thirty years, this utility plan will only address the new Prosper Wastewater Treatment Plant for Phase 1 of the development. It is anticipated that Phase 1 buildout will occur in year 2025.

Service Area and Characteristics

The service area for Prosper Phase 1 is located in the northeast portion of the Prosper development, southeast of Watkins, CO and west of Watkins Farm. The WWTP will be located northwest of the Phase 1 development. Currently, there is very limited vegetation on the Phase 1 service area and on the WWTP site as a majority of the Prosper property has been utilized for dry land and wheat farming. The WWTP will be located outside of the 100-year floodplain and there are no wetlands located on the WWTP site.

The Phase 1 Boundary encompasses approximately 275 acres, and includes single family residential homes, a community center, a school, agricultural land, and parks and open space. Phase 1 of the Prosper Development is anticipated to be completed in 2025 and have approximately 988 Single Family Equivalents (SFEs) based on the approved PDP. Final buildout is expected to occur in 2047 with approximately 11,850 SFEs.

Wastewater Planning Criteria

The Phase 1 Prosper WWTP wastewater planning criteria for years 2018, 2025, and 2037 are provided in Table 1-1. Given that that Prosper WWTP will serve a new community, 2018 values are presented as anticipated initial conditions, 2025 values are presented as Phase 1 buildout conditions, and 2037 values are presented as the 20-year outlook planning criteria. The projected max month flow and loads at the end of the 20 year planning horizon (Year 2037) are 1.64 MGD, 3,283 ppd BOD₅, 3,283 ppd TSS, and 483 ppd NH₃-N. These are conservative values based on typical municipal wastewater characteristics and similar WWTPs throughout the area.

Table 1-1 Wastewater Planning Criteria for the Prosper WWTP

Parameter	Year 2018			Year 2025			Year 2037		
	AA	MM ¹	PH	AA	MM ¹	PH	AA	MM ¹	PH
Flow, MGD	0.015	0.019	0.034	0.212	0.265	0.482	1.31	1.64	2.98
BOD ₅ , ppd	30	38		424	530		2,622	3,278	
TSS, ppd	30	38		424	530		2,622	3,278	
NH ₃ -N, ppd	3	4		42	53		262	328	

AA = average annual, MM = average day in the max month, PH = peak hour

Notes: ¹The projected MM flow and loadings are calculated based on a concentration of 300/300/30 mg/l BOD/TSS/NH3 at average annual flow conditions.

The Prosper Phase 1 WWTP will be split into two phases to reliably treat the low flow and loadings encountered at the beginning of the development up to Phase 1 buildout wastewater projections. This facility will start service as a completely new treatment system that must meet effluent limitations under severely underloaded operating conditions. If the treatment basins are oversized biological wastewater treatment would become difficult which would require a high level of operator attention. Also, unused infrastructure and equipment would be onsite for long periods of time.

Initial wastewater design criteria is provided in Table 1-2. The initial Phase 1 Prosper WWTP will be rated for 0.1325 MGD and 265 ppd BOD₅.

Table 1-2 Wastewater Design Criteria for the Prosper WWTP

Parameter	Year 2020		
	AA	MM ¹	PH
Flow, MGD	0.106	0.1325	0.2385
BOD ₅ , ppd	212	265	
TSS, ppd	212	265	
NH ₃ -N, ppd	31	39	

AA = average annual, MM = average day in the max month, PH = peak hour

Notes: ¹The projected MM flow and loadings are calculated based on a concentration of 300/300/30 mg/l BOD/TSS/NH3 at average annual flow conditions.

Summary of Existing Wastewater Treatment Facilities

There are no existing wastewater treatment facilities within the Prosper WWTP service area. The descriptions of existing wastewater treatment facilities in the vicinity of the project are presented in Section 2. The closest major WWTP is managed by Metro Wastewater Reclamation District (MWWRD) and is located approximately 20 miles east of the Prosper WWTP. There are other small miscellaneous WWTPs nearby.

Consolidation Analysis

The Prosper Development is a self-sustaining community outside of any existing WWTP service areas. The primary reason for not consolidating with other local WWTPs is so the Prosper community can take advantage of their own reuse water opportunities and water conservation efforts. The reuse water produced by the Prosper WWTP will contribute to approximately 32% of the total water supply for the Prosper community at full buildout. Beginning in Phase 2 of the project, treated wastewater will be reused directly for non-potable irrigation water throughout the community and indirectly by discharging treated wastewater to Box Elder Creek and exchanging it for water in the Creek via alluvial wells which will be used as a raw water source for the water treatment plant.

WASTEWATER REGULATORY OVERVIEW

Wastewater treatment facility discharges to surface and ground waters throughout the United States are subject to state and federal regulations which protect public health and maintain water quality. The condition of the receiving stream, its capacity to absorb waste loads without degradation, and actual or potential uses of the water downstream of a wastewater discharge determine the degree and often the type of wastewater treatment necessary.

Preliminary effluent discharge limits for the Prosper WWTP were determined using an assimilative water quality analysis for the receiving stream. The Preliminary Effluent Limits (PELs) were provided by CDPHE, dated March 16, 2016, and are provided in Appendix C.

Receiving Stream Segment

The Prosper WWTP will discharge to Rat Run in stream segment COSPMS03a; specifically to the South Platte Basin, Middle South Platte River Sub-basin, Stream Segment 03a. This segment is not listed on the **State's list of water quality impacted** streams and is composed of all tributaries to the South Platte River, including all wetlands.

Water Quality Standards

Colorado surface waters have been assigned use classifications to protect all current uses and maintain the highest water quality possible. Water quality standards corresponding to each use classification have been developed by the Colorado Water Quality Control Commission (WQCC) to define the maximum permissible levels of pollutants which will protect and maintain designated uses. The receiving stream classifications for river segment ID COSPMS03a is aquatic life warm 2, recreational class E, agricultural, and water supply.

Low flows in the water quality analysis were determined based on information provided by the WQCC. Although there are times of periodic flows in Rat Run upstream of the proposed WWTP, low flows are set at zero for the analysis. Therefore, consideration of full or reduced assimilative capacity is inconsequential and the WQBELs are equal to the Water Quality Standard (WQS) in the receiving stream.

Water Quality Based Effluent Limits (WQBELs) were determined by ambient water quality and the in-stream standards. The WQBELs may be incorporated into the Colorado Department of Public Safety (CDPS) permit for the Prosper WWTP contingent on analyses conducted during permit development. The Prosper WWTP will operate under permit number PEL200456.

The WQCC Regulation 85, Nutrients Management Control Regulation, applies to the Prosper WWTP because although the rated capacity will be less than 1.0 MGD, it is a brand new WWTP with discharge to a receiving stream that is classified as a water supply. More stringent effluent criteria will be required at the Prosper WWTP in terms of nitrogen and phosphorus.

EVALUATION OF WASTEWATER TREATMENT PLANT ALTERNATIVES

Site and treatment process alternatives were evaluated for the Prosper WWTP.

Site Analysis

The Prosper WWTP will be located within Planning Area 71 of the approved Prosper PDP. Planning Area 71 is currently undeveloped and consists of dry land wheat and corn fields. Planning Area 71 has been strategically located, configured and

zoned to accommodate the proposed WWTP. The WWTP is located at one of the lowest elevation points within the Prosper PDP allowing the sanitary sewer collection system to flow by gravity to the WWTP.

Treatment Process Alternatives

The Regional Water and Sewer District is committed to producing a high quality effluent that meets all proposed discharge requirements and is interested in advanced, sustainable treatment technologies. Treatment alternatives have been developed to provide nutrient removal requirements for nitrogen and phosphorus. Treatment process alternatives evaluated include (1) a 3-Stage Biological Nutrient Removal (BNR) Process, (2) a Sequencing Batch Reactor (SBR) process, and (3) a Membrane Bioreactor (MBR) process. Several support systems and facilities will also need to be provided, specifically:

1. An Influent Lift Station to be constructed at the influent of the WWTP to pump wastewater generated from the Phase 1 Prosper service area to the new Headworks Building.
2. A Headworks Building that includes an influent screen, by-pass manual screen, a grit removal system, and an influent flume.
3. An On-Site Lift Station/Equalization Basin to pump wastewater to the secondary process.
4. A Secondary Treatment Process that can meet the effluent requirements of Regulations 85.
5. A Process Building to house new blowers, process pumps, chemical feed system, UV system, and an electrical room.
6. An Aerobic Digester with sufficient capacity to stabilize solids generated in the new treatment process.
7. Administration/O&M/lab space will be provided in the Process Building as office space, an operations lab to conduct process control testing and analysis, and a shop where Plant Staff can perform maintenance and service on plant equipment.

Economic Evaluation of Alternatives

Capital, operation and maintenance (O&M), and net present values were prepared for all alternatives evaluated as a part of this analysis. The opinion of probable construction costs, annual average O&M costs, and results of the 10-year net present value (NPV) analysis for each treatment process alternative are provided in Table 1-3.

Table 1-3 Treatment Process Alternatives Net Present Value

Item	Cost, \$M		
	3-Stage BNR	SBR	MBR
Opinion of Probable Construction Cost	3.13	3.14	3.35
Average Annual O&M Cost	0.24	0.23	0.27
Net Present Value	5.07	5.02	5.53
Difference, percent	1.0	0	10.0

Conclusions and Recommendations

An MBR facility is recommended for Phase 1 of the Prosper WWTP. Although the MBR process is not the lowest cost alternative, the MBR system is recommended because it produces better and more consistent effluent quality than the other alternatives, has more process flexibility to treat low flows, and is easily and quickly expandable. The estimated opinion of probable construction cost for the Prosper WWTP is \$3.35 million and the NPV is \$5.53 million. The new WWTP will meet the effluent nutrient limits of Regulation 85 and the redundancy requirements of WPC-DR-1 State of Colorado Design Criteria for Domestic Wastewater Treatment Works.

WASTEWATER TREATMENT PLANT IMPLEMENTATION PLAN

The recommended treatment process alternative, Alternative 3 – MBR, will be rated for 0.1325 MGD and 265 ppd BOD₅, and will be capable of meeting the PELs.

A conservative step-wise approach will be taken when designing and constructing the new WWTP. The Prosper WWTP will need to reliably treat the low flows encountered at the beginning of the development, and care must be taken in implementation of the facility to not oversize the process equipment and initial infrastructure. The rated capacity of 0.1325 MGD was selected as half of the projected Phase 1 design flow of 265,000 gpd. The WWTP will be easily and quickly upgraded by installing an additional MBR treatment train as influent flows approach 0.265 MGD.

As presented in the alternatives analysis the equalization basin for the MBR alternative will not be required at the initial phase of the WWTP. As described in Sections 4 and 5, this will decrease the initial capital cost to construct the MBR alternative. The total opinion of probable construction cost for the initial phase of the WWTP is \$3.18 million.

Staffing Plan

The staffing requirement for the initial phase of the Prosper WWTP is anticipated to be two employees. The estimated staffing requirement is based on the WWTP hydraulic capacity and the fact that MBR WWTPs require little operator attention after start-up of the system. The WWTP is only staffed during the day for approximately eight hours per day, depending on the day. During unstaffed periods, e.g. night, the plant will rely on remote devices to signal a dialer to the on-call Operator-In-Charge.

At a minimum, one operator will hold a Class A Wastewater Operator's License; the highest Class achievable.

Legal and Institutional Arrangements

The legal description of the proposed WWTP site and the current commitment for title insurance is provided in Appendix E. The Regional Water and Sewer District will be the sole owner of the 8.22 acre parcel that is to be used for the Prosper WWTP. There are no additional right of way approvals required at this time.

Management Capabilities

Two of the approved districts include the Regional Water and Sewer District and the Water & Sanitation Financing District. These districts will be utilized to coordinate the planning, design, construction, acquisition, financing, and operation and maintenance of the Prosper WWTP and sanitary sewer improvements for the life of the project.

Financial System

As part of the original 1041 application for the entire Prosper development a Financial Feasibility Report for the Prosper water and sanitation improvements were estimated at \$200,000,000 for the Prosper development at buildout. Revenue projections show that this cost would be covered by a debt service mill levy and associated specific ownership taxes resulting from the levy, combined water and sewer taps fees of \$15,000 per residential tap and \$25,000 per non-residential tap, and estimated annual average facilities fees of \$1,000 per high-density and mixed-use residential unit and \$2,000 per medium-density and low-density residential unit.

Emergency Operations Plan

An Emergency Response Plan will be put in place to ensure that plant staff takes immediate and appropriate actions to limit adverse effects and protect lives and property during emergency situations. The emergency response procedures will be included in the plant O&M Manual and will provide detailed instructions for responding to power failures, flooding, fire, lightning strikes, equipment breakdowns, process failures, sewage spills, chemical spills, chemical shortages, and personnel injury.

Schedule

Planning, approval, design, Phase 1 construction, and startup and commissioning of the WWTP is estimated to have a duration of 27 months. This assumes 10 months for planning, County, and State approvals, 7 months for design, 9 months for Phase 1 construction, and 2 months for startup and commissioning (beginning May 2018). The WWTP will have to be operational prior to residents moving into the community. The estimated project schedule is provided in Table 1-4 below.

Table 1-4 Estimated Project Duration

Item	Duration	Projected Completion
Start of Planning, County, and State Approval Process		January 2016
County and State Site Application Approval Complete	10 months	November 2016
60 Percent Design Complete (Submittal to State for Approval)	5 months	April 2017
Final Design Complete	2 months	June 2017
State Approval Complete – Cleared for Construction	N/A	July 2017
Permitting and Construction	9 months	April 2018
Startup and Commissioning (Initial Phase 1)	N/A	April 2018
Planning and Design (Second Phase of Phase 1)	N/A	June 2020
Startup and Commissioning (Second Phase of Phase 1)	N/A	2021
Total Project Duration (Initial Phase 1)	27 months	

¹These dates are based on the absorption schedule provided in Table 2-2 and may be modified in the future based on the rate of development.

The second phase of the project, which will include an equalization basin and a second treatment process train, will be constructed when the WWTP reaches approximately 125,875 gpd influent flow; ninety-five percent of the WWTP permitted capacity. Planning and design of the second phase of the project is expected to occur in mid-2020, at approximately eighty percent of the WWTP permitted capacity, in accordance with the absorption schedule presented in Section 2.

Section 2

General Planning

The Prosper community will be located in Arapahoe County, Colorado and is bordered by the communities of Aurora to the west and Watkins to the north. The development will occur in four phases over the next thirty years, this utility plan will only address the new Prosper Wastewater Treatment Plant (WWTP) for Phase 1 of the development. It is anticipated that Phase 1 buildout will occur in year 2025. The Phase 1 limits are bounded by agricultural land and Interstate 70 to the north, Imboden Road (CR 101) to the east, N Watkins Road to the west, and agricultural land to the south. A general location map for Prosper, and specifically Phase 1, is presented in Figure 2-1. Figure 2-1 was provided by the developer of the Prosper Community, Vogel & Associates, and is part of the Preliminary Development Plan (PDP) that has been approved by Arapahoe County. The approved PDP will be referenced throughout this report and is available upon request.

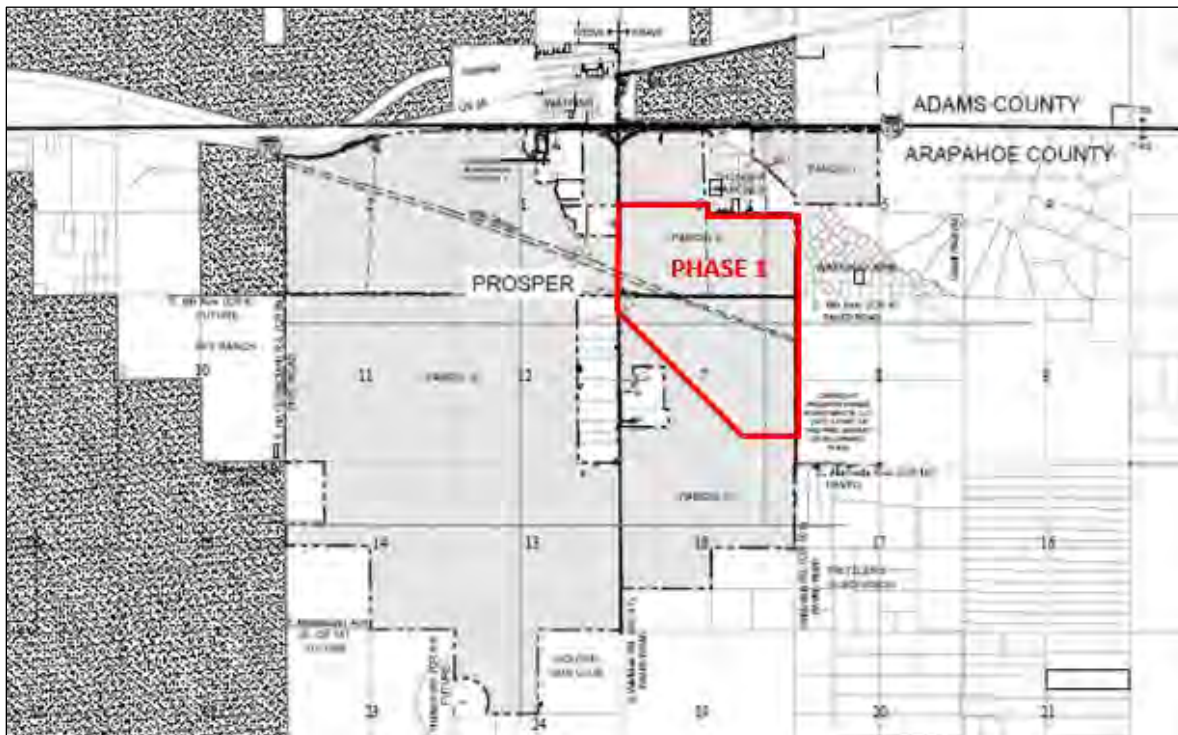
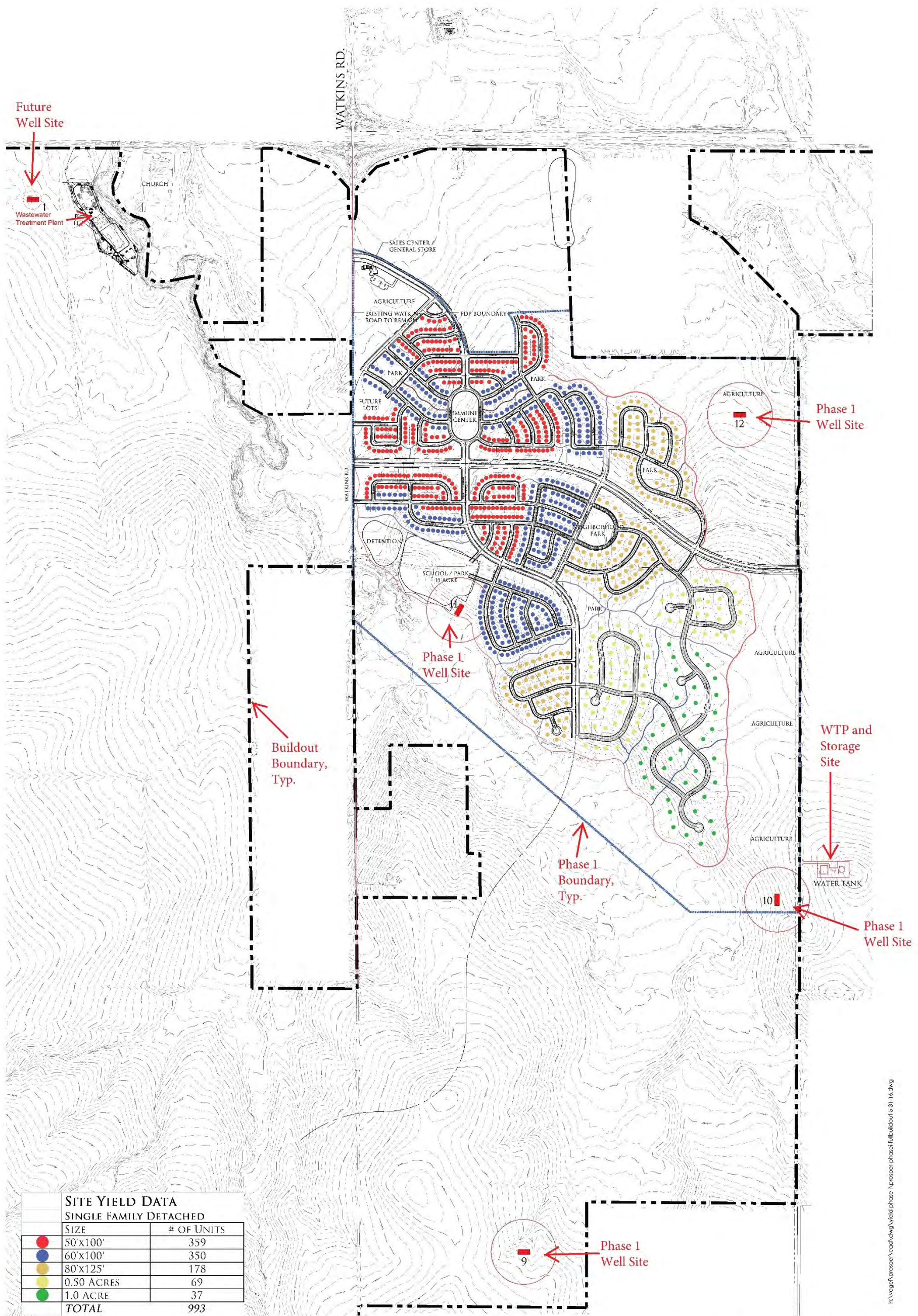


Figure 2-1 Location of Prosper, CO

SERVICE AREA AND CHARACTERISTICS

The service area for Prosper Phase 1 in detail, and in relationship to the new Prosper WWTP location, is presented in Figure 2-2 provided by Vogel & Associates. The Phase 1 Boundary encompasses approximately 275 acres, and includes single family residential homes, a community center, a school, agricultural land, and parks and open space. The boundary is primarily within parcels of land situated in section 6 and 7, T.4S., R.64W., of the 6th P.M. County of Arapahoe, State of Colorado. In general, the Phase 1 Prosper Development will be located southeast of Watkins, CO and west of Watkins Farm. East 6th Avenue will be the main roadway running east to west throughout the development. Currently, there is very limited vegetation with regard to trees on the Phase 1 service area as well as the WWTP site as a majority of the Prosper property has been utilized for dry land and wheat farming.



PROSPER PRELIMINARY YIELD ANALYSIS PHASE I FULL BUILDOUT

Figure 2-2 Service Area for Prosper Phase 1 Full Buildout

Climate

The climate in the area of Prosper is semi-arid and very dry, and evapo-transpiration exceeds the average annual precipitation. **The area’s proximity to the Rocky Mountains, as well as its lower elevation in comparison to the mountains, results in less** precipitation and fewer thunderstorms. The highest temperatures generally occur around the third week of July, and the coldest in January. The City of Watkins, the closest city to the Prosper development with recorded weather data, averages 14.7 inches of precipitation per year. The average daily temperature in the City of Watkins in July is 75°F and the average daily temperature in December is 29°F as provided in Table 2-1.

Table 2-1 Average Precipitation and Temperature by Month for the City of Watkins

Month	Average Precipitation, inches	Average Daily Temperature, °F
January	0.4	46
February	0.4	48
March	1.3	55
April	1.8	63
May	2.1	72
June	1.8	83
July	2.1	89
August	2.0	87
September	1.0	78
October	1.0	66
November	0.8	53
December	0.4	44
Annual Total/Average	15.2	51

(www.usa.com/watkins-co-weather.htm, 2010)

Elevation

The Prosper WWTP is located at approximately 5,530 feet above sea level. Elevation is important in wastewater treatment design because it impacts oxygen transfer, blower capacity, electrical equipment, and generator sizing.

Floodplains

The Federal Emergency Management Agency (FEMA) floodplain map for the area shows the WWTP site is out of the 100-year floodplain. The Flood Insurance Rate Map (FIRM), and floodplain figure provided by Vogel & Associates, is provided in Appendix A. The floodplain map indicates a 100-year flood elevation of approximately 5,520 feet near the WWTP site.

Existing drainage corridors and flood plain boundaries are to be preserved in their existing state as possible or modified as required for transportation and other infrastructure requirements.

The site will be accessed by a gravel temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility. As the access road is placed at the natural ground elevation across the 2 drainage ways, it will overflow during a flood event. Maximum flow depth at the 100 year flood event has been determined to be 18 inches at the roadway crossings. Staff personal will be trained on use of the roadway during pending and actual flood events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles. An ultimate emergency means of access is available to the site from I-70.

Wetlands

Wetlands are protected by Section 404 of the Clean Water Act. Work in wetlands may require coordination with both Federal and State water quality agencies, as well as the issuance of a permit by the US Army Corps of Engineers. Wetlands are important and sensitive environmental areas that serve many beneficial functions including ground water recharge, flood control, filtering of surface water runoff, and providing essential wildlife habitat.

According to the US Fish and Wildlife Services, wetlands areas exist on either side of the WWTP site in Rat Run and Coyote Run. There are additional wetland areas located to the west of the site and more substantial wetlands located along Box Elder Creek to the east of the site. A map of the wetlands areas around the Prosper development is presented in Figure 2-3. The extent and type of the wetlands near the WWTP is presented in Figure 2-4. There are no wetlands on the WWTP site.

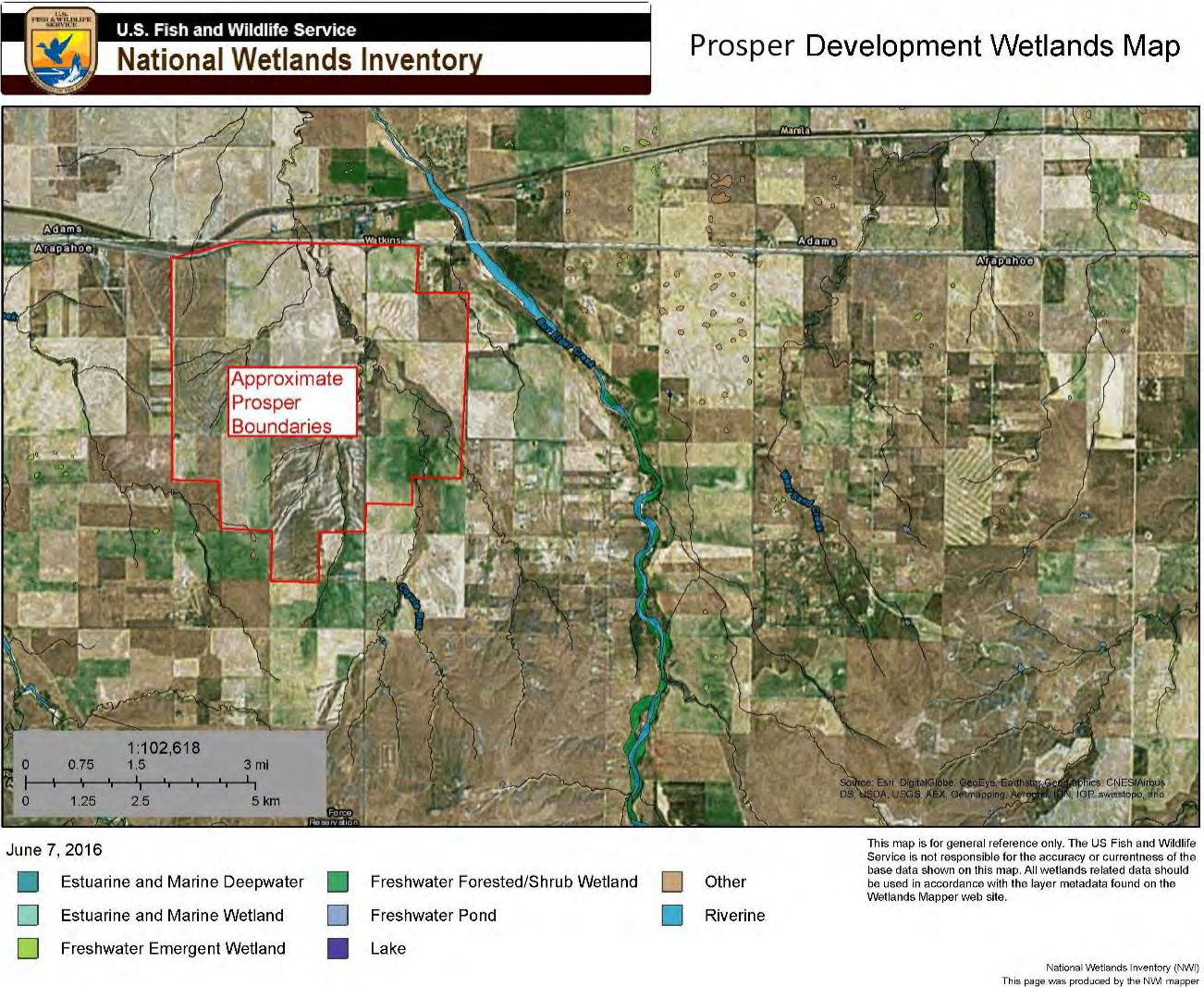
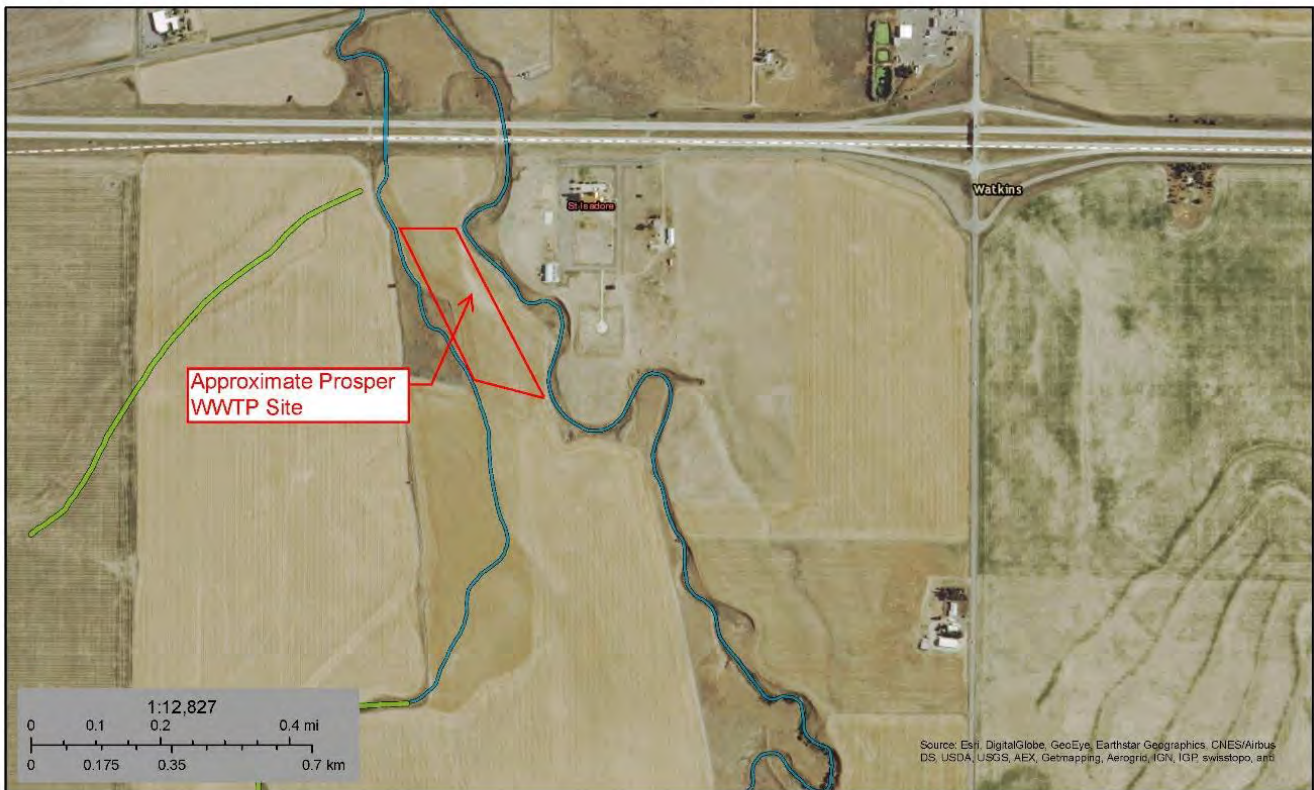


Figure 2-3 Prosper Development Wetlands Map



June 7, 2016

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Figure 2-4 Prosper WWTP Wetlands Map

Planned Growth

Phase 1 of the Prosper Development is anticipated to be completed in 2025 and have approximately 988 Single Family Equivalents (SFEs). The source of data for the population projections is included in the Prosper 1041 “New

Communities” Permit, Section 6, Coley Forrest Fiscal Impact Report (to be provided on request). The anticipated absorption schedule for Phase 1 and the associated total plant capacity is provided in Table 2-2.

Table 2-2 Phase 1 Anticipated Absorption Schedule and Plant Capacity

Year	Total SFEs	Total Population ¹	Total Plant Capacity ² (MGD)
2018	69	221	0.019
2019	188	602	0.051
2020	335	1,072	0.090
2021	482	1,543	0.129
2022	629	2,013	0.169
2023	777	2,487	0.209
2024	910	2,912	0.244
2025	988	3,162	0.265

¹An estimated 3.2 people per SFE was used to determine the total population.

² Approximately 270 gallons/day/SFE was used to determine the total plant capacity.

The Prosper Development is anticipated to grow over the next thirty years with buildout occurring in 2047 with an estimated total of 11,850 SFEs. The Prosper development will address existing and projected population demands that have been identified for the eastern metropolitan area and Interstate 70 corridor of Denver, CO. The Denver Regional Council of Governments estimates an increase in the Arapahoe County population of 288,939 by year 2035. Portions of eastern Arapahoe County and specifically the Interstate 70 eastern corridor are projected to be one of the next primary growth areas for the Denver metropolitan area. Prosper is located within the western Tier I Planning Reserve classification as designated in the Arapahoe County Comprehensive Plan. Prosper will provide additional employment opportunities, housing, commercial/retail, recreational facilities and educational services. A Land Use Plan (provided by Vogel & Associates) for the Prosper Development is presented in Figure 2-5.

The Prosper WWTP will continue to meet the requirements of Section 208 of the Federal Clean Water Act as the Prosper development grows and the WWTP is expanded. Arapahoe County and thus Prosper is part of State Planning and Management Region 3. The WQCD does the functional planning in Regions 3. The WQCD will periodically review the need to update regional water quality management plan.

Flow and Loading Projections

Flow and loading projections are based on typical municipal wastewater characteristics, Metcalf and Eddy, Inc. (2003), and similar WWTPs throughout the Colorado Front Range. The Prosper WWTP planning criteria for years 2018, 2025, and 2037 are provided in Table 2-3. Given that the Prosper WWTP will serve a new community, 2018 values are presented as anticipated initial conditions, 2025 values are presented as Phase 1 buildout conditions, and 2037 values are presented as the 20-year outlook planning criteria. The projected max month flow and loads at the end of the 20 year planning horizon (Year 2037) are 1.64 MGD, 3,278 ppd BOD₅, 3,278 ppd TSS, and 328 ppd NH₃-N.

The maximum month flows were estimated by multiplying the expected number of SFEs for each planning year by approximately 270 gallons per per day per SFE; this is a conservative estimate of wastewater production. Average annual loadings were calculated based on average concentrations of 240/240/25 BOD₅/TSS/NH₃. Peak hour flows were estimated as 2.25 the annual average flow. The concentration and multiplier values used in these estimations are typical values used in the wastewater industry.

Table 2-3 Wastewater Planning Criteria for the Prosper WWTP

Parameter	Year 2018			Year 2025			Year 2037		
	AA	MM ¹	PH	AA	MM ¹	PH	AA	MM ¹	PH
Flow, MGD	0.015	0.019	0.034	0.212	0.265	0.482	1.31	1.64	2.98
BOD ₅ , ppd	30	38		424	530		2,622	3,278	
TSS, ppd	30	38		424	530		2,622	3,278	
NH ₃ -N, ppd	3	4		42	53		262	328	

AA = average annual, MM = average day in the max month, PH = peak hour

Notes: ¹The projected MM flow and loadings are calculated based on a concentration of 300/300/30 mg/l BOD/TSS/NH₃ at average annual flow conditions.

Phasing

The Prosper Phase 1 WWTP will be split into two phases to reliably treat the low flow and loadings encountered at the beginning of the development up to Phase 1 buildout wastewater projections. The Prosper WWTP planning and design criteria will need to be reevaluated after the community begins to grow and there is a more accurate basis for the projected wastewater flow and loadings.

This facility will start service as a completely new treatment system that must meet effluent limitations under severely underloaded operating conditions. If the treatment basins are oversized biological wastewater treatment would become difficult which would require a high level of operator attention. Also, unused infrastructure and equipment would be onsite for long periods of time.

Initial wastewater design criteria is provided in Table 2-4. The initial Prosper Phase 1 WWTP will be rated for 0.1325 MGD and 265 ppd BOD₅. This design criteria was selected as half of the projected Phase 1 design flow of 265,000 gpd. Additional information regarding phasing and the MBR treatment plant alternative and rationale is provided in Sections 4 and 5.

Table 2-4 Wastewater Design Criteria for the Prosper WWTP

Parameter	Year 2020		
	AA	MM¹	PH
Flow, MGD	0.106	0.1325	0.2385
BOD ₅ , ppd	212	265	
TSS, ppd	212	265	
NH ₃ -N, ppd	31	39	

NOTES:

1. THE PLANNING AREA SUMMARY OUTLINES THE MAXIMUM DENSITY THAT CAN BE CONSTRUCTED WITHIN EACH PLANNING AREA, AS STATED IN SECTION 1.8 OF THIS PDP. DENSITY TRANSFERS ARE PERMITTED.
2. A DENSITY TRANSFER TRACKING CHART SHALL BE PROVIDED WITH EACH FINAL DEVELOPMENT PLAN.
3. MIXED USE 1 - PLANNING AREAS REQUIRE AT LEAST 50% OF ITS AREA TO BE USED FOR NON-RESIDENTIAL USES.
4. MIXED USE 2 - PLANNING AREAS REQUIRES AT LEAST 25% OF ITS AREA TO BE USED FOR NON-RESIDENTIAL USES.
5. SCHOOLS AND PARK LOCATIONS ARE PRELIMINARY AND WILL BE FINALIZED WITH EACH FINAL DEVELOPMENT PLAN.
6. DENSITY THAT IS PERMITTED IN A PLANNING AREA WHERE A RESERVOIR IS CONSTRUCTED SHALL APPLY TO THE NET DEVELOPABLE AREA.
7. THE FINAL LOCATION OF DETENTION AND WATER QUALITY PONDS WILL BE DETERMINED AT FINAL DEVELOPMENT PLAN / FINAL PLAN. FOR PRELIMINARY LOCATIONS REFER TO THE PROSPER PHASE I DRAINAGE REPORT.
8. F-ZONE AREAS CAN COUNT TOWARDS OPEN SPACE.

PLANNING AREA SUMMARY

PLANNING AREA	LAND USE	APPROX. ACRES	COMMERCIAL MAX FAR	COMMERCIAL MAX SQFT	RESIDENTIAL MAX DU ACRES	RESIDENTIAL MAX UNITS
PA-1	Commercial Retail	0.7	0.7	3,972,294		
PA-2	Commercial Retail	0.1	0.1	3,972,294		
PA-3	Mixed Use - 1	0.1	0.1	121,968	20	40
PA-4	Mixed Use - 1	0.1	0.1	229,943	20	200
PA-5	High Density Residential	29			30	400
PA-6	High Density Residential	17			30	200
PA-7	High Density Residential	17			30	140
PA-8	Medium Density Residential	28			7	182
PA-9	Medium Density Residential	46			7	215
PA-10	Medium Density Residential	23			7	161
PA-11	Medium Density Residential	43			7	301
PA-12	Low Density Residential	69			3	204
PA-13	Low Density Residential	69			3	185
PA-14	Low Density Residential	24			7	72
PA-15	Medium Density Residential	27			7	185
PA-16	Low Density Residential	36			3	198
PA-17	Low Density Residential	60			3	150
PA-18	Low Density Residential	66			3	198
PA-19	Low Density Residential	12			3	26
PA-20	Low Density Residential	11			3	45
PA-21	Low Density Residential	19			3	177
PA-22	Low Density Residential	104			3	114
PA-23	Low Density Residential	53			3	129
PA-24	Low Density Residential	24			3	22
PA-25	Low Density Residential	14			3	222
PA-26	Medium Density Residential	63			7	441
PA-27	Mixed Use - 2	11	0.7	335,412	20	165
PA-28	Medium Density Residential	15			7	185
PA-29	Medium Density Residential	28			7	196
PA-30	Medium Density Residential	17			7	115
PA-31	Medium Density Residential	69			7	420
PA-32	Low Density Residential	64			3	392
PA-33	Mixed Use - 2	22	0.7	457,380	20	225
PA-34	Medium Density Residential	19			7	546
PA-35	Mixed Use - 2	15			3	227
PA-36	Low Density Residential	102	0.7	457,380	3	306
PA-37	Low Density Residential	59			3	177
PA-38	Medium Density Residential	22			7	122
PA-39	Medium Density Residential	67			7	466
PA-40	Medium Density Residential	63			7	441
PA-41	Medium Density Residential	22			7	154
PA-42	High Density Residential	14			30	280
PA-43	Mixed Use - 2	9	0.7	214,620	30	135
PA-44	Commercial Retail	9	0.9	352,830		
PA-45	Mixed Use - 2	46	0.7	1,402,632	30	460
PA-46	Commercial Retail	9	0.9	352,830		
PA-47	Mixed Use - 2	8	0.7	243,930	30	120
PA-48	High Density Residential	15			30	300
PA-49	Medium Density Residential	49			7	349
PA-50	Medium Density Residential	65			7	455
PA-51	Medium Density Residential	19			7	133
PA-52	Medium Density Residential	35			7	245
PA-53	Medium Density Residential	23			7	181
PA-54	Medium Density Residential	79			7	552
PA-55	Mixed Use - 2	12	0.7	305,004	30	180
PA-56	Low Density Residential	118			3	254
PA-57	Medium Density Residential	109			7	742
PA-58	Medium Density Residential	18			7	126
PA-59	Medium Density Residential	79			7	553
PA-60	Medium Density Residential	91			7	637
PA-61	Medium Density Residential	45			7	315
PA-62	Commercial Retail	8	0.9	313,632		
PA-63	High Density Residential	16	0.7	884,280	30	320
PA-64	Mixed Use - 1	29	0.7	884,280	30	290
PA-65	Mixed Use - 1	25	0.7	762,300	30	250
PA-66	Commercial Retail	15	0.9	588,000		
PA-67	Mixed Use (Medical/Educational)	39	0.7	1,861,220		
PA-68	Mixed Use - 2	24	0.7	731,808	30	260
PA-69	High Density Residential	6			30	105
PA-70	High Density Residential	13			30	280
PA-71	Waste Water Treatment	9	0.5	198,020		
PA-72	Employment	55	0.8	1,910,040		
PA-73	Employment	72	0.8	2,506,056		
PA-74	Medium Density Residential	63			7	441
PA-75	Medium Density Residential	53			7	371
PA-76	Medium Density Residential	32			7	224
PA-77	Mixed Use - 2	11	0.7	335,412	20	165
PA-78	Medium Density Residential	19			7	140
PA-79	Low Density Residential	28			3	168
PA-80	Employment	13	0.8	453,024		
PA-81	Employment	28	0.8	975,744		
PA-82	Employment	53	0.8	1,848,944		
PA-83	F-Zone (FZ-1, FZ-2)	692				
PA-84	Open Space (OS-1, OS-2)	144	0.25	250,080	1	4
PA-85	Open Space - Agricultural (OS-AG-1, OS-AG-11)	295	0.25	730,080	1	21
Total		5,130				

* 80% of Open Space - Agricultural must remain as open area.



CASE NO. Z12-100

PROSPER
PRELIMINARY DEVELOPMENT PLAN
PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.
COUNTY OF ARAPAHOE, STATE OF COLORADO
SHEET 13 OF 42



LEGEND

- RIGHTS-OF-WAY
- Major Arterial
 - Minor Arterial
 - Boulevard
 - Connector Road
- SCHOOLS & PARKS
- School / Park
 - Community Park
 - Neighborhood Park
 - Pocket Park
- WATERWAYS
- FEMA 100 Year Floodplain
 - FEMA Floodway
 - Potential Reservoir

Land Use Districts

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-ME	Mixed Use (Medical / Educational Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural

PLANNING AREA	APPROVED DENSITY PRIOR TO TRANSFER		APPROVED DENSITY AFTER TRANSFER	
	ACRES	RESIDENTIAL UNITS	DENSITY TRANSFER	RESIDENTIAL UNITS
X				
Y				
Z				
TOTAL				

Land Use Districts	Acres	% of Total	Maximum Building Square Feet	Maximum DU's
Commercial/Retail	173	3.4%	2,000,000	
Mixed Use -1	124	2.4%	1,500,000	400
Mixed Use -2	105	2.0%	500,000	900
Mixed Use (Medical /Educational)	35	0.7%	500,000	
Employment (Light Industrial/Flex/Office)	221	4.3%	3,500,000	
Residential				
Low Density Residential	1,044	20.4%		1,500
Medium Density Residential	1,452	28.3%		5,100
High Density Residential	100	1.9%		1,100
Waste Water Treatment Plant	9	0.2%		
F-Zone	695	13.5%		
Open Space	144	2.8%		
Open Space - Agricultural	762	14.9%		
ROW	266	5.2%		
Total	5,130	100.0%	8,000,000	9,000

LAND USE PLAN

Scale: 1"=1000'

Date: NOVEMBER 10, 2015

Revision Date:

Figure 2-5 Land Use Plan

EXISTING WASTEWATER FACILITIES WITHIN SERVICE AREA

There are no existing wastewater treatment facilities within the Prosper WWTP service area. The descriptions of existing wastewater treatment facilities in the vicinity of the project are found below with their locations presented in Figure 2-6, the Metro Wastewater Reclamation District (MWWRD) is not shown for clarity.

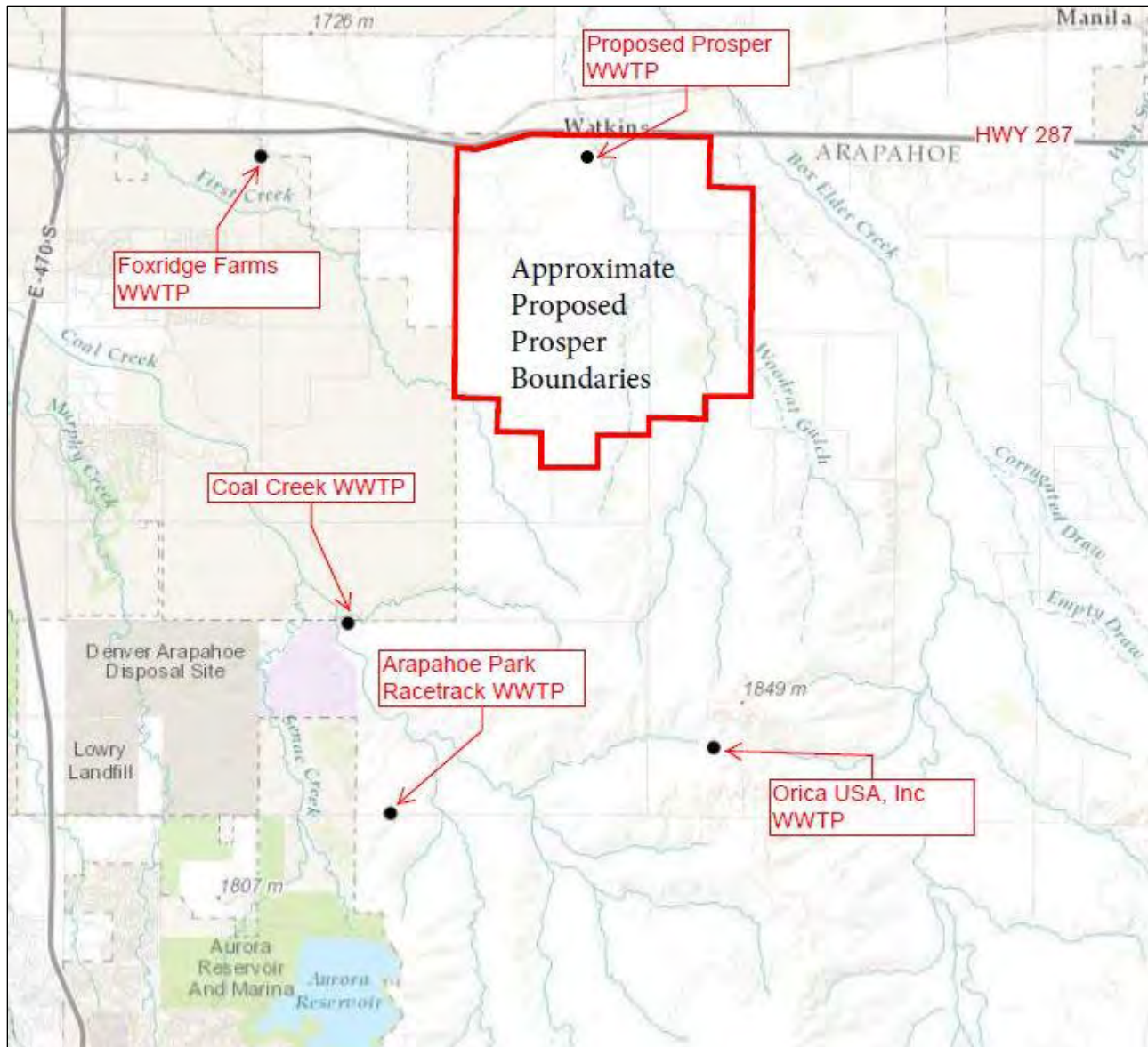


Figure 2-6 Existing Wastewater Treatment Facilities

Metro Wastewater Reclamation District

Wastewater from the area to the north and west of the Prosper development, along with the area to the east of the development along I-70, is collected by Aurora Water and sent to for treatment. The MWWRD serves 1.7 million people within 60 local governments including Denver, Arvada, Aurora, Brighton, Lakewood, Thornton, Westminster, and parts of Adams and Arapahoe County.

The MWWRD operates two treatment facilities. The Robert W. Hite Treatment Facility currently treats an average of 130 million gallons per day (mgd) and has a peak capacity of 220 mgd. The Northern Treatment Plant, opening in 2016, will have an initial peak capacity of about 24 mgd with available room for expansion up to 60 mgd. The Robert W. Hite Treatment Facility is located at 6450 York Street and discharges to the Upper South Platte Segment 15 in two locations each of which is adjacent to its site. The North Treatment Facility is located at Highway 85 and 168th Avenue and will also discharge to the Upper South Platte Segment 15 adjacent to its site. The service area boundaries for MWWRD are presented in Figure 2-7.

Miscellaneous Facilities

The Foxridge Farms community is located on I-70 approximately 3 miles west of the Prosper development and treats wastewater from the community at an onsite facility. The design capacity for this facility is 0.13 mgd (30 day average) to accommodate flows from the Foxridge Farms development.

The area to the south and east of the Prosper development is minimally populated. However, there are separate facilities serving the Arapahoe Park Race Track and Orica USA Inc. facilities. These treatment facilities are sized to treatment wastewater from these entities only.

The Coal Creek Wastewater Reclamation Facility, is managed by the Rangeview Metropolitan District/Pure Cycle and serves approximately 40 square mile of the Lowry Range, one small development and other areas by contract. The Coal Creek Wastewater Reclamation Facility has a design capacity of 0.13 mgd (30 day average).

CONSOLIDATION ANALYSIS

The Prosper Development is a self-sustaining community outside of any existing WWTP service areas. The primary reason for not consolidating with other local WWTPs is so the Prosper community can take advantage of their own reuse water opportunities and water conservation efforts. As described in the January 2014 Water Supply Plan Report prepared by HRS Water Consultants (to be provided on request), reuse water will contribute to approximately 32% of the total water supply for the Prosper Community at full buildout. An off-site reuse filter and pumping system is not included as part of the Phase 1 WWTP as it is not cost effective to install this equipment at the low initial flows. An on-site reuse system will be initially installed in Phase 1 for on-site non-potable water as described in Section 4.

Beginning in Phase 2 of the project, treated wastewater will be reused directly for non-potable irrigation water throughout the community and indirectly by discharging treated wastewater to Box Elder Creek and exchanging it for water in the Creek via alluvial wells which will be used as a raw water source for the water treatment plant. Consolidating with an existing WWTP would necessitate sending wastewater from Prosper to an offsite facility which would make reusing treated effluent infeasible due to the cost required to pump the treated effluent back to the Prosper development.

The closest major WWTP is MWWRD that is located approximately 20 miles east of the Prosper WWTP. There are other small miscellaneous WWTPs nearby, as mentioned above, however these facilities are also outside the Prosper service area. Discussion of the reasons for not consolidating with these local WWTPs are provided below.

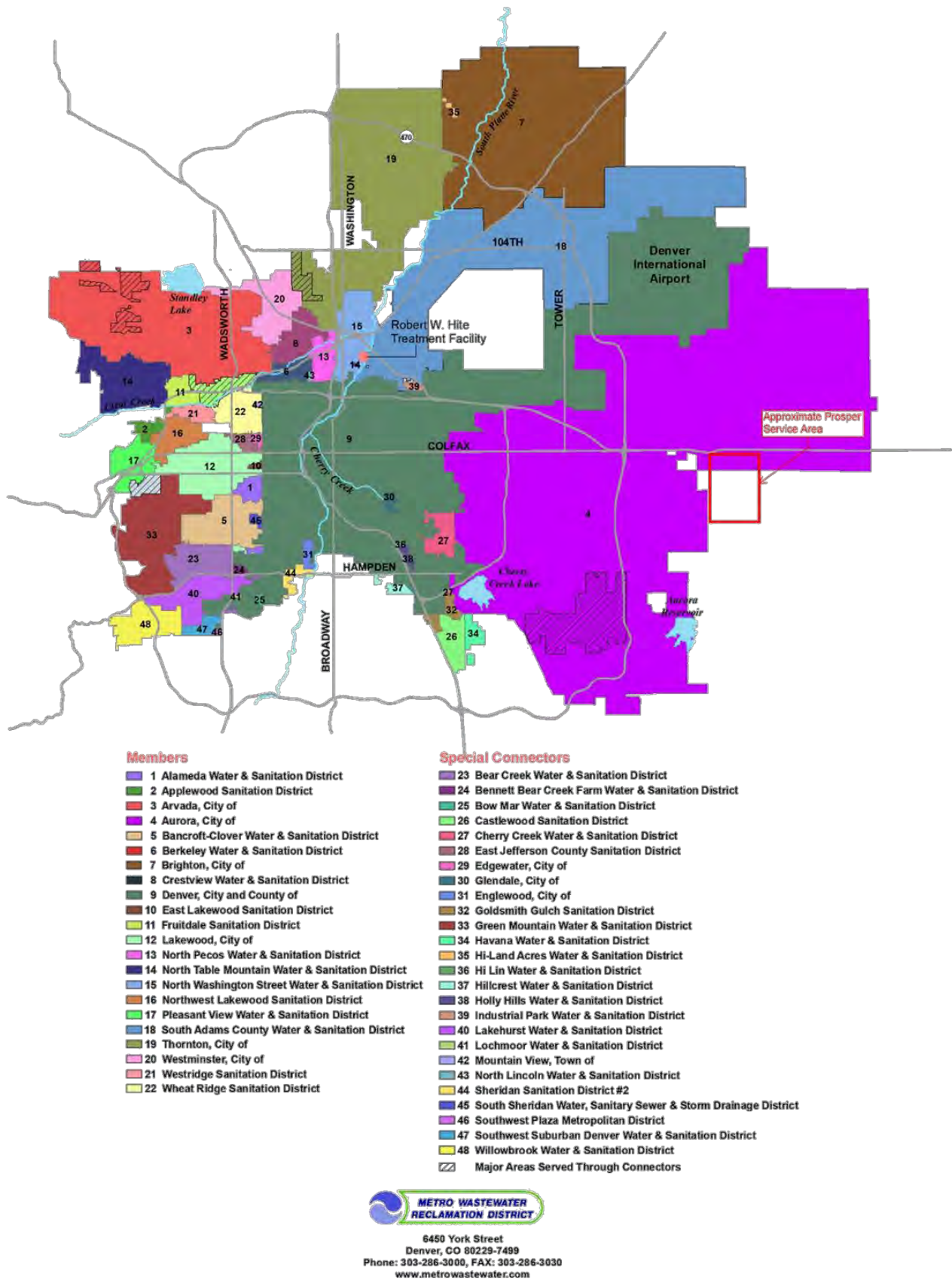


Figure 2-7 Metro Wastewater Reclamation District Service Area

Metro Wastewater Reclamation District

Although the MWWRD treatment facility is large and already constructed, the current MWWRD service boundaries do not encompass all of the Prosper development as presented in Figure 2-7. The adjacent City of Aurora is part of the MWWRD service boundaries, however, Prosper is not within the corporate boundaries of Aurora thus Prosper is not required to send wastewater flow to MWWRD. Also, as described in Section 4, onsite wastewater treatment facilitates on-site and off-site reuse water and is needed to satisfy the planned water supply criteria for the Prosper Development.

Miscellaneous Facilities

The Fox Ridge Farms, Arapahoe Race Track, Orica USA Inc., and Coal Creek Wastewater Reclamation facilities do not have excess capacity to support wastewater flows from the Prosper development. The cost of upgrading these existing facilities to treat the increased capacity would be similar to constructing the Phase 1 WWTP on the Prosper property. Sanitary sewer collection infrastructure is also be more affordable by staying on the Prosper property.

GEOTECHNICAL REPORT

The design criteria and recommendations presented in the Geotechnical Engineering Study prepared by Kumar & Associates, Inc. will be adhered to in the design of the structures included in this project. A copy of the Geotechnical Engineering Study complete with boring logs is provided in Appendix B.

If deep process tankage is required, it will be founded on a layer of crushed drain rock placed directly over nine feet of structurally placed fill. The lower five feet of structurally placed fill will be moisture conditioned on-site soil and the upper four feet will be imported non-expansive fill material. Allowable design bearing pressure on the engineered fill material is 3,000 psf. Pressure equalization valves will be installed in the base slabs of deep concrete basins to eliminate buoyant forces produced by ground water and to eliminate the need for a permanent dewatering system.

Structures that are to be founded on shallow foundations will bear on nine feet of structurally placed fill. The lower five feet of structurally placed fill will be moisture conditioned on-site soil and the upper four feet will be imported non-expansive fill material. Allowable design bearing pressure on the engineered fill material is 3,000 psf.

Bedrock will likely be encountered in the excavation of the deeply founded influent lift station. It is anticipated that the lift station will be founded on reinforced concrete drilled piers anchored into the bedrock. Drilled pier design criteria will be provided by Kumar & Associates, Inc. and will be appended to the Geotechnical Engineering Study.

The over-excavation and placement of engineered fill material is required due to the expansive potential of the on-site soil and bedrock layers. The earthwork recommendations presented in the Geotechnical Engineering Study are generally accepted construction methods to lessen the potential for excessive soil heave. The Regional Water and Sewer District has been made aware of the soil conditions and is acceptant of the earthwork that is required design and construct this facility.

Section 3

Wastewater Regulatory Overview

Wastewater treatment facility discharges to surface and ground waters throughout the United States are subject to state and federal regulations which protect public health and maintain water quality. The condition of the receiving stream, its capacity to absorb waste loads without degradation, and actual or potential uses of the water downstream of a wastewater discharge determine the degree and often the type of wastewater treatment necessary. Water quality standards, effluent discharge regulations, and an overview of current and upcoming regulations are presented in this section to establish the impact on future wastewater discharge criteria for the new Prosper Wastewater Treatment Plant (WWTP)

In Colorado, water pollution control is governed by the Colorado Water Quality Control Act of 1973, as amended. The Colorado Water Quality Control Commission (WQCC) holds primary authority to enact this policy and has delegated implementation responsibilities to the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment (CDPHE).

Preliminary effluent discharge limits for the Prosper WWTP were determined using an assimilative water quality analysis for the receiving stream. Standards and regulations presented throughout this section are in reference to the Preliminary Effluent Limits (PELs) provided by CDPHE dated March 16, 2016. The facility information used in each water quality analysis is provided in Table 3-1.

Table 3-1 Facility Information for Water Quality Analysis

Facility Name	Permit Number	Design Flow (max 30-day avg), MGD	Design Flow (max 30-day avg), cfs
Prosper WWTF	PEL200456	0.1325	0.205

RECEIVING STREAM SEGMENT

The Prosper WWTP will discharge to Rat Run in stream segment COSPMS03a; specifically to the South Platte Basin, Middle South Platte River Sub-basin, Stream Segment 03a. This segment is composed of all tributaries to the South Platte River, including all wetlands, from a point immediately below the confluence with Big Dry Creek to the Weld/Morgan County line, except for specific listings in the subbasins of the South Platte River, and in Segments 3b, 5a, 5b, 5c and 6 and presented in Figure 3-1.

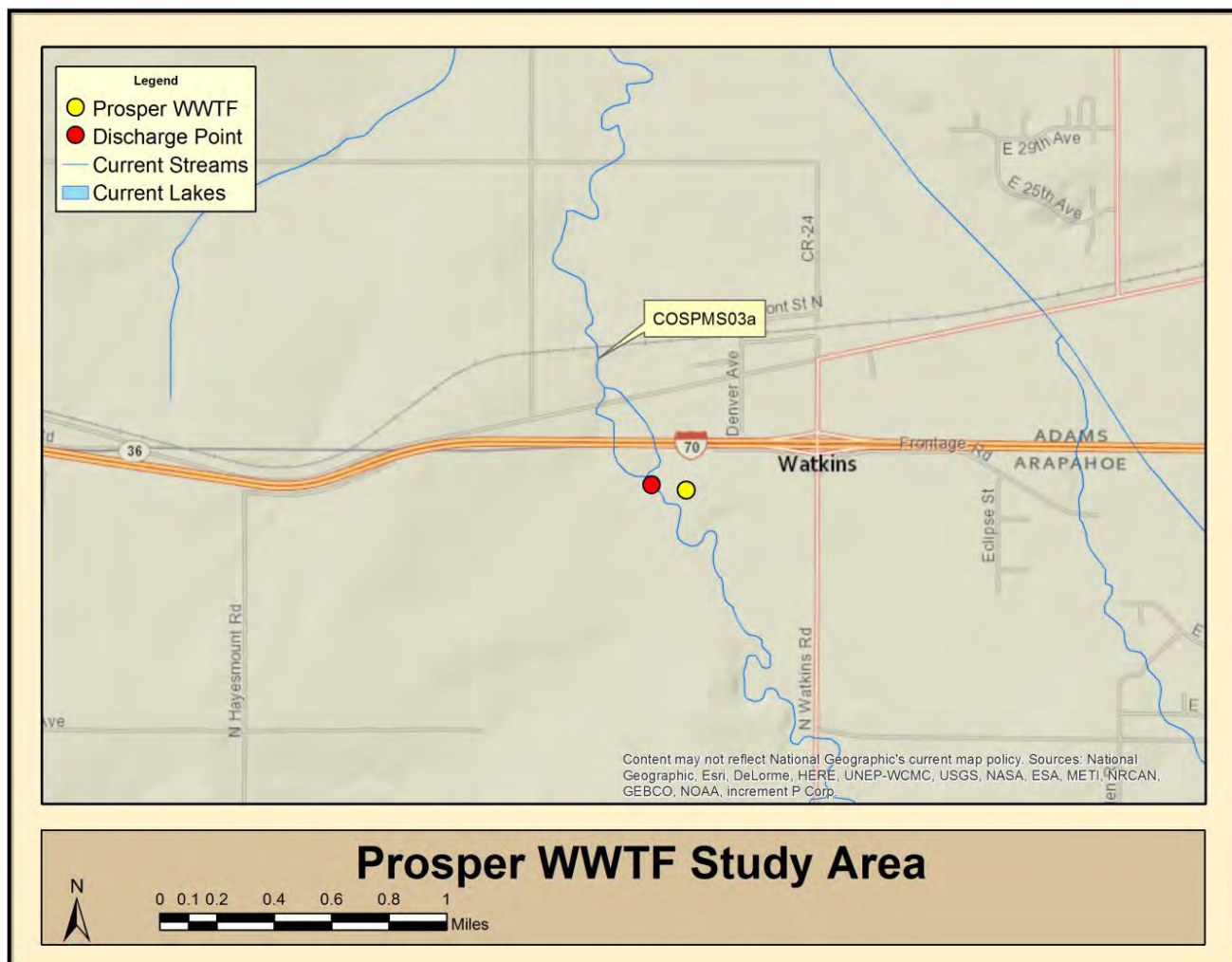


Figure 3-1 Middle South Platte River Basin Sub-basin Study Area (provided by CDPHE)

Impaired Waters

Stream segment COSPMS03a is not **currently listed on Colorado's** Section 303(d) list of water quality impacted streams. Therefore, restrictions and monitoring of water quality due to impaired waters does not apply.

WATER QUALITY STANDARDS

The state regulatory program for surface water quality consists of three tiers including (1) use classifications, (2) water quality standards, and (3) effluent discharge permits. Colorado surface waters have been assigned use classifications to protect all current uses and maintain the highest water quality possible. Water quality standards corresponding to each use classification have been developed by the Colorado Water Quality Control Commission (WQCC) to define the maximum permissible levels of pollutants which will protect and maintain designated uses. Discharge permits are issued by the Colorado Discharge Permit System (CDPS) which enforces the Colorado surface water use classifications and corresponding water quality criteria.

303(d) List of Impaired Waters

Section 303(d) of the Clean Water Act requires states to submit a list of impaired stream segments and lakes to the U. S. Environmental Protection Agency (USEPA) periodically. This list of impaired stream segments and lakes is called the "303(d) List" and is adopted by the Colorado WQCC as Regulation No. 93.

Use Classification

The receiving stream classifications for river segment ID COSPMS03a are provided in Table 3-2.

Table 3-2 Receiving Stream Information

Analysis	Receiving Stream Information	Designation	Classification(s)
Water Quality Analysis	Rat Run	Use Protected	Aquatic Life Warm 2, Recreational Class E, Agriculture, Water Supply

The modified Recreational Class E classification states that the river segment is used for primary contact recreation or has been used for such activities since November 28, 1975. The recreational classification description was modified in 1991 to specifically classify if there are activities on the river segment that are likely to involve the ingestion of water other than specifically swimming. The Class E classification includes recreational activities such as rafting, kayaking, and water-skiing.

According to the *Rationale for Classifications, Standards and Designations of the South Platte*, “stream segment COSPMS03 is designated a water supply because there are two alluvial wells in close proximity to Owl Creek and could be additional water supply intakes or alluvial wells in the segment”. Therefore, nitrate standards are evaluated in this segment.

Low Flow Analysis

To establish Water Quality Based Effluent Limits (WQBELs), Colorado requires use of low flows to assess acute and chronic conditions. The acute low flow (1E3) represents the minimum daily flow occurring with a frequency of three years. The 7-day average low flow (7E3) represents the seven-day average low flow recurring in a three year interval. The chronic low flow (30E3) represents the 30-day average flow over a three-year interval.

Low flows in the water quality analysis were determined based on information provided by the WQCC. Although there are times of periodic flows in Rat Run upstream of the Prosper WWTP, low flows are set at zero for this analysis. Therefore, consideration of full or reduced assimilative capacity is inconsequential and the WQBELs are equal to the Water Quality Standard (WQS) in the receiving stream.

Numeric Standards

The WQCC adopted numeric standards for particular stream segments developed by CDPHE. In-stream standards for Stream Segment COSPMS03a are provided in Table 3-3.

Table 3-3 In-Stream Water Quality Standards for Stream Segment, COSPMS03a

Parameter	Current Value	Units
Physical and Biological		
Dissolved Oxygen	5	mg/L
pH	6.5 – 9.0	s.u.
E. Coli	126	colonies/100 mL
Temperature March-Nov	24.2 MWAT ¹ and 29 DM ²	°C
Temperature Dec-Feb	12.1 MWAT and 14.5 DM	°C
Chlorophyll a ⁷	150	mg/m ²
Inorganic		
Ammonia (acute/chronic)	TVS ³	
Chlorine (acute)	0.019	mg/L
Chlorine (chronic)	0.011	mg/L

Table 3-3 In-Stream Water Quality Standards for Stream Segment, COSPMS03a

Parameter	Current Value	Units
Free Cyanide (acute)	0.005	mg/L
Sulfide (chronic)	0.002	mg/L
Boron (chronic)	0.75	mg/L
Nitrite (acute)	0.5	mg/L
Nitrate (acute)	10	mg/L
Chloride (chronic)	250	mg/L
Sulfate (chronic)	Water Standard ⁴	mg/L
Phosphorus*	0.17	mg/l
Metals		
Dissolved Arsenic (acute)	340	µg/L
Total Recoverable Arsenic (chronic)	0.02	µg/L
Dissolved Cadmium (acute/chronic)	TVS	
Total Recoverable Trivalent Chromium (acute)	50	µg/L
Dissolved Hexavalent Chromium (acute/chronic)	TVS	
Dissolved Copper (acute/chronic)	TVS	
Dissolved Iron (chronic)	Water Standard ⁵	µg/L
Total Recoverable Iron (chronic)	1,000	µg/L
Dissolved Lead (acute/chronic)	TVS	
Dissolved Manganese (chronic)	Water Standard ⁶	µg/L
Dissolved Manganese (acute/chronic)	TVS	
Total Recoverable Molybdenum (chronic)	160	µg/L
Total Mercury (chronic)	0.01	µg/L
Dissolved Nickel (acute/chronic)	TVS	
Dissolved Selenium (acute/chronic)	TVS	
Dissolved Silver (acute/chronic)	TVS	
Dissolved Zinc (acute/chronic)	TVS	

Notes:

¹ MWAT = Maximum Weekly Average Temperature

² DM = Daily Maximum

³ TVS = Table Value Standard

⁴ or WS, the greater of ambient water quality as of January 1, 2000 or 250 mg/l.

⁵ For WS, the greater of ambient water quality as of January 1, 2000 or 300 µg/L

⁶ For WS, the greater of ambient water quality as of January 1, 2000 or 50 µg/L

⁷ Chlorophyll a and Phosphorus only apply to facilities located upstream of those listed in WQCC Regulation 38.5(4). Note that this facility is not located upstream of any of the facilities listed in WQCC Regulation 38.5(4).

Temperature. Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S of Regulation 38.

Metals. Metals are generally shown with Table Value Standard (TVS) as their acute and chronic toxicity are known to vary with hardness and the species of fish present. The TVS's require hardness values to calculate the in-stream standards for the various metals.

As metals with standards specified as TVS are not included as parameters of concern for this facility at this time, the hardness value of the receiving water and the subsequent calculation of the TVS equations is inconsequential and is therefore omitted from the Preliminary Effluent Limit (PEL).

Preliminary Effluent Limits

Water Quality Based Effluent Limits (WQBELs) were determined by ambient water quality and the in-stream standards provided in Table 3-3. The WQBELs may be incorporated into the CDPS permit for the Prosper WWTP contingent on analyses conducted during permit development. The Prosper WWTP will operate under permit number PEL200456. The PELs for the Prosper WWTF were issued on March 16, 2016, expire on December 31, 2021, and are provided in Table 3-4. The PELs are also provided in Appendix C.

Table 3-4 Preliminary Effluent Limits for the Prosper WWTP

Parameter	Value
BOD ₅ (mg/l)	45 (7-day average), 30 (30-day average)
BOD ₅ (% removal)	85 (30-day average)
TSS, mechanical plant (mg/l)	45 (7-day average), 30 (30-day average)
TSS, mechanical plant (% removal)	85 (30-day average)
Oil and Grease (mg/l)	10 (maximum)
pH (s.u.)	6.5-9.0 (minimum-maximum)
Other Pollutants	Max Limits or WQBELs²
<i>E. coli</i> (#/100 ml)	252 (7-day geomean), 126 (30-day geomean)
Total Phosphorus (mg/l) ¹	0.7 (annual median), 1.75 (95 th percentile)
Total Inorganic Nitrogen (mg/l) ¹	10 (daily maximum), 7 (annual median), 14 (95 th percentile)
Total Ammonia	WQBELs
NH ₃ as N, (mg/l) Jan	27 (daily maximum), 6.2 (30-day average)
NH ₃ as N, (mg/l) Feb	26 (daily maximum), 6.0 (30-day average)
NH ₃ as N, (mg/l) Mar	26 (daily maximum), 5.5 (30-day average)
NH ₃ as N, (mg/l) Apr	26 (daily maximum), 5.0 (30-day average)
NH ₃ as N, (mg/l) May	26 (daily maximum), 4.3 (30-day average)
NH ₃ as N, (mg/l) Jun	26 (daily maximum), 3.8 (30-day average)
NH ₃ as N, (mg/l) Jul	24 (daily maximum), 3.1 (30-day average)
NH ₃ as N, (mg/l) Aug	26 (daily maximum), 3.2 (30-day average)
NH ₃ as N, (mg/l) Sep	27 (daily maximum), 3.5 (30-day average)
NH ₃ as N, (mg/l) Oct	26 (daily maximum), 4.1 (30-day average)
NH ₃ as N, (mg/l) Nov	27 (daily maximum), 5.1 (30-day average)
NH ₃ as N, (mg/l) Dec	27 (daily maximum), 6.1 (30-day average)

Notes:

¹ Requirements in Regulation 85.5(1)(b)

² WQBELs = Water Quality Based Effluent Limit

The WQCC Regulation 85, Nutrients Management Control Regulation, applies to the Prosper WWTP because although the rated capacity will be less than 1.0 MGD, it is a brand new WWTP with discharge to a receiving stream that is classified as a water supply. More stringent effluent criteria will be required at the Prosper WWTP in terms of nitrogen and phosphorus limits as provided in Table 3-4.

Section 4

Evaluations of Alternatives

SITE ANALYSIS

The Prosper WWTP is located within Planning Area 71 of the approved Prosper PDP as presented in Figure 2-5. Planning Area 71 is currently undeveloped and consists of dry land wheat and corn fields. Planning Area 71 has been strategically located, configured and zoned to accommodate the Prosper WWTP. The WWTP is located at one of the lowest elevation points within the Prosper PDP allowing the sanitary sewer collection system to flow by gravity to the WWTP. The collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. A map of the Phase 1 sanitary sewer collection system, originally part of the Prosper Final Development Plan Preliminary Utility Report (to be provided on request), is presented in Figure 4-1. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

The WWTP is located within the context of adjacent land uses that are comprised of existing Interstate 70, the Coyote Run drainage and the Rat Run drainage corridors. A natural grassland area is located directly north of the facility. Non-residential land uses will be located to the south of Planning Area 71.

TREATMENT PROCESS ALTERNATIVES

The Regional Water and Sewer District is committed to producing a high quality effluent that meets all proposed discharge requirements and is interested in advanced, sustainable treatment technologies. In this section, treatment alternatives are developed to provide nutrient removal requirements for nitrogen and phosphorus. Treatment process alternatives evaluated include (1) the 3-Stage Biological Nutrient Removal (BNR) Process, (2) the Sequencing Batch Reactor (SBR) process, and (3) a Membrane Bioreactor (MBR) process. Several support systems and facilities will also need to be provided, specifically,

1. An Influent Lift Station to be constructed at the influent of the WWTP to pump wastewater generated from the Phase 1 Prosper service area to the new Headworks Building.
2. A Headworks Building that includes an influent screen, by-pass manual screen, a grit removal system, and an influent flume.
3. An On-Site Lift Station/Equalization Basin to pump wastewater to the secondary process.
4. A Secondary Treatment Process that can meet the effluent requirements of Regulations 85.
5. A Process Building to house new blowers, process pumps, chemical feed system, UV system, and an electrical room.
6. An Aerobic Digester with sufficient capacity to stabilize solids generated in the new treatment process.
7. Administration/O&M/lab space will be provided in the Process Building to provide office space, an operations lab to conduct process control testing and analysis, and a shop where Plant Staff can perform maintenance and service on plant equipment.

Treatment Process Goals and Principals

The PELs for the Prosper WWTP include limits for total inorganic nitrogen (TIN) and total phosphorus (TP) as part of the recently approved Colorado nutrient criteria (Regulation 85). Regulation 85 imposes technology based effluent limits for TIN and TP on new WWTP discharges.

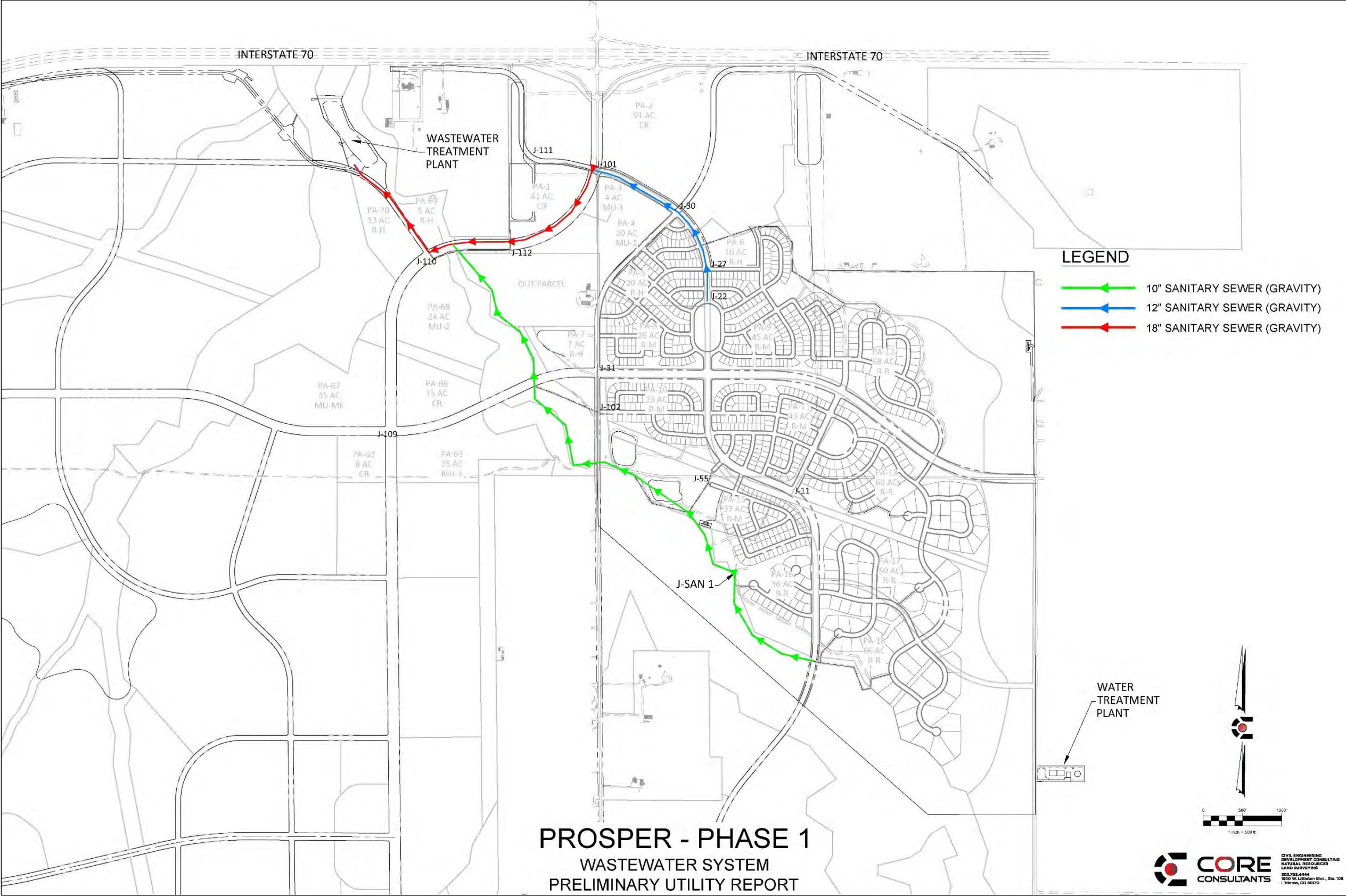


Figure 4-1 Phase 1 Sanitary Sewer Collection System

Principals of Biological Nutrient Removal. Biological nutrient removal (BNR) systems are a class of activated sludge processes that have been widely used and reliably produce high quality wastewater effluent with low nitrogen and low phosphorus concentrations. BNR systems combine anaerobic (no nitrate or oxygen present), anoxic (no dissolved oxygen present), and aerobic zones to remove organic waste and nutrients. The sequence and size of these process zones varies depending on the treatment requirements.

Ammonia. Typical municipal wastewater contains 150 to 300 mg/L of organic matter and 30 to 60 mg/L of nitrogen. Approximately forty percent of the nitrogen is organically bound and enters the treatment plant in the form of proteins. The remaining sixty percent is ammonia. Organic nitrogen can be converted to ammonia through a process known as ammonification. A graphical description of the nitrogen cycle is presented in Figure 4-2.

Ammonia is toxic to aquatic life and exerts a large oxygen demand when it enters a stream, river, or lake. Ammonia can be converted to nitrate, a less toxic nitrogen compound, by nitrifying bacteria in a two-step process known as nitrification. Nitrifying bacteria will live and grow in wastewater treatment processes under the right conditions. For activated sludge processes, the right conditions provide a Mean Cell Residence Time (MCRT) greater than five days, about 2 mg/L of dissolved oxygen, adequate influent alkalinity, and high BOD₅/N ratios.



Figure 4-2 Nitrogen Cycle

Nitrate. Denitrification is the conversion of nitrate to nitrogen gas. Denitrification can be done by a large number of bacteria commonly found in wastewater treatment processes. The nitrogen gas produced is not very water soluble and passes directly into the atmosphere.

Including denitrification in WWTP designs has several advantages so denitrification does not occur in the secondary clarifiers. In nitrifying-only activated sludge systems, the flow entering the secondary clarifiers contains high nitrate concentrations and 1-3 mg/L of dissolved oxygen (DO). As the mixed liquor settles to the bottom of the clarifier and forms a sludge blanket, it depletes the available DO. Many common wastewater bacteria can use nitrate as an alternate oxygen source when the DO drops below 0.5 mg/L during denitrification. When denitrification takes place in the sludge blanket, it can cause settled sludge to float to the top of the clarifier and discharge over the effluent weirs. Often, very small pieces of settled sludge break off and are carried to the top of the clarifier as pin floc.

The nitrification process, which is accomplished by nitrifying bacteria (*Nitrosomonas* and *Nitrobacter*), consumes 7.14 pounds of alkalinity for every pound of ammonia converted to nitrate. An alkalinity surplus of about 75 mg/L must be maintained in the final effluent to ensure that nitrification is not inhibited and to prevent pH from dropping below 6.5 SU. The denitrification process restores some of the alkalinity consumed by nitrification, generating 3.5 pounds of alkalinity for every pound of nitrate converted to nitrogen gas. Incorporating an anoxic zone in the activated sludge process recovers alkalinity where it can be used by the nitrifying bacteria to oxidize ammonia.

Incorporating denitrification saves energy and results in a lower overall sludge yield compared to systems that only nitrify. Denitrification consumes 1.9 pounds of BOD₅ for every pound of nitrate converted to nitrogen gas. BOD removal requires 1.2 pounds of DO per pound of BOD₅. For every pound of nitrate that is denitrified, the amount of oxygen supplied by blowers or other aeration device can be decreased.

Phosphorus. Wastewater treatment plants in Colorado are facing TP limits of 1 mg/L as an annual median limit and 1.75 mg/L for the 95th percentile of samples from the past 12 months. Phosphorus can be removed biologically or with chemical precipitation. Enhanced Biological Phosphorus Removal (eBPR) can reliably attain effluent phosphorus limits of 0.5-0.7 mg/L. The mechanisms of eBPR are provided in Table 4-1. Chemical precipitation is needed to reach very low levels of effluent phosphorus (<0.5 mg/L) or as a backup phosphorus removal system. Incorporating eBPR into the WWTP design requires anaerobic zones upstream of the aeration basins with a hydraulic residence time between 60 and 120 minutes.

Table 4-1 Microbiology of Enhanced Biological Phosphorus Removal

Enhanced biological phosphorus removal (eBPR) systems promote growth of phosphorus accumulating organisms (PAOs) that convert soluble phosphorus into polyphosphate that is stored within the bacterial cells. Most bacteria contain 1 to 2 percent phosphorus. PAOs can contain 5 to 15 percent phosphorus. Phosphorus is removed from the system when these high PAOs are wasted from the system.

The BPR process depends on fermentation of BOD in an anaerobic reactor to produce volatile fatty acids (VFAs). PAOs use stored chemical energy (in the form of polyphosphates) to accumulate VFAs into the cell. Stored VFA's are subsequently used in the aerobic reactor as an energy source to absorb phosphorus and store it as polyphosphate within the bacterial cells. PAOs in the aerobic zone can uptake phosphorus at concentration of 4-7% of their dry body weight.

Wastewater has a limited amount of fermentable BOD needed to produce the VFAs required to remove phosphorus. For this reason, the fermentation step must be carefully designed and operated.

Process Alternatives

Alternative 1 – 3-Stage BNR Process. The 3-Stage BNR process consists of sequential sludge denitrifying, anaerobic, anoxic and aerobic treatment zones. Influent wastewater enters the anaerobic zone where it is combined with denitrified return activated sludge (RAS) from the secondary clarifiers that was denitrified in a separate sludge denitrifying (anoxic) basin. In the anaerobic zone, fermentation of the waste produces volatile fatty acids (VFAs) required for enhanced biological phosphorus removal. Next, the wastewater flows into the anoxic zone where it is mixed with recycled, nitrified mixed liquor from the aerobic zone. The bacteria use residual carbonaceous waste to reduce the nitrate to nitrogen gas (denitrification). Denitrified wastewater flows to the aerobic zone where organic matter and ammonia are oxidized to carbon dioxide and nitrate, respectively, and phosphorus uptake occurs. A large percentage of effluent from the aeration zone is recycled back to the anoxic zone for denitrification while the remainder flows to the secondary clarifier and out of the plant. Typical internal recycle rates are 200 to 400 percent of the influent flow rate. The 3-Stage BNR process schematic is presented in Figure 4-3.

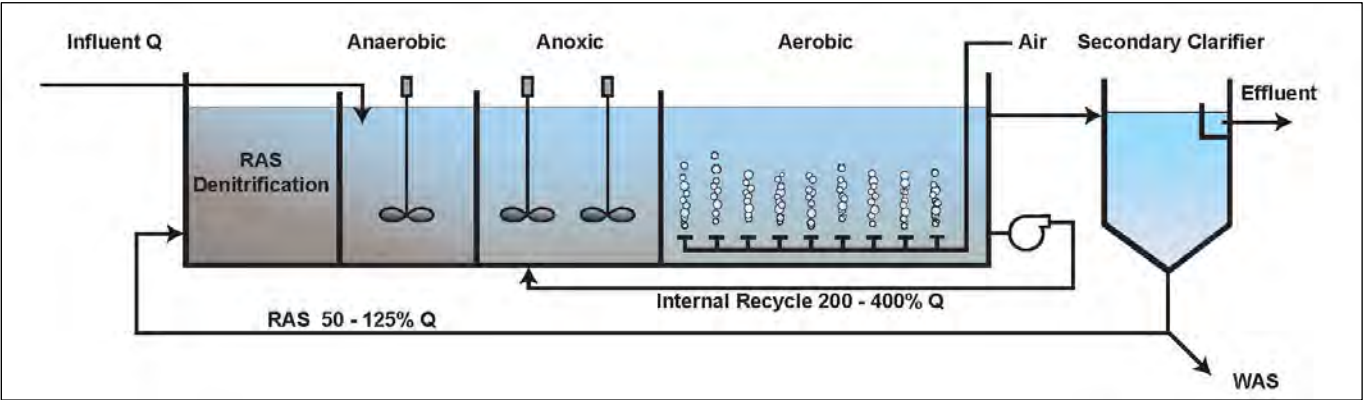


Figure 4-3 3-Stage BNR Process Schematic

Alternative 2 – Sequencing Batch Reactor (SBR). SBR systems are variable volume activated sludge processes which alternate aeration, unaerated mixing, settling, and decant cycles within a single basin. SBRs automatically vary the duration of the operational cycles in response to changing influent flow rates. Sequential cycles of aeration, sedimentation, and liquid/solids separation within each SBR reactor achieves carbonaceous oxidation, nitrification, denitrification, and biological phosphorus removal. The alternating sequence eliminates the need for secondary clarifiers and associated return sludge pumps. However, the settling and decant cycles require a larger SBR basin volume compared to conventional activated sludge processes of the same capacity.

SBR systems operate on a fill-and-draw cycle that varies in duration in response to changing influent flow rates. Aeration, sedimentation, and liquid/solids separation occur sequentially within each SBR reactor. BOD oxidation and nitrification occur during the aeration phase. After biological oxidation is complete, aeration is turned off and mixing may continue to achieve denitrification. Following denitrification, an unmixed, un-aerated phase allows the biomass to flocculate and settle to the bottom of the basin. After settling, clarified effluent is decanted from the upper 20 percent of the basin volume. All of the mixed liquor suspended solids (MLSS) are retained in the SBR basin during settling and decant periods. Waste sludge is pumped from the bottom of the SBR basin to maintain a constant sludge inventory in the system. After decanting, the SBR basin refills with wastewater to begin the next aeration cycle. The SBR process schematic is presented in Figure 4-4.

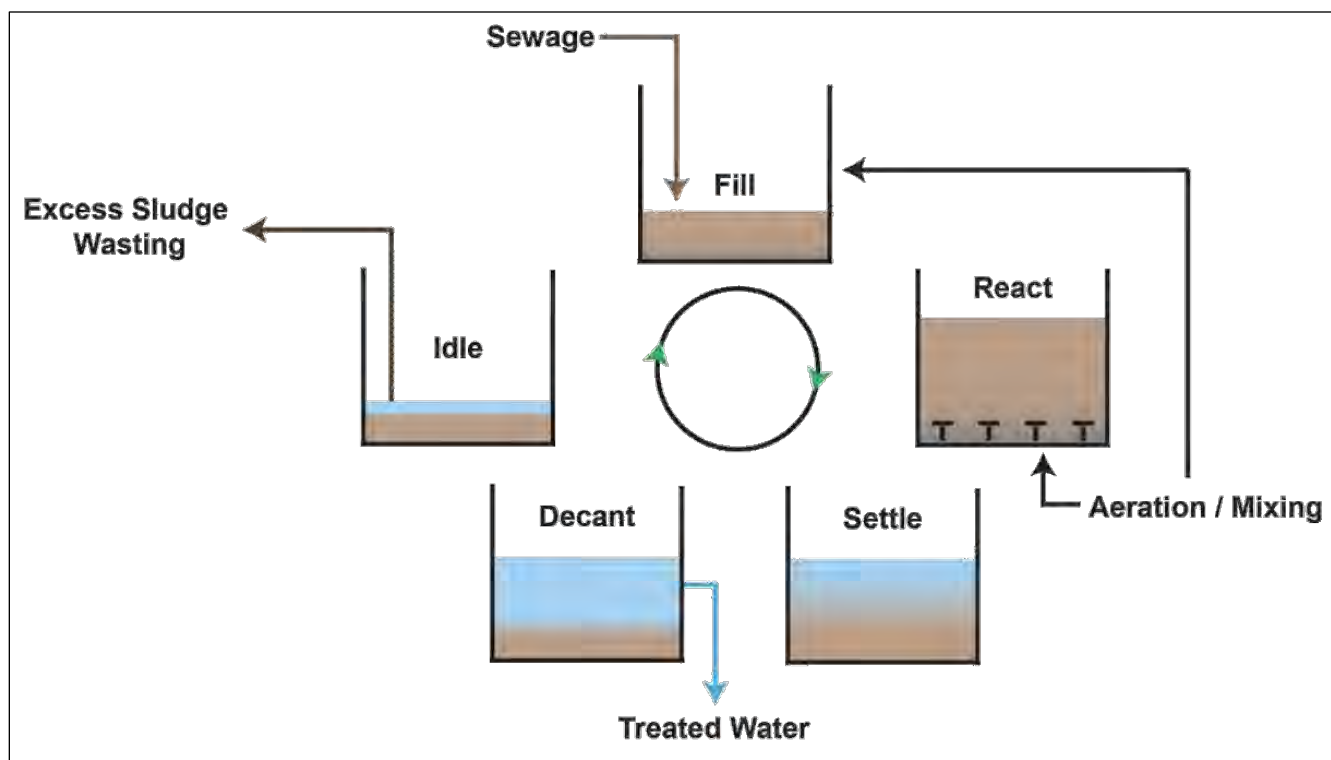


Figure 4-4 SBR Process Schematic

Alternative 3 – Membrane Bioreactor (MBR). Membrane bioreactors (MBRs) provide excellent effluent quality which would be better than BNR or SBR systems. MBRs achieve effluent BOD₅ concentrations of less than 2 mg/L and complete removal of TSS. Effluent phosphorus concentrations less than 1 mg/L can be achieved by chemical precipitation within the MBR reactor. MBR systems have much smaller aeration tanks and eliminate the need for secondary clarifiers and effluent filters. These factors reduce the total plant footprint and offset higher capital costs of the microfiltration equipment.

Membrane filters consist of synthetic polymer thin films that have pore sizes ranging from 0.04 μm to 0.1 μm . Submerged membrane filters are immersed in an activated sludge basin. Submerged membranes are available as flat-sheet, hollow fiber, or tubular membranes. MBRs operate with MLSS concentrations up to 20,000 mg/L. Coarse bubble diffusers agitate the membranes to prevent excessive buildup of MLSS solids on the membrane surface. Submerged membranes operate under a slight vacuum created by a pump. The membranes separate the treated wastewater from the MLSS, eliminating the secondary clarifier used in conventional activated sludge systems. Because secondary clarifiers are eliminated, there are no return activated sludge pumps. A portion of the MLSS is wasted periodically to prevent a buildup of solids in the tank. Fine screens (typically 2 mm orifice) are required upstream of the MBR to protect the membranes.

MBR membranes are cleaned by frequent automatic back pulse cycles which pump filtered water through the fibers in reverse to the filtration cycle. Chemical maintenance cleaning using hypochlorite occurs once per week. Recovery cleaning occurs once every three to six months and consists of soaking the membranes in a high strength citric acid solution for two to eight hours. The MBR process schematic is presented in Figure 4-5.

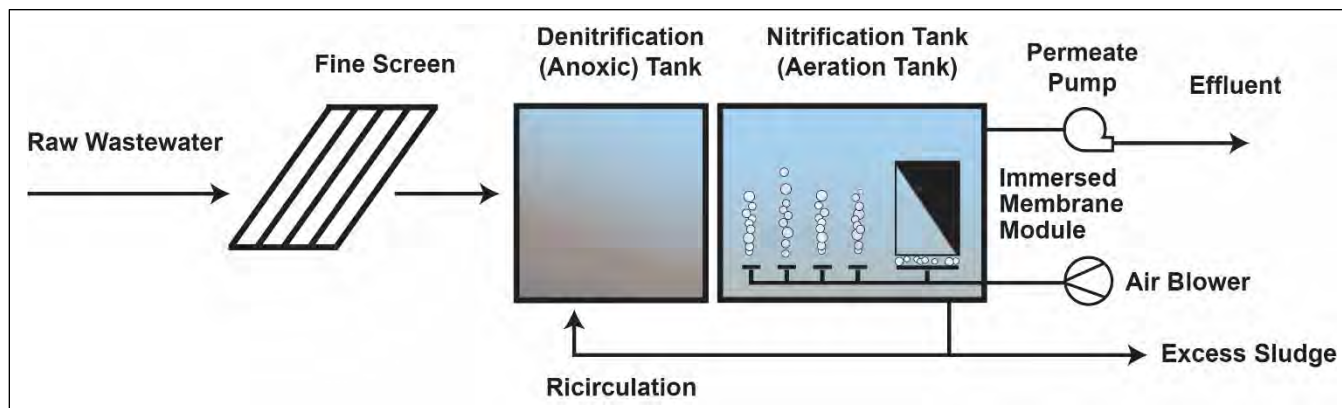


Figure 4-5 MBR System Process Schematic

DETAILED DESCRIPTION OF ALTERNATIVE COMPONENTS

Several treatment systems and some support facilities will be the same for any of the process alternatives. These common systems and support facilities are described below.

Prefabricated Influent Lift Station

The collection system will terminate approximately 25 feet below grade at the WWTP. A six foot diameter pre-fabricated lift station will be constructed approximately 30 feet deep and will house two submersible centrifugal pumps (1 duty, 1 standby) to pump the influent wastewater to the WWTP. A grinder may be used at the entrance of the pump station to protect the influent pumps.

Headworks Equipment

Influent Coarse Screens. Influent wastewater will be screened by an inclined rotary screen with an internal shaftless helical auger to convey the screenings upward into and through an inclined auger tube. The screen will be made of stainless steel with a semi-circular screen basket with 6 mm perforations. The helical auger will remove debris captured on the screen basket, compress and dewater the screened material in the inclined auger tube, and discharge into a storage bin. The screen will be equipped with a screenings washing system to spray wash water onto the screenings in the semi-circular screen basket and into the lower end of the auger tube. The influent inclined rotary screen will have an emergency overflow into a manual bar screen to maintain flow during a screen failure of the mechanical screen.

MBR Fine Screen. The MBR alternative requires fine screens with 2 mm perforations or bar openings. Fine screens will be provided as part of the MBR equipment and will be located in the MBR process building. The fine screens will be capable of fully protecting the MBR membranes without coarse screening located upstream. For the MBR alternatives, fine screens provided as part of the MBR equipment could eliminate the need for influent inclined rotary screen required for the SBR and BNR alternatives.

Grit Removal. Vortex separators would be used for grit removal for all alternatives. For the MBR alternative, the flow equalization basin would also capture grit if the vortex separators failed or were out of service. Settled grit could be removed from the equalization basin periodically by vacuum truck.

Influent Flow Meter. A new trapezoidal flume with ultrasonic level sensor will be installed to meter influent flows. The trapezoidal flume will be installed in a precast concrete vault enclosed with removable fiberglass covers for weather protection.

On-Site Lift Station / Flow Equalization Basin

An on-site lift station is required after the headworks processes to pump the wastewater to the secondary process. The site conditions do not allow for the wastewater to flow by gravity from the influent screens to effluent discharge into Rat Run. A concrete wet well with submersible centrifugal pumps would be constructed adjacent to the secondary process. The wastewater would then flow by gravity through the remainder treatment process and into Rat Run.

The on-site lift station would also operate as an equalization basin for the MBR alternative. MBR systems can tolerate up to twice the design flux for short periods so the equalization basin will ensure that the MBR operates at its optimum flow range. The equalization basin will minimize energy consumption and membrane fouling and is recommended or required for all MBR facilities. Aeration diffusers and a blower would be provided to keep the solids in suspension before sending the wastewater to the secondary process. The MBR alternative would have a larger 25,000 gallon (25 percent of average flow) flow equalization basin which could be constructed as either a steel tank or a concrete tank. Tank covers would be needed to minimize heat losses and contain potential odors. The SBR and BNR alternatives would not require flow equalization.

Chemical Phosphorus Removal

The SBR and BNR alternatives have biological phosphorus removal capabilities. Phosphorus precipitates formed in these activated sludge processes would be separated from the treated water by gravity setting in the final clarifiers or SBR basins. Precipitated phosphorus would be removed from the final clarifiers or SBR basins with the settled waste activated sludge. Waste sludge would be aerobically digested followed by off-site disposal. Although the SBR and BNR processes remove a majority of the phosphorus biologically, an effluent filter may be required to achieve the TIN and TP effluent requirements of 7 mg/l and 0.7 mg/l, respectively. The MBR alternative can remove some phosphorus biologically, but requires chemical phosphorus removal to provide consistent reliable phosphorus removal.

Biological phosphorus removal systems are required to have backup chemical phosphorus removal by the Colorado domestic wastewater plant design criteria (CDPHE WQCD document number WPC-DR-1). To comply with this requirement, coagulant storage tanks and chemical metering pumps will be constructed to provide the capability to remove phosphorus by chemical precipitation as a backup system to any of the biological phosphorus removal alternatives and as the primary phosphorus removal method for the MBR alternative.

Disinfection

Ultraviolet (UV) disinfection is preferred to hypochlorite disinfection to eliminate the potential for accidental chlorine discharges to Rat Run. UV equipment could be located in either a new equipment building for the SBR and BNR process alternatives, or in the MBR building as part of the MBR process skid for the MBR process alternative. UV disinfection would inactivate protozoa, bacteria, and virus which are found in the effluent from all of the process alternatives. Although the discharge permit contains no virus limits, virus inactivation would be needed to protect public health and environmental quality and is presumed to be met by the E. coli limitation.

Aerobic Digester

A new aerobic digester will be constructed with aeration and mixing equipment and removable flat covers. A telescoping valve in the digester will discharge settled water by gravity to the digester decant sump. Submersible pumps in the decant sump will return the settled water to the secondary treatment process.

Odor Control

Odor mitigating elements will be incorporated into the design including aeration system failure alarms, process basin covers, and odor control systems for the influent lift station and headworks building. It is anticipated that an activated carbon odor control system will be used for the influent lift station and headworks building.

Non-Potable Water System

Non-potable water will be supplied for wash down to clean equipment and basins. A vertical turbine or submersible pump will be installed in an effluent wetwell to provide disinfected reclaimed effluent for non-potable uses. A hydro-pneumatic tank will be installed either inside the new UV building or MBR building to maintain pressure and minimize pump start and stop cycles. Non-potable water distribution pipelines will be installed from the non-potable water pumps to each building and basin.

For the SBR and BNR alternatives, a self-cleaning filter would need to be installed on the non-potable pump discharge line to remove suspended solids from the reclaimed effluent prior to storage and use. For the SBR and BNR alternatives, a hypochlorite storage and metering system would be installed inside the existing disinfection building to provide a chlorine residual in the non-potable distribution system. For the MBR alternative, a metering system would be installed inside the MBR building which would pump from the MBR hypochlorite storage tank and discharge into the MBR effluent pipeline.

Drinking Water System

Drinking water will be delivered to the site by distribution piping from the new Prosper Water Treatment Plant. Drinking water will be connected into onsite distribution piping which will deliver potable water to the laboratory sink, lavatory sink, and toilet. The Hydro-pneumatic tank will maintain pressure throughout the piping system.

On-Site Generator

A diesel or natural gas generator will be provided to provide power during an emergency power outage. The generator will provide back-up power to all of the critical process equipment to ensure wastewater treatment will not be interrupted and the safety of the plant staff will be maintained.

Some treatment systems, equipment, and support facilities differ between the SBR, BNR and MBR alternatives. The major project components for the SBR, BNR, and MBR alternatives are provided in Table 4-2.

Table 4-2 Major Project Components to each WWTP Alternative

System or Equipment	BNR	SBR	MBR
Prefabricated Influent Lift Station	Lift Station w/ 2 Submersible Centrifugal Pumps	Lift Station w/ 2 Submersible Centrifugal Pumps	Lift Station w/ 2 Submersible Centrifugal Pumps
Headworks Building	New Headworks Building	New Headworks Building	New Headworks Building
Coarse screens	Rotary, perforated	Rotary, perforated	Rotary, perforated
Grit Removal	Vortex Grit Separator	Vortex Grit Separator	Vortex Grit Separator
Fine screens	None	None	Fine Screens
Influent Flume	Trapezoidal Flume w/ Ultrasonic Level Sensor	Trapezoidal Flume w/ Ultrasonic Level Sensor	Trapezoidal Flume w/ Ultrasonic Level Sensor
On-Site Lift Station/EQ Basin	Lift Station w/ 2 Submersible Centrifugal Pumps	Lift Station w/ 2 Submersible Centrifugal Pumps	EQ Basin w/ 2 Submersible Centrifugal Pumps and Provided with Aeration for Mixing

Table 4-2 Major Project Components to each WWTP Alternative

System or Equipment	BNR	SBR	MBR
Aeration Basins	Concrete Tanks Below Grade	Concrete Tanks Below Grade	Pre-fabricated Steel Tanks in MBR Building
Aeration Basin Covers	Flat Fiberglass Deck	Flat Fiberglass Deck	None
Aeration Blowers	3 Rotary screw	3 Rotary screw	w/ MBR System
Secondary Clarifiers	Two circular, 20 ft diam.	None	None
Clarifiers Covers	Flat Fiberglass Deck	None	None
Chemical Phosphorus Removal	Alum Chemical Feed System	Alum Chemical Feed System	w/ MBR System
UV Disinfection System	UV Disinfection	UV Disinfection	UV Disinfection
Equipment Building	Pre-Fabricated Steel Building, Lower Level Pumps	Pre-Fabricated Steel Building, Lower Level Pumps	Pre-Fabricated Steel Building, Slab-On-Grade
Clarifier RAS Pumps	3 Centrifugal	None	None
MLSS Recycle Pumps	3 Centrifugal	None	w/ MBR System
Waste Sludge Pumps	3 Centrifugal	3 Centrifugal	w/ MBR System
Aerobic Digesters	1 Concrete Tank provided with Aeration and Mixing	1 Concrete Tank provided with Aeration and Mixing	1 Concrete Tank provided with Aeration and Mixing
Odor Control	Aeration basin, clarifier, and digester covers. Activated Carbon system for Headworks Building	Aeration basin and digester covers. Activated Carbon system for Headworks Building	Activated Carbon system for Headworks Building
Non-potable water system	On-Site Reuse Pump and Non-Potable Distribution Piping to all Buildings and Basins	On-Site Reuse Pump and Non-Potable Distribution Piping to all Buildings and Basins	On-Site Reuse Pump and Non-Potable Distribution Piping to all Buildings and Basins
Drinking water system	Pumps and Water Distribution Piping	Pumps and Water Distribution Piping	Pumps and Water Distribution Piping
Emergency generator	New Generator for all Critical Equipment	New Generator for all Critical Equipment	New Generator for all Critical Equipment

ECONOMIC EVALUATION OF ALTERNATIVES

Planning Level Costs

Capital, operation and maintenance (O&M), and net present values were prepared for all alternatives evaluated as a part of this analysis. Assumptions utilized in the analysis are detailed below. Detailed planning level cost estimates for the alternatives analysis are provided in Appendix D.

Capital Costs. Construction costs are based on the quantities of raw materials, construction labor, major equipment, supplies, excavation, and contractor's markup for overhead and profit. During the planning and design process, these items provide a rational basis to estimate total construction costs and develop project budgets. Construction cost estimates were developed with cost data from recently completed projects, published literature, and equipment manufacturer's quotations.

The itemized construction cost estimates contain contingencies to allow for unknown or uncertain conditions. At present, many project components and details cannot be determined. The contingency factor accounts for hidden or unknown physical conditions such as conflicting utilities and construction details which cannot be identified, predicted, or accurately estimated but are likely to occur based on experience with similar projects. Contingencies vary with the level of detail associated with the planning, budgeting, or design process. As a project becomes more defined, unknowns are identified and contingency factors decrease.

The construction cost estimates represent "order-of-magnitude" costs for each alternative. The American National Standards Institute (ANSI) and the American Association of Cost Engineers (AACE) define order-of-magnitude estimates as "an

approximate estimate made without detailed engineering data”. The AACE recommends that planning reports include a contingency of 20 to 40 percent. Cost estimates for final engineered plans may have contingencies reduced to 10 to 15 percent based on detailed design information. Based on the current level of uncertainty associated with this project, a contingency factor of 25 percent of estimated construction costs has been assumed. The cost factors provided in Table 4-3 have been added to the materials and equipment costs to develop an opinion of probable construction cost for each alternative.

Table 4-3 Cost Factors Used to Develop the Opinion of Probable Construction Cost

Cost Factor	Percent Value	Description	Calculation
Mobilization/ Demobilization	3	Contractor cost (Subtotal + 3%)	Percent of (Equipment & Material Subtotal)
Contractor Overhead & Profit	15	Markup on subcontracts, materials, & labor	Percent of (Equipment & Material Subtotal + Mobilization/Demobilization)
Bonding & Insurance	2	Contractor cost	Percent of (Equipment & Material Subtotal + Mobilization/Demobilization + Contractor Overhead & Profit)
Contingencies	25	Unknown conditions & conflicting utilities	Percent of (Equipment & Material Subtotal + Mobilization/Demobilization + Contractor Overhead & Profit + Bonding & Insurance)

Alternative 1 – 3-Stage BNR Process Capital Costs. The estimated opinion of probable construction cost for the major components of the new 3-Stage BNR process is approximately \$3.13 million with the cost details provided in Table 4-4.

Table 4-4 3-Stage BNR Process Opinion of Probable Construction Cost Estimate

Item	Cost, US\$
Site/ Civil	422,500
Structural/Architectural	617,400
Process	712,300
HVAC	49,400
Electrical	270,200
Total Materials and Equipment	2,071,800
Opinion of Probable Construction Cost¹	3,127,100

¹ Construction cost includes mobilization/demobilization, contractor overhead and profit, insurance, bonds, and contingency.

Costs for the construction of the 3-Stage BNR process include a new influent lift station, headworks building, on-site lift station, process building, new treatment basin construction, mechanical equipment required such as valves, pumps, blowers and mixers, two secondary clarifiers, two aerobic digesters, UV disinfection, and associated civil work.

Alternative 2 – SBR Process Capital Costs. The estimated opinion of probable construction cost for the major components of the new SBR process is approximately \$3.14 million with the cost details provided in Table 4-5.

Table 4-5 Sequencing Batch Reactor Opinion of Probable Construction Cost Estimate

Item	Cost, US\$
Site/ Civil	342,400
Structural/Architectural	541,900
Process	874,800
HVAC	49,400
Electrical	271,300
Total Materials and Equipment	2,079,800
Opinion of Probable Construction Cost¹	3,139,200

¹ Construction cost includes mobilization/demobilization, contractor overhead and profit, insurance, bonds, and contingency.

Costs for the construction of the SBR process include a new influent lift station, headworks building, on-site lift station, process building, new treatment basin construction, mechanical equipment required such as valves, pumps, blowers and mixers, two aerobic digesters, UV disinfection, and associated civil work.

Alternative 3 – MBR Process Capital Costs. The estimated opinion of probable construction cost for the new MBR process is approximately \$3.35 million with the cost details provided in Table 4-6.

Table 4-6 MBR Process Opinion of Probable Construction Cost Estimate

Item	Cost, US\$
Site/ Civil	253,300
Structural/Architectural	595,000
Process	1,171,800
HVAC	84,000
Electrical	229,800
Total Materials and Equipment	2,333,900
Opinion of Probable Construction Cost¹	3,351,100

¹ Construction cost includes mobilization/demobilization, contractor overhead and profit, insurance, bonds, and contingency.

Costs for the construction of the MBR process include a new influent lift station, headworks building, equalization basin/on-site lift station, MBR building, mechanical equipment required such as valves, pumps, and blowers, two aerobic digesters, UV disinfection, and associated civil work.

Operation and Maintenance Costs. Estimates of operation and maintenance (O&M) costs are provided for each piece of equipment in this evaluation. Operation and maintenance costs include an estimate of power consumption, chemical costs, structural and equipment maintenance/replacement costs. O&M estimates were utilized in the net present value (NPV) analysis.

Estimated annual costs for operation and maintenance of the BNR and MBR alternatives are provided in Table 4-7. O&M costs for the MBR are approximately twelve percent higher than those for the BNR facility. The increased O&M costs for the MBR are due to the costs of membrane replacement and higher energy use of the equipment, specifically the blowers which are utilized for aeration.

Table 4-7 Annual Cost of Alternatives

Item	Annual Cost Factor	SBR	BNR	MBR
Capital Investment				
Structures		778,400	869,100	518,300
Equipment (mech, HVAC, elec)		1,226,700	1,119,900	1,601,000
Operating Factors				
Total WWTP horsepower	hp	60.5	90.5	150
Power use @ 0.5 x total HP	kWh/yr	197,600	295,600	490,000
Total Building Area	sf	1,500	1,500	3,400
Natural gas consumption	therms/yr	1,800	1,800	3,600
Annual Costs				
Administration & Legal		100,000	100,000	100,000
Operations Labor		50,000	50,000	50,000
Maintenance				
Collection and Transmission		20,000	20,000	20,000

Table 4-7 Annual Cost of Alternatives

Item	Annual Cost Factor	SBR	BNR	MBR
Structures	2%	15,600	17,400	10,400
Equipment	2%	24,500	22,400	32,000
Membrane replacement		0	0	7,500
UV Lamps		1,000	1,000	0
Subtotal		211,100	210,800	219,900
Utilities				
Treatment process operation	\$0.08/kWh	15,800	23,600	39,200
Lighting	15.5 kWh/sf-yr	1,900	1,900	4,200
Heating, \$0.30/therm	1.2 therms/sf-yr	540	540	1,100
Chemicals				
Membrane Cleaning		0	0	1,500
Alum		500	500	500
Sludge Disposal		2,500	2,500	2,000
Total		232,300	239,800	268,400
Difference, percent		0	3.23	11.91

Net Present Value Analysis

Net present values were calculated for each alternative by adding the construction cost and the present value of the estimated 10 year WWTP O&M cost. It is anticipated the WWTP will require an upgrade within the next 10 years so the net present value analysis was calculated over 10 years instead of a 20 year life cycle. Assumptions used to calculate the NPV are provided in Table 4-8.

Table 4-8 Net Present Value Assumptions

Item	Value
Interest Rate, percent	4.0
Project Design Life, years	10

The results of the net present value (NPV) analysis for each treatment process alternative are provided in Table 4-9.

Table 4-9 Treatment Process Alternatives Net Present Value

Item	Cost, \$M		
	3-Stage BNR	SBR	MBR
Opinion of Probable Construction Cost	3.13	3.14	3.35
Average Annual O&M Cost	0.24	0.23	0.27
Net Present Value	5.07	5.02	5.53
Difference, percent	1.0	0	10.0

The NPV includes the opinion of probable construction cost for all of the facilities and equipment at the WWTP for the next ten years of operation. Tertiary filtration costs are not included in this analysis due to the uncertainty associated with when this technology may be required.

The alternative with the lowest NPV is Alternative 2 – SBR Process (\$5.02 million) followed by Alternative 1 – 3-Stage BNR Process (\$5.07 million). Alternative 3 – MBR Process is the most expensive alternative on a NPV basis (\$5.53 million).

CONCLUSIONS AND RECOMMENDATIONS

An MBR facility is recommended for the Prosper WWTP. Although the MBR process is not the lowest cost alternative, the reasons for recommending the MBR system is described below.

- Ease of operation and operational flexibility. This facility will start service as a completely new treatment system that must meet effluent limitations under severely underloaded operating conditions. In this type of situation, the MBR system offers the significant operational advantage of being insensitive to sludge settleability characteristics. The other alternatives rely heavily on the ability of the mixed liquor solids to settle by gravity, and maintaining a good settling sludge can be difficult when the facility is operating at very low flow. In comparison, the MBR system will provide excellent effluent quality regardless of sludge settleability. In addition, the MBR systems ability to operate over a comparatively wide range of MLSS concentrations offers significant operational flexibility.
- Small footprint and fewer below grade facilities required. As discussed in Section 2, the site soil conditions are poor containing predominately clayey overburdened soils with a high swell potential. The potential for soil related movement of site structures is a concern. The MBR system will require fewer and smaller structures than the other alternatives, and thus the MBR system mitigates the risk associated with the poor site conditions.
- Better effluent quality. The Prosper development is committed to producing the best effluent quality possible at a **“reasonable” cost. The MBR system, although slightly more costly, achieves this goal.** It would provide better effluent water quality than the other alternative and would also increase metals removal in the future without adding effluent filters. Future discharge limits for metals, nitrogen, and phosphorus could result in effluent filtration needing to be added to the SBR and BNR alternatives which would make these alternatives more expensive than the MBR system.

Based on better and more consistent effluent quality than the other alternatives and process flexibility to treat low flows, an MBR facility appears to be the best available treatment system and is recommended for the initial phase of the Prosper WWTP. The estimated opinion of probable construction cost for the Prosper WWTP is \$3.35 million and the NPV is \$5.53 million. The new WWTP will meet the effluent nutrient limits of Regulation 85 and the redundancy requirements of WPC-DR-1 State of Colorado Design Criteria for Domestic Wastewater Treatment Works. A detailed plan to implement the new infrastructure is provided in Section 5.

Section 5

Implementation Plan

This Section presents the Implementation Plan for the recommended WWTP and its supporting Management Districts. The recommended treatment process alternative, Alternative 3 – MBR, will be rated for 0.1325 MGD and 265 ppd BOD₅, and will be capable of meeting the PELs provided in Section 3. A process flow diagram is presented in Figure 5-1. A preliminary site plan is presented in Figure 5-2. The initial Phase 1 facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. The Regional Water and Sewer District will determine the selected treatment process for future phases as the demand of the WWTP increases.

A conservative step-wise approach will be taken when designing and constructing the new WWTP. The Prosper WWTP will need to reliably treat the low flows encountered at the beginning of the development, and care must be taken in implementation of the facility to not oversize the process equipment and initial infrastructure. The rated capacity of 0.1325 MGD was selected as half of the projected Phase 1 design flow of 265,000 gpd. If the absorption schedule presented in Section 2 proves to be accurate a near term expansion will need to be completed by 2021. The MBR alternative was selected in part as the WWTP facilities can be easily and quickly upgraded by installing an additional MBR treatment train.

Although the process flow diagram and alternatives analysis presented in Section 4 includes a new equalization basin for the MBR alternative, this infrastructure will not be required at the initial phase of the WWTP. This will decrease the initial capital cost to construct the MBR alternative. The total opinion of probable construction cost for the initial phase of the WWTP is \$3.18 million.

The MBR system can operate over a range of MLSS concentrations and in the early phases of the facility operation when influent flow is much less than the design capacity, sludge can be stored for a period of time in the MBR process tankage. Waste sludge will be periodically pumped to the aerobic digester where the solids will be reduced to produce Class B biosolids. The Class B biosolids will be hauled by a contract sludge hauler for land application. Also, at lower flows flow equalization will not be necessary.

STAFFING PLAN

The staffing requirement for the initial phase of the Prosper WWTP is anticipated to be two employees. The estimated staffing requirement is based on the WWTP hydraulic capacity and the fact that MBR WWTPs require little operator attention after start-up of the system. The WWTP is only staffed during the day for approximately eight hours per day, depending on the day. During unstaffed periods, e.g. night, the plant will rely on remote devices to signal a dialer to the on-call Operator-In-Charge. **At a minimum, one operator will hold a Class A Wastewater Operator's License; the highest Class achievable.**

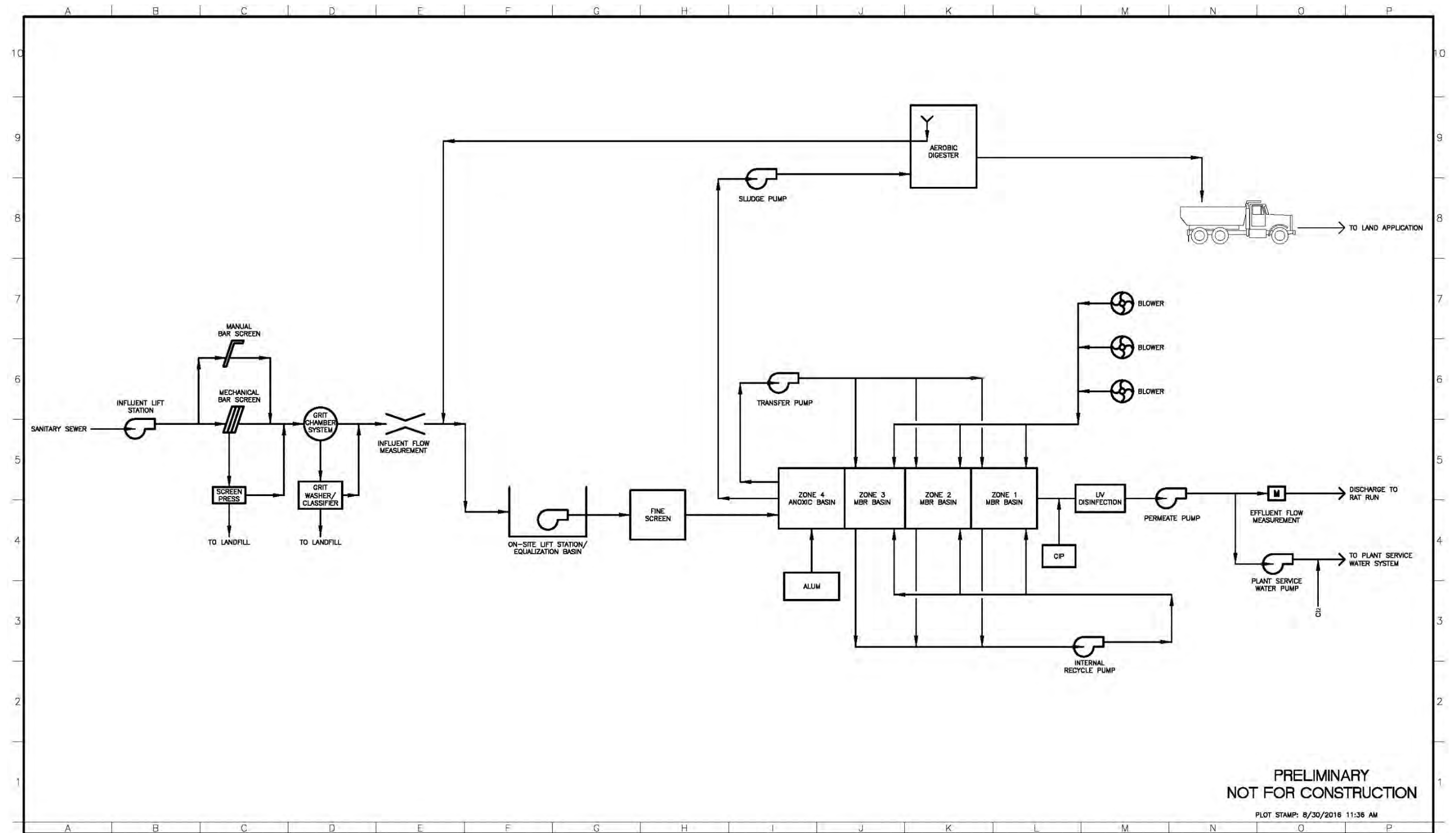


Figure 5-1 Process Flow Schematic

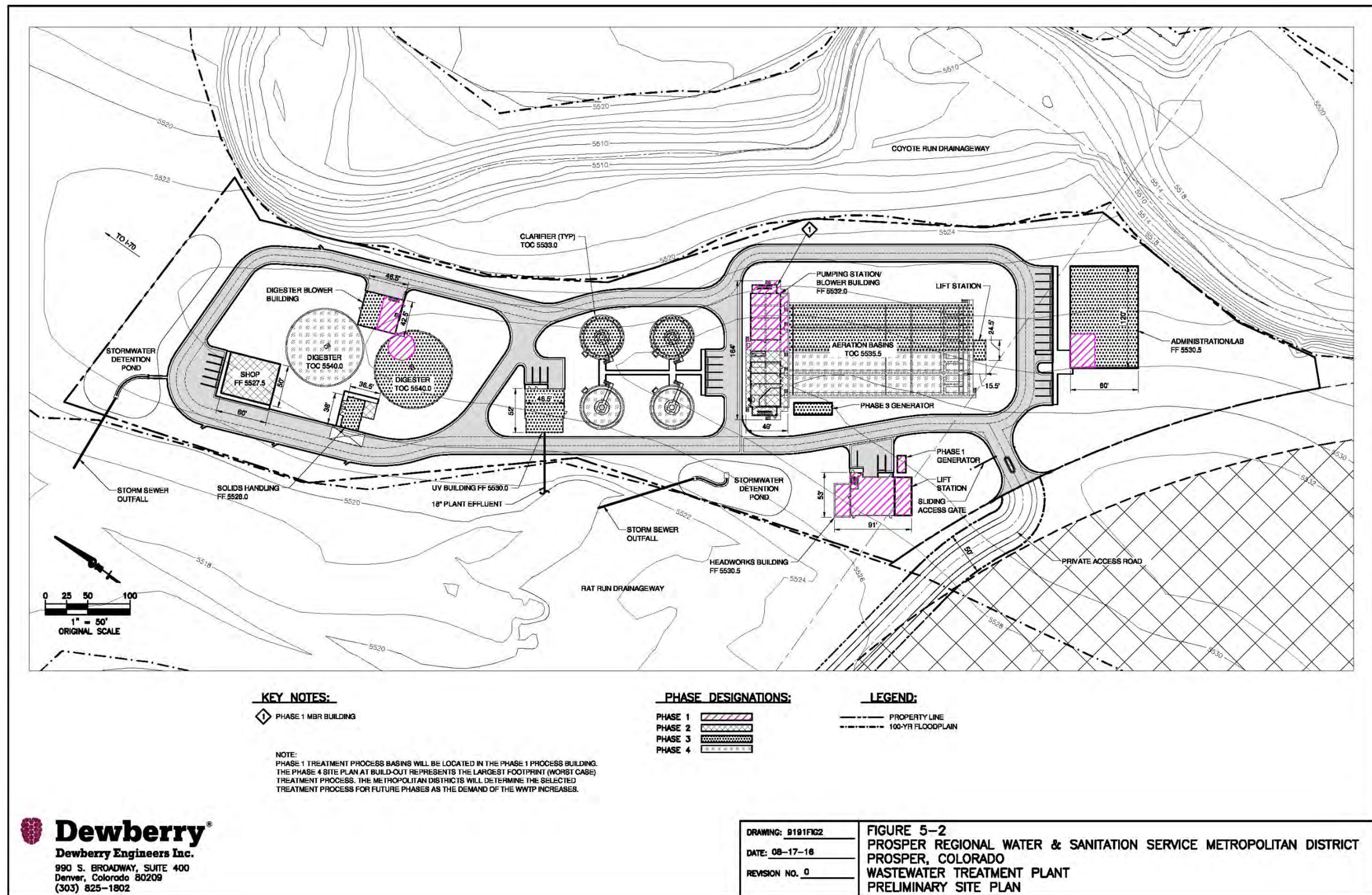


Figure 5-2 Site Layout

LEGAL AND INSTITUTIONAL ARRANGEMENTS

The legal description of the Prosper WWTP site and the current commitment for title insurance is provided in Appendix E. The Regional Water and Sewer District will be the sole owner of the 8.22 acre parcel that is to be used for the Prosper WWTP site. There are no additional right of way approvals required at this time. Prosper will include six metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning, design, financing, and construction of the Prosper WWTP. The Districts include approved service and financial plans that outline specifics regarding the functions and bonding capacity for each district.

MANAGEMENT CAPABILITIES

Two of the approved districts include the Regional Water and Sewer District and the Water & Sanitation Financing District. These districts will be utilized to coordinate the planning, design, construction, acquisition, financing, and operation and maintenance of the Prosper WWTP and sanitary sewer improvements for the life of the project.

The majority of the wastewater received by the WWTP will be from residential areas. Additional loadings will be from commercial, schools, a community center, and light industrial areas. There are not expected to be significant industrial users in the service area. MBRs have been proven to treat wastewater from the sources that will make up Prosper and all effluent requirements are expected to be met by the WWTP. Any flows or loadings above those not expected will be controlled by ordinances or contracts as necessary. At this point there are no ordinances or contracts in place because any extraneous flows are unknown at this time.

FINANCIAL SYSTEM

As part of the original 1041 application (to be provided on request) for the entire Prosper development a Financial Feasibility Report was created showing the financial viability of the whole development. As part of this Report water and sanitation improvements were estimated at \$200,000,000 for the Prosper development at buildout. Revenue projections show that this cost would be covered by a debt service mill levy and associated specific ownership taxes resulting from the levy, combined water and sewer taps fees of \$15,000 per residential tap and \$25,000 per non-residential tap, and estimated annual average facilities fees of \$1,000 per high-density and mixed-use residential unit and \$2,000 per medium-density and low-density residential unit.

The Regional Water and Sewer District will fund the WWTP improvements out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of the WWTP out of monthly service charges paid by all service users.

The Water and Sanitation Financing District will provide funds to support the financing of the WWTP improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of WWTP improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

There is not specific expense and revenue information at this time. The Water & Sanitation Financing District will generate detailed budget projections accounting for all expenses, revenues, and outstanding debts once the development has been approved to move forward.

EMERGENCY OPERATIONS PLAN

An Emergency Response Plan will be put in place to ensure that plant staff takes immediate and appropriate actions to limit adverse effects and protect lives and property during emergency situations. The emergency response procedures will be included in the plant O&M Manual and will provide detailed instructions for responding to power failures, flooding, fire, lightning strikes, equipment breakdowns, process failures, sewage spills, chemical spills, chemical shortages, and personnel injury.

Emergency Assistance

The operator notifies designated authorities of each emergency. In case of personal injury or if fire protection, rescue, or other assistance is needed, plant staff are instructed to contact the local fire department or other emergency assistance. A contact list will be posted at the plant for ready accessibility. Mutual aid agreements with outside organizations for specialized assistance will be identified in the plant O&M Manual.

Safety & Security Equipment

Safety equipment, such as fire extinguishers and self-contained breathing apparatus, will be provided at critical locations in the plant. Electrical disconnect switches will be located immediately adjacent to all motorized equipment to allow immediate shutdown and isolation of damaged equipment. Alarm signals will be generated by automatic monitoring instruments. The plant O&M Manual will provide an inventory of available emergency equipment. The WWTP site will be fenced off with a security gate at the front entrance.

Emergency Power Supply

An emergency generator sized to support all critical equipment required for plant operation will be installed. In the event of a power outage the generator will start and provide power to all required equipment until normal power is restored. A specific list of required equipment will be created during design.

SCHEDULE

County and State approval, design, and construction of the WWTP is estimated to have a duration of approximately 27 months. The estimated project duration is provided in Table 5-1.

Table 5-1 Estimated Project Duration

Item	Duration	Projected Completion
Start of Planning, County, and State Approval Process		January 2016
County and State Site Application Approval Complete	10 months	November 2016
60 Percent Design Complete (Submittal to State for Approval)	5 months	April 2017
Final Design Complete	2 months	June 2017
State Approval Complete – Cleared for Construction	N/A	July 2017
Permitting and Construction	9 months	April 2018
Startup and Commissioning (Initial Phase 1)	N/A	April 2018
Planning and Design (Second Phase of Phase 1)	N/A	June 2020 ¹
Startup and Commissioning (Second Phase of Phase 1)	N/A	2021 ¹
Total Project Duration (Initial Phase 1)	27 months	

¹These dates are based on the absorption schedule provided in Table 2-2 and may be modified in the future based on the rate of development.

The total duration assumes 10 months for planning, County, and State approvals, 7 months for design (starting November 2016), 9 months for Phase 1 construction, and 2 months for startup and commissioning (beginning May 2018). The new WWTP will have to be operational prior to residents moving into the community.

The second phase of the project, which will include an equalization basin and a second treatment process train, will be constructed when the WWTP reaches approximately 125,875 gpd influent flow; ninety-five percent of the WWTP permitted capacity. Planning and design of the second phase of the project is expected to occur in mid-2020, at approximately eighty percent of the WWTP permitted capacity, in accordance with the absorption schedule presented in Section 2.

Section 6

References

Acob, Tristan (March 2016). PEL 200456, Prosper WWTF Preliminary Effluent Limit.

CDPHE, 2002. Nutrient Criteria Development Plan for Colorado published by the Colorado Department of Public Health and Environment (CDPHE) on September 26, 2002.

CDPHE, 2008c. Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment Policy No. WQP-23 dated July 3, 2008.

CDPHE, 2010. Aquatic Life Use Attainment – Methodology to Determine Use Attainment for Rivers and Streams, Policy Statement 10-1, CDPHE, October 12, 2010

CDPHE, 2012a. Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD) Water Pollution Control Policy No. WPC-DR-1, **“State of Colorado Design Criteria for Domestic Wastewater Treatment Works.”**

CDPHE, 2012b. Regulation No. 85 – The Nutrients Management Control Regulation (5CCR 1002-85 Effective September 30, 2012. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2012c. Regulation No. 93 – **Colorado’s Section 303(d) List of Impaired Waters and Monitoring and Evaluation List** (5CCR 1002-93 Effective March 30, 2012. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2013. Regulation No. 31 – The Basic Standards and Methodologies for Surface Water (5CCR 1002-31 Effective January 31, 2013. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2013. Regulation No. 84 – Reclaimed Water Control Regulation (Effective July 30, 2013. Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

CDPHE, 2014. Regulation No. 38 – Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin (5CCR 1002-38 Effective June 30, 2014). Published by the Colorado Department of Public Health and Environment (CDPHE) for the Water Quality Control Commission (WQCC) of the State of Colorado.

Clarion Associates Department of Development Services and Infrastructure Management Planning Division (June 19, 2001). Arapahoe County Comprehensive Plan. <https://www.arapahoegov.com/DocumentCenter/View/330>

Colorado Department of Public Health and Environment (September 15, 2012). Design Criteria for Domestic Wastewater Treatment Works, (CDPHE WQCD document number WPC-DR-1), Denver, Colorado.

Colorado Division of Water Resources, Department of Natural Resources AquaMap (June 2016). 1-mile and 5-mile Vicinity Maps.

Dewberry Engineers, Inc (May 2016). Prosper Water Treatment Plan Arapahoe County 1041 Application Submittal, Denver, Colorado.

Engineering News Record (October, 2013). Construction Economics, McGraw-Hill, New York, New York.

Federal Emergency Management Agency (2010). Flood Insurance Rate Map, Weld County Colorado. Washington, D.C.

Googlemaps.com (2016). Map of area surround Prosper development. www.googlemaps.com

HRS Water Consultants, Inc. (January 2014). Prosper, Colorado Water Supply Plan Report.

International Code Council (2012). International Building Code (IBC), Falls Church, Virginia.

Metcalf and Eddy, Inc. (2003). Wastewater Engineering: Treatment and Reuse, McGraw Hill, New York, New York.

National Fire Protection Association (2012). NFPA 820: Standard for Fire Protection in Wastewater Treatment and Collection Facilities, Quincy, Massachusetts.

Sprague, L.A. and Battaglin W.A. (January 2005). Wastewater Chemicals in Colorado Streams and Ground Water, Fact Sheet 2004–3127, U.S. Geological Survey, Lakewood, Colorado.

USA.com, 2015. Watkins, CO Weather, Annual Average Temperature and Precipitation, <http://www.usa.com/watkins-co-weather.htm>

U.S. Fish and Wildlife, 2015a. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>

U.S. Fish and Wildlife, 2015b. Endangered Species Black-Tailed Prairie Dog. <http://www.fws.gov/mountain-prairie/species/mammals/btprairiedog/>

United States Environmental Protection Agency, 2001. Nutrient Criteria Recommendations and EcoRegions Criteria Documents. Published in Federal Register on January 9, 2001.

United States Environmental Protection Agency, 2002. Summary Table for the Nutrient Criteria Documents, http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/2007_09_27_criteria_nutrient_ecoregions_umtable.pdf

United States Environmental Protection Agency (August 2010). Treating Contaminants of Emerging Concern, A Literature Review Database, EPA-820-R-10-002, Office of Water, Washington, DC.

United States Environmental Protection Agency, 2015. Title 40 Protection of Environment, Subchapter O, Part 503 Standards for the Use or Disposal of Sewage Sludge. <http://www.ecfr.gov/cgi-bin/text-idx?SID=bab8d75ab37a4739906a4662399e7a4c&mc=true&node=pt40.30.503&rgn=div5>.

Vogel & Associates (October 2014). Prosper Arapahoe County 1041 Application.

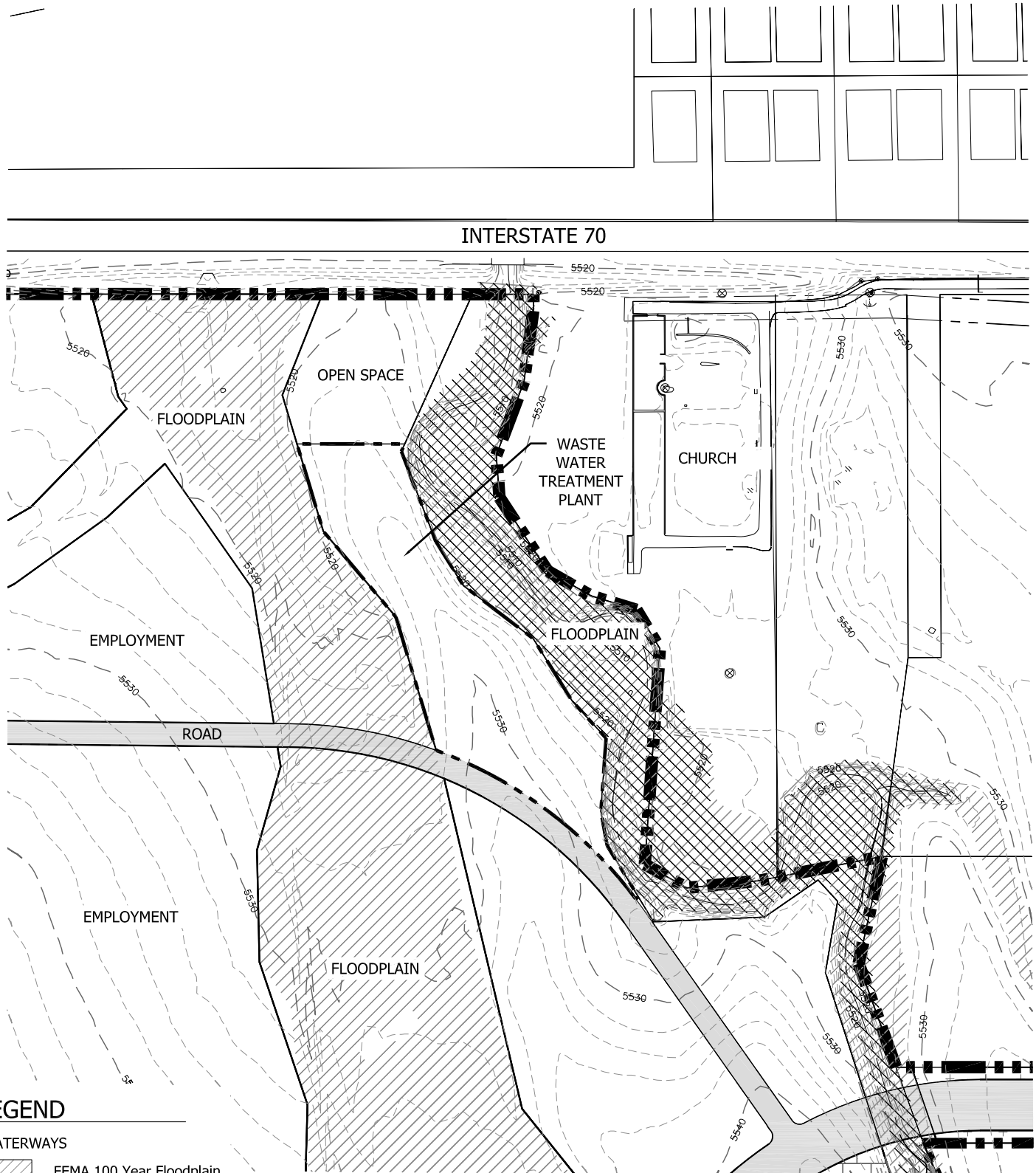
Water Environment Federation (2010). Design of Municipal Wastewater Treatment Plants, WEF Manual of Practice No. 8, Water Environment Federation, Alexandria, Virginia.

Appendix A

Floodplain Figures



PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.
COUNTY OF ARAPAHOE, STATE OF COLORADO



LEGEND

WATERWAYS

-  FEMA 100 Year Floodplain
-  FEMA Floodway

WWTP

Scale: 1"=1000'

Date: FEBRUARY 23, 2015

Revision Date:

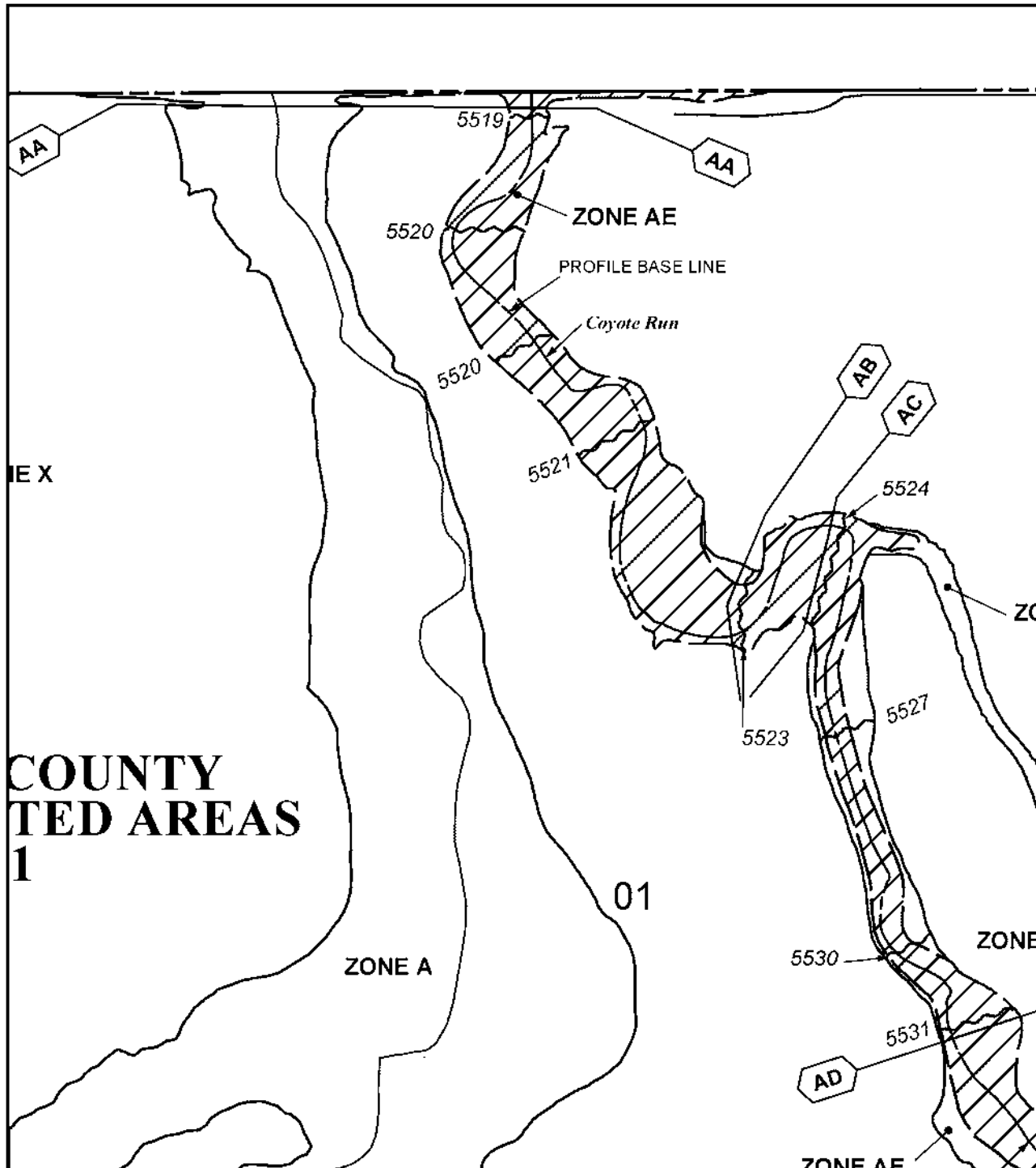


VOGEL & ASSOCIATES
475 W. 12th Avenue - Suite E
Denver, Colorado 80204-3688
(303) 893-4288



Scale in Feet





MAP SCALE 1" = 500'

250 0 500 1000 FEET
0 450 900 METERS

INFIP

PANEL 0226K

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

ARAPAHOE COUNTY,

COLORADO

AND INCORPORATED AREAS

PANEL 226 OF 725

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ARAPAHOE COUNTY	080011	0226	K
AURORA CITY OF	080002	0226	K

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
08005C0226K

MAP REVISED
DECEMBER 17, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix B

Geotechnical Report



Kumar & Associates, Inc.
Geotechnical and Materials Engineers
and Environmental Scientists



2390 South Lipan Street
Denver, CO 80223
phone: (303) 742-9700
fax: (303) 742-9666
email: kadenver@kumarus.com
www.kumarus.com

Office Locations: Denver (HQ), Colorado Springs, Fort Collins, and Frisco, Colorado

GEOTECHNICAL ENGINEERING STUDY
AND PAVEMENT THICKNESS DESIGN
PROPOSED WASTEWATER TREATMENT PLANT
SOUTH OF INTERSTATE 70 AND
EAST OF HUDSON ROAD
WATKINS, COLORADO

Prepared By:

Joshua L. Barker, P.E.



Reviewed By:


Greg J. Monley, P.E.

Prepared For:

VREI, Inc.
5641 North Broadway
Denver, Colorado 80216

C/O: Mr. Jeff Vogel

Project No. 16-3-126

May 20, 2016

TABLE OF CONTENTS

SUMMARY	1
PURPOSE AND SCOPE OF WORK	2
PROPOSED CONSTRUCTION	2
SITE CONDITIONS	3
SUBSURFACE CONDITIONS	3
LABORATORY TESTING	4
GEOTECHNICAL ENGINEERING CONSIDERATIONS	5
FOUNDATION RECOMMENDATIONS	8
FLOOR SLABS	10
SEISMIC DESIGN CRITERIA	13
FOUNDATION WALLS AND RETAINING STRUCTURES	13
WATER SOLUBLE SULFATES	14
BURIED METAL CORROSION	14
SURFACE DRAINAGE	15
SITE GRADING	16
UNDERDRAIN SYSTEM	20
PAVEMENT DESIGN	21
DESIGN AND CONSTRUCTION SUPPORT SERVICES	24
LIMITATIONS	25

FIG. 1 – LOCATION OF EXPLORATORY BORINGS

FIGS. 2 through 4 – LOGS OF EXPLORATORY BORINGS, LEGEND AND NOTES

FIGS. 5 through 7 – SWELL-CONSOLIDATION TEST RESULTS

FIG. 8 – RESISTIVITY TEST RESULTS

TABLE I – SUMMARY OF LABORATORY TEST RESULTS

APPENDIX A – RE-DOX and SULFIDES TEST RESULTS

SUMMARY

1. A total of 20 exploratory borings were drilled for this study. The borings generally encountered a few inches of topsoil underlain by about 2 to 9 feet of fill material. The upper 1 to 2 feet of fill likely lies within the till zone of the agricultural field. Fill materials below the till zone are likely the result of sedimentation deposits associated with the nearby drainages. The fill materials were underlain by natural predominantly clayey overburden soils containing frequent interbeds of silty sand to poorly graded sand with silt. The natural overburden soils continued to the explored depths of about 20 to 30 feet in fifteen of the borings. The remaining five borings encountered claystone bedrock underlying the natural overburden soils at depths ranging from about 28 to 36 feet below the existing ground surface. The claystone bedrock continued to the explored depths in these borings ranging from about 30 to 40 feet.

Groundwater was encountered in five of the borings at the time of drilling at depths ranging from about 27 to 29 feet below the ground surface. Subsequent water level measurements made 14 days after drilling encountered groundwater in seven of the borings at depths ranging from about 21 to 27 feet.

2. Shallow spread footing foundations are feasible for structures on the site. Footings should be designed for a net allowable bearing pressure of 3,000 psf when placed on at least 6 feet of properly compacted structural fill material extending to natural soils. Additionally, the spread footings should be designed to provide a minimum of 800 psf dead load pressure to the bearing surface.
3. Slab-on-grade construction will be acceptable across the site. Overexcavation and replacement will be necessary due to nil to moderate swell potential combined with low swell potential.
4. Structures which are laterally supported and can be expected to undergo only a moderate amount of deflection should be designed for an at-rest lateral earth pressure computed on the basis of an equivalent fluid unit weight of 70 pcf for backfill consisting of the on-site soils and 65 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria. Cantilevered retaining structures which can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 55 pcf for backfill consisting of the on-site soils and 40 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria.
5. We recommend that all pavement sections be underlain by at least 3 feet of properly compacted fill material. The following table presents the minimum pavement thickness recommendations for this facility and roadways.

Paved Area	Full Depth Asphalt (inches)	Composite Section Asphalt/ABC (inches)	PCCP (inches)
Light Duty	6	3.5 / 8.0	6.0
Heavy Duty	7.5	5.0 / 9.0	7.0

ABC – Aggregate Base Course

PCCP – Portland Cement Concrete Pavement

PURPOSE AND SCOPE OF WORK

This report presents the results of a geotechnical engineering study for the proposed Watkins Wastewater Treatment Plant (WWTP) to be associated with the proposed Prosper Development located south of Interstate 70 (I-70) and east of Hudson Road in Watkins, Colorado. The project site is generally shown on Fig. 1. The study was conducted for the purpose of developing recommendations for foundations, floor slabs, site grading and pavements. The study was conducted in accordance with the scope of work presented in our Proposal No. P3-16-153 dated April 12, 2014.

A field exploration program consisting of exploratory borings was conducted to obtain information on subsurface conditions. Samples of the soils and bedrock obtained during the field exploration program were tested in the laboratory to determine their classification and engineering characteristics. The results of the field exploration program and laboratory testing were analyzed to develop geotechnical engineering recommendations for use in site earthwork and in design and construction of the proposed structures.

This report has been prepared to summarize the data obtained during this study and to present our conclusions and recommendations based on the proposed construction and the subsurface conditions encountered. Design parameters and a discussion of geotechnical engineering considerations related to construction of the proposed structures are included in the report.

PROPOSED CONSTRUCTION

The WWTP is being constructed to serve the proposed Prosper Development. The site plan that we have been provided indicates that the WWTP will consist of the following structures:

Building	Approximate Area (Sq. Ft.)
Admin/Lab	9,600
Aeration Basins	23,492
Headworks	3,246
Pumping Station	5,335
Clarifiers (4)	8,714
UV/Reuse	2,382
Digester Blower	1,976
Digesters (2)	13,489
Solids Handling	1,121
Shop	3,000

Based upon the site plan provided, it appears that many of the structures will have finished floor elevations and exterior ground surface elevations higher than the existing ground surface by nil to about 9 feet. Additionally, there will be a network of paved roadways and parking areas planned to connect the structures on the site as well as connecting the site to a proposed roadway to be constructed near the southeast corner of the site

If the proposed construction varies significantly from that described above or depicted in this report, we should be notified to reevaluate the recommendations provided herein.

SITE CONDITIONS

At the time of our field exploration program, the site was vacant of structures and was harvested agricultural ground. The project site is bounded on the east and west by identified drainage ways. Specifically, the Urban Drainage and Flood Control District (UDFCD) has identified the drainage immediately to the west as the Rat Run drainage and the drainage to the east is identified as the Coyote Run drainage. Neither drainage had water flowing at the time of drilling. Both drainages appeared to flow towards the north. A church and cemetery were located immediately east of the Coyote Run drainage. Interstate 70 generally formed the northern site boundary. Agricultural fields surrounded the site in all remaining directions. The project site appeared to have a gentle slope down towards the north and west, although moderate slopes were noted near the two drainages the flanked the site.

SUBSURFACE CONDITIONS

The subsurface conditions at the site were explored by drilling a total of 20 exploratory borings to depths ranging from about 20 to 40 feet at the approximate locations shown on Fig. 1. Graphic logs of the borings are presented on Figs. 2 and 3, and a legend and notes describing the soils encountered are presented on Fig. 4.

Subsurface Soil Conditions: The borings generally encountered a few inches of topsoil underlain by about 2 to 9 feet of existing fill material. The upper 1 to 2 feet of existing fill likely lies within the till zone of the agricultural field. Fill materials below the till zone do not appear to be man-placed and are likely the result of sedimentation deposits associated with the nearby drainages. The fill materials were underlain by natural predominantly clayey overburden soils containing occasional granular lenses. The natural overburden soils continued to the explored depths of about 20 to 30 feet in fifteen of the borings. The remaining five borings (Borings 12,

14 through 16, and 17) encountered claystone bedrock underlying the natural overburden soils at depths ranging from about 28 to 36 feet below the existing ground surface. The claystone bedrock continued to the explored depths in these borings ranging from about 30 to 40 feet.

The fill material consisted of lean clay to sandy lean clay and appeared to be on-site or transported to the site from nearby locations by either natural forces or by mechanized equipment. The fill materials ranged from slightly moist to moist and were light brown to brown. The lateral extent and depth of existing fill beyond the borings, and degree of compaction of the existing fill materials are not known. However, based on sampler penetration resistance, the existing fills generally appeared to have highly varied compaction ranging from well below to near the assumed maximum dry density of the material.

The natural overburden soils generally consisted of lean clay to clayey sand with occasional silty and/or sandy lenses and layers. The natural soils were fine to coarse grained and moist to wet below groundwater, and ranged from light brown to brown. Based on sampler penetration resistance, the natural clayey soils were medium to hard in consistency and the granular soils were medium dense to dense. The claystone bedrock was fine grained, moist and was weathered to hard consistency. The claystone bedrock ranged from blue to gray.

Groundwater Conditions: Groundwater was encountered in five of the borings at the time of drilling at depths ranging from about 27 to 29 feet below the ground surface. Subsequent water level measurements made 14 days after drilling encountered groundwater in seven of the borings at depths ranging from about 21 to 27 feet. Groundwater levels are expected to fluctuate with time, and may fluctuate upward after wet weather or subsequent to landscape irrigation. Given the occasional granular lenses and layers encountered in the borings, it is also possible that localized seasonal perched groundwater conditions could exist at varying depths above those encountered or measured during this study.

LABORATORY TESTING

Laboratory testing was performed on selected soil samples obtained from the borings to determine in-situ soil moisture content and dry density, Atterberg limits, gradation characteristics, swell-consolidation characteristics, and concentration of water soluble sulfates. The results of the laboratory tests are shown to the right of the logs on Figs. 2 through 4 and summarized in Table I. The results of specific tests are graphically plotted on Figs. 5 through 8. The testing was conducted in general accordance with recognized test procedures, primarily those of the American Society for Testing of Materials (ASTM).

Swell-Consolidation: Swell-consolidation tests were conducted on selected samples of the overburden soils in order to evaluate their compressibility and swell characteristics under loading and when submerged in water. Each sample was prepared and placed in a confining ring between porous discs, subjected to a surcharge pressure of 1,000 psf, and allowed to consolidate before being submerged. The sample height was monitored until deformation practically ceased under each load increment.

Results of the swell-consolidation tests are plotted as a curve of the final strain at each increment of pressure against the log of the pressure and are presented on Figs. 5 through 7. Based on the results of the laboratory swell-consolidation testing, samples of the natural soils generally exhibited a low to moderate potential for additional compression to a moderate swell potential upon wetting. Based on the sampler penetration resistance values and in-situ dry densities of the samples and our experience, we believe that the additional compression exhibited by some of the samples upon wetting was largely the result of sample disturbance and likely does not represent the actual compressibility of the on-site soils; however, the contractor and should be aware that there is a potential for collapsible soils and if encountered need to be addressed per the recommendations in the site grading section of this report. A sample of the claystone bedrock also exhibited moderate swell potential when loaded and wetted under similar conditions.

Index Properties: Samples were classified into categories of similar engineering properties in general accordance with the Unified Soil Classification System. This system is based on index properties, including liquid limit and plasticity index and gradation characteristics. Values for moisture content, dry density, liquid limit and plasticity index, and the percent of soil passing the U.S. No. 4 and No. 200 sieves are presented in Table I and adjacent to the corresponding sample on the boring logs.

GEOTECHNICAL ENGINEERING CONSIDERATIONS

Based on conditions encountered in the borings, it appears that the site has about 28 to 36 feet of fill and natural clayey overburden soils that exhibit low to moderate swell potential. The site, in its present condition, is considered unsuitable for support of foundations, slab-on-grade floors, and pavements. The existing fills are considered non-engineered and unsuitable in their current state for support of foundations and slab-on-grade. The existing soils, including the

existing fills, and the underlying bedrock exhibited a potential to swell. Our experience in the area also indicates that there can be soils and bedrock with high swell potential.

In our opinion, with proper site preparation, shallow spread footing foundations and slab-on-grade construction should be feasible. Proper site preparation should include complete removal of existing non-engineered fills where present within the proposed building footprints and beneath other structures, down to the natural soils and replacement with compacted structural fill. Although complete removal would be preferable beneath pavement areas, partial removal of existing fills below planned pavement subgrade may be considered provided the Owner accepts the potential for pavement settlement and associated distress that could occur over time if and where existing fills are left in place and not replaced by properly compacted fill.

Site preparation should also include providing a layer of compacted structural fill below spread footing foundations and slab on grade floors. Including a minimum thickness of structural fill would result in more uniform bearing conditions beneath footings and floor slab support, and in more predictable foundation settlement. Depending on site finished grades, some overexcavation into natural soils may be required in places.

Excavated existing fills and natural overburden soils should be suitable for use as site grading fill and may be suitable for use as structural fill beneath buildings and other structures provided they can be properly moisture conditioned and compacted. Claystone may be suitable for use as site grading fill provided the claystone has a maximum size of 2 inches, a liquid limit less than 40 and can be broken down into a soil-like consistency, but claystone should not be used for structural fill beneath buildings or other structures, and should not be used as compacted fill within two feet of the subgrade elevation in pavement or exterior flatwork areas.

Heave Potential Considerations: Potential slab movements can be mitigated to a certain degree by providing a zone of non- to low-swelling, low-permeability structural fill directly beneath the slab. Heave estimate calculations can be useful in evaluating the relative effectiveness of varying the thickness of an underslab fill layer. However, such calculations cannot address the uncertainty in the potential depth and degree of wetting that may occur under a floor slab, or the variability of swell potential across a site, which is frequently erratic. We have performed calculations to demonstrate the potential for slab movement if the underslab soils should be thoroughly wetted to significant depth below the depth of the structural fill layer.

The following table presents estimates of potential heave based on the results of swell-consolidation tests using analysis methods generally accepted for assessing heave potential in the Colorado Front Range. Both depth of wetting and depth of structural fill were considered as variables in the analysis.

ALTERNATIVE	SLAB HEAVE IN INCHES		
	10 feet wetting	15 feet wetting	20 feet wetting
No Structural Fill Layer	4.1	5.4	6.5
5 feet of M/C	2.0	3.3	4.4
9 feet of M/C	1.1	2.4	3.5
4 feet N/E over 5 feet M/C	0.7	2.0	3.1

M/C = Moisture Conditioned On-Site soil

N/E = Imported Non-Expansive Fill

The heave potential calculations demonstrate that significant heave should be expected if wetting of untreated underslab soils occurs to significant depth below the bottom of the underslab fill layer. However, our experience indicates that the large majority of similar structures underlain by similar subsoils do not experience extreme moisture increases in the underslab soils to significant depth provided that good surface and subsurface drainage is designed, constructed, and maintained, and that good irrigation practices are followed. However, wetting can also occur as a result of unforeseeable influences such as plumbing breaks, or in some cases even due to off-site influences such as flooding of the nearby drainages.

Proper surface drainage during and after construction is very important to mitigate wetting of the subgrade soils. We recommend that landscape areas adjacent to the building be provided with the maximum slope possible to promote good surface drainage. A means of allowing water to readily leave the landscape areas, such as drain pans or chases through a sidewalk, are recommended. All efforts possible should be made to ensure that surface water on the site is allowed to sheet-flow to an off-site location such as a storm sewer inlet or water quality pond located as far from the building as possible. It is critical to the performance of the structure and surrounding pavement that the pavement surfaces be properly maintained. Proper maintenance may include sealing of cracks that appear in the pavement surface. More aggressive cleaning and sealing techniques may be required if larger cracks develop.

Considering the above discussion, we believe slab-on-grade construction may be used for the project, provided that the risk of slab movement and associated distress is recognized and

accepted by the owner, and the measures herein are taken to reduce the damage which could result from movement should the underslab materials be subjected to excessive moisture increases. The intent of our recommendations is to provide for a condition where there is a good chance slab heave movements will not exceed 1 inch and it is unlikely they will exceed 2 inches unless extreme wetting is allowed. Barring unforeseen events, we do not believe extreme wetting is likely to occur if the surface drainage and irrigation recommendations presented in this report are followed. It is also very important to provide the recommended isolation between the structure and the slab-on-grade floors to reduce damage in the event that heaving occurs. Slab-on-grade floors should not be used if architectural finishes that will not tolerate upward slab movement are planned.

For the slab on grade alternative, we recommend the existing expansive soils be overexcavated to a depth of at least 9 feet below the floor slab subgrade elevation. The lower 5 feet of the zone of subexcavation should consist of moisture conditioned on-site overburden soils. The upper 4 feet of the zone of subexcavation should consist of imported non-expansive material meeting the criteria presented in the "Site Grading" section of this report. All fill materials should be placed and compacted according to the material and placement criteria presented in the "Site Grading" section of this report. The zone of subexcavation should extend laterally outside of all building lines a minimum of 10 feet.

FOUNDATION RECOMMENDATIONS

The design and construction criteria presented below should be observed for a spread footing foundation system. The construction details should be considered when preparing project documents.

1. Considering the subsurface conditions encountered in the exploratory borings and the nature of the proposed construction, and the results of heave potential calculations discussed above, we recommend the structures be founded on spread footings placed on at least 6 feet of properly compacted structural fill extending to natural soils.. Areas of loose or soft material or existing fill encountered within the foundation excavation should be removed and replaced with structural fill meeting the material and placement requirements outlined in the "Site Grading" section of this report. New structural fill should extend down from the edges of the footings at a 1 horizontal to 1 vertical projection.

2. Footings supported on properly compacted structural fill as recommended herein should be designed for an allowable soil bearing pressure of 3,000 psf and a minimum dead load pressure of 800 psf. In order to satisfy the minimum dead load pressure and minimum footing width criteria recommended herein, it may be necessary to concentrate loads by using a grade beam and pad or similar foundation design. If this system is used, a void should be provided beneath the grade beams between pads.
3. Spread footings placed on natural soils or properly compacted structural fill should have a minimum footing width of 16 inches for continuous footings and 24 inches for isolated pads.
4. Based on experience, we estimate total settlement for footings designed and constructed as discussed in this section will be 1 inch or less. Differential settlements across the building footprints are estimated to be approximately $\frac{1}{2}$ to $\frac{3}{4}$ of the total settlement.
5. Exterior footings and footings beneath unheated areas should be provided with adequate soil cover above their bearing elevation for frost protection. Placement of foundations at least 36 inches below the exterior grade is typically used in this area.
6. The lateral resistance of a spread footing placed on properly compacted structural fill material will be a combination of the sliding resistance of the footing on the foundation materials and passive earth pressure against the side of the footing. Resistance to sliding at the bottoms of the footings can be calculated based on a coefficient of friction of 0.3. Passive pressure against the sides of the footings can be calculated using an equivalent fluid unit weight of 190 pcf. These lateral resistance values are working values.

Compacted fill placed against the sides of the footings to resist lateral loads should consist of on-site material moisture conditioned to within 0 to +3 percentage points above the optimum moisture content, or imported non-expansive material moisture conditioned to ± 2 percentage points of optimum moisture content, and compacted to at least 95% of the standard Proctor (ASTM D 698) maximum dry density.

7. Care should be taken to provide adequate surface drainage during the excavation of footings, and the contractor should have equipment available for removing water from

excavations following precipitation, if needed. Footing excavations that are inundated as a result of uncontrolled surface runoff may soften, requiring possible moisture conditioning and recompaction of the exposed subgrade soils, or removal of soft subgrade soils and replacement with new compacted structural fill.

8. Areas of loose and/or soft material or deleterious substances encountered within the foundation excavation should be removed and the footings extended to adequate natural bearing material. Alternatively, the loose and/or soft material or deleterious substances may be removed and replaced compacted as outlined in the "Site Grading" section of this report. New fill should extend down from the edges of the footings at a 1 horizontal to 1 vertical projection.
9. The results of our field exploration indicate existing non-engineered fill may be encountered in foundation excavations below the proposed foundation bearing elevations. The existing fill material should be removed and the footings extended to adequate natural bearing material. As an alternate, the existing fill may be removed and replaced with properly compacted structural fill as outlined in the "Site Grading" section of this report. New fill should extend down from the edges of the footings at a 1 horizontal to 1 vertical projection.
10. Care should be taken when excavating the foundations to avoid disturbing the supporting materials
11. A representative of the geotechnical engineer should observe all footing excavations, observe and test compaction, and evaluate the suitability of all fill materials prior to concrete placement.

FLOOR SLABS

Floor slabs present a difficult problem where expansive soils are present near floor slab elevation because sufficient dead load cannot be imposed on them to resist the uplift pressure generated when the materials are wetted and expand. Based on the moisture-volume change characteristics of the clayey soils encountered, a structural floor above a well-ventilated void or crawl space would provide the most effective method of mitigating the risk of floor slab movement. The floor would be supported on grade beams and piers the same as the building structure.

Considering the type of development planned and cost factors associated with structural floors, slab-on-ground construction may be considered as an alternative for the floor slabs provided the increased risk of distress resulting from floor slab movement is accepted by the owner. The “Geotechnical Engineering Considerations” section of this report provides discussion of potential heaving movement magnitudes to help the owner evaluate the risk potential and aid in the decision making process. If slab on grade is selected, we recommend providing a minimum of 9 feet of properly compacted structural fill below the floor slab as discussed above.

The following measures should be taken to reduce damage that could result from movement should the underslab materials be subjected to moisture changes.

1. Floor slabs should be separated from all bearing walls and columns with expansion joints that allow unrestrained vertical movement.
2. Interior nonbearing partitions resting on floor slabs should be provided with slip joints so that, if the slabs move, the movement cannot be transmitted to the upper structure. This detail is also important for wallboards, stairways and door frames. Slip joints which will allow at least 2 inches of vertical movement are recommended.

If wood or metal stud partition walls are used, the slip joints should preferably be placed at the bottoms of the walls so differential slab movement won't damage the partition wall. If slab bearing masonry block partitions are constructed, the slip joints will have to be placed at the tops of the walls. If slip joints are provided at the tops of walls and the floors move, it is likely the partition walls will show signs of distress, such as cracking. An alternative, if masonry block walls or other walls without slip joints at the bottoms are required, is to found them on grade beams and piers and to construct the slabs independently of the foundation. If slab bearing partition walls are required, distress may be reduced by connecting the partition walls to the exterior walls using slip channels. Floor slabs should not extend beneath exterior doors or over foundation grade beams, unless saw cut at the beam after construction.

3. Floor slab control joints should be used to reduce damage due to shrinkage cracking. Joint spacing is dependent on slab thickness, concrete aggregate size, and slump, and should be consistent with recognized guidelines such as those of the Portland Cement Association (PCA) or American Concrete Institute (ACI). We suggest joints be provided

on the order of 12 to 15 feet apart in both directions. The requirements for slab reinforcement should be established by the designer based on experience and the intended slab use.

4. If moisture-sensitive floor coverings will be used, mitigation of moisture penetration into the slabs, such as by use of a vapor barrier, may be required. If an impervious vapor barrier membrane is used, special precautions will be required to prevent differential curing problems which could cause the slabs to warp. This topic is addressed by ACI 302.1R.
5. All plumbing lines should be tested before operation. Where plumbing lines enter through the floor, a positive bond break should be provided. Flexible connections should be provided for slab-bearing mechanical equipment.

The precautions and recommendations itemized above will not prevent the movement of floor slabs if the underlying expansive materials are subjected to moisture increases. However, the precautions should reduce the damage if such movement occurs.

Exterior Flatwork: It is extremely important that exterior slabs-on-grade and pavements be isolated from the building foundations. Many expansive soil related problems are related to ineffective isolation between pavements/floor slabs and foundation-supported components of structures. Careful design detailing is necessary at locations such as exterior stairway landings and entry points.

Exterior flatwork adjacent to structures that is relatively sensitive to movement, such as entry areas, should be overexcavated and provided with underslab fill of the same type and to the same depth as for the building slabs. Less sensitive areas of flatwork, such as sidewalks away from doorways and flatwork away from buildings, may be prepared the same as pavement subgrade areas as recommended below.

Our experience with buildings and construction similar to this project indicate that interior floor slabs are frequently analyzed assuming a soil resistance pressure distribution. Soil resistance pressure distribution should be computed using a method which models the soil-structure interaction, such as the beam on an elastic foundation procedure. A modulus of vertical subgrade reaction equal to 110 pci may be used for the on-site or structural fill placed as recommended in the "Site Grading" section of this report. The modulus value given is for a 1-

foot square plate and must be corrected for mat shape and size. It should be noted that the modulus value provided is for soils located interior to the building that will not undergo significant moisture changes or be subjected to freeze thaw cycles.

SEISMIC DESIGN CRITERIA

The Colorado Front Range is located in a low seismic activity area. The soil profile will generally consists of about 28 to 36 feet of relatively stiff overburden soils overlying claystone bedrock. It is assumed that the bedrock materials extend to depths greater than 100 feet. The overburden soils classify between Site Class C and Site Class D in accordance with International Building Code (IBC) 2012, which references ASCE 7 – 2010 for Seismic Site Class determination. The bedrock at the site will classify as Site Class C. Based on our experience with similar profiles (including shear wave velocities measured for similar subsurface profiles), and the weighted average of estimated shear wave velocities calculated for the upper 100 feet of the site, we recommend a design soil profile of IBC Site Class C be used for design. Based on site seismicity, the subsurface profile, and the depth to groundwater, liquefaction is not a design consideration.

FOUNDATION WALLS AND RETAINING STRUCTURES

Structures which are laterally supported and can be expected to undergo only a moderate amount of deflection should be designed for an at-rest lateral earth pressure computed on the basis of an equivalent fluid unit weight of 70 pcf for backfill consisting of the on-site clayey soils and 65 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria.

Cantilevered retaining structures which can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 55 pcf for backfill consisting of the on-site predominantly granular soils and 40 pcf for backfill consisting of imported granular materials meeting CDOT Class I Structure Backfill criteria.

All foundation and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent buildings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. The buildup of water behind a wall or an upward sloping backfill surface will increase the lateral pressure imposed on a foundation wall or retaining structure.

We recommend free-draining granular soils be used to construct a 1-foot thick drainage zone behind the walls. Geotextile drainage boards adhered to the walls may be used in lieu of the free-draining granular soils. The drainage zone should be incorporated in the underdrain system. Subsurface drainage recommendations are discussed in more detail in the "Underdrain System" section of this report.

The zone of backfill used behind foundation and retaining walls should be sloped from the base of the wall at an angle of at least 45 degrees from the vertical. The upper 1 to 2 feet of the wall backfill should be a relatively impervious soil or a pavement or flatwork structure should be provided to prevent surface water infiltration into the backfill.

On-site or imported fine-grained fill materials placed against the retaining structures should be a nonexpansive material.

Foundation and retaining wall backfill and fill placed against the sides of the footings to resist lateral loads should be placed and compacted according to the criteria presented in the "Site Grading" section of this report.

WATER SOLUBLE SULFATES

The concentration of water soluble sulfates measured in samples of the overburden soils obtained from the exploratory borings ranged from 0.0% to 0.01%. These concentrations of water soluble sulfates represent a Class 0 to Class 1 severity exposure to sulfate attack on concrete exposed to these materials. The degree of attack is based on a range of Class 0, Class 1, Class 2, and Class 3 severity exposure as presented in ACI 201.

Based on the laboratory data and our experience, we recommend all concrete exposed to the on-site materials meet the cement requirements for Class 1 exposure as presented in ACI 201. Alternatively, the concrete could meet the Colorado Department of Transportation's (CDOT) cement requirements for Class 1 exposure as presented in Section 601.04 of the CDOT Standard Specifications for Road and Bridge Construction (2011).

BURIED METAL CORROSION

The potential corrosive environment for metal placed beneath the ground surface at the site was evaluated based on data collected during our field exploration and criteria presented in the

Handbook of Steel Drainage and Highway Construction Products published by the American Iron and Steel Institute. The data includes soil group classification, electrical resistivity, limited chemical analysis, and Redox potential.

The soils encountered predominantly consist of clayey materials with water contents generally less than 20%. The general characteristics of the soils and bedrock indicate they are “Badly” corrosive.

Electrical resistivity measurements conducted at the site indicate minimum resistivity values of between 204 and 379 ohm-centimeters with in-situ resistivity values of between 350 and 530 ohm-centimeters. Soil resistivities of less than 2,000 ohm-centimeters are classified as having bad corrosion resistance.

Non-detect conditions were found for chlorides when two samples were tested. Results of Redox testing and sulfides testing indicated a redox potentials ranging from 222 to 254 mv and a negative on sulfides. Results of the Redox and sulfides testing are presented in Appendix A.

The data obtained in our study indicates the subsurface conditions will be strongly aggressive towards iron and other buried metals based on a scale published in "Corrosion of Building Materials" by Dietbert Knofel.

We recommend a qualified corrosion engineer review the information presented above to design an appropriate level of corrosion protection for buried metal.

SURFACE DRAINAGE

Proper surface drainage is very important for acceptable performance of site structures during construction and after the construction has been completed. Drainage recommendations provided by local, state and national entities should be followed based on the intended use of each structure. The following recommendations should be used as guidelines and changes should be made only after consultation with the geotechnical engineer.

1. Excessive wetting or drying of the foundation and slab subgrade(s) should be avoided during construction.
2. Exterior backfill meet the material and placement requirements outlined in the “Site Grading” section of this report.

3. Care should be taken when compacting around the foundation walls and underground structures to avoid damage to the structures. Hand compaction procedures, if necessary, should be used to prevent lateral pressures from exceeding the design values.
4. The ground surface surrounding the exterior of site structures should be sloped to drain away from the foundations in all directions. We recommend a minimum slope of 12 inches in the first 10 feet in unpaved areas. Site drainage beyond the 10-foot zone should be designed to promote runoff and reduce infiltration. A minimum slope of 3 inches in the first 10 feet is recommended in the paved areas. These slopes may be changed as required for handicap access points in accordance with the Americans with Disabilities Act.
5. The upper 2 feet of the backfill should be relatively impervious material compacted as recommended above to limit infiltration of surface runoff.
6. Ponding of water should not be allowed in backfill material or in a zone within 10 feet of the building foundations.
7. Roof downspouts and drains should discharge well beyond the limits of all backfill.
8. Landscaping which requires relatively heavy irrigation and lawn sprinkler heads should be located at least 10 feet from foundations. Irrigation schemes are available which allow placement of lightly irrigated landscape near foundation walls in moisture sensitive soil areas. Drip irrigation heads with main lines located at least 10 feet from the foundation walls are acceptable provided irrigation quantities are limited.
9. Plastic membranes should not be used to cover the ground surface adjacent to foundation walls.

SITE GRADING

Based upon the existing topography and planned site finished grades, as indicated on Fig. 1, site grading will result in permanent cuts in the native soils ranging up to about 5 or 6 feet in depth, and site fills as thick as about 9 to 10 feet. In general, site grades will be elevated from the current elevations.

Cut and Fill Slopes: The site specifically and the area in general is gently to moderately sloping. Permanent unretained cuts in the overburden soils less than 20 feet in height should be sloped at 3 horizontal to 1 vertical, or flatter. For shallow cuts in the existing overburden soils, we do not anticipate seepage will be encountered; however, there is potential for seepage from perched water conditions.

Permanent fills up to 20 feet in height can be used if the fill slopes do not exceed 3 horizontal to 1 vertical and the fills are properly compacted. The ground surface underlying all fills should be carefully stripped to remove all organic matter, scarified to a minimum depth of 12 inches and compacting to 95% of the standard Proctor (ASTM D698) maximum dry density at moisture contents near optimum. Fills should be benched into existing slopes that are inclined greater than 4 horizontal to 1 vertical. The vertical bench height between horizontal benches should be between 2 feet and 3 feet.

Slope stability analyses should be performed to evaluate the stability of cut or fill slopes exceeding 20 feet. If a detailed stability analysis is required, we should be notified. The geotechnical engineer should also be notified if groundwater seepage is encountered in cut slopes during excavation to assess whether flatter slopes are necessary.

Good surface drainage should be provided around all permanent cuts and fills to direct surface runoff away from the slope faces. Fill slopes, cut slopes and other stripped areas should be protected against erosion by vegetation or other methods.

Temporary Excavations: We assume that the site excavations will be constructed by generally over-excavating the side slopes to a stable configuration where enough space is available. All excavations greater than 4 feet and less than 20 feet in depth should be constructed in accordance with OSHA requirements, as well as state, local and other applicable requirements. OSHA requires excavations or trenching over 20 feet deep be designed by a registered professional engineer.

The existing fills generally classify as OSHA Type C soils and the natural clayey soils generally classify as OSHA Type B soils.

If unstable soil conditions or groundwater are encountered, the geotechnical engineer should be notified so that additional recommendations can be provided, if necessary. Excavated slopes

may soften or loosen due to construction traffic and erode from surface runoff. Measures to keep surface runoff from excavation slopes, including diversion berms, should be considered.

Material Specifications: The following material specifications are presented for fills on the project site. A geotechnical engineer should evaluate the suitability of all proposed import fill material, if required, for the project prior to placement.

1. Structural Fill Beneath Building Foundations and Slabs: Fill placed beneath building foundations, floor slabs and exterior flatwork should consist of on-site overburden soils free of claystone bedrock. Imported soils meeting the criteria below area also acceptable for use as structural fill below foundation elements. (See Material Suitability below for import description and criteria).
2. Pavement Subgrade: Materials placed within 3 feet of the pavement subgrade elevation may consist of the on-site soils exclusive of claystone. Excavated, on-site claystone bedrock material may be used in deeper fills, outside of building limits, at depths greater than 3 feet from the proposed pavement subgrade elevation. Claystone bedrock, as well as other on-site materials not suitable for use as structural fill, may be used in fill areas outside of building footprints and pavement subgrades.
3. Pipe Bedding Material: Pipe bedding material should be a free draining, coarse grained sand and/or fine gravel. The on-site soils are generally non to very cohesive, fine grained soils and are susceptible to erosion and scour.
4. Aggregate Base Course: Material should be crushed stone, crushed slag, recycled concrete, crushed gravel or natural gravel which conforms to CDOT Specifications for Class 6 or Class 5 criteria for aggregate base course.
5. Utility Trench Backfill: Material excavated from the utility trenches may be used for backfill provided it does not contain unsuitable material or particles larger than 4 inches.
6. Material Suitability: The upper 4 feet of material placed below floor slabs and exterior flatwork should consist of an imported non-expansive material. Fills placed below that level, below foundation elements and pavements, and elsewhere on the site should consist of on-site soil satisfying requirements for properly compacted, moisture-conditioned on-site overburden soils presented below.

Imported non-expansive fill should contain less than 50% passing the No. 200 sieve, have a maximum liquid limit of 35 and a maximum plasticity index of 10. Also, the swell potential when remolded to 98% of the ASTM D 698 standard Proctor maximum dry density at optimum moisture content should be less than ½% under a 1,000 pcf surcharge pressure.

Imported fill to be used away from building or structure limits, if necessary, contain less than 70% passing the No. 200 sieve, have a maximum liquid limit of 40 and a maximum plasticity index of 15, and a maximum swell potential of 1% when remolded as described above.

All fill material should be free of vegetation, brush, sod and other deleterious substances and should not contain rocks, debris or lumps having a diameter of more than 4 inches. Rocks, debris or lumps should be dispersed throughout the fill and "nesting" of these materials should be avoided. The geotechnical engineer should evaluate the suitability of proposed import fill materials prior to placement.

Placement and Compaction Specifications: We recommend the following compaction criteria be used on the project:

1. *Moisture Content:* Compaction of all fill materials should be compacted as outlined below with moisture contents between 0 percentage point below the optimum moisture content and 3 percentage points above optimum moisture for clayey material and within -2 to +2 percentage points of optimum for granular soils.

The contractor should be aware that the on-site fine-grained soils used as on-site fill may become somewhat unstable and deform under wheel loads if placed near the upper end of the moisture range(s). Some fill instability is not a concern in deeper fills provided the required density is achieved; instability is a concern primarily in the upper 2 to 3 feet of pavement subgrade fill.

2. *Placement and Degree of Compaction:* Structural fill beneath foundations and slab-on-grade floors, fill adjacent to shallow spread footing foundations, and wall backfill should be placed in less than 8-inch loose lifts as necessary.

The following compaction criteria should be followed during construction:

	Percentage of Maximum Standard Proctor Density (ASTM D-698)
<u>Fill Location</u>	
Beneath Spread Footing Foundations	100%
Beneath Building Floor Slabs	
Fill less Than 8 Feet below finished grade	95%
Fill more Than 8 Feet below finished grade	98%
Adjacent to Spread Footing Foundations	95%
Wall Backfill	
Backfill Less than 8 Feet below finished grade	95%
Settlement Sensitive Areas	98% ¹
Exterior Backfill More than 8 Feet below finished grade	98% ¹
Beneath Pavements and Settlement-Sensitive Hardscape Areas	
Fill Less Than 8 Feet below finished grade	95%
Fill More Than 8 Feet below finished grade	98%
Utility Trenches	
Interior	95%
Exterior – Backfill Less Than 15 Feet thick	95%
Exterior - Backfill More Than 15 Feet Thick	98%
Landscape and Other Areas	95%
¹ Some difficulty could be encountered achieving adequate compaction with small equipment to avoid exerting excessive compaction stresses on walls.	

3. *Subgrade Preparation:* Areas receiving new fill should be prepared as recommended in specific sections of this report to provide a uniform base for fill placement. All other areas to receive new fill not specifically addressed herein should be scarified to a depth of at least 8 inches and recompact to at least 95% of the standard Proctor (ASTM D 698) maximum dry density at moisture contents recommended above.

A representative of the geotechnical engineer should observe and test fill placement. Structural fills beneath buildings and foundations should be observed and tested on a full-time basis. Full time observation and testing is a critical component to reducing the risk of post-construction settlement of the fills.

UNDERDRAIN SYSTEM

Although groundwater was measured at depth ranging from 21 feet to 27 feet, which we understand is several feet below the bottom of the proposed below-grade structures, exterior perimeter underdrains around those structures are recommended to drain water from irrigation, water-line breaks or infiltration following heavy precipitation. This is particularly important given the moderate swell potential of the clayey soils. We recommend that buildings and structures with below grade elements that extend below the finished ground surface elevation be protected by an underdrain system. Although groundwater was not encountered in our explorations at

depths near the assumed lower floor levels of the buildings, it has been our experience that local perched groundwater may develop above clay lenses and layers during times of heavy precipitation, snow melt, or seasonal irrigation. If an underdrain system is not constructed, the below ground walls should be designed for the full hydrostatic pressure conditions. We also recommend a standby pump be available to discharge water that may develop in the below ground areas.

The drain system should consist of rigid drainpipe placed in the bottom of a trench or the exterior side of the below grade parking structure and surrounded above the invert level with free-draining granular material that is wrapped in a non-woven filter fabric. Free-draining granular material used in the drain system should contain less than 5% passing the No. 200 sieve, less than 35% passing the No. 4 sieve and have a maximum size of 2 inches. The free-draining backfill should be hydraulically connected to the drainage zone on the exterior face of the walls discussed above. The perimeter drains should be at least 4 inches in diameter. The drain lines should be placed at least 1 foot below the floor level and graded to sumps at a minimum slope of 1/2%. The granular underdrain system should be sloped to a sump or multiple sumps where water can be removed by pumping or gravity drainage. Given the depth of ground water below the below-grade structures, only small, periodic flows associated with irrigation, and possibly higher flows caused by flooding and/or water line breaks are anticipated. Therefore, sump pumps designed for a total capacity of about 10 gpm should be adequate. However, the sump pits and electrical power system for the pumps should be designed to accommodate larger pumps having a total capacity ranging up to 50 gpm to handle larger peak flows, if needed.

Standby pump capacity should be provided in the event of pump failure. We also believe an oversized pump capacity is desirable in the event groundwater conditions change.

PAVEMENT DESIGN

A pavement section is a layered system designed to distribute concentrated traffic loads to the subgrade. Performance of the pavement structure is directly related to the physical properties of the subgrade soils and traffic loadings. Soils are represented for pavement design purposes by means of a soil support value for flexible pavements and a modulus of subgrade reaction for rigid pavements. Both values are empirically related to strength.

Subgrade Materials: Based on the results of the field and laboratory studies, the majority of the subgrade materials at the site classify between A-2-4 and A-7-6 with group indices between 0

and 24 in accordance with the American Association of State Highway and Transportation Officials (AASHTO) classification. Soils classifying as A-2-4 and A-4 would generally be considered to provide fair subgrade support, while soils classifying as A-6 and A-7-6 would generally be considered to provide poor subgrade support. The probable subgrade soils are expected to consist primarily of compacted fill composed of material generally classifying as A-6 and A-7-6 soils. For design purposes, a resilient modulus value of 3,025 psi was selected for flexible pavements and a modulus of subgrade reaction of 40 pci was selected for rigid pavements.

Design Traffic: Since anticipated traffic loading information was not available at the time of this report preparation, an 18-kip equivalent single axle loading (ESAL) value of 73,000 was assumed for the paved parking surfaces and an ESAL of 219,000 was assumed for truck routes. The values are selected based on our past experience for facilities of this nature. We believe that the ESAL values of 36,500 and 219,000 should be considered to classify as Light Duty and Heavy Duty pavement sections, respectively. The Heavy Duty pavement section should be constructed in locations of heavy vehicular traffic movements such as truck and tanker routes.

If estimated daily traffic volumes for the development are known to be different from those assumed, we should be provided with this information in order to reevaluate the pavement sections provided below.

Pavement Design: The following table presents the minimum pavement thickness recommendations for this development.

Paved Area	Full Depth Asphalt (inches)	Composite Section Asphalt/ABC (inches)	PCCP (inches)
Light Duty	6	3.5 / 8.0	6.0
Heavy Duty	7.5	5.0 / 9.0	7.0

ABC – Aggregate Base Course
PCCP – Portland Cement Concrete Pavement

Truck loading docks, trash pick-up areas and other areas where truck turning movements are concentrated should be paved with 7 inches of Portland cement concrete. The concrete pavement should contain sawed or formed joints to $\frac{1}{4}$ of the depth of the slab at a maximum

distance of 12 feet on center. Concrete pavements may be a suitable alternative for parking lots, fuel center and delivery areas.

The above Portland cement concrete pavement thicknesses are presented as un-reinforced slabs. Based on projects with similar heavy vehicular loading, we recommend that dowels be provided at transverse and longitudinal joints within the slabs located in the travel lanes of heavily loaded vehicles. Additionally, curbs and/or pans should be tied to the slabs. The dowels and tie bars will help minimize the risk for differential movements between slabs to assist in more uniformly transferring axle loads to the subgrade. The Colorado Department of Transportation (CDOT) provides some guidance on dowel and tie bar placement in the current Standard Specifications for Road and Bridge Construction as well as in the current Standard Plans: M&S Standards. It is critical to the performance of the concrete pavement that the joints are properly sealed and maintained to minimize the infiltration of surface water, especially if dowels and tie bars are not installed.

The pavement thicknesses were calculated using the DARWin™ software program based on the design parameters listed above. Results of the program are presented in the Appendix of this report.

Subgrade Preparation: We recommend that areas of pavement be underlain by at least 3 feet of properly moisture conditioned compacted structural fill.

Pavement subgrade materials across significant portions of the site may consist of existing non-engineered fills. Ideally, all non-engineered fill beneath pavements should be removed and replaced with compacted fill consistent the material described in this report. However, a partial fill removal option may be considered, particularly in areas of relatively deep fill. If a partial removal option is selected, we recommend that areas of existing fill within proposed pavement areas be sub-excavated to a minimum depth of 3 feet below the proposed subgrade elevation.

The owner should be aware that partial subexcavation and replacement of existing fills and/or limited subexcavation of claystone bedrock or natural clay soils will reduce but not eliminate potential movement of pavements should moisture levels increase within these materials where present beneath the replacement fill and/or pavement. Also, the owner should be aware that rigid PCCP will be less tolerant of differential settlement- or heave-related movement than flexible pavements. Where rigid PCCP is constructed over existing fills, claystone or natural clay soils, providing reinforcing and doweling as discussed in the previous section of this report

would help reduce the risk of pavement distress due to differential settlement- or heave-related movement.

Prior to placing new fill or the pavement section, the entire subgrade area should be scarified to a depth of 8 inches, adjusted to a moisture content near optimum and compacted to at least 95% of the standard Proctor (ASTM D 698) maximum dry density. Fill placed beneath the pavement should meet the material and compaction requirements for structural fill presented in the "Site Grading" section of this report.

The pavement subgrade should be proofrolled with a heavily loaded pneumatic-tired vehicle. Pavement design procedures assume a stable subgrade. Areas that deform excessively under heavy wheel loads are not considered stable and should be removed and replaced to achieve a stable subgrade prior to paving. The contractor should be aware that the clay soils, including on-site and imported materials, may become somewhat unstable and deform under wheel loads if placed near the upper end of the moisture range.

Drainage: The collection and diversion of surface drainage away from paved areas is extremely important to the satisfactory performance of pavement. Drainage design should provide for the removal of water from paved areas and prevent the wetting of the subgrade soils.

DESIGN AND CONSTRUCTION SUPPORT SERVICES

Kumar & Associates, Inc. should be retained to review the project plans and specifications for conformance with the recommendations provided in our report. We are also available to assist the design team in preparing specifications for geotechnical aspects of the project, and performing additional studies if necessary to accommodate possible changes in the proposed construction.

We recommend that Kumar & Associates, Inc. be retained to provide observation and testing services to document that the intent of this report and the requirements of the plans and specifications are being followed during construction, and to identify possible variations in subsurface conditions from those encountered in this study so that we can re-evaluate our recommendations, if needed.

LIMITATIONS

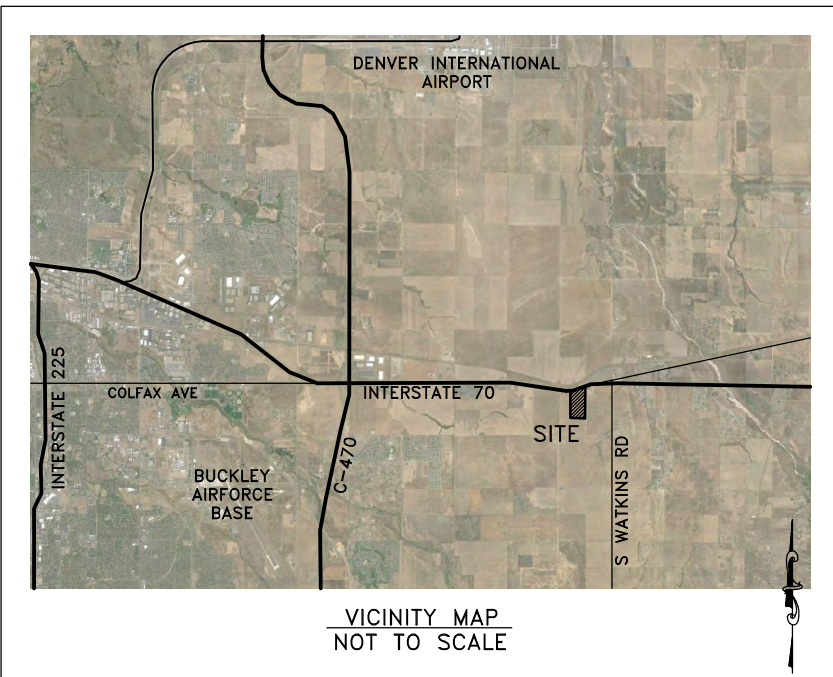
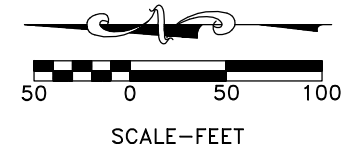
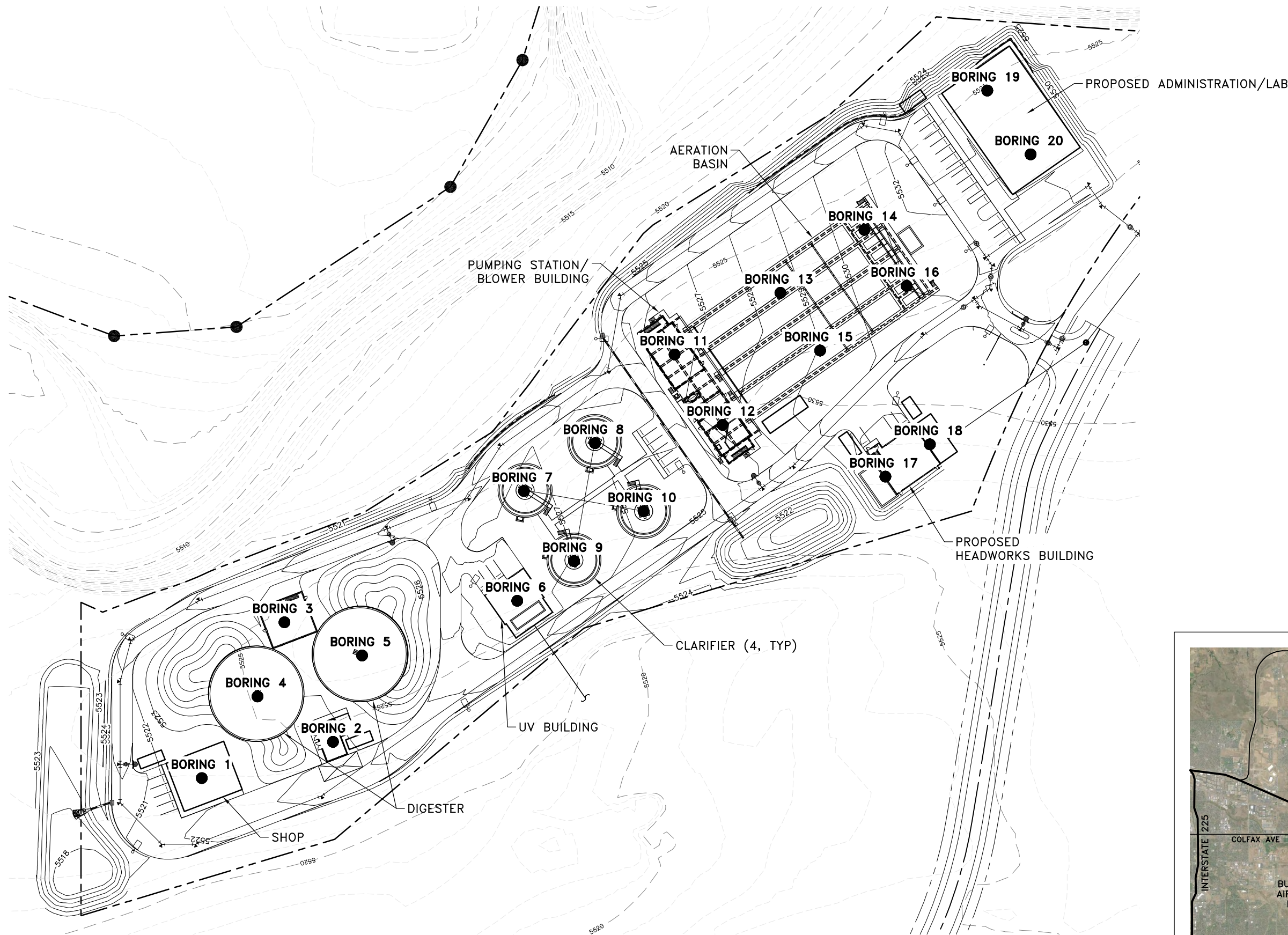
This study has been conducted in accordance with generally accepted geotechnical engineering practices in this area for exclusive use by the client for design purposes. The conclusions and recommendations submitted in this report are based upon data obtained from the exploratory borings at the locations indicated on Fig. 1, and the proposed construction. This report may not reflect subsurface variations that occur between the explorations, and the nature and extent of variations across the site may not become evident until site grading and excavations are performed. If during construction, fill, soil, rock or water conditions appear to be different from those described herein, Kumar & Associates, Inc. should be advised at once so that a re-evaluation of the recommendations presented in this report can be made. Kumar & Associates, Inc. is not responsible for liability associated with interpretation of subsurface data by others.

The scope of services for this project does not include any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such contamination, other studies should be undertaken.

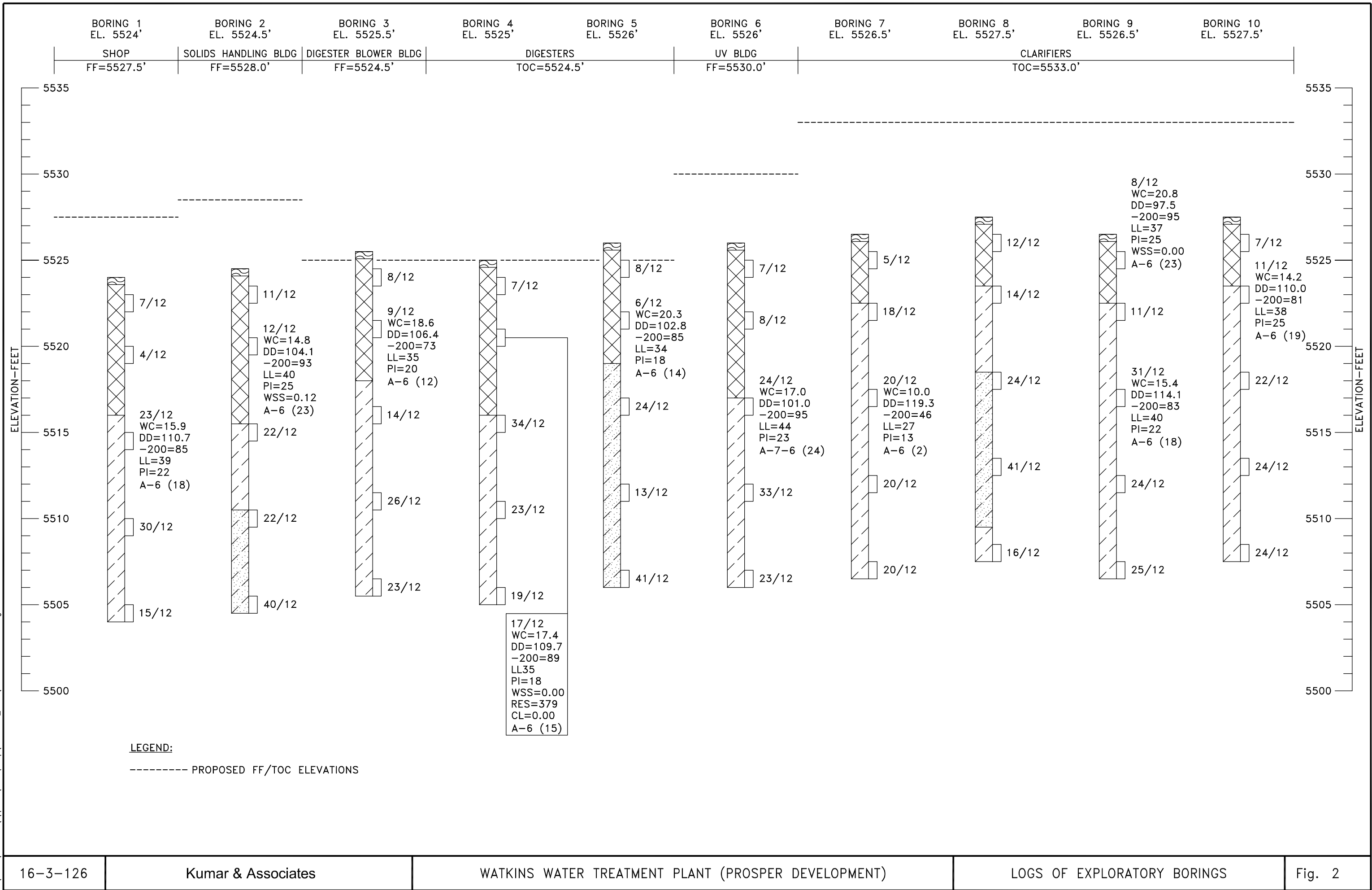
JLB/jw

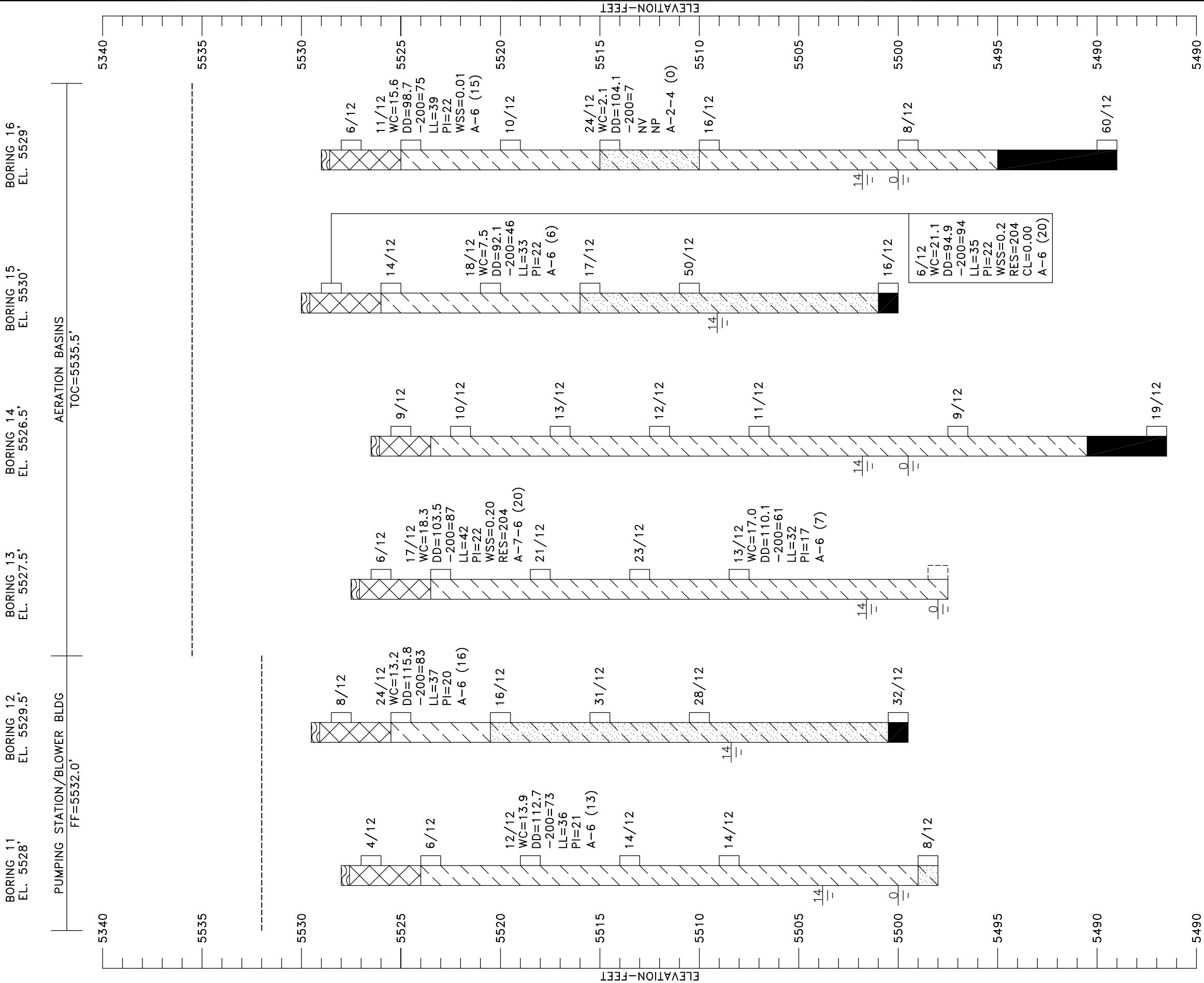
cc: Book, file

May 20, 2016 - 03:00pm
V:\Projects\2016\16-3-126 Watkins Water Treatment Plant\Drafting\163126-01.dwg

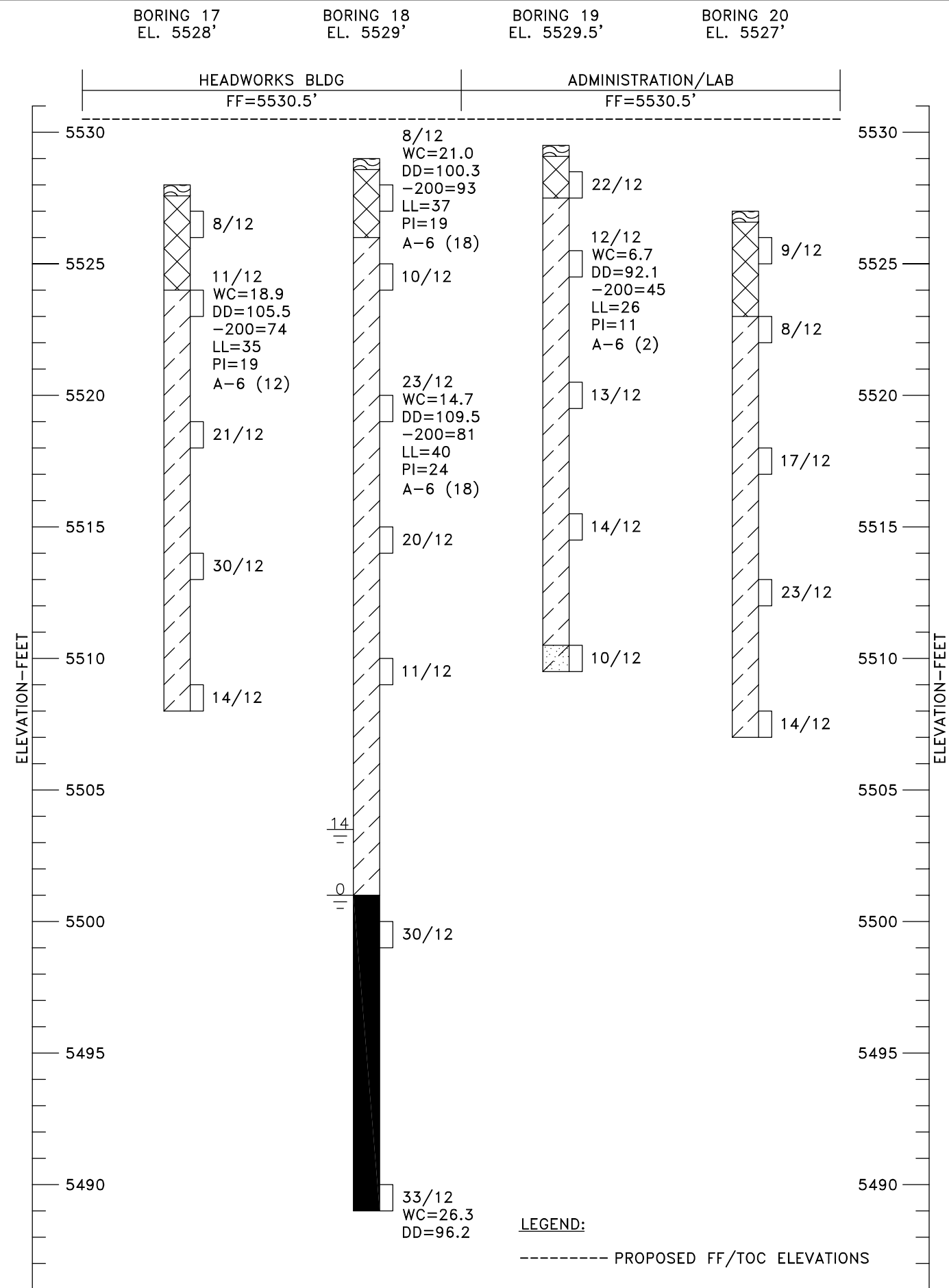


May 20, 16T - 15:01pm
C:\Users\mromero\appdata\local\temp\AcPublish_2700\163126-02 to 04.dwg











May 20, 16T - 15:01pm
C:\Users\mromero\appdata\local\temp\AcPublish_2700\163126-02 to 04.dwg

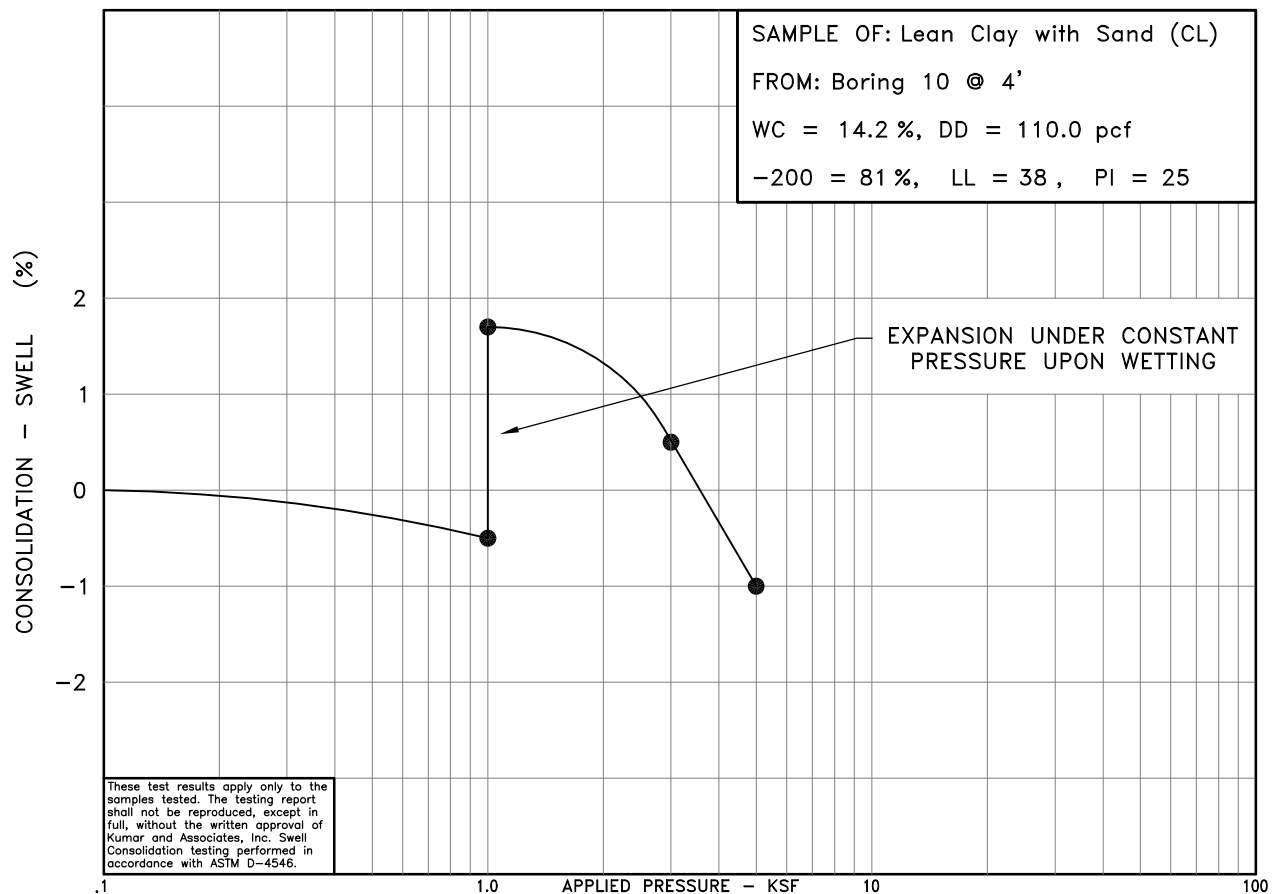
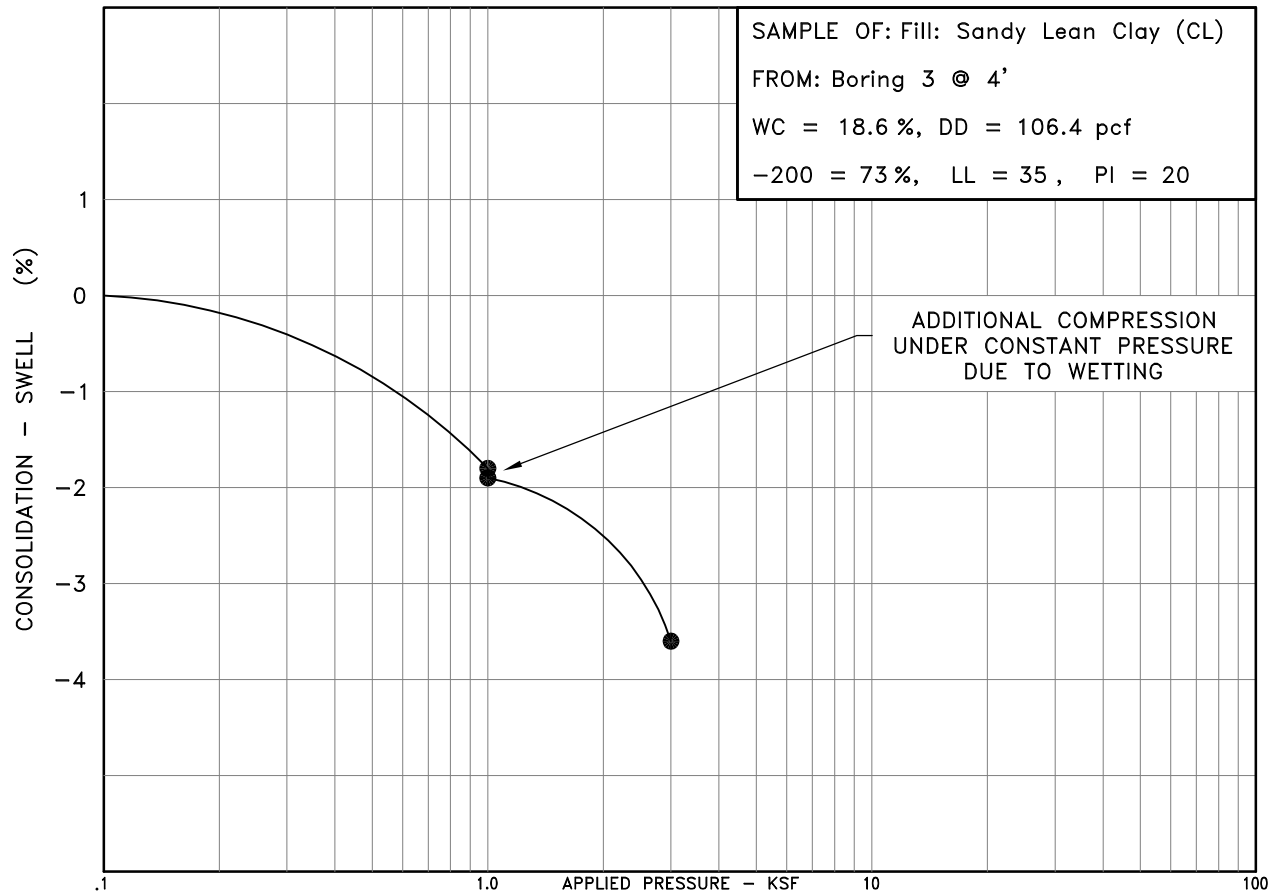


LEGEND

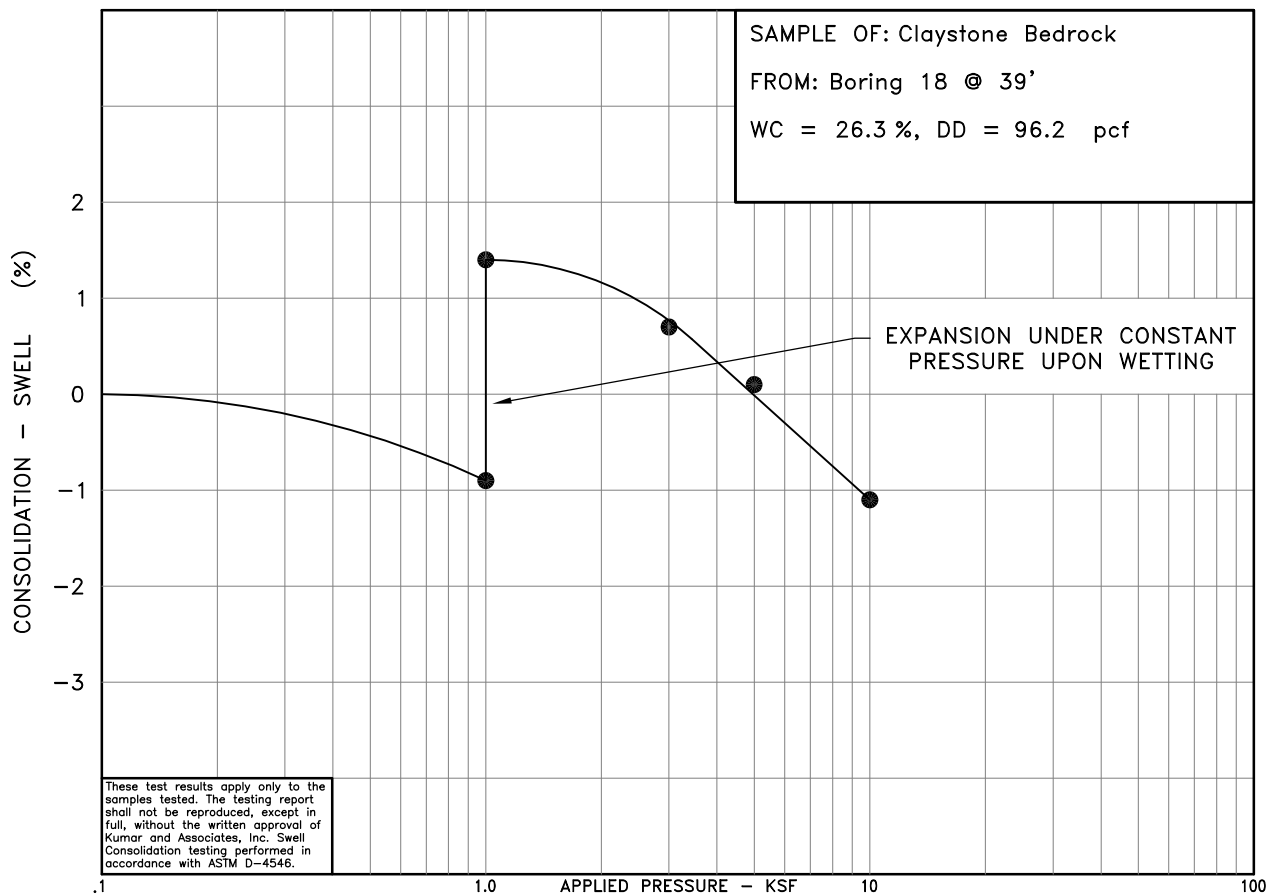
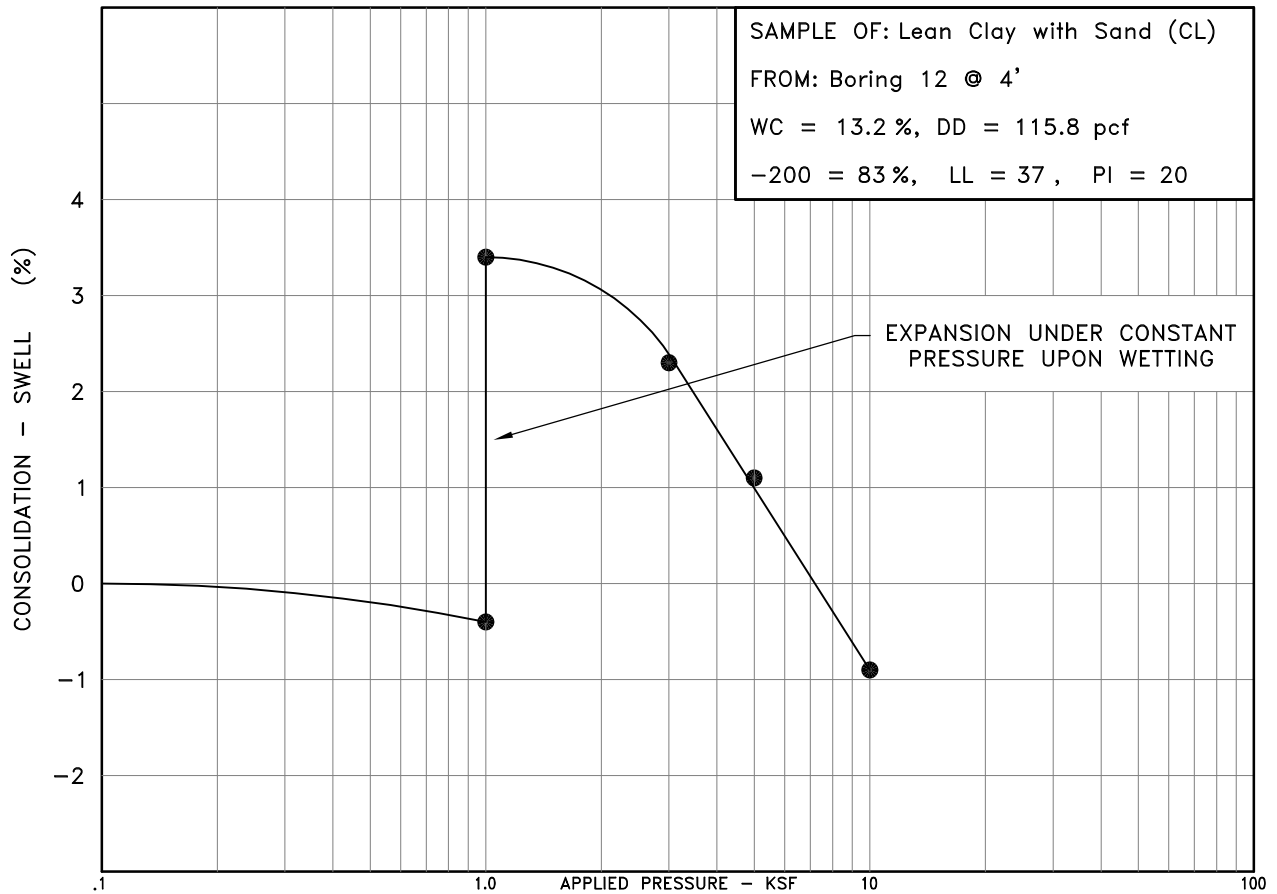
-  TOPSOIL.
-  FILL: LEAN CLAY (CL) TO SANDY LEAN CLAY (CL), FINE TO MEDIUM GRAINED, SLIGHTLY MOIST TO MOIST, BROWN.
-  LEAN CLAY (CL) TO CLAYEY SAND (SC), FINE TO COARSE GRAINED, MEDIUM TO HARD, MOIST TO WET, LIGHT BROWN TO BROWN, OCCASIONAL GRAVEL AND POORLY GRADED SAND LENSES.
-  CLAYEY SAND (SC), OCCASIONAL SILTY LENSES, FINE TO COARSE GRAINED, MEDIUM DENSE TO DENSE, MOIST TO WET, LIGHT BROWN TO BROWN.
-  CLAYSTONE BEDROCK, FINE GRAINED, WEATHERED TO HARD, MOIST, BLUE TO GRAY.
-  DRIVE SAMPLE, 2-INCH I.D. CALIFORNIA LINER SAMPLE.
- 7/12 DRIVE SAMPLE BLOW COUNT. INDICATES THAT 7 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE THE SAMPLER 12 INCHES.
- 14
= DEPTH TO WATER LEVEL AND NUMBER OF DAYS AFTER DRILLING MEASUREMENT WAS MADE.

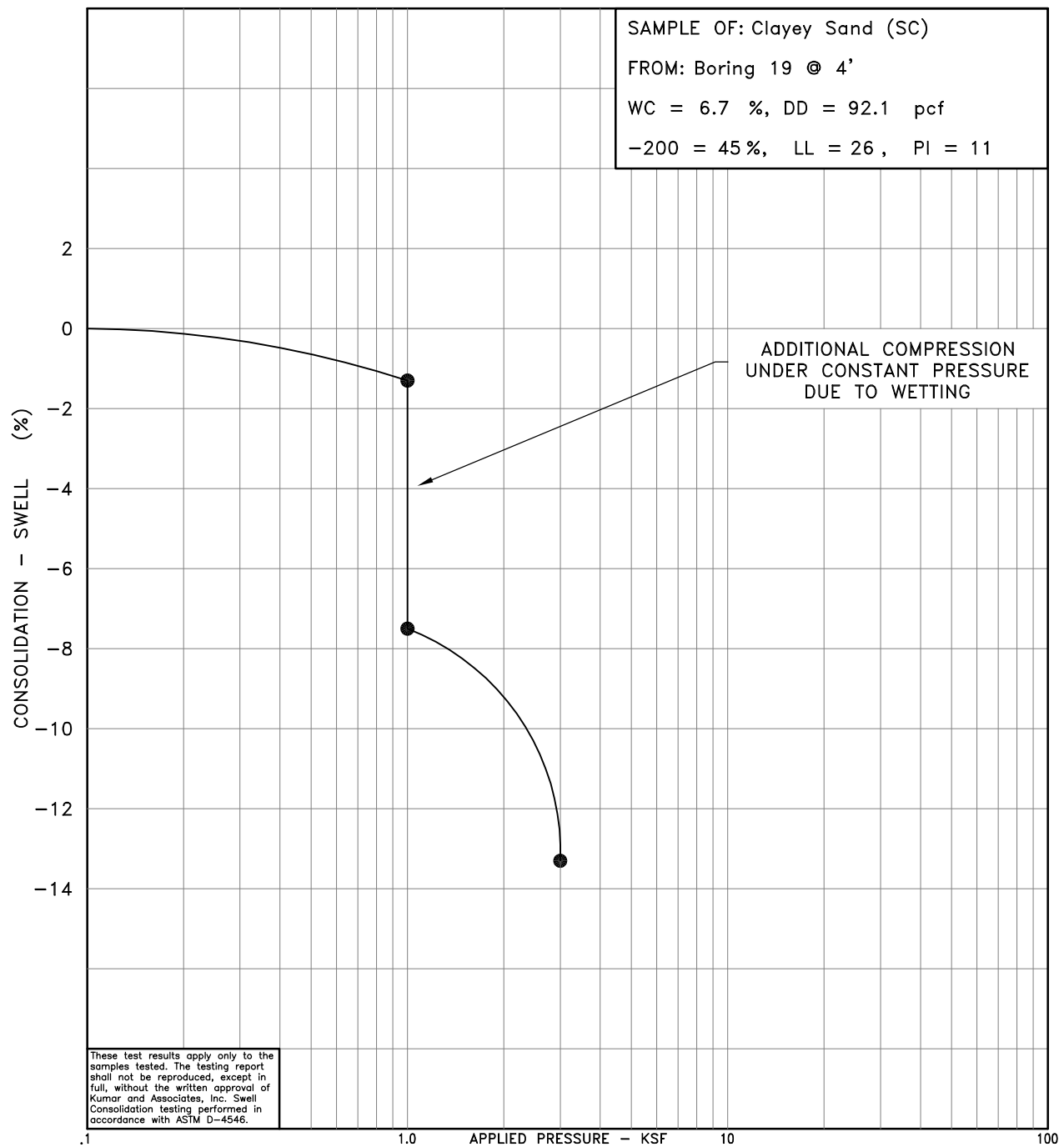
NOTES

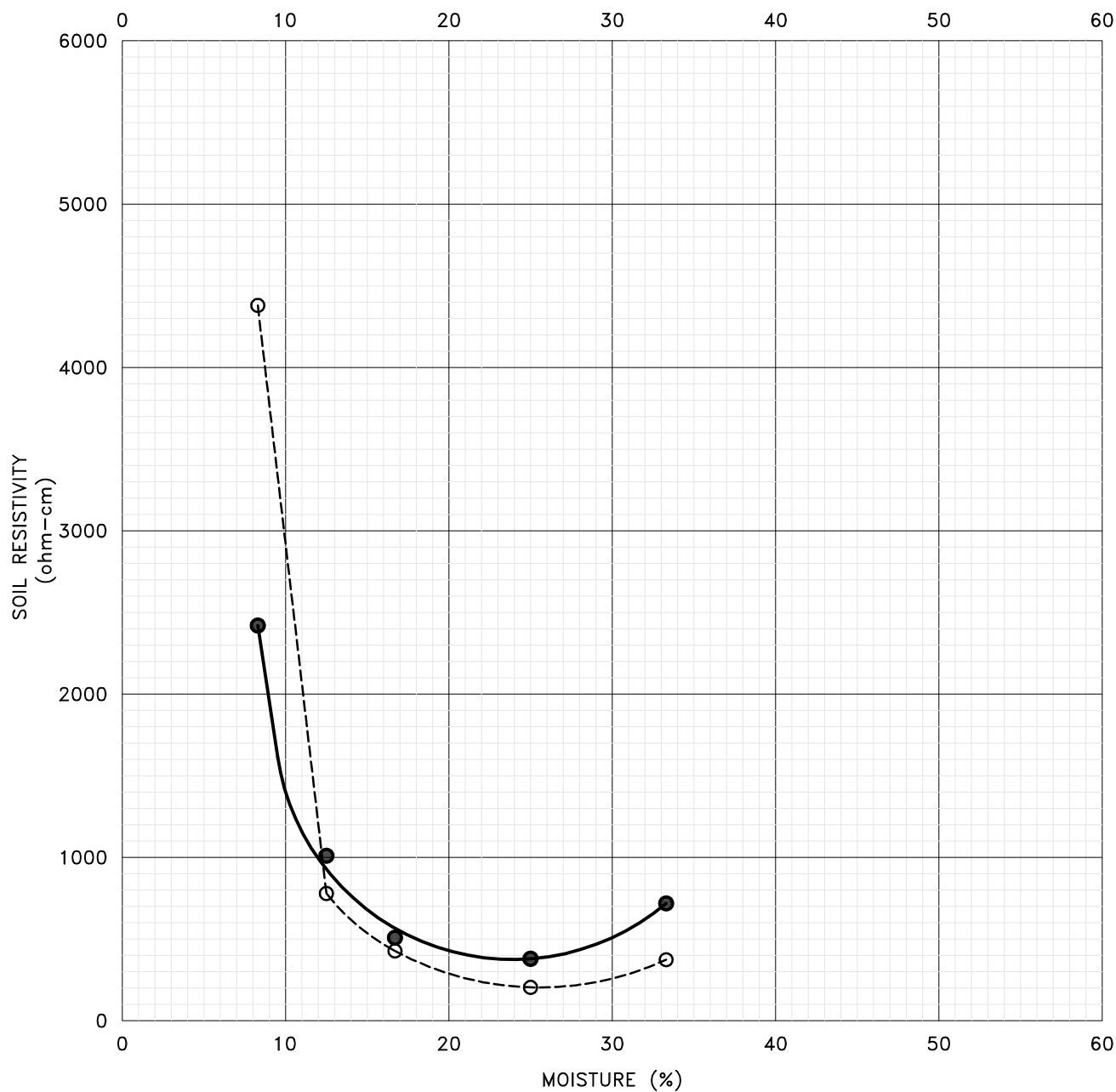
1. THE EXPLORATORY BORINGS WERE DRILLED ON APRIL 25 AND 26, 2016 WITH A 4-INCH DIAMETER CONTINUOUS FLIGHT POWER AUGER.
2. THE LOCATIONS OF THE EXPLORATORY BORINGS WERE MEASURED APPROXIMATELY BY PACING FROM FEATURES SHOWN ON THE SITE PLAN PROVIDED.
3. THE ELEVATIONS OF THE EXPLORATORY BORINGS WERE OBTAINED BY INTERPOLATION BETWEEN CONTOURS ON THE SITE PLAN PROVIDED.
4. THE EXPLORATORY BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
5. THE LINES BETWEEN MATERIALS SHOWN ON THE EXPLORATORY BORING LOGS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES AND THE TRANSITIONS MAY BE GRADUAL.
6. GROUNDWATER LEVELS SHOWN ON THE LOGS WERE MEASURED AT THE TIME AND UNDER CONDITIONS INDICATED. FLUCTUATIONS IN THE WATER LEVEL MAY OCCUR WITH TIME.
7. LABORATORY TEST RESULTS:
WC = WATER CONTENT (%) (ASTM D 2216);
DD = DRY DENSITY (pcf) (ASTM D 2216);
+4 = PERCENTAGE RETAINED ON NO. 4 SIEVE (ASTM D 422);
-200= PERCENTAGE PASSING NO. 200 SIEVE (ASTM D 1140);
LL = LIQUID LIMIT (ASTM D 4318);
PI = PLASTICITY INDEX (ASTM D 4318);
NP = NON-PLASTIC (ASTM D 4318);
NV = NO LIQUID LIMIT VALUE (ASTM D 4318);
RES = MINIMUM LABORATORY RESISTIVITY (ohm-cm.) (ASTM G 57);
WSS = WATER SOLUBLE SULFATES (%) (CP-L 2103);
pH = HYDROGEN ION CONCENTRATION (ASTM E 70);
A-2-6 (0) = AASHTO CLASSIFICATION (GROUP INDEX) (AASHTO M 145);
CL = CHLORIDE CONTENT (%) (AASHTO T 291).



These test results apply only to the samples tested. The testing report shall not be reproduced, except in full, without the written approval of Kumar and Associates, Inc. Swell Consolidation testing performed in accordance with ASTM D-4546.







CURVE SYMBOL	SAMPLE IDENTIFICATION	SOIL OR BEDROCK TYPE	MINIMUM RESISTIVITY (ohm-cm)	RESISTIVITY AT IN SITU MOISTURE CONTENT (ohm-cm)
●	BORING 4 @ 4 FT.	Fill: Lean Clay (CL)	379	530
○	BORING 13 @ 4 FT.	Lean Clay (CL)	204	350

Table I
Summary of Laboratory Test Results

Project No.: 16-3-126
Project Name: Watkins Wastewater Treatment Plant (Prosper Development)
Date Sampled: April 25 and 26, 2016
Date Received: May 3, 2016

Sample Location		Date Tested	Natural Moisture Content (%)	Natural Dry Density (pcf)	Percent Passing No. 200 Sieve	Atterberg Limits		Water Soluble Sulfates (%)	Minimum Electrical Resistivity (ohm-cm)	Chloride Concentration (%)	AASHTO Classification (Group Index)	Soil or Bedrock Type
Boring	Depth (Feet)					Liquid Limit (%)	Plasticity (%)					
1	9	5/4/16	15.9	110.7	85	39	22				A-6 (18)	Lean Clay (CL)
2	4	5/5/16	14.8	104.1	93	40	25	0.12			A-6 (23)	Fill: Lean Clay (CL)
3	4	5/5/16	18.6	106.4	73	35	20				A-6 (12)	Fill: Sandy Lean Clay (CL)
4	4	5/6/16	17.4	109.7	89	35	18	0	379	0	A-6 (15)	Fill: Lean Clay (CL)
5	4	5/5/16	20.3	102.8	85	34	18				A-6 (14)	Fill: Lean Clay (CL)
6	9	5/5/16	17.0	101.0	95	44	23				A-7-6 (24)	Lean Clay (CL)
7	9	5/5/16	10.0	119.3	46	27	13				A-6 (2)	Clayey Sand (SC)
9	1	5/5/16	20.8	97.6	95	37	25	0			A-6 (23)	Fill: Lean Clay (CL)
9	9	5/5/16	15.4	114.1	83	40	22				A-6 (18)	Lean Clay with Sand (CL)
10	4	5/5/16	14.2	110.0	81	38	25				A-6 (19)	Lean Clay with Sand (CL)
11	9	5/5/16	13.9	112.7	73	36	21				A-6 (13)	Sandy Lean Clay (CL)
12	4	5/5/16	13.2	115.8	83	37	20				A-6 (16)	Lean Clay with Sand (CL)
13	4	5/5/16	18.3	103.5	87	42	22				A-7-6 (20)	Fill: Lean Clay (CL)
13	19	5/5/16	17.0	110.1	61	32	17				A-6 (7)	Clayey Sand (SC)
15	1	5/5/16	21.1	94.9	94	35	22	0.2	204	0	A-6 (20)	Lean Clay (CL)
15	9	5/5/16	7.5	92.1	46	33	22				A-6 (6)	Clayey Sand (SC)
16	4	5/5/16	15.6	98.7	75	39	22	0.01			A-6 (15)	Sandy Lean Clay (CL)
16	14	5/5/16	2.1	104.1	7	NV	NP				A-2-4 (0)	Poorly Graded Sand with Silt (SP-SM)
17	4	5/6/16	18.9	105.5	74	35	19				A-6 (12)	Sandy Lean Clay (CL)
18	1	5/5/16	21.0	100.3	93	37	19				A-6 (18)	Lean Clay (CL)
18	9	5/5/16	14.7	109.5	81	40	24				A-6 (18)	Lean Clay with Sand (CL)
18	39	5/5/16	26.3	96.2								Claystone Bedrock
19	4	5/5/16	6.7	92.1	45	26	11				A-6 (2)	Clayey Sand (SC)

APPENDIX A

RE-DOX AND SULFIDES TEST RESULTS

Analytical Results

TASK NO: 160512004

Report To: Josh Barker

Company: Kumar & Associates
2390 S. Lipan Street
Denver CO 80223

Bill To: Josh Barker

Company: Kumar & Associates
2390 S. Lipan Street
Denver CO 80223

Task No.: 160512004
Client PO:
Client Project: Watkins WTP

Date Received: 5/12/16
Date Reported: 5/19/16
Matrix: Soil - Geotech

Customer Sample ID B4 @ 4ft.
Lab Number: 160512004-01

Test	Result	Method
Redox Potential	254 mv	ASTM D1498
Sulfide	Negative	AWWA C105

Customer Sample ID B13 @ 4ft.
Lab Number: 160512004-02

Test	Result	Method
Redox Potential	222 mv	ASTM D1498
Sulfide	Negative	AWWA C105

Abbreviations/ References:

AASHTO - American Association of State Highway and Transportation Officials.
ASTM - American Society for Testing and Materials.
ASA - American Society of Agronomy.
DIPRA - Ductile Iron Pipe Research Association Handbook of Ductile Iron Pipe.



DATA APPROVED FOR RELEASE BY

Appendix C

Preliminary Effluent Limits



COLORADO

Department of Public
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

Stacy Roberts, PE
Dewberry Engineers Inc.
990 South Broadway, Suite 400
Denver, CO 80209

TO: Stacy Roberts

FROM: WQCD Contact: Tristan Acob, 303-692-6398, tristanacob@state.co.us

DATE: 3/16/2016

RE: PEL200456, Prosper WWTF Preliminary Effluent Limit

The Water Quality Control Division (Division) of the Colorado Department of Public Health and Environment has prepared, per your request, the Preliminary Effluent Limits (PELs) for the proposed Prosper wastewater treatment facility (WWTF). These effluent limits were developed as detailed in the attached document, for use as one of the submittals in your application for Site Approval.

With a hydraulic design capacity of 0.2646 million gallons per day (MGD) and discharge into Rat Run a tributary to Box Elder Creek, which is identified as stream segment COSPMS03a, the Prosper WWTF may be covered by a general permit.

PELs developed for this facility are based on the water quality standards for the receiving stream identified in the PEL application, and/or on technology based limitations established in the *Regulations for Effluent Limitations* (Regulation No. 62). The water quality standard based limitations presented in this PEL may be incorporated into a CDPS permit contingent on analyses conducted during permit development. The technology based limitations will also be incorporated into the permit unless a more stringent limitation is applied.

As explained in the attached document, these limitations have been developed based on the water quality standards for the receiving stream, the ambient water quality of the receiving stream, the calculated low flows, the stated design flow of the facility, technology based limitations established in the *Regulations for Effluent Limitations* (Regulation No. 62), applicable federal Effluent Limitation Guidelines (ELGs), and where necessary the antidegradation regulations, mixing zone policies, and any designation of a receiving stream by the US Fish and Wildlife Service as habitat for federally listed threatened and endangered (T&E) fish. A determination of which PELs ultimately apply in a permit will be dependent on decisions made by the permittee regarding treatment facilities, discharge type, industrial contributions, receiving streams, design flows, or other information presented to the Division at the time of application.

Table 1 contains a summary of the limitations that have been developed in this PEL, for which the proposed treatment facility will be evaluated against, under the Site Approval Process. This evaluation will include a determination of whether the proposed treatment facility as designed, can meet these limitations. A new wastewater treatment facility will be expected to meet the limitations for these parameters upon commencement of discharge.





Dedicated to protecting and improving the health and environment of the people of Colorado

Table 1 Preliminary Effluent Limits for Evaluation under the Site Approval Process Discharge to Rat Run at a Design Flow of 0.2646 MGD	
BOD ₅ (mg/l)	45 (7-day average), 30 (30-day average)
BOD ₅ (% removal)	85 (30-day average)
TSS, mechanical plant (mg/l)	45 (7-day average), 30 (30-day average)
TSS, mechanical plant (% removal)	85 (30-day average)
Oil and Grease (mg/l)	10 (maximum)
pH (s.u.)	6.5-9.0 (minimum-maximum)
<i>Other Pollutants</i>	<i>Max. Limits or WQBELs</i>
E. coli (#/100 ml)	252 (7-day geomean), 126 (30-day geomean)
TRC (mg/l)	0.019 (daily maximum), 0.011 (30-day average)
Total Inorganic Nitrogen as N (mg/l)	10 (daily maximum), 7 (annual median), 14 (95 th percentile)
Total Phosphorus (mg/l)	0.7 (annual median), 1.75 (95 th percentile)
<i>Total Ammonia</i>	<i>WQBELs</i>
NH ₃ as N, Tot (mg/l) Jan	27 (daily maximum), 6.2 (30-day average)
NH ₃ as N, Tot (mg/l) Feb	26 (daily maximum), 6.0 (30-day average)
NH ₃ as N, Tot (mg/l) Mar	26 (daily maximum), 5.5 (30-day average)
NH ₃ as N, Tot (mg/l) Apr	26 (daily maximum), 5.0 (30-day average)
NH ₃ as N, Tot (mg/l) May	26 (daily maximum), 4.3 (30-day average)
NH ₃ as N, Tot (mg/l) Jun	26 (daily maximum), 3.8 (30-day average)
NH ₃ as N, Tot (mg/l) Jul	24 (daily maximum), 3.1 (30-day average)
NH ₃ as N, Tot (mg/l) Aug	26 (daily maximum), 3.2 (30-day average)
NH ₃ as N, Tot (mg/l) Sep	27 (daily maximum), 3.5 (30-day average)
NH ₃ as N, Tot (mg/l) Oct	26 (daily maximum), 4.1 (30-day average)
NH ₃ as N, Tot (mg/l) Nov	27 (daily maximum), 5.1 (30-day average)
NH ₃ as N, Tot (mg/l) Dec	27 (daily maximum), 6.1 (30-day average)



Preliminary Effluent Limitations
Box Elder Creek
Prosper Farms Investment LLC, Prosper WWTF
Tristan Acob
March 16, 2016

Table of Contents

I. PRELIMINARY EFFLUENT LIMITATIONS SUMMARY	2
II. INTRODUCTION	3
III. WATER QUALITY STANDARDS.....	4
<i>Narrative Standards</i>	4
<i>Standards for Organic Parameters and Radionuclides</i>	4
<i>Salinity and Phosphorus</i>	5
<i>Temperature</i>	6
<i>Segment Specific Numeric Standard</i>	6
<i>Table Value Standards and Hardness Calculations</i>	7
<i>Total Maximum Daily Loads and Regulation 93 - Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List</i>	7
IV. RECEIVING STREAM INFORMATION	7
<i>Low Flow Analysis</i>	7
<i>Mixing Zones</i>	8
<i>Ambient Water Quality</i>	8
V. FACILITY INFORMATION AND POLLUTANTS EVALUATED	9
<i>Facility Information</i>	9
<i>Pollutants of Concern</i>	9
VI. DETERMINATION OF WATER QUALITY BASED EFFLUENT LIMITATIONS (WQBELs)	10
<i>Technical Information</i>	10
<i>Calculation of WQBELs</i>	11
VII. ANTIDegradation EVALUATION	13
VIII. TECHNOLOGY BASED LIMITATIONS	13
<i>Federal Effluent Limitation Guidelines</i>	13
<i>Regulations for Effluent Limitations</i>	13
<i>Nutrient Effluent Limitation Considerations</i>	14
IX. REFERENCES	16

**I. Preliminary Effluent Limitations Summary**

Table A-1 includes summary information related to this PEL. This summary table includes key regulatory starting points used in development of the PEL such as: receiving stream information; threatened and endangered species; 303(d) and Monitoring and Evaluation listings; low flow and facility flow summaries; and a list of parameters evaluated.

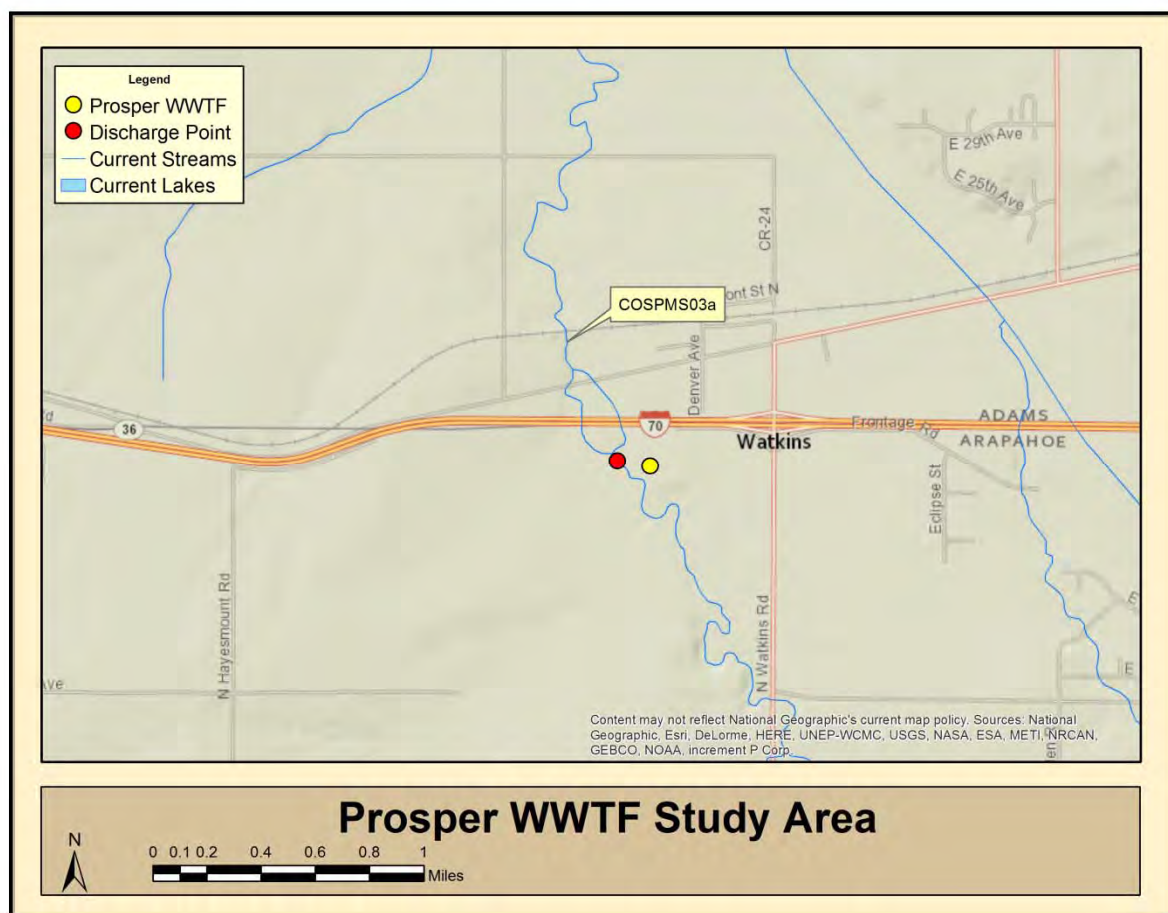
Table A-1 PEL Summary					
Facility Information					
Facility Name		Permit Number	Design Flow (max 30-day ave, MGD)	Design Flow (max 30-day ave, CFS)	
Prosper WWTF		PEL200456	0.2646	0.41	
Receiving Stream Information					
Receiving Stream Name	Segment ID	Designation	Classification(s)		
Rat Run	COSPMS03a	Use Protected	Aquatic Life Warm 2 Recreation Class E Agriculture Water Supply		
Low Flows (cfs)					
Receiving Stream Name	1E3 (1-day)	7E3 (7-day)	30E3 (30-day)	Ratio of 30E3 to the Design Flow (cfs)	
Rat Run	0	0	0	0:1	
Regulatory Information					
T&E Species	303(d) (Reg 93)	Monitor and Eval (Reg 93)	Existing TMDL	Temporary Modification(s)	Control Regulation
No	None	None	None	As(ch)=hybrid; expiration date of 12/31/21	Regulation 85
Pollutants Evaluated					
Ammonia, <i>E. coli</i> , TRC, Nutrients					



II. Introduction

The Preliminary Effluent Limitations (PEL) of Rat Run a tributary to the Box Elder Creek near the Prosper Wastewater Treatment Facility (WWTF), located in Arapahoe County, is intended to determine the assimilative capacities available for pollutants found to be of concern. This PEL describes how the water quality based effluent limits (WQBELs) are developed. These parameters may or may not appear in the permit with limitations or monitoring requirements, subject to other determinations such as reasonable potential analysis, evaluation of federal effluent limitation guidelines, implementation of state-based technology based limits, mixing zone analyses, 303(d) listings, threatened and endangered species listing, or other requirements as discussed in the permit rationale. Figure A-1 contains a map of the study area evaluated as part of this PEL.

FIGURE A-1



The Prosper WWTF is a new WWTF proposing to discharge to Rat Run, which is stream segment COSPMS03a. This means the South Platte Basin, Middle South Platte River Sub-basin, Stream Segment 03a. This segment is composed of the "All tributaries to the South Platte River, including all wetlands, from a point immediately below the confluence with Big Dry Creek to the Weld/Morgan County line, except for specific listings in the subbasins of the South Platte River, and in Segments 3b, 5a, 5b, 5c, and 6". Stream segment COSPMS03a is classified for Aquatic Life Warm 2, Recreation Class E, Water Supply, and Agriculture.



Information used in this assessment includes data gathered from the Prosper WWTF, the Division, and communications with the local water commissioner. The data used in the assessment consist of the best information available at the time of preparation of this PEL analysis.

III. Water Quality Standards

Narrative Standards

Narrative Statewide Basic Standards have been developed in Section 31.11(1) of the regulations, and apply to any pollutant of concern, even where there is no numeric standard for that pollutant. Waters of the state shall be free from substances attributable to human-caused point source or nonpoint source discharges in amounts, concentrations or combinations which:

for all surface waters except wetlands;

(i) can settle to form bottom deposits detrimental to the beneficial uses. Depositions are stream bottom buildup of materials which include but are not limited to anaerobic sludge, mine slurry or tailings, silt, or mud; or (ii) form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses; or (iii) produce color, odor, or other conditions in such a degree as to create a nuisance or harm existing beneficial uses or impart any undesirable taste to significant edible aquatic species or to the water; or (iv) are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life; or (v) produce a predominance of undesirable aquatic life; or (vi) cause a film on the surface or produce a deposit on shorelines; and for surface waters in wetlands;

(i) produce color, odor, changes in pH, or other conditions in such a degree as to create a nuisance or harm water quality dependent functions or impart any undesirable taste to significant edible aquatic species of the wetland; or (ii) are toxic to humans, animals, plants, or aquatic life of the wetland.

In order to protect the Basic Standards in waters of the state, effluent limitations and/or monitoring requirements for any parameter of concern could be put in CDPS discharge permits.

Standards for Organic Parameters and Radionuclides

Radionuclides: Statewide Basic Standards have been developed in Section 31.11(2) and (3) of The Basic Standards and Methodologies for Surface Water to protect the waters of the state from radionuclides and organic chemicals.

In no case shall radioactive materials in surface waters be increased by any cause attributable to municipal, industrial, or agricultural practices or discharges to as to exceed the following levels, unless alternative site-specific standards have been adopted. Standards for radionuclides are shown in Table A-2.



Table A-2 Radionuclide Standards	
Parameter	Picocuries per Liter
Americium 241*	0.15
Cesium 134	80
Plutonium 239, and 240*	0.15
Radium 226 and 228*	5
Strontium 90*	8
Thorium 230 and 232*	60
Tritium	20,000

*Radionuclide samples for these materials should be analyzed using unfiltered (total) samples. These Human Health based standards are 30-day average values for both plutonium and americium.

Organics: The organic pollutant standards contained in the Basic Standards for Organic Chemicals Table are applicable to all surface waters of the state for the corresponding use classifications, unless alternative site-specific standards have been adopted. These standards have been adopted as “interim standards” and will remain in effect until alternative permanent standards are adopted by the Commission. These interim standards shall not be considered final or permanent standards subject to antibacksliding or downgrading restrictions. Although not reproduced in this PEL, the specific standards for organic chemicals can be found in Regulation 31.11(3).

In order to protect the Basic Standards in waters of the state, effluent limitations and/or monitoring requirements for radionuclides, organics, or any other parameter of concern could be put in CDPS discharge permits.

The aquatic life standards for organics apply to all stream segments that are classified for aquatic life. The water supply standards apply only to those segments that are classified for water supply. The water + fish standards apply to those segments that have a Class 1 aquatic life and a water supply classification. The fish ingestion standards apply to Class 1 aquatic life segments that do not have a water supply designation. The water + fish and the fish ingestion standards may also apply to Class 2 aquatic life segments, where the Water Quality Control Commission has made such determination.

Because Rat Run is classified for Aquatic Life Warm 2, with a water supply designation, the water + fish and aquatic life standards apply to this discharge.

Salinity

The Division’s policy, Implementing Narrative Standards in Discharge Permits for the Protection of Irrigated Crops, may be applied to discharges where an agricultural water intake exists downstream of a discharge point. Limitations for electrical conductivity and sodium absorption ratio may be applied in accordance with this policy.



Nutrients

Total Phosphorus and Total Inorganic Nitrogen: Regulation 85, the Nutrients Management Control Regulation has been adopted by the Water Quality Control Commission and became effective September 30, 2012. This regulation contains requirements for phosphorus and Total Inorganic Nitrogen (TIN) concentrations for some point source dischargers. Limitations for phosphorus and TIN may be applied in accordance with this regulation.

Temperature

Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S.

Segment Specific Numeric Standards

Numeric standards are developed on a basin-specific basis and are adopted for particular stream segments by the Water Quality Control Commission. The standards in Table A-3 have been assigned to stream segment COSPMS03a in accordance with the *Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin*.

Table A-3 In-stream Standards for Stream Segment COSPMS03a	
<i>Physical and Biological</i>	
Dissolved Oxygen (DO) = 5 mg/l, minimum	
pH = 6.5 - 9 su	
<i>E. coli</i> chronic = 126 colonies/100 ml	
Temperature March-Nov = 24.2° C MWAT and 29° C DM	
Temperature Dec-Feb = 12.1° C MWAT and 14.5° C DM	
Chlorophyll <i>a</i> * = 150 mg/m ²	
<i>Inorganic</i>	
Total Ammonia acute and chronic = TVS	
Chlorine acute = 0.019 mg/l	
Chlorine chronic = 0.011 mg/l	
Free Cyanide acute = 0.005 mg/l	
Sulfide chronic = 0.002 mg/l	
Boron chronic = 0.75 mg/l	
Nitrite acute = 0.5 mg/l	
Nitrate acute = 10 mg/l	
Chloride chronic = 250 mg/l	
Sulfate chronic = For WS, the greater of ambient water quality as of January 1, 2000 or 250 mg/l	
Phosphorus* = 0.17 mg/l	
<i>Metals</i>	
Dissolved Arsenic acute = 340 µg/l	
Total Recoverable Arsenic chronic = 0.02 µg/l	
Dissolved Cadmium acute and chronic = TVS	
Total Recoverable Trivalent Chromium acute = 50 µg/l	
Dissolved Hexavalent Chromium acute and chronic = TVS	
Dissolved Copper acute and chronic = TVS	



Table A-3 In-stream Standards for Stream Segment COSPMS03a
<i>Physical and Biological</i>
Dissolved Iron chronic = For WS, the greater of ambient water quality as of January 1, 2000, or 300 µg/l
Total Recoverable Iron chronic = 1000 µg/l
Dissolved Lead acute and chronic = TVS
Dissolved Manganese chronic = For WS, the greater of ambient water quality as of January 1, 2000, or 50 µg/l
Dissolved Manganese acute and chronic = TVS
Total Recoverable Molybdenum chronic = 160 µg/l
Total Mercury chronic = 0.01 µg/l
Dissolved Nickel acute and chronic = TVS
Dissolved Selenium acute and chronic = TVS
Dissolved Silver acute and chronic = TVS
Dissolved Zinc acute and chronic = TVS

*Chlorophyll *a* and phosphorus only apply to facilities listed at 38.5(4). Note that this facility is not located upstream of any of the facilities listed in 38.5(4).

Table Value Standards and Hardness Calculations

As metals with standards specified as TVS are not included as parameters of concern for this facility at this time, the hardness value of the receiving water and the subsequent calculation of the TVS equations is inconsequential and is therefore omitted from this PEL.

Total Maximum Daily Loads and Regulation 93 - Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List

This stream segment is not listed on the Division's 303(d) list of water quality impacted streams and is not on the monitoring and evaluation list.

IV. Receiving Stream Information

Low Flow Analysis

The Colorado Regulations specify the use of low flow conditions when establishing water quality based effluent limitations, specifically the acute and chronic low flows. The acute low flow, referred to as 1E3, represents the one-day low flow recurring in a three-year interval, and is used in developing limitations based on an acute standard. The 7-day average low flow, 7E3, represents the seven-day average low flow recurring in a 3 year interval, and is used in developing limitations based on a Maximum Weekly Average Temperature standard (MWAT). The chronic low flow, 30E3, represents the 30-day average low flow recurring in a three-year interval, and is used in developing limitations based on a chronic standard.

Although there is periodic flow in Rat Run upstream of the Prosper WWTF, the 1E3 and 30E3 monthly low flows are set at zero based on information provided by the local Water Commissioner. For this analysis, low flows are summarized in Table A-4.



Table A-4 Low Flows for Rat Run at the Prosper WWTF													
<i>Low Flow (cfs)</i>	<i>Annual</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
1E3 Acute	0	0	0	0	0	0	0	0	0	0	0	0	0
7E3 Chronic	0	0	0	0	0	0	0	0	0	0	0	0	0
30E3 Chronic	0	0	0	0	0	0	0	0	0	0	0	0	0

The ratio of the low flow of Rat Run to the Prosper WWTF design flow is 0:1.

Note that since the low flow has been determined to be zero, the ambient water quality discussion is unnecessary and has therefore been deleted in this PEL. This is explained in more detail under the Technical Information discussion in Section VI.

Mixing Zones

The amount of the available assimilative capacity (dilution) that may be used by the permittee for the purposes of calculating the WQBELs may be limited in a permitting action based upon a mixing zone analysis or other factor. These other factors that may reduce the amount of assimilative capacity available in a permit are: presence of other dischargers in the vicinity; the presence of a water diversion downstream of the discharge (in the mixing zone); the need to provide a zone of passage for aquatic life; the likelihood of bioaccumulation of toxins in fish or wildlife; habitat considerations such as fish spawning or nursery areas; the presence of threatened and endangered species; potential for human exposure through drinking water or recreation; the possibility that aquatic life will be attracted to the effluent plume; the potential for adverse effects on groundwater; and the toxicity or persistence of the substance discharged.

Unless a facility has performed a mixing zone study during the course of the previous permit, and a decision has been made regarding the amount of the assimilative capacity that can be used by the facility, the Division assumes that the full assimilative capacity can be allocated. Note that the review of mixing study considerations, exemptions and perhaps performing a new mixing study (due to changes in low flow, change in facility design flow, channel geomorphology or other reason) is evaluated in every permit and permit renewal.

If a mixing zone study has been performed and a decision regarding the amount of available assimilative capacity has been made, the Division may calculate the water quality based effluent limitations (WQBELs) based on this available capacity. In addition, the amount of assimilative capacity may be reduced by T&E implications.

Since the receiving stream has a zero low flow as calculated above, the WQBELs would be equal to the WQS, and therefore consideration of full or reduced assimilative capacity is inconsequential.

Ambient Water Quality

The Division evaluates ambient water quality based on a variety of statistical methods as prescribed in Section 31.8(2)(a)(i) and 31.8(2)(b)(i)(B) of the *Colorado Department of Public Health and Environment Water Quality Control Commission Regulation No. 31*, and as outlined in



the Division's Policy for Characterizing Ambient Water Quality for Use in Determining Water Quality Standards Based Effluent Limits (WQP-19). The ambient water quality was not assessed for Rat Run because the background in-stream low flow condition is zero, and because no ambient water quality data are available for Rat Run upstream of the Prosper WWTF discharge.

V. Facility Information and Pollutants Evaluated

Facility Information

The Prosper WWTF is a new WWTF proposed to be located in the NW ¼, NE ¼, Section 6, T4S, R65W; south of Interstate 70 and west of N Watkins Road in Arapahoe County. The current design capacity of the facility is 0.2646 MGD (0.41 cfs). Wastewater treatment is proposed to be accomplished using a mechanical wastewater treatment process. The technical analyses that follow include assessments of the assimilative capacity based on this design capacity.

An assessment of Division records indicate that there are 8 facilities discharging to the same stream segment or other stream segments immediately upstream or downstream from this facility. Several of these facilities are covered by general permits and have limitations set at the water quality standards. These facilities were not modeled in this PEL as they have a minimal impact on the ambient water quality. Some facilities, although on the same stream segment, actually discharge to a different receiving stream and therefore were not considered in this PEL. The nearest discharger was:

- Front Range Airport WWTF (CO0047741), which discharges to the Bear Gulch, which then flows to the Box Elder Creek.

Due to the in-stream low flow of zero, the assimilative capacities during times of low flow are not affected by nearby contributions. Therefore, modeling nearby facilities in conjunction with this facility was not necessary.

Pollutants of Concern

Pollutants of concern may be determined by one or more of the following: facility type; effluent characteristics and chemistry; effluent water quality data; receiving water quality; presence of federal effluent limitation guidelines; or other information. Parameters evaluated in this PEL may or may not appear in a permit with limitations or monitoring requirements, subject to other determinations such as a reasonable potential analysis, mixing zone analyses, 303(d) listings, threatened and endangered species listings or other requirement as discussed in a permit rationale.

There are no site-specific in-stream water quality standards for BOD₅ or CBOD₅, TSS, percent removal, and oil and grease for this receiving stream. Thus, assimilative capacities were not determined for these parameters. The applicable limitations for these pollutants can be found in Regulation No. 62 and will be applied in the permit for the WWTF.

The following parameters were identified by the Division as pollutants to be evaluated for this facility:





- Total Residual Chlorine
- *E. coli*
- Nitrate
- Ammonia
- Temperature

Based upon the size of the discharge, the lack of industrial contributors, dilution provided by the receiving stream and the fact that no unusually high metals concentrations are expected to be found in the wastewater effluent, metals are not evaluated further in this Preliminary Effluent Limitations.

According to the *Rationale for Classifications, Standards and Designations of the South Platte*, stream segment COSPMS03a is designated a water supply because there are two alluvial wells in close proximity to Owl Creek and could be additional water supply intakes or alluvial wells in the segment. Thus, the nitrate standard is further evaluated as part of this PEL.

During assessment of the facility, nearby facilities, and receiving stream water quality, no additional parameters were identified as pollutants of concern.

VI. Determination of Water Quality Based Effluent Limitations (WQBELs)

Technical Information

Note that the WQBELs developed in the following paragraphs, are calculations of what an effluent limitation may be in a permit. The WQBELs for any given parameter, will be compared to other potential limitations (federal Effluent Limitations Guidelines, State Effluent Limitations, or other applicable limitation) and typically the more stringent limit is incorporated into a permit. If the WQBEL is the more stringent limitation, incorporation into a permit is dependent upon a reasonable potential analysis.

In-stream background data and low flows evaluated in Sections II and III are used to determine the assimilative capacity of Rat Run near the Prosper WWTF for pollutants of concern, and to calculate the WQBELs. For all parameters except ammonia, it is the Division's approach to calculate the WQBELs using the lowest of the monthly low flows (referred to as the annual low flow) as determined in the low flow analysis. For ammonia, it is the standard procedure of the Division to determine monthly WQBELs using the monthly low flows, as the regulations allow the use of seasonal flows.

The Division's standard analysis consists of steady-state, mass-balance calculations for most pollutants and modeling for pollutants such as ammonia. The mass-balance equation is used by the Division to calculate the WQBELs, and accounts for the upstream concentration of a pollutant at the existing quality, critical low flow (minimal dilution), effluent flow and the water quality standard. The mass-balance equation is expressed as:

$$M_2 = \frac{M_3Q_3 - M_1Q_1}{Q_2}$$



Where,

Q_1 = Upstream low flow (1E3 or 30E3)

Q_2 = Average daily effluent flow (design capacity)

Q_3 = Downstream flow ($Q_1 + Q_2$)

M_1 = In-stream background pollutant concentrations at the existing quality

M_2 = Calculated WQBEL

M_3 = Water Quality Standard, or other maximum allowable pollutant concentration

When Q_1 equals zero, Q_2 equals Q_3 , and the following results:

$$M_2 = M_3$$

Because the low flow (Q_1) for Rat Run is zero, the WQBELs for Rat Run for the pollutants of concern are equal to the in-stream water quality standards.

A more detailed discussion of the technical analysis is provided in the pages that follow.

Calculation of WQBELs

Using the mass-balance equation provided in the beginning of Section VI, the acute and chronic low flows set out in Section IV, ambient water quality as discussed in Section IV, and the in-stream standards shown in Section III, the WQBELs for were calculated. The data used and the resulting WQBELs, M_2 , are set forth in Table A-5a for the chronic WQBELs and A-5b for the acute WQBELs.

Where a WQBEL is calculated to be a negative number and interpreted to be zero, or when the ambient water quality exceeds the in-stream standard, the Division standard procedure is to allocate the water quality standard to prevent further degradation of the receiving waters.

Chlorine: There are no point sources discharging total residual chlorine within one mile of the Prosper WWTF. Because chlorine is rapidly oxidized, in-stream levels of residual chlorine are detected only for a short distance below a source. Ambient chlorine was therefore assumed to be zero.

***E. coli*:** There are no point sources discharging *E. coli* within one mile of the Prosper WWTF. Thus, WQBELs were evaluated separately. For *E. coli*, the Division establishes the 7-day geometric mean limit as two times the 30-day geometric mean limit and also includes maximum limits of 2,000 colonies per 100 ml (30-day geometric mean) and 4,000 colonies per 100 ml (7-day geometric mean). This 2000 colony limitation also applies to discharges to ditches.

Temperature: The 7E3 low flow is 0 in all twelve months, so the discharge is to an effluent dependent (ephemeral stream without the presence of wastewater) water, therefore in accordance with Regulation 31.14(14), no temperature limitations are required.

Nitrate / Total Inorganic Nitrogen (T.I.N.): An acute nitrate standard of 10 mg/l is assigned to this segment. Because nitrite and ammonia can also form nitrate, compliance with the nitrate



standard is achieved through imposition of a Total Inorganic Nitrogen (T.I.N.) limit. T.I.N. effectively measures nitrate and its precursors including nitrite and ammonia.

Table A-5a Chronic WQBELs						
<i>Parameter</i>	<i>Q₁ (cfs)</i>	<i>Q₂ (cfs)</i>	<i>Q₃ (cfs)</i>	<i>M₁</i>	<i>M₃</i>	<i>M₂</i>
<i>E. coli</i> (#/100 ml)	0	0.41	0.41	1	126	126
TRC (mg/l)	0	0.41	0.41	0	0.011	0.011

Table A-5b Acute WQBELs						
<i>Parameter</i>	<i>Q₁ (cfs)</i>	<i>Q₂ (cfs)</i>	<i>Q₃ (cfs)</i>	<i>M₁</i>	<i>M₃</i>	<i>M₂</i>
<i>E. coli</i> (#/100 ml)*						252
TRC (mg/l)	0	0.41	0.41	0	0.019	0.019
Total Inorganic Nitrogen as N (mg/l)	0	0.41	0.41	0	10	10

*The acute WQBEL for *E. coli* is two times the chronic WQBEL.

Ammonia: The Ammonia Toxicity Model (AMMTOX) is a software program designed to project the downstream effects of ammonia and the ammonia assimilative capacities available to each discharger based on upstream water quality and effluent discharges. To develop data for the AMMTOX model, an in-stream water quality study should be conducted of the upstream receiving water conditions, particularly the pH and corresponding temperature, over a period of at least one year.

There were no pH or temperature data available for Rat Run or the Prosper WWTF that could be used as adequate input data for the AMMTOX model. Therefore, the Division standard procedure is to rely on statistically-based, regionalized data for pH and temperature compiled from similar facilities and receiving waters.

The AMMTOX may be calibrated for a number of variables in addition to the data discussed above. The values used for the other variables in the model are listed below:

- Stream velocity = $0.3Q^{0.4d}$
- Default ammonia loss rate = 6/day
- pH amplitude was assumed to be medium
- Default times for pH maximum, temperature maximum, and time of day of occurrence
- pH rebound was set at the default value of 0.2 su per mile
- Temperature rebound was set at the default value of 0.7 degrees C per mile.

The results of the ammonia analyses for the Prosper WWTF are presented in Table A-6.



Table A-6 AMMTOX Results for Rat Run at the Prosper WWTF		
Month	Total Ammonia Chronic (mg/l)	Total Ammonia Acute (mg/l)
January	6.2	27
February	6.0	26
March	5.5	26
April	5.0	26
May	4.3	26
June	3.8	26
July	3.1	24
August	3.2	26
September	3.5	27
October	4.1	26
November	5.1	27
December	6.1	27

VII. Antidegradation Evaluation

As set out in *The Basic Standards and Methodologies for Surface Water*, Section 31.8(2)(b), an antidegradation analysis is required except in cases where the receiving water is designated as "Use Protected." Note that "Use Protected" waters are waters "that the Commission has determined do not warrant the special protection provided by the outstanding waters designation or the antidegradation review process" as set out in Section 31.8(2)(b). The antidegradation section of the regulation became effective in December 2000, and therefore antidegradation considerations are applicable to this PEL analysis.

According to the *Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin*, stream segment COSPMS03a is Use Protected. Because the receiving waters are designated as Use Protected, no antidegradation review is necessary in accordance with the regulations. Thus, for purposes of this WQA analysis, antidegradation review requirements have been met and no further antidegradation evaluation is necessary.

VIII. Technology Based Limitations

Federal Effluent Limitation Guidelines

The Federal Effluent Limitation Guidelines for domestic wastewater treatment facilities are the secondary treatment standards. These standards have been adopted into, and are applied out of, Regulation 62, the Regulations for Effluent Limitations.

Regulations for Effluent Limitations

Regulation No. 62, the Regulations for Effluent Limitations, includes effluent limitations that apply to all discharges of wastewater to State waters, with the exception of storm water and agricultural return flows. These regulations are applicable to the discharge from the proposed discharge.



Table A-7 contains a summary of the applicable limitations for pollutants of concern at this facility.

Table A-7 Regulation 62 Based Limitations			
<i>Parameter</i>	<i>30-Day Average</i>	<i>7-Day Average</i>	<i>Instantaneous Maximum</i>
BOD ₅	30 mg/l	45 mg/l	NA
TSS, mechanical plant	30 mg/l	45 mg/l	NA
BOD ₅ Percent Removal	85%	NA	NA
TSS Percent Removal	85%	NA	NA
Total Residual Chlorine	NA	NA	0.5 mg/l
pH	NA	NA	6.0-9.0 s.u.
Oil and Grease	NA	NA	10 mg/l

Nutrient Effluent Limitation Considerations

WQCC Regulation No. 85, the new *Nutrients Management Control Regulation*, includes technology based effluent limitations for total inorganic nitrogen and total phosphorus that currently, or will in the future, apply to many domestic wastewater discharges to State surface waters. These effluent limits for dischargers are to start being implemented in permitting actions as of July 1, 2013, and are shown in the two tables below:

Effluent Limitations Table at 85.5(1)(a)(iii)

For all Domestic Wastewater Treatment Works not identified in subsections (a)(i) or (ii) above (in Reg. 85) and discharging prior to May 31, 2012 or for which a complete request for preliminary effluent limits has been submitted to the Division prior to May 31, 2012, the following numeric limits shall apply:

<i>Parameter</i>	<i>Parameter Limitations</i>	
	<i>Annual Median ¹</i>	<i>95th Percentile ²</i>
<i>Total Phosphorus</i>	<i>1.0 mg/l</i>	<i>2.5 mg/l</i>
<i>Total Inorganic Nitrogen³</i>	<i>15 mg/l</i>	<i>20 mg/l</i>

1 Running Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

Effluent Limitations Table at 85.5(1)(b)

For New Domestic Wastewater Treatment Works which submit a complete request for preliminary effluent limits to the Division on or after May 31, 2012, the following numeric limits shall apply:

<i>Parameter</i>	<i>Parameter Limitations</i>	
	<i>Annual Median ¹</i>	<i>95th Percentile ²</i>
<i>Total Phosphorus</i>	<i>0.7 mg/l</i>	<i>1.75 mg/l</i>
<i>Total Inorganic Nitrogen³</i>	<i>7 mg/l</i>	<i>14 mg/l</i>

1 Running Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.



Requirements in Reg. 85 also apply to non-domestic wastewater for industries in the Standard Industrial Class 'Major Group 20,' and any other non-domestic wastewater where the facility is expected, without treatment, to discharge total inorganic nitrogen or total phosphorus concentrations in excess of the numeric limits listed in 85.5 (1)(a)(iii). The facility must investigate, with the Division's approval, whether different considerations should apply.

All permit actions based on this PEL will occur after the July 1, 2013 permit implementation date of Reg. 85. Therefore, total inorganic nitrogen and total phosphorus effluent limitations potentially imposed because of Reg. 85 must be considered. However, also based on Reg. 85, there are direct exemptions from these limitations for smaller domestic facilities that discharge less than or equal to 1 million gallons per day (MGD), or are a domestic facility owned by a disadvantaged community.

Delayed implementation (until 5/31/2022) is also specified in Reg. 85 to occur for domestic WWTFs that discharge more than 1 MGD, and less than or equal to 2.0 MGD, or have an existing watershed control regulations (such as WQCC Reg.'s 71-74), or where the discharge is to waters in a low-priority 8-digit HUC.

For all other larger domestic WWTFs, the nutrient effluent limitations from the two tables above will apply, unless other considerations allowed by Reg. 85 at 85.5(3) are utilized to show compliance with exceptions or variances to these limitations.

Even though the proposed design capacity of the proposed Prosper WWTF is <1.0 MGD (0.2646 MGD), the facility is required to address the new technology based effluent limits at 85.5(1)(b). This is because the proposed Prosper WWTF is a new facility and the Regulation 85 technology based limits applied as of 7/1/2013. Because there is such limited stream data for this segment, it is not currently known what if any assimilative capacity for TN or TP exists. It was not possible to calculate WQBELs for the proposed discharge at this time.

The Division wishes to encourage the proposed Prosper WWTF to start working on nutrient control with the other dischargers along Box Elder Creek. These dischargers along the Box Elder Creek have the potential to create future nutrient issues in the Middle South Platte River watershed. The Division encourages these entities to all work together to create the most efficient and cost effective solutions for nutrient control in the Middle South Platte River watershed.

Supplemental Reg. 85 Nutrient Monitoring

Reg. 85 also requires that some monitoring for nutrients in wastewater effluent and streams take place, independent of what nutrient effluent limits or monitoring requirements may be established in a discharge permit. The requirements for the type and frequency of this monitoring are set forth in Reg. 85 at 85.6. This nutrient monitoring is not currently required by a permitting action, but is still required to be done by the Reg. 85 nutrient control regulation. Nutrient monitoring for the Reg. 85 control regulation is currently required to be reported to the WQCD Environmental Data Unit.



IX. References

Regulations:

The Basic Standards and Methodologies for Surface Water, Regulation 31, Colorado Department Public Health and Environment, Water Quality Control Commission, effective January 31, 2013.

Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Regulation No. 31, Colorado Department Public Health and Environment, Water Quality Control Commission, effective March 1, 2016.

Regulations for Effluent Limitations, Regulation 62, CDPHE, WQCC, July 30, 2012.

Nutrients Management Control Regulation, Regulation 85, Colorado Department Public Health and Environment, Water Quality Control Commission, effective September 30, 2012.

Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List, Regulation 93, Colorado Department Public Health and Environment, Water Quality Control Commission, effective March 30, 2012.

Policy and Guidance Documents:

Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance, Colorado Department Public Health and Environment, Water Quality Control Division, December 2001.

Memorandum Re: First Update to (Antidegradation) Guidance Version 1.0, Colorado Department Public Health and Environment, Water Quality Control Division, April 23, 2002.

Rationale for Classifications, Standards and Designations of Segments of the Middle South Platte River, Colorado Department Public Health and Environment, Water Quality Control Division, effective October 29, 2002.

Policy Concerning Escherichia coli versus Fecal Coliform, CDPHE, WQCD, July 20, 2005.

Colorado Mixing Zone Implementation Guidance, Colorado Department Public Health and Environment, Water Quality Control Division, effective April 2002.

Policy for Conducting Assessments for Implementation of Temperature Standards in Discharge Permits, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-23, effective July 3, 2008.

Implementing Narrative Standards in Discharge Permits for the Protection of Irrigated Crops, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-24, effective March 10, 2008.

Policy for Characterizing Ambient Water Quality for Use in Determining Water Quality Standards Based Effluent Limits, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-19, effective May 2002.

Appendix D

Planning Level Cost Estimates

Appendix D

Planning Level Cost Estimates

Table D.1 Sequencing Batch Reactor Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork SBR Basin	6,330	CY	30	1	189,900
Earthwork Process Bldg	3,330	CY	30	1	99,900
Civil Subtotal					189,900
Architectural/Structural					
Concrete SBR Basin	401	CY	450	1	180,300
Basin Covers	1,568	SF	35	1	55,000
Process Building Structure	1000	SF	150	1	150,000
Misc. Metals	1	LS	11,600	1	11,600
Architectural/Structural Subtotal					396,900
Mechanical					
SBR Package	2	Total	390,000	1.25	487,500
Piping	1	LS	30,000	1.2	36,000
Mechanical Subtotal					523,500
HVAC	12%	Percent			19,400
Electrical	15%	Percent			167,000
Subtotal					1,321,700
Mobilization/Demobilization	3%	Percent			39,700
Bonds & Insurance	2%	Percent			26,400
Contractor OH&P	15%	Percent			198,000
Subtotal					1,585,800
Contingency	25%	Percent			396,000
Total Probable Construction Cost					1,981,800

Table D.2 3-Stage BNR Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork BNR Basins	4,970	CY	30	1	149,000
Earthwork Clarifiers	700	CY	30	1	21,000
Earthwork Process Building	3,330	CY	30	1	100,000
Civil Subtotal					270,000
Architectural/Structural					
Concrete (AB)	305	CY	450	1	137,000
Concrete (SC)	177	CU	450	1	80,000
Process Building Structure	1000	SF	150	1	150,000
AB Covers	1,443	SF	35	1	51,000
SC Cover, Flat FRP	2	EA	21,375	1	42,800
Misc. Metals	1	LS	11,600	1	11,600
Structural Subtotal					472,400
Mechanical					
3 HP Recycle Pumps	2	EA	6,900	1	14,000
1 HP Mixers	2	EA	4,600	1	9,000
2 HP Mixers	2	EA	5,800	1	12,000
2 HP RAS Pumps	3	EA	6,900	1	21,000
1 HP WAS Pumps	2	EA	5,800	1	12,000
Diffusers	120	EA	21	1	3,000
Diffusers	70	EA	20	1	1,000
Blowers (20 HP)	3	EA	16,200	1	49,000
Blowers (10 HP)	2	EA	17,300	1	35,000
Secondary Clarifier	2	EA	62,000	1	124,000
3 HP Filter Pumps	3	EA	6,900	1	21,000
3 HP Digester Pump	2	EA	5,800	1	12,000
Piping	1	LS	40,000	1.2	48,000
Mechanical Subtotal					361,000
HVAC	12%	Percent			19,400
Electrical	15%	Percent			166,000
Subtotal					1,288,800
Mobilization/Demobilization	3%	Percent			39,000
Bonds & Insurance	2%	Percent			26,000
Contractor OH&P	15%	Percent			193,000
Subtotal					1,546,800
Contingency	25%	Percent			387,000
Total Probable Construction Cost					1,933,800

Table D.3 Membrane Bioreactor Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork Process Building	3,360	CY	30	1	100,800
Civil Subtotal					100,800
Architectural/Structural					
Process Building Structure	3,000	SF	150	1	450,000
Structural Subtotal					450,000
Mechanical					
MBR System	1	EA	817,806	1.02	834,200
Piping	1	LS	20,000	1.2	24,000
Mechanical Subtotal					858,200
HVAC	12%	Percent			54,000
Electrical	15%	Percent			211,000
Subtotal					1,674,000
Mobilization/Demobilization	5%	Percent			83,700
Bonds & Insurance	2%	Percent			33,500
Contractor OH&P	15%	Percent			251,000
Subtotal					2,042,200
Contingency	25%	Percent			344,000
Total Probable Construction Cost					2,386,200

Table D.4 Headworks/Influent Lift Station Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Lift Station Earthwork	110	CY	30	1	3,300
Headworks Earthwork	2,664	CY	30	1	79,920
Civil Subtotal					83,220
Architectural/Structural					
Headworks Building Structure	800	SF	150	1	120,000
Structural Subtotal					120,000
Mechanical					
Headworks					
Mech. Bar Screen	1	EA	76,000	1.2	91,000
Manual Bar Screen	1	EA	9,000	1.2	10,800
Grit Vortex Separator + Pump	1	EA	80,000	1.2	96,000
Influent Lift Station Tank & Pumps	1	EA	150,000	1.2	180,000
Mechanical Subtotal					377,800
HVAC	12%	Percent			14,000
Electrical	15%	Percent			87,200
Subtotal					682,220
Mobilization/Demobilization	3%	Percent			20,500
Bonds & Insurance	2%	Percent			13,600
Contractor OH&P	15%	Percent			102,000
Subtotal					818,320
Contingency	25%	Percent			205,000
Total Construction Cost					1,023,320

Table D.5 Equalization Basin and On-Site Lift Station Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Earthwork	850	CY	30	1	25,500
Civil Subtotal					25,500
Architectural/Structural					
Concrete Wet Well	84	CY	450	1	38,000
Structural Subtotal					38,000
Mechanical					
EQ Blower	1	EA	10,000	1.2	12,000
MBR Feed or Influent Pump	2	EA	5,000	1.2	12,000
Mechanical Subtotal					24,000
HVAC	0%	Percent			0
Electrical	15%	Percent			13,100
Subtotal					100,600
Mobilization/Demobilization	3%	Percent			3,000
Insurance & Bonds	2%	Percent			2,000
Contractor OH&P	15%	Percent			15,000
Subtotal					120,600
Contingency	25%	Percent			30,000
Total Construction Cost					150,600

Table D.6 Common Systems Cost Estimate

Item	Quantity	Units	Unit Price, \$	Installation Factor	Cost, \$
Civil					
Grading	1	LS	5,800	1	5,800
Aerobic Digester Earthwork	350	CY	30	1	10,500
Site Piping	500	LF	80	1	40,000
Paving, Recycled Concrete	670	SY	35	1	23,500
Civil Subtotal					79,800
Architectural/Structural					
Lab/Office Furnishings	1	LS	25,000	1	25,000
Influent Flume Precast Vault 6 x 12	1	LS	3,000	1.3	3,900
Vault Covers	72	SF	35	1	3,000
Subtotal					31,900
Mechanical					
Influent Flume	1	EA	3,000	1.3	3,900
Alum Feed System	1	LS	2,900	1.1	3,200
Aerobic Digester Equipment	1	LS	25,000	1	25,000
Non-Potable Pumps (5 HP)	2	EA	5,800	1	11,600
Piping	1	LS	32,300	1.2	38,800
Mechanical Subtotal					82,500
HVAC	15%	Percent			16,000
Electrical	15%	Percent			16,100
Subtotal					219,400
Mobilization/Demobilization	5%	Percent			11,000
Bonds & Insurance	2%	Percent			
Contractor OH&P	10%	Percent			21,900
Subtotal					252,300
Contingency	20%	Percent			50,000
Construction Cost					302,300
Engineering	16%	Percent			48,000
Total					350,300

Table D.7 Summary of Cost Estimates

Item	Sequencing Batch Reactor (SBR)		3-stage BNR		Membrane Bioreactor (MBR)	
	Quantity	Cost, \$	Quantity	Cost, \$	Quantity	Cost, \$
Common Site Work						
Grading, LS	1	5,800	1	5,800	1	5,800
Site Piping, LF	500	40,000	500	40,000	500	40,000
Paving, SY	670	23,500	670	23,500	670	23,500
Headworks/Influent Lift Station						
Civil, LS		83,220		83,220		83,220
Structural, LS		120,000		120,000		120,000
Mechanical Equipment, LS		101,800	1	101,800	1	101,800
Flume, LS	1	10,800	1	10,800	1	10,800
Secondary Process						
Onsite Lift Station or EQ Basin						
Lift Station	1	65,100	1	65,100		
EQ Basin					1	100,600
Civil, LS		189,900		270,000		100,800
Structural, LS		396,900		472,400		450,000
Mechanical Equipment, LS	1	523,500	1	361,000	1	858,200
Alum Feed System, LS	1	3,200	1	3,200	w/ MBR	
Disinfection						
UV System, LS	1	70,000	1	70,000	w/ MBR	
Effluent Filter, LS	1		1		not required	
Aerobic Digesters	2	50,000	2	50,000	2	50,000
Non-Potable Water						
Pumps, EA	2	11,600	2	11,600	2	11,600
Piping, LS	1	38,800	1	38,800	1	38,800
Lab/Office, LS	1	25,000	1	25,000	1	25,000
Subtotal		1,759,120		1,752,220		2,020,120
HVAC (buildings only)	20%	49,400	20%	49,400	20%	84,000
Electrical	15%	271,278	15%	270,200	15%	229,800
Subtotal		2,079,798		2,071,820		2,333,920
Mobilization, Insurance & Bonds	5%	104,000	5%	103,600	5%	116,700
Contractor OH&P	15%	327,600	15%	326,300	15%	367,600
Contingency	25%	627,800	25%	625,400	25%	532,900
Total Probable Construction Cost		3,139,198		3,127,120		3,351,120

Appendix E

Legal Documents

Exhibit "A"

Legal Description:

A parcel of Land situated in the NW $\frac{1}{4}$ of Section 1, Township 4 South, Range 65 West, of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Commencing at the NW corner of said Section 1, whence the N $\frac{1}{4}$ corner of said Section 1 bears N89°49'24"E a distance of 2640.14 feet, with all bearings contained herein relative to;
Thence S75°35'47"E a distance of 1773.68 feet to the **Point of Beginning**;
Thence N90°00'00"E a distance of 304.24 feet;
Thence S24°21'17"W a distance of 23.12 feet;
Thence S20°55'23"E a distance of 53.88 feet to a point of non-tangent Curve;
Thence along a Curve to the left whose chord bears S20°55'23"E a distance of 59.10 feet, said Curve having a central angle of 09°56'06", a radius of 341.25 feet, an arc length of 59.17 feet;
Thence S20°55'23"E non-tangent to the last described Curve a distance of 158.97 feet;
Thence S32°01'43"E a distance of 147.01 feet;
Thence S52°47'32"E a distance of 42.94 feet to a point of non-tangent Curve;
Thence along a Curve to the left whose chord bears S52°47'32"E a distance of 31.47 feet, said Curve having a central angle of 06°06'03", a radius of 295.64 feet, an arc length of 31.48 feet;
Thence S52°47'32"E non-tangent to the last described Curve a distance of 167.18 feet;
Thence S40°52'11"E a distance of 13.05 feet;
Thence S32°02'59"E a distance of 202.63 feet;
Thence S42°28'07"E a distance of 139.69 feet;
Thence S04°01'11"W a distance of 206.73 feet;
Thence S10°20'05"E a distance of 98.37 feet;
Thence S45°33'17"W a distance of 36.78 feet to a point of non-tangent Curve;
Thence along a Curve to the left whose chord bears N57°10'32"W a distance of 543.41 feet, said Curve having a central angle of 25°27'37", a radius of 1233.00 feet, an arc length of 547.90 feet;
Thence N16°48'09"W non-tangent to the last described Curve a distance of 393.05 feet;
Thence N40°15'18"W a distance of 317.16 feet;
Thence N16°46'03"W a distance of 257.31 feet to the **Point of Beginning**.

Parcel Contains (358,123 Square Feet) 8.2214 Acres.

Date Prepared: December 21, 2015

Date Of Last Revision:

Prepared By: Brett L. Miller, PLS No. 27609

For And On Behalf Of
Engineering Service Company
1300 South Potomac Street, Suite 126
Aurora, Colorado 80012
Phone: (303) 337-1393



ILLUSTRATION FOR "EXHIBIT A"

POINT OF COMMENCEMENT

NW CORNER OF SECTION 1,
T.4S., R.65W., OF THE 6TH P.M.
(FOUND 3 1/4" ALUMINUM CAP
L.S. NO. 25618 SET IN 1991)

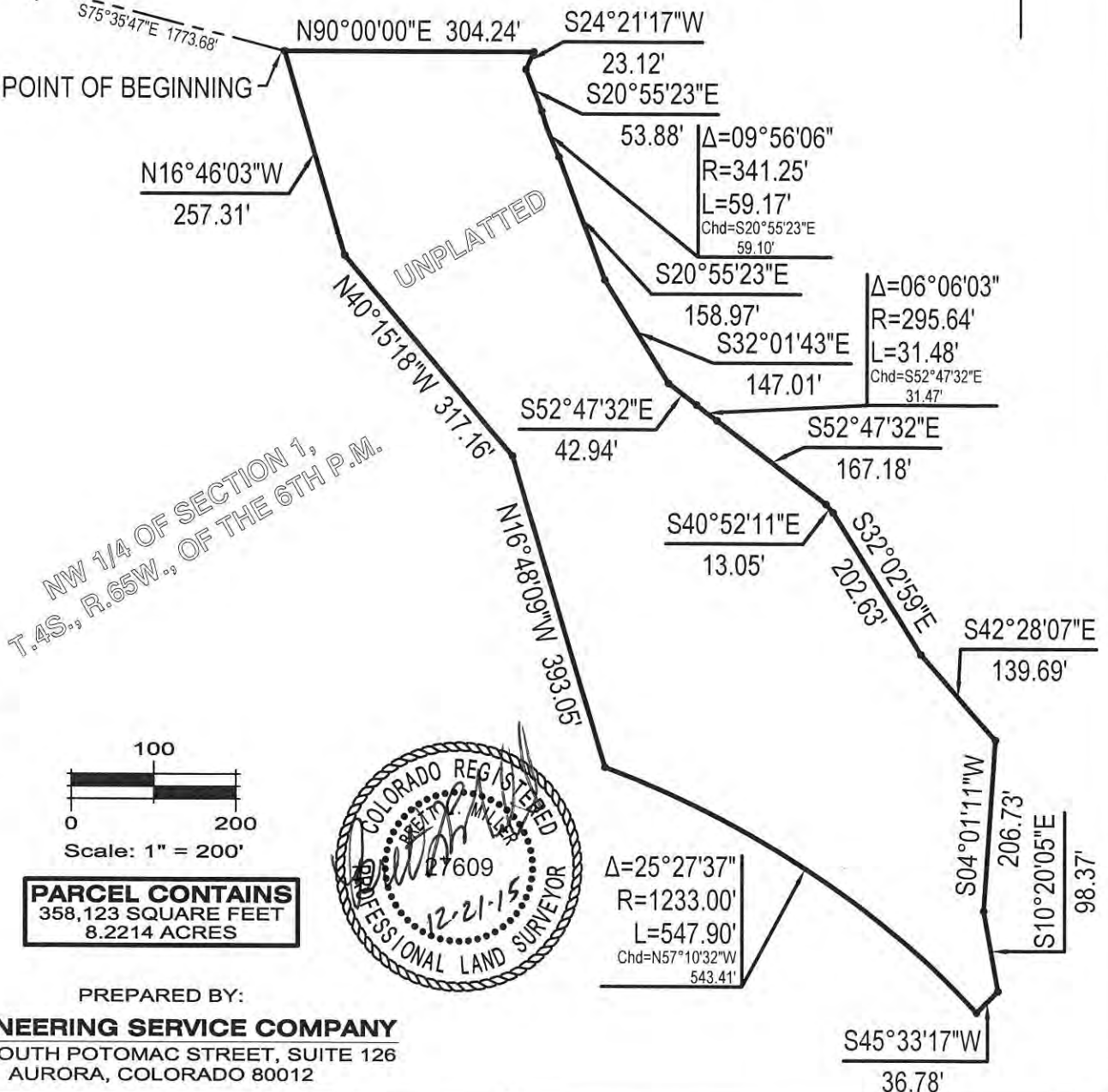
INTERSTATE HIGHWAY 70

(PUBLIC R.O.W. VARIES)

N 1/4 CORNER OF SECTION 1,
T.4S., R.65W., OF THE 6TH P.M.
(FOUND 3 1/4" ALUMINUM CAP
L.S. NO. 25618 SET IN 1991)

N89°49'24"E 2640.14' (BASIS OF BEARINGS)
NORTH LINE OF THE NW 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M.

POINT OF BEGINNING



COUNTY OF ARAPAHOE

NOTE: THIS EXHIBIT DOES NOT REPRESENT A
MONUMENTED SURVEY. IT IS INTENDED
ONLY TO DEPICT THE ATTACHED DESCRIPTION.

DRAWN BY: SAM	SCALE: 1"=200'	R.O.W. FILE#
CHECKED BY: BLM	DATE: 12/21/2015	

PARCEL EXHIBIT

A PARCEL OF LAND SITUATED IN THE NW 1/4 OF
SECTION 1, T.4S., R.65W., OF THE 6TH P.M.
COUNTY OF ARAPAHOE, STATE OF COLORADO



First American Title Insurance Company - NCS
2626 Howell Street, 10th Floor
Dallas, Texas 75204
Phone: (214)855-8888 Fax: (214)855-8848

DATE: March 16, 2016
FILE NUMBER: 1002-180270-RTT
PROPERTY ADDRESS: , CO
OWNER/BUYER: Prosper Farms Investments/To Be Determined
YOUR REFERENCE NUMBER:
ASSESSOR PARCEL NUMBER:

PLEASE REVIEW THE ENCLOSED MATERIAL COMPLETELY AND TAKE NOTE OF THE FOLLOWING TERMS CONTAINED THEREIN:

Transmittal:

Revision No.:

Schedule A:

Schedule B - Section 1 Requirements:

Schedule B - Section 2 Exceptions:

Should you have any questions regarding these materials, please contact Republic Title of Texas, Inc. at the above phone number. We sincerely thank you for your business.

To: **Furniture Row Companies**
 5641 N Broadway
 Denver, CO 80216

ATTN: **Sarah Jane Worrell**
PHONE: **(303)566-8000**
MOBILE:
FAX: **(303)566-8099**
E-MAIL: **SJWorrell@republictitle.com**
DELIVERY: **E-MAIL**

ALTA Commitment Form**COMMITMENT FOR TITLE INSURANCE**

Issued by

First American Title Insurance Company

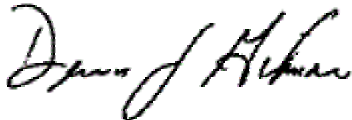
First American Title Insurance Company, a Nebraska corporation ("Company"), for a valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedules A and B and to the Conditions of this Commitment.

This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

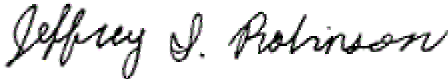
All liability and obligation under this Commitment shall cease and terminate six (6) months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

IN WITNESS WHEREOF, First American Title Insurance Company has caused its corporate name and seal to be affixed by its duly authorized officers on the date shown in Schedule A.

First American Title Insurance Company

Dennis J. Gilmore
President



Jeffrey S. Robinson
Secretary

COMMITMENT FOR TITLE INSURANCE FORM SCHEDULE A

1. Effective Date: February 29, 2016 at 7:30 a.m.
 - a. ALTA Owner's Policy (06-17-06) TBD

Proposed Insured:
To Be Determined
 - b. ALTA Loan Policy (06-17-06) TBD

Proposed Insured:
A Lender To Be Determined
2. The estate or interest in the Land described or referred to in this Commitment is:

Fee Simple, as to Parcels ONE, TWO, and THREE through TEN-A, ELEVEN-A, TWELVE through FOURTEEN and Easement as to Parcels TWO-A, TEN-B, AND ELEVEN-B
3. Title to the estate or interest in the Land is at the Effective Date vested in:

Prosper Farms Investments, a Colorado limited liability company
4. The Land referred to in this Commitment is described as follows:

See Exhibit "A" attached hereto and made a part hereof.

For informational purposes only: vacant land, and (East Colfax-no site address) Arapahoe County and vacant land, Adams County

For informational purposes only: Vesting deeds recorded in Arapahoe County on October 28, 2011 at Reception Numbers: D1106043, D1106045, D1106047, D1106049, D1106051, D1106053, D1106055, D1106059, D1106061, D1106063, D1106065, D1106067, D1106057 and re-recorded on November 18, 2011 at Reception Number D1114350.

Vesting deed recorded in Adams County on October 28, 2011 at Reception Number 2011000070767.

EXHIBIT A

Commitment No.: 1002-180270-RTT

The land referred to in Schedule A is situated in the County of Adams, State of Colorado and is described as follows:

PARCEL ONE: (BEHRENS):

That part of Section 31, Township 3 South, Range 64 West of the 6th P.M., County of Adams, State of Colorado. more particularly described as follows:

COMMENCING at the Southeast Corner of said Section 31;

Thence North 00°10'57" West 276.27 feet to the Northerly right of way line of Interstate Highway 70 as shown on CDOT Project 1095-1(2) and the TRUE POINT OF BEGINNING;

Thence along said Northerly right of way line North 89°28'39" West, 4689.05 feet; Thence continuing along said Northerly right of way line North 74°37'00" West, 323.03 feet;

Thence North 00°05'14" East, 1388.83 feet to the Southerly right of way line of US. Highway 36 and State Highway 40 as shown on FAP 149 C;

Thence along said Southerly right of way line North 78°06'22" East, 5098.33 feet to the adjudicated East line of said Section 31 as shown in the Dependent Resurvey of Township 3 South, Range 64 West, executed by the Commissioners of the Court, 1st Judicial District, Colorado, dated October 4, 1920;

Thence along said adjudicated East line South 00°32'26" East, 182.63 feet to the East Quarter Corner of said Section 31 as shown in said Dependent Resurvey;

Thence continuing along said East line as shown in said Dependent Resurvey South 00°10'57" East, 2385.41 feet TRUE POINT OF BEGINNING.

LESS AND EXCEPT the following described Parcels of land:

EXCEPTED Parcel ONE-A:

A parcel of land being a part of Section 31, Township 3 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, being more particularly described as follows:

COMMENCING: at the Southwest Corner of said Section 31;

Thence along the West line of said Section 31 North 00°01'23" East., 1614.12 feet to the intersection of the extended Southerly right of way line of U S Highway 36 and State Highway 30 as shown on FAP 149 C;

Thence along said Southerly right-of way line and Southerly right-of-way line extended North 78°06'23" East, 998.45 feet;

Thence South 11°53'37" East, 305.00 feet;

Thence North 78°06'23" East 15.00 feet to a point 305 feet Southerly of said Southerly right-of-way line and the TRUE POINT OF BEGINNING;

Thence continuing North 78°06'23" East 315.00 feet parallel with said Southerly right-of-way line;

Thence South 11°53'37" East, 225.00 feet;

Thence South 78°06'23" West, 330.00 feet;

Thence North 11°53'37" West. 210.00 feet, to a point of curvature;

Thence along the arc of a curve to the right, whose center bears North 78°06'23" East, 15.00 feet through a central angle of 90°00'00", an arc length of 23.56 feet, whose chord bears North. 33°06'23" East, 21.21 feet to the TRUE POINT OF BEGINNING:

EXCEPTED Parcel ONE-B: (RIGHT OF WAY)

EXCEPT: A Strip of Land Thirty (30) Feet in width being the easterly 30 feet of Section 31, Township 3 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, lying Southerly of the Southerly right of way line of U.S. Highway 36 and State Highway 40 as shown on FAP 149 C and Northerly of a line 374 feet South of and Parallel with the North line of the Southwest Quarter of Section 32, Township 3 South, Range 64 West of the Sixth Principal Meridian, being more particularly described as follows: BEGINNING at said adjudicated East Quarter Corner of said Section 31; Thence along said adjudicated East line as shown in said Dependent Resurvey, South 00°10'57" East 374.07 feet

to a line parallel with and 374.00 feet Southerly of the North line of the Southwest 1/4 of Section 32, Township 3 South, Range 64 West;
Thence along said parallel line North 89°04'28" West, 30.01 feet to a line parallel with and 30.00 feet Westerly of said adjudicated East line of Section 31; Thence along said parallel line with and 30.00 feet Westerly of said adjudicated East line of Section 31 North 00°10'57" West, 373.40 feet;
Thence along said parallel line North 00°03'26" West, 176.51 feet to a point on said Southerly right of way line;
Thence along said Southerly right-of-way line North 78°06'23" East, 30.60 feet to a point on said adjudicated East line of Section 31;
Thence along said adjudicated East line as shown in said Dependent Resurvey, South 00°32'26" West 182.63 feet to the POINT OF BEGINNING.

Note: The foregoing description was created by: Albert V. Valletta, Jr., PLS 23524, on behalf of WESTERN STATES SURVEYING, INC, Survey dated August 3, 2005, Job No. 9734-005

PARCEL TWO: (BRENNAN):

The East Half of Section 14, Township 4 South, Range 65 West, of the 6th Principal Meridian, County of Arapahoe, State of Colorado.

PARCEL TWO-A:

Easement for ingress and egress and access purposes as set forth in Access Easement Agreement recorded October 28, 2003, at Reception No. B3234045,
County of Arapahoe,
State of Colorado.

PARCEL THREE: (BRYCE AND HAWTHORNE):

Parcel THREE-A:

A parcel of land located in Section 8, Township 4 South, Range 64 West of the Sixth Principal Meridian, County of Arapahoe, State of Colorado, being more particularly described as follows:

Basis of Bearings: The north line of the northwest one-quarter of said Section 8, monumented at the west end by a 2.5 inch aluminum cap stamped "PLS 28656 1995" and on the east end by a 2 inch aluminum cap stamped "LS 25937 1999", with the line considered to bear S89°12'13"E.

Commencing at the west one-quarter corner of Section 8;
thence S88°55'29"E along the north line of the southwest one-quarter of said Section 8, a distance of 30.00 feet to the easterly right-of-way line of North Imboden Mile Road and the point of beginning;
thence S88°55'29"E continuing along the said north line of the southwest one-quarter of Section 8, a distance of 2628.21 feet to the calculated center one-quarter corner;
thence S00°40'54"W along the east line of the said southwest one-quarter of Section 8, a distance of 2613.17 feet to the point on the northerly right-of-way line of Alameda Avenue;
thence N88°55'08"W along said northerly right-of-way line of Alameda Avenue a distance of 2627.70 feet to a point on the said easterly right-of-way line of North Imboden Mile Road;
thence N00°40'13"E along the said easterly right-of-way line of North Imboden Mile Road, a distance of 2612.91 feet to the point of beginning;

LESS AND EXCEPT any portion that may lie within the parcel described as follows:

EXCEPT: A parcel of land located in the southwest quarter of Section 8, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Basis of Bearing: For the purposes of this description the south line of the southwest quarter of said Section 8 is assumed to bear N 88°55'08" W as shown on land survey plat No. 03390 deposited by PLS 37051 on January 11, 2007 in the records of the clerk and recorder of Arapahoe County, Colorado.

Beginning at the southwest quarter corner of said Section 8; thence S 88°55'08" E along the south line of said southwest quarter a distance of 2657.69 feet to the south quarter corner of said Section 8; thence N 00°40'54" E along the east line of said southwest quarter a distance of 30.00 feet; thence N 88°55'08" W along a line 30.00 feet north of and parallel with the south line of said southwest quarter a distance of 2627.70 feet to a point 30.00 feet east of, as measured perpendicularly, the west line of said southwest quarter; thence N 00°40'13" E along a line 30.00 feet east of and parallel with the west line of said southwest quarter a distance of 2612.91 feet to a point on the north line of said southwest quarter; thence N 88°55'29" W along the north line of southwest quarter a distance of 30.00 feet to the west quarter of said Section 8; thence S 00°40'13" W along the west line of said southwest quarter a distance of 2642.91 feet to the point of beginning.
County of Arapahoe,
State of Colorado.

Parcel THREE-B:

A parcel of land located in the southwest quarter of Section 8, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Basis of Bearing: For the purposes of this description the south line of the southwest quarter of said Section 8 is assumed to bear N 88°55'08" W as shown on land survey plat No. 03390 deposited by PLS 37051 on January 11, 2007 in the records of the clerk and recorder of Arapahoe County, Colorado.

Beginning at the southwest quarter corner of said Section 8; thence S 88°55'08" E along the south line of said southwest quarter a distance of 2657.69 feet to the south quarter corner of said Section 8; thence N 00°40'54" E along the east line of said southwest quarter a distance of 30.00 feet; thence N 88°55'08" W along a line 30.00 feet north of and parallel with the south line of said southwest quarter a distance of 2627.70 feet to a point 30.00 feet east of, as measured perpendicularly, the west line of said southwest quarter; thence N 00°40'13" E along a line 30.00 feet east of and parallel with the west line of said southwest quarter a distance of 2612.91 feet to a point on the north line of said southwest quarter; thence N 88°55'29" W along the north line of southwest quarter a distance of 30.00 feet to the west quarter of said Section 8; thence S 00°40'13" W along the west line of said southwest quarter a distance of 2642.91 feet to the point of beginning;
County of Arapahoe,
State of Colorado.

PARCEL FOUR: (CARRUTHERS):

The North 1/2 of Lot 2 and the Northeast 1/4 of the Southwest 1/4 of Section 18, Township 4 South, Range 64 West, of the 6th Principal Meridian,
EXCEPT any portion thereof lying within Watkins Road,
County of Arapahoe, State of Colorado.

PARCEL FIVE: (FISCHAUS):

Parcel FIVE-A:

That part of the Northwest 1/4 of Section 2, Township 4 South, Range 65 West lying Southerly of U.S. Highway 36 and 40,
County of Arapahoe, State of Colorado.

Parcel FIVE-B:

The South 1/2 and the Northeast 1/4 of Section 2, Township 4 South, Range 65 West,

County of Arapahoe, State of Colorado,

EXCEPT any portion of said Parcels FIVE-A and FIVE-B lying within property as set forth on the following described deeds:

EXCEPT: Deed recorded December 29, 1930, in Book 307, at Page 585;

EXCEPT: recorded January 5, 1931, in Book 309, at Page 38;

EXCEPT: recorded May 18, 1958, in Book 967, at Page 519;

Deed recorded September 10, 1958, in Book 1082, at Page 229; and

ALSO EXCEPT the South 30 feet and the West 30 feet of said Section 2 for County Roads.

County of Arapahoe, State of Colorado,

PARCEL SIX: (KISSLER):

PARCEL SIX-A

All of Section 7, Township 4 South, Range 64 West of the 6th P.M., except that certain parcel of land conveyed to Richard J. Pachello and Carol Ann Pachello being more particularly described as follows:

A parcel of land located in Section 7, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, more particularly described as follows:

Commencing at the Southwest corner of said Section 7;

thence North 00°00'00" East along the West line of the said Section 7, a distance of 1146.37 feet;

thence South 89°01'22" East a distance of 30.00 feet to the point of beginning, said point being on the Easterly right of way line of Watkins Road;

thence North 00°00'00" East along said right of way line and parallel with the West line of said Section 7, a distance of 558.18 feet;

thence South 89°01'22" East a distance of 1522.21 feet;

thence South 00°00'00" East a distance of 558.18 feet;

thence North 89°01'22" West a distance of 1522.21 feet to the point of beginning,

LESS AND EXCEPT any portion thereof lying within Watkins Road,

County of Arapahoe,

State of Colorado,

PARCEL SIX-B

North 1/2 of Section 18,

Township 4 South,

Range 64 West of the 6th P.M.,

County of Arapahoe,

State of Colorado.

LESS AND EXCEPT that portion conveyed in General Warranty Deed recorded September 30, 2004, at Reception No. B4172669 to Gary A. Van Dyk and Dorothy M. Van Dyk by Furniture Row COLO, LLC, a Colorado limited liability company being more particularly described as follows:

EXCEPT: A parcel of land situated in the West 1/2 of Section 7, Township 4, South, Range 64 West, of the 6th Principal Meridian, County of Arapahoe, State of Colorado more particularly described as follows:

Commencing at the West 1/4 corner of Said Section 7; Thence S00°04'02" E along the West line of the SW 1/4 of said Section 7 a distance of 386.45 feet; Thence S89°06'55"E a distance of 30.00 feet to the Easterly R.O.W line of Watkins Road, said point being the Point of Beginning; Thence continuing S89°06'55"E parallel with the East-West centerline of the West 1/2 of said Section 7 a distance of 407.70 feet; Thence N00°04'02"W parallel with said West line of the SW 1/4 a distance of 386.45 feet to a point lying on said East West centerline of the West 1/2; Thence N00°04'34"W parallel with the West line of the NW 1/4 of said Section 7 a distance of 413.55 feet; Thence S89°06'55"E parallel with said East-West centerline a distance of 963.08 feet; Thence S00°04'34"E parallel with said West line of the NW 1/4 a distance of 413.55 feet to a point lying said East-West centerline; Thence S00°04'02"E parallel with said West line of the SW1/4 a distance of 937.05 feet; Thence N89°05'24"W parallel with the South line of

said SW 1/4 a distance of 1370.80 feet to the said Easterly R.O.W. line of Watkins Road; Thence N00°04'02"W parallel with said West line of the SW 1/4 and along said Easterly R.O.W. line a distance of 550.0 feet to the Point of Beginning.

Note: The foregoing description was created by: Charles N. Beckstrom, PLS No. 33202, on behalf of Engineering Service Company, Survey dated September 24, 2004, Job No. 04125.

AND LESS AND EXCEPT that portion conveyed to Arapahoe County, Colorado, a corporate body politic in Quit Claim Deed recorded April 14, 2010, at Reception No. D0035316 being more particularly described as follows:

EXCEPT: A parcel of land being a portion of the Northeast quarter of Section 18, Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado more particularly described as follows:

Beginning at the Northeast corner of the Northeast quarter of said Section 18; thence Westerly along the North line of the Northeast quarter of said Section 18 a distance of 30 feet; thence Southerly along a line 30.00 feet West and parallel with the East line of said Northeast quarter to a point on the South line of said Northeast quarter; thence Easterly along the South line of said Northeast quarter a distance of 30.00 feet to the Southeast corner of said Northeast quarter; thence Northerly along the East line of said Northeast quarter to the point of beginning.

AND LESS AND EXCEPT any portion thereof lying within Watkins Road.

PARCEL SEVEN: (LINNEBUR-WEHLEN):

Parcel SEVEN-A:

SECTION 1, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EXCEPT THE EASTERLY 25 FEET THEREOF, AND EXCEPT THOSE PORTIONS DESCRIBED IN DEEDS RECORDED AUGUST 19, 1958 IN BOOK 1078 AT PAGE 398; OCTOBER 11, 1965 IN BOOK 1626 AT PAGE 53; AND JUNE 23, 1982 IN BOOK 3647 AT PAGE 387, COUNTY OF ARAPAHOE, STATE OF COLORADO,

LESS AND EXCEPT any portion thereof lying within Watkins Road,

Parcel SEVEN-B:

A PARCEL OF LAND SITUATED IN THE NE 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M., COUNTY OF ARAPAHOE, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M.; THENCE S00°32'30"W ALONG THE EAST LINE OF SAID NE 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6TH P.M., A DISTANCE OF 1619.90 FEET; THENCE N89°27'30"W A DISTANCE OF 25.00 FEET TO A POINT ON THE WEST R.O.W. LINE OF WATKINS ROAD AND THE POINT OF BEGINNING; THENCE S00°32'30"W ALONG SAID WEST R.O.W. LINE A DISTANCE OF 809.07 FEET; THENCE N89°27'36"W A DISTANCE OF 1771.67 FEET; THENCE N19°11'35"W A DISTANCE OF 227.88 FEET; THENCE S80°27'36"E A DISTANCE OF 743.91 FEET; THENCE N00°25'36"W A DISTANCE OF 2179.29 FEET TO A POINT ON THE SOUTHERLY R.O.W. LINE INTERSTATE HIGHWAY 70; THENCE THE FOLLOWING FIVE (5) COURSES ALONG SAID SOUTHERLY R.O.W. LINE OF INTERSTATE HIGHWAY 70; THENCE S89°21'23"E A DISTANCE OF 191.23 FEET; THENCE S69°42'02"E A DISTANCE OF 683.06 FEET; THENCE S42°32'30"E A DISTANCE OF 366.00 FEET; THENCE S00°32'30"W A DISTANCE OF 300.00 FEET; THENCE S13°29'30"E A DISTANCE OF 103.10 FEET TO A POINT ON SAID WESTERLY R.O.W. LINE OF WATKINS ROAD; THENCE S00°32'30"W ALONG SAID WESTERLY R.O.W. LINE A DISTANCE OF 686.10 FEET TO THE POINT OF BEGINNING.,

LESS AND EXCEPT any portion thereof lying within Watkins Road.

Parcel SEVEN-C:

THE WEST 1/2 OF THE EAST 1/2 AND THE NORTHWEST 1/4 OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EXCEPT ANY PORTION LYING WITHIN ANY EXISTING ROAD,

COUNTY OF ARAPAHOE, STATE OF COLORADO.

PARCEL EIGHT: (LUTHER):

A parcel of land lying within Section 6, Township 4 South, Range 64 West of the Sixth Principal Meridian, County of Arapahoe, State of Colorado being more particularly described as follows:

Commencing at the West Quarter Corner of Section 6;
Thence South 89°12'21" East, 30.00 feet, along the East-West Centerline of said Section 6 to the Point of Beginning;
Thence North 00°25'54" East, 1719.28 feet, 30 feet Easterly of and parallel with the Westerly line of the Northwest Quarter of said Section 6, to a point on the Southeasterly right of way line of Colorado Department of Highways as described in Book 1090 at Page 127 of the Arapahoe County records;
Thence North 14°25'00" East, 85.65 feet, along: the Southeasterly line;
Thence North 00°25'54" East, 300.00 feet, along said Southeasterly line;
Thence North 43°50'30" East 363.50 feet, along said Southeasterly line;
Thence North 71°29'30" East, 693.90 feet, along said Southeasterly line;
Thence South 89°08'28" East, 1704.11 feet, along said Southeasterly line to the Westerly line of parcel of land as described in Case #34518 of the Arapahoe County District Court;
Thence South 01°35'01" East, 2597.99 feet, along said Westerly line to a point on said East-West Centerline;
Thence North 89°12'21" West 2722.31 feet, along said East-West Centerline to the Point of Beginning,
LESS AND EXCEPT any portion thereof lying within Watkins Road.
County of Arapahoe, State of Colorado,

PARCEL NINE: (MCCLUSKEY):

Section 11,
Township 4 South,
Range 65 West of the 6th P.M.,
County of Arapahoe,
State of Colorado.

PARCEL TEN: (STEWART):

Parcel TEN-A:

That part of the East 1/2 of the Northeast 1/4 of Section 6, and part of the Northwest 1/4 of Section 5, all in Township 4 South, Range 64 West of the 6th Principal Meridian, County of Arapahoe, State of Colorado, being more particularly described as follows:

Beginning at the North 1/4 corner of said Section 5;
Thence North 89°00'30" West along the North line of said Northwest 1/4 of Section 5, a distance of 2654.16 feet to the Northwest corner of said Section 5;
Thence South 00°03'30" East along the East line of the Northeast 1/4 of said Section 6, a distance of 23.80 feet to the True Point of Beginning;
Thence North 89°09'00" West along the South line of Tract No. 8 of the Department of Highways, State of Colorado, Project No. 1 095-1(2), conveyed by Deed recorded July 7, 1958 in Book 1071 at Page 356, Arapahoe County records, a distance of 1334.46 feet to the West line of the East 1/2 of the Northeast 1/4 of said Section 6; Thence South 00°01'41" West along said West line of the East 1/2 of the Northeast 1/4 of Section 6, a distance of 853.41 feet;
Thence South 60°00'00" East, a distance of 448.82 feet;
Thence South 43°44'49" East, a distance of 1371.16 feet to said East line of the Northeast 1/4 of Section 6; Thence South 00°03'30" East along said East line of the Northeast 1/4 of Section 6, a distance of 244.75 feet to a point 300.00 feet Northerly of the West 1/4 corner of said Section 5;
Thence South 89°08'07" East parallel with the South line of said Northwest 1/4 of Section 5, a distance of 2655.83 feet to the East line of said Northwest 1/4 of Section 5;
Thence North 00°06'08" West along said East line of the Northwest 1/4 of Section 5, a distance of

2294.02 feet to a point 17.23 feet Southerly of said North 1/4 corner of Section 5, said point being the Southeast corner of Tract No. 9 of the Department of Highways, State of Colorado, Project No. 1 095-1(2), conveyed by Deed recorded July 7, 1958 in Book 1071 at Page 356, Arapahoe County records; Thence North 89°09'00" West along the South line of said Tract No. 9, of the Department of Highways, State of Colorado, Project No. 1 095-1(2), conveyed by Deed recorded July 7, 1958 in Book 1071 at Page 356, Arapahoe County records, a distance of 2654.06 feet to the True Point of Beginning, County of Arapahoe, State of Colorado.

Parcel TEN-B:

Beneficial non-exclusive easement for vehicular ingress and egress as described in Declaration of Reciprocal Easements recorded March 6, 1996, at Reception No. A6027753.

PARCEL ELEVEN: (VAN DYK PARCEL):

Parcel ELEVEN-A:

The Northwest 1/4 of Section 14, Township 4 South, Range 65 West of the 6th Principal Meridian, EXCEPT that part of said land conveyed in Deed recorded October 12, 1999, under Reception No. A9165902, and re-recorded December 29, 1999, at Reception No. A9202445 AND EXCEPT that portion of said land conveyed to Faith Presbyterian Church in Warranty Deed and Option to Purchase recorded October 22, 2009, at Reception No. B9116094 and Corrective and Restated Warranty Deed and Option to Purchase recorded December 07, 2010, at Reception No. D0126719, County of Arapahoe, State of Colorado.

Parcel ELEVEN-B:

A non-exclusive easement for pedestrian and vehicular ingress and egress as set forth in Access Easement Agreement recorded October 28, 2003, at Reception No. B3234045, County of Arapahoe, State of Colorado.

PARCEL TWELVE: (VAN DYK PARCEL):

A parcel of land lying within Section 6, Township 4 South Range 64 West of the Sixth Principal Meridian, Arapahoe County, State of Colorado being more particularly described as follows:

NOTE: For the purpose of this description the bearings are based on the East-West centerline, of said Section 6, assumed to bear South 89°12'21" East, monumented at the West Quarter corner with a 2 ½" aluminum cap stamped with PLS 28656 in a Range Box and a 2" aluminum cap on a #6 rebar stamped LS 25937 on the East Quarter corner.

Parcel TWELVE-A:

Commencing at the West Quarter corner of said Section 6;

Thence South 89°12'21" East 30.00 feet along the East-West centerline of said Section 6 to the Point of Beginning;

Thence continuing South 89°12'21" East 2868.24 feet along said East-West centerline to the center Quarter corner of said Section 6;

Thence South 00°05'35" West 2610.10 feet along the Easterly line of the Southwest Quarter said Section 6 to a point on the Northerly right of way line of East 6th Avenue;

Thence North 89°07'43" West 1971.83 feet along said Northerly right of way line to a point of tangent curvature;

Thence Westerly along the arc of a curve to the right, whose center bears North 00°52'17" East 1818.20 feet through a central angle of 10°43'21" an arc length of 340.27 feet, whose chord bears North 83°46'02" West 339.77 feet, continuing along said Northerly right of way line;

Thence North 78°24'21" West 385.77 feet, continuing along said Northerly right of way line to a point of tangent curvature;

Thence Westerly along the arc of a curve to the left, whose center bears South 11°35'39" West 1079.50 feet through a central angle of 06°31'18" an arc length of 122.88 feet whose chord bears North 89°40'00" West 122.81 feet continuing along said Northerly right of way line to a point of tangency,

Thence North 84°55'40" West 73.06 feet continuing along said Northerly right of way line to a point 30 feet Easterly of the Westerly line of the Southwest Quarter of said Section 6; Thence North 00°24'42" East 2481.24 feet, 30 feet Easterly of an parallel with said Westerly line to the Point of Beginning,

County of Arapahoe,
State of Colorado

Being sometimes described as follows;

A parcel of land lying in the Southwest ¼ of Section 6, Township 4 South, Range 64 West of the Sixth Principal Meridian County of Arapahoe, State of Colorado, being more particularly described as follows:

Commencing at the Northwest corner of said Southwest ¼ of said Section 6; Thence South 89°12'22" East 30.00 feet along the North line of said Southwest ¼ to the Point of Beginning, said point lying on the Easterly right of way line of Watkins Road:
Thence continuing South 89°12'22" East 2868.15 feet along said North. line to the Northeast corner of said Southwest ¼:
Thence South 00°05'30" West 2610.10 feet along the Easterly line of said Southwest 1/4 to a point on the Northerly right of way line of East 6th Avenue; Thence North 89°07'41" West 1971.76 feet along said Northerly right of way line to a point of curve;
Thence along the arc of a curve to the right and along said Northerly right of way line, said curve having a central angle of 10°43'20", a radius of 1818.20 feet an arc length of 340.25 feet, a chord bearing of North 83°46'01" West and a chord distance of 339.76 feet to a point of tangent;
Thence North 78°24'21" West along said tangent and continuing along said Northerly right of way line a distance of 385.82 feet to a point of curve;
Thence along the arc of a curve to the left and along said Northerly right of way line, said curve having a central angle of 6°31'18", a radius of 1079.50 feet, an arc length of 122.87 feet, a chord bearing of North 81°40'01" West and a chord distance of 122.81 feet to a point of tangent;
Thence North 84°55'40" West continuing along said Northerly right of way line a distance of 73.06 feet to a point 30 feet Easterly of the Westerly line of said Southwest ¼;
Thence North 00°24'42" East 30 feet Easterly of and parallel with said Westerly line a distance of 2481.26 feet to the Point of Beginning, County of Arapahoe, State of Colorado.

Parcel TWELVE-B:

Commencing at the Southwest corner of said Section 6; Thence South 89°07'43" East 30.00 feet along the Southerly line of the Southwest Quarter of said Section 6 to the Point of Beginning, said point being 30 feet Easterly of the Westerly line of said Section 6; Thence North 00°24'42" East 94.63 feet, 30 feet Easterly of and parallel with said Westerly line to point on the Southerly right of way line of East 6th Avenue; Thence South 84°55'40" East 68.17 feet along said Southerly right of way line to a point of tangent curvature; thence Easterly along the arc of a curve to the right whose center bears South 05°04'21" West 1019.50 feet through a central angle of 06°31'18" an arc length of 116.05 feet whose chord bears South 81°40'00" East 115.98 feet continuing along said Southerly right of way line to the point of tangency; Thence South 78°24'21" East 385.77 feet, continuing along said Southerly right of way line to a point of tangent curvature; Thence Easterly along the arc of a curve to the left whose center bears North 11°35'39" East 1878.20 feet through a central angle of 00°28'06", an arc length of 15.35 feet, whose chord bears South 78°38'22" East 15.35 feet, continuing along said Southerly right of way line to a point of non-tangency, said point being on the Southerly line of said Southwest Quarter; thence North 89°07'43" West 576.22 feet along said Southerly line, to the Point of Beginning County of Arapahoe, State of Colorado,

Parcel TWELVE-C:

A parcel of land lying in the Southwest ¼ of Section 6, Township 4 South, Range 64 West of the Sixth Principal Meridian County of Arapahoe, State of Colorado, being more particularly described as follows:

Commencing at the Northwest corner of said Southwest ¼ of said Section 6; Thence South 89°12'22" East 30.00 feet along the North line of said Southwest ¼ to the Point of Beginning, said point lying on the Easterly right of way line of Watkins Road:
Thence continuing South 89°12'22" East 2868.15 feet along said North. line to the Northeast corner of said Southwest ¼:
Thence South 00°05'30" West 2610.10 feet along the Easterly line of said Southwest 1/4 to a point on

the Northerly right of way line of East 6th Avenue; Thence North 89°07'41" West 1971.76 feet along said Northerly right of way line to a point of curve;
Thence along the arc of a curve to the right and along said Northerly right of way line, said curve having a central angle of 10°43'20", a radius of 1818.20 feet an arc length of 340.25 feet, a chord bearing of North 83°46'01" West and a chord distance of 339.76 feet to a point of tangent;
Thence North 78°24'21" West along said tangent and continuing along said Northerly right of way line a distance of 385.82 feet to a point of curve;
Thence along the arc of a curve to the left and along said Northerly right of way line, said curve having a central angle of 6°31'18", a radius of 1079.50 feet, an arc length of 122.87 feet, a chord bearing of North 81°40'01" West and a chord distance of 122.81 feet to a point of tangent;
Thence North 84°55'40" West continuing along said Northerly right of way line a distance of 73.06 feet to a point 30 feet Easterly of the Westerly line of said Southwest ¼;
Thence North 00°24'42" East 30 feet Easterly of and parallel with said Westerly line a distance of 2481.26 feet to the Point of Beginning, County of Arapahoe, State of Colorado.

Commencing at the Southwest Corner of said Southwest 1/4; thence South 89°07'41" East along the Southerly line of said Southwest 1/4 a distance of 30.00 feet to the Point of Beginning, said point being 30 feet Easterly of the Westerly line of said Southwest 1/4; Thence North 00°24'42" East, 30 feet Easterly of and parallel with said Westerly line a distance of 94.63 feet to a point on the Southerly right of way line of East 6th Avenue;
Thence South 84°55'40" East along said Southerly right of way line a distance of 68.17 feet to a point of curve;
Thence along a curve to the right and along said Southerly right of way line, said curve having a central angle of 6°31'18", a radius of 1019.50 feet an arc length of 116.04 feet, a chord bearing of South 81°40'01" East and a chord distance of 115.98 feet to a point of tangent;
Thence South 78°24'21" East along said tangent and along said Southerly right of way line a distance of 385.77 feet to a point of curve;
Thence along a curve to the left along said Southerly right of way line said curve having a central angle of 00°28'10", a radius of 1878.20 feet, an arc length of 15.39 feet, a chord bearing of South 78°38'26" East and a chord distance of 15.39 feet to a point of non-tangency said point being on the Southerly line of said Southwest 1/4;
Thence North 89°07'41" West along said South line a distance of 576.40 feet to the Point of Beginning, County of Arapahoe, State of Colorado.

Note: The foregoing description was created by: Charles N. Beckstrom, PLS No. 33202, on behalf of Engineering Service Company, Survey dated August 16, 2004, Job No. 04125-C.

PARCEL THIRTEEN: (VAN DYK KIDS PARCEL):

A parcel of land lying within the Southeast Quarter of Section 6, Township 4 South, Range 64 West of the 6th P.M., County of Arapahoe, State of Colorado, being more particularly described as follows:

Beginning at the Northeast corner of the Southeast ¼ of said Section 6;
Thence South 00°04'21" East along the East line of said Southeast 1/4 a distance of 2613.81 feet to the Northerly right of way, line of East 6th Avenue, said point lying 30.00 feet North of the South line of said Southeast 6;
Thence North 89°07'49" West parallel and 30.00 feet North of said South line and along the Northerly right of way line of East 6th Avenue a distance of 2684.20 feet to the Westerly line of said Southeast 1/4;
Thence North 00°05'30" East along said West line a distance of 2610.15 feet to the Northwest corner of said Southeast 1/4;
Thence South 89°12'22" East along the North line of said Southeast 1/4 a distance of 2676.66 feet to the point of beginning, County of Arapahoe, State of Colorado.

Note: The foregoing description was created by: Charles N. Beckstrom, PLS No. 33202, on behalf of Engineering Service Company, Survey dated August 16, 2004, Job No. 04125-C

PARCEL FOURTEEN: (WEIMER WHEATFIELD PARCEL):

Parcel FOURTEEN-A:

The Southwest $\frac{1}{4}$ of Section 12, Township 4 South, Range 65 West of the 6th Principal Meridian,
County of Arapahoe, State of Colorado.

Parcel FOURTEEN-B:

Section 13, Township 4 South, Range 65 West of the 6th Principal Meridian, County of Arapahoe, State of
Colorado,
LESS AND EXCEPT any portion thereof lying within Watkins Road,

Parcel FOURTEEN-C:

The Northwest $\frac{1}{4}$ of Section 24, Township 4 South, Range 65 West of the 6th Principal Meridian EXCEPT
a circular tract of land having a radius of 750 feet from a center point which bears North 43°02'30" East,
479.52 feet from the West $\frac{1}{4}$ corner of Section 24, Township 4 South, Range 65 West of the 6th Principal
Meridian and EXCEPT roads,
County of Arapahoe, State of Colorado.

COMMITMENT FOR TITLE INSURANCE FORM
SCHEDULE B
SECTION ONE
REQUIREMENTS

The following requirements must be met:

1. Pay the agreed amounts for the interest in the land and/or the mortgage to be insured.
2. Pay us the premiums, fees and charges for the policy.
3. Payment of all taxes and assessments now due and payable.
4. Recordation of a Warranty Deed satisfactory to the Company, from Prosper Farms Investments, LLC, a Colorado limited liability company, vesting fee simple title in and to A Purchaser To Be Determined.
5. Recordation of a Deed of Trust satisfactory to the Company, from A Borrower To Be Determined, to the Public Trustee of Adams and Arapahoe County, for the benefit of the proposed insured lender.
6. Recordation of a Release of the Deed of Trust from F. R. Exchanges, Inc., a Colorado corporation to the Public Trustee of Arapahoe County for the use of William L Turnage, as Personal Representative of the Estate of Edwin Fischahs, deceased to secure an indebtedness in the principal sum of \$1,457,200.00, and any other amounts and/or obligations secured thereby, dated August 26, 1999 and recorded August 30, 1999 at Reception No. A9141568.

NOTE: Assignment of Deed of Trust in connection therewith recorded August 30, 1999 at Reception No. A9141569.

7. Recordation of a Release of the Deed of Trust from Furniture Row USA, LLC, a Colorado limited liability company to the Public Trustee of Arapahoe County for the use of Farm Credit of Southern Colorado to secure an indebtedness in the principal sum of \$4,500,000.00, and any other amounts and/or obligations secured thereby, dated June 10, 2010 and recorded June 11, 2010, at Reception No. D0055813.

NOTE: Waiver of Priority of Mortgage Lien in connection therewith recorded January 21, 2011, at Reception No. D1007850.

8. Receipt by the Company of the following documentation for Prosper Farms Investments, LLC, a Colorado limited liability company:

Operating Agreement, and all amendments thereto, if any.

9. Receipt by the Company of a satisfactory Final Affidavit and Indemnity, executed by Prosper Farms Investments, LLC, a Colorado limited liability company.

10. Receipt by the Company of a satisfactory Final Affidavit and Indemnity, executed by A Borrower To Be Determined.
11. Receipt by the Company of an ALTA/ACSM Land Title Survey, certified to First American Title Insurance Company, and in form and content satisfactory to the Company. The Company reserves the right to make further requirements and/or exceptions upon review of this survey.

NOTE: This commitment is subject to further requirements and/or exceptions upon disclosure to the Company of the identity of the proposed insured purchaser.

NOTE: Upon satisfaction of the requirements, approved by the Company and herein set forth, Exceptions 1-3 will be modified and/or deleted.

COMMITMENT FOR TITLE INSURANCE FORM**SCHEDULE B****SECTION TWO****EXCEPTIONS**

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

1. Any facts, rights, interests or claims which are not shown by the Public Records, but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
2. Easements, or claims of easements, not shown by the Public Records.
3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the Land would disclose, and which are not shown by the public records.
4. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown in the Public Records.
5. Any and all unpaid taxes, assessments and unredeemed tax sales.
6. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof.

Exceptions 7 - 27 pertain to Parcel 1: Behrens Parcel (Adams County)

7. Reservations by the Union Pacific Land Company of (1) oil, coal and other minerals underlying the land, (2) the exclusive right to prospect for, mine and remove oil, coal and other minerals, and (3) the right of ingress and egress and regress to prospect for, mine and remove oil, coal and other minerals, all as contained in Deed recorded May 11, 1909 in Book 25 at Page 215 and Release and Quit Claim Deed to Union Pacific Land Resources Corporation recorded November 23, 1998 in Book 5547 at Page 272, and any and all assignments thereof or interests therein.
8. Right to deny or restrict each and every right of access to and from the land insured hereby, directly onto abutting street or highway designated as Interstate 70, (Colorado State Highway No. 8), recorded January 8, 1959 in Book 754 at Page 280.
9. Any rights, interest or easements in favor of the State of Colorado, which exists or are claimed to exist in and over the present and past bed, banks or waters of Box Elder Creek.
10. An undivided 100% interest in all oil, gas and associated liquid hydrocarbons conveyed to Champlin Petroleum Company, a Delaware corporation by Mineral Deed, recorded January 20, 1976 in Book 2041 at Page 115, and any and all assignments thereof or interests therein.

11. An Oil and Gas Lease, from Champlin Petroleum Company as Lessor(s) to Amoco Production Company as Lessee(s) dated October 31, 1975, recorded January 20, 1976 in Book 2041 at Page 119, and any and all assignments thereof or interests therein.

Affidavit showing Production recorded August 13, 1976 in Book 2083 at Page 85 in connection with the above Oil and Gas Lease.

12. Terms, conditions, provisions, agreements and obligations specified under the Purchase & Sale Agreement by and between the City of Aurora and Box Elder Investment Company, a Colorado limited partnership, Amcor Investments Corporation, a California and Ralph D. Kaufman, Shirleen D. Jensen and Stephen K. Small recorded March 18, 1987 in Book 3298 at Page 473.
13. Terms, conditions, provisions, agreements and obligations specified under the Agreement by and between Ralph Kaufman, Shirleen D. Jensen and Stephen K. Small and the City of Aurora recorded November 25, 1988 in Book 3512 at Page 765.
14. An easement for access, utilities and incidental purposes granted to Frontier Bank of Denver by Ralph D. Kaufman, Shirleen D. Jensen and Stephen K. Small by Easement Deed recorded January 9, 1989 in Book 3525 at Page 419.

Note: Easement Deed recorded March 12, 1993 in Book 4037 at Page 765 corrects the description in the above easement and Easement Deed recorded October 4, 2000 in Book 6277 at Page 824 being Reception No. C0717694.

15. Terms, conditions, provisions, agreements and obligations contained in the Amendment to Adams County Zoning and Regulations, Case No. 23-91-RA-Front Range Airport Influence Zone recorded May 23, 1991 in Book 3780 at Page 622.
16. An easement for utilities and incidental purposes granted to Public Service Company of Colorado by the instrument recorded June 17, 1996 in Book 4773 at Page 46.
17. An easement for utilities and incidental purposes granted to Public Service Company of Colorado by the instrument recorded September 30, 1996 in Book 4847 at Page 47.
18. The effect of Annexation Ordinance 88-34 recorded May 20, 1988 in Book 3448 at Page 810 and Plat recorded May 20, 1988 at Reception No. B815948 and Annexation Ordinance 88-35 recorded May 20, 1988 in Book 3448 at Page 813 and Plat recorded May 20, 1988 at Reception No. B815950 and Annexation Ordinance 88-36 recorded May 20, 1988 in Book 3448 at Page 816 and Plat recorded May 20, 1988 at Reception No. B815952 and Annexation Ordinance 88-37 recorded May 20, 1988 in Book 3448 at Page 819 and Plat recorded May 20, 1988 at Reception No. B815954.
19. An easement for access and incidental purposes granted to D and L Construction, Inc., a Colorado corporation by the instrument recorded July 17, 1997 in Book 5055 at Page 848 and as conveyed to Powell Professional Partnership, a Colorado partnership by the instrument recorded January 7, 1998 in Book 5203 at Page 1.
20. Terms, conditions, provisions, agreements and obligations contained in the Pipeline Easement Agreement recorded October 16, 2000 in Book 6290 at Page 34.
21. Any assessment or lien of Bennett Park and Recreation District, as disclosed by the instrument recorded January 22, 2001 at Reception No. C0753045.

22. Terms, conditions, provisions, agreements and obligations contained in the Ordinance No. 2001-52 Rezoning Land from Planned Development to Northeast Plains Zone District recorded November 5, 2001 at Reception No. C0882066.
23. Request for Notification of Surface Development filed by RME Petroleum Company and RME Land Corp., recorded May 20, 2002 at Reception No. C0971793.
24. An easement for water drainage and incidental purposes granted to Watkins Storage Company, LLC by the instrument recorded July 22, 2002 at Reception No. C0999666.
25. The following matters as disclosed by ALTA/ACSM Land Title Survey prepared by Western States Surveying, Inc. on August 04, 2005, Job No. 20302-002, as follows:
 - a.) Apparent easements for overhead electric lines, power poles and electric meter lying outside of a recorded easement.
 - b.) Water wells
 - c.) Underground utilities running along the Northerly and Easterly portion of said premises as disclosed by underground markers.
26. Any loss, claim or damage, including the rights, interest or claims of others resulting from the conflicting location of the East Section line of Section 31, Township 3 South, Range 64 West of the 6th P.M., Adams County, Colorado and the two sets of monuments used for the East Quarter Corner of said Section as created by Dependent Resurvey of Township 3 South, Range 64 West, 1st Judicial District, Case No. 1467, dated October 4, 1920 and monument set by Cecil Crowe, PE & LS 12330 on April 11, 1986 and as located on ALTA/ACSM Land Title Survey prepared by Western States Surveying, Inc. on August 04, 2005, Job No. 20302-002.
27. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use and Occupancy of Land recorded May 27, 2015 at Reception No. 2015000039423.

Exceptions 28 - 32 Pertains to Parcel 2: Brennan Parcel (Arapahoe County)

28. Terms, conditions, provisions, agreements and obligations specified under the Access Easement Agreement by and between McCluskey Family Living Trust, G.A. Van Dyk and Dorothy Margaret Van Dyk and Billie Marie Brennan and Dewitt Brennan recorded October 28, 2003 at Reception Number B3234045.
29. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Memorandum of Surface Use Agreement recorded December 28, 2010, at Reception No. D0135149.
30. Paid-Up Oil and Gas Lease recorded December 28, 2010, at Reception No. D0135150, and any and all assignments thereof or interest therein..

NOTE: Assignment and Bill of Sale in connection therewith recorded December 21, 2012 at Reception No. D2147994.

31. Terms, conditions, provisions, obligations and agreements as set forth in the Order recorded August 15, 2013 at Reception No. D3103482 and August 15, 2013 at Reception No. D3103483.
32. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144321.

Exceptions 33 - 41 pertain to Parcel 3: Bryce and Hawthorne Parcel (Arapahoe County)

33. Reservations of (1) right of proprietor of any penetrating vein or lode to extract his ore; and (2) right of way for any ditches or canals constructed by authority of the United States, in U.S. Patent recorded January 13, 1896 in Book A57 at Page 100.
34. Any assessment or lien of West Arapahoe Soil and Conservation District, as disclosed by the instrument recorded December 27, 1955 in Book 948 at Page 214.
35. Any assessment or lien of Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
36. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Memorandum of Surface Use Agreement recorded December 28, 2010, at Reception No. D0135148.
37. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Affidavit of Non-Development recorded October 1, 2013 at Reception No. D3122332.
38. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded May 21, 2014 at Reception NO. D4042797.
39. Mineral rights as conveyed by Bargain and Sale Deed recorded October 6, 2014 at Reception No. D4093205, and any and all assignments thereof or interests therein.
40. Oil and Gas Lease recorded October 28, 2014 at Reception No. D4101519.
41. Oil and Gas Lease recorded November 5, 2014 at Reception No. D4104039.

Exceptions 42 - 47 pertain to Parcel 4: Carruthers. (Arapahoe County)

42. Right of way for ditches and canals as constructed by the authority of the United States, as reserved in United States Patent recorded December 4, 2013 at Reception No. D3145413.
43. An easement for communication systems and incidental purposes, 16.5 feet in width runs along either side of the North property line, granted to the Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 509.
44. Any assessment or lien of the Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
45. Terms, conditions, provisions, agreements and obligations specified under the Easement to Conduct Exploratory Operations, Option for Gas Storage Grant, Oil and Gas Lease by and between Douglas A. Carruthers and Public Service Company of Colorado, a corporation recorded July 2, 1963 in Book 1441 at Page 561.
46. Terms, conditions, provisions, obligations and agreements as set forth in the Findings of Facts, Conclusions of Law, Ruling of Referee, and Decree recorded March 23, 2006, at Reception No. B6045138.
47. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded September 17, 2013 at Reception No. D3116432.

Exceptions 48 - 61 pertain to Parcel 5: Fischau. (Arapahoe County)

48. Right of way for pipeline granted to the Colorado Interstate Gas Company in instrument recorded June 7, 1947 in Book 579 at Page 355 (Affects NW1/4 of said Section 2 and the NE 1/4 of said Section 2

Note: Partial release of Right-of-Way Agreement recorded April 24, 1979 in Book 2977 at Page 67.

49. The effect of the inclusion of the subject property in the Aurora Hospital District, as disclosed by the instrument recorded June 28, 1962 in Book 1351 at Page 259.
50. An undivided 1/4 interest in the proportions of an undivided 1/8 to each of the grantees named within the instrument recorded February 19, 1971 in Book 1909 at Page 614 of all oil, gas and other minerals lying in and under the S1/2 and any and all assignments thereof or interests therein.
51. An easement for a pipe line and additional pipe line for the transportation of oil, gas, petroleum or any of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded 12, 1973 in Book 2117 at Page 787, upon the terms and conditions set forth in the instrument.
52. An easement for a pipe line for the transportation of oil, gas, water, any other substances whether fluid or solid and incidental purposes granted to Amoco Pipeline Company, a Maine corporation by the instrument recorded May 23, 1974 in Book 2240 at Page 741, upon the terms and conditions set forth in the instrument.
53. Terms, conditions, provisions, agreements, obligations and right of way specified under the Right of Way Agreement recorded June 18, 1996 at Reception No. A6076896.
54. Terms, conditions, and provisions of unrecorded Lease Agreement between William L Turnage, as Personal Representative of the Estate of Edwin Fischahs, deceased as Lessor, and Gray A. Van Dyk as Lessee, dated July 16, 1999.
55. An easement for utilities and incidental purposes granted to Williams Communication, Inc., a Delaware Corporation by the instrument recorded November 2, 1998 at Reception No. A8174205.
56. The following matters as set forth on ALTA/ACSM survey by Western States Surveying, Inc. dated May 21, 1999 and last revised August 18, 1999, Job No. 9940-001:
- a) Access road running along the North property line lies within highway right-of-way.
 - b) Dirt crop roads running along the South and West lines of said Section 2 encroach over the section line.
 - c) Colorado Interstate Gas lines run through the Southeast quarter of said Section 2.
 - d) Utility lines run along the North, South and West property lines.
 - e) Discrepancies in property line measurements to the existing monuments set for the South right-of-way line of Interstate 70.
57. Terms and conditions including right to limit access by the Department of Highways, State of Colorado as set forth on instrument recorded September 2, 1958 in Book 1080 at Page 568.

58. An easement and right of way agreement for communication facilities and incidental purposes granted to The Mountain State Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 501.
59. Terms, conditions, provisions, obligations and agreements as set forth in the Order: Judgement and Decree Quieting Title recorded February 24, 2014 at Reception No. D4014617.
60. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Affidavit of Surface Inspection recorded April 29, 2014 at Reception No. D4035093.
61. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use, and Occupancy recorded December 8, 2014 at Reception No. D4114699.
- Exceptions 62 - 76 pertain to Parcel 6: Kissler Parcel. (Arapahoe County)
62. Right of way for ditches and canals as constructed by the authority of the United States, as reserved in United States Patent recorded December 4, 2013 at Reception No. D3145413.
63. Mineral reservation of all coal and other minerals as contained in Deed from Union Pacific Land Company, March 8, 1912 in Book 66 at Page 8, Quit Claim Deed to Union Pacific Land Resources, a Utah corporation recorded April 16, 1971 in Book 1920 at Page 247 and Release and Quit Claim Deed recorded November 28, 1998 at Reception No. A8189797 (affects Section 7)
64. An easement for gas pipeline and incidental purposes granted to Colorado Interstate Gas Company by the instrument recorded May 20, 1947 in Book 578 at Page 111.
65. An easement for utilities and incidental purposes granted to the Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 495.
66. An easement for utilities and incidental purposes granted to the Mountain States Telephone and Telegraph Company by the instrument recorded October 26, 1972 in Book 2070 at Page 140.
67. An easement for oil and gas pipeline and incidental purposes granted to Chase Transportation Company by the instrument recorded October 25, 1972 in Book 2181 at Page 702.
68. An easement for oil and gas pipeline and incidental purposes granted to Amoco Pipeline Company by the instrument recorded May 23, 1974 in Book 2240 at Page 733.
69. An easement for oil and gas pipeline and incidental purposes granted to Diamond Shamrock Pipeline Company by the instrument recorded September 6, 1995 in Book 8095 at Page 34.
70. An easement for underground communication system and incidental purposes granted to Williams Communications, Inc. by the instrument recorded October 8, 1998 at Reception No. A8161034.
71. Request for Notification of Surface Development recorded May 16, 2002 at Reception No. B2090857.
72. Right of way 30 feet in width for East Alameda Avenue, East 6th Avenue, Watkins Road and Imboden Mile Road.
73. Terms, conditions, provisions, obligations and agreements as set forth in the Findings of Facts, Conclusions of Law, Ruling of Referee, and Decree recorded February 21, 2006, at Reception No. B6022188.

- 74. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Colorado Interstate Gas Company Cathodic Protection Unit Easement recorded August 28, 2006, at Reception No. B6123884.
- 75. Oil and Gas Lease recorded December 21, 2012 at Reception No. D2147993.
- 76. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded September 17, 2013 at Reception No. D3116432.

Exceptions 77-103 pertain to Parcel 7: Linnebur-Wehlen. (Arapahoe County)

- 77. Reservation of all mineral lands as set forth in United State Patent recorded March 19, 2014 at Reception No. D4022050.
- 78. Reservations by the Union Pacific Land Company of (1) oil, coal and other minerals underlying the land; (2) the exclusive right to prospect for, mine and remove oil, coal and other minerals; and (3) the right of ingress and egress and regress to prospect for, mine and remove oil, coal and other minerals, all as contained in deed recorded September 20, 1889 in Book 66 at Page 23 of the records of the Clerk and Recorder for Arapahoe County, Colorado, and any and all assignments thereof or interests therein.

Note: Quit Claim Deed in connection with said reservations recorded April 16, 1971 in Book 1920 at Page 247.

Note: Mineral Deed in connection with said reservations recorded January 14, 1976 in Book 2410 at Page 77.

- 79. An easement for right-of-way and incidental purposes granted to American Telephone and Telegraph Company by the instrument recorded March 19, 1929 in Book 278 at Page 325.
- 80. An easement for right-of-way and incidental purposes granted to Colorado Interstate Gas Company by the instrument recorded October 17, 1947 in Book 591 at Page 152.
- 81. Each and every right or rights of access to and from any part of the right-of-way for Colorado State Highway No. 8 (Interstate 70) as contained in instrument recorded August 14, 1958 in Book 1078 at Page 60.
- 82. An easement for right-of-way and incidental purposes granted to Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 503.
- 83. Any assessment or lien of Aurora Hospital District, as disclosed by the instrument recorded June 28, 1962 in Book 1351 at Page 259; and of Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
- 84. Terms, agreements, provisions, conditions and obligations as contained in Agreement recorded March 29, 1973 in Book 2113 at Page 576.
- 85. An easement for right-of-way and incidental purposes granted to Chase Transportation Company by the instrument recorded March 29, 1973 in Book 2113 at Page 581.
- 86. Easement Agreement, together with the provisions therein contained, as granted to Amoco Pipeline Company in instrument recorded May 23, 1974 in Book 2240 at Page 719.

87. Oil and Gas Lease between Champlin Petroleum Company and Amoco Production Company, recorded January 22, 1976 in Book 2412 at Page 347, and any and all assignments thereof or interest therein.

Note: Affidavit of Lease Extension in connection with said Oil and Gas Lease recorded February 9, 1981 in Book 3363 at Page 424.

Note: Affidavit of Production in connection with said Oil and Gas Lease recorded April 22, 1981 in Book 3400 at Page 733

88. Right-of-way for ditches or canals constructed by the authority of the United States as reserved in United States Patent recorded January 22, 1901 in Book A57 at Page 207.
89. The right of proprietor of a vein or lode to extract or remove his ore should the same be found to penetrate or intersect the premises thereby granted as reserved in United States patent recorded January 22, 1901 in Book A57 at Page 207; and any and all assignments thereof or interests therein.
90. Reservations of right of way for any ditches or canals constructed by authority of the United States, in U.S. Patent recorded March 24, 1893 in Book A57 at Page 483.
91. The right of proprietor of a vein or lode to extract or remove his ore should the same be found to penetrate or intersect the premises thereby granted as reserved in United States patent recorded March 24, 1893 in Book A57 at Page 483; and any and all assignments thereof or interests therein.
92. An easement for right-of-way and incidental purposes granted to American Telephone and Telegraph Company by the instrument recorded June 4, 1929 in Book 284 at Page 140.
93. An Easement and Release as granted to U.S. West Communications, Inc. by the instrument recorded April 2, 1992 in Book 6424 at Page 330; and Release recorded in Book 6417 at Page 629.
94. Terms, agreements, provisions, conditions and obligations as contained in Right-of-way Agreement by and between Gene L. Linnebur and Shirley M. Linnebur and Diamond Shamrock Pipeline Company recorded March 26, 1996 at Reception No. A6036205. (South 1/2 of Section 1).
95. Terms, agreements, provisions, conditions and obligations as contained in Right-of-way Agreement by and between Gene L. Linnebur and Shirley M. Linnebur and Williams Communications, Inc., recorded October 20, 1998 at Reception No. A8167214.
96. Conveyances and Reservations of Release and Quit Claim Deed from Union Pacific Railroad Company to Union Pacific Land Resources Company recorded November 23, 1998 at Reception No. A8189797.
97. The effect of Notice of Request for Notification of Surface Development recorded May 16, 2002 at Reception No. B2090859.
98. Right-of-way to American Telephone and Telegraph Company recorded in Book 464 at Page 379.
99. The effect of Discontinuance Map of Town of Watkins recorded November 29, 2006 at Reception No. B6167936.

- 100. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded February 24, 2014 at Reception No. D4014687.
- 101. Oil and Gas Lease recorded December 21, 2012 at Reception No. D2147993.
- 102. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded April 29, 2014 at Reception No. D4035094.
- 103. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use, and Occupancy recorded December 8, 2014 at Reception No. D4114699.

Exceptions 104 - 108 pertain to Parcel 8: Luther.

- 104. The right of proprietor of a vein or lode to extract or remove his ore should the same be found to penetrate or intersect the premises thereby granted as reserved in United States patent recorded on March 23, 1981 in Book 3383 at Page 715, and any and all assignments thereof or interest therein.
- 105. An easement to construct, operate, maintain, replace and remove such communication system as the grantees may from time to time require consisting of underground conduit, cables, wires, manholes, surface testing terminals and markers and incidental purposes granted to The Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 505 and as Shown on ALTA/ACSM Land Title Survey prepared Engineering Service Company on May 11, 2006 Survey No. 06067-C.
- 106. An easement to construct, reconstruct, renew, operate, maintain, inspect, alter, repair, remove and re-lay a pipe line and additional pipe lines for the transportation of oil, gas, petroleum or any of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded April 12, 1973 in Book 2117 at 764. Assignment of Rights of Way and Permits recorded January 18, 2005 at Reception Number B5007379 and B5007380.
- 107. House Lease between Luther Seminary and Regy Snyder, as tenant only, dated September 1, 2004.
- 108. Paid-Up Oil and Gas Lease recorded December 28, 2010, at Reception No. D0135151.

NOTE: Affidavit of Production in connection therewith recorded April 13, 2015 at Reception No. D5035879.

Exceptions 109 - 122 pertain to Parcel 9: McCluskey. (Arapahoe County)

- 109. Reservation of all oil, coal and other minerals; thence exclusive right to prospect; the right of ingress, egress and regress; and other reservations under Deed from Union Pacific Land Company to J. M. Gingrich recorded April 5, 1910 in Book 36 at Page 197.
- 110. Any assessment or lien of Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
- 111. Reservations and Grants of Deed from Union Pacific Railroad Company to Union Pacific Land Resources Corporation recorded April 16, 1971 in Book 1920 at Page 247. As modified by Release and Quit Claim Deed recorded November 23, 1998 at Reception No. 8189797.

112. Terms conditions, provisions, agreements and obligations specified under the Easement and Right-of-Way by and between Florence Marie McCluskey and G. A. VanDyk and recorded May 8, 1975 in Book 2332 at Page 764.
 113. Mineral Conveyance to Champlin Petroleum Company recorded January 14, 1978 in Book 2410 at Page 77.
 114. The effect of Notification of Surface Development by RME Land Corp. (Fka Union Pacific Land Resources Corporation) recorded May 16, 2002 at Reception No. B2090860.
 115. An Oil and Gas Lease, from Champlin Petroleum Company as Lessor(s) to Amoco Production Company as Lessee(s) dated October 23, 1975, recorded January 6, 1976 in Book 2412 at Page 347 (Book 2039 at Page 181, Adams County) and Ratification of Lease recorded January 14, 1991 in Book 6080 at Page 258 (Book 3735 at Page 141, Adams County), and any and all assignments thereof or interests therein.
 116. An easement for right-of-way and incidental purposes granted to American Telephone and Telegraph Company by the instrument recorded June 4, 1929 in Book 284 at Page 142.
 117. The following matters disclosed on survey dated September 8, 2003 by Burdick Engineering Consultants, Inc., Job No. 94511:
 - A) Any easement rights by reason of underground electric line crossing subject property at Southwest corner.
 - B) Any easement rights for the use of the public over the Northerly 30 feet of subject property.
 - C) Any easement rights by reason of two-track road 12 feet in width along the North boundary line.
 118. Terms, conditions, burdens and obligations contained in Access Easement Agreement recorded October 28, 2003 at Reception No. B3234045
 119. Terms, conditions, provisions, obligations and agreements as set forth in the Findings of Facts, Conclusions of Law, Ruling of Referee, and Decree recorded February 21, 2006, at Reception No. B6022187.
 120. Appurtenant rights of upper and lower owners in and to the free and unobstructed flow of the water of the Box Elder Creek extending through the land, without diminution.
 121. Oil and Gas Lease recorded December 21, 2002 at Reception No. D2147993.
 122. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded January 8, 2014 at Reception No. D4001767.
- Exceptions 123 - 130 pertain to Parcel 10: Stewart Parcel. (Arapahoe County)
123. Lack of access to Colorado Highway No. 8 (now known as Interstate I-70) as set forth in Deed recorded July 7, 1958 in Book 1071 at Page 358.
 124. An easement and right of way for utilities as granted to The Mountain States and Telephone and Telegraph Company in instrument recorded May 13, 1960 in Book 1189 at Page 513.
 125. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Declaration of Reciprocal Easements recorded March 06, 1996 at Reception No. A6027753.

126. Terms, conditions, provisions, obligations and agreements as set forth in the Aircraft Activity Covenant with Disclosure recorded June 13, 2001 at Reception No. B1094411 and re-recorded September 12, 2001 at Reception No. B1154717.
127. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Memorandum Giving Notice of Oil and Gas Lease recorded July 06, 2010 at Reception No. D0064421.

NOTE: Assignment of Overriding Royalty Interests in connection therewith recorded April 15, 2011 at Reception No. D1036327 and Correction Assignment of Overriding Royalty Interests recorded June 23, 2011 at Reception No. D1059356.

NOTE: Assignment, Bill of Sale and Conveyance in connection therewith recorded May 12, 2011 at Reception No. D1045360.

NOTE: Correction to Assignment of Oil and Gas Leases in connection therewith recorded June 23, 2011 at Reception No. D1059381.

128. Oil and Gas Lease recorded September 1, 2010, at Reception No. D0086115.
129. Any rights, interests, or claims which may exist or arise by reason of the following facts shown on the ALTA/ACSM Land Title Survey dated August 31, 2010, prepared by Alpha Surveying Company, as Job Number 5-4s4-19:
- a) Any loss or damage arising from the fact that the fence lines on or near the perimeter of subject property do not coincide with the exact property lines.
 - b) Encroachment of fences onto the property adjacent and to the South and East of subject property.
 - c) Apparent easement for Highway Billboard as shown on the survey.
130. Oil and Gas Lease recorded December 31, 213 at Reception No. D3153251.
- Exceptions 131 - 134 pertain to Parcel 11: Van Dyk (108ac). (Arapahoe County)
131. Reservations as contained in Patent of the United States recorded October 5, 1915 in Book 78 at Page 528.
132. The effect of Notice setting forth description of area of Arapahoe County, Colorado subject to building code recorded October 7, 1963 under Reception No. 880751.
133. Terms, conditions, burdens and obligations contained in Access Easement Agreement recorded October 28, 2003 at Reception No. B3234045.
134. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144321.
- Exceptions 135 - 142 pertain to Parcel 12: Van Dyk (170ac). (Arapahoe County)
135. An easement to construct, operate, maintain, replace and remove such communication systems as the grantees may from time to time require consisting of underground conduit, cables, wires, manholes, surface testing terminals and markers and incidental purposes granted to The

Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 505.

136. Any assessment or lien of The Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
137. An easement to construct, reconstruct, renew, operate, maintain, inspect, alter, repair, remove and re-lay a pipe line and additional pipe lines for the transportation of oil, gas, petroleum, or any of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded April 12, 1973 in Book 2117 at Page 764.
138. An easement for the transportation of oil, gas, water, any other substances whether fluid or solid and incidental purposes granted to Amoco Pipeline Company by the instrument recorded May 23, 1974 in Book 2240 at Page 731.
139. An easement for underground communication system(s) and incidental purposes granted to Williams Communications, Inc., a Delaware corporation by the instrument recorded November 24, 1998 at Reception No. A8190324.
140. Terms, conditions, provisions, agreements, and obligations specified under the Deferred Payment of Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles J. Taft, Susan K. Taft, Charles H. Taft, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 36.
141. Terms, conditions, provisions, agreements, and obligations specified under the Deferred Payment of Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles I. Taft, Susan K. Taft, Charles H. Tall, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 41.
142. The following matters disclosed by ALTA/ACSM Land Title Survey prepared by Engineering Services Company, Charles N. Beckstrom, Professional Land Surveyor, P.L.S. No. 33202, dated August 16, 2004 Survey No. 04,120-C:
 - a. Telephone pedestals along the Southerly and Westerly portion of Parcel A.
 - b. Six foot wood fence enclosure, electric transformers, concrete and manhole located in the Southwest portion of Parcel A.
 - c. Telephone markers along the Southerly and Westerly portion of Parcel A.
 - d. Gas markers along the Southerly and Westerly portion of Parcel A.
 - e. Underground gas lines affecting the Southerly portion of Parcel A.

Exceptions 143 - 149 pertain to Parcel 13: Van Dyk Kids. (Arapahoe County)

143. An easement to construct, operate, maintain, replace and remove such communication systems as the grantees may from time to time require consisting of underground conduit, cables, wires, manholes, surface testing terminals and markers and incidental purposes granted to The Mountain States Telephone and Telegraph Company by the instrument recorded May 13, 1960 in Book 1189 at Page 505.
144. Any assessment or lien of The Bennett Fire Protection District, as disclosed by the instrument recorded October 2, 1962 in Book 1376 at Page 111.
145. An easement to construct, reconstruct, renew, operate, maintain, inspect, alter, repair, remove and re-lay a pipe line and additional pipe lines for the transportation of oil, gas, petroleum or any

of its products and incidental purposes granted to Chase Transportation Company by the instrument recorded April 12, 1973 in Book 2117 at Page 764.

- 146. Terms, conditions, provisions, agreements and obligations specified under the Deferred Payment Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles J. Taft, Susan K. Taft, Charles H. Taft, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 36.
- 147. Terms, conditions, provisions, agreements and obligations specified under the Deferred Payment Right of Way Agreement by and between Charles J. Taft, as Personal Representative for Margaret I. Taft, deceased, Charles J. Taft, Susan K. Taft, Charles H. Taft, Rachel S. Taft and Luther Seminary, a non-profit corporation f/k/a Luther Northwestern Theological Seminary and Diamond Shamrock Pipeline Company, recorded September 6, 1995 in Book 8096 at Page 41.
- 148. An easement for public ingress and egress and incidental purposes granted to Watkins Development Farm, LLC, a Colorado limited liability company by the instrument recorded June 8, 2000 at Reception No. B0069063.

Note: Affidavit to Correct Easement recorded September 15, 2004 at Reception No. B4164313.

- 149. The following matters are disclosed by ALTA/ACSM Land Title Survey prepared by Engineering Service Company, Charles N. Beckstrom, Professional Land Surveyor, P.L.S. No. 33202, dated August 16, 2004 Survey No. 04, 120-C:
 - a. Apparent easement for two track dirt road 8 feet in width along the Easterly property line.
 - b. Fences on Easterly property line do not conform to property line.
 - c. 2.5 foot encroachment of asphalt drive along the Northwest portion of the North property line.

Exceptions 150 - 162 pertain to Parcel 14:Weimer Wheatfield. (Arapahoe County).

- 150. Reservation of all mineral lands as set forth in United State Patent recorded April 8, 2014 at Reception No. D4028519.
- 151. The Effect of Notice recorded October 7, 1963 under Reception No. 880751.
- 152. Right of the proprietor of a vein or lode to extract and remove his ore therefrom. Should the same be found to penetrate or intersect the premises hereby granted, and a right of way for ditches or canals constructed by the Authority of the United States, as reserved in United States Patent recorded May 17, 1897 as Application No. 16023.
(Affects Section 12)
- 153. Mineral Deed to Champlen Petroleum Company recorded January 22, 1976 in Book 2412 at Page 351.
- 154. Right of way for ditches or canals constructed by the Authority of the United States as reserved in United States Patent of Record.

Note: Patent Number 222010 dated August 24, 1911. (Affects Section 24)

- 155. Reservations of all mineral and coal rights in and/or under said Land in Deed recorded March 4, 1950 in Book 666 at Page 466.

156. Request for Notification of Surface Development as evidenced by Instrument recorded May 16, 2002 under Reception No. B2090861.
157. Rights of the County of Arapahoe and the public in and to that portion of Section 13 lying within Watkins Road.
158. Terms, conditions, provisions, burdens, obligations and easements as set forth and granted in restrictive perpetual easement recorded April 09, 1991 in Book 6129 at Page 524.
159. The effect of discontinuance Map of Town of Watkins, recorded November 29, 2006, under Reception No. B6167936.
160. Any rights, interests, or claims which may exist or arise by reason of the following facts shown on the ALTA/ACSM Land Title Survey dated August 18, 2011, prepared by Engineering Service Company, as Job Number 11082C:
 - A) Any loss or damage arising from the fact that the fence lines on or near the perimeter of subject property do not coincide with the exact property lines.
161. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144332.
162. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded February 24, 2014 at Reception No. D4014687.

The following Exceptions Identify Each Parcel It Pertains to:

163. Oil and Gas Lease, as evidenced by Memorandum of Agreement and Lease recorded December 21, 2012 at Reception No. D2147993 of the Arapahoe County records, and any and all assignments thereof or interest therein (As to Parcels 1, 6, 7 9 12 14).
164. Oil and Gas Lease, as evidenced by Memorandum of Agreement and Lease recorded December 26, 2012 at Reception No. 2012000097994 of the Adams County records, and any and all assignments thereof or interest therein (As To Parcel 1).
165. Terms, conditions, provisions, obligations and agreements as set forth in the Special Warranty Deed, Assignment, Bill of Sale and Conveyance recorded January 14, 2013 at Reception No. D3005790 (As to Parcels 4,6, 7,8,10, 12,13,14).
166. Terms, conditions, provisions, obligations and agreements as set forth in the Surface Use Agreement RE: Setbacks recorded July 29, 2013 at Reception No. D3095288 (As to Parcels 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14).
167. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded August 27, 2014 at Reception No. D4079302 (As to Parcels 2, 4, 5, 6, 7,8, 9, 10, 12, 13, 14).
168. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Right of Way Contract recorded August 27, 2014 at Reception No. D4079303 and Amendments thereto recorded April 30, 2015 at Reception No. D5043056, September 28, 2015 at Reception No. D5109906 (As to Parcels 2, 3, 4, 5, 6, 7,8, 9, 10, 12, 13, 14).

169. Terms, conditions, provisions, obligations, easements and agreements as set forth in the Surface Use and Compensation Agreement recorded August 27, 2014 at Reception No. D4079306 (As to Parcels 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14).
170. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Possession, Use, and Occupancy recorded November 18, 2014 at Reception No. D4108584 (2, 3, 7, 9, 14).
171. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 1, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066176 (As to Parcels 5, 7, 8, 14).
172. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 2, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066177 (As to Parcels 2, 5, 7, 8, 9, 12, 14) .
173. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 3, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066178 (As to Parcels 4, 6, 10, 12, 13, 14).
174. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Metropolitan District No. 4, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066179 (As to Parcels 2, 5, 7, 9, 14).
175. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Water and Sanitation Financing Metropolitan District, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066181 (2, 4, 5, 6, 7, 9, 10, 12, 13, 14) .
176. Any tax, lien, fee or assessment by reason of inclusion of subject property in the Prosper Park & Recreation Financing Metropolitan District, as evidenced by instrument recorded June 23, 2015 at Reception No. D5066182 (2, 4, 5, 6, 7, 9, 10, 12, 13, 14).
177. Terms, conditions, provisions, obligations and agreements as set forth in the Affidavit of Surface Inspection recorded December 2, 2013 at Reception No. D3144321.
178. Water rights, claims or title to water, whether or not shown by the public records.
179. Existing leases and tenancies. (As to all Parcels)

EXHIBIT B
Statement of Charges

ALTA Owner Policy - 2006	TBD
Tax Certification (\$25 per parcel)	\$ 625.00
Deletion of Standard Exceptions 1-3	\$ 60.00
Deletion of Standard Exception 4	(Underwriting Approval Required)

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at <http://www.alta.org/>.



First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

DISCLOSURE STATEMENT

Pursuant to C.R.S 30-10-406(3)(a) all documents received for recording or filing in the Clerk and Recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one-half of an inch. The Clerk and Recorder will refuse to record or file any document that does not conform to the requirements of this section.

NOTE: If this transaction includes a sale of the property and the price exceeds \$100,000.00, the seller must comply with the disclosure/withholding provisions of C.R.S. 39-22-604.5 (Non-residential withholding).

NOTE: Colorado Division of Insurance Regulations 3-5-1, requires that "Every title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed." Provided that First American Title Insurance Company conducts the closing of the insured transaction and is responsible for recording the legal documents from the transaction.

Pursuant to C.R.S. 10-11-122, the company will not issue its policy or policies of title insurance contemplated by this commitment until it has been provided a Certificate of Taxes due or other equivalent documentation from the County Treasurer or the County Treasurer's authorized agent; or until the Proposed Insured has notified or instructed the company in writing to the contrary.

The subject property may be located in a special taxing district. A Certificate of Taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent. Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor.

NOTE: Pursuant to CRS 10-11-123, notice is hereby given:

This notice applies to owner's policy commitments containing a mineral severance instrument exception, or exceptions, in Schedule B, Section 2.

- A. That there is recorded evidence that a mineral estate has been severed, leased, or otherwise conveyed from the surface estate and that there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property; and
- B. That such mineral estate may include the right to enter and use the property without the surface owner's permission.

NOTE: Pursuant to Colorado Division of Insurance Regulations 3-5-1, Affirmative mechanic's lien protection for the Owner may be available (typically by deletion of Exception no. 4 of Schedule B, Section 2 of the Commitment from the Owner's Policy to be issued) upon compliance with the following conditions:

- A. The land described in Schedule A of this commitment must be a single family residence which includes a condominium or townhouse unit.
- B. No labor or materials have been furnished by mechanics or material-men for purposes of construction on the land described in Schedule A of this Commitment within the past 6 months.
- C. The Company must receive an appropriate affidavit indemnifying the Company against un-filed mechanic's and material-men's liens.
- D. The Company must receive payment of the appropriate premium.

- E. If there has been construction, improvements or major repairs undertaken on the property to be purchased within six months prior to the Date of the Commitment, the requirements to obtain coverage for unrecorded liens will include: disclosure of certain construction information; financial information as to the seller, the builder and or the contractor; payment of the appropriate premium, fully executed Indemnity Agreements satisfactory to the company, and, any additional requirements as may be necessary after an examination of the aforesaid information by the Company.

No coverage will be given under any circumstances for labor or material for which the insured has contracted for or agreed to pay.

NOTE: Pursuant to C.R.S. 38-35-125(2) no person or entity that provides closing and settlement services for a real estate transaction shall disburse funds as a part of such services until those funds have been received and are available for immediate withdrawal as a matter of right.

NOTE: C.R.S. 39-14-102 requires that a real property transfer declaration accompany any conveyance document presented for recordation in the State of Colorado. Said declaration shall be completed and signed by either the grantor or grantee.

Nothing herein contained will be deemed to obligate the company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.

NOTE: Pursuant to CRS 10-1-128(6)(a), It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policyholder or claimant for the purpose of defrauding or attempting to defraud the policyholder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado division of insurance within the department of regulatory agencies.

September 7, 2016

Julio Iturreria
Arapahoe County
Public Works and Development
6924 South Lima Street
Centennial, Colorado 80112-3853

Response to Comments on the Prosper Wastewater Treatment Plant
Site Application and Utility Plan

Dear Mr. Iturreria:

Please find our responses to the August 9, 2016 Arapahoe County Public Works and Development review comments for the Prosper Wastewater Treatment Plant Site Application and Utility Plan. The revised Utility Plan is attached addressing the comments below.

- a. *Page 1, Section 22.4: Completeness Checklist under System Name is VREI, Inc. Typically, the Prosper Metro District would be the Applicant and not VREI, Inc. which is not mentioned until page 38. Please explain the relationship between the Metro District and VREI, Inc. and any agreements that may or may not exist. Also on page 38 the description states that the 8.22 acre parcel is solely owned by VREI. We need more information to this relationship with the Metro District as well.*

Response: The application has been updated to reflect Prosper Regional Water and Sanitation Service Metropolitan District as the applicant. The first paragraph of the report has been revised to describe the Prosper Regional Water and Sanitation Service Metropolitan District as the Owner. All references to VREI, Inc. have been deleted.

- b. *On Page 4, Section 22.4: Application Form, a signature is necessary from the City of Aurora Engineering Services Manager. What is the status of review by the City of Aurora? Have any comments from the City been addressed?*

Response: The City of Aurora has not provided specific comments regarding the proposed Prosper Waste Water Treatment plant. The only comments received by the comment deadline of August 16, 2016 were comments regarding the Sky Ranch water and waste water project.

- c. *Historically, the Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment has been opposed to proposing package treatment plans. Did the applicant verify with the WQCD that this is an appropriate system for the proposed facility? How are the initial facilities incorporated into future phases/build out?*

Response: Original pages 1,2,4,14,18,36; Revised Pages 2,5,13,19,37: The report has been revised to include the new design flow of 132,500 gpd (per Aug 2, 2016 letter).

The increased design flow changed the process to an in-basin MBR system rather than a package plant. The initial facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The Metropolitan Districts will determine the selected treatment process for future phases as the demand of the WWTP increases.

- d. *Effluent standards: Will the new system follow the new strict nutrient reduction standards? Is the total residual chlorine limit of 0.5 mg/l correct? Why not the 0.019/0.11 mg/l listed in the PELs?*

Response: The new system will follow the new strict nutrient reduction standards per Table 1 of the PELs. The total residual chlorine limit has been deleted from Table 3-4 (Original page 22; Revised page 23). There is no chlorine limit per Table 1 of the PELs, there is only an in-stream standard. Per Section 4 of the report, the WWTP will utilize UV disinfection.

- e. *Population Density: What is the source of data for the population projections? Tables (or graphs) should show annual population growth; possibly a range of low and high growth scenarios. Some of the tables show only anticipated wastewater flows without correlation to population figures.*

Response: Table 2-2 and page 11 (Original page 11; Revised page 11) has been updated to include population figures and the source of population data. The source of the data for the population projection is included in the approved Prosper 1041 "New Communities" Permit, Section 6, Coley Forrest Fiscal Impact Report. The population projection outlined in the report served as a basis for preparing Population Density information.

- f. *Timeline: The applicant's timeline for build out does not match up with requirements. State regulations generally require that engineering and financial planning be underway by the time that a facility reaches 80 percent capacity and that construction for an expansion of capacity be underway by the time that a facility reaches 95 percent of its permitted capacity. If flow projections are accurate, work on an expansion of the wastewater treatment facilities will need to start shortly after completion of phase 1.*

Response: Original pages 6, 39; Revised Pages 6, 41, 42: An explanation of when the second phase of Phase 1 will begin has been added to the report. The timeline is based on the absorption schedule, provided in Table 2-2 of the report, and may need to be modified in the future based on the rate of development. Based on the absorption schedule, expansion of the WWTP to Phase 1 buildout (265,000 gpd) will need to start shortly after completion of the initial phase (132,500 gpd). It is important not to oversize the initial phase of the WWTP in order to reliably treat the low flow and loading encountered at the beginning of the development.

- g. *Reuse: The utility plan needs more information on "reuse". Discussions about discharging to Rat Run creates confusion without a clear explanation of the proposed interrelationship between the water supply and wastewater systems. The applicant mentioned "reuse" within the 1041 new communities document, however the information has not been tied to this wastewater utility plan.*

Response: Original pages 2, 15; Revised Pages 2, 16: Reuse is further described in the report. Initially all of the flow will be discharged to Rat Run and a small amount will be used for on-site reuse. Off-site reuse will begin in Phase 2 of the project. It is not economically feasible to start off-site reuse at the low initial flows. However reuse of the reclaimed wastewater is a critical component of the Water Supply Plan (HRS Water Consultants, January 2014), submitted as part of the Prosper PDP.

- h. *Wastewater collection system: Please provide a more complete description of the wastewater collection system. Are any sewage lift stations proposed?*

Response: Original Page 23; Revised Page 24: Figure 4-1 has been added to the report to show the map of the Phase 1 collection system. The report has been revised to state that the collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

- i. *Wastewater facilities site: Please provide a preliminary site plan showing the layout of the proposed 100,000 initial phase facilities {132,500 gpd per your letter of August 2nd) and also the ultimate 3.3 MGD facility. Address site buffers and how existing treatment will be maintained during future expansions.*

The site is flanked on two sides by floodplain (Appendix A). How will site access be maintained?

Response: Original Page 36; Revised Page 37: A preliminary site plan has been included in Figure 5-2. The two drainage ways on each side of the WWTP will act as site buffers as well as landscaping that will help mask the treatment process basins. The existing treatment process will remain in operation during construction of the second treatment process train, this will be later discussed during planning and design of the second phase of Phase 1.

Original Page 9; Revised Page 9 has been revised to include a summary of the following: The site will be accessed by a temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility.

The access roadway is comprised of a gravel surface, and is identified as temporary until such time as a future paved is completed in the area. There is no specific timetable for the future permanent roadway construction.

As the access road is placed at the natural ground elevation across the 2 drainageways, it will overflow and “flood” during storm events. Maximum flow depth at the 100 yr event has been determined to be 18” at the roadway crossings. Staff personnel will be trained on use of the roadway during pending and actual storm events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles.

An ultimate emergency means of access is available to the site from I-70.

Bennett Fire Department has reviewed the site plan and accessibility route and have determined it to be sufficient.

- j. *Biosolids: Please describe in detail and with greater research the proposed management of biosolids. Disposal of biosolids, as proposed in the Utility Plan Report, is not consistent with current statewide practice of beneficial use of biosolids through land application; typically, by contract for smaller facilities such as Prosper's.*

Response: An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

- k. *Financial System: Please explain further the reasoning for selection of the more expensive MBR system as compared to the other treatment options and how this impacts anticipated tap fees and user charges.*

Please expand on the role of the different Prosper metropolitan districts including the use of mil/levy revenue. Are bonds in place since the US BANK letter does not appear to be a letter of credit?

Response: The reasons for selecting the MBR system are described on Original page 34; Revised Page 36 of the report. The cost estimates are planning level and may have a margin of error of +/- 20%. The MBR system is only approximately 7% more expensive than the other alternatives, which is well within the margin of error of the cost estimates. As such, there are no anticipated impacts to anticipated tap fees and user charges.

Original page 38; Revised Page 40 of the report have been revised to include a summary of the following: The Prosper Regional Water and Sewer Metropolitan District (the "Regional Water and Sewer District") is organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sewer and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The Regional Water and Sewer District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sewer District will be limited in area and will most likely not expand through the life of the Development.

The Prosper Water and Sanitation Financing District (the "Water and Sanitation Financing District"), is comprises all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

- l. *Odor: How will odors be dealt with during the entire development and build out of this project? Please describe how the proposed facilities will comply with the WQCD's setback policies.*

Response: Some of the WWTP facilities will be located within the WQCD's setback distances, thus odor mitigating elements will be incorporated into the design including aeration system failure alarms, covering or enclosing the digester and process basins, and providing odor control systems for the influent lift station and headworks building. This information has been added to page 31 and 32 of the report (Original Pages 29 and 30).

- m. *Implementation: Will the initial discharge permit be limited to 60,000 gpd consistent with WQCD policy that all facilities need to be constructed for any given permitted capacity? (page 36)*

Response: No, the initial discharge permit will be for 132,500 gpd. The PELs are for the full Phase 1 buildout of 265,000 gpd, a request has been made to CDPHE to decrease the permitted design flow to 132,500 gpd. Since the low flow in the receiving stream is zero there will be no change to the anticipated PELs.

- n. *Miscellaneous Comments: Verify capacity of the existing Foxridge Farms plant (page 15). Please note that the Coal Creek facility does not serve the Arapahoe County fairgrounds (page 15}. The dollars in the text above the tables on pages 31 and 32 are erroneous. Were electric utility costs included in the annual cost estimates (Table 4-7, eta/)?*

Response: Original page 17; Revised Page 18: The capacity of the existing Foxridge Farms plant was changed to, "a design capacity of 0.13 mgd (30 day average)" per the plant's permit. The 0.643 mgd previously in the report was the planned capacity for the plant.

Additionally, the rated capacity of the other plants were checked and the capacity of the Coal Creek plant was changed to, "a design capacity of 0.13 mgd (30 day average)" per the permit for that plant. The 0.06 mgd capacity previously in the report was the capacity used for the primary effluent limits for the plant.

The reference to the Coal Creek plant serving the Arapahoe County fairgrounds has been removed from the report.

Please feel free to contact me in the future should you have any additional questions or concerns at 303.951.0637 or sroberts@dewberry.com.

Sincerely,



Stacy Roberts, PE
Project Manager

Cc: Warren Brown, Tri-County Health Department
Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora

Doug Camrud, CDPHE WOCD

August 26, 2016

Warren S. Brown, P.E.
Senior Environmental Health Consultant
Tri-County Health Department
6162 S. Willow Dr., Suite 100
Greenwood Village, CO 80111

Response to Comments on the Prosper Wastewater Treatment Plant
Site Application and Utility Plan TCHD Case No. 3966

Dear Mr. Brown:

Please find our responses to the August 9, 2016 Tri-County Health Department review comments for the Prosper Wastewater Treatment Plant Site Application and Utility Plan TCHD Case No. 3966.

- 1. Page 1, Section 22.4: Completeness Checklist under System Name is VREI, Inc. Typically, the Prosper Metro District would be the Applicant and not VREI, Inc. which is not mentioned until page 38. Also on page 38, the description states that the 8.22 acre parcel is solely owned by VREI. Please explain the relationship between the Metro District and VREI, Inc. and any agreements that may or may not exist.*

Response: The application has been updated to reflect Prosper Regional Water and Sanitation Service Metropolitan District as the applicant. The first paragraph of the report has been revised to describe the Prosper Regional Water and Sanitation Service Metropolitan District as the Owner. All references to VREI, Inc. have been deleted.

- 2. On Page 4, Section 22.4: Application Form, a signature is necessary from the City of Aurora Engineering Services Manager. What is the status of review by the City of Aurora? Have any comments from the City been addressed?*

Response: The City of Aurora has not provided specific comments regarding the proposed Prosper Waste Water Treatment plant. The only comments received by the comment deadline of August 16, 2016 were comments regarding the Sky Ranch water and waste water project.

- 3. Wastewater Planning Criteria and Population Density. The Utility Plan Report includes several tables which project wastewater flows for various years during the planning horizon for the project. The basis for determining wastewater flows is typically population projections. However, the tables do not indicate population projections nor per capita wastewater flows. Please provide tables (or graphs) which show: annual population growth; per capita flows; total flows; and indicate the source of the data for population projections. Please consider showing a range of low and high growth scenarios.*

Response: Table 2-2 and page 11 (Original page 11; Revised page 11) has been updated to include population figures and the source of population data. The source of the data for the

population projection is included in the approved Prosper 1041 “New Communities” Permit, Section 6, Coley Forrest Fiscal Impact Report. The population projection outlined in the report served as a basis for preparing Population Density information.

4. *Timeline: Per Table 2-2, the anticipated absorption schedule and plant capacity is 0.09 million gallons/day (mgd) by the year 2020. However, under the heading “Schedule” on page 39 of Section 5, the narrative states: “... the second phase of the project will be implemented when the WWTP reaches approximately 60,000 gallons per day (0.06 mgd), which is expected to occur by mid-2020...” Please address this discrepancy:*

The following components will not be implemented until the flow reaches 60,000 gallons/day: screening, grit removal, flow equalization and digester facilities. TCHD questions how flows at that level can be managed without those components.

Table 5-1 indicates that it will take 27 months from planning to completion of the first phase of the WWTP, with a projected completion date of April 2018. In your letter of August 2, 2016 to Julio Iturreria, you indicate that the phase 1 design capacity will be increased from 0.10 mgd to 0.1325 mgd. CDPHE requires that planning for expansion begin at 80% of design flow and construction begin at 95% of design flow. Given that Table 2-2 projects flow at 0.129 mgd (97% capacity) in 2021, you will need to start the approval process for phase 2 shortly after completion of phase 1.

Response: Original pages 6, 39; Revised Pages 6, 41, 42: An explanation of when the second phase of Phase 1 will begin has been added to the report. The timeline is based on the absorption schedule, provided in Table 2-2 of the report, and may need to be modified in the future based on the rate of development. Based on the absorption schedule, expansion of the WWTP to Phase 1 buildout (265,000 gpd) will need to start shortly after completion of the initial phase (132,500 gpd). It is important not to oversize the initial phase of the WWTP in order to reliably treat the low flow and loading encountered at the beginning of the development.

Section 5 has been revised to include screening, grit removal, and digester facilities for the initial phase of the WWTP.

5. *Wastewater Reuse: The utility plan needs more information on “reuse”. The applicant mentioned “reuse” within the 1041 new communities document; however, the proposal to discharge WWTP effluent to Rat Run is inconsistent with any plan to re-use treated wastewater. Please clarify this inconsistency.*

Response: Original pages 2, 15; Revised Pages 2, 16: Reuse is further described in the report. Initially all of the flow will be discharged to Rat Run and a small amount will be used for on-site reuse. Off-site reuse will begin in Phase 2 of the project. Its not economically feasible to start off-site reuse at the low initial flows. However reuse of the reclaimed wastewater is a critical component of the Water Supply Plan (HRS Water Consultants, January 2014), submitted as part of the Prosper PDP.

6. *WWTP Impact on Well: Figure 2-2 indicates a “future well site” a short distance downstream from the WWTP discharge. TCHD is concerned about the WWTP discharge impacting the well, even if the well is completed in a deep aquifer.*

Response: The indicated well will be relocated to the west of the WWTP site, as shown on the revised Figure 2-2, up gradient from the WWTP discharge. Any surface contamination from the WWTP discharge or other sources will not reach the deep aquifers where the wells are completed due to the deep depth of the well, the well construction which seals the well from surface contamination, and the very low vertical permeability of the bedrock sediments.

7. *Wastewater collection system: Please provide a more complete description of the wastewater collection system. Are any sewage lift stations proposed? If so, please indicate where will these be located and when they will be required.*

Response: Original Page 23; Revised Page 24: Figure 4-1 has been added to the report to show the map of the Phase 1 collection system. The report has been revised to state that the collection system will consist of a gravity wastewater collection system that will collect wastewater from future development areas located to the west, south, and east. There are no off-site lift stations proposed at this time. Future development to the northeast may require a future off-site lift station.

8. *WWTP Process Schematic and Site Plan. Figure 4-4 MBR System Process Schematic and Figure 5-1 Process Flow Schematic, indicate the layout of the proposed WWTP. However, the WWTP layout depicted in Figure 1 of the Kumar report is not consistent with Figures 4-4 or 5-1. Since the layouts are different, are the geotechnical borings depicted in the Kumar Report still sufficient to characterize the subsurface conditions for the actual WWTP? Will the Kumar report need to be revised?*

Response: Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The geotechnical borings depicted in the Kumar Report are still sufficient and do not need to be revised.

9. *WWTP Phasing: Based on our understanding of the plan, the Phase 1 WWTP will be comprised of package components, followed by permanent facilities as flows to the WWTP reach 60,000 gallons/day. In order to better understand and evaluate the various phases of the WWTP, please provide site plans showing the anticipated stages of plant construction, starting with the “package phase” through final permanent plant components. In addition, please address site buffers and how existing treatment will be maintained during future expansions.*

Response: Original pages 1,2,4,14,18,36; Revised Pages 2,5,13,19,37: The report has been revised to include the new design flow of 132,500 gpd (per Aug 2, 2016 letter).

The increased design flow changed the process to an in-basin MBR system rather than a package plant. The initial facilities are sized conservatively to house future equipment and may be used in parallel with new facilities for future phases. The build-out conventional BNR system is shown to represent the largest footprint (worst case) treatment process. Figure 5-2 has been included to show that Phase 1 is included as part of the WWTP at build-out. The Metropolitan Districts will determine the selected treatment process for future phases as the demand of the WWTP increases.

The two drainage ways on each side of the WWTP will act as site buffers as well as landscaping that will help mask the treatment process basins. The existing treatment process

will remain in operation during construction of the second treatment process train, this will be later discussed during planning and design of the second phase of Phase 1.

10. *The site is flanked on two sides by floodplain (Appendix A). How will site access be maintained?*

Response: Original Page 9; Revised Page 9 has been revised to include a summary of the following: The site will be accessed by a temporary access road that crosses the Rat Run Floodway from the west. Future development will include permanent roadway access to the wastewater treatment facility.

The access roadway is comprised of a gravel surface, and is identified as temporary until such time as a future paved is completed in the area. There is no specific timetable for the future permanent roadway construction.

As the access road is placed at the natural ground elevation across the 2 drainageways, it will overflow and “flood” during storm events. Maximum flow depth at the 100 yr event has been determined to be 18” at the roadway crossings. Staff personnel will be trained on use of the roadway during pending and actual storm events. Standard vehicles may be required to be temporarily parked outside of the floodzone areas, with staff being transported into the site with all-terrain vehicles.

An ultimate emergency means of access is available to the site from I-70.

Bennett Fire Department has reviewed the site plan and accessibility route and have determined it to be sufficient.

11. *Waste Sludge: On page 29 of the plan, under the heading “Aerobic Digesters” it states: “For Phase 1 of the WWTP a vac truck will periodically remove the settled sludge from the digesters and haul off site for disposal.” However, under the heading Schedule on page 39 of Section 5, the narrative states: “The second phase of the project, which will include....and digester facilities, will be implemented when the WWTP reaches approximately 60,000 gpd influent flow”. Please clarify this inconsistency regarding when the digesters will be constructed. Since landfills cannot accept waste sludge, the most likely site for sludge disposal is another WWTP. Please provide more specificity on the disposal location for waste sludge.*

Response: “For Phase 1 of the WWTP a vac truck will periodically remove the settled sludge from the digesters and haul off site for disposal.” has been deleted from under the “Aerobic Digesters” heading. An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

12. *Biosolids: The layout of the WWTP, as shown in Figure 5-1, Process Flow Schematic, depicts biosolids from the aerobic digester being landfilled. Please describe in detail and with greater research the proposed management of biosolids. Disposal of biosolids is not consistent with the current statewide practice of beneficial use of biosolids through land application; typically, by contract for smaller facilities such as Prosper’s.*

Response: Figure 5-1 has been revised to say “to land application”. An aerobic digester has been added to the initial Phase 1. Original page 36; Revised Page 37 of the report has been revised to include discussion of Class B biosolids and land application.

13. *Financial System: Please explain further the reasoning for selection of the more expensive MBR system as compared to the other treatment options and how this impacts anticipated tap fees and user charges.*

Response: The reasons for selecting the MBR system are described on Original page 34; Revised Page 36 of the report. The cost estimates are planning level and may have a margin of error of +/- 20%. The MBR system is only approximately 7% more expensive than the other alternatives, which is well within the margin of error of the cost estimates. As such, there are no anticipated impacts to anticipated tap fees and user charges.

14. *Metro District's Role: Please expand on the role of the different Prosper metropolitan districts including the use of mill levy revenue. Are bonds in place since the US BANK letter, located as page 1 of Appendix E, does not appear to be a letter of credit?*

Response: Original page 38; Revised Page 40 of the report have been revised to include a summary of the following: The Prosper Regional Water and Sewer Metropolitan District (the “Regional Water and Sewer District”) is organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sewer and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The Regional Water and Sewer District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sewer District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sewer District will be limited in area and will most likely not expand through the life of the Development.

The Prosper Water and Sanitation Financing District (the “Water and Sanitation Financing District”), is comprises all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

15. *Odors: How will odors from the WWTP be dealt with during the entire development and build out of this project? Please describe how the proposed facilities will comply with the CDPHE Water Quality Control Division's setback policies.*

Response: Some of the WWTP facilities will be located within the WQCD's setback distances, thus odor mitigating elements will be incorporated into the design including

aeration system failure alarms, covering or enclosing the digester and process basins, and providing odor control systems for the influent lift station and headworks building. This information has been added to page 31 and 32 of the report (Original Pages 29 and 30).

16. *Implementation: Will the initial discharge permit be limited to 60,000 gpd consistent with WQCD policy that all facilities need to be constructed for any given permitted capacity? (page 36)*

Response: No, the initial discharge permit will be for 132,500 gpd. The PELs are for the full Phase 1 buildout of 265,000 gpd, a request has been made to CDPHE to decrease the permitted design flow to 132,500 gpd. Since the low flow in the receiving stream is zero there will be no change to the anticipated PELs.

17. *Consolidation Analysis-Metropolitan Wastewater Reclamation District (MWWRD): The narrative states: "It is assumed the MWWRD facilities have not been upgraded to accommodate wastewater flows outside of their current service boundary; and; ".....it is assumed that the existing infrastructure does not have the capacity to carry the increased flows from the Prosper service area." TCHD requests that you verify, rather than assume, whether or not MWWRD has capacity.*

Response: The narrative "It is assumed the MWWRD facilities have not been upgraded to accommodate wastewater flows outside of their current service boundary; and; ".....it is assumed that the existing infrastructure does not have the capacity to carry the increased flows from the Prosper service area." has been deleted from the report and replaced with "The adjacent City of Aurora is part of the MWWRD service boundaries, however, Prosper is not within the corporate boundaries of Aurora thus Prosper is not required to send wastewater flow to MWWRD. Also, as described in Section 4, onsite wastewater treatment facilitates on-site and off-site reuse water and is needed to satisfy the planned water supply criteria for the Prosper Development."

This is further described in the City of Aurora referral letter provided as part of the Prosper WWTP 1041 Report (to be provided on request.)

18. *In Figure 2-3, Prosper Development Wetlands Map. The word "Prosper" is misspelled in the title.*

Response: The title of Figure 2-3 has been corrected.

Please feel free to contact me in the future should you have any additional questions or concerns at 303.951.0637 or sroberts@dewberry.com.

Sincerely,



Stacy Roberts, PE
Project Manager

Cc: Julio Iturreria, Arapahoe County

Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora
Doug Camrud, CDPHE WQCD



Dewberry Engineers Inc. | 303.825.1802
990 South Broadway, Suite 400 | 303.825.2322 fax
Denver, CO 80209 | www.dewberry.com

August 2, 2016

Arapahoe County
Public Works and Development
Attn: Julio Iturreria
6924 South Lima Street
Centennial, CO 80112

Mr. Julio Iturreria,

The purpose of this letter is to inform you of a proposed revision to the Prosper WWTP Utility Plan Report submitted to you on June 16, 2016. The revision increases the design flows and loading for the initial phase of the proposed Prosper Wastewater Treatment Plant (WWTP) as summarized below. A revised report will be submitted to the Colorado Department of Public Health and Environment (CDPHE) with the following revisions:

Prosper WWTP Utility Plan Report – June 2016:
Design Maximum Month Flow = 100,000 gpd
Design Peak Hour Flow = 160,000 gpd
Design Loading = 175 lbs/day

Prosper WWTP Utility Plan Report – August 2016 (to be submitted to CDPHE):
Design Maximum Month Flow = 132,500 gpd
Design Peak Hour Flow = 238,500 gpd
Design Loading = 265 lbs/day

The total plant capacity for Phase 1 of the Prosper WWTP is 265,000 gpd as described in the original Utility Plan Report. This capacity is unchanged, and the revision only impacts the sizing of the initial phase of the treatment plant construction and not the overall capacity requirements for the Phase 1 Prosper development. The design flow and loadings have been revised to reflect one half of the total design flow; 132,500 gpd.

The revised design criteria does not change the recommended treatment alternative (MBR) however it will increase the size of the MBR process basins and some process equipment. The size of the process buildings and ancillary items presented in Section 4 of the report will remain unchanged. The new total opinion of probable construction cost for the initial phase of the WWTP is \$3.1 million; approximately \$230,000 more than what was originally presented in Section 5 of the report.

We hope that this revision is perceived as minor and does not prolong your review process. Please contact me at 303.951.0637 at your earliest convenience if you should have any questions or specific concerns regarding the revised design criteria for the Prosper WWTP.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts".

Stacy Roberts, P.E.

VREI, Inc.
Prosper Wastewater Treatment Plant Utility Plan Report Revision
August 2, 2016

Cc:
Vern Adam, PE, Aurora Water Department, Planning and Engineering Services
Sheila Lynch, Tri-County Health Department



Dewberry Engineers Inc. | 303.825.1802
990 South Broadway, Suite 400 | 303.825.2322 fax
Denver, CO 80209 | www.dewberry.com

September 7, 2016

Arapahoe County
Public Works and Development
Attn: Julio Iturreria
6924 South Lima Street
Centennial, CO 80112

Mr. Julio Iturreria,

Dewberry Engineers Inc. (Dewberry) is pleased to submit the following revised Site Application/Utility Plan Report for the new Prosper Wastewater Water Treatment Plant (WWTP). Point-by-point response **letters, addressing Arapahoe County's and Tri-County Health's comments to the original report, is** included as part of this submittal.

Per Colorado Department of Public Health and Environment (CDPHE) Regulation 22.4, please provide your **recommend approval by signing and dating the revised site application on the provided signature line. An updated signature form is included as part of this submittal to show the Prosper Regional Water & Sanitation Service Metropolitan as the Owner of the WWTP.**

Thank you for your time and consideration. Please feel free to contact me at 303.951.0637 if you should have any questions or specific concerns regarding this revised site application.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts".

Stacy Roberts, P.E.

Attachments: Site Application_rev1
Site Application Completeness Checklist_rev1
Prosper WWTP Utility Plan Report_rev1
Letters of Point-by-Point Response



Dewberry Engineers Inc. | 303.825.1802
990 South Broadway, Suite 400 | 303.825.2322 fax
Denver, CO 80209 | www.dewberry.com

September 1, 2016

Aurora Water Department
Planning and Engineering Services
Attn: Vern Adam, PE
15151 East Alameda Avenue, Suite 3600
Aurora, CO 80012

Mr. Vern Adam,

The intent of this letter is to follow-up further to determine if the City of Aurora (City) has prepared any comments regarding the Site Application/Utility Plan Report for the new Prosper Wastewater Water Treatment Plant (WWTP). The above referenced report was submitted to the City on June 16, 2106 for review and comment. Comments were not received during the 30-day review deadline which was August 16th, 2016, which has precipitated this follow-up letter. Dewberry did receive an email on August 17, 2016 indicating that comments were provided to the City Planning Department and the comments provided in the email were related to the Sky Ranch development and not Prosper.

If there are no comments regarding the Prosper WWTP Site Application/Utility Plan Report, please return the Application Certification and Review Agencies Recommendation form with your original signature of approval. This form was submitted as part of the original submittal on June 16, 2016, please let me know if you need me to send this again.

Thank you for your time and consideration. Please feel free to contact me at 303.951.0637 if you should have any questions or specific concerns regarding this request.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts". The signature is stylized with a cursive-like flow.

Stacy Roberts, P.E.



Dewberry Engineers Inc.
990 South Broadway, Suite 400
Denver, CO 80209

303.825.1802
303.825.2322 fax
www.dewberry.com

September 7, 2016

Colorado Department of Public Health and Environment
Water Quality Control Division
Attn: Doug Camrud
4300 Cherry Creek South Drive
Denver, CO 80246

Mr. Doug Camrud,

Dewberry Engineers Inc. (Dewberry) is pleased to submit the following Site Application/Utility Plan Report for the new Prosper Wastewater Water Treatment Plant (WWTP). Details of the wastewater treatment infrastructure needs and support systems are provided in the enclosed documents.

The intent of this submittal is to get the Site Application into the queue for review by the WQCD. The outside referral agencies have been contacted and their comments to the Utility Plan Report are included in this submittal. **Point-by-Point response letters, addressing the referral agency's comments, is also included as part of this submittal. The referral agency signatures will be submitted once they're received.** The public notification sign is also in the process of being posted at the WWTP site; posting documentation will be submitted once complete.

During the referral agency review period, the WWTP design flows and loadings were revised to be approximately one-half of the total design flow of Phase 1 of the project. A letter was provided to the referral agencies to inform them of this change and is included as part of this submittal. The revised design flow requires that the PELs be changed to 132,500 gpd. The existing PELs are for the total design flow of Phase 1; 264,600 gpd. Correspondence with CDPHE confirmed this revision will not change the PELs, as the low flow of the receiving stream is zero, and can be revised during the Site Application review process.

Thank you for your time and consideration. Please feel free to contact me at 303.951.0637 if you should have any questions or specific concerns regarding this site application.

Sincerely,

Dewberry Engineers Inc.

A handwritten signature in blue ink that reads "Stacy Roberts".

Stacy Roberts, P.E.

Cc: Julio Iturreria, Arapahoe County
Warren Brown, Tri-County Health Department
Jeff Vogel, Vogel & Associates
Vern Adam, City of Aurora

Attachments: Site Application
Site Application Completeness Checklist

Prosper WWTP
Site Application/Utility Plan Report Submittal
September 7, 2016

Prosper WWTP Utility Plan Report
Referral Agency Point-by-Point Response Letters
Letter Describing Change in Design Flow



Board Summary Report

Date: November 23, 2016
To: Board of County Commissioners
Through: Jan Yeckes, Planning Division Manager
From: Sherman Feher
Subject: Rush Creek 345 kV Transmission Line, 1041 Permit (ASI16-003).

Purpose and Recommendation

The purpose of this action is to request BOCC approval of a 1041 Permit for a 345 kV transmission line. Planning Commission and Planning Staff are recommending approval with conditions.

Background

Public Service Company of Colorado/Xcel Energy would like to build a new 345 kV transmission line to bring electricity generated from wind energy farms in Cheyenne, Kit Carson, Elbert and Lincoln Counties to the Missile Site Substation in eastern Arapahoe County.

Discussion

The applicant Public Service Company of Colorado/Xcel Energy is requesting approval of a 1041 Permit for a 13.5 mile transmission line in Arapahoe County. The transmission line enters Arapahoe County from Elbert County in a north-south direction east of Deer Trail; then it generally heads in a northwesterly direction where it ultimately ends at the Missile Site Substation located approximately 1 mile east of Price Road on Kalcevic Street. This transmission line will parallel the Eastern Colorado Interconnect Transmission Line which was approved by the BOCC in 2012. The transmission line route is located in an area designated as "Tier 2" in the Comprehensive Plan which allows public facilities such as transmission lines. Most of the transmission line route is located on property that is zoned A-E with some limited amount on property zoned A-1.

The Planning Commission unanimously approved a related Location & Extent Case (L16-007) that provided site plan information. There were no public comments for or against this case.

Planning Staff feels that the applicant has satisfied all applicable 1041 Permit criteria. The Planning Commission recommended approval, with conditions of approval, by a vote of 7-0. There were no public comments for or against this case.

Align Arapahoe

If the proposed 1041 Permit is approved, it may “improve the County’s economic environment” by generating jobs to build the transmission line.

Alternatives

The Board of County Commissioners has 3 alternatives:

1. Approve the 1041 Permit with Conditions of Approval;
2. Continue to a date certain for more information;
3. Deny the 1041 Permit.

Fiscal Impact

No specific fiscal impact study has been done for this development so it is difficult to determine the fiscal impact to the County. If the transmission line is built, the County might benefit from increased property tax revenue.

Concurrence

The Arapahoe County Planning Commission and PWD Staff are recommending approval of this case.

Reviewed By:

Sherman Feher
Jason Reynolds
Jan Yeckes
Dave Schmit
Todd Weaver
Bob Hill

DRAFT MOTIONS FOR 1041 PERMIT:

A. APPROVAL: *(This motion is consistent with the Planning Commission and Staff recommendation)*

In the case of ASI16-003 – Rush Creek 345 KV Transmission Line case, we have read the staff report and received testimony at the public hearing. We find ourselves in agreement with staff findings for the 1041 Permit application including all plans and attachments as set forth in the Planning Commission staff report dated November 14, 2016 and the Board Summary Report, dated November 23, 2016, and approve, subject to the following conditions:

1. The applicant makes any modifications to plans, as requested by the Public Works & Development Department, prior to any construction is started on this project.
2. The applicant agrees to address all Engineering Services Division comments and concerns as identified within their reports, prior to construction.
3. The applicant will need to deal with and resolve all wildlife issues with the Colorado Parks and Wildlife before, during and after construction of the applicant's transmission line and switchyard per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
4. The applicant will need to do a burrowing owl survey per Colorado Parks and Wildlife(CPW) protocol and will need to follow CPW restrictions regarding construction time periods and distances from nesting burrows listed in the Colorado Parks and Wildlife's letter dated, October 7, 2016.
5. The applicant will need to avoid destruction of Swift Fox dens between December 15 through August 15 and minimize disturbance of active dens during this time period per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
6. The applicant will provide sufficient funds to Arapahoe County to restore County Roads that are used by the applicant to the preconstruction condition following construction of the transmission lines and switchyard.
7. All necessary utility easements or transmission rights-of-way must be recorded and executed prior to construction of the transmission line.
8. The applicant will need to create a Noxious Weed Management Plan and follow the Plan in order to deal with noxious weeds. The applicant will provide the County with a copy of the Noxious Weed Management Plan.

B. DENIAL *(This motion would not be consistent with the Staff recommendation. Any alternate motion must include new findings and conditions in support of the motion for Denial where those differ from the Staff-recommended findings and conditions):*

In the case of ASI16-003, Rush Creek 345 KV Transmission Line 1041 Permit, we have read the staff report and received testimony at the public hearing. We find ourselves not in agreement with staff findings regarding the draft plan and attachments as set forth in the Planning Commission staff report dated November 14, 2016 and

the Board Summary Report, dated November 23, 2016, and DENY the request for approval of the 1041 Permit.

Findings:

1. *State new or amended findings to support Board of County Commissioners' recommendation of "Denial" as part of the motion.*
- 2.

C. CONTINUE: In the case of ASI16-0003, Rush Creek 345 KV Transmission Line, 1041 Permit, I move to continue the decision on this request to [DATE], 2016, date certain, at 9:30 a.m., at this same location [to receive further information] [to further consider information presented during the hearing].

AREA OF STATE INTEREST PERMIT

RESOLUTION NO. [Reso #] It was moved by Commissioner [Moved] and duly seconded by Commissioner [Seconded] to adopt the following Resolution:

WHEREAS, the Board of County Commissioners of the County of Arapahoe, State of Colorado, did on March 31, 1987, adopt Resolution No. 438-87, which Resolution designated a portion of unincorporated Arapahoe County as area of state interest pursuant to Article 65.1 of Title 24, C.R.S. as amended, and which Resolution adopted guidelines for new development in this area of state interest; and

WHEREAS, the Colorado Land Use Commission, pursuant to statute, did on June 22, 1987, accept the order of Arapahoe County (Resolution No. 438-87) concerning the designation of the area of state interest and the guidelines for development therein; and

WHEREAS, the Board of County Commissioners did acknowledge the action of the Colorado Land Use Commission by the adoption of Resolution No. 968-87, on June 30, 1987; and

WHEREAS, an application (the form of which having been previously approved by the Colorado Land Use Commission) has been made by Public Service Company of Colorado/Xcel Energy for a special permit Case # ASI16-003 for development in the designated area of state interest which development involves major facility of a public utility/ 345 kV transmission line; and

WHEREAS, public notice of the application for a permit for development in this area of state interest was properly given by publication in The Villager on November 24, 2016, which newspaper is a newspaper of general circulation within Arapahoe County; and

WHEREAS, pursuant to statute and the aforementioned notice provisions a public hearing was held before the Board of County Commissioners at the Arapahoe County Administration Building, 5334 South Prince Street, Littleton, Colorado, on the 13th day of December at 9:30 o'clock a.m., at which time jurisdiction was established and evidence and testimony were presented to the Board concerning said application for a permit for development in the designated area of state interest; and

WHEREAS, the Board of County Commissioners has reviewed the record made at the public hearing, has considered the materials submitted and the testimony and evidence presented at the public hearing and has made findings of fact on this matter.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Arapahoe County as follows:

FINDINGS OF FACT

The Board makes the following findings of fact:

1. The Board of County Commissioners has jurisdiction over the subject matter of this application, for a permit for development in a designated area of state interest pursuant to Article 65.1 of Title 24, C.R.S.
2. At the December 13, 2016 public hearing held on this application, all the statutory requisites and requirements of the Colorado Revised Statutes regarding notice, due process and procedure were met and no objections were made thereto.
3. In considering an application for a permit for development in a designated area of state interest the Board of County Commissioners has considered that:
 - a. the protection of the utility, value and future of all lands within Arapahoe County, including the public domain as well as privately owned land, is a matter of public interest; and
 - b. land use, land use planning and quality of development are matters which the County has responsibility for the protection of the environment of the County and for the health, welfare and safety of the residents and property owners of Arapahoe County.
4. The Arapahoe County Department of Public Works and Development has made comments regarding this application indicating certain concerns that need to be addressed.
5. The Arapahoe County Planning Division and Planning Commission has made a recommendation regarding this application with the following conditions of approval:
 1. The applicant makes any modifications to plans, as requested by the Public Works & Development Department, prior to any construction is started on this project.
 2. The applicant agrees to address all Engineering Services Division comments and concerns as identified within their reports, prior to construction.
 3. The applicant will need to deal with and resolve all wildlife issues with the Colorado Parks and Wildlife before, during and after construction of the applicant's transmission line and switchyard per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
 4. The applicant will need to do a burrowing owl survey per Colorado Parks and Wildlife(CPW) protocol and will need to follow CPW restrictions regarding construction time periods and distances from nesting burrows listed in the Colorado Parks and Wildlife's letter dated, October 7, 2016.
 5. The applicant will need to avoid destruction of Swift Fox dens between December 15 through August 15 and minimize disturbance of active dens during

this time period per the Colorado Parks and Wildlife's letter dated, October 7, 2016.

6. The applicant will provide sufficient funds to Arapahoe County to restore County Roads that are used by the applicant to the preconstruction condition following construction of the transmission lines and switchyard.

7. All necessary utility easements or transmission rights-of-way must be recorded and executed prior to construction of the transmission line.

8. The applicant will need to create a Noxious Weed Management Plan and follow the Plan in order to deal with noxious weeds. The applicant will provide the County with a copy of the Noxious Weed Management Plan.

6. The proposed development complies with the guidelines for development in the area of state interest designated by Arapahoe County pursuant to Resolution No. 438-87.

DECISION

On the basis of the evidence and testimony before the Board of County Commissioners, the aforementioned findings of fact, the entire record and in the interest of the residents and property owners of Arapahoe County, the Board of County Commissioners of Arapahoe County hereby approves the application of Public Service Company of Colorado/Xcel Energy for a permit (Case No. ASI16-003) to engage in development in the area of state interest designed pursuant to Resolution No. 438-87, which development is a major facility of a public utility/345 kV Transmission Line. This resolution is hereby deemed to be the special permit for development in said area of state interest.

The Board of County Commissioners also adopts the Planning Commission's recommended conditions of approval as follows:

1. The applicant makes any modifications to plans, as requested by the Public Works & Development Department, prior to any construction is started on this project.
2. The applicant agrees to address all Engineering Services Division comments and concerns as identified within their reports, prior to construction.
3. The applicant will need to deal with and resolve all wildlife issues with the Colorado Parks and Wildlife before, during and after construction of the applicant's transmission line and switchyard per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
4. The applicant will need to do a burrowing owl survey per Colorado Parks and Wildlife(CPW) protocol and will need to follow CPW restrictions regarding construction time periods and distances from nesting burrows listed in the Colorado Parks and Wildlife's letter dated, October 7, 2016.
5. The applicant will need to avoid destruction of Swift Fox dens between December 15 through August 15 and minimize disturbance of active dens during this time period per the Colorado Parks and Wildlife's letter dated, October 7, 2016.

6. The applicant will provide sufficient funds to Arapahoe County to restore County Roads that are used by the applicant to the preconstruction condition following construction of the transmission lines and switchyard.
7. All necessary utility easements or transmission rights-of-way must be recorded and executed prior to construction of the transmission line.
8. The applicant will need to create a Noxious Weed Management Plan and follow the Plan in order to deal with noxious weeds. The applicant will provide the County with a copy of the Noxious Weed Management Plan.

BE IT FURTHER RESOLVED that in accordance with Section 24-65.1-501(5)(b), C.R.S., as amended, the Board of County Commissioners shall preserve the record of the proceedings.

The vote was:

Commissioner Bockenfeld, ; Commissioner Doty, ; Commissioner Holen, ; Commissioner Jackson, ; Commissioner Sharpe, .

The Chair declared the motion carried and so ordered.



November 23, 2016

VIA E-MAIL

Arapahoe County Public Works and Development, Planning Division
6954 South Lima Street
Centennial, CO 80112
jfeher@arapahoegov.com

**NOTICE OF MINERAL INTERESTS OWNED BY ANADARKO LAND CORP. AND
ANADARKO E&P COMPANY LP**

Re: Transmission Line for Rush Creek I and II Wind Farm, Case No. ASI16-003 – “Application”
Rush Creek Wind Energy II LLC and Public Service Company of Colorado - Applicants
Township 4 South, Range 59 West
Township 5 South, Range 58 West
Township 5 South, Range 59 West
Arapahoe County, CO

Greetings:

This letter is being submitted on behalf of Anadarko E&P Onshore LLC and Anadarko Land Corp. (together the “Anadarko entities”) to inform you that the Anadarko entities own mineral interests throughout Township 4 South - Range 59 West, Township 5 South – Range 58 West and Township 5 South – Range 59 West in Arapahoe County, CO (“Property”).

The mineral interests constitute a real property interest that entitles the Anadarko entities or their lessees to develop, operate and maintain oil and gas wells on the Property in accordance with applicable local and Colorado Oil and Gas Conservation Commission (“COGCC”) regulations. The Anadarko entities believe that their mineral interests have significant value.

The Anadarko entities do not object to the Application. Please note that although the Anadarko entities do not object to the Application, we continue to assert our rights to make reasonable use of the surface of the Property to develop our mineral interests.

Please contact me at 720-929-3714 if you have any questions or comments about this matter.

Sincerely,
ANADARKO PETROLEUM CORPORATION

A handwritten signature in black ink, appearing to read "Grant Gerrard". Below the signature, the words "On behalf of" are written in a small, italicized font.

Grant Gerrard
Landman

cc: Jeff Fiske, Lead Counsel
Justin Shoulders
Paul Ratliff
Don Jobe
Ron Olsen
Erin DeGutis (Erin.A.Degutis@xcelenergy.com)

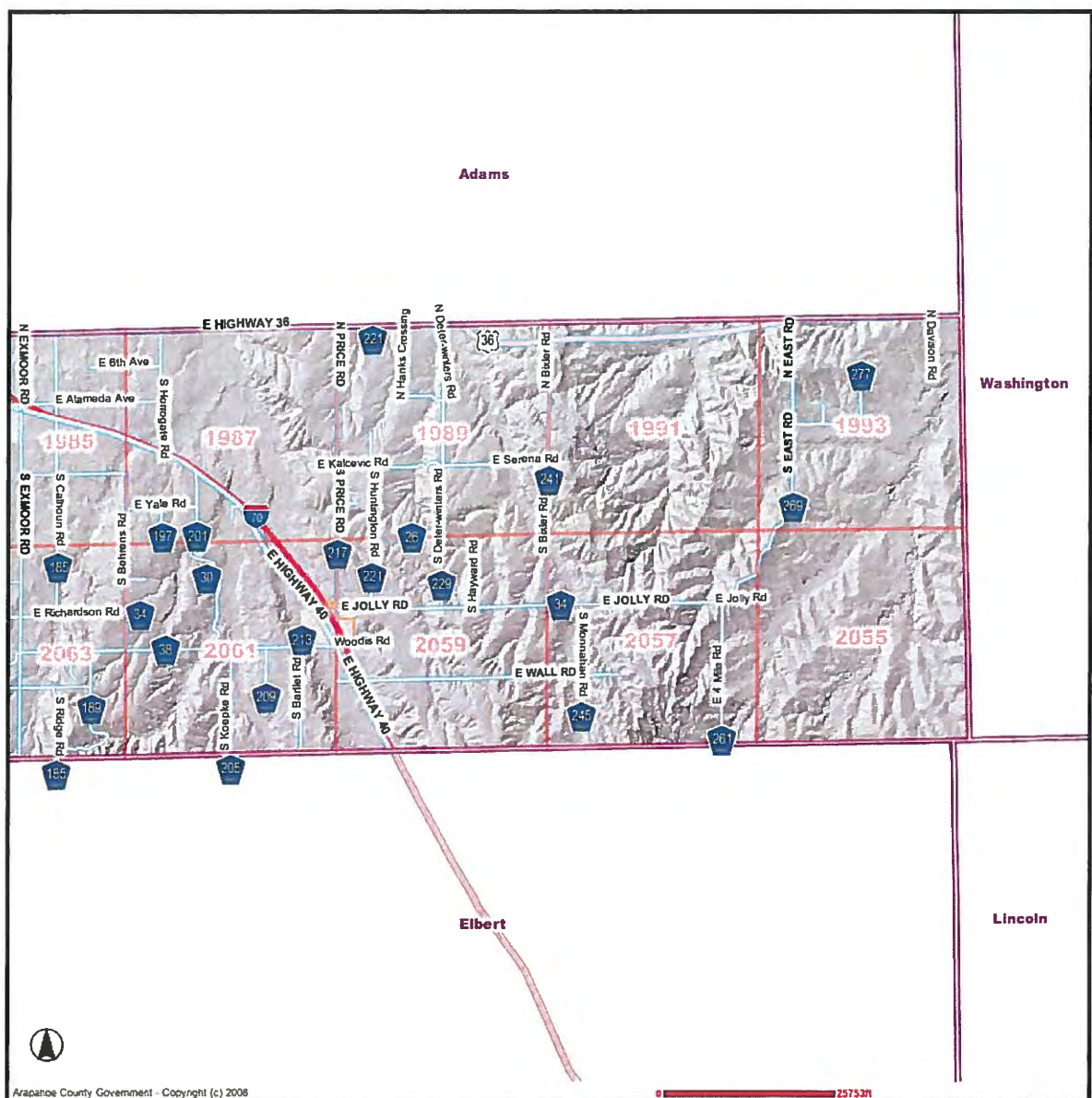
ARAPAHOE COUNTY PLANNING COMMISSION
PUBLIC HEARING
November 22, 2016

6:30 PM

SUBJECT: ASI16-003 – 1041 PERMIT: RUSH CREEK 345 KV TRANSMISSION LINE
J. SHERMAN FEHER, SENIOR PLANNER

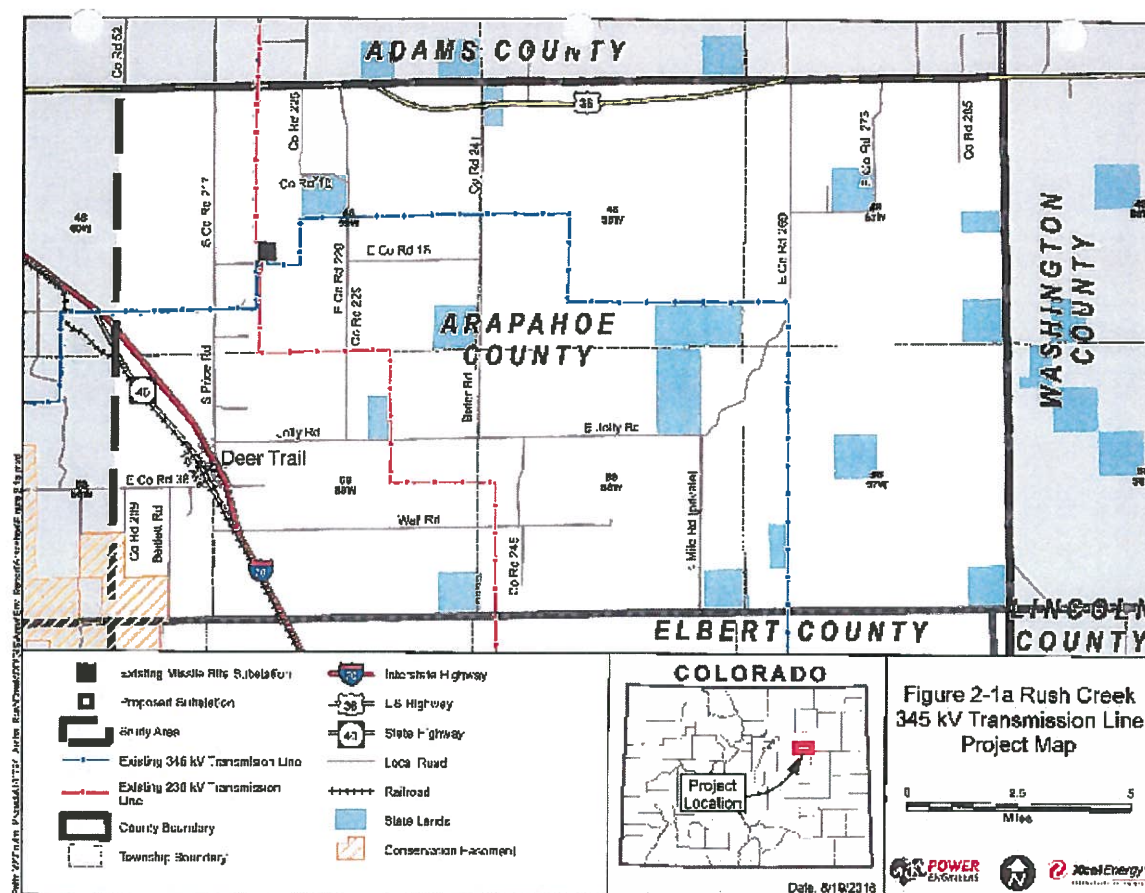
November 14, 2016

VICINITY: This proposal is in Commissioner's District #3. The site is located East of Deer Trail in Eastern Arapahoe County and north of the southern border of Arapahoe County.



Vicinity Map

PROJECT LOCATION: The site is located East of Price Road in Eastern Arapahoe County. The applicant's overall project is located in Kit Carson, Cheyenne, Lincoln, Elbert, and Arapahoe Counties.



**Applicant's Proposed Project
in Arapahoe County
(shown in red)**

ADJACENT SUBDIVISIONS, ZONING, AND LAND USES (IN ARAPAHOE COUNTY):

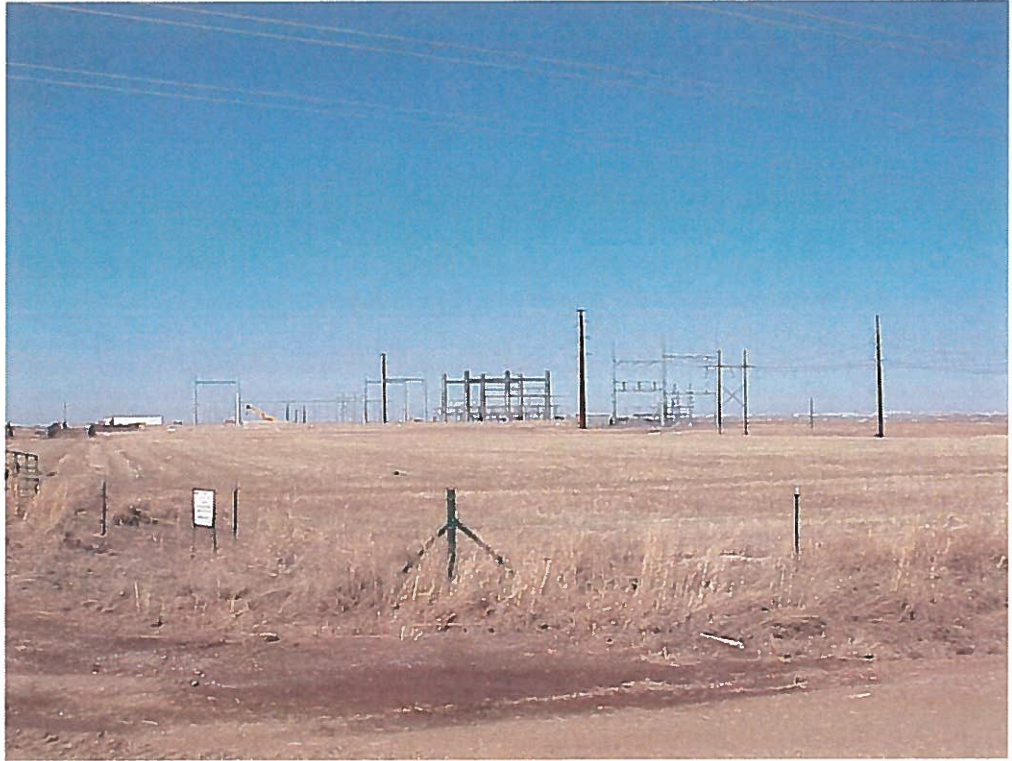
- | | | |
|-------|---|------------------------------|
| North | - | None; A-E; Agriculture |
| South | - | None; A-E; Agriculture |
| East | - | None; A-E; Agriculture |
| West | - | None; A-E & A-1; Agriculture |



**South of Wall
Road Crossing**



**North of Jolly
Road Crossing**



**Terminus at Xcel
Substation**

PROPOSAL:

The applicant, Public Service Company of Colorado (PSCo)/Xcel Energy, acting on behalf of itself and various property owners, is requesting approval for a 1041 Permit known as the Rush Creek Transmission Line. PSCo seeks to construct approximately 13.5 miles of new 345 kilovolt transmission line in Arapahoe County from wind farms in Cheyenne, Kit Carson, Elbert and Lincoln County and a transmission line that enters Arapahoe County along some 100 to 200- foot wide easements in the following sections: Sections 20, 29, and 32, Township 4 South, Range 59 West; Sections 3-5, 10, 15, 22-24, Township 5 South, Range 59 West; Sections 19, 30 and 31, Township 5 South, Range 58 West of the 6th Prime Meridian . in Arapahoe County. The overall project area of transmission line easements is roughly 300 acres based on an easement width of 150 feet.

The proposed design for the overhead transmission line towers are single circuit brown steel H-frame structures and three-pole guyed brown steel structures for all angles. These structures will be approximately 80-140 feet tall. There will be typical spacing of 600-900 feet between pole locations. The number of pole structures needed in Arapahoe County is in the range of 90-130. The applicant is proposing a 20.4 acre construction staging area in Arapahoe County near Woodis Road (Section 19, Township 5 South, Range 58 West)

When fully operational, the Rush Creek Wind Power Project will generate up to 600 MW of power from Wind Turbine Generators located in Kit Carson, Cheyenne, Lincoln and Elbert Counties. There will be approximately 80-93 miles (depending on the preferred alternative) of 345 kV transmission line that will traverse the four counties.

RECOMMENDATIONS AND FINDINGS:

Staff: Staff recommends that the 1041 Permit application be APPROVED, subject to the findings and conditions of approval outlined herein.

I. BACKGROUND

The existing zoning is A-E for most of the proposed transmission right-of-way in Arapahoe County, plus some limited A-1 zoning.

NOTE: This case will be heard in conjunction with a Location and Extent (L&E) case. The 1041 Permit reviews siting and environmental considerations and the L&E case reviews the location and general extent of the proposal.

II. DISCUSSION

Comprehensive Plan:

The proposed 1041 Permit application is in conformance with the Arapahoe County Comprehensive Plan, in that it provides for development of public facilities and services within the "Rural" (Tier 2 and Tier 3) Land Use Area(s).

1041 Permit Submittal Requirements:

The applicant has complied with all of the submittal requirements outlined in Section IIIC and IIIE in the 1041 regulations.

Referral Comments:

The following are referral comments, as well as the applicant's response to the comments (in italics).

County Engineer	-	Comments regarding 1041 Permit application, GESD, Floodplain Delineation Study, and other Engineering Documents. <i>The applicant has addressed or will address all Engineering comments.</i>
Mapping	-	No comments.
Arapahoe Co. Sheriff	-	No comments.
Zoning Administrator	-	No comments.
Weed Control		No response.
Elbert County	-	No response.
Assessor	-	No response.
Open Spaces	-	Would like the applicant to consider existing and future trail connections along the proposed ROW. <i>Applicant will consider trail connections with the County but the County will need to obtain its own separate land rights from property owners for trail easements.</i>
Army Corps of Engineers	-	No response.
Deer Trail Fire District	-	No response.
Colorado Parks and Wildlife (CPW)	-	Various comments regarding wildlife. See <i>Applicant's extensive response to CPW comments in Xcel Energy's referral comments response letter dated 11/10/16.</i>
IREA	-	No response.
REAP	-	REAP is supportive of this project.
Deer Trail	-	No response.
Deer Trail Conservation District	-	No response.
Tri-County Health	-	Initial referral letter, dated November 7, 2016, referred to pipelines. <i>Applicant addressed pipeline comments as if they were transmission line comments.</i> There were comments regarding on-site wastewater treatment systems, groundwater quality protection, wastewater disposal and fugitive dust. <i>Comments noted; will be addressed as appropriate.</i> County received a second letter, dated November 10, 2016 which referred to transmission

		lines instead of pipelines.
East End Advisory Committee	-	Arnold Hollingsworth: No comments. No responses from the following: Michael J. Carter, Mary Garin, Janet Cook and Carl Kroh.

We also received a letter of support for this project from the Board of County Commissioners in Kit Carson County.

Approval Criteria

The 1041 Permit approval criteria for a Major Electrical Facilities of a Public Utility shall comply with the criteria set forth in the 1041 Regulations, Part V, Sections A and C, along with Appendix A. All of these criteria shall be used in determining whether such 1041 Permit should be approved.

Ordinance Review and Additional Background Information

A permit may be approved if the proposed activity complies with the following general criteria. In determining whether the proposed activity complies with the criteria, the Planning Commission and Board of County Commissioners may take into consideration, the construction, operation and cumulative impacts of the proposed activity.

A. General Approval Criteria [See applicant's response to approval criteria in page 3 of the 1041 application report. Staff response to approval criteria in italics below]

1. Documentation that prior to site disturbance associated with the Proposed Project, the applicant can and will obtain all necessary property rights, permits and approvals. The Board may, at its discretion, defer making a final decision on the application until outstanding property rights, permits and approvals are obtained.

The applicant can and will obtain all necessary property rights, permits and approvals prior to construction.

2. The Proposed Project considers the relevant provisions of the regional water quality plans.

There are no regional water quality plans for this area.

3. The applicant has the necessary expertise and financial capability to develop and operate the Proposed Project consistent with all requirements and conditions.

The applicant has provided the Planning Division with some general information that shows that PSCo has the expertise and the financial capability to develop the Proposed Project.

4. The Proposed Project is technically and financially feasible.

The applicant has conducted a number of studies that indicate that the Proposed Project is technically and financially feasible.

5. The Proposed Project is not subject to significant risk from natural hazards.

The applicant will design the Proposed Project to minimize the risks from natural hazards, such as high winds and floods.

6. The Proposed Project is in general conformity with the applicable comprehensive plans.

The Proposed Project is in general conformity with the Arapahoe County Comprehensive Plan which allows for Public Facilities and Services in "Rural" (Tier 2 and Tier 3) designated areas of the County.

7. The Proposed Project will not have a significant adverse effect on the capability of local government to provide services or exceed the capacity of service delivery systems.

This Proposed Project is anticipated to have minimal impacts on provision of services from Arapahoe County and other special districts.

8. The Proposed Project will not create an undue financial burden on existing or future residents of the County.

This Proposed Project will be privately financed and will have minimal demand for public services in Arapahoe County.

9. The Proposed Project will not significantly degrade any substantial sector of the local economy.

The Proposed Project has been designed to minimize the effects on the agricultural sector.

10. The Proposed Project will not unduly degrade the quality or quantity of recreational opportunities and experience.

The Proposed Project will not reduce or limit the quality or quantity of recreational opportunities and experience in the area because there are few recreational opportunities in this area.

11. The planning, design and operation of the Proposed Project will reflect principles of resource conservation, energy efficiency and recycling or reuse.

The Proposed Project is designed to minimize adverse impacts to resources.

12. The Proposed Project will not significantly degrade the environment. Appendix "A" includes the considerations that will be used to determine whether there will be significant degradation of the environment. For purposes of this section, the term environment shall include:
 - a. Air quality.
 - b. Visual quality.
 - c. Surface water quality.
 - d. Groundwater quality.
 - e. Wetlands, flood plains, streambed meander limits, recharge areas, and riparian areas.
 - f. Terrestrial and aquatic animal life.
 - g. Terrestrial and aquatic plant life.
 - h. Soils and geologic conditions.

The analysis of the submitted application and referral comments has determined that the Proposed Project has no significant environmental impacts with the exception of some loss of visual quality and some potential limited impacts to wildlife and their habitat. The applicant has sited and designed the Project to minimize environmental and visual impacts by the type and design of transmission towers. The applicant will minimize the impacts to wildlife by following the Colorado Parks and Wildlife recommendations in their letter, which are a condition of approval.

13. The Proposed Project will not cause a nuisance.

The Proposed Project will not cause undue nuisances outside of the transmission line easements.

14. The Proposed Project will not significantly degrade areas of paleontological, historic, or archaeological importance.

The Proposed Project appears to not degrade any areas of paleontological, historic, or archaeological importance in the Project area.

15. The Proposed Project will not result in unreasonable risk of releases of hazardous materials. In making this determination as to such risk, the Board's consideration shall include:

- a. Plans for compliance with Federal and State handling, storage, disposal and transportation requirements.

The applicant will comply with Federal and State hazardous materials regulations.

- b. Use of waste minimization techniques.

The applicant will use waste minimization techniques.

- c. Adequacy of spill prevention and response plans. The applicant intends to comply with all local, state, and federal laws and regulations related to hazardous materials, including spill prevention and response plans.

The applicant intends to comply with all regulations related to hazardous materials, including spill prevention and response plans.

16. The benefits accruing to the County and its citizens from the proposed activity outweigh the losses of any resources within the County, or the losses of opportunities to develop such resources.

This Proposed Project enhances the productive use of resources within the County through the minimal impact of the transmission lines on lands by following the existing Eastern Interconnect Line in Arapahoe County..

17. The Proposed Project is the best alternative available based on consideration of need, existing technology, cost, impact and these regulations.

Per the discussion in the alternatives section of the applicant's 1041 application, the applicant has generally chosen the best overall alternative.

18. The Proposed Project will not unduly degrade the quality or quantity of agricultural activities.

The co-existence of overhead powerlines and agricultural uses will result in over 98% of the utility easement area remaining open and available for ranching and farming activities.

19. The Proposed Project will not significantly interfere with the preservation of cultural resources, including historical structures and sites, agricultural resources, the rural lifestyle and the opportunity for solitude in the natural environment.

With the exception of some visual impact and slight disruption of solitude in the natural environment during construction, the Proposed Project will

not significantly interfere with any of the above-mentioned cultural resources criteria.

20. The Proposed Project will not cause significant degradation of land-use patterns in the area around the Proposed Project.

An estimated 98% of the utility easement area will remain open to current uses, therefore the Proposed Project will not cause significant degradation of land-use patterns in the area.

21. The applicant has complied with all applicable provisions of these regulations and has paid all applicable fees.

The applicant has sought to comply with all applicable 1041 Permit regulations and has paid a deposit that will apply towards the fees.

B. Additional Criteria Applicable to Major Facilities of a Public Utility

In addition to the general criteria set forth in Section V, Part A of the 1041 Permit Regulations, above, the following additional criteria shall apply to major facilities of a public utility:

1. Areas around major facilities of a public utility shall be administered so as to minimize disruption of the service provided by the public utility.

The Proposed Project will be administered so as to minimize disruption of the service provided by a public utility.

2. Areas around major facilities of a public utility shall be administered so as to preserve desirable existing community and rural patterns.

The Proposed Project's transmission line easements allow for agricultural uses to coexist with the transmission lines, thereby helping to preserve existing rural patterns.

3. Where feasible, major facilities of a public utility shall be located so as to avoid direct conflict with adopted local comprehensive, State and regional master plans.

The Proposed Project appears to avoid direct conflict with adopted local comprehensive, State, and regional master plans.

4. Where feasible, major facilities of a public utility shall be located so as to minimize dedication of new right-of-way and construction of additional infrastructure (e.g., gas pipelines, roads, and distribution lines.)

The proposed transmission line in Arapahoe County is located alongside the Eastern Colorado Interconnect Transmission Line so as to minimize dedication of new right-of-way.

III. STAFF FINDINGS: 1041 PERMIT

Staff has visited the site and has reviewed the plans and supporting documentation and referral comments, as well as citizen input in response to this application. Based upon review of the Comprehensive Plan, development regulations, and analysis of referral comments, our findings include:

1. The proposed 1041 Permit application is in conformance with the Arapahoe County Comprehensive Plan, in that it provides for development of public facilities and services within the "Rural" Land Use Area.
2. The proposed 1041 Permit application appears to be consistent with Arapahoe County 1041 Permit Regulations.
3. This application appears to meet all of the approval criteria for this 1041 Permit application, provided all of the conditions of approval are met.
4. There are a number of Engineering conditions, including Floodplain Development Permit and finalized utility easements, etc. that need to be done prior to any construction takes place.
5. There are a number of wildlife issues that need to be dealt with and resolved with the Colorado Parks and Wildlife (CPW) before, during and after construction of the transmission line and switchyard per the CPW's letter dated, October 7, 2016.
6. The County roads that will be used by the applicant's construction equipment will need to be restored to the preconstruction condition following construction of the transmission lines.

IV. RECOMMENDATION FOR 1041 PERMIT:

Considering the findings and other information provided herein, staff recommends approval of the 1041 Permit, case number, ASI16-003, for the Rush Creek 345 KV Transmission Line, subject to the following:

1. The applicant makes any modifications to plans, as requested by the Public Works & Development Department, prior to any construction is started on this project.
2. The applicant agrees to address all Engineering Services Division comments and concerns as identified within their reports, prior to construction.
3. The applicant will need to deal with and resolve all wildlife issues with the Colorado Parks and Wildlife before, during and after construction of the

- applicant's transmission line and switchyard per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
4. The applicant will need to do a burrowing owl survey per Colorado Parks and Wildlife(CPW) protocol and will need to follow CPW restrictions regarding construction time periods and distances from nesting burrows listed in the Colorado Parks and Wildlife's letter dated, October 7, 2016.
 5. The applicant will need to avoid destruction of Swift Fox dens between December 15 through August 15 and minimize disturbance of active dens during this time period per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
 6. The applicant will provide sufficient funds to Arapahoe County to restore County Roads that are used by the applicant to the preconstruction condition following construction of the transmission lines and switchyard.
 7. All necessary utility easements or transmission rights-of-way must be recorded and executed prior to construction of the transmission line.
 8. The applicant will need to create a Noxious Weed Management Plan and follow the Plan in order to deal with noxious weeds. The applicant will provide the County with a copy of the Noxious Weed Management Plan.

This is based upon:

- The proposal is in conformance with the Arapahoe County Comprehensive Plan.
- The proposal is in conformance with Arapahoe County Land Development Code, specifically the 1041 Permit Regulations.

V. DRAFT MOTIONS FOR 1041 PERMIT:

A. APPROVAL: In the case of ASI16-003 – Rush Creek 345 KV Transmission Line case, we have read the staff report and received testimony at the public hearing. We find ourselves in agreement with staff findings for the 1041 Permit application including all plans and attachments as set forth in the staff report dated November 14, 2016, and recommend approval to the BOCC, subject to the following conditions:

1. The applicant makes any modifications to plans, as requested by the Public Works & Development Department, prior to any construction is started on this project.
2. The applicant agrees to address all Engineering Services Division comments and concerns as identified within their reports, prior to construction.
3. The applicant will need to deal with and resolve all wildlife issues with the Colorado Parks and Wildlife before, during and after construction of the applicant's transmission line and switchyard per the Colorado Parks and Wildlife's letter dated, October 7, 2016.

4. The applicant will need to do a burrowing owl survey per Colorado Parks and Wildlife(CPW) protocol and will need to follow CPW restrictions regarding construction time periods and distances from nesting burrows listed in the Colorado Parks and Wildlife's letter dated, October 7, 2016.
5. The applicant will need to avoid destruction of Swift Fox dens between December 15 through August 15 and minimize disturbance of active dens during this time period per the Colorado Parks and Wildlife's letter dated, October 7, 2016.
6. The applicant will provide sufficient funds to Arapahoe County to restore County Roads that are used by the applicant to the preconstruction condition following construction of the transmission lines and switchyard.
7. All necessary utility easements or transmission rights-of-way must be recorded and executed prior to construction of the transmission line.
8. The applicant will need to create a Noxious Weed Management Plan and follow the Plan in order to deal with noxious weeds. The applicant will provide the County with a copy of the Noxious Weed Management Plan.

B. DENIAL *(This recommendation would not be consistent with the Staff recommendation. Any alternate motion must include new findings and conditions in support of the motion for Approval where those differ from the Staff-recommended findings and conditions):*

In the case of ASI16-003, Rush Creek 345 KV Transmission Line 1041 Permit, we have read the staff report and received testimony at the public hearing. We find ourselves not in agreement with staff findings regarding the draft plan and attachments as set forth in the staff report dated November 14, 2016, and recommend the Board of County Commissioners DENY the request for approval of the 1041 Permit.

Findings:

1. *State new or amended findings to support Planning Commission recommendation of "Denial" as part of the motion.*
- 2.




C. CONTINUE: In the case of ASI16-0003, Rush Creek 345 KV Transmission Line, 1041 Permit, I move to continue the decision on this request to [DATE], 2016, date certain, at 6:30 p.m., at this same location [to receive further information] [to further consider information presented during the hearing].

Attachments

Application, for 1041 Permit

Referral Comments

Engineering Staff Report

 <p>Arapahoe County Colorado's First</p>	<p>Public Works and Development 6924 S. Lima Street Centennial, Colorado 80112 Phone: 720-874-6650 www.arapahoegov.com</p>	<p>Land Development Application Form must be complete</p> <p style="color: red;">Land Development Application materials received after 2pm shall be date stamped received the following working day.</p>	
<p>APPLICANT/REPRESENTATIVE: Erin A. Degutis</p>	<p>ADDRESS: 1800 Larimer Street, 4th Floor, Denver, CO 80202</p> <p>PHONE: 303.571.7735 FAX: 303.294.2088</p> <p>EMAIL:</p>	<p>SIGNATURE: </p> <p>NAME: Erin A. Degutis, RLA, AICP, LEED AP Xcel Energy | Responsible By Nature Senior Agent, Siting and Land Rights</p> <p>TITLE:</p>	
<p>OWNER(S) OF RECORD: Public Service Company of Colorado</p>	<p>ADDRESS: 1800 Larimer Street, 4th Floor, Denver, CO 80202</p> <p>PHONE: 303.571.7735 FAX: 303.294.2088</p> <p>EMAIL:</p>	<p>SIGNATURE: </p> <p>NAME: Erin A. Degutis, RLA, AICP, LEED AP Xcel Energy | Responsible By Nature Senior Agent, Siting and Land Rights</p> <p>TITLE:</p>	
<p>ENGINEERING FIRM: N/A</p>	<p>ADDRESS:</p> <p>PHONE: FAX:</p> <p>EMAIL:</p>	<p>CONTACT PERSON:</p>	
<p>Pre-Submittal Case Number: Q16-044 Pre-Submittal Planner: Sherman Feher Pre-Submittal Engineer: Sue Liu</p>			
<p>Parcel ID no. (AIN no.): 1989-00-0-00-016 and 2071-00-0-00-099</p>			
<p>Parcel Address or Cross Streets: Arapahoe County</p>			
<p>Subdivision Name & Filing No.: N/A</p>			
<p>Related Case Numbers: (Preliminary/Final Development Plan, Rezoning, and / or Plat) Similar to East Colorado Connect submitted by Nexterra.</p>			
<p>EXISTING PROPOSED</p>			
<p>Zoning: A-E, A-1, USBR same as existing</p>			
<p>Case/Project/Subdivision Name: N/A Rush Creek 345 kV Transmission Line Project</p>			
<p>Site Area (Acres): ~ 300 same as existing</p>			
<p>Floor Area Ratio (FAR): N/A N/A</p>			
<p>Density (Dwelling Units/Acre): N/A N/A</p>			
<p>Building Square Footage: N/A N/A</p>			
<p>Disturbed Area (Acres): TBD based on engineering design</p>			
<p>CASE TYPE (Administrative Case types are shaded in Gray)</p>			
<input type="checkbox"/> Preliminary Development Plan or Major Amendment	<input type="checkbox"/> Location & Extent or Major Amendment	<input type="checkbox"/> Administrative Site Plan	<input type="checkbox"/> Preliminary Plat
<input type="checkbox"/> Master Development Plan or Major Amendment	<input type="checkbox"/> Rezoning - Conventional	<input type="checkbox"/> Administrative Amendment to _____ (PDP, FDP, etc.)	<input type="checkbox"/> Final Plat
<input type="checkbox"/> Final Development Plan or Major Amendment	<input type="checkbox"/> Land Development Code Amendment	<input type="checkbox"/> Technical Amendment to _____ (PDP, FDP, etc.)	<input type="checkbox"/> Minor Subdivision
<input type="checkbox"/> Planned Sign Program or Major Amendment	<input type="checkbox"/> Use by Special Review or Major Amendment	<input type="checkbox"/> Commercial Mobile Radio Service (CMRS/cellular antennas)	<input type="checkbox"/> Subdivision Exemption
<input type="checkbox"/> Vacation of Right of Way/Easement/Plat	<input type="checkbox"/> Use by Special Review - Oil and Gas	<input type="checkbox"/> Plat Correction	<input type="checkbox"/> Replat (Major)
<input checked="" type="checkbox"/> 1041 - Areas & Activities of State Interest - Use by Special Review	<input type="checkbox"/> Special District Title 30 <input type="checkbox"/> Title 32 <input type="checkbox"/>	<input type="checkbox"/> Administrative Oil & Gas Use by Special Review (AOGUSR)	<input type="checkbox"/> Administrative Replat
<input type="checkbox"/> Comprehensive Plan	<input type="checkbox"/> Rural Cluster	<input type="checkbox"/> Street Name Change	<input type="checkbox"/> _____
<p>THIS SECTION FOR OFFICE USE ONLY</p>			
Case No.: _____		Planning Manager: _____	
Engineering Manager: _____			
Planning Fee: Y N \$	Engineering Fee: Y N \$	TCHD Fee? <input type="checkbox"/> \$	
<p>This application shall be submitted with all applicable application fees. Submittal of this application does not establish a vested property right in accordance with C.R.S. 24-68-105(1). Processing and review of this application may require the submittal of additional information, subsequent reviews, and/or meetings, as outlined in the Arapahoe County Land Development Code.</p>			

Arapahoe County 1041 Permit Application
Rush Creek 345 kV Transmission Line Project

Submitted by Public Service Company of Colorado
1800 Larimer Street, 4th Floor
Denver, Colorado 80202

LETTER OF INTENT

Through this application, Public Service Company of Colorado (PSCo) respectfully requests approval of a 1041 Permit Application to construction, operate, and maintain approximately 13.5 miles of 345 kilovolt (kV) transmission line in eastern Arapahoe County (the "Project"). As is customary with all land use applications to locate and construct major utility facilities in Colorado, PSCo is applying pursuant to CRS 29-20-108, which relates to local government processing of such applications.

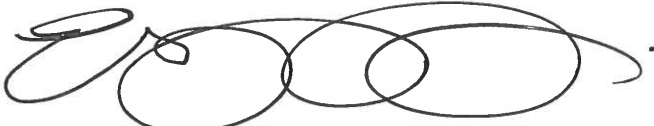
As discussed in our pre-application and consultation meeting with County staff, the proposed transmission line in Arapahoe County is one component of the proposed Rush Creek wind farm, which consists of 600 MW of new wind generation and 90 new miles of transmission in eastern Colorado. In May 2016 PSCo filed an application for a Certificate of Public Convenience and Necessity (CPCN) with the Colorado Public Utilities Commission (CPUC) for the Rush Creek project. Details about the overall project can be found on the CPUC website under Docket #16A-0117E.

The transmission line proposed in Arapahoe County will deliver wind energy from Rush Creek to PSCo's grid by way of the existing Missile Site Substation. During the construction period, temporary staging areas of approximately 20-acres in size will be required to house construction materials and equipment. While the locations of these staging areas are yet to be identified, at least one such area will likely be located in Arapahoe County.

The Project Area within Arapahoe County covered by the 1041 Permit Application is approximately 300 acres, based on an easement width of 150-feet. PSCo is currently negotiating with landowners to acquire easements for construction, operation, and maintenance of the Project. Based on progress to date, we anticipate executing easements or easement option agreements by early fall of this year.

PSCo appreciates the County's consideration of this application and we look forward to working together on the permitting process. Please let me know if I can provide additional information or assistance. I can be contacted directly via telephone at 303.571.7735 or email at Erin.A.Degutis@XcelEnergy.com.

Kindest regards,



Erin A. Degutis, RLA, AICP, LEED AP
Senior Agent, Siting and Land Rights
1800 Larimer Street, 4th Floor
Denver, Colorado 80202





Siting and Land Rights
1800 Larimer Street, Suite 400
Denver, Colorado 80202

Telephone: 303.571.7751

November 10, 2016

Arapahoe County Development Services & Infrastructure Management
Mr. Sherman Feher
6924 South Lima Street
Centennial, Colorado 80112

RE: **Rush Creek 345kV Transmission Line – 1041 Application for Areas and Activities of State Interest (Case No. ASI16-003) and Location and Extent Application (Case No. L16-007)**
Response to Agency Referral Comments

Dear Mr. Feher,

Public Service Company of Colorado (PSCo) is pleased to receive the Agency Referral Comments the Rush Creek 345kV Transmission Line Project dated October 7, 2016. We reviewed the comments and respectfully submit our responses for your consideration.

Arapahoe County Planning

1. If the temporary storage construction yard(s) in Arapahoe County is not known by the time of the Planning Commission hearing, Xcel may have to obtain a Special Exception Use or a Temporary Use Permit for that site(s). If it will be at the Missile Site Substation then it needs to be indicated on the L&E exhibit.

Response: PSCo may have up to two (2) temporary storage yards in Arapahoe County. One temporary storage construction yard is secured through a lease agreement with the landowner and is indicated on the revised Locations and Extent exhibit, and included with this application (submitted November 3rd, 2016. PSCo understands that if a second temporary storage construction yard is needed, a Special Exception Use or a Temporary Use Permit will be required for the second location.

Arapahoe County Open Spaces

1. After analysis Arapahoe County Open Spaces requests that the applicant considers existing and future trail connections along the utility alignments. Trails provide maintenance access for the utility company while simultaneously providing a tremendous public asset. However, it is hard to determine exact routes when they are proposed as alternative in the site plan as well as due to the large scale of the map.

Response: PSCo generally allows public trail connections along transmission corridor alignments and will work with the County to grant access within PSCo's easement corridor upon review and approval of the County's proposed trail plans. Arapahoe County will need to secure its own separate land rights and permission for such trail connections from the individual property owners along PSCo's transmission line easement for proposed trails.

Tri-County Health Department

1. On-Site Wastewater Treatment Systems: Houses and other buildings equipped with plumbing facilities on properties located along the preferred and alternate pipeline routes are serviced by Onsite Wastewater Treatment Systems (OWTS). Our review of the pipeline routes indicates that sections of the pipeline routes may encroach on OWTS on some properties. TCHD recommends that the applicant review the locations of the pipeline routes to determine if they may encroach on OWTS. If it appears that encroachment will occur, it may be necessary to revise the pipeline location or relocate the OWTS. TCHD can provide specific permit information and system diagrams on OWTS for the affected properties.

Response: PSCo intends to build an overhead 345kV transmission line as part of the Rush Creek Wind Project. A pipeline is not part of this Project and PSCo assumes the word "transmission line" was intended in place of "pipeline" in this comment. As a part of the routing and siting process for the transmission line, PSCo reviews the locations of infrastructure, such as pipelines, roads, on-site wastewater treatment systems, and other transmission / distribution lines. PSCo reviewed proposed segments and routes to determine if there are any potential conflicts with infrastructure, such as on-site wastewater treatment systems. The Preferred Route (Alternative A) in Arapahoe County crosses undeveloped agricultural land, rangeland, and pasture sited away from existing residences and agricultural settlements, thus avoiding on-site wastewater treatment systems.

2. Groundwater Quality Protection: A scan of the area proposed for the pipeline routes indicates that there may be water wells on the properties where the pipeline is located. Heavy equipment may inadvertently drive over wells during construction, causing damage that may expose the water in the wells to contamination. Where wells are within or close to pipeline routes, we recommend the applicant protect the wells by identifying the areas around wells so that they are visible to vehicle operators/construction crews. This can be accomplished by delineating the area around each well with stakes, colored tape or orange plastic netting. If the pipeline routes cross over streams and/or wetlands, alluvial groundwater flow could be impacted if trenching intersects the shallow groundwater. If trench dewatering is necessary, the water will be pumped and discharged to alluvial / colluvial sediments close to the stream channel. If discharge of groundwater is necessary during construction, a discharge permit from the Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division will be necessary.

Response: PSCo intends to build an overhead 345kV transmission line as part of the Rush Creek Wind Project. A pipeline is not part of this Project and PSCo assumes the word "transmission line" was intended in place of "pipeline" in this comment. PSCo identifies wells early in the planning process through electronic data collection and consultation with landowners and avoids wells within and immediately adjacent to the transmission line easement in order to reduce conflicts if the well needs to be maintained. PSCo intends to span all streams, wetlands, and floodplains while paralleling the existing NextEra 345kV transmission line in Arapahoe County. PSCo does not intend to trench as a part of this project as H-frame structures are placed through a direct-embed process. Concrete footings may be needed in areas where geotechnical surveys indicate that soils needed more support.

3. Wastewater Disposal: Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste, which protects public health and the environment. The applicant does not specify how wastewater facilities will be provided at the staging areas during construction for onsite workers. We anticipate that portable toilets will be necessary during construction. TCHD has no objection to the use of portable toilets, provided they are properly maintained. TCHD recommends that the applicant address these, in terms of numbers, locations, and vendor.

Response: Overhead high-voltage transmission lines do not generate wastewater during their operation or maintenance. PSCo intends to use portable toilets at each temporary construction storage yard and will ensure that the portable toilets are maintained on a regular basis. PSCo has not selected a vendor for the portable toilets. The number of portable toilets will be determined by the estimated number of staff and construction workers based at each temporary construction storage yard.

4. Fugitive Dust: Exposure to air pollution is associated with a number of health problems including asthma, lung cancer, heart disease, and low birth weight. Vehicle traffic on unpaved roads may contribute to increased fugitive dust emissions. We recommend that the applicant utilize all available methods to minimize fugitive dust. Control measures or procedures that may be employed include, but are not limited to, watering, chemical stabilization, carpeting roads with aggregate, and speed restrictions.

Response: PSCo intends to control fugitive dust per the Arapahoe County Road Use Agreement. Methods identified in the Road Use Agreement, including sprinkling the road surface with water and speed restrictions. The road surface may be stabilized during the construction period and may include the use of materials like aggregate or asphalt where appropriate.

Arapahoe County Weed Control

1. Monitor for noxious weed invasion during and after the construction phase.

Response: PSCo will monitor for noxious weeds during and after the construction phase of the project.

2. Upon any sightings of noxious weeds by County staff or the applicant, appropriate integrated weed management methods shall be implemented for the species found.

Response: PSCo develops internal reclamation plans for disturbed areas and addresses noxious weeds. Reclamation plans shall be in conformance with agency permits and landowner agreements as to reclamation methods and seed mixes, restoring the landscape to the pre-construction conditions. PSCo will coordinate with the Farm Service Agency if Conservation Reserve Program lands are impacted.

Colorado Parks & Wildlife

1. Of high concern regarding electrical transmission lines is the potential for raptor electrocution. Through the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, the U.S. Fish and Wildlife Service, in cooperation with the Edison Electric Institute, has developed Best Management Practices to minimize impacts to avian species. CPW recommends that both the "*Suggested Practices for Avian Protection on Power Lines, the State of the Art in 2006*" and the "*Reducing Avian Collisions with Power Lines: The State of the Art in 2012*" documents be consulted for proper design considerations to minimize raptor electrocution. These documents can be ordered at the Edison Electric Institute website (www.eei.org) or can be downloaded at the Avian Power Line Interaction Committee website (www.aplic.org). This recommendation is applicable to all segments included in the project.

Response: PSCo adopted and regularly uses a corporate Avian Protection Plan for the entire transmission and distribution infrastructure system in Colorado, and plans to operate within such Plan for the proposed Project. This Plan incorporates many elements of the Avian Powerline Interaction Committee, of which Xcel Energy is an active member, and discusses protection measures for the prevention of avian electrocutions on overhead transmission lines, and is used for design and retrofitting transmission and distribution structures that may cause electrocution or injury of raptors. Mr. Larry Claxton, of PSCo's Denver staff, was consulted in the preparation of '*Suggested Practices for Avian Protection on Power Lines, the State of the Art in 2006*,' and '*Reducing Avian Collisions with Power Lines: the State of the Art in 2012*'.

2. CPW recommends the use of preconstruction surveys immediately prior to construction, as well as continuation of those surveys during construction, to identify raptor nests within the project area and implement appropriate restrictions. CPW recommends adherence to the recommended buffer distances and timing stipulations identified in the document "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors". Removal or

relocation of any active raptor nests will require consultation with CPW and US Fish and Wildlife Service prior to moving.

Response: PSCo avoided known raptor nests during the routing and siting of the Preferred Alternative in Arapahoe County. PSCo will perform pre-construction raptor nests surveys and adhere to the recommended buffer distances identified in the '*Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors.*' PSCo will coordinate with both CPW and the US Fish and Wildlife Service in advance if raptor nests need to be removed or relocated.

3. In areas where ground disturbing activities are anticipated, CPW recommends reclamation with native plant species. Proper reclamation, from a wildlife perspective, involves not only stabilizing the soil and establishing ground cover, but fostering plant communities with a diversity of species and plant types (grasses, woody plants, and broadleaf forbs) which will fully serve the nutritional and cover needs of wildlife.

Response: PSCo utilizes internal revegetation and stabilization practices as well as adhering to revegetation requirements stipulated in state Stormwater Pollution Protection Plans and the County's Grading, Erosion and Sediment Control Manual. PSCo will coordinate with the Farm Service Agency if Conservation Reserve Program lands are impacted. The seed / plant mix will contain certified weed-free seeds and native plants appropriate to the USDA climatic zone and ecologic habitat to the extent possible. PSCo may substitute specific plants based upon permit requirements and commercial availability.

4. Also essential is the implementation of a systematic and thorough noxious weed control program. Consistent and long-term monitoring is necessary to ensure the establishment of adequate native vegetative cover.

Response: PSCo utilizes internal revegetation and stabilization practices as well as adhering to revegetation requirements stipulated in state Stormwater Pollution Protection Plans and the County's Grading, Erosion and Sediment Control Manual. PSCo will coordinate with the Farm Service Agency if Conservation Reserve Program lands are impacted. The seed / plant mix will contain certified weed-free seeds and native plants appropriate to the USDA climatic zone and ecologic habitat to the extent possible. PSCo may substitute specific plants based upon permit requirements and commercial availability..

5. Of concern to CPW are the locations of *raptor nest sites* identified in preliminary survey results, both within the project boundaries and in the surrounding 2-mile buffer area. Those species identified from the pre-construction surveys that recently nested in the area include ferruginous hawk, red-tailed hawk, Swainson's hawk, great-horned owl, and a currently unoccupied golden eagle nest. CPW requests that final siting of transmission lines and infrastructure also be carried out in accordance with the guidance and the recommended raptor buffer zones. CPW would also request notification if Xcel and/or its consultants/contractors observe new and/or active raptor nests within the project area.

Response: PSCo will perform pre-construction surveys for raptor nests within the Preferred Route corridor. PSCo will notify CPW if any new and/or active nests are discovered during the pre-construction surveys and apply the recommended raptor buffer zones during the construction phase of the project. The siting of the H-frame transmission line structures is based upon the raptor nest surveys during the planning phase of the project and PSCo's intention to match the NextEra 345kv structure placement to the extent possible while avoiding streams and wetlands.

6. Swift fox (*Vulpes velox*) is a species of state special concern that is known to occur within the proposed project area. The potential overlap with swift fox should be considered in survey protocols and timing of construction activities to identify and avoid all maternal swift fox den sites. Swift foxes are in the area year-round, breed during December, and raise their young into the next fall. It is recommended that swift fox surveys include daylight

searches for den areas and nighttime spotlight searches during August and September. Destruction of dens from December 15 through August 15 should be avoided and CPW recommends steps be taken to minimize disturbance near active dens during this time period to the extent possible. CPW would also request notification if Xcel and/or its consultants/contractors observe swift fox within the project area.

Response: Swift fox is not a species that is a listed or candidate species at the state or federal level. However, PSCo agrees to integrate policies to minimize to the extent possible disturbance of active dens into construction and operations plans in the event that swift fox dens are found within the transmission line corridor area. PSCo will survey for active swift fox dens in the spring and modify construction plans accordingly. PSCo intends to provide CPW with location and observation data of swift fox during the construction period.

7. Prairie dog colony locations have been indicated within the project area and CPW recommends surveys to determine the presence/absence of *burrowing owls (Athene cunicularia)*, a state threatened bird. If development or construction in prairie dog towns occurs from February 1 to October 31, the presence of burrowing owls and whether they are actively nesting should be determined. If nesting burrowing owls are present, please notify CPW, and no human encroachment should occur within 150 ft. of nesting burrows from March 15 to October 31. If burrowing owls merely occupy the site, it is recommended that earthmoving and other disturbance activities be delayed until late fall after they have migrated.

Response: PSCo will perform surveys of prairie dog colonies to determine the presence or absence of burrowing owls, especially if construction is planned from February 1 to October 31. If nesting burrowing owls are present at a prairie dog town, PSCo will notify CPW staff and prohibit encroachment or activity within 150 feet of nesting burrows between March 15 and October 31. If burrowing owls are present at a location other than a prairie dog town, construction will be paused to determine if the animal is nesting. If the burrowing owl(s) establishes a nest, PSCo will inform CPW and prohibit encroachment or activity within 150 feet of nesting burrows between March 15 and October 31.

8. The project area for the Rush Creek portion within Arapahoe County crosses the mainstem of (and tributaries to) Muddy Creek, and a high watershed tributary to First Creek. CPW recommends minimal impact to the stream beds, both during construction and after, and the stream bed should be handled as a stream crossing whether or not water is present at the time of construction. CPW recommends a ground disturbance buffer with minimal activities or operations within 300 feet of any lake, reservoir, wetland or stream. Erosion and sediment control precautions should be in place to avoid deposition into water ways. Destruction of riparian vegetation and truck/heavy machinery stream crossings should be avoided.

Response: PSCo will adhere to the regulations in the Stormwater and Pollution Prevention and Control Plan and the Grading Erosion, and Sediment Control Plan, which will direct work and activity in the vicinity of streams, lakes, and wetlands. PSCo will maintain to the extent possible a buffer between lakes, reservoirs, wetlands, or streams of up to 300 feet; however, there may be minimal encroachment within 300 feet in order to maintain a structure-for-structure placement of the proposed H-frame structures.

9. CPW further recommends crossing riparian corridors and streams at a perpendicular angle, in order to reduce impacts to natural resources, as well as spanning the corridors with structures located outside the riparian and stream zones.

Response: PSCo will cross riparian corridors and streams at a perpendicular angle to the extent possible in order to reduce impacts to natural resources. PSCo plans on spanning riparian corridors, wetlands, and streams and locating structures landward of these areas.

10. CPW recommends avoiding treed areas of cottonwood and willow, as these areas provide bird and wildlife habitat.

Response: PSCo avoided to the extent possible treed areas of cottonwood and willows. However, there may be selective removal of trees that occur within the transmission line easement. Large woody species and trees are required to be removed per the National Electric Safety Code (NESC) regulations for vegetation management. PSCo will survey any tree that needs to be removed within the transmission line easement for raptor nests prior to removal and will coordinate and comply with CPW regulations if a raptor nest is present.

11. During construction, stream crossing by construction vehicles should be avoided. CPW requests that any new service roads that are proposed for construction in conjunction with the project avoid crossing creeks or stream beds to avoid impacts to wildlife and habitat. If any new access or maintenance roads will be constructed that cross stream habitat, CPW would like to be consulted on best management practices and options for construction to minimize impacts. A construction design for any new or reconstructed riparian crossing that actively minimizes barriers to fish passage at all water levels and mitigates any existing barriers where possible would minimize the negative impact of the project on native fish species.

Response: PSCo will avoid stream crossings by construction vehicles and new service roads proposed for construction will avoid crossing creeks or streams. PSCo will consult with CPW on best management practices and options for construction to minimize impacts if any new access or maintenance roads cross stream habitat.

12. CPW recommends the following Best Management Practices when working in or near aquatic habitats.

- Drainages should be crossed perpendicular to the flow of the stream;
- Use existing road crossings and existing stream crossings for vehicles and other construction equipment instead of building new roads and stream crossings;
- The width of construction should be minimized within the 100-year floodplain;
- Stream bank, wetland restoration/improvement should be performed, where necessary; and
- Vehicle and equipment crossing of creeks/streams should be made in locations that will cause the least erosion of banks and sedimentation.

Response: PSCo recognizes that CPW's recommendations in the October 7th letter to Arapahoe County is purely advisory and not tied to State or Federal laws or regulations. At this time, PSCo has not selected a contractor to develop detailed construction and operation plans to erect the transmission line structures. However, PSCo will apply the following BMPs to the extent possible in the construction plans as long as the BMPs do not conflict with existing landowner agreements:

- Drainages should be crossed perpendicular to the flow of the stream;
- Use existing road crossings and existing stream crossings for vehicles and other construction equipment instead of building new roads and stream crossings;
- The width of construction should be minimized within the 100-year floodplain;
- Stream bank, wetland restoration / improvement should be performed, where necessary; and
- Vehicle and equipment crossing of creeks / streams should be made in locations that will cause the least erosion of banks and sedimentation.

13. As for more general construction protocols, CPW recommends low speeds for construction vehicles to avoid wildlife collisions. Where new roads are required, CPW recommends that these single-purpose roads are gated to reduce traffic disruptions to wildlife. If any temporary (e.g., construction) or permanent fencing is proposed, CPW recommends that it is the wildlife-friendly fencing that allows young to cross, and does not include high-tensile hogwire.

Response: PSCo will coordinate with Arapahoe County and identify an appropriate speed limit on public and private roads in an effort to reduce and avoid wildlife collisions. A speed limit of 25 mph can both reduce wildlife

collisions and fugitive dust. Temporary fencing will be erected around the temporary laydown construction yards to prevent livestock and wildlife from entering the site. The fence material will likely be 6-foot chain link fence with a secured gate. High-tensile hogwire will not be used as a fence material.

14. In Table 4-2, Xcel state that three species (burrowing owl, prairie dog, and mountain plover) have known records in the project area.

Response: Table 4-2 States that there are known record for these species in the Arapahoe County portion of the Project Area (large black boundary of the Project Area is shown on Exhibit H). This is based on Natural Heritage, desktop analysis, and field reconnaissance data for habitat and observations.

15. In Table 5-4, Xcel states that there are zero ROW miles that cross known habitat of state listed species.

Response: Table 5-4 used Natural Heritage, desktop analysis, and field reconnaissance data for habitat and observations data and information above for our impact analysis of the Right-of-Way (ROW, 150-feet), not the entire Project Area (see Exhibit H).

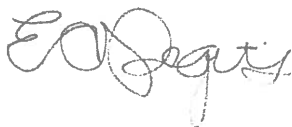
16. If there are known records of these three species in the project area, why doesn't Xcel show any miles of impact to state-listed species' habitats, and conclude with "no effect" to these three state-listed species?

Response: Construction is not expected to impact these three state-listed species because of Best Management Practices (BMP's) and other protection measures (i.e. pre-construction surveys, buffers, speed limits, etc.). PSCo states: "If any potential suitable habitat for threatened endangered species is identified during a field survey of the Preferred Alternative, PSCo will further coordinate with USFWS to determine avoidance or mitigation strategies."

Per your request, PSCo addressed the comments and general information notes from the Engineering Department in a separate letter.

Please let me know if I can provide additional information or assistance. I can be contacted directly at 303.571.7735 or via email at Erin.A.Degutis@XcelEnergy.com.

Kindest regards,



Erin A. Degutis, RLA, AICP, LEED AP
Senior Agent, Siting & Land Rights
Xcel Energy

Encl.

C: John Lupo, Xcel Energy
Nadia El Mallakh, Xcel Energy
Carolynne White, Brownstein Hyatt Farber Schreck
Abby Kirkbride, Brownstein Hyatt Farber Schreck
Dave Dean, POWER Engineers



Siting and Land Rights
1800 Larimer Street, Suite 400
Denver, Colorado 80202

Telephone: **303.571.7751**
Facsimile: 303.294.2088

November 3, 2016

Arapahoe County Engineering Services Division
Ms. Sue Liu, PE
6924 South Lima Street
Centennial, Colorado 80112

**RE: Rush Creek 345kV Transmission Line – 1041 Application for Areas and Activities of State Interest, Floodplain Study, and Location and Extent Application.
Case No. ASI16-003**

Dear Ms. Liu,

Public Service Company of Colorado (PSCo) is pleased to receive your Phase II comments for the Revised Rush Creek 345kV Transmission Line Project dated October 7, 2016. We reviewed the comments and respectfully submit our responses for your consideration.

Finding Comments

1. As discussed in the pre-submittal meeting, staff recommended that all poles be installed outside of Arapahoe County existing or future right-of-ways. The County's 2035 Transportation plan identifies E. County Road 34/Jolly Road as Rural Arterial with a right-of-way section of 114-feet. A sixty-foot (60') right-of-way section is needed to meet the rural roadway right-of-way requirements for Secondary rural road including County Road 221/Huntington Road, E. County Road 26/Hampden Avenue, County Road 233/Hayward Road, and County Road 28/E Woodis Road. The Transportation Plan recommends preserving section line roadway alignments for future widening. Please ensure that no structures, including transmission line poles, shall be located within 30-feet of the section line to allow for widening of future right-of-way corridors.

Response: PSCo will not place transmission line structures within 30-feet of section lines in Arapahoe County.

2. The transmission line crosses tributaries to Muddy Creek. All of the tributaries are unmapped drainageway. The delineation of the 100-year floodplain for these unmapped tributaries have not been established. The County defines a floodplain as any drainageway with a tributary area of 130 acres or more. The tributaries that meet the County's definition of a floodplain should be identified (Floodplain Delineation Analysis should be provided for review).

Response: PSCo addressed this comment during the Phase I review. A floodplain study was completed and submitted on October 7, 2016.

3. A Floodplain Development Permit (FDP) is required for all activities within a County designated floodplain, regardless of impact. Even when it is apparent that there are no adverse impacts to the floodplain, a permit is required for administrative purposes to ensure that the County is aware of the activities within the floodplain and that they have been evaluated for compliance with the County's requirements (an engineer's Certification of No Impact will be required).

Response: PSCo will span all floodplains in the Arapahoe County portion of the Project. If necessary, a FDP will be prepared and approved prior to the Project's commencement of construction.

4. In order to properly replace drainage patterns, the applicant is required to provide as-built conditions of all existing major drainageways, as defined by the Arapahoe County Stormwater Management Manual, along the proposed utility alignment/disturbance prior to approval. The major drainageways shall be restored to meet the existing as-built. A restored as-built will also be required and that requirement will be placed on the floodplain development permit.

Response: PSCo will comply with Arapahoe County's Stormwater Management Manual and will submit as-built plans for County approval prior to the commencement of construction.

5. The County requires the official assessment by the US Army Corps of Engineers be provided to the County.

Response: PSCo will provide Arapahoe County with an official U.S. Army Corps of Engineers (ACOE) assessment prior to construction if ACOE requires one. Should an assessment not be required, PSCo will provide Arapahoe County with the correspondence that documents such a decision.

6. All utility easements for the transmission line are required and must be in place prior to the construction. All executed utility easements must be submitted to the County for files.

Response: PSCo will provide to Arapahoe County evidence of all utility easements for the transmission line prior to the commencement of construction. All executed utility easements will be submitted to the County for their files prior to the commencement of construction.

7. Construction activities that disturb one acre or more are required by the Environmental Protection Agency (EPA) to obtain a Construction Stormwater Permit.

Response: PSCo will obtain a SWPPP prior to construction. PSCo will provide the approved SWPPP to Arapahoe County prior to the commencement of construction.

8. This project site lies outside of the boundaries of the Southeast Metro Stormwater Authority (SEMSWA).

Response: Acknowledged.

9. Please note that a Street Cut and Right-of-Way Use Permit (for access), GESC Permit, and possible Oversize / Overweight Vehicle Permit will be necessary for this application.

Response: Street Cut and Right-of-Way Use, GESC, and Oversize / Overweight Vehicle Permits will be prepared by PSCo and approved prior to the commencement of construction.

10. Roadway Maintenance agreement is required. Encourage the applicant to meet with Road and Bridge to survey current County Road conditions that will be affected by construction of the proposed project. This will help determine the impact of the construction on Arapahoe County Roads and subsequent mitigation or compensation measures that will be required.

Response: A final Road Use Agreement will be prepared and executed prior to construction. PSCo will develop the Road Use Agreement with the County Road and Bridge Department.

Staff Comments : General

1. In addition to the comments listed in this report, Staff has provided redlined plans and reports illustrating clarification to comments included within this report and other minor comments to be addressed. Comments within these redlined documents shall be fully addressed. The redlined documents shall be returned to Staff and must be included with the resubmittal for it to be considered complete.

Response: Acknowledged.

2. RESUBMITTAL PROCEDURE - Attached to this report are instructions to the applicant regarding the resubmittal of documents. The applicant and their consultants must follow these instructions explicitly to avoid delays in our and processing of this case.

Response: Acknowledged.

3. The plan and profile drawing for the transmission line should be reviewed and approved prior to the construction. Pole locations in related to the section line should be identified on the plan. 100-year Floodplain information should also be label and identified on the plan.

Response: PSCo will submit final plan and profile drawings to the County prior to construction for approval. The final plan and profile drawings will include pole locations in relationship to section lines, and the 100-year Floodplain will be included on the drawings.

Staff Comments : 1041 Application

11. On page 26: add the definition of the County floodplain as "the County defines a floodplain as any drainageway with a tributary area of 130 acres or more".

Response: PSCo will make the requested edit on page 26 of the 1041 Application.

12. Table 2-3: provide the unit of "miles" after the number of 0.25.

Response: PSCo will make the requested edit to Table 2-3 in the 1041 Application.

13. Table 2-5, on page 47: include "Engineering Services Division" and add the requirement for access permit.

Response: PSCo will make the requested edit to Table 2-5 and add the Street Cut and Right-of-Way Use permit to Table 2-5 in the 1041 Application.

14. Floodplains section on page 62: please verify the number of floodplain crossings with Table 5-3.

Response: PSCo verified that the Preferred Alternative (Alternative A) does not cross any FEMA identified floodplains in Arapahoe County, and the Preferred Alternative (Alternative A) crosses seven (7) Arapahoe County defined floodplains.

15. Page 89: again verify the number of floodplain crossings.

Response: PSCo verified that the Preferred Alternative (Alternative A) does not cross any FEMA identified floodplains in Arapahoe County and the Preferred Alternative (Alternative A) crosses seven (7) Arapahoe County defined floodplains.

16. Engineering Studies Section, on page 109: the 2012 study covered what was built at the time. A new GESC plan/report is required for the proposed transmission alignment (it is not included in the original GESC). Please revise the paragraph.

Response: PSCo will make the requested edits to the Engineering Studies Section. PSCo will submit a GESC for the proposed transmission line for County review and approval prior to the commencement of construction.

17. Appendix G (GESC study): this appendix includes an approved drainage study for the Missile Substation that was built. The Substation is not a part of the project please remove.

Response: PSCo will make the requested edit and remove Appendix G from the 1041 Application.

18. Appendix C (Road Use Agreement): It is under review by the County attorney. The comments will be forthcoming.

Response: PSCo will revise the Draft Road Use Agreement according to the comments received October 27, 2016. A Final Road Use Agreement will be executed prior to the commencement of construction.

Staff Comments : L & E Application

19. Include 'Arapahoe County Case No. L16-007' on the cover sheet.

Response: PSCo will add the suggested note to the Cover Sheet of the Project Plot for the Location and Extent Application.

20. Add a special note on the cover sheet as "STREET MAINTENANCE DURING THE CONSTRUCTION PERIOD WILL BE PER THE ROAD USE AGREEMENT WITH ARAPAHOE COUNTY. A PRE-CONSTRUCTION INVENTORY OF EACH PUBLIC ROAD SHALL BE CONDUCTED JOINTLY BY PUBLIC SERVICE COMPANY OF COLORADO (PSCO) AND ARAPAHOE, IDENTIFYING THE CONDITIONS OF EACH ROAD. PSCO WILL MAINTAIN THE CONSTRUCTION ACCESS ROADS DURING THE CONSTRUCTION PERIOD AND REPAIR THE PUBLIC ROADS TO THEIR PRE-CONSTRUCTION CONDITION (OR BETTER)".

Response: PSCo will add the suggested note to the Cover Sheet of the Project Plot for the Location and Extent Application.

21. Missile site substation is not a part of the project please remove the information.

Response: The Missile Site Substation label and information will remain for Project context as discussed during the October 27, 2016 meeting with the County's Planning and Engineering staff.

22. Please include the following information on the plan:

- Roadway name
- Easement (both existing and proposed) and its dimension
- Existing ROW dimension
- Floodplain/stream crossings

Response: The L&E Application Project Plots will be updated with: roadway names, easement dimensions, existing ROW dimensions for the NextEra Transmission Line, and floodplain/stream crossings.

Staff Comments : Floodplain Delineation Study

23. Please provide the detail information as how the 100-year flow rate was calculated in Stream States (i.e. delineated points and watersheds, peak-flow table).

Response: PSCo will add detailed information on how the 100-year flow rates were calculated in Stream Stats to the Floodplain Study.

24. Include the River Station # within Attachment D for each cross section.

Response: PSCo will add the River Station numbers to Attachment D of the Floodplain Study.

25. At the final submittal, the study will need to be stamped by PE engineer.

Response: PSCo will submit a final floodplain delineation study stamped by a Colorado Licensed Professional Engineer prior to the commencement of construction.

Staff Comments : GESC Plan and Report

26. GESC plan/report is necessary for the proposed transmission line and should be submitted to the County for review and approval prior to the construction.

Response: PSCo will submit a GESC for the proposed transmission line for County review and approval prior to the commencement of construction.

As identified in the Memorandum, this Phase II review is to ensure that all information and Engineering Documents Required for Resubmittal to the County Engineering Services Division

Please confirm the following items are revised and/or submitted:

Element	Digital
A copy of this Resubmittal Checklist	x
Completed Review and Approval Form (Arapahoe County Form 581) available online at http://www.arapahoegov.com/index.aspx?NID=569	x
Completed Review and Approval Grading, Erosion and Sediment Control Form (GESC – Form 403) available on-line at http://www.arapahoegov.com/index.aspx?NID=569	
Copy of Latest Proposed Land Development Plan - (L&E, 1041)	x
Floodplain Delineation Study (FDS)	x
Phase III Drainage Study	
Drainage Letter of Conformance	

Element	Digital
Engineering Cost Estimate	
Operations & Maintenance Manual	
Any comments to Stormwater Facilities Maintenance Agreement?	
Plan and Profile	X
Pavement Design Report	
Grading, Erosion and Sediment Control (GESC) Plans & Report	X
Legal Description and Exhibit	
Legal name, legal address, and title (if any) of the Owner, assign, or person with signatory authority on behalf of the Owner	
Exhibit that illustrates easement location(s), see comment #xx	
Geotechnical Study / Preliminary Soils Report	
Collateral Letter of Intent	
Electronic files for set of plans being submitted to EngineeringSubmittals@arapahoe.gov and cc to slu@arapahoe.gov	X
County Redlines for: L&E, 1041, FDS	X
SEMSWA Redlines for: Phase III Drainage Study, GESC, O&M Manual, CDs	
Letter of point-by-point response to this comment letter and SEMSWA's comments	X
Fees Due:	n/a

Per your request, PSCo will address the comments and general information notes from the Planning Department in a separate letter.

Please let me know if I can provide additional information or assistance. I can be contacted directly at 303.571.7735 or via email at Erin.A.Degutis@XcelEnergy.com.

Kindest regards,



Erin A. Degutis, RLA, AICP, LEED AP
Senior Agent, Siting & Land Rights
Xcel Energy

Encl.

C: John Lupo, Xcel Energy
Nadia El Mallakh, Xcel Energy
Carolynne White, Brownstein Hyatt Farber Schreck
Dave Dean, POWER Engineers



ARAPAHOE COUNTY
COLORADO'S FIRST

Public Works and Development

6924 South Lima Street
Centennial, Colorado 80112-3853
Phone: 720-874-6500
Fax: 720-874-6611
TDD: 720-874-6574
www.arapahoegov.com
publicworks@arapahoegov.com

DAVID M. SCHMIT, P.E.
Director

Engineering Staff Report **PHASE II – REFERRAL**

Date: October 18, 2016

To: Sherman Feher, Planning Division

From: Sue Liu, Engineering Division

RE: ASI16-003 L16-007 Rush Creek 345 KV Transmission Line Project
1041 Application and L&E

Scope/Location:

This application, the Public Service Company of Colorado (PSCo) is requesting approval of the 1041 Permit application and the Location & Extent for Xcel Energy Transmission Line project. The approximately 80-93 miles (13.5 miles within Arapahoe County) Rush Creek 345 kilovolt (kV) transmission project proposes to interconnect approximately 600 MW of proposed wind-generated electricity from the proposed Rush Creek I and II Wind Farms into the existing Missile Site Substation in Arapahoe County. Rush Creek I is located in Elbert County and Rush Creek II is located in Cheyenne, Kit Carson, and Lincoln Counties. The subject of this Application is the Rush Creek 345 kV Transmission Line Project in Arapahoe County.

Items included with this referral:

Location and Extent
1041 Application
Floodplain Delineation Study
Grading, Erosion and Sediment Control (GESCC) Plans & Report

Cc: Charles V. Haskins, Engineering Services Division, Division Manager
Case File No. ASI16-003 L16-007
SPL RDR

Findings:

The Arapahoe County Division of Engineering Services has reviewed this referral and has the following findings:

1. As discussed in the pre-submittal meeting, staff recommended that all poles be installed outside of Arapahoe County existing or future right-of-ways. The County's 2035 Transportation plan identifies E. County Road 34/Jolly Road as Rural Arterial with a right-of-way section of 114-feet. A sixty-foot (60') right-of-way section is needed to meet the rural roadway right-of-way requirements for Secondary rural road including County Road 221/Huntington Road, E. County Road 26/Hampden Avenue, County Road 233/Hayward Road, and County Road 28/E Woodis Road. The Transportation Plan recommends preserving section line roadway alignments for future widening. Please ensure that no structures, including transmission line poles, shall be located within 30-feet of the section line to allow for widening of future right-of-way corridors.
2. The transmission line crosses tributaries to Muddy Creek. All of the tributaries are unmapped drainageway. The delineation of the 100-year floodplain for these unmapped tributaries have not been established. The County defines a floodplain as any drainageway with a tributary area of 130 acres or more. The tributaries that meet the County's definition of a floodplain should be identified (Floodplain Delineation Analysis should be provided for review).
3. A Floodplain Development Permit (FDP) is required for all activities within a County designated floodplain, regardless of impact. Even when it is apparent that there are no adverse impacts to the floodplain, a permit is required for administrative purposes to ensure that the County is aware of the activities within the floodplain and that they have been evaluated for compliance with the County's requirements (an engineer's Certification of No Impact will be required).
4. In order to properly replace drainage patterns, the applicant is required to provide as-built conditions of all existing major drainageways, as defined by the Arapahoe County Stormwater Management Manual, along the proposed utility alignment/disturbance prior to approval. The major drainageways shall be restored to meet the existing as-built. A restored as-built will also be required and that requirement will be placed on the floodplain development permit.
5. The County requires the official assessment by the US Army Corps of Engineers be provided to the County.
6. All utility easements for the transmission line are required and must be in place prior to the construction. All executed utility easements must be submitted to the County for files.
7. Construction activities that disturb one acre or more are required by the Environmental Protection Agency (EPA) to obtain a Construction Stormwater Permit.
8. This project site lies outside of the boundaries of the Southeast Metro Stormwater Authority (SEMSWA).
9. Please note that a Street Cut and Right-of-Way Use Permit (for access), GESD Permit, and possible Oversize/Overweight Vehicle Permit will be necessary for this application.
10. Roadway Maintenance agreement is required. Encourage the applicant to meet with Road and Bridge to survey current County Road conditions that will be affected by construction of

the proposed project. This will help determine the impact of the construction on Arapahoe County Roads and subsequent mitigation or compensation measures that will be required.

Recommendations:

The Division of Engineering Services recommends this case favorably subject to the following conditions:

1. The applicant agrees to address the Division of Engineering Services' findings, comments, and concerns as identified within this report.

STAFF COMMENTS

General

1. In addition to the comments listed in this report, Staff has provided redlined plans and reports illustrating clarification to comments included within this report and other minor comments to be addressed. Comments within these redlined documents shall be fully addressed. The redlined documents shall be returned to Staff and must be included with the resubmittal for it to be considered complete.
2. RESUBMITTAL PROCEDURE - Attached to this report are instructions to the applicant regarding the resubmittal of documents. The applicant and their consultants must follow these instructions explicitly to avoid delays in our and processing of this case.
3. The plan and profile drawing for the transmission line should be reviewed and approved prior to the construction. Pole locations in related to the section line should be identified on the plan. 100-year Floodplain information should also be label and identified on the plan.

1041 Application

11. On page 26: add the definition of the County floodplain as “the County defines a floodplain as any drainageway with a tributary area of 130 acres or more”.
12. Table 2-3: provide the unit of “miles” after the number of 0.25.
13. Table 2-5, on page 47: include “Engineering Services Division” and add the requirement for access permit.
14. Floodplains section on page 62: please verify the number of floodplain crossings with Table 5-3.
15. Page 89: again verify the number of floodplain crossings.
16. Engineering Studies Section, on page 109: the 2012 study covered what was built at the time. A new GESC plan/report is required for the proposed transmission alignment (it is not included in the original GESC). Please revise the paragraph.
17. Appendix G (GESC study): this appendix includes an approved drainage study for the Missile Substation that was built. The Substation is not a part of the project please remove.
18. Appendix C (Road Use Agreement): It is under reviewed by the County attorney. The comments will be forthcoming.

Location and Extent Plan

19. Include ‘Arapahoe County Case No. L16-007’ on the cover sheet.
20. Add a special note on the cover sheet as “STREET MAINTENANCE DURING THE CONSTRUCTION PERIOD WILL BE PER THE ROAD USE AGREEMENT WITH ARAPAHOE COUNTY. A PRE-CONSTRUCTION INVENTORY OF EACH PUBLIC ROAD SHALL BE CONDUCTED JOINTLY BY PUBLIC SERVICE COMPANY OF COLORADO (PSCO) AND ARAPAHOE, IDENTIFYING THE CONDITIONS OF EACH ROAD. PSCO WILL MAINTAIN THE CONSTRUCTION ACCESS ROADS DURING THE CONSTRUCTION PERIOD AND REPAIR THE PUBLIC ROADS TO THEIR PRE-CONSTRUCTION CONDITION (OR BETTER)”.
21. Missile site substation is not a part of the project please remove the information.
22. Please include the following information on the plan:
 - Roadway name

- Easement (both existing and proposed) and its dimension
- Existing ROW dimension
- Floodplain/stream crossings

Floodplain Delineation Study

23. Please provide the detail information as how the 100-year flow rate was calculated in Stream States (i.e. delineated points and watersheds, peak-flow table).
24. Include the River Station # within Attachment D for each cross section.
25. At the final submittal, the study will need to be stamped by PE engineer.

GESC Plan and Report

26. GESC plan/report is necessary for the proposed transmission line and should be submitted to the County for review and approval prior to the construction.

Engineering Documents Required for Resubmittal
to the County Engineering Services Division

	Digit al
A copy of this Resubmittal Checklist	x
Completed Review and Approval Form (Arapahoe County Form 581) available on-line at http://www.arapahoegov.com/index.aspx?NID=569	x
Completed Review and Approval Grading, Erosion and Sediment Control Form (GESC – Form 403) available on-line at http://www.arapahoegov.com/index.aspx?NID=569	
Copy of Latest Proposed Land Development Plan - (L&E, 1041)	x
Floodplain Delineation Study (FDS)	x
Phase III Drainage Study	
Drainage Letter of Conformance	
Engineering Cost Estimate	
Operations & Maintenance Manual	
Any comments to Stormwater Facilities Maintenance Agreement?	
Plan and Profile	x
Pavement Design Report	
Grading, Erosion and Sediment Control (GESC) Plans & Report	x
Legal Description and Exhibit	
Legal name, legal address, and title (if any) of the Owner, assign, or person with signatory authority on behalf of the Owner	
Exhibit that illustrates easement location(s), see comment #xx	
Geotechnical Study / Preliminary Soils report	
Collateral Letter of Intent	
Electronic files for set of plans being submitted to <u>EngineeringSubmittals@arapahoegov.com</u> and cc to <u>sliu@arapahoegov.com</u>	x
County Redlines for: L&E, 1041, FDS	x
SEMSWA Redlines for: Phase III Drainage Study, GESC, O&M Manual, CDs	
Letter of point-by-point response to this comment letter and SEMSWA's comments	x
Fees Due:	n/a

Case No. ASI16-003 L16-007

Case Engineer: Sue Liu

In order to expedite this case in an efficient manner, please provide all the items above to the Engineering Services Division counter at 6924 S Lima Street or email all files to **EngineeringSubmittals@arapahoegov.com and cc to sliu@arapahoegov.com**

Incomplete resubmittal packages will not be forwarded to the case engineer for review until all of the information requested on this form has been provided.

This sheet must be attached to your resubmittal with the revised documents in the quantities listed above.

Sherman Feher

From: Marette - DNR, Brandon <brandon.marette@state.co.us>
Sent: Monday, October 17, 2016 8:32 AM
To: Sherman Feher
Subject: Fwd: REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Good morning Sherman,

I just left you a voice message on this topic, but I wanted to follow up with an e-mail.

I reviewed Xcel's formal request for the Rush Creek transmission line in Arapahoe County over the weekend, and it was mostly well-written and follows the route I expected.

Yet, I have one minor concern about their 1041 application that I wanted to get your opinion on:

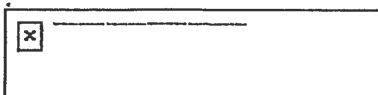
- In Table 4-2, Xcel states that three species (burrowing owl, prairie dog, and mountain plover) have known records in the project area.
- However, in Table 5-4, Xcel states that there are zero ROW miles that cross known habitat of state listed species, and a few paragraphs further down (pg 93, 2nd paragraph) Xcel states, "The construction of the project is not anticipated to have any effect on listed species in this area."

*My question to you is, if there are known records of these three species in the project area, why doesn't Xcel show any miles of impact to state-listed species' habitats, and conclude with "no effect" to these three state-listed species?

I will leave it up to you whether it is worth asking Xcel or not, as CPW did recommend burrowing owl surveys in prairie dog towns if construction occurs during the nesting season, so perhaps our letter already covers this issue?

Cheers,

Brandon B. Marette
Northeast Region Energy Liaison



Direct (303) 291-7327
6060 Broadway, Denver, CO 80216
brandon.marette@state.co.us | cpw.state.co.us

THINK SAFETY FIRST!



COLORADO

Parks and Wildlife

Department of Natural Resources

Northeast Region Office
6060 Broadway
Denver, CO 80216
303.291.7227

October 7, 2016

Mr. Sherman Feher, Senior Planner
Arapahoe County
Planning and Land Development Division
6924 S. Lima Street
Centennial, CO 80112

RE: CPW's Comments on Xcel Energy's 1041 and Location and Extent Permit Applications
for the Proposed Rush Creek 345-kV Transmission Line Project, Arapahoe County

Dear Mr. Feher:

Colorado Parks and Wildlife (CPW) would like to thank Arapahoe County and Xcel Energy (Xcel) for the opportunity to review the proposed approximately 13.5 miles of new transmission line and infrastructure in Arapahoe County that is part of Xcel's Rush Creek Connect 345-kV Transmission Line project. CPW has consulted previously with Xcel on the proposed transmission line and appreciates the continuing conversation to avoid and minimize wildlife impacts. Early and continued consultation offers the greatest opportunity for our review to assist in avoiding areas where development is precluded or where wildlife impacts are likely to be high and difficult to remedy at a later stage. By consulting early, project developers can also incorporate wildlife conservation measures and monitoring into their decisions about project siting, design, and implementation.

CPW's preference is for new transmission lines to follow existing transmission line corridors whenever possible to minimize additional impacts on wildlife and habitat fragmentation. We appreciate that all of the proposed segments in Arapahoe County parallel existing utility lines and corridors. The following comments address potential concerns along this proposed route, and propose mitigation measures to avoid or minimize impacts to wildlife. The recommendations provided by CPW will assist in identifying species that may be affected by the proposed project including migratory birds, birds of prey, mammals, and listed/proposed/candidate threatened or endangered species. Impacts may include electrocutions, collisions, loss and degradation of habitat, fragmentation of habitat, displacement and behavioral changes, and potential indirect impacts.

Of high concern regarding electrical transmission lines is the potential for raptor electrocution. Through the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, the U.S. Fish and Wildlife Service, in cooperation with the Edison Electric Institute, has developed Best Management Practices to minimize impacts to avian species. CPW recommends that both the "Suggested Practices for Avian Protection on Power Lines, the State of the Art in 2006" and the "Reducing Avian Collisions with Power Lines: The State of the Art in 2012" documents be consulted for proper design considerations to minimize raptor



electrocution. These documents can be ordered at the Edison Electric Institute website (www.eei.org) or can be downloaded at the Avian Power Line Interaction Committee website (www.aplic.org). This recommendation is applicable to all segments included in the project.

CPW recommends the use of preconstruction surveys immediately prior to construction, as well as continuation of those surveys during construction, to identify raptor nests within the project area and implement appropriate restrictions. CPW recommends adherence to the recommended buffer distances and timing stipulations identified in the document¹ "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors". Removal or relocation of any active raptor nests will require consultation with CPW and US Fish and Wildlife Service prior to moving. Both active and potential nest sites, winter night roosts should be considered when evaluating disturbance during construction.

Some portions of the project are located in shortgrass prairie which provides habitat for numerous species including pronghorn, Swainson's hawk, golden eagle, burrowing owl (state threatened) and numerous Colorado Species of Special Concern including mountain plover, swift fox, black-tailed prairie dog, long-billed curlew and ferruginous hawk. If there any native (or semi-native) shortgrass prairie areas that contain sandy loam soils along the proposed route, CPW also recommends olive-backed pocket mouse surveys, as this species is a Tier 1 species in our State Wildlife Action Plan². In areas where ground disturbing activities are anticipated, CPW recommends reclamation with native plant species. Proper reclamation, from a wildlife perspective, involves not only stabilizing the soil and establishing ground cover, but fostering plant communities with a diversity of species and plant types (grasses, woody plants, and broadleaf forbs) which will fully serve the nutritional and cover needs of wildlife. Also essential is the implementation of a systematic and thorough noxious weed control program. Consistent and long-term monitoring is necessary to ensure the establishment of adequate native vegetative cover.

During previous meetings with Xcel, CPW has identified several potential impacts to wildlife and habitats in the project area that we recommend be considered during the planning process.

- Of concern to CPW are the locations of *raptor nest sites* identified in preliminary survey results, both within the project boundaries and in the surrounding 2-mile buffer area. Those species identified from the pre-construction surveys that recently nested in the area include ferruginous hawk, red-tailed hawk, Swainson's hawk, great-horned owl, and a currently unoccupied golden eagle nest. CPW requests that final siting of transmission lines and infrastructure also be carried out in accordance with the guidance and the recommended raptor buffer zones. CPW

¹ <https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/RaptorBufferGuidelines2008.pdf>

² <http://cpw.state.co.us/aboutus/Pages/StateWildlifeActionPlan.aspx>

- would also request notification if Xcel and/or its consultants/contractors observe new and/or active raptor nests within the project area.
- Swift fox (*Vulpes velox*) is a species of state special concern that is known to occur within the proposed project area. The potential overlap with swift fox should be considered in survey protocols and timing of construction activities to identify and avoid all maternal swift fox den sites. Swift foxes are in the area year-round, breed during December, and raise their young into the next fall. It is recommended that swift fox surveys include daylight searches for den areas and nighttime spotlight searches during August and September. Destruction of dens from December 15 through August 15 should be avoided and CPW recommends steps be taken to minimize disturbance near active dens during this time period to the extent possible. CPW would also request notification if Xcel and/or its consultants/contractors observe swift fox within the project area.
- Prairie dog colony locations have been indicated within the project area and CPW recommends surveys to determine the presence/absence of *burrowing owls* (*Athene cunicularia*), a state threatened bird. If development or construction in prairie dog towns occurs from February 1 to October 31, the presence of burrowing owls and whether they are actively nesting should be determined. If nesting burrowing owls are present, please notify CPW, and no human encroachment should occur within 150 ft of nesting burrows from March 15 to October 31. If burrowing owls merely occupy the site, it is recommended that earthmoving and other disturbance activities be delayed until late fall after they have migrated.

The project area for the Rush Creek portion within Arapahoe County crosses the mainstem of (and tributaries to) Muddy Creek, and a high watershed tributary to First Creek. CPW recommends minimal impact to the stream beds, both during construction and after, and the stream bed should be handled as a stream crossing whether or not water is present at the time of construction. CPW recommends a ground disturbance buffer with minimal activities or operations within 300 feet of any lake, reservoir, wetland or stream. Erosion and sediment control precautions should be in place to avoid deposition into water ways. Destruction of riparian vegetation and truck/heavy machinery stream crossings should be avoided.

CPW further recommends crossing riparian corridors and streams at a perpendicular angle, in order to reduce impacts to natural resources, as well as spanning the corridors with structures located outside the riparian and stream zones. CPW recommends avoiding treed areas of cottonwood and willow, as these areas provide bird and wildlife habitat. During construction, stream crossing by construction vehicles should be avoided. CPW requests that any new service roads that are proposed for construction in conjunction with the project avoid crossing creeks or stream beds to avoid impacts to wildlife and habitat. If any new access or maintenance roads will be constructed that cross stream habitat, CPW would like to be consulted on best management practices and options for construction to minimize impacts. A construction design for any new or reconstructed riparian crossing that actively minimizes

barriers to fish passage at all water levels and mitigates any existing barriers where possible would minimize the negative impact of the project on native fish species.

CPW recommends the following Best Management Practices when working in or near aquatic habitats.

- Drainages should be crossed perpendicular to the flow of the stream
- Use existing road crossings and existing stream crossings for vehicles and other construction equipment instead of building new roads and stream crossings
- The width of construction should be minimized within the 100-year floodplain,
- Stream bank, wetland restoration/improvement should be performed, where necessary
- Vehicle and equipment crossing of creeks/streams should be made in locations that will cause the least erosion of banks and sedimentation.

As for more general construction protocols, CPW recommends low speeds for construction vehicles to avoid wildlife collisions. Where new roads are required, CPW recommends that these single-purpose roads are gated to reduce traffic disruptions to wildlife. If any temporary (e.g., construction) or permanent fencing is proposed, CPW recommends that it is the wildlife-friendly fencing³ that allows young to cross, and does not include high-tensile hogwire.

In conclusion, CPW appreciates Arapahoe County's and Xcel's request to comment on this proposed transmission line. CPW appreciates this collaborative opportunity to work with companies for responsible energy development, which will also benefit Colorado's wildlife and wildlife-related recreational opportunities.

If you have any questions regarding this letter, or should there be any changes to this proposed project, please contact CPW's Northeast Region Energy Liaison Brandon Marette at (303) 291-7327 or at Brandon.Marette@state.co.us.

Sincerely,



for Eliza Hunholz
Area Wildlife Manager (Area 5)

cc: Erin Degutis, RLA, AICP, LEED AP (Senior Agent for Xcel Energy)
Travis Harris, DWM District 543 (Aurora)

³ <https://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf>

Sherman Feher

From: Arnold Hollingsworth <ajguitar2@yahoo.com>
Sent: Wednesday, October 12, 2016 10:05 AM
To: Sherman Feher
Subject: Re: FOLLOW UP FOR REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Sherman, thanks for the latest correspondence concerning Rush creek transmission line. I have no comments.

From: Sherman Feher <SFeher@arapahoegov.com>
To:
Sent: Wednesday, October 12, 2016 7:21 AM
Subject: FOLLOW UP FOR REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

With apologies, I left out the referral cover sheet for this referral which is attached to this email.
Sherman Feher

From: Sherman Feher
Sent: Friday, October 07, 2016 3:44 PM
Subject: REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Dear Referral Person:

Please review the attached Arapahoe County referral plans for the following cases: Rush Creek Transmission Line 1041 Permit (ASI16-003) and Rush Creek Transmission Line Location and Extent (L16-007). Also, I have more information related to this; contact me if you need any more information.

Then please fill out the applicable information blocks on the attached referral sheet with your comments and attach it to a response email or "reply" with an email that will come back to me. Please return your comments no later than November 7, 2016. Contact me if you have any questions.

Thank you

Sherman Feher
Public Works and Development – Planning Division
6924 S. Lima Street
Centennial, CO 80112
720-874-6665
jfeher@arapahoegov.com

Sherman Feher

From: Raymond Winn
Sent: Thursday, October 27, 2016 3:19 PM
To: Sherman Feher
Subject: RE: FOLLOW UP FOR REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Sherman,

After analysis Arapahoe County Open Spaces requests that the applicant considers existing and future trail connections along the utility alignments. Trails provide maintenance access for the utility company while simultaneously providing a tremendous public asset. However, it is hard to determine exact routes when they are proposed as alternative in the site plan as well as due to the large scale of the map.

Sincerely,

Ray Winn

Open Spaces Planner

Arapahoe County Open Spaces

6934 S. Lima Street, Suite A, Centennial, CO 80112

Office: 720-874-6551

rwinn@arapahoegov.com

From: Sherman Feher
Sent: Wednesday, October 12, 2016 7:21 AM
Subject: FOLLOW UP FOR REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

With apologies, I left out the referral cover sheet for this referral which is attached to this email.
Sherman Feher

From: Sherman Feher
Sent: Friday, October 07, 2016 3:44 PM
Subject: REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Dear Referral Person:

Please review the attached Arapahoe County referral plans for the following cases: Rush Creek Transmission Line 1041 Permit (AS116-003) and Rush Creek Transmission Line Location and Extent (L16-007). Also, I have more information related to this; contact me if you need any more information.

Record ID: ASI16-003

Cancel

Help



Workflow Tasks

- ☒ ☐ Initialize
- ☒ ☐ Assign Planner
- ☒ ☐ Assign Engineer
- ☒ ☐ Phase II Submittal Planner Review
- ☒ ☐ Phase II Submittal Engineer Review
- ☒ ☐ Phase II Submittal Acceptance
- ☒ ☐ Phase II Referrals
 - Generate Routing Form
- ☒ ☐ Mapping Phase II Review
- ☐ ☐ Building Phase II Review
- ☐ ☐ County Attorney Phase II Review
- ☒ ☐ Planner Phase II Review
- ☒ ☐ Engineer Phase II Review
- ☒ ☐ Zoning Phase II Review
- ☒ ☐ Weed Control Phase II Review
- ☒ ☐ External Agencies Phase II Referral
- ☐ ☐ Phase II Coordination
- ☐ ☐ Phase I Submittal Planner Review
- ☐ ☐ Phase I Submittal Engineer Review
- ☒ ☐ Application Acceptance
- ☒ ☐ Phase I Reviews
 - Complete
 - Generate Routing Form
 - ☐ ☐ County Attorney Phase I Review
 - ☐ ☐ Weed Control Phase I Review
 - ☐ ☐ Building Phase I Review
 - ☐ ☐ External Agencies Phase I Referral
 - ☒ ☐ Planner Phase I Review
 - ☒ ☐ Engineer Phase I Review
 - ☒ ☐ Mapping Phase I Review
 - ☒ ☐ Zoning Phase I Review
 - ☒ ☐ Open Space Phase I Review
- ☒ ☐ Phase I Coordination
- ☐ ☐ PC Hearing
- ☐ ☐ BOCC Hearing

Task Details Open Space Phase I Review

Assigned Date	Due Date
07/27/2016	08/10/2016
Assigned to	Assigned to Department
Open Space	OS Technician
Current Status	Status Date
Complete	07/27/2016
Action By	Overtime
Open Space	No
Comments	Start Time
Open Spaces has no comments.	
End Time	Hours Spent
	1.0
Billable	Action by Department
No	OS Technician
Time Tracking Start Date	Est. Completion Date
In Possession Time (hrs)	<input type="checkbox"/> Display E-mail Address in ACA
Estimated Hours	<input checked="" type="checkbox"/> Display Comment in ACA
0.0	
Comment Display in ACA	
<input checked="" type="checkbox"/> All ACA Users	
<input checked="" type="checkbox"/> Record Creator	
<input checked="" type="checkbox"/> Licensed Professional	
<input checked="" type="checkbox"/> Contact	
<input checked="" type="checkbox"/> Owner	

Sherman Feher

From: jack keever <jakreap@aol.com>
Sent: Friday, October 14, 2016 9:42 AM
To: Sherman Feher
Subject: Re: FOLLOW UP FOR REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Dear Sherman;

At its October 13 meeting Reap heard a comprehensive presentation about the Rush Creek Wind Farm project.

Reap favors Rush Creek and its transmission line as an important contributor to the State Of Colorado renewable energy mandate. This project will also contribute significantly to the state economy with the turbines being built by Vestas in Colorado and resultant construction jobs.

We encourage Arapahoe County's approval.

Thank you for your consideration.

Jack Keever

-----Original Message-----

From: Sherman Feher <SFeher@arapahoegov.com>

Sent: Wed, Oct 12, 2016 7:21 am

Subject: FOLLOW UP FOR REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

With apologies, I left out the referral cover sheet for this referral which is attached to this email.
Sherman Feher

From: Sherman Feher

Sent: Friday, October 07, 2016 3:44 PM

Subject: REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Dear Referral Person:

Please review the attached Arapahoe County referral plans for the following cases: Rush Creek Transmission Line 1041 Permit (ASI16-003) and Rush Creek Transmission Line Location and Extent (L16-007). Also, I have more information related to this; contact me if you need any more information.

Then please fill out the applicable information blocks on the attached referral sheet with your comments and attach it to a response email or "reply" with an email that will come back to me. Please return your comments no later than November 7, 2016. Contact me if you have any questions.

Thank you

Sherman Feher

Sherman Feher

From: Sherman Feher
Sent: Friday, November 04, 2016 2:23 PM
To: 'Degutis, Erin A'; 'dave.dean@powereng.com'
Subject: FW: Rush Creek

fyi

From: Russell Johnson
Sent: Friday, November 04, 2016 2:00 PM
To: Sherman Feher <SFeher@arapahoegov.com>
Subject: Rush Creek

Since the Rush Creek project is in an area that is not an area of the county that has too many weeds, the weed management provisions should be the following:

- Monitor for noxious weed invasion during and after the construction phase.
- Upon any sightings of noxious weeds by County staff or the applicant, appropriate integrated weed management methods shall be implemented for the species found.

*Russell Johnson
Arapahoe County Weed Control Specialist
6924 S. Lima St.
Centennial, CO 80112
Phone: 720-874-6713
Fax: 303-874-6611*



November 10, 2016

Sherman Feher
Arapahoe County Planning Division
6924 S Lima St
Centennial CO 80112

RE: Rush Creek Transmission Line, ASI16-003 & L16-007
TCHD Case No. 4146

Dear Mr. Feher:

Thank you for the opportunity to review and comment on the Rush Creek Transmission Line 1041 Permit and Rush Creek Transmission Line Location and Extent. Tri-County Health Department (TCHD) staff has reviewed the application for compliance with applicable environmental and public health regulations and principles of healthy community design. After reviewing the application, TCHD has the following comments.

On-Site Wastewater Treatment Systems

Our review of the transmission line routes indicates that sections of the routes may encroach on Onsite Wastewater Treatment Systems (OWTS) that are serving buildings on properties. TCHD recommends that the applicant review the locations of the transmission line routes to determine if they may encroach on OWTS. If it appears that encroachment will occur, it may be necessary to revise the location or relocate the OWTS. TCHD can provide specific permit information and system diagrams on OWTS for the affected properties.

Groundwater Quality Protection

The proposed transmission line routes may impact existing water wells on properties where the route is located. Heavy equipment may inadvertently drive over wells during construction, causing damage that may expose the water in the wells to contamination. Where wells are within or close to proposed transmission line routes, we recommend the applicant protect the wells by identifying the areas around wells so that they are visible to vehicle operators/construction crews. This can be accomplished by delineating the area around each well with stakes, colored tape or orange plastic netting.

Wastewater Disposal

Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste, which protects public health and the environment. The applicant does not specify how wastewater facilities will be provided at the staging areas during construction for onsite workers. We anticipate that portable toilets will be necessary during construction. TCHD has no objection to the use of portable toilets, provided they are properly maintained. TCHD recommends that the applicant address these, in terms of numbers, locations, and vendor.

Rush Creek Transmission Line, ASI16-003 & L16-007
November 10, 2016
Page 2 of 2

Fugitive Dust

Exposure to air pollution is associated with a number of health problems including asthma, lung cancer, heart disease, and low birth weight. Vehicle traffic on unpaved roads may contribute to increased fugitive dust emissions. We recommend that the applicant utilize all available methods to minimize fugitive dust. Control measures or procedures that may be employed include, but are not limited to, watering, chemical stabilization, carpeting roads with aggregate, and speed restrictions.

Please feel free to contact me at (720) 200-1585 or lbroten@tchd.org if you have any questions regarding TCHD's comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'L Broten', with a stylized flourish at the end.

Laurel Broten, MPH
Land Use and Built Environment Specialist
Tri-County Health Department

CC: Sheila Lynch, Laura DeGolier, TCHD



November 7, 2016

Sherman Feher
Arapahoe County Planning Division
6924 S Lima St
Centennial CO 80112

RE: Rush Creek Transmission Line, ASI16-003 & L16-007
TCHD Case No. 4146

Dear Mr. Feher:

Thank you for the opportunity to review and comment on the Rush Creek Transmission Line 1041 Permit and Rush Creek Transmission Line Location and Extent. Tri-County Health Department (TCHD) staff has reviewed the application for compliance with applicable environmental and public health regulations and principles of healthy community design. After reviewing the application, TCHD has the following comments.

On-Site Wastewater Treatment Systems

Houses and other buildings equipped with plumbing facilities on properties located along the preferred and alternate pipeline routes are serviced by Onsite Wastewater Treatment Systems (OWTS). Our review of the pipeline routes indicates that sections of the pipeline routes may encroach on OWTS on some properties. TCHD recommends that the applicant review the locations of the pipeline routes to determine if they may encroach on OWTS. If it appears that encroachment will occur, it may be necessary to revise the pipeline location or relocate the OWTS. TCHD can provide specific permit information and system diagrams on OWTS for the affected properties.

Groundwater Quality Protection

A scan of the area proposed for the pipeline routes indicates that there may be water wells on the properties where the pipeline is located. Heavy equipment may inadvertently drive over wells during construction, causing damage that may expose the water in the wells to contamination. Where wells are within or close to pipeline routes, we recommend the applicant protect the wells by identifying the areas around wells so that they are visible to vehicle operators/construction crews. This can be accomplished by delineating the area around each well with stakes, colored tape or orange plastic netting.

If the pipeline routes cross over streams and/or wetlands, alluvial groundwater flow could be impacted if trenching intersects the shallow groundwater. If trench dewatering is necessary, the water will be pumped and discharged to alluvia/colluvial sediments close to the stream channel. If discharge of groundwater is necessary during construction, a discharge permit from the Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division will be necessary

Wastewater Disposal

Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste, which protects public health and the environment. The applicant does not specify how wastewater facilities will be provided at the staging areas during construction for onsite workers. We anticipate that portable toilets will be necessary during construction. TCHD has no objection to the use of portable toilets, provided they are properly maintained. TCHD recommends that the applicant address these, in terms of numbers, locations, and vendor.

Fugitive Dust

Exposure to air pollution is associated with a number of health problems including asthma, lung cancer, heart disease, and low birth weight. Vehicle traffic on unpaved roads may contribute to increased fugitive dust emissions. We recommend that the applicant utilize all available methods to minimize fugitive dust. Control measures or procedures that may be employed include, but are not limited to, watering, chemical stabilization, carpeting roads with aggregate, and speed restrictions.

Please feel free to contact me at (720) 200-1585 or lbroten@tchd.org if you have any questions regarding TCHD's comments.

Sincerely,



Laurel Broten, MPH
Land Use and Built Environment Specialist
Tri-County Health Department

CC: Sheila Lynch, Laura DeGolier, TCHD

Sherman Feher

From: Glenn Thompson
Sent: Tuesday, October 11, 2016 2:29 PM
To: Sherman Feher
Subject: RE: REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Hi Sherman,

I did not find a referral sheet attached but do not have any comments or concerns.

Glenn

*Glenn Thompson, Bureau Chief
Arapahoe County Sheriff's Office
Public Safety Bureau
13101 E. Broncos Parkway
Centennial, CO 80112
(720) 874-4023*

From: Sherman Feher
Sent: Friday, October 7, 2016 3:44 PM
Subject: REFERRALS FOR RUSH CREEK TRANSMISSION LINE 1041 PERMIT and RUSH CREEK TRANSMISSION LINE LOCATION AND EXTENT CASES

Dear Referral Person:

Please review the attached Arapahoe County referral plans for the following cases: Rush Creek Transmission Line 1041 Permit (ASI16-003) and Rush Creek Transmission Line Location and Extent (L16-007). Also, I have more information related to this; contact me if you need any more information.

Then please fill out the applicable information blocks on the attached referral sheet with your comments and attach it to a response email or "reply" with an email that will come back to me. Please return your comments no later than November 7, 2016. Contact me if you have any questions.

Thank you

Sherman Feher
Public Works and Development – Planning Division
6924 S. Lima Street
Centennial, CO 80112
720-874-6665
ifeher@arapahoegov.com



BOARD OF COUNTY COMMISSIONERS

KIT CARSON COUNTY
PO BOX 160
BURLINGTON CO 80807-0160
kccadmin@kitcarsoncounty.org
PH: 719-346-8139 (304)
FX: 719-346-7242

Gary Koop,
District 1 Commissioner
Cory Wall,
District 2 Commissioner
David L. Hornung,
District 3 Commissioner

October 26, 2016

Board of Arapahoe County Commissioners
Commissioner Nancy Doty
Commissioner Nancy Sharpe
Commissioner Rod Bockenfeld
Commissioner Nancy Jackson
Commissioner Bill Holen
5334 S. Prince St.
Littleton, CO 80120

RECEIVED

OCT 31 2016

ARAPAHOE COUNTY GOVERNMENT
BOARD OF COUNTY COMMISSIONERS

C.C. BOCC
Jan Yedke
File

To the Board of County Commissioners:

The Rush Creek Wind Project, proposed by Xcel Energy will generate 600 megawatts of new wind power, benefitting not only those of us in Eastern Colorado with jobs, tax revenue and increased royalties, it will benefit a multitude of Coloradans. Kit Carson County has been part of the engine that powers Colorado with our agricultural production. We can now help power the state with wind energy. But we can't do it alone.

In the business of running your county, you know how important it is to plan ahead and seize opportunities when they arise. Kit Carson County is just now starting to realize the benefits of wind production within our borders. We have solidified our tax base, added needed diversity to our economy, and created job opportunities that both pay well and provide full benefits to our residents that are crucial in retaining and attracting talent to the area.

The decision rests not entirely with us, as our neighbors in Elbert, Cheyenne, and Lincoln Counties also must make determinations about Rush Creek as well. So must Arapahoe County, which is why I write to you to encourage your approval of your portion of Rush Creek. With hundreds of millions of dollars at stake for all of our counties, it's vital that we work together to embolden each other and grab this robust economic opportunity while it's before us.

Your decision has the ability not only to affect electrical ratepayers and job seekers who live and are coming to Colorado, and the economy of your home county, but the economic prosperity of four Colorado counties seeking to capitalize at a time of great opportunity. It is my sincere hope that you will vote your support for the transmission lines and substation as Rush Creek benefits us all in the decades to come.

Thank you for your time and attention on the issue. Please don't hesitate to contact me with any questions pertinent to Kit Carson County.

Respectfully,


Cory Wall, Kit Carson County Chairman


David L. Hornung, Commissioner


Gary Koop, Commissioner

RECEIVED

NOV 04 2016

ARAPAHOE COUNTY
PLANNING DIVISION

Susan Corliss,
Clerk & Recorder

Cure & Bain, P.C.,
County Attorney

Paula S. Weeks,
Administrator

November 10, 2016

PUBLIC SERVICE COMPANY OF COLORADO

Rush Creek 345 kV Transmission Line Project

Arapahoe County 1041 Permit Application 1041 Permit-REV03

This page intentionally left blank.

Arapahoe County 1041 Permit Application

PREPARED FOR: PUBLIC SERVICE COMPANY OF COLORADO

PREPARED BY: POWER ENGINEERS INC. LAKEWOOD, CO



This page intentionally left blank.

EXECUTIVE SUMMARY

Public Service Company of Colorado (PSCo or “Applicant”) has prepared this Areas and Activities of State Interest (Colorado House Bill 1041; 1041 Regulations) permit application per the requirements outlined in Chapter 5 of the Regulations Governing Areas and Activities of State Interest in Arapahoe County. This application is organized based on the 2012 Eastern Colorado Connect LLC application per the request of the Arapahoe County Public Works and Development, Planning Division. PSCo is providing Project information, exhibits, and materials, which are hereby incorporated into and made part of the Application below in order to comply with Arapahoe County 1041 Permit approval criteria.

PROJECT SUMMARY

The Rush Creek 345 kV Transmission Line Project is an approximately 80-93 mile long (depending on the preferred alternative) 345 kV transmission line, planned to cross approximately 13.5 miles of eastern Arapahoe County, approximately 41 miles of Elbert County, and 26 miles of Lincoln County as depicted on the map in **Figure 2-1** (Arapahoe County – Rush Creek 345 kV Transmission Line Project Map). The Project will interconnect approximately 600 MW of proposed wind-generated electricity from the proposed Rush Creek I and II Wind Farms into the existing Missile Site Substation in Arapahoe County. Rush Creek I is located in Elbert County and Rush Creek II is located in Cheyenne, Kit Carson, and Lincoln Counties. Although information about the Project as a whole is submitted herein, the subject of this Application is the Rush Creek 345 kV Transmission Line Project in Arapahoe County.

For this Project, PSCo analyzed eight end-to-end route alternatives (Alternatives A – H) and selected a Preferred Alternative for the entire Rush Creek 345 kV Transmission Line Project. When considering landowner interest, both within Arapahoe County and along the entire transmission line route, the selected Preferred Alternative was designed to balance minimizing the number of residences passed along the route within Arapahoe County, minimizing the distance passed through sensitive environmental areas, and minimizing impacts to various resources while maximizing engineering design optimization and the purpose and need of the Project. Alternative A was selected as the Preferred Alternative. Alternative A would be the longest alternative through Arapahoe County; however, it would minimize impacts to several key resources and would parallel the existing NextEra 345 kV Transmission Line for its entire length in Arapahoe County. The Preferred Alternative would pass by the fewest number of residences within 1,000 feet and crosses the fewest number of wetlands and floodplains. The Preferred Alternative would rank second for the number of stream crossings and the number of miles through Arapahoe County Sensitive Development Areas; three miles of the preliminary selected route in Arapahoe County were relocated to the west to avoid riparian habitat areas associated with the Muddy Creek drainage. The Preferred Alternative would pass through the most miles of potential prime farmland; however, soils comprising these lands are considered only potential prime farmland and are classified as prime if they are irrigated. The Preferred Alternative would rank second for miles passing through agricultural cropland lands and shortgrass prairie.

Upon completion of permitting activities and approval by Cheyenne, Elbert, Lincoln, and Kit Carson Counties for the Rush Creek Wind Project, PSCo will purchase the Project. PSCo will own, operate, and maintain the wind farm and transmission line facilities. Invenergy, LLC is responsible for planning and permitting the wind farm that the proposed transmission line will interconnect into PSCo’s grid at the Missile Site Substation. PSCo’s planned involvement in the Rush Creek Wind Project was publicly announced on April 12, 2016 by the Company and in local and regional news outlets. More information

about the planned transaction can be found at
<http://www.transmission.xcelenergy.com/Projects/Colorado/Rush-Creek-Connect>.

The Project may include all or any of the following (collectively, "Transmission Line Facility"): (i) overhead electrical transmission and communications lines, transmission line structures, electric transformers, electric substation improvements at the Missile Site Substation, and other necessary interconnection facilities; (ii) construction and maintenance access roads; and (iii) temporary construction material and assembly yard(s).

The Potential Arapahoe County Transmission Line Right of Way (ROW) Lease Names and Parcels for the Project Area are listed in **Appendix A**. Upon execution of the land leases with the landowners PSCo would be granted the sole and exclusive right to use the subject property for constructing, operating, and maintaining the proposed 345 kV transmission line. This includes all transmission line project development activities, of which local permitting is included. Upon execution, the Land Leases are recorded with Arapahoe County for this portion of the Project Area. **Appendix B** lists the Arapahoe County Parcel Township-Range-Section information within the Arapahoe County Project Area.

The following Application and supporting documents address Arapahoe County 1041 Permit Application criteria specific to a Transmission Line Facility. Should any questions arise concerning the submittal or other considerations related to this Application, please contact the following party:

Public Service Company of Colorado
1800 Larimer Street , 4th Floor
Denver, Colorado 80202

Erin A. Degutis, RLA, AICP, LEED AP
Senior Agent, Siting and Land Rights
Public Service Company of Colorado
d/b/a Xcel Energy Services, Inc.
Telephone: 303.571.7735
Email: Erin.A.Degutis@xcelenergy.com

TABLE OF CONTENTS

Arapahoe County 1041 Permit Application	1
1041 APPROVAL CRITERIA.....	3
A. General Approval Criteria.....	3
C. Additional Criteria Applicable to Major Facilities of a Public Utility	14
1. Applicant Information.....	17
1.1 Applicant Address and Contact.....	17
1.2 Background on Xcel Energy, Inc. and Public Service Company of Colorado.	17
1.3 Legal Description and Disclosure of Ownership	18
1.4 Project Finances.....	18
2. Project Description.....	21
2.1 Project Purpose and Need.....	21
2.2 Project Overview.....	21
2.3 Rush Creek Wind and Transmission Project Overview	22
2.4 Arapahoe County Project Site Description.....	23
2.5 Transmission Line Siting Overview and Alternative Analysis Summary	23
2.5.1 Transmission Line Siting Overview.....	23
2.5.2 Transmission Line Alternatives and Analysis Summary.....	30
2.5.3 Selection of the Preferred Alternative	37
2.6 Project Features	38
2.6.1 Transmission Line.....	38
2.6.2 Substations	41
2.6.3 Right-of-Way Acquisition	41
2.6.4 Access Roads.....	42
2.6.5 Laydown / Material Staging Areas	42
2.6.6 Protection of Private Property and Resources	42
2.7 Construction Activities	45
2.7.1 Transmission Line Construction.....	45
2.8 Operation and Maintenance	48
2.8.1 Permitted Uses	48
2.8.2 Maintenance	48
2.9 Traffic Safety	48
2.10 Agency Coordination	49
3. Regulatory Framework.....	51
3.1 Conformance with Arapahoe County Land Use Plans.....	51
4. Environmental Resources: Existing Conditions.....	53
4.1 Land Use and Recreation	53
4.1.1 Existing Conditions	53
4.2 Transportation	55
4.2.1 Existing Conditions	56
4.3 Visual Resources and Aesthetics	57

4.3.1	Regional Context	57
4.4	Soils, Geology and Natural Hazards.....	58
4.4.1	Regulations.....	58
4.4.2	Existing Conditions	59
4.5	Water Resources and Wetlands	61
4.5.1	Regulations.....	61
4.5.2	Existing Conditions	62
4.6	Biological Resources	64
4.6.1	Introduction.....	64
4.6.2	Existing Conditions	65
4.7	Paleontological and Cultural Resources	75
4.7.1	Existing Conditions	75
4.8	Socioeconomics.....	75
4.8.1	Existing Conditions	76
5.	Environmental Impacts, Mitigation, and Best Management Practices.....	79
5.1	Land Use and Recreation	79
5.1.1	Impacts and Mitigation.....	79
5.2	Transportation	82
5.2.1	General Impacts	82
5.2.2	County Specific Impacts	83
5.3	Visual Resources and Aesthetics	84
5.3.1	Alternatives A (Preferred Alternative), B, E, and H	84
5.3.2	Alternatives C, F, and G	85
5.3.3	Alternative D	85
5.4	Soils, Geology and Natural Hazards.....	86
5.4.1	Impacts Common to All Alternatives	86
5.4.2	End-to-End Route Summary.....	88
5.5	Water Resources.....	88
5.5.1	Impacts to Surface Water	88
5.5.2	Impacts to Floodplains.....	89
5.5.3	Impacts to Ground Water.....	89
5.5.4	Impacts to Wetlands	89
5.5.5	Impacts Common to Alternatives with Forested Wetlands and Riparian Areas	90
5.5.6	Impacts Common to Alternatives with Geology and Natural Hazards Areas	90
5.5.7	Impacts in Arapahoe County.....	90
5.6	Biological Resources	92
5.6.1	Alternatives A (Preferred Alternative), B, E, and H	92
5.6.2	Alternatives C, F, and G	96
5.6.3	Alternative D	96
5.7	Paleontological and Cultural Resources	97
5.7.1	Arapahoe County.....	97
5.7.2	End-to-End Route Summary.....	101
5.8	Air Quality and Controls.....	102
5.8.1	Existing Emission Sources.....	102
5.8.2	Attainment Status	103
5.8.3	Applicable State Requirements.....	103

5.8.4	Construction Emissions	103
5.8.5	Operational Emissions.....	104
5.8.6	Mitigation Measures.....	104
5.9	Noise, Vibration, Odors, and Nuisances	104
5.10	Socioeconomics.....	105
5.10.1	General Impacts	105
5.10.2	County-Specific Impacts	107
5.11	Hazards and Emergency Procedures	109
5.11.1	Fire	109
5.11.2	Accidental Spills.....	109
5.12	Cost-Benefit Analysis.....	110
6.	Engineering Studies	111
6.1	Floodplain Delineation Study	111
6.2	Grading, Erosion, and Sediment Control	111
7.	References	113

LIST OF EXHIBITS

EXHIBIT A SITE PLAN

EXHIBIT A-1 SITE PLAN

EXHIBIT B WATER RESOURCES – ARAPAHOE COUNTY MAP

EXHIBIT C LAND USE, TRANSPORTATION, AND RECREATION- ARAPAHOE
COUNTY MAP

EXHIBIT D ZONING, SPECIAL DISTRICTS, AND PARCELS – ARAPAHOE COUNTY
MAP

EXHIBIT E SCENIC AREAS AND VISUAL QUALITY – ARAPAHOE COUNTY MAP

EXHIBIT F PHOTOSIMULATIONS OF PROPOSED TRANSMISSION LINE

EXHIBIT G SOIL QUALITIES – ARAPAHOE COUNTY

EXHIBIT H TERRESTRIAL AND AQUATIC ANIMAL AND PLANT HABITAT –
ARAPAHOE COUNTY

EXHIBIT I ARAPAHOE COUNTY - UP RAILROAD AND SEEN/UNSEEN ANALYSIS

LIST OF APPENDICES

APPENDIX A	ARAPAHOE COUNTY ROW LEASE NAME AND PARCEL
APPENDIX B	ARAPAHOE COUNTY PARCEL TOWNSHIP-RANGE-SECTION
APPENDIX C	DRAFT ARAPAHOE COUNTY ROAD USE AGREEMENT
APPENDIX D	AGENCY CORRESPONDENCE
APPENDIX E	CHARACTERISTIC PHOTOS OF ARAPAHOE COUNTY'S LANDSCAPE
APPENDIX F	VISUAL SIMULATION
APPENDIX G	PSCO FINANCIAL SUMMARY
APPENDIX H	UNION PACIFIC RAILROAD SEEN/UNSEEN ANALYSIS AND SITE PHOTOS
APPENDIX I	ARAPAHOE COUNTY REDLINE REVIEW DOCUMENTS

ACRONYMS AND ABBREVIATIONS

%	percent
Access Plan	Access and Traffic Control Plan
ACLDC	Arapahoe County Land Development Code
ACSS	Aluminum conductor steel supported
APCD	Air Pollution Control Division
APEN	Air Pollutant Emission Notice
Applicant	Public Service Company of Colorado
BMP	Best Management Practice
CDP	Census-Designated Place
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
CNHP	Colorado Natural Heritage Program
CO	Carbon monoxide
CPW	Colorado Parks and Wildlife
C.R.S.	Colorado Revised Statutes
CWA	Clean Water Act
Denver MSA	Denver-Aurora-Lakewood Metropolitan Statistical Area
EMF	Electromagnetic field
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
GESC	Grading, Erosion, and Sediment Control Plan
GIS	Geographic Information System
I	Interstate
IPaC	Information, Planning and Conservation
kV	Kilovolt
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
mi ²	Square mile
MLRA	Major Land Resource Area
MW	Megawatt
NDIS	National Diversity Inventory Database
NESC	National Electric Safety Code
NO _x	Nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O&M	Operation and Maintenance
OPGW	Fiber optic ground wire
PEM	Palustrine emergent
PFO	Palustrine forested
PM	Particulate matter
PM ₁₀	Particulate matter less than 10 microns

PM _{2.5}	Particulate matter less than 2.5 microns
Project	13.5 miles of 345 kV transmission line in Arapahoe County
PSCo	Public Service Company of Colorado
PSS	Palustrine scrub-shrub
PUB	Palustrine unconsolidated bottom
PUC	Public Utility Commission
PUS	Palustrine unconsolidated shore
R4	Intermittent riverine wetlands
RMBO	Rocky Mountain Bird Observatory
ROW	Right-of-Way
RPS	Renewable portfolio standard
SO ₂	Sulfur dioxide
SSURGO	Soil Survey Geographic
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish Wildlife Service
USR	Use by Special Review
VOC	Volatile organic compound
WQC	Water Quality Certification
Xcel	Xcel Energy, Inc.

Arapahoe County 1041 Permit Application

Rush Creek 345 kV Transmission Line Project

Submitted by Public Service Company of Colorado
1800 Larimer Street, 4th Floor
Denver, Colorado 80202

LETTER OF INTENT

Through this application, Public Service Company of Colorado (PSCo) respectfully requests approval of a 1041 Permit Application to construction, operate, and maintain approximately 13.5 miles of 345 kilovolt (kV) transmission line in eastern Arapahoe County (the "Project"). As is customary with all land use applications to locate and construct major utility facilities in Colorado, PSCo is applying pursuant to CRS 29-20-108, which relates to local government processing of such applications.

As discussed in our pre-application and consultation meeting with County staff, the proposed transmission line in Arapahoe County is one component of the proposed Rush Creek wind farm, which consists of 600 MW of new wind generation and 90 new miles of transmission in eastern Colorado. In May 2016 PSCo filed an application for a Certificate of Public Convenience and Necessity (CPCN) with the Colorado Public Utilities Commission (CPUC) for the Rush Creek project. Details about the overall project can be found on the CPUC website under Docket #16A-0117E.

The transmission line proposed in Arapahoe County will deliver wind-generated electricity from Rush Creek to PSCo's grid by way of the existing Missile Site Substation. During the construction period, temporary staging areas of approximately 20-acres in size will be required to house construction materials and equipment. While the locations of these staging areas are yet to be identified, at least one such area will likely be located in Arapahoe County.

The Project Area within Arapahoe County covered by the 1041 Permit Application is approximately 300 acres, based on an easement width of 150-feet. PSCo is currently negotiating with landowners to acquire easements for construction, operation, and maintenance of the Project. Based on progress to date, we anticipate executing easements or easement option agreements by early fall of this year.

PSCo appreciates the County's consideration of this application and we look forward to working together on the permitting process. Please let me know if I can provide additional information or assistance. I can be contacted directly via telephone at 303.571.7735 or email at Erin.A.Degutis@XcelEnergy.com .

Kindest regards,



Erin A. Degutis, RLA, AICP, LEED AP
Senior Agent, Siting and Land Rights
1800 Larimer Street, 4th Floor
Denver, Colorado 80202



1041 APPROVAL CRITERIA

A. General Approval Criteria

1. Documentation that prior to site disturbance associated with the Proposed Project, the applicant can and will obtain all necessary property rights, permits, and approvals.

Prior to site disturbance, Public Service Company of Colorado (PSCo) will obtain and comply with the required approvals pertaining to county, state, and federal regulatory authorities for the construction, operation, and maintenance of the Project in Arapahoe County. PSCo will obtain Arapahoe County land-use, building, grading, erosion, and sediment control, and use of utility right-of-way (ROW) permits in connection with the construction, operation, and maintenance of the transmission line. Material permits applicable to the transmission line in Arapahoe County will include state, stormwater discharge, air (fugitive dust), utility, and oversize load permits. PSCo owns and operates the Missile Site Substation and as a part of this Project, will add equipment to accommodate the new 345 kV transmission line. At the time of this application submission, PSCo is actively coordinating with and actively engaging the eight landowners that parallel the existing NextEra 345 kV transmission line for a ROW easement to accommodate the proposed Rush Creek 345 kV Transmission Line. PSCo anticipates having land use control through easement agreements at the time of public meetings this fall.

2. The Proposed Project considers the relevant provisions of the regional water quality plans.

There will be no significant impact to water resources from transmission line construction, operation, and maintenance. The proposed Project will not affect water quality; there is no water use proposed for the Project except minimal amounts potentially used during construction for fugitive dust control and concrete. No regional water quality plans are affected by the proposed transmission line in Arapahoe County. The Project will be consistent with the Clean Water Act (CWA) and the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division authorizations and plans that are applicable (e.g. Stormwater Management Plan; generally referred to as a Stormwater Pollution Prevention Plan [SWPPP]). Please see General Criteria #12(c) and (d) below for more information.

3. The applicant has the necessary expertise and financial capability to develop and operate the Proposed Project consistent with all requirements and conditions.

PSCo is the number one wind-generated electricity provider in the nation for the last twelve consecutive years as determined by the American Wind Energy Association. Clean energy from renewable resources accounts for more than 20 percent of PSCo's total energy supply. PSCo remains committed to expanding the use of renewable energy in the most economical way for customers. PSCo's proposed wind project will reduce 1 million tons of carbon each year equal to approximately 3% of total carbon emissions.

Xcel Energy, the parent company of PSCo, ranks in the top five for natural gas and electric utilities, with high marks for social responsibility, people management, innovation, assets and financial soundness. Xcel Energy is one of Forbes magazine's 100 Most Trustworthy Companies in America for our consistent demonstration of transparent accounting practices and solid corporate governance. As a public-regulated utility, PSCo is accountable to ratepayers and stockholders in terms of planning and executing energy generation and transmission projects that are fiscally responsible and technically feasible. The Rush Creek Wind Project is a part of Company's "Our Energy Future," a forward-thinking plan that addresses future generation and transmission needs in Colorado, including additional renewable energy resources. The Company intends to take advantage of the Renewable Energy Production Tax Credit (PTC), which is an incentive to bring new renewable energy online by meeting specific timeline goals and results in saving ratepayers millions of dollars over the life of the Project.

4. The Proposed Project is technically and financially feasible.

The Project is technically feasible given PSCo's level of expertise and experience in constructing wind-generated electricity projects. The Rush Creek Wind and Transmission Project will be the largest wind generation facility in Colorado and spans five counties (Arapahoe, Cheyenne, Elbert, Kit Carson, and Lincoln) for the wind and transmission components of the proposed Project collectively. The transmission line would cross only Arapahoe, Elbert, and Lincoln Counties. In Arapahoe County, the Rush Creek Connect 345 kV Project would consist of approximately 13.5 miles of 345 kV transmission line and upgrades to the existing Missile Site Substation. The construction period for the transmission line in Arapahoe County would be approximately 15-20 weeks with activity levels varying from day-to-day during this timeframe. The total cost estimate to construct the entire 80-93 mile long (depending on the alternative route selected) transmission line is approximately \$121 million. These costs are financially feasible for PSCo to support, as these costs will initially be paid out of PSCo's operating capital. Appendix G contains the 2015 financial summary for PSCo.

5. The Proposed Project is not subject to significant risk from natural hazards.

Much of the proposed Project area is considered low risk for geologic hazards. The topography has fairly level relief (0-10 percent slope), with gently rolling terrain and flood plains interspersed by drainages with steeper side slopes. The occurrence of major landslides within the Project Area has not been recorded, although the potential for sheet and rill erosion and gully formation may be moderate to severe in some areas. For seismic purposes, Colorado is considered a region of minor earthquake activity, although there are many uncertainties because of the very short time period for which historic data is available. This portion of Colorado and Arapahoe County can be considered aseismic.

The proposed Project crosses 100-year Arapahoe County defined floodplains. No FEMA defined floodplains are crossed by Alternative A. A floodplain analysis was completed for this application under a separate submittal. PSCo will not place any transmission line structures with FEMA or Arapahoe County defined floodplains.

6. The Proposed Project is in general conformity with the applicable comprehensive plans.

The Project is in general conformity with the applicable Arapahoe County Comprehensive Plan (Plan) because the Preferred Alternative minimizes impacts to residents, natural resources, and cultural resources and it parallels an existing transmission line corridor for 100% of its length through the County. This Plan is the only applicable comprehensive plan under this criterion.

- **The Plan's Policy 4.2(a) recognizes that facilities such as the transmission line will be allowed in the Rural Area on a case-by-case basis, except in sensitive development and riparian corridor areas. The transmission line will be located on privately- and state-owned lands. The transmission line will not be constructed in riparian or Sensitive Development Areas identified under the Plan.**
- **The transmission line will adhere to Policy PFS 4.2 – Achieve Land Use Compatibility, when Siting Regional and Local Utilities requires utilities to be built in a manner that is safe and compatible with surrounding land uses. Zoning districts within the Project Area include Agricultural Estate (A-E) and Agricultural-1 (A-1). The zoning districts are intended to correspond to and implement the “Rural Area Uses” and “Open Space” land use categories designated in the Land Use Plan element of the Comprehensive Plan. The regulations for A-E and A-1 are district-specific which are applied on a district-wide basis and generally relate back to the stated purposes of the zone district. Please see Section 3.1 for more information.**

7. The Proposed Project will not have a significant adverse effect on the capability of local government to provide services or exceed the capacity of service delivery systems.

The Project will not require a level of local services or facilities beyond that which is currently available. The Project will likely generate additional traffic on local roads during the construction period, and impacts would be short in duration. Existing PSCo staff will maintain the new transmission line and additional equipment in the Missile Site Substation. PSCo staff are primarily located in the Denver Metro area and would commute to the Missile Site Substation and the transmission line on a periodic or as-needed basis. During the operation of the Project, it is not anticipated that the project would create additional demand on roads, potable water, wastewater, parks, housing, cemeteries, library resources, solid waste, or schools. Traffic impacts during the operation of the project would be *de minimis*. Temporary housing for workers could be accommodated in the hotels/motels clustered in eastern Aurora area or Limon.

8. The Proposed Project will not create an undue financial burden on existing or future residents of the County.

The Project will not cause adverse effects to the socioeconomic footprint of Eastern Arapahoe County, as the area is rural in nature and low in population. Additional tax revenues will be generated by the Project through the local purchase of materials, fuel,

food, and housing during the construction period, and taxing of the infrastructure at the Missile Site Substation. Landowners with a transmission line easement would receive payments for the length of their property that is crossed by the transmission line or location of a materials/laydown yard. PSCo would be responsible for maintenance, repair, upgrades or decommissioning of the transmission and substation assets associated with the Project.

9. The Proposed Project will not significantly degrade any substantial sector of the local economy.

The Project will not cause significant impacts or negative effects to the socioeconomic footprint of the eastern area of Arapahoe County. Potential benefits of the Project include economic gain from purchasing construction materials, associated goods and services, improved county road maintenance and improvements, and landowner payments from PSCo which will provide additional income for County residents. These factors should all create positive gains to the local economy.

10. The Proposed Project will not unduly degrade the quality or quantity of recreational opportunities and experience.

There are limited recreational opportunities in the vicinity of the Preferred Alternative in the eastern area of Arapahoe County. No direct or indirect land use impacts on State, County, or local parks, trails, or fishing stream segments are anticipated to occur because there are no parks and recreational areas within 1,000-feet of the Preferred Alternative. As a result, the construction, operation, and maintenance of the transmission line will not significantly affect recreational opportunities in the eastern area of Arapahoe County. There are no conservation easements along the Preferred Alternative that allow for public recreation potential.

11. The planning, design and operation of the Proposed Project will reflect principals of resource conservation, energy efficiency and recycling or reuse.

The Project is a critical element of the Rush Creek Wind Project which will help the PSCo enhance its renewable energy portfolio standard (RPS), thus fulfilling state requirements for increased alternative energy usage. PSCo is a recognized leader in reducing emissions, integrating renewable power and ensuring the responsible transition to a cleaner energy future. This project allows us to continue delivering on this commitment to customers. The Project will reduce 1 million tons of carbon each year equal to approximately 3 percent of total carbon emissions. Upon completion, the transmission line and the Rush Creek Wind Project will be the largest wind-generated electricity facility in Colorado and the eighth largest in the United States at time of commissioning. PSCo will collect the leftover conductor and static line and transport to an off-site recycling contractor. All other material and trash will be collected and transported off-site to an appropriate recycling or solid waste disposal facility.

12. The Proposed Project will not significantly degrade the environment.

As further described below, the proposed Project will not have significant effects on the environment and will not significantly degrade the environment with the exception of visual resources which will be moderately impacted in the vicinity of the Project corridor as a result of the transmission line's visibility against the landscape. Please refer to Section 4: Environmental Resources: Existing Conditions and Section 5: Environmental Impacts, Mitigation, and Best Management Practices for an analysis of the environmental impacts to visual and aesthetics resources.

a. Air quality.

The Project will not significantly affect air quality in Arapahoe County because it does not generate any new stationary sources that would result in the long-term emission of criteria pollutants during the construction or operation of the Project. Air emission associated with the Project will be short-term, localized, and consist predominantly of mobile construction equipment and low-level fugitive dust. PSCo will primarily use water as a fugitive dust control measure on unpaved public roads during the construction period.

b. Visual quality.

The eastern area of Arapahoe County is rural in nature and characterized by flat to rolling topography interspersed with rural residences and agricultural settlements. Electric transmission and distribution lines occur throughout the area. The entire alignment of the Preferred Alternative would parallel an existing transmission line corridor with the existing and proposed ROWs abutted, but not overlapping the adjacent ROW. The Project crosses and parallels the existing NextEra 345 kV transmission line corridors along the Preferred Alternative. The Project would contribute an additional transmission line to the visual landscape, and the Preferred Alternative would cross five public roadways on its alignment through the eastern area of Arapahoe County: County Route 47/Wall Road, East County Route 34/Jolly Road, County Road 229, County Road 18/South Deter-County Route 229/Winters Road, and Hampden Avenue. The Project will mitigate the visual impacts by using transmission structures that are of similar color (dark brown) and design (H-frame) already found in the visual landscape and match the span length between structures. The Project would use non-specular conductors to further reduce visual impacts in Arapahoe County. The Project would use swan diverters on the static line (top two wires of the transmission structure) matching the color, spacing, and location of the NextEra 345 kV transmission line.

c. Surface water quality.

The Project will not significantly affect water quality; there is no significant water use proposed for this Project except minimal amounts potentially used during construction for fugitive dust suppression and concrete. However this amount will be transported on-site with a water truck. The potential impacts will be negligible due to the implementation of BMPs and the ability to span water features and drainages, thus avoiding impacts during the construction period.

Best management practices (BMPs) will be used during the construction period to reduce potential impacts from erosion, sedimentation, and turbidity in surface waters. A Grading, Erosion, and Sediment Control Plan (GESC) will be developed and implemented to meet Arapahoe County requirements. In addition, SWPPP will be developed and implemented for the Project to meet the construction stormwater discharge permit requirements of the CDPHE.

d. Groundwater quality.

The depth of water wells in Arapahoe County range from approximately 25 feet to 600 feet (Colorado Division of Water Resources 2016). Aquifers used by the water wells include Laramie Fox Hills, Upper Dawson Quaternary Alluvium, and unnamed aquifers. It is unlikely the Project would affect groundwater to any extent because of BMPs that will be implemented during Project construction. In addition, no water wells would be drilled for the proposed Project. Excavations for transmission line structures may contact very shallow groundwater; however, the groundwater contact would be unlikely to adversely impact this resource because of BMPs that will be implemented during construction. Techniques to avoid and minimize groundwater impacts would include properly maintaining equipment, storing fuels and petroleum away from excavated areas and cleaning up any spills. After application of mitigation measures and BMPs, impacts to groundwater will be negligible and temporary in duration.

e. Wetlands, flood plains, streambed meander limits, recharge areas, and riparian areas.

Transmission line structures would not be placed in wetlands, floodplains, streambeds, recharge areas, and riparian areas and there would be no equipment operation within these features in Arapahoe County. Regulated floodplains would be avoided to the extent practicable. The transmission line will likely span all of these areas with overhead conductors; therefore, little to no anticipated adverse impacts would occur to surface water resources. Potential indirect impacts to water resources could occur from construction related erosion and sediment movement, which are covered by BMPs and the applicable SWPPP and GESC. The potential impacts will be negligible to minor due to the ability to span water features and avoid impacts during construction.

f. Terrestrial and aquatic animal life.

The majority of impacts to wildlife will be localized and short-term, related to the removal of vegetation, compaction of soils, noise disturbance, and human presence associated with construction activities. Direct impacts to wildlife during construction will be minimal, as most wildlife will be able to disperse into adjacent habitat. PSCo will follow Colorado Parks and Wildlife (CPW) recommendations to minimize impacts on wildlife such as conducting pre-construction nest surveys, establishing appropriate nest buffer zones, and conducting pre-construction presence/absence surveys for state listed species. Impacts to surface vegetation can reduce foraging habitat from direct disturbance as well as indirectly from increases in noxious weeds; however, the potential for the introduction and/or

spread of noxious weeds will be minimized by implementing BMPs such as ensuring construction equipment is cleaned, using weed-free seed mixes and controlling noxious weeds within the ROW. The potential for the introduction and/or spread of invasive non-native species (including noxious weeds) will be minimized by the implementation of BMPs during the construction period and reclamation efforts.

Impacts to wildlife during maintenance activities will be minimal due to the selection and type of durable materials used for construction of the transmission line and ability to observe the transmission line from the air. The Missile Site Substation would receive periodic maintenance, but this activity would be confined to the interior of the substation where the area has been previous disturbance and no surface habitat presently exists.

Table 4-2 lists all of the federal and state listed species, including the potential suitable habitat. Section 5.6.1, Impacts to the Preferred Alternatives, discusses mitigation to the T&E species. Section 5.6 discussed BMPs and other pre-emptive activities to reduce impacts on T&E species and mitigation measure to protect T&E species.

g. Terrestrial and aquatic plant life.

Direct impacts to vegetation resources will result from vegetation compaction by construction equipment or surface disturbances such as mechanical grading and clearing of vegetation for the temporary laydown/materials yard and access roads. It is not anticipated that there will be significant removal of vegetation at the base of each transmission structure. Temporary impacts to vegetation will also result in periodic compaction of existing vegetation and soil from construction and maintenance traffic within the transmission line ROW and designated access roads. These impacts will be short-term in duration and focused in location, and the disturbed areas will be re-seeded with approved local, native seed mixes after clearing. Vegetation would be permanently removed at transmission structure locations.

Table 4-2 lists all of the federal and state listed species, including the potential suitable habitat. Section 5.6.1, Impacts to the Preferred Alternatives, discusses mitigation to the T&E species. Section 5.6 discussed BMPs and other pre-emptive activities to reduce impacts on T&E species and mitigation measure to protect T&E species.

The mitigation for vegetation removal at the base of each structure will match the existing vegetation and may consist of native shortgrass perennial species, cropland, or pasture, as appropriate. A seed bed will be prepared to depth of 3" to 4" and then the seed mix will be spread via broadcast or hydroseeding. A certified seed mix or plugs will be used to re-establish the vegetation in agreement with the recipient landowner.

h. Soils and geologic conditions.

The Project will create short-term, localized impacts on soil resources, which could result in the potential reduction of surficial soil quality. Ground disturbance during construction may increase the potential for erosion, such as removal of protective vegetation and expose soil to potential wind and water erosion. Impacts will result from soil disturbance due to heavy machinery traveling along the transmission line ROW. General construction traffic will be limited to designated access roads in an effort to minimize impacts. The areas affected by construction would be reclaimed as soon as possible, which may include regrading to original land contours and revegetation with an approved seed mix. Implementation of a SWPPP and GESC and use of appropriate soil mitigation measures and BMPs would be used to reduce the effects of erosion.

13. The Proposed Project will not cause a nuisance.

There will be an anticipated increase in traffic during the Project's construction period on local county roads. Given the low-density, sparsely populated area of the county in which the route alternatives would be situated, no substantial impacts would occur to existing and future traffic volumes and Level of Service (LOS). LOS is a qualitative measure used to relate the quality of traffic service. LOS is used to analyze highways by categorizing traffic flow and assigning quality levels of traffic based on performance measures including vehicle speed and volume. LOS is scored using letters from A to F, where A represents the best conditions (free-flow traffic conditions) and F represents failure of the system with excessive delay (failure or breakdown in the traffic system). Roadway corridors that operate at LOS C or better are categorized as uncongested and generally operate in free-flow conditions where drivers can operate at their desired speed without undue delay. Rural roads in Arapahoe County currently operate at a LOC C or better (Arapahoe County 2010a). Roads near the route alternatives would be expected to continue to operate at or above LOS C during and after Project construction activities. Vibration, odors, or other nuisances from the operation and maintenance of the transmission are not anticipated, except for minimal noise associated with equipment operation during construction which will be short-term.

The use of augers and vibration cassions may be used to place transmission structures into the ground. Odors from diesel-driven vehicles or construction equipment may be generated in the immediate vicinity of each transmission structure and for short periods of time during the construction period. The location may vary based upon active construction areas. There may be some diesel emissions at the laydown/storage yards where equipment is used to unload and store materials.

14. The Proposed Project will not significantly degrade areas of paleontological, historic, or archaeological importance.

According to the literature and file searches from the Colorado Office of Archaeology and Historic Preservation cultural resource database, no paleontological resources have been

previously recorded within 1,000 feet on either side of the centerline (a 2,000 foot corridor) of the proposed Preferred Alternative.

The Preferred Alternative crosses one site, the only known site within 1,000 feet of the Alternative. This site is the historic route of the Union Pacific Railroad through Arapahoe County. This resource is considered Eligible for the National Register of Historic Places (NRHP). It is the only cultural resource located along the Preferred Route and the Alternatives in Arapahoe County. No previously identified paleontological resources have been identified in the project area. The Preferred Alternative is a generally low impact route that crosses the lowest number of previously recorded sites.

Alternative C crosses the active Union Pacific railroad bed and is within 1000 feet of the Union Pacific RR Historic Route – a previously used railroad bed. The Preferred Alternative (Alternative A) is approximately four (4) miles from the historic resource at its nearest point. Avoidance of the historic resource is the only mitigation that is appropriate for this resource and impacts to visual resources is only accomplished by distance between the historic resource and the proposed transmission line. The Preferred Route is seen by the Union Pacific RR Historic Route (based on a seen/unseen GIS analysis see Appendix H). Previously recorded sites in the vicinity of the Project corridors in Arapahoe County are summarized below in Table 5-5 from the Application. There are no historic / prehistoric previously recorded sites within 1000 feet of the Preferred Alternative. Six miles of ROW of Preferred Alternative are within an area classified for high potential of archaeological and cultural resource sites.

15. The Proposed Project will not result in unreasonable risk of releases of hazardous materials. In making this determination as to such risk, the Board's consideration shall include:

Construction equipment and operation and maintenance vehicles will be properly maintained to minimize leaks of motor oil, hydraulic fluids, and fuels. During construction, refueling and maintaining vehicles that are authorized for highway travel will be performed off-site at an appropriate facility. A Spill, Prevention, Containment, and Countermeasure (SPCC) Plan will be prepared for the Project and will contain information regarding training, equipment inspection, maintenance, and refueling for construction vehicles, with an emphasis on preventing spills. Please see Section 5.11 Hazards and Emergency Procedures for additional information.

- a. Plans for compliance with federal and State handling, storage, disposal and transportation requirements.
The SPCC Plan will contain detailed information on the procedures for the handling, storage, disposal and transportation of hazardous materials. See Section 5.11 Hazards and Emergency Procedures for additional information.
- b. Use of waste minimization techniques.
The SPCC Plan will contain detailed information on waste minimization techniques. In addition, PSCo will use include construction documents that address the

minimization and proper disposal of construction waste materials. Please see Section 5.11 Hazards and Emergency Procedures for additional information.

- c. Adequacy of spill prevention and response plans.

The SPCC Plan will contain information regarding training, equipment inspection, maintenance, and refueling for construction vehicles, with an emphasis on preventing spills. PSCo will include their standard emergency response plan for spills and emergencies in their project construction documentation. Please see Section 5.11 Hazards and Emergency Procedures for additional information.

16. The benefits accruing to the County and its citizens from the proposed activity outweigh the losses of any resources within the County, or the losses of opportunities to develop such resources.

The Project will present economic and environmental benefits to Arapahoe County, the State of Colorado, and PSCo's ratepayers, and further, there are limited costs to PSCo associated with the Project. Costs and benefits are summarized below and discussed in Section 5.12 of this application.

Potential Project benefits include:

- Increase tax based for Arapahoe County;
- Easement payments provide additional income for landowners;
- Local spending for Project construction materials and other goods and services;
- Economic generation for the State of Colorado for Project construction materials, specialized labor, and other goods and services;
- Long-term cost savings for PSCo ratepayers;
- County road maintenance and improvements;
- Facilitating renewable, sustainable energy for the State of Colorado; and
- Support to local community organizations and events.

Potential Projects impacts include:

- Visual impacts due to heights of transmission line structures; and
- Minimal community and local governmental service demands, including minor impact to emergency, fire, and safety services.

17. The Proposed project is the best alternative available based on consideration of need, existing technology, cost, impact and these regulations.

When considering landowner interests, both within Arapahoe County and along the entire Project route, the selected Preferred Alternative was chosen to minimize impacts to human and natural resources (e.g., habitual structures, wetlands, cultural resources, wildlife, etc.), as it parallels an existing transmission ROW in a sparsely populated, rural area and provides a unencumbered route to the Missile Site Substation. The end result was the identification of eight end-to-end alternatives and selection of a Preferred Alternative that balances all the factors necessary to ensure a properly sited transmission line that can be sited on available leased public and private land.

18. The Proposed Project will not unduly degrade the quality or quantity of agricultural activities.

The Project will not have significant effects on agricultural activities. Prime farmland within the Project Area in Arapahoe County is classified as prime farmland if irrigated or prime farmland if irrigated with other conditions (such as if cleared of excess salts). Potential soil impacts to prime farmland from transmission line construction include soil erosion, mixing of topsoil and subsoil, potential loss of topsoil, and soil compaction. Prime farmland within the construction zone may be unavailable to agriculture production during the construction period. Prime farmland would be reclaimed after the conclusion of the construction period, which may include regrading to original land contours, relieving compaction, topsoil replacement, and reclamation to the original vegetative cover or similar species.

Assuming each pole structure footprint is approximately ten (10) square feet (permanent impact); access roads are approximately 12' wide (temporary impacts), and 13 miles of transmission line ROW and access roads in Arapahoe County. The impacts to agricultural lands in Arapahoe County are:

- Permanent impact from transmission structures - approximately 0.04 acres (1,600 square feet); and**
- Temporary impact from access roads-approximately 19 acres.**

19. Cultural Resources. The Proposed Project will not significantly interfere with the preservation of cultural resources, including historical structures and sites, agricultural resources, the rural lifestyle and the opportunity for solitude in the natural environment.

According to the literature and file searches from the Colorado Office of Archaeology and Historic Preservation cultural resource database, no paleontological resources have been previously recorded within 1,000 feet on either side of the centerline (a 2,000 foot corridor) of the proposed Preferred Alternative.

The Preferred Alternative crosses one site, the only known site within 1,000 feet of the Alternative. This site is the historic route of the Union Pacific Railroad through Arapahoe County. This resource is considered Eligible for the National Register of Historic Places (NRHP). It is the only cultural resource located along the Preferred Route and the Alternatives in Arapahoe County. No previously identified paleontological resources have been identified in the project area. The Preferred Alternative is a generally low impact route that crosses the lowest number of previously recorded sites and will not significantly interfere with the preservation of cultural resources.

20. Land Use. The Proposed Project will not cause significant degradation of land use patterns in the area around the Proposed Project.

Zoning districts within the Project Area include Agricultural Estate (A-E) and the Agricultural-1 (A-1). However, as discussed below, the Project will not have significant

effects on the agricultural activities, as most agricultural activities, such as ranching and grazing of livestock, are compatible with transmission line corridors.

Although the primary land use activity is farming and ranching, only approximately 30 percent of the area is considered prime farmland if irrigated or prime farmland if irrigated with other conditions (such as if cleared of excess salts) as indicated by NRCS. Prime farmland within the construction zone may be unavailable to agriculture production during the construction timeframe. Prime farmland would be reclaimed at the conclusion of the construction period, which may include regrading to original land contours, relieving compaction, topsoil replacement, and reclamation to the original vegetation cover or similar species.

21. Compliance with Regulations & Fees. The applicant has complied with all applicable provisions of these regulations and has paid all applicable fees.

PSCo will comply with all regulations and all development and application fees to Arapahoe County.

C. Additional Criteria Applicable to Major Facilities of a Public Utility

In addition to the general criteria set forth in Section V, Part A, above, the following additional criteria shall apply to major facilities of a public utility:

1. Areas around major facilities of a public utility shall be administered so as to minimize disruption of the service provided by the public utility.

PSCo coordinates with local utilities during the planning and construction of new transmission lines. PSCo intends to continue coordination with transmission and distribution providers in order to ensure minimal service disruptions in the eastern area of Arapahoe County. PSCo will coordinate with the Intermountain Rural Electric Association, Mountain View Electric Association, and Tri-State Generation and Transmission Association on any planned outages associated with the construction of the Project in order to minimize any disruptions to service.

2. Areas around major facilities of a public utility shall be administered so as to preserve desirable existing community and rural patterns.

The Project will not degrade the existing rural land use patterns observed in the eastern area of Arapahoe County. The Preferred Alternative parallels an existing transmission line corridor and eliminates a new corridor across an undeveloped area of Arapahoe County.

3. Where feasible, major facilities of a public utility shall be located so as to avoid direct conflict with adopted local comprehensive, State and regional master plans.

The Project is in general conformity with the applicable Arapahoe County Comprehensive Plan (Plan) because the Preferred Alternative minimizes impacts to residents, natural resources, and cultural resources and it parallels an existing transmission line corridor for

100% of its length through the County. The Plan's Policy 2.4(a) recognizes that facilities such as the transmission line will be allowed in the Rural Area on a case-by-case basis, except in sensitive development and riparian corridor areas. The transmission line will be located on privately- and state-owned lands. The transmission line will not be constructed in riparian or Sensitive Development Areas identified under the Plan.

In addition, the Project is consistent with Arapahoe County planning and zoning and the Arapahoe County Open Space Master Plan (Arapahoe County 2010b) and will comply with all County regulations and requirements. The transmission line will adhere to Policy PFS 4.2 – Achieve Land Use Compatibility, when Siting Regional and Local Utilities requires utilities to be built in a manner that is safe and compatible with surrounding land uses. Zoning districts within the Project Area include Agricultural Estate (A-E) and Agricultural-1 (A-1). The zoning districts are intended to correspond to and implement the “Rural Area Uses” and “Open Space” land use categories designated in the Land Use Plan element of the Comprehensive Plan. The regulations for A-E and A-1 are district-specific which are applied on a district-wide basis and generally relate back to the stated purposes of the zone district. Please see Section 3.1 for more information.

4. Where feasible, major facilities of a public utility shall be located so as to minimize dedication of new right-of-way and construction of additional infrastructure (e.g., gas pipelines, roads, and distribution lines).

PSCo used best industry standards and extensive experiences from similar projects in planning the Rush Creek 345 kV Transmission Line Project so as to minimize the dedication of greenfield ROW and the construction of new infrastructure beyond that which is already contemplated in CO SB-07-100. The Preferred Alternative will parallel the existing NextEra 345kV transmission line from the Arapahoe/Elbert County line to the Missile Site Substation.

This page intentionally left blank.

1. APPLICANT INFORMATION

1.1 Applicant Address and Contact

Company:

Public Service Company of Colorado
1800 Larimer Street, 4th Floor,
Denver, Colorado 80202

Contact:

Erin A. Degutis, RLA, AICP, LEED AP
Telephone: 303.571.7735
Email: Erin.A.Degutis@xcelenergy.com

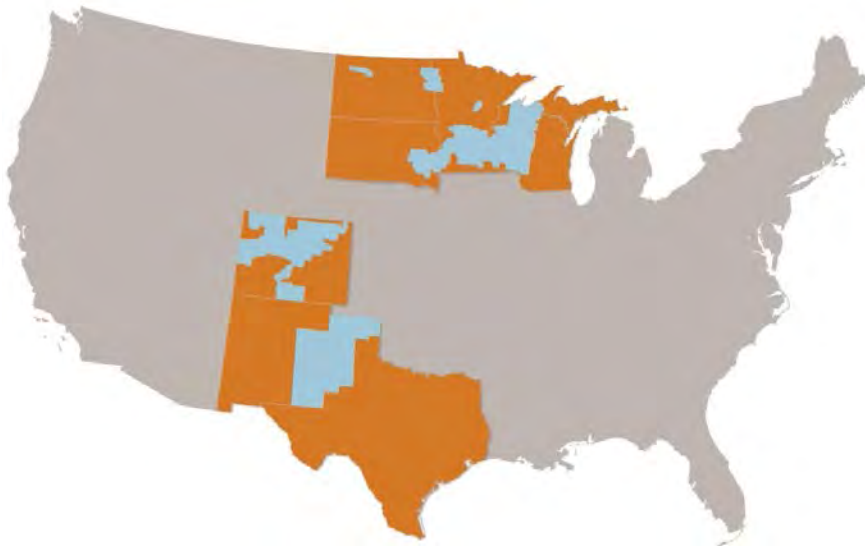
1.2 Background on Xcel Energy, Inc. and Public Service Company of Colorado.

Xcel Energy is a major U.S. electric and natural gas company with annual revenues of \$11 billion. Based in Minneapolis, Minnesota, the company provides the energy that serving more than 3.3 million electric customers and 1.8 million natural gas customers across eight Western and Midwestern states, including Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin (**Figure 1-1**).

Xcel Energy's workforce of more than 12,000 is rising to the challenge of a changing industry—one that requires the company to be even more customer focused, forward thinking and productive. Xcel Energy remains committed to meeting its customers' fundamental need for safe, reliable, affordable energy.

Xcel Energy is a recognized industry leader in delivering renewable energy and reducing carbon and other emissions, efforts that have put it on a path to a more sustainable energy future. Xcel Energy is proud to be the No. 1 utility wind-generated electricity provider for the 12th consecutive year. Its business requires that it achieves the right mix in all it does—cultivating the right talent, offering customers the right options, collaborating with communities, investing for the future and protecting the environment. PSCo does not own or operate any other wind transmission projects in Colorado. Independent Power Producers (IPPs) own and operate the high voltage transmission lines from their wind farms that connect with PSCo substations. PSCo has a wind portfolio of over 2600 MW, which is purchased through 15 long-term purchase power agreements. PSCo purchases wind energy from the following wind farms in Colorado: Peetz Table; Cedar Creek I and II; Logan; Ridge Crest; Spring Canyon; North Colorado I and II; Cedar Point; Limon I, II, and III; Golden West; Colorado Green; and Twin Buttes. The inclusion of the Rush Creek Wind Project, the largest wind farm in the state when completed, will bring PSCo's wind portfolio total to over 3200 MW.

Xcel Energy Inc.'s operations include the activity of four wholly owned utility subsidiaries that serve electric and natural gas customers in eight states. These utility subsidiaries, referred to as operating companies, are Northern States Power Company-Minnesota, Northern States Power Company-Wisconsin, Public Service Company of Colorado (PSCo) and Southwestern Public Service Company. PSCo is the subsidiary of Xcel Energy that will own, construction, operate, and maintain the proposed Project that this application is prepared for.



1.3 Legal Description and Disclosure of Ownership

The Applicant, PSCo (the Applicant), is proposing to construct approximately 13.5 miles of 345 kilovolt (kV) transmission line in Arapahoe County (the Project). PSCo is submitting their Areas and Activities of State Interest (1041) permit application per the requirements outlined in Chapter 5 of the Regulations Governing Areas and Activities of State Interest in Arapahoe County for the Project. The Project Area within Arapahoe County is approximately 300 acres. It is PSCo's intent to secure options for transmission line easements (options) with the landowners within the Project Area prior to the Arapahoe Board of County Commissioners meeting this fall. State lands are crossed for 1 mile in Arapahoe County.

The Rush Creek wind project will save PSCo ratepayers over \$800 million of dollar in energy costs over the next 25 years. With the wind farm and transmission facilities, PSCo will invest an estimated \$1 billion dollars into the state's economy including the purchase of 300 Vestas wind turbines which will be manufactured in Brighton, Pueblo, and Windsor, Colorado. The wind farm will provide millions of dollars in sales and property taxes to local and state government and \$3 to \$7.5 million in annual landowner wind payments. At the peak of construction, the wind and transmission project will employ about 350 construction workers.

The total estimated cost to construct the entire 80-93 mile-long (depending on the alternative route selected) transmission Project is approximately \$121 million. These costs will initially be paid out of PSCo's operating capital.

See Appendix G for the overview of PSCo's financial statement for fiscal year 2015. See pages 12-19 (34-39 page numbering within the file) in the Appendix G for a summary of PSCo's current finances in terms income, expenses, liabilities, etc. Xcel Energy's Annual Report for 2015 and the most recent 10-K filing with the Securities and Exchange Commission is available upon request.

This page intentionally left blank.

2. PROJECT DESCRIPTION

2.1 Project Purpose and Need

The demand for alternative energy sources has steadily increased in the United States and in Colorado. Colorado became the first state to create a RPS by ballot initiative, when voters approved Amendment 37 in November 2004. Through various legislative mechanisms, the RPS has increased in Colorado from three percent in 2007 to 30 percent by 2020. In Title 4 of the Colorado Code of Regulations 723-3, Section 3651 (Overview and Purpose), it states:

Energy is critically important to Colorado's welfare, and development, and its use has a profound impact on the economy and environment. Growth of the state's population and economic base will continue to create a need for new energy resources, and Colorado's renewable energy resources are currently underutilized. Therefore, in order to save consumers and businesses money, attract new businesses and jobs, promote development of rural economies, minimize water use for electricity generation, diversify Colorado's energy resources, reduce the impact of volatile fuel prices, and improve the natural environment of the state, it is in the best interest of the citizens of Colorado to develop and utilize renewable energy resources to the maximum extent practicable.

From now through 2025, energy demand is expected to grow approximately two percent annually. The Colorado Department of Local Affairs estimates that the state's population will grow to over 6.7 million people by 2025, a 64 percent increase over the current population. PSCo's system in Colorado will continue growth at 1.4 percent annually, with approximately 126,000 new customers by year 2023. With population growth projections and energy demand growth, PSCo will need approximately 600 megawatts of additional power supplies through the year 2023. Upon completion, the proposed Rush Creek Wind Project will be the largest wind-generated electricity generation facility in Colorado, contributing significantly to Colorado achieving its renewable energy goals.

2.2 Project Overview

PSCo is proposing to develop 600 MW of new wind-generated electricity and approximately 80 to 93 miles (depending on the alternative) of new 345 kV transmission facilities on the eastern plains of Colorado. The wind projects will consist of two wind farms; an approximately 400 MW wind farm called Rush Creek I, located in Elbert County; and an approximately 200 MW wind farm called Rush Creek II, located in Lincoln, Kit Carson, and Cheyenne Counties. Land use permitting and leasing for these two farms will be completed by a wind developer, Invenergy LLC. Upon completion of permitting and leasing of the Rush Creek Wind Farms, PSCo will acquire the Rush Creek I and Rush Creek II Wind Farms from Invenergy LLC and complete development, including construction, operation, maintenance, and ongoing ownership of the farms.

PSCo is proposing to construct a new 345 kV transmission line interconnecting the Rush Creek I and Rush Creek II Wind Farms to the existing Missile Site Substation located in Arapahoe County. The 345 kV transmission line will be approximately 80 to 93 miles (depending on the Preferred Alternative) in length, with a 150 to 200-foot ROW. PSCo's Preferred Alternative is approximately 81 miles in length and crosses portions of Arapahoe, Elbert, and Lincoln Counties. All three counties will require land use

permits to construct the transmission line. Arapahoe and Elbert Counties will require 1041 and Special Use Permits; Lincoln County will require a Use by Special Review and Development Permit. PSCo filed a Certificate for Public Convenience and Necessity application with the Colorado PUC on May 13, 2016.

2.3 Rush Creek Wind and Transmission Project Overview

For background and context for the entire Rush Creek Wind Project, a brief overview of wind-generated electricity and a general overview of the Rush Creek Wind Project are included below. There will be no wind generation facilities in Arapahoe County and this 1041 Permit Application is for the Rush Creek 345 kV Transmission Line.

The basic components of any wind-generated electricity generation facility include the turbines, power collection system, roads, substations or switchyards, and transmission system. Wind-generated electricity production includes the following five basic components,

1. **Electrical Power Generation** – Wind blowing against the turbine blades causes the blades to rotate, which in turn rotates electrical generators that produce electricity.
2. **Energy Transfer** – The generated electricity is fed through cables within the tower to a base panel at ground level inside the tower. The electricity is fed to a transformer located in or adjacent to the tower that increases (steps up) the power to a higher voltage.
3. **Collection System** – The power stepped-up through the transformer is fed into an underground or overhead collection system. Power collection lines connect groups of wind turbines in the field to a substation.
4. **Substation/Switchyard** – At the substation, the voltage is stepped up again to that it can be fed into the electrical transmission system. At a switchyard, the electric transmission is connected into an existing transmission system of the same size. In Arapahoe County, there will only be upgrades to the existing Missile Site Substation to accommodate the interconnection for this project.
5. **Utility Transmission** – Electricity is sent through the electrical transmission lines to utility distributions systems for delivery to customers. The proposed 345 kV transmission line will connect to the existing Missile Site Substation in Arapahoe County north of Deer Trail, Colorado.

Table 2-1 Rush Creek Wind Project Overview by County

County	345 kV Transmission Line	Rush Creek I - 400 MW Project	Rush Creek II - 200 MW Project	Substations
Arapahoe	~ 13.5 miles	N/A	N/A	Modify the existing Missile Site Substation for the proposed 345 kV transmission line interconnection.
Cheyenne	N/A	N/A	Yes	N/A
Elbert	~ 41 miles	Yes	N/A	New collector substation for Rush Creek I.
Kit Carson	N/A	N/A	Yes	N/A

County	345 kV Transmission Line	Rush Creek I - 400 MW Project	Rush Creek II - 200 MW Project	Substations
Lincoln	~ 26 miles	N/A	Yes	New collector substation for Rush Creek II.

The Site Plan (**Exhibit A**) shows a layout of the proposed Rush Creek Wind Project, including the transmission line routing, arrangement of wind turbines, roads, and substations. Engineering design of the entire Rush Creek Wind Project is ongoing; this information is subject to minor changes, including the final transmission line routing and structure placement, substation locations, construction access roads, temporary staging and material yards, number of turbines and the specific locations of turbines, new roads, collection systems, and other associated project facilities.

2.4 Arapahoe County Project Site Description

The Arapahoe County – Rush Creek 345 kV Transmission Line Project Map (**Figure 2-1**) depicts the project location in the eastern area of Arapahoe County. The portion of the Project in Arapahoe County will be sited on private or state lands comprising approximately 300 acres of utility ROW that is between 150 and 200 feet wide. Of the approximately 13.5 miles of proposed transmission line in Arapahoe County, 100 % is co-located with existing transmission line. PSCo will finalize design and layout of the transmission and substation facilities and infrastructure prior to signature of final design that follows approval of 1041 Permit and associated permits (i.e., building permit, etc.) required for the Rush Creek 345 kV Transmission Line Project prior to construction.

The existing Missile Site Substation, owned by PSCo, will be the termination point of the 345 kV transmission line. The Arapahoe County – Rush Creek 345 kV Transmission Line Project Map (**Figure 2-1**) and **Exhibit A** contains a site plan of the proposed facilities in Arapahoe County. The transmission line will extend south from the Missile Site Substation for approximately two miles, then east for approximately three miles, then south across Jolly Road for approximately three miles, then east for approximately two and one-half miles, and then south across Wall Road to the Arapahoe/Elbert County line for approximately three miles. The Arapahoe County portion of the project is characterized by rural and semi-flat to gently rolling topography, with occasional drainages and ravines. The land use of the area is primarily dryland farming and ranching. The land is underlain by loamy soils covered by shortgrass vegetation or agricultural fields. The zoning in the eastern area of Arapahoe County is predominantly Agricultural Estate (A-E) with a few parcels of Agricultural-1 (A-1).

2.5 Transmission Line Siting Overview and Alternative Analysis Summary

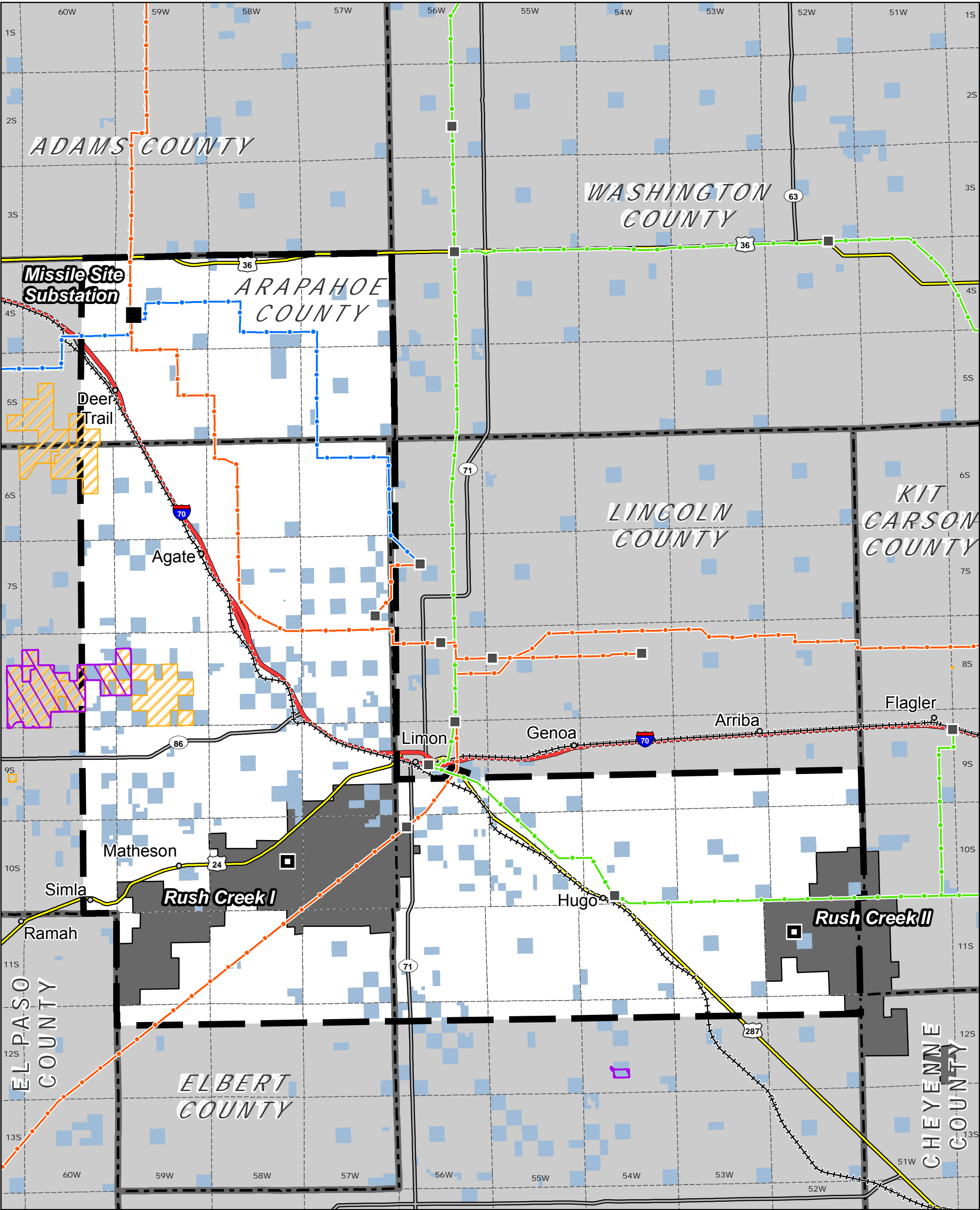
2.5.1 Transmission Line Siting Overview

The siting of transmission lines is a complex process that must balance the engineering, environmental, and social factors of a project. In the siting of the transmission line for the Rush Creek Wind Project, PSCo first defined the Project Area with endpoints and then undertook a series of studies and analyses to evaluate several transmission line corridors. The criteria for siting was selected to minimize environmental impact, reduce proximity to residences, and meet engineering requirements. The end result was the identification of eight end-to-end alternatives and selection of a Preferred Alternative that

balances the factors necessary to ensure a properly sited transmission line that can be sited on available public and private land.

Several environmental resources were evaluated relative to the Preferred Alternative and the other identified end-to-end alternatives. These criteria were based on resources that could be quantified along each alternative with readily available data and which were potentially sensitive resources within Arapahoe County. These criteria are included in **Table 2-2** below.

.



Existing Missile Site Substation

Proposed Substation

Study Area

Proposed Wind Farm Boundary

Existing Substation

Existing 345 kV Transmission Line

Existing 230 kV Transmission Line

Existing 69 kV or 115 kV Transmission Line

County Boundary

Township Boundary

Interstate Highway

US Highway

State Highway

Railroad

State Lands

State Wildlife Area

Conservation Easement

COLORADO

Project Location

0612

Miles

POWER ENGINEERS

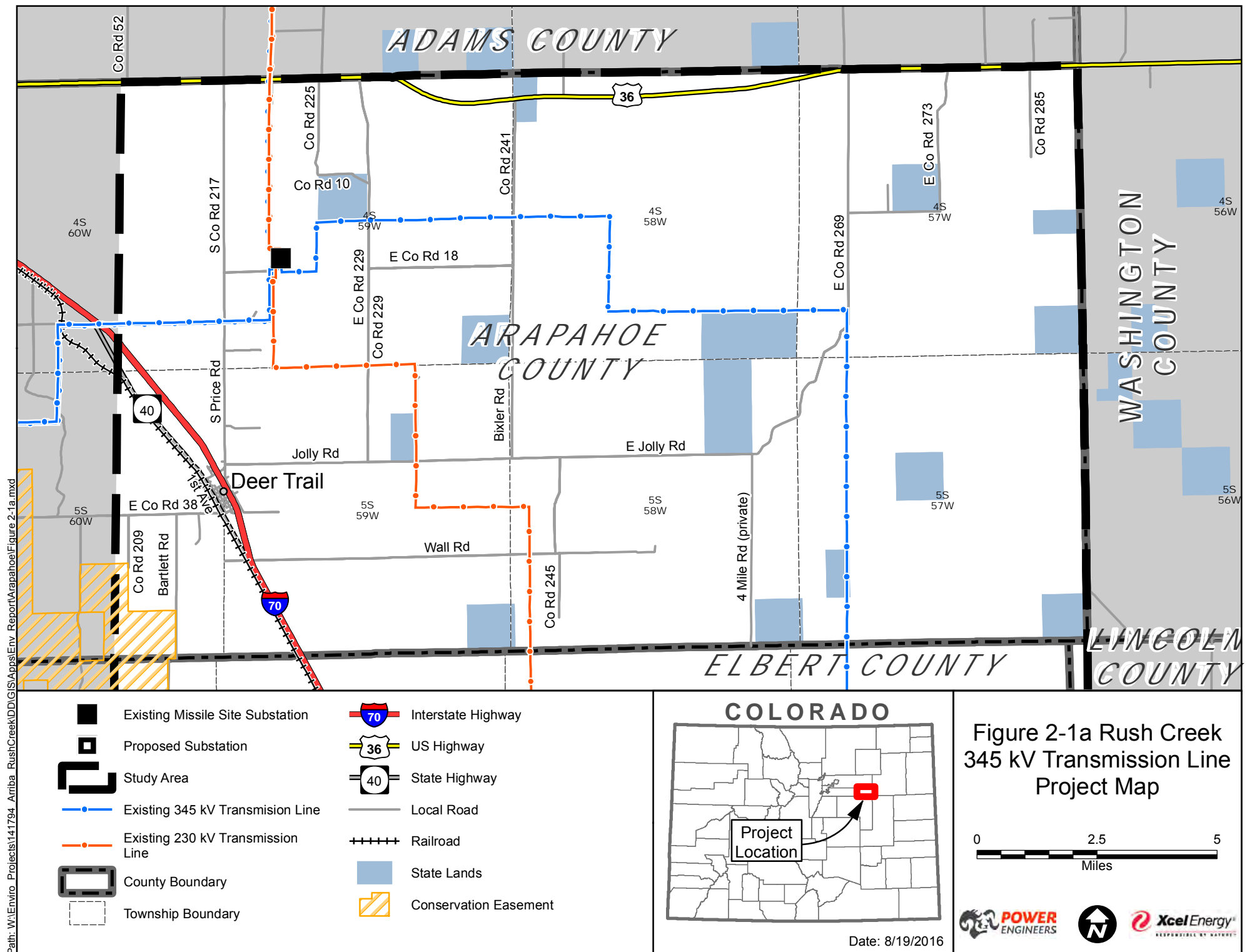
Xcel Energy

RESPONSIBLE BY NATURE

Path: W:\Enviro_Projects\141794_Arriba_RushCreek\DD\GIS\Apps\Env_Report\All\Project 11X17.mxd

Date: 7/26/2016

This page intentionally left blank.



This page intentionally left blank.

Table 2-2 Land Use and Environmental Transmission Line Siting and Analysis Criteria

Evaluation Criteria
Land Use/Engineering/Construction
Length of alternative route
<i>Number of Angles</i>
<i>Slope of 30%</i>
Total number of habitable structures ¹ within 500 feet & 0.5 miles of ROW centerline
Total number of other structures within 500 feet & 0.5 miles of ROW centerline
<i>Educational/daycare facilities</i>
<i>Churches</i>
<i>Medical facilities</i>
<i>Other (museums, libraries, commercial etc.)</i>
Length of ROW parallel and adjacent to apparent property boundaries ²
Length of ROW parallel and adjacent to existing transmission line ROW
Length of ROW parallel to other existing right of way (highways, railways, pipelines, etc.)
Number of parks/recreational areas ³ within 1,000 feet of ROW centerline
Length of ROW through cropland
Length of ROW through pasture/rangeland
Length of ROW through land irrigated by traveling systems (rolling or pivot type)
Number of pipeline crossings
Number of transmission line crossings
Number of railroad crossings
Number of Interstate, U.S. and State highway crossings
Number of cemeteries within 1,000 feet of the ROW centerline
Number of private airstrips within 10,000 feet of the ROW centerline
Length of ROW through active sand, gravel or coal extraction area
Number of heliports within 5,000 feet of the ROW centerline
Number of FAA recognized airports with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline
Number of FAA recognized airports having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline
Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline
Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline
Aesthetics
Estimated length of ROW within foreground visual zone ⁴ of Interstate, U.S. and State highways
Estimated length of ROW within foreground visual zone ⁴ of parks/recreational areas ³
Ecology
Length of ROW across National Wetland Inventory mapped wetlands
Length of ROW across known habitat of federally listed endangered or threatened species
Length of ROW across known habitat of state listed endangered or threatened species
Length of ROW across known habitat of raptor species
Acres of ROW that cross major vegetation cover types
Length of ROW across open water (lakes, ponds)
Length of ROW across playa lakes
Length of ROW across FEMA-designated floodplain
Number of stream crossings (including perennial, intermittent, and ephemeral streams)

Evaluation Criteria
Number of river crossings
Length of ROW parallel (within 100 feet) to streams or rivers
Cultural Resources
Number of recorded historic or prehistoric sites crossed by ROW
Number of additional recorded historic or prehistoric sites within 1,000 feet of ROW centerline
Number of National Register listed or determined eligible sites crossed by ROW
Number of additional National Register listed or determined eligible sites within 1,000 feet of ROW centerline
Length of ROW through areas of high archaeological/historic site potential

Notes:

¹ Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project greater than 230-kV.

² Property lines created by existing roads, highway, or railroad ROW are not "double-counted" in the length of ROW parallel to property lines criteria.

³ Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church.

⁴ One-half mile, unobstructed.

2.5.2 Transmission Line Alternatives and Analysis Summary

Following collection and analysis of the Environmental Siting Criteria (see **Table 2-2** above), a geographic information system (GIS) was used to quantify the siting criteria for each of the eight Alternatives geospatially and select PSCo's Preferred Alternative. The geospatial quantification for each alternative and those portions occurring in Arapahoe County is summarized below and in **Table 2-3**. A map of the eight alternatives routes is shown in **Figure 2-2** – Transmission Line Alternatives Map.

2.5.2.1 Wetlands

Wetland crossings were identified using the National Wetland Inventory (NWI) digital database. This database, established in 1975 by the U.S. Fish and Wildlife Service (USFWS), provides wetlands data in map and digital form for the United States. Each Alternative was overlaid onto the NWI digital database to determine the number of wetlands crossed by each line. In Arapahoe County, Alternatives A, B, D, E, and H do not cross wetlands. Alternatives C, F, and G have the highest total length of NWI wetlands crossed by the ROW in Arapahoe County, with 0.3 miles.

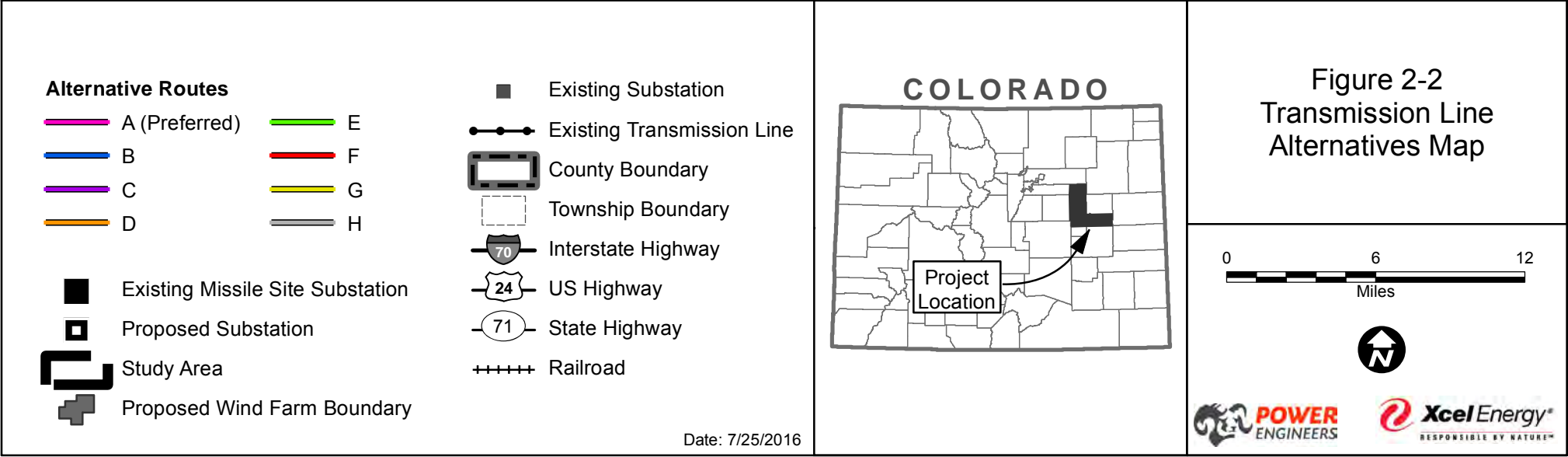
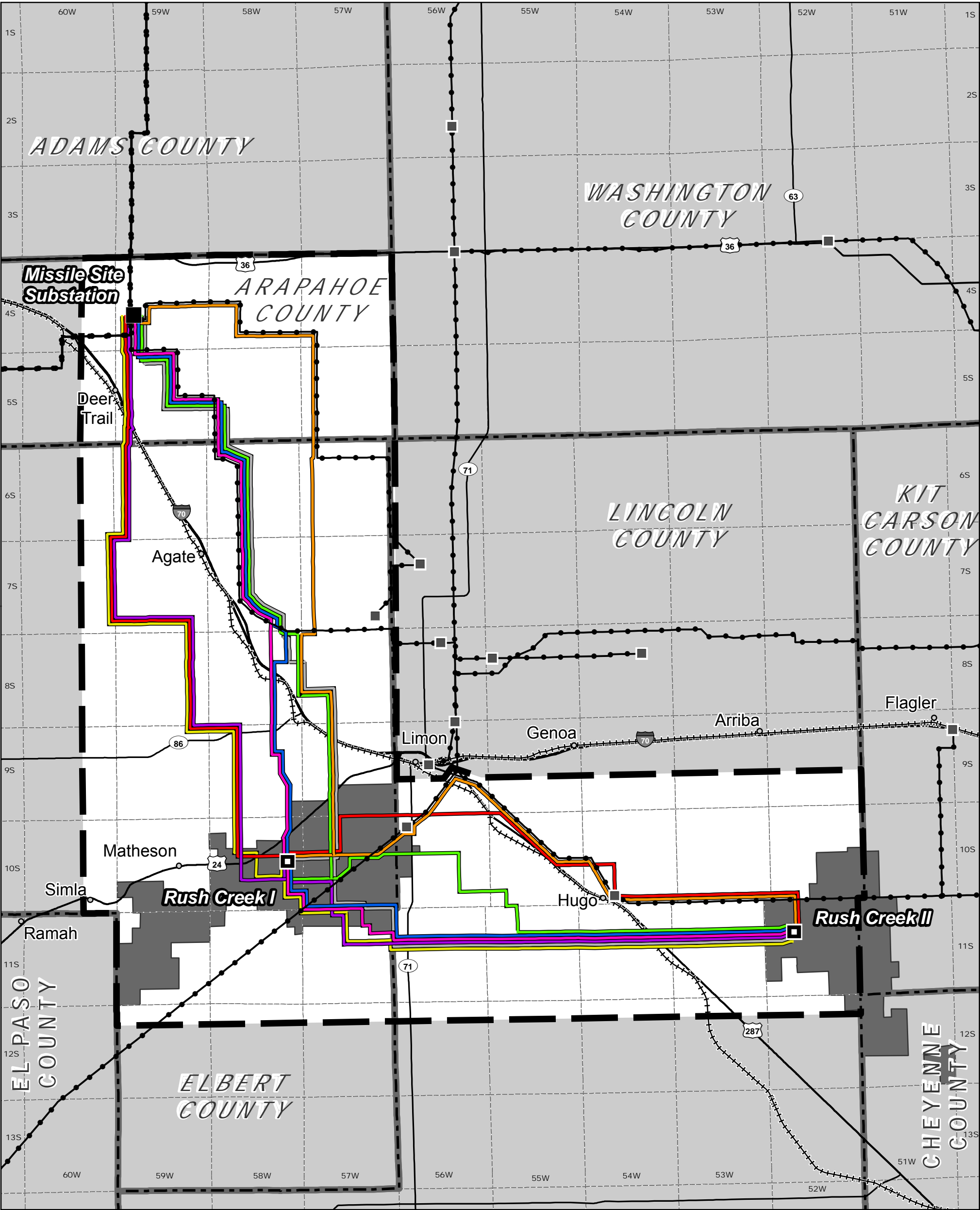
2.5.2.2 Floodplains

Arapahoe County floodplains were mapped in GIS using Federal Emergency Management Agency (FEMA) and cross-checked with Arapahoe County's ArapaMap 3.6 online mapping tool (see **Exhibit B** – Water Resources – Arapahoe County Map). In Arapahoe County, Alternatives A, B, E, and H do not cross FEMA Floodplains. Alternatives A, B, E, and H do cross seven Arapahoe County defined floodplains (any drainage way with a tributary area of 130 acres or more). Alternatives C, F, and G have the highest total length of FEMA-designated floodplains crossed in Arapahoe County, with 0.8 miles. In Arapahoe County no perennial streams, ephemeral streams, or river are crossed. Alternatives C, F, and G have nine intermittent stream crossings; Alternatives A, B, E, and H have 15 intermittent stream crossings; and Alternative D has 25 intermittent stream crossings.

Table 2-3 Arapahoe County Transmission Line Comparison Table

Environmental Siting Criteria	Arapahoe County Portion of the Alternative								Entire Alternative							
	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
Length of alternative route (Miles)	13.5	13.5	8.4	22.1	13.5	8.4	8.4	13.5	80.9	82.4	86.0	93.0	87.6	88.0	86.1	84.8
Number of Angles (over 6 degrees)	4	4	11	10	4	11	11	4	34	36	31	34	34	36	37	31
Slope of 30% (Miles)	0	0	0	0	0	0	0	0	0	0	0	0.21	0.04	0	0	0
Total number of residences within 500 feet of right-of-way (ROW) centerline	1	1	1	0	1	1	1	1	5	7	8	2	4	7	6	10
Total number of residences within 0.25 miles of right-of-way (ROW) centerline	4	4	4	2	4	4	4	4	13	15	18	27	13	13	14	18
Total number of residences within 0.5 miles of right-of-way (ROW) centerline	9	9	12	2	9	12	12	9	23	25	35	205	34	62	30	32
Total number of other structures within 500 feet of right-of-way (ROW) centerline	0	0	5	0	0	5	5	0	7	10	19	11	10	25	17	16
Total number of other structures within 0.25 miles of right-of-way (ROW) centerline	4	4	6	0	4	6	6	4	16	22	38	27	29	41	26	33
Total number of other structures within 0.5 miles of right-of-way (ROW) centerline	7	7	11	0	7	11	11	7	46	49	84	155	88	96	68	69
Total number of Educational/daycare facilities within 500 feet of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Educational/daycare facilities within 0.25 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Educational/daycare facilities within 0.5 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Churches within 500 feet of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Churches within 0.25 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Churches within 0.5 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Medical facilities within 500 feet of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Medical facilities within 0.25 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Medical facilities within 0.5 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Other (museums, libraries, commercial etc.) within 500 feet of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Total number of Other (museums, libraries, commercial etc.) within 0.25 miles of right-of-way (ROW) centerline	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0
Total number of Other (museums, libraries, commercial etc.) within 0.5 miles of right-of-way (ROW) centerline	0	0	0	2	0	0	0	0	0	0	0	16	0	10	0	0
Length of ROW parallel and adjacent to apparent property boundaries²	0	0	4.5	0	0	4.5	4.5	0	30.7	29.7	47.7	21.3	35.1	32.0	45.2	31.9
Length of ROW parallel and adjacent to existing transmission line ROW	13.5	13.5	2.2	22.0	13.5	2.2	2.2	13.5	25.3	26.4	2.2	56.2	28.1	20.2	2.2	26.4
Length of ROW parallel to other existing right of way (highways, railways, pipelines, etc.)	0	0	0.3	0.1	0	0.3	0.3	0	9.9	11.8	14.7	7.2	11.3	19.3	16.2	17.2
Number of parks/recreational areas³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Length of ROW through cropland	7.3	7.3	4.8	9.4	7.3	4.8	4.8	7.3	13.6	14.4	11.9	16.9	12.5	11.6	12.7	13.5
Length of ROW through pasture/rangeland	5.7	5.7	2.4	12.1	5.7	2.4	2.4	5.7	64.1	65.0	67.9	72.4	70.4	70.2	67.4	67.0
Length of ROW through land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of pipeline crossings	4	4	2	4	4	2	2	4	10	10	12	12	14	12	12	10
Number of transmission line crossings	5	5	4	3	5	4	4	5	7	7	5	7	7	7	5	7
Number of railroad crossings	0	0	1	0	0	1	1	0	2	2	2	2	2	2	2	2
Number of Interstate, U.S. and State highway crossings	0	0	1	0	0	1	1	0	5	5	5	4	4	5	5	4
Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Length of ROW through active sand, gravel or coal extraction area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0
Number of FAA registered airports with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0

Environmental Siting Criteria	Arapahoe County Portion of the Alternative								Entire Alternative							
	A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
Number of FAA registered airports having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	0	0	0	1	1	1	3	1	7	3	1
Length of ROW across state lands	1.0	1.0	0	3.0	1.0	0	0	1.0	7.1	7.1	6.3	12.7	12.2	8.9	6.3	7.5
Estimated length of ROW within foreground visual zone ⁴ of Interstate, U.S. and State highways	0	0	2.2	0	0	2.2	2.2	0	6.7	6.7	6.6	8.7	5.5	9.9	7.4	5.5
Estimated length of ROW within foreground visual zone ⁴ of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0	0	1.8	0	1.1	0	0
Length of ROW across National Wetland Inventory mapped wetlands	0	0	0.3	0.2	0	0.3	0.3	0	0.5	0.4	1.5	0.4	0.4	1.3	1.5	0.4
Length of ROW across known habitat of federally listed endangered or threatened species	0	0	0	0	0	0	0	0	0	0	0	1.0	0	0	0	0
Length of ROW across known habitat of state listed endangered or threatened species	0	0	0	0	0	0	0	0	2.2	2.2	9.3	7.6	2.8	13.0	9.4	2.0
Length of ROW across known raptor species nest or nest buffer	0	0	0	0	0	0	0	0	1.4	1.7	0	0	0.4	0	0	0.8
Length of ROW across mixed woodland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Length of ROW across shortgrass prairie	5.7	5.7	2.0	12.0	5.7	2.0	2.0	5.7	62.5	63.4	65.7	71.5	68.3	68.7	65.0	65.3
Length of ROW across eastern plains shrubland	0	0	0.0	0.1	0	0.0	0.0	0	1.4	1.5	1.4	0.2	1.8	0.4	1.6	1.3
Length of ROW across open water (lakes, ponds)	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Length of ROW across playa lakes	0	0	0.4	0.0	0	0.4	0.4	0	0.2	0.2	0.8	0.5	0.3	1.1	0.8	0.3
Length of ROW across FEMA-designated floodplain	0	0	0	0.0	0	0	0	0	0	0	0	0.1	0.0	0	0	0.0
Number of ROW crossings of Arapahoe County floodplains	7	7	8	26	7	8	8	7	-	-	-	-	-	-	-	-
Number of perennial stream crossings	0.5	0.5	1.1	0.6	0.5	1.1	1.1	0.5	3.2	2.9	6.2	3.7	4.6	6.3	6.0	4.4
Number of intermittent stream crossings	0	0	0	0	0	0	0	0	0.2	0.2	1.0	0.3	0.2	0.2	1.0	0.3
Number of ephemeral stream crossings	0	0	0.8	0.2	0	0.8	0.8	0	1.5	1.0	2.1	1.0	0.7	2.2	2.1	0.6
Number of river crossings	0	0	0	0	0	0	0	0	2	2	4	5	2	4	4	2
Length of ROW parallel (within 100 feet) to streams or rivers	15	15	9	28	15	9	9	15	82	78	76	115	84	90	71	84
Number of recorded historic or prehistoric sites crossed by ROW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of additional recorded historic or prehistoric sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of National Register listed or determined eligible sites crossed by ROW	0	0	0	0.2	0	0	0	0	0.4	0.2	1.1	1.5	0.6	1.5	1.1	0.2
Number of additional National Register listed or determined eligible sites within 1,000 feet of ROW centerline	0	0	1	0	0	1	1	0	2	2	4	14	4	7	5	4
Length of ROW through areas of high archaeological/historic site potential	0	0	1	0	0	1	1	0	1	1	7	8	2	9	6	2



This page intentionally left blank.

2.5.2.3 Sensitive Developed Areas

Arapahoe County Sensitive Development Areas are defined as prairie grasslands, riparian areas, wildlife habitats, and threatened species conservation areas, where development should be carefully evaluated and designed to minimize impacts on the land. Data from National Land Cover, NWI, FEMA floodplains, Colorado Natural Heritage Data, and data for CPW were obtained and crossed checked with the Arapahoe County Comprehensive Land Use Plan to determine the length of each route passing through these habitats. Wetland, floodplain, and stream crossings are summarized in previous subsections. Shortgrass prairie is crossed for two miles along Alternatives C, F, and G; for 5.7 miles along Alternatives A, B, E, and H; and for 12 miles along Alternative D.

2.5.2.4 Conservation Areas

Potential Conservation Areas are defined by the Colorado Natural Heritage Program as lands that provide habitat and ecological processes upon which a particular species, suite of species, or natural community depends for its continued existence. Although there are no Potential Conservation Areas bisected by any of the routes within the County, this information is presented to compare the alignment of each route relative to these lands on their approach to Arapahoe County. Each route was overlaid onto digital maps of Potential Conservation Areas and the number of miles traversing these lands was calculated.

2.5.2.5 Residences

Residences were identified using aerial photography and reconnaissance-level field data collection. Residences included farm dwellings with outbuildings; a single farm dwelling property consisting of multiple outbuildings constituted a single residence. A residence was considered viable if it had a complete roof, windows, and door(s). Each transmission alignment was buffered by 500 feet, 0.25 miles, and 0.5 miles on each side of the proposed transmission line to determine the number of residences that occurred within three previously mention distance bands from each route. The number of residences occurring within the buffered distance per alternative is summarized below in **Table 2-4**.

Table 2-4 Number of Residences Occurring within the Buffered Distance per Alternative

Alternative	Number of residences within 500 feet of the proposed transmission line.	Number of residences within 0.25 miles of the proposed transmission line.	Number of residences within 0.5 miles of the proposed transmission line.
A	1	4	9
B	1	4	9
C	1	4	12
D	0	2	2
E	1	4	9
F	1	4	12
G	1	4	12
H	1	4	9

In Arapahoe County, Alternative D is routed near the fewest residences and Alternatives C, F, and G are routed near the most residences.

2.5.2.6 Prime Farmland

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses and is not urban, built up, or water areas (Natural Resources Conservation Service [NRCS] 2016). The Project Area within Arapahoe County would be located within soils that have been identified as prime farmland, if irrigated or prime farmland, if irrigated with other conditions (such as if cleared of excess salts). Each route was overlaid onto digital soil maps and the number of miles traversing soil types classified as prime, if irrigated farmland and prime farmland, if irrigated with other conditions were calculated.

2.5.2.7 Land Use

Existing land uses within the eastern area of Arapahoe County are primarily private land, dryland agriculture, pasture/grazing (rangeland), and associated low density residential or agricultural settlements. In the lower density residential areas across the county, settlements of clustered residences, barns, stables, and other agricultural outbuilding are common. Open space occurs primarily on individual private lands, but also on State Land. Colorado State Land Board-owned (State Land) lands are also leased within Arapahoe County in the Project Area (refer to Land Use, Transportation, and Recreation - Arapahoe County; **Exhibit C**). The Richmil Ranch Open Space, a 352-acre Arapahoe County open space area, is located just west and outside of the Project Area study corridors.

Existing transmission lines occur within several corridors in the Project Area and terminate or extend from the exiting Missile Site Substation. The Missile Site Substation is the northern extent of the Project Area. One pipeline also occurs within the Project Area in Arapahoe County. There are other no state, county, or local parks within the Project Area (refer to Land Use, Transportation, and Recreation - Arapahoe County; **Exhibit C**). There are no hiking or biking trails or fishing stream segments identified within the Project Area corridors by the State of Colorado, Arapahoe County, or the Town of Deer Trail.

Goals, Policies, and Strategies are detailed in the Arapahoe County Comprehensive Plan and address the basic policy direction for the County for eight distinct categories: Growth Management; Public Facilities and Services; Neighborhoods and Housing; Employment and Commercial Development; Transportation; Natural and Cultural Resources and the Environment; Open Space, Parks, and Trails; and Fiscal and Economic Impacts.

Countywide policies and Public Facilities and Services policies specifically apply to the development of a high-voltage transmission line. As defined by the Arapahoe County Comprehensive Plan, Public Facilities include “utility lines,” power substations, and power energy facilities. The Arapahoe County Land Development Code (ACLDC) identifies and establishes the zoning districts for the unincorporated portions of Arapahoe County, and details the regulations specific to each zone. The Zoning Districts are intended to correspond to and implement the “Rural Area Uses” and “Open Space” land use categories designated in the Land Use Plan element of the Arapahoe County Comprehensive Plan. Zoning districts within the Project Area include Agricultural Estate (A-E) and the Agricultural-1 (A-1). The regulations for A-E and A-1 are district-specific which are applied on a district-wide basis and generally relate back to the stated purposes of the zone district.

The A-E Zoning District’s specific purpose is:

- All development in the district must respect and respond to the district's unique agricultural and rural character, as well as its topography. All development must be sited to avoid or mitigate any adverse impacts on the rural environment and sensitive development areas, including impacts on the Rural Area's important riparian corridors that perform important drainage, habitat, and recreational functions.
- All development must have no detrimental effects on soil stability or ground water supplies, and all development must also mitigate impacts from runoff or from changes to the drainage characteristic of the land.

The A-1 Zoning District's specific purpose is:

- The A-1 Zoning District is intended to provide and preserve land for agricultural and rural economic uses in the Rural Area of unincorporated Arapahoe County as designated in the Comprehensive Plan. The primary uses allowed in this district are agricultural and open land uses, agriculture-dependent or agriculture-related uses, and other uses supportive of a rural, agriculture-based economy.
- All development in the district must respect and respond to the district's unique agricultural and rural character, as well as its topography. All development must be sited to avoid or mitigate any adverse impacts on the rural environment and sensitive development areas, including impacts on the Rural Area's important riparian corridors that perform important drainage, habitat, and recreational functions.
- All development must have no detrimental effects on soil stability or ground water supplies, and all development must also mitigate impacts from runoff or from changes to the drainage characteristic of the land.

The agricultural zoning districts were established to promote and preserve a rural, agricultural economic base, and lifestyle in the eastern areas of unincorporated Arapahoe County. Residential uses are secondary in the agricultural districts and are developed at very low densities or clustered to protect and conserve existing open and agricultural lands as well as to preserve a rural character. Major Electrical, Natural Gas, and Petroleum-Derivative Facilities of a Private Company are considered an allowed Use by Special Review (USR) in the ACLDC. Refer to **Exhibit D** (Zoning, Special Districts and Parcels – Arapahoe County Map) for zoning districts within the County.

2.5.3 Selection of the Preferred Alternative

When considering landowner interest, both within Arapahoe County and along the entire transmission line route, the selected Preferred Alternative was designed to balance minimizing the number of residences passed along the route within Arapahoe County, minimizing the distance passed through sensitive environmental areas, and minimizing impacts to various resources while maximizing engineering design optimization and the purpose and need of the Project. Alternative A is the shortest end-to-end alternative, it would pass by the fewest number of residences within 0.25 and 0.5 miles (13 and 23 residences, respectively), and has the third lowest number of residences within 500 feet. Alternative A would avoid Potential Conservation Areas and would have the fewest number of wetland crossings. The entire length of Alternative A within Arapahoe County would rank second with respect to the number of stream

crossings. Alternative A within Arapahoe County would have negligible impacts to potential prime farmland soils through the implementation of BMPs; these soils are only considered prime if irrigated.

After reviewing the various resource categories relative to each route alternative through Arapahoe County, Alternative A was selected as the Preferred Alternative. Alternative A would be the second longest alternative through Arapahoe County; however, it would minimize impacts to several key resources and would parallel the existing NextEra 345 kV Transmission Line for its entire length in Arapahoe County. The Preferred Alternative would pass by the fewest number of residences within 1,000 feet and crosses the fewest number of wetlands and floodplains, as defined by Arapahoe County through FEMA data. The Preferred Alternative would rank second for the number of stream crossings and the number of miles through Arapahoe County Sensitive Development Areas; three miles of the preliminary selected route in Arapahoe County were relocated to the west to avoid riparian habitat areas associated with the Muddy Creek drainage. The Preferred Alternative would pass through the most miles of potential prime farmland; however, soils comprising these lands are considered only potential prime farmland and are classified as prime if they are irrigated. The Preferred Alternative would rank second for miles passing through agricultural cropland lands and shortgrass prairie.

In summary, to accommodate landowner interest while seeking to minimize environmental impacts, Alternative A was selected as the Preferred Alternative for this balance based on the analysis compared to the other seven alternatives. Alternative A is compliant with the Arapahoe County Comprehensive Plan, it minimizes impacts to residents, natural resources, and cultural resources and it parallels an existing transmission line corridor for 100% of its length through the County. Similar minimization principals also apply to Alternative A from an end-to-end perspective (**Table 2-3**).

2.6 Project Features

2.6.1 *Transmission Line*

2.6.1.1 Structures

The proposed transmission structure types for the 345 kV transmission line would be single-circuit steel H-frame and three-pole steel angle structures (see **Figures 2-3 and 2-4**). Transmission pole structures would be Core-ten (self-weathering) steel, which weathers to a dark chocolate brown color. In some areas, steel transmission structures would be guyed to provide additional structure support. In areas that require long spans between structures, such as riparian or stream crossings, or rugged terrain, a taller, larger H-frame structure would typically be used. In areas where the line changes direction resulting in a greater angle, the transmission line could be supported by three-pole steel angle transmission structures.



Weathering steel

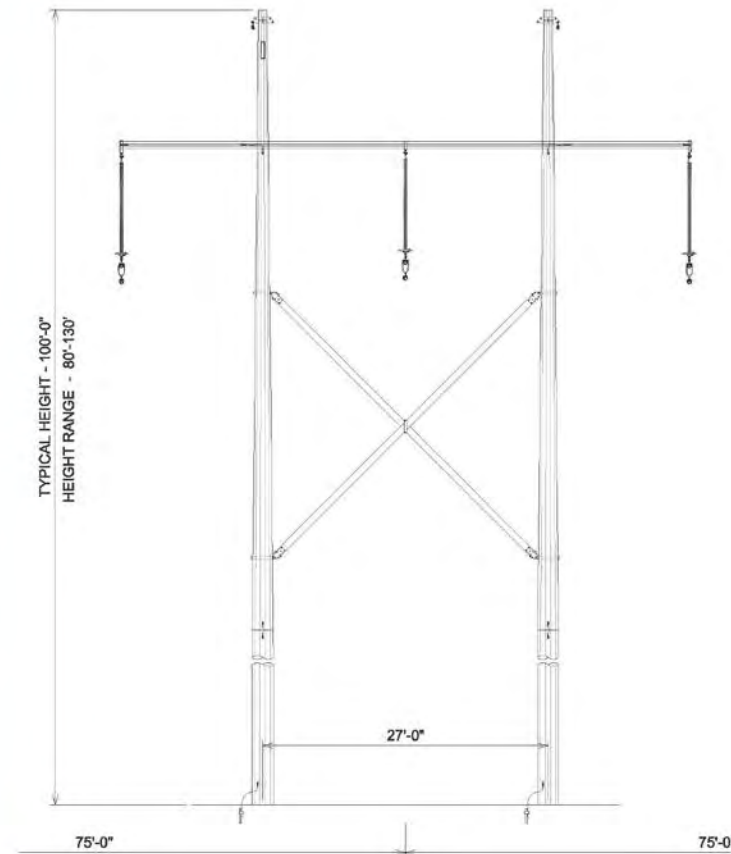


Figure 2-3 **Typical Steel H-Frame Transmission Structure**





Figure 2-4 **Typical Steel Three-Pole Angle Transmission Structure**

Typical transmission structure heights for the tangent (structures that hold the line up, but bear little tension), dead-end (structure that bears tension) and angle transmission structures (structure that supports change in line direction and bears tension) would be approximately 80 to 130 feet above the existing ground, depending on terrain and span length. Structures spans would typically be 600 to 900 feet in length. In most cases, transmission structures would be directly embedded into the ground. Additional foundation support, such as drilled pier concrete foundations, is not anticipated at this time, but may be used in special design cases depending on geotechnical conditions. The diameter of the transmission structure poles would be approximately three to five feet, depending on framing configuration and the angle to adjacent transmission structures.

2.6.1.2 Conductors and Associated Hardware

The 345 kV transmission line would consist of three phases with each phase consisting of bundled conductors composed of two 954 aluminum conductor steel supported (ACSS) cables or conductors of comparable capacity. An ACSS consists of seven steel wires surrounded by 54 aluminum strands. Each conductor is approximately 1.2 inches in diameter. Minimum conductor height above the ground for the 345 kV transmission line would be 30.3 feet, at 167 degrees Fahrenheit based on National Electrical Safety Code (NESC) standards and PSCo's standards. At road crossings, minimum clearance would typically increase to approximately 37.3 feet above ground.

2.6.1.3 Fiber Optics

Fiber optic ground wire (OPGW) cable for substation-to-substation control would be installed on top of each transmission structure in the shield wire. The outer strands would consist of aluminum wire and the entire OPGW would be approximately 0.55 inch in diameter. The OPGW would be reserved for use by PSCo only.

PSCo will install a series of swan diverters on the shield wire, matching the location and spacing of the swan diverters on the adjacent NextEra 345 kV transmission line. Each swan diverter is made of a pre-formed ¼-inch diameter PVC coil that is light gray to white in color. Swan diverters enable raptors and waterfowl to see the shield wire and subsequently avoid collisions. Swan diverters are used by PSCo as an element of the Company's adopted Avian Protection Plan to reduce collisions and injury with transmission and distribution infrastructure by raptors and waterfowl (EDM International 2003).

2.6.2 Substations

The existing Missile Site Substation is the substation directly associated with the proposed transmission line in Arapahoe County. The proposed transmission line will interconnect to the Missile Site Substation in the south central portion of the existing site (see **Figure 2-5**). The Transmission line will connect to step-down infrastructure in an available empty bay within the substation. The substation perimeter fence will be moved to accommodate the interconnection with the Rush Creek 345 kV Transmission Line.

2.6.3 Right-of-Way Acquisition

Easements for the transmission line ROW, temporary work areas, and temporary access roads would be required for the transmission line. Some public road upgrades may be necessary and will be negotiated

through the County Road Transportation Division and private landowners. Transmission line facilities on private lands would be obtained as perpetual easements.

ROW width would vary from 150 to 200 feet, depending on the structure type, terrain, span, and other factors. A 150-foot wide ROW would be required for the typical H-frame and a three-pole angle and guyed structures may require upwards of 200 feet for ROW.

2.6.4 Access Roads

The Project would use existing roads and overland travel wherever feasible for access in order to minimize new disturbance. The Project follows an existing utility corridor for 100% of the portion of the transmission line in Arapahoe County. Some new permanent or temporary access/short spur roads may be required to access structure locations within the ROW. New access roads within the existing ROW would retain access for maintenance. Portions of existing access roads located outside of the proposed ROW may require improvements as well as new access roads (temporary or permanent). To minimize ground disturbance and/or reduce visual contrast of the landscape, the alignment of any new temporary access roads or cross-country routes would follow the landform contours in designated areas where practicable, providing that such alignment does not impact other resource values additionally. All temporary access roads would be revegetated with native grasses and forbs following construction. Where ground disturbance is substantial, surface preparation and reseeding would occur. The method of restoration would normally consist of loosening the soil surface, reseeding, installing cross drains for erosion control, placing water bars in the former access road, and filling temporary ditches and swales.

All new access that is not required for maintenance would be closed with concurrence of the landowner or land manager. Gates, where present or if installed, would be closed and/or locked, depending on the agreement with each landowner. Access roads on private property may be maintained with mutual consent of the landowner.

2.6.5 Laydown / Material Staging Areas

One to two temporary laydown / material staging areas will be required to store materials and equipment and to assemble structures for the duration of construction of the Project, with the potential of one site at the Missile Site Substation. Each site would be approximately 20 acres in size, located at level areas in close proximity to existing roads within the Project Area. The laydown / staging areas would be used to store material and equipment prior to delivery to the structure sites, park vehicles, and possibly for locating a portable construction trailer. The staging areas would be surveyed for environmental impacts, and if any are found, the staging areas would be relocated or shifted to avoid such sensitive areas. The staging areas would be revegetated and reclaimed after completion of the Project. Confidential negotiations are ongoing with landowners to locate temporary staging areas on private lands and adjacent to public roads. PSCo will provide the locations of the temporary staging areas to the County at the time of construction permit submission.

2.6.6 Protection of Private Property and Resources

Existing improvements would be repaired or replaced if they are damaged by construction activities. All existing roads would be left in a condition equal to their condition prior to the construction of the transmission line.

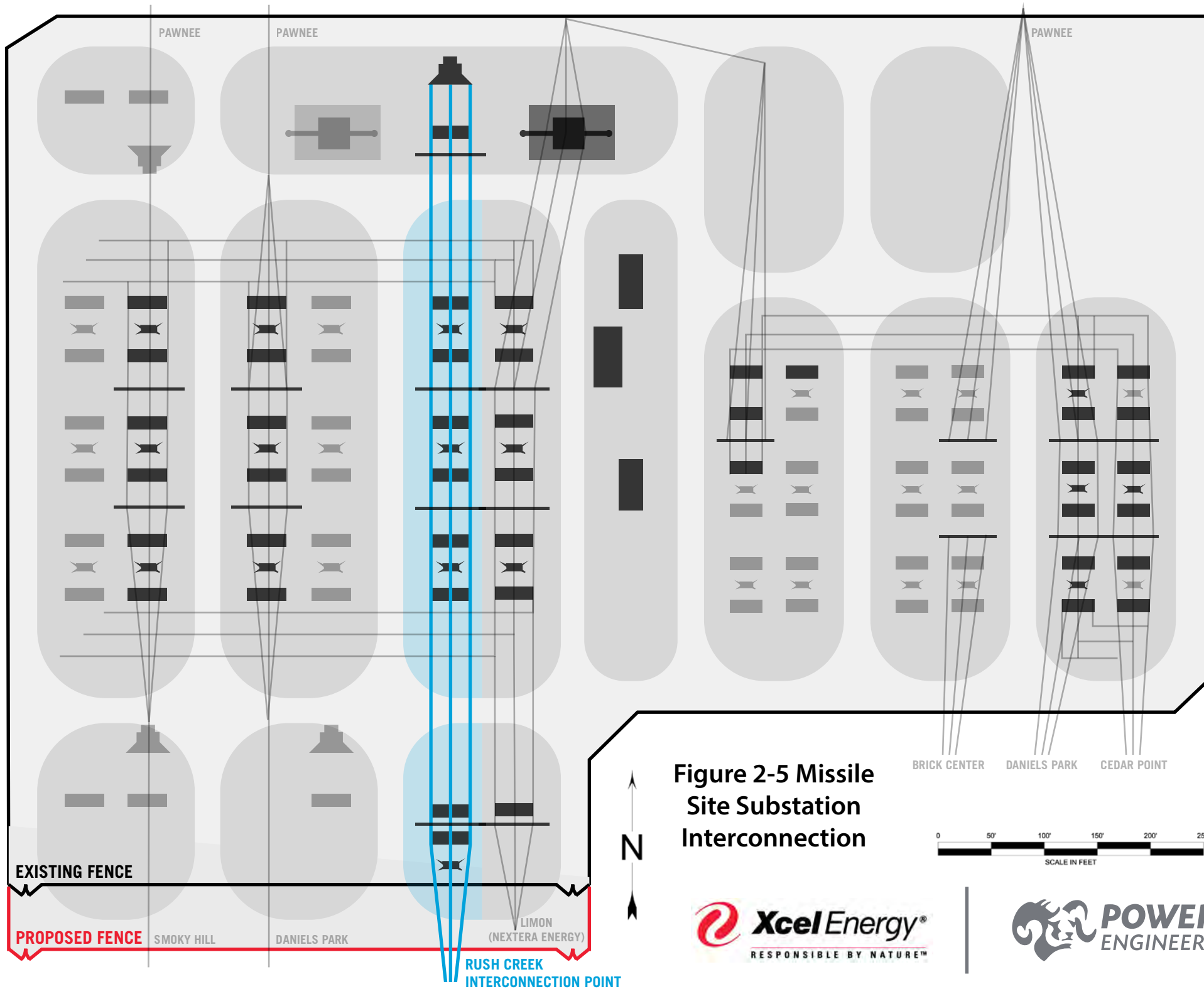


Figure 2-5 Missile Site Substation Interconnection



This page intentionally left blank.

Fences and gates would be installed, or repaired and replaced (if they are damaged by construction activities) to their original conditions as required by the landowner. Temporary gates would be installed only with the permission of the landowner and would be restored to original condition following construction. Gates would be closed and locked, depending on the agreement with the private landowners.

Prior to construction, all supervisory construction personnel would be instructed on the protection of ecological resources. To assist in this effort, the construction contract would address: (a) federal, state, and local laws regarding wetlands, vegetation, and wildlife; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive resources.

All waste products, including food garbage, from construction sites would be deposited in a covered waste receptacle, or removed daily. Garbage would be hauled to a suitable and appropriately permitted disposal facility.

To minimize the amount of sensitive features disturbed in designated areas, transmission pole would be located during the engineering design process so as to avoid sensitive features such as, but not limited to, riparian areas and watercourses and/or to allow conductors to clearly span the features, within limits of standard pole design.

2.7 Construction Activities

The proposed Rush Creek 345 kV Transmission Line Project will use standard construction and operation procedures used for other transmission projects in the western United States. The construction of the Project in Arapahoe County is expected to take approximately 15 to 20 weeks. It is expected that approximately 40 people will be required for the transmission line construction effort. The Project's construction schedule has activity commencing in the first quarter of 2017 and concluding the second quarter of 2018. The Rush Creek Wind farm will be commissioned in October 2018 and in full operation in December 2018.

2.7.1 *Transmission Line Construction*

2.7.1.1 Sequence of Activities

After landowner easement permission has been granted, the construction of the Project would follow the sequence of: 1) new structure locations surveyed and staked; 2) access roads improved or built where necessary; 3) laydown/materials yard and work areas cleared as needed; 4) materials distributed along centerline; 5) structure holes dug and poles framed and erected; 6) conductors installed; and 7) the site would be cleaned-up and reclaimed. The timing of construction activities may occur at different locations throughout the construction process. This may require several crews operating simultaneously at different locations.

Temporary work/material staging areas would be located on existing disturbed areas or other areas on private lands along the line route with negotiated access rights from private landowners. The yards would serve as field offices, reporting locations for workers, parking space for vehicles and equipment, or sites for temporary marshalling of construction materials.

2.7.1.2 Surveying

Construction survey work for the proposed Project consists of ascertaining soil and geotechnical conditions for foundations, specific pole locations and delineation of ROW and work area boundaries, and, in some areas, roads to access work areas.

2.7.1.3 Access Road Construction

The Project would be located in close proximity to many public roads in order to access the Project corridor ROW. The construction of temporary construction access roads or overland travel may be required to allow access of construction equipment in the transmission line corridor. This may involve clearing vegetation and crushing vegetation for overland travel. In construction areas where re-contouring is not required, disturbance would be limited to overland driving, where feasible, to minimize changes in the original contours. Large rocks and vegetation may be moved within these areas to allow vehicle access.

Equipment to construct the access roads would include hand tools, bulldozers, and graders. Specific actions would be implemented to reduce construction impacts. Standard design techniques such as installing water bars and dips to control erosion would be included. In addition, measures would be taken to minimize impacts such as rutting and soil compaction in specific locations and during certain periods of the year.

2.7.1.4 Structure Holes

Excavations for structure holes would be generally made with truck mounted power auger equipment or a standard sized backhoe or large excavator. Where the soil and geotechnical conditions permit, a truck-mounted power auger would be used. The foundation excavation and installation requires equipment access to the foundation sites. Structure hole excavation and installation require access to the site by a power auger or drill, a crane, and material trucks.

Structure holes left temporarily open or unguarded during construction would be covered and/or fenced where practical to protect the public, livestock, and wildlife. Soil removed from foundation holes would be stockpiled on the work area and used to backfill holes. All remaining soil not needed for backfilling would be spread on the work area or removed from the site.

2.7.1.5 Structure Framing and Assembly

Steel pole sections and associated hardware would be shipped to each laydown/materials yard site by truck. Steel structures would be assembled off-site and transported to the appropriate pole locations by truck or helicopter. Insulator strings and stringing sheaves are installed at each ground wire and conductor position while the pole is on the ground. Stringing sheaves (pulleys) are used to guide the conductor during the stringing process for attachment onto the insulator strings. The assembled pole would then be hoisted into place by a crane. Helicopter assisted construction may be utilized for portions of the line.

2.7.1.6 Conductor Installation

Once structures are in place, a pilot line would be pulled (strung) from structure to structure and threaded through the stringing sheaves on each insulator. A larger diameter, stronger line would then be attached to the pilot line and strung. This is called the pulling line. This process is repeated until the ground wire and conductor is pulled through all insulator sheaves.

Conductor would be strung using powered pulling equipment at one end and powered braking or tensioning equipment at the other end. For public protection during wire installation, guard structures would be erected over roadways, transmission and distribution lines, structures, and other obstacles. Guard structures would consist of H-frame poles temporarily placed on either side of an obstacle. These structures prevent ground wire, conductor, or equipment from falling on an obstacle. Equipment for erecting guard structures includes augers, line trucks, pole trailers, and cranes. Guard structures may not be required for small roads. On such occasions, other safety measures such as barriers, flagmen, or other traffic control devices would be used.

Conductor splicing would be required at the end of a conductor spool or if a conductor is damaged during stringing. The work would occur on work areas for the poles or pulling/tensioning sites.

2.7.1.7 Helicopter Use

Access is required to each transmission structure site for construction activities, and helicopters may be used to support construction activities on unique areas of the Project that limit vehicle access. Project construction activities potentially facilitated by helicopters may include:

- Transport of equipment and materials to transmission structure sites
- Transmission structure placement
- Hardware installation
- Wire and conductor stringing operations

All helicopter operations would be coordinated with and approved by the FAA.

2.7.1.8 Construction Waste Disposal

Construction sites, laydown and material storage yards, and access roads would be kept in an orderly condition throughout the construction period. Refuse and trash would be removed from the sites and disposed in an approved manner. Oils and fuels would be hauled to an approved site for disposal. No open burning of construction trash would occur at any time.

2.7.1.9 Site Reclamation

Work sites would be reclaimed using excess materials, native vegetation, and topsoil stockpiled for that purpose. The contractor would dispose of excess soil materials, rock, and other objectionable materials that cannot be used in reclamation work.

Disturbed areas, with the exception of access roads, would be reclaimed, to the extent possible, to their original contour and reseeded where appropriate. Ripping and other surface scarification on construction roads or other areas would be done as necessary. In some cases the amount of soil compaction and

vegetation destruction may not warrant ripping and reclamation. This would be determined on a case-by-case basis.

2.8 Operation and Maintenance

2.8.1 *Permitted Uses*

After the constructed transmission line has been energized, land uses compatible with safety regulations, operation and maintenance (O&M) would be permitted within and adjacent to the ROW. Existing land uses such as agriculture and grazing are generally permitted within the ROW. Incompatible land uses include construction of permanent dwellings and any use requiring changes in surface elevation that would affect NESC electrical clearances of existing or planned facilities.

Safety is PSCo's primary concern in the planning and design of this transmission line. An AC (alternating current) transmission line would be protected with power circuit breakers and related line relay protection equipment. If a conductor failure occurs, power would be automatically removed from the line. Lightning protection would be provided by overhead static and grounding wires along the length of the line. All fences, metal gates, pipelines, etc., that cross or are within the transmission line ROW would be grounded to prevent electrical shock and to meet NESC requirements.

2.8.2 *Maintenance*

Maintenance of the transmission line would be performed as needed. When access is required for non-emergency maintenance and repairs, PSCo would adhere to the same precautions taken during the construction activities. PSCo routinely contacts landowners when it needs access to their lands for maintenance activities on transmission lines.

Emergency maintenance would involve prompt movement of crews to repair or replace any damage. Crews would be instructed to protect vegetation, wildlife, and other environmental resources to the extent possible. Reclamation procedures following completion of repair work would be similar to those prescribed for normal construction. Limiting noise, dust and the danger caused by maintenance vehicle traffic provide for the comfort and safety of local residents.

2.9 Traffic Safety

Minimal additional vehicular traffic will occur on public roads in the portions of the Project area located in Arapahoe County as a result of construction and O&M of the transmission line. Estimated construction traffic during the construction phase of the transmission line will be approximately 12 to 22 vehicles per day. Because of the low number of vehicles needing access to the transmission line minimal impacts are anticipated. The transmission line would not cross U.S. or State highways in Arapahoe County. County road use and crossings in Arapahoe County would be coordinated with the County Transportation Division and additional details are included in **Appendix C** – Draft Arapahoe County Road Use Agreement

2.10 Agency Coordination

PSCo has coordinated with several federal, state, and local agencies and other entities throughout the planning process for the transmission line in Arapahoe County. In **Appendix D – Agency Correspondence**, there are correspondence documents showing coordination with the relevant agencies. Entities coordinated with include:

- Arapahoe County Engineer
- Arapahoe County Public Works and Development, Planning Division
- Colorado Department of Transportation
- Colorado State Land Board
- Colorado Parks and Wildlife
- Colorado State Historic Preservation Office
- Federal Aviation Administration
- U.S. Army Corps of Engineers
- U.S. Fish & Wildlife Service
- Colorado Cattleman's Association
- Colorado Farm Bureau

The federal, state, and county permits, approvals or consultations required for the project are summarized below in Table 2-5

Table 2-5 Major Permits, Approvals, and Consultations for the Project

Agency	Permit/Approval/Consultation
Federal	
US Army Corps of Engineers	Clean Water Act Section 404 Permit (Nationwide Permit 12)
US Environmental Protection Agency	National Pollution Discharge Elimination System Compliance through Arapahoe County
US Fish and Wildlife Service	Avian Protection Plan for Transmission Lines
US Fish and Wildlife Service	Bald and Golden Eagle Protection Act Compliance
US Fish and Wildlife Service	Endangered Species Act Compliance
US Fish and Wildlife Service	Migratory Bird Treaty Act Compliance
State	
Colorado Department of Public Health and Environment – Water Quality Control Division	Stormwater Pollution Prevention Plan General Permit and NOI / CWA Section 401 Water Quality Certification
Colorado Department of Agriculture	Noxious Weed Act Compliance
Colorado Department of Transportation	Road Use Agreement through Arapahoe County
Colorado Office of Archaeology and Historic Preservation	Historical, Prehistorical, and Archaeological Resources Act of 1973 (CRS 24-80-401 to 410) Compliance
Colorado Parks and Wildlife	Colorado Non-game, Endangered, and Threatened Conservation Act compliance/Senate Bill (SB) 40 Certification for impacts to SB 40 jurisdictional streams
County	
Public Works and Development, Planning Division	Areas and Activities of State Interest/1041 Land Use Permit and Special Use Permit
Public Works and Development, Planning Division	Grading, Erosion, and Sediment Control Plan
Public Works and Development, Engineering	Floodplain Delineation Study/Floodplain Development

Agency	Permit/Approval/Consultation
Services Division	Permit
Public Works and Development, Engineering Services Division	Street Cut and Right-of-Way Use permit
Public Works and Development, Planning Division	Road Use Agreement
Public Works and Development, Planning Division	Access and Traffic Control Plan
Public Works and Development, Planning Division	Spill, Prevention, Control and Countermeasure Plan (SPCC)
Public Works and Development, Planning Division	Arapahoe County Comprehensive Plan and Arapahoe County Land Development Code for land use/zoning Compliance

3. REGULATORY FRAMEWORK

PSCo will obtain and comply with the required approvals necessary from county, state, and federal regulatory authorities for the construction, operation, and maintenance of the Project in Arapahoe County. PSCo will obtain Arapahoe County land use, building, and grading, erosion, and sediment control permits in connection with the construction, operation, and maintenance of the proposed transmission line. Material permits applicable to the transmission line in Arapahoe County will include state level permits for stormwater discharge, air (fugitive dust), utility, and oversized load permits. PSCo anticipates that a Nationwide permit under the CWA from the United States Army Corps of Engineers (USACE) will be required.

3.1 Conformance with Arapahoe County Land Use Plans

The existing substation and the transmission line are the only elements of the Rush Creek Wind Project located in Arapahoe County. Planning and development goals, policies and strategies detailed in the Arapahoe County Comprehensive Plan (Arapahoe County 2001) address policy direction for the County under eight distinct categories: Growth Management; Public Facilities and Services; Neighborhoods and Housing; Employment and Commercial Development; Transportation; Natural and Cultural Resources and the Environment; Open Space, Parks, and Trails; and Fiscal and Economic Impacts. Each category has goals and is supported by a set of policies and strategies with specific measures to carry the Plan forward. Countywide policies and Public Facilities and Services policies specifically apply to the development of a high-voltage transmission line. As defined by the Arapahoe County Comprehensive Plan, Public Facilities include “utility lines”, power substations, and power energy facilities.

Arapahoe County Comprehensive Plan Countywide Policy GM 2.4 - Allow Development of Public Facilities, Strategy 2.4(a) - Evaluate Public Facilities on a Case-by-Case Basis recognizes that facilities such as the transmission line will be allowed (see Use by Special Review, Arapahoe County Development Code) throughout the county, including in the Rural Area applicable to the Project, except in sensitive development and riparian corridor areas.

Within the Public Facilities and Services category, Policy PFS 4.2 – Achieve Land Use Compatibility, when Siting Regional and Local Utilities requires utilities to be built in a manner that is safe and compatible with surrounding land uses. Strategy PFS 4.2(c) - Require Mitigation of Impacts from Regional Utilities requires mitigation of impacts “on property owners and residents of the county.

The ACLDC identifies and establishes the zoning districts for the unincorporated portions of Arapahoe County, and details the regulations specific to each of the districts. Zoning districts within the Project Area include Agricultural Estate (A-E) and Agricultural-1 (A-1). The zoning districts are intended to correspond to and implement the “Rural Area Uses” and “Open Space” land use categories designated in the Land Use Plan element of the Comprehensive Plan. The regulations for A-E and A-1 are district-specific which are applied on a district-wide basis and generally relate back to the stated purposes of the zone district.

The agricultural zoning districts were established to promote and preserve a rural, agricultural economic base and lifestyle in the eastern parts of unincorporated Arapahoe County. Rural residential uses are secondary uses in these districts, and are developed at very low densities or clustered to protect and

conserve existing open and agricultural lands and to preserve a rural character. Major Electrical, Natural Gas, and Petroleum-Derivative Facilities of a Private Company are considered an allowed use by special review in the ACLDC. Please refer to **Exhibit D** - Zoning, Special Districts and Parcels – Arapahoe County Map for zoning districts within the County.

The Project has been designed to minimize impacts on land crossed in Arapahoe County. The proposed Project is consistent with Arapahoe County planning and zoning and will comply with all County regulations and requirements.

4. ENVIRONMENTAL RESOURCES: EXISTING CONDITIONS

4.1 Land Use and Recreation

This section describes land uses, public recreation, and agency planning and zoning in the Project Area. Land use planning in Colorado is implemented at the county and local level through comprehensive or master plans. C.R.S. 30-28-106 authorizes counties to adopt master plans and details the content to be included. The Project Area generally includes a two-mile wide corridor for greenfield alternatives and a ½-mile wide corridor in areas adjacent to existing transmission lines. Data for the Arapahoe County land use, recreation, and planning analysis was drawn from various sources, including the following:

- Arapahoe County Comprehensive Plan and Amendments (Arapahoe County 2001)
- Arapahoe County Open Space Plan Master Plan (Arapahoe County 2010b)
- Arapahoe County Development Code (Arapahoe County 2016)
- Arapahoe County Open Spaces Website
- Colorado Park and Wildlife Website
- Colorado State Board of Land Commissioners Geographic Information System Web Mapping Application
- Colorado State Fishing Atlas Website, Colorado Parks and Wildlife
- Colorado Parks and Wildlife Website
- National Land Cover Database (NLCD 2011)

4.1.1 Existing Conditions

Land use in the Project Area region is largely agricultural and ranching related (rangeland). Irrigated cropland occurs in very limited areas, with cultivated dryland agriculture being most prevalent. Residences associated with farms and ranches are dispersed across the region. More concentrated development occurs within incorporated and unincorporated population centers west of the Project area. Incorporated municipalities within Colorado include statutory towns, home rule municipalities, consolidated cities, statutory cities and unincorporated towns. Incorporated areas in the eastern area of Arapahoe County include Deer Trail and Bennett. Conservation easements restrict development on many private parcels, and are often located adjacent to publicly owned unique or sensitive natural areas. Colorado State Land Board-owned (State Land) is also leased for agricultural activities.

For the purposes of this study, existing land use was based on field review and the land cover classifications identified by the NLCD. The NLCD land classifications identified within the Project Area are predominantly Grassland/Herbaceous, Pasture/Hay, Shrub/Scrub, and Cultivated Crops. Small areas of other classifications, such as Deciduous forest, Herbaceous and Woody Wetlands, and other (undeveloped) classes are assumed to be used for grazing or ranching (“rangeland”) because these areas occupy a small percentage of total land cover, are generally scattered and patchy except along riparian corridors, and because the most of private land in the area that is not cultivated is used for grazing cattle. Refer to Land Use, Transportation and Recreation – Arapahoe County Map, **Exhibit C** showing rangeland land uses, and Section 4.6 Biological Resources for more detailed vegetation community descriptions.

Utility scale wind development and other power generating facilities occur within the region (i.e., Limon Wind #1, #2 & #3, Cedar Point, and Golden West). Oil and gas wells and associated pipelines occur throughout eastern Colorado. Private air strips, airports, and heliports typically associated with institutional or agricultural operations, and communication towers also occupy limited areas of land.

Existing land uses within the eastern area of Arapahoe County are primarily private land, dryland agriculture and pasture/grazing (rangeland), and associated low density residential. In the lower density residential areas across the county and outside of Deer Trail, barns, stables, and other agricultural outbuilding are common. The Town of Deer Trail has the highest development concentration within the Project Area and is developed with residential and commercial land uses, primarily. The Town of Deer Trail is located approximately 0.5 miles south and west of the Project. Open space occurs primarily on individual private lands, but also on State Land. Colorado State Land Board owned (State Land) lands are also leased within Arapahoe County in the Project Area (refer to **Exhibit C** - Land Use, Transportation, and Recreation - Arapahoe County Map).

Existing transmission lines occur within several utility corridors in the Project Area terminating or extending from the exiting Missile Site Substation. The transmission lines within the Project Area include the Missile Site to Limon 230 kV Transmission Line, Missile Sub To Smoky Hill (West) 345 kV, Missile Sub To Daniels Park Sub 230 kV, Pawnee Plant - Brick Center Sub 230 kV, Pawnee Sub To Missile Sub (East) 345 kV, Pawnee Plant - Brick Center Sub 230 kV, Pawnee Plant-5457 - Missile Substation 230 kV, Cedar Point 2 to Missile Site 345 kV. The Missile Site Substation is also located within the Project Area.

Richmil Ranch Open Space, a 352-acre Arapahoe County open space area, is located west and outside of the Project Area corridors. The privately owned Deer Trail Rodeo Grounds is located within the Town of Deer Trail and within the Project Area. There are no other state, county, or local parks within the Project Area in Arapahoe County (refer to **Exhibit C** - Land Use, Transportation and Recreation- Arapahoe County Map). There are no hiking or biking trails, or fishing stream segments identified within the Project Area corridors by the State of Colorado, Arapahoe County, or the Town of Deer Trail.

Goals, Policies and Strategies

Goals, Policies and Strategies are detailed in the Arapahoe County Comprehensive Plan addressing the basic policy direction for the County under eight distinct categories:

- Growth Management;
- Public Facilities and Services;
- Neighborhoods and Housing;
- Employment and Commercial Development;
- Transportation;
- Natural and Cultural Resources and the Environment;
- Open Space, Parks, and Trails; and
- Fiscal and Economic Impacts.

Each category includes a set of goals. Each goal is supported by a set of policies and strategies with specific measures to carry the Plan forward. Countywide policies and Public Facilities and Services

policies specifically apply to the development of a high-voltage transmission line. As defined by the Arapahoe County Comprehensive Plan, Public Facilities include “utility lines”, power substations, and power energy facilities.

Relevant Arapahoe County policies for the Project include:

- Arapahoe County Comprehensive Plan Countywide Policy GM 2.4 - *Allow Development of Public Facilities*
 - Strategy 2.4(a) - *Evaluate Public Facilities on a Case-by-Case Basis* recognizes that facilities such as the transmission line will be allowed (see Use by Special Review, Arapahoe County Development Code) throughout the county, including in the Rural Area applicable to the Project, except in sensitive development and riparian corridor areas.
- Within the Public Facilities and Services category, Policy PFS 4.2 – *Achieve Land Use Compatibility when Siting Regional and Local Utilities* requires utilities to be built in a manner that is safe and compatible with surrounding land uses.
 - Strategy PFS 4.2(c) - *Require Mitigation of Impacts from Regional Utilities* requires mitigation of impacts “on property owners and residents of the county”.

Zoning Districts

The ACLDC identifies and establishes the zone districts for the unincorporated portions of Arapahoe County, and details the regulations specific to each of the districts. Zoning districts within the Project Area include Agricultural Estate (A-E) and the Agricultural-1 (A-1). The Zoning Districts are intended to correspond to and implement the “Rural Area Uses” and “Open Space” land use categories designated in the Land Use Plan element of the Comprehensive Plan. The regulations for A-E and A-1 are district-specific which are applied on a district-wide basis and generally relate back to the stated purposes of the zone district.

The agricultural zoning districts were established to promote and preserve a rural, agricultural economic base and lifestyle in the eastern area of unincorporated Arapahoe County. Rural residential uses are secondary in these districts, and are developed at very low densities or clustered to protect and conserve existing open and agricultural lands and to preserve a rural character. Major Electrical, Natural Gas, and Petroleum-Derivative Facilities of a Private Company are considered an allowed USR in the ACLDC. Refer to **Exhibit C** - Land Use, Transportation, and Recreation - Arapahoe County Map for zoning districts within the County.

4.2 Transportation

For the purpose of the following discussions, transportation facilities in and around the Project Area include named roads, railroads, and airports. The U.S. Department of Transportation’s Federal Highway Administration regulates vehicle travel on interstates and other U.S. routes and the Colorado DOT regulates vehicle travel on its state highways and roads. Arapahoe County officials regulate vehicle travel on the county roads. In and around the Project Area, many of these county roads are unpaved and do not include markings for lanes and shoulders. In general, these county roads are situated in a north-south, east-west square grid pattern and are spaced approximately one mile apart.

PSCo has prepared a Draft Road Use Agreement (**Appendix C**) for Arapahoe County as a template for the Final Road Use Agreement, which will identify existing and proposed temporary and permanent access roads. More specifically, the Final Road Use Agreement will identify existing roads to be used in their present condition, existing roads that will require modifications or upgrades to accommodate the Project's construction vehicles, and proposed access roads in new locations. The Final Road Use Agreement will also describe precautions for ensuring the traveling public's and construction workers' safety, including utilizing flagmen and pilot cars to control traffic, and signing alternate travel routes or detours.

4.2.1 Existing Conditions

In Arapahoe County, transportation facilities in the Project Area include the Interstate 70 (I-70), U.S. Route 40, and U.S. Route 287 corridor, U.S. Route 36, State Route 40, numerous county roads, the Union Pacific Railroad, and East Moore Field, a private airport. **Table 4-1** below lists more information about each facility. Additionally, the Project Area includes unnamed dirt roads that land owners use to access crops and pasture/rangeland. These unnamed roads are not listed in **Table 4-1**, but may be used for access during the Project's construction, operation, and maintenance activities with permission from each landowner. As mentioned previously, the Final Road Use Agreement will identify existing and proposed temporary and permanent access roads. Refer to **Exhibit C** - Land Use, Transportation, and Recreation - Arapahoe County Map for transportation facilities within the County.

Table 4-1 Transportation Facilities In and Around the Project Area – Arapahoe County

Transportation Facility	General Location	Orientation	Number of Lanes	Surface
I-70 U.S. Route 40 U.S. Route 287	Bisects the Town of Deer Trail.	North-South	4; 2 NB, 2 SB	Paved
U.S. Route 36	Parallel to and co-located with the Arapahoe-Adams County Line.	East-West	2; 1 EB, 1 WB	Paved
State Route 40	Generally parallel to I-70 along the Town of Deer Trail's west side.	North-South	2; 1 NB, 1 SB	Paved
East County Route 18	Approximately 4 miles north of the Town of Deer Trail.	East-West	Space for 2 lanes of travel	Dirt / Gravel
East County Route 34 / Jolly Road	Extends east from the Town of Deer Trail.	East-West	2; 1 EB, 1 WB	Paved
County Route 38 / Woodis Road	Borders the Town of Deer Trail's southern limit.	East-West	Space for 2 lanes of travel	Dirt / Gravel
County Route 47 / Wall Road	Approximately 1 mile south of the Town of Deer Trail.	East-West	Space for 2 lanes of travel	Dirt / Gravel
County Route 221 / Huntington Road	Approximately 1 mile east of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel
County Route 229 / South Deter-Winters Road	Approximately 3 miles east of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel
East County Route 241	Approximately 6 miles east of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel
East County Route 245	Approximately 6.5 miles southeast of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel
County Route 269 / E Road	Approximately 11 miles east of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel

Transportation Facility	General Location	Orientation	Number of Lanes	Surface
4 Mile Road	Approximately 11 miles east of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel
South Price Road	Extends north from the Town of Deer Trail.	North-South	2; 1 NB, 1 SB	Paved
Hampden Avenue	Approximately 3 miles northeast of the Town of Deer Trail.	East-West	Space for 2 lanes of travel	Dirt / Gravel
South Hayward Road	Approximately 4 miles east of the Town of Deer Trail.	North-South	Space for 2 lanes of travel	Dirt / Gravel
UP Railroad	Generally parallels the west side of State Route 40	North-South	Not Applicable	Railroad Bed
East Moore Field	Approximately 6.5 miles northwest of the Town of Deer Trail on South Horrogate Road.	North-South	Runway 18/36	Dirt

NB = northbound; SB = southbound; EB = eastbound; WB = westbound

In Arapahoe County, East Moore Field (FAA identifier: 8CO4), a private use airfield, is the closest airport to the Project's transmission route alternatives. This airport does not have published instrument procedures but is depicted on the Denver Sectional chart. The airport features a 2,600-foot-long, 40-foot-wide dirt runway (AirNav.com 2016).

4.3 Visual Resources and Aesthetics

This section describes visual and aesthetic resources in the Project Area for Arapahoe County. Data for the visual resource analysis was drawn from various sources, including the following:

- Arapahoe County Comprehensive Plan and Amendments (Arapahoe County 2001)
- Arapahoe County Open Spaces Website
- National Land Cover Database (NLCD 2011)
- Colorado Parks and Wildlife Website
- Google Earth
- Site visits by visual resource specialist to the Project Area

4.3.1 Regional Context

The regional landscape is characterized by open, expansive high plains and topographically variable, dissected landscape of eastern Colorado. Foothills on the Colorado Front Range transition to flatter, more gently undulating landforms to the east. Ribbons of riparian vegetation within floodplains provide most of the wooded areas adding visual interest by introducing greater vertical variability, additional color and texture into the uniform, low growing homogeneous short-grass prairie vegetation that dominates the regional landscape. This low growing vegetation often appears undeveloped, but grazing and ranching modify the natural landscape by introducing water impoundments, fence lines, corrals, sheds and other associated structures.

Cultivated dryland agriculture is common throughout the region and introduces a more uniform groundcover than the native shortgrass prairie landscapes. Other built landscape features include transportation corridors (roads, highways, and railroads), small and large scale overhead utility corridors, agricultural structures and associated residences, and suburbanized clusters in and around towns and

incorporated areas. Utility scale wind development also adds a developed character to typically rural settings within the region. The utility corridors, distribution and telephone lines, communication structures, and wind farms also provide additional distinctive, built, vertical developed elements to the horizontally-oriented landscape. Residences typically have a high visual sensitivity. Recreation areas may have a high or moderate sensitivity, depending on associated recreational activities and use levels. Highways, county and local roads typically have a moderate to low sensitivity.

4.3.1.1 Arapahoe County

Arapahoe County's natural features and developed landscapes within the Project Area reflect the broader agriculturally dominated landscapes of the region. Cultivated dryland agriculture and dispersed clusters of agriculturally associated structures and residences define landscape character. The Project Area's natural landscape is typically characterized by shortgrass prairie and rolling rangeland vegetated with shortgrass prairie grasses and few clusters of trees. The East Bijou Creek riparian corridor is a scenic natural feature within the Project Area. Although it is a perennial stream, flowing water is not visually apparent. The Muddy Creek drainage is also a significant landscape feature, but there is no substantial riparian vegetation associated with the stream and it generally blends with the landscape except in the immediate vicinity of the stream corridor. Existing utility corridors often dominate the viewshed in the Project Area in Arapahoe County. Refer to **Exhibit E** - Scenic Areas and Visual Quality - Arapahoe County for landscape features and visually sensitive areas. Also see **Appendix E** for characteristic photos of Arapahoe County's landscape.

Visually sensitive areas include the Deer Trail area, I-70, County roads, and dispersed residences. Viewsheds are generally open and panoramic, except in areas in and around Bijou Creek where tree cover provides screening, and from within more densely developed area of Deer Trail where landscaping and structures screen and limit the potential viewshed. Localized areas of more variable topography occasionally limit panoramic views, but this is an exception. Key Observation Points (KOPs) showing representative and important viewsheds, scenic vistas, unique landscapes within Arapahoe County are shown in **Exhibit F** (Photosimulations of Proposed Transmission Line).

4.4 Soils, Geology and Natural Hazards

Existing soils data were obtained from the NRCS soil surveys and the Soil Survey Geographic (SSURGO) database for the area. This included the soil surveys and SSURGO data of Arapahoe County (NRCS 1964-2005; NRCS 2016). Soil, geology, and natural hazards information was obtained from the Colorado Geological Survey website and the U.S. Department of Agriculture (USDA) Handbook 296.

4.4.1 Regulations

4.4.1.1 Federal

Soil erosion is governed by regulations contained in U.S. Environmental Protection Agency stormwater management regulations (40 Code of Federal Regulations [CFR] §§ 122.26, 123.25), pursuant to Section 402 of the CWA (33 United States Code [U.S.C.] § 1342).

Under the CWA, the National Pollution Discharge Elimination System (NPDES) stormwater program requires operators of construction sites one acre or larger (including smaller sites that are part of a larger common plan of development) to obtain authorization to discharge stormwater under an NPDES construction stormwater permit. The development and implementation of a SWPPP is the focus of NPDES stormwater permits for regulated construction activities. A SWPPP is required to control discharges for storm events.

4.4.1.2 State

Most states, including Colorado, are authorized to implement the stormwater NPDES permitting program. Compliance with state requirements will be necessary for construction stormwater activities. All Colorado stormwater general permits (NPDES #NER11,0000) may be obtained by submitting a Notice of Intent and fee and at the conclusion of construction activities, terminated by submitting a Notice of Termination to the Colorado Department of Public Health and Environment.

4.4.1.3 County

The information that will likely be required for the counties includes a Grading, Erosion, and Sediment Control Plan, which would be part of a SWPPP for the Project. A drainage study may be required as well.

PSCo submitted a drainage and stormwater plan (Grading, Erosion, and Sediment Control Study, 2012) for the initial development of the Missile Site Substation, which includes plans and calculations for the total buildout for the substation. The sizing of the existing stormwater pond reflects the total impervious area of structures and equipment pads. PSCo does not anticipate additional development at the Missile Site Substation after the construction of the Project.

4.4.2 *Existing Conditions*

4.4.2.1 Regional Conditions

The Central High Plains Major Land Resource Area (MLRA) is on an elevated, smooth to slightly irregular plain consisting of sediments deposited by rivers that drained the young and actively eroding Rocky Mountains. This old plain is now a dissected peneplain with a few dissected, lava-capped plateaus and buttes. In many areas, the undulating to rolling shale plain is mantled by loess or windblown sand, alluvium, and outwash. East-flowing streams and rivers have slowly been eroding the sedimentary formations, exposing older Cretaceous-aged formations while depositing Quaternary-aged alluvium along eastern terraces and floodplains. The Project Area crosses a highly diverse landscape of exposed Cretaceous-aged formations and Quaternary-aged alluvial and eolian deposits.

The dominant soil orders in this MLRA are Mollisols, Alfisols, Aridisols, and Entisols. The soils in the area dominantly have a mesic soil temperature regime, an aridic or limited soil moisture regime, and mixed, carbonatic, or smectitic mineralogy. They are very shallow to very deep, generally well drained, and loamy or clayey.

Prime farmland, as defined by the USDA, is land that has the best physical and chemical characteristics for production of food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pasture land, forestland, or other land, but it is not urban or built-up land or water areas.

Although the NRCS has rated the vast majority of the soils in the area as not prime farmland (NRCS 2016), nearly all of this area is in farms or ranches. About two-thirds of the area supports native short grasses used for grazing. About one-tenth of the area is dry-farmed and winter wheat, corn, and grain are the main crops.

Much of the area is considered low risk for geologic and natural hazards. The topography has fairly level relief (0-10 percent slope), with gently rolling terrain and floodplains occasionally interrupted by drainages with steeper side slopes. The occurrence of major landslides within the area has not been recorded, although the potential for sheet and rill erosion and gully formation may be moderate to severe in some areas. For seismic purposes, Colorado is considered a region of minor earthquake activity, although there are many uncertainties because of the very short time period for which historical data are available. This portion of eastern Colorado and Arapaho County can be considered aseismic.

The Colorado Geological Survey has not identified any points of geological interest in this area (Colorado Geological Survey 2016). Refer to **Exhibit G** – Soil Qualities - Arapahoe County for soil information.

4.4.2.2 Arapahoe County

Soils

The dominant soils in the eastern portion of the county are silt loams, sandy loams, and loams on nearly level to gently sloping uplands with slopes ranging from 0 to 10%. A small percentage of soils are on hills and ridges with slopes ranging from 5 to 20%. There are no all hydric soils in this area and the small number of hydric soil inclusions is less than 0.01% of the area. The hydric soils are located on streams, floodplains, and swales.

Erosion Potential

Soils are subject to erosion from wind and water. Wind erodibility indicates the potential for wind erosion based on slope, soil types, and wind characteristics. Wind erodibility is relatively low where slopes are gentle (0 to 14%) and soils are permeable as well as vegetated, which is the majority of the area. Wind erodibility is moderate on steeper slopes (greater than 15%) and on low permeable soils with little to no vegetation. Wind farms are being proposed in this area because of appropriate wind characteristics, so this factor generally increases the overall wind erodibility of the area.

Water erosion is slight to moderate due to the highly permeable nature of soils, except where slopes are steep (over 15 percent). The NRCS rates the erosion hazard for soils for both off-road use and unsurfaced road use. Approximately 15% of the area is rated as severe for erosion hazard for unsurfaced road use which indicates erosion hazard after roads are built. Approximately one percent of the area is rated as severe for erosion hazard for off-road use which indicates erosion hazard after off-road disturbance activities occur (NRCS 2016). These ratings are based on soil erosion factor K, slope, and content of rock fragments. A severe rating indicates that significant erosion is expected, roads or trails require frequent maintenance, and erosion control measures are needed. The remaining soils types are rated as slight to moderate erosion hazard, with approximately three percent of the soils not rated.

Prime Farmland

The NRCS identifies approximately 30% of the Project Area as prime farmland, if irrigated or prime farmland, if irrigated with other conditions (NRCS 2016). The prime farmland is located where the slopes

range from 0 to 9 percent and soils are suitable for farming practices. The main soil types designated as prime farmland include Adena, Colby, Weld, and Deertrail silt loams and fine sandy loams.

4.5 Water Resources and Wetlands

Surface water data were obtained from the U.S. Geological Survey National Hydrography Dataset GIS database. Groundwater information was obtained from the Colorado Department of Natural Resources, Division of Water Resources website and the USDA Handbook 296.

Digital wetland inventory maps were obtained from the USFWS NWI. The NWI maps provide approximate locations of wetlands one acre or larger that may or may not be jurisdictional based on the 1987 USACE Wetlands Delineation Manual. In this report, wetlands are classified according to the Cowardin system (Cowardin et al. 1979), which was used by the USFWS to inventory and map the wetlands in the Project Area.

Playa lake information was obtained from the Playa Lakes Joint Venture, which creates and maintains a region-wide spatial data layer of probable playas and county-based maps of probable playa locations. Multiple sources of geographic data went into making the playas data layer and maps, including the NWI, SSURGO database, and satellite imagery (Playa Lakes Joint Venture 2016).

4.5.1 Regulations

4.5.1.1 Federal

The CWA (33 U.S.C. §1251 et seq.) was enacted with the intent of restoring and maintaining the chemical, physical and biological integrity of the waters of the U.S. Specific sections of the CWA that may apply to the Project include the following:

- Section 303(d) List of Impaired Waters
- Section 130.7 Total Maximum Daily Load
- Section 401 Water Quality Certification
- Section 402 National Pollutant Discharge Elimination System Permits
- Section 404 Waters of the U.S. Permits

4.5.1.2 State

The CDPHE, Water Quality Control Division authorizations and guidance that are applicable to wetlands and waters of the U.S. Permitting and mitigation requirements for the Rush Creek Project are summarized below.

- CWA Section 401 Water Quality Certification (WQC).
- Under the Colorado 401 Certification Regulation, all Nationwide CWA Section 404 permits are certified by statute and do not require a certification by the Water Quality Control Division.
- All WQCs for Individual CWA Section 404 permits and licenses are subject to specified state requirements. For Individual CWA Section 404 permits, documents must be submitted to the Water Quality Control Division for CWA Section 401 certification.

- In 2012, the CDPHE Water Quality Control Division certified, with conditions, the use of Nationwide Permit 12 in the State of Colorado.

4.5.1.3 County

The permits and information that will likely be required for the counties includes the following:

- Surface water impact analysis,
- Wetland and riparian impact analysis,
- Floodplain Study
- A Grading, Erosion and Sediment Control Plan, which would be part of a SWPPP developed for the Project and a drainage study may be required as well.

4.5.2 Existing Conditions

4.5.2.1 Regional Conditions

Climate

The Project Area lies in the Central High Plains Major Land Resource Area (MLRA) of the Great Plains Province, a region of elevated piedmont plain that adjoins the Rocky Mountains. Across much of the plains, annual precipitation is less than potential evapotranspiration, resulting in moisture deficits and a semi-arid climate (Bailey 1995).

Surface Water and Groundwater

Many rivers, including the South Platte and Arkansas Rivers, flow east across this region from their headwaters in the mountains. Due to limited rainfall, groundwater recharge and discharge occur mainly in depressions, and water tables are usually mounded beneath depressions and drainages. Approximately 29% of water withdrawals are from ground water sources and 71% is from surface water sources. In this region, the surface water is of good quality and has few limitations affecting its use (USDA 2006).

The Denver Basin aquifer underlies an area of approximately 7,000 square miles that extends from Greeley south to near Colorado Springs and from the Front Range east to Limon. This aquifer is not well connected to other major aquifers in the area. The water generally has more than 1,000 parts per million total dissolved solids and is considered soft. The water generally contains sodium bicarbonate and sulfate ions (USDA 2006). The deeper consolidated sand and gravel deposits in the Denver Basin aquifer provide water for livestock, for some domestic use, and for limited local irrigation.

Wetlands

Wetlands occupy only a small percent of the semi-arid Central High Plains landscape (Dahl 1990), but their diversity is high, including freshwater marshes, wet meadows, floodplain and riparian wetlands, seeps, fringe wetlands surrounding lakes and reservoirs, playa lakes, and other fresh depressional systems. Wetlands are often discharge systems, and the water table is a muted reflection of surface topography (Richardson et al. 2001).

The predominate NWI identified wetlands in this area are palustrine wetlands including unconsolidated bottom (PUB), unconsolidated shore (PUS), and emergent (PEM). The PUB classification includes all

wetland and deepwater habitats with at least 25% cover of particles smaller than stones and a vegetative cover less than 30%. The PUB classification includes all wetland habitats having three characteristics: 1) unconsolidated substrates with less than 75% areal cover of stones, boulders, or bedrock; 2) less than 30% areal cover of vegetation other than pioneering plants; and 3) any of the following water regimes: irregularly exposed, regularly flooded, irregularly flooded, seasonally flooded, temporarily flooded, intermittently flooded, saturated, or artificially flooded. PEM wetlands are characterized by perennial, erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years.

The PEM, PUB, and PUS wetlands are located adjacent to streams or smaller drainages associated with these streams, as well as in small depressions. The PEM wetlands are dominated by graminoids (sedges, rushes, grasses) and have soils saturated near the surface in early summer, but rarely have standing water and are typically dry by the end of the growing season.

The PUB, PUS, and PEM wetlands are primarily located adjacent to streams or smaller drainages associated with these streams. Some of the PUB and PUS wetlands would be considered playa lakes. Playa lakes are a common wetland type in the region which are shallow circular basins apparently formed by wind erosion and/or calcium carbonate dissolution. Precipitation and local runoff are usually held at the surface by a clay-rich layer, forming shallow ponds and vegetated wetlands. Water is lost through evapotranspiration and seepage at the basin margins above the level of the clay layer. Wetland plants in playas are typically annuals that frequently change during a growing season in response to precipitation. The most commonly encountered plants include: ragweeds (*Ambrosia* spp.), goosefoots (*Chenopodium* spp.), kochia (*Bassia* spp.), spikerushes (*Eleocharis* spp.), and bulrushes (*Schoenoplectus* and *Scirpus* spp.) (Culver and Lemly 2013).

There are a smaller number of riparian wetlands associated with the larger streams in the area. The riparian wetlands consist of palustrine forested (PFO), palustrine scrub-shrub (PSS) wetlands and some PEM wetlands. PFO wetlands are characterized by woody vegetation that is 6 meters (20 feet) tall or taller. PSS wetlands include areas dominated by woody vegetation less than 6 meters tall. In this region, the woody plants include willows (*Salix* spp.), alders (*Alnus* spp.), birch (*Betula* spp.), and cottonwood (*Populus* spp.) trees. A few intermittent riverine (R4) wetlands are associated with the larger streams in this area as well. In this riverine subsystem, the channel contains nontidal flowing water for only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

Floodplains

Arapahoe County floodplains were mapped in GIS using Federal Emergency Management Agency (FEMA) and cross-checked with Arapahoe County's ArapaMap 3.6 online mapping tool (see **Exhibit B – Water Resources – Arapahoe County Map**). Arapahoe County regulated floodplains (a drainage tributary area of 130 acres or more) were analyzed in GIS and crossings were quantified. A separate Floodplain Study Report was prepared and submitted to Arapahoe County as a separate document with this Application. In Arapahoe County, Alternatives A, B, E, and H do not cross FEMA Floodplains and cross seven (7) Arapahoe County regulated floodplains. Alternatives C, F, and G cross the lowest number of Arapahoe County regulated floodplain crossings (eight crossings) and these Alternatives have the highest total length of FEMA-designated floodplains with 0.8 miles. Alternative D crosses the highest number of Arapahoe County regulated floodplains with 26 crossings. In Arapahoe County no perennial streams, ephemeral streams, or river are crossed. Alternatives C, F, and G have nine intermittent stream

crossings; Alternatives A, B, E, and H have 15 intermittent stream crossings; and Alternative D has 25 intermittent stream crossings. A summary of wetlands, floodplains, and stream crossings by alternative in Arapahoe County is included in Table 5-3 (Section 5.5.7).

4.5.2.2 Arapahoe County

Surface Water

The Project is located in the eastern area of Arapahoe County which is within the Bijou, Beaver, and Middle South Platte – Sterling watersheds (Hydrologic Unit Codes 1019001, 10190013, and 10190012 respectively). There are no rivers in the Project Area, but there are seven named creeks including East Bijou, First, Muddy, Badger, Cottonwood, Rattlesnake, and Beaver. East Bijou Creek and Muddy Creek are the only two streams which have mapped floodplains by the FEMA. Arapahoe County regulatory floodplains (a drainage tributary area of 130 acres or more) were identified and mapped. Noonan Reservoir is the only lake or reservoir in the Project Area and it is located on Muddy Creek on the north side of the county, south of U.S. Highway 36. Refer to **Exhibit B – Water Resources – Arapahoe County Map** for more information on surface water in Arapahoe County.

In compliance with the CWA, CDPHE has identified 303(d) water quality limited streams and lakes for development of Total Maximum Daily Load criteria. Within the Project Area, the only waterbody listed as impaired or 303(d) listed is Beaver Creek, a tributary of the South Platte River. The Beaver Creek impairments are *Escherichia coli* (E. coli) and selenium and the cause of these impairments are pathogens and metals (other than mercury) (Environmental Protection Agency 2012).

Groundwater

Two smaller aquifer systems occur within the Project Area, the Laramie-Fox Hills aquifer and Laramie Formation aquifer, which are part of the Denver Basin aquifer. The depth of water wells in these aquifers ranges from approximately 25 to 600 feet.

A portion of the Project Area is within the North Kiowa Bijou 7 groundwater management district. There are no designated groundwater recharge areas in the Project Area.

Wetlands

A few PUB, PUS, and PEM wetlands are scattered throughout the Project Area, which are relatively small in size. These wetlands are primarily located adjacent to streams or smaller drainages associated with these streams and in small depressions. Some of the PUB and PUS wetlands may be considered playa lakes as described above. There are a few PFO and PSS wetlands adjacent to the East Bijou Creek. A few R4 wetlands are also associated with East Bijou Creek.

4.6 Biological Resources

4.6.1 Introduction

This section describes, terrestrial and aquatic plant life, terrestrial and aquatic species, and associated habitat in the Project Area. Data for the Arapahoe County portion of the Project was drawn from various sources, including the following:

- Colorado Natural Heritage Program (CNHP)
- Colorado Department of Agriculture, Colorado Noxious Weeds
- Colorado Parks and Wildlife (CPW) Threatened and Endangered List
- Colorado Parks and Wildlife National Diversity Information Source
- United States Federal Emergency Management Agency, Floodplains
- United States Department of Agriculture, Plant Database
- United States Fish and Wildlife Service Information, Planning and Conservation System (USFWS IPaC)
- United States Fish and Wildlife Service National Wetland Inventory
- United States Fish and Wildlife Service Species Report - Arapahoe County
- Project field visits by PSCo and POWER staff (May and June 2016).

4.6.1.1 Regulations

Federal

The United States' *Endangered Species Act* (ESA) protects federally listed plant and animal species with the goal of ensuring their long-term survival. The ESA is administered by the United States Fish and Wildlife Service (USFWS).

The United States' *Migratory Bird Treaty Act* (MBTA) and the Bald and *Golden Eagle Protection Act* regulate vegetation clearing, earth-moving, bridge demolition, and other construction activities that have the potential to disrupt nesting activity or destroy nests of bird species protected under the MBTA. The USFWS administers these requirements.

State

The Colorado's *Non-game, Endangered, and Threatened Species Conservation Act* provides some protection within the State for listed species and establishes the State's intent to protect endangered, threatened, or rare species. The Colorado Parks and Wildlife (CPW) is responsible for listing species.

In addition to regulations primarily designed to protect fish and wildlife species, regulations are in place to protect habitat from plant species determined to be "noxious. The Colorado Department of Agriculture Noxious Weed Act of 2003 (Colorado Revised Statutes [CRS] 35-5-101; CRS 35-5.5-101; Executive Order D-006-99), defines and prioritizes management objectives for State-designated noxious weeds.

Colorado Senate Bill 40 (SB 40) requires that State agencies obtain certification from CPW when an agency plans construction in any stream, stream bank, or tributary. Any portions of the Project that could impact an SB 40 Jurisdictional stream may require SB 40 certification, which would include mitigation measures designed to improve fish and wildlife habitat.

4.6.2 Existing Conditions

The Project is located within the High Plains and Southwestern Tablelands ecoregions of Colorado (Chapman et al. 2006). There are several regions within each ecoregion. The Project Area south/southeast of Limon, Colorado is within the Moderate Relief Plains and Flat Rolling Plains regions of the High Plains ecoregion. The regions are typified by irregular plains and the land use is predominantly rangeland and dryland farming. Winter wheat is the main cash crop, with a smaller acreage in forage

crops. Soils are silty and clayey loams, formed from eolian sediments and with veneer loess as you head to the uplands. Blue grama-buffalograss was the natural prairie type. Land is mostly rangeland and irrigated agriculture occurs along the Big Sandy Creek.

The Project Area west and northwest of Limon, Colorado is within the Piedmont Plains and Tablelands region of the Southwestern Tablelands ecoregion. This vast region consists of irregular and dissected plains underlain by shale and sandstone. The shortgrass prairie within this region contains buffalograss (*Bouteloua dactyloides*), blue grama (*Bouteloua gracilis*), western wheatgrass (*Pascopyrum smithii*), galleta (*Pleuraphis jamesii*), alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*), sideoats grama (*Bouteloua curtipendula*), and yucca (*Yucca* spp. L.).

4.6.2.1 Terrestrial and Aquatic Wildlife

Wildlife and Wildlife Habitat

Existing land uses along the Project Area in Arapahoe County consists primarily private land dryland agriculture and pasture/grazing (rangeland). An existing transmission line utility corridor, the Missile Site to Limon 230 kV Transmission Line, is paralleled along the entire Preferred Route (Alternative A) in Arapahoe County. Given the presence of the agricultural lands, rangeland and existing utility corridor, it is likely that the natural vegetation, soils, and hydrology have been altered by these activities.

The Project Area is within the Western Great Plains Shortgrass Prairie (CNHP 2016). In much of its range, this system forms the matrix system with *Bouteloua* spp. dominating. Other associated graminoids may include *Buchloe dactyloides*, *Hesperostipa comata*, *Koeleria macrantha* (= *Koeleria cristata*), *Pascopyrum smithii* (= *Agropyron smithii*), *Aristida purpurea* and *Sporobolus cryptandrus*. Although tallgrass and mixed grass species may be present especially on more mesic soils, they are secondary in importance to the sod-forming short grasses. Shrub species such as sand sagebrush (*Artemisia filifolia*), big sagebrush (*Artemisia tridentata*), and rabbitbrush (*Chrysothamnus* spp.) that dominate the Western Great Plains shrubland systems may also be present. A healthy shortgrass prairie system should support prairie dog (Genus *Cynomys*) complexes, viable populations of pronghorn, endemic grassland birds, and other Great Plains mammals such as swift fox (*Vulpes velox*), white-tailed deer (*O. virginianus*), mule deer (Genus *Odocoileus*), pronghorn (*Antilocapra americana*), and coyote (*Canis latrans*) (CNHP 2005). However, the shortgrass prairie landscape within the Project Area is almost entirely dominated by lands converted to agriculture, rangeland and urban uses. Refer to **Exhibit H – Terrestrial and Aquatic Animal and Plant Habitat – Arapahoe County Map** for more information. Section 5.6 addresses impacts to Biological Resources. Section 5.6.1, Impacts to the Preferred Alternatives, discusses mitigation. Section 5.6 also discusses BMPs and other pre-emptive activities to reduce impacts and mitigation measure to protect Biological Resources.

General Wildlife and Livestock

Animal husbandry and livestock production has altered the look and character of the shortgrass prairie (CPW 2003). This alteration and fragmentation has changed the level of wildlife diversity once supported by the landscape. Species that regularly occur in the Project Area include American badger (*Taxidea taxus*), mule deer, pronghorn, white-tailed deer, coyote, prairie rattlesnake (*Crotalus viridis*), swift fox, prairie dog and other common species. Most grassland reptiles are widely distributed.

Raptors and Other Migratory Birds

Numerous avian species may be present within the Project Area in Arapahoe County. These include year-round residents or migrant species passing through the Project Area during the spring/fall or use the area for nesting during the spring/summer or overwinter. The Project Area is within the Central Flyway and the majority of the birds that use it make direct north and south journeys from breeding grounds in the North to winter quarters in the South. Resident avian species utilizing the grassland structures ranging from heavily grazed and even bare areas to dense and tall cover includes species of grassland birds, waterfowl and raptors. Common representative species of waterfowl found within the Central Flyway in Colorado includes the common mallard (*Anas platyrhynchos*), American widgeon (*Anas americana*), shoveler (*Anas clypeata*), northern pintail (*Anas acuta*), goldeneye (*Bucephala clangula*), redhead (*Aythya americana*), merganser (*Mergus merganser*), snow goose (*Chen caerulescens*), and American coots (*Fulica americana*) (USFWS 2016). Representative raptors species include red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk (*Buteo swainsoni*), prairie falcon (*Falco mexicanus*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), golden eagle (*Aquila chrysaetos canadensis*), rough-legged hawk (*Buteo lagopus*) and great horned owl (*Bubo virginianus*). Representative grassland species include horned lark (*Eremophila alpestris*), Western meadowlark (*Sturnella neglecta*), lark sparrow (*Chondestes grammacus*), mourning dove (*Zenaida macroura*), and American goldfinch (*Spinus tristis*).

Information regarding raptor nest occurrences was obtained from the CPW, CNHP and survey reports from projects within the Project Area. No active raptor nests were identified within the Project Area in Arapahoe County (CPW 2016a; SWCA 2016; CNHP 2016; CPW 2008).

Aquatic Wildlife

No perennial streams or other suitable aquatic habitat to support fisheries populations, fisheries of special concern, or essential fish habitat were identified within or immediately adjacent to the Project Area within Arapahoe County. Most grassland amphibians are widely distributed. The number of species in any location is a function of the presence of water (which amphibians need to complete their life cycle) and of complex habitats (CPW 2003).

Federal and State Listed Species

Lists of federally listed threatened, endangered, proposed, and candidate species with the potential to occur were obtained by county using the USFWS IPaC system (USFWS 2016). Information regarding the potential occurrence of state-listed species of concern (including state endangered, threatened, special concern, species deemed in need of management, and historic species) was obtained from the CNHP and from the CPW (CNHP 2016; CPW 2016a, b, c, d, e). Additional information was obtained from the National Diversity Information Database (NDIS), USDA plant database and survey reports in the Project area (NDIS 2016, USDA 2016). Data from the agencies included site-specific species occurrence data for the Project Area and a five-mile area buffer to account for potential movement by species into the Project Area. For the purpose of this study, this information is not used as a substitute for a presence/absence survey, but as an indication of previous occurrences within suitable habitat for the species.

The USFWS regulates activities affecting plants and animals designated as endangered or threatened under the ESA (16 U.S.C. § 1531 et seq.). By definition, an endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as likely to become endangered within the near foreseeable future throughout all or a significant portion of its range.

Candidate species are those that have sufficient information on their biological vulnerability and threat(s) to support listing as threatened or endangered and might be proposed for listing in the near foreseeable future. The ESA also provides for the conservation of “designated critical habitat,” which is defined by the USFWS as the areas of land, water, and air space that an endangered species needs for survival. Designated critical habitat includes sites with food and water, breeding areas, cover or shelter sites, and sufficient habitat to provide for normal population growth and behavior for the species. USFWS data regarding designated critical habitat areas were reviewed (USFWS 2016a). No designated critical habitat areas were identified within the Project Area.

Table 4-2 lists the federally and state-listed wildlife species with potential to occur in Arapahoe County and indicates whether potential habitat for each species occurs within the Project Area.

4.6.2.2 Terrestrial and Aquatic Plant Life

Vegetation Communities

Cropland/Rangeland

This community consists of irrigated cropland in limited areas, with cultivated dryland agriculture being most prevalent. The majority of the Project Area appears to be used for hay production or as pastureland with grazing of domestic livestock. This vegetation community is largely disturbed.

Barren Land (Rock/Sand/Clay)

This community consists of bedrock, desert pavement, scarps, talus, slides, gravel pits and other accumulations of earthen material. Generally this vegetation community accounts for less than 15 percent of total cover.

Developed

Developed areas include roads, built structures, and associated infrastructure. Areas generally considered developed include dirt and paved roads, transmission lines, railroads, and any other permanent structures. Ornamental landscaping is associated with developed areas, and can consist of both maintained native and non-native plant species.

Western Great Plains Shortgrass Prairie

In much of its range, this system forms the matrix system with grama grass (*Bouteloua spp.*) dominating. Other associated graminoids may include buffalograss (*Buchloe dactyloides*), needle-and-thread grass (*Hesperostipa comata*), prairie Junegrass (*Koeleria macrantha* (= *Koeleria cristata*)), western wheatgrass (*Pascopyrum smithii* (= *Agropyron smithii*)), fringed sage (*Aristida purpurea*) and sand dropseed (*Sporobolus cryptandrus*). Although tallgrass and mixedgrass species may be present especially on more mesic soils, they are secondary in importance to the sod-forming short grasses. Shrub species such as sagebrush and rabbitbrush that dominate the Western Great Plains shrubland systems may also be present (CNHP 2016). The plains of Colorado are in the shortgrass zone, but fingers of mid-grass prairie extend into the short-grass prairie, and patches of tall grasses occur in riparian areas where conditions are sufficiently moist year-round.

The short grasses that dominate this system are extremely drought- and grazing-tolerant. These species evolved with drought and large herbivores and, because of their stature, are relatively resistant to

overgrazing. Land use within this vegetation community is primarily rangeland with grazing of domestic livestock.

Table 4-2 Federally and State-Listed Wildlife Species with Potential to Occur within the Arapahoe County Portion of the Project

CLASS	COMMON NAME	SCIENTIFIC NAME	LISTING STATUS		HABITAT DESCRIPTION	POTENTIALLY SUITABLE HABITAT OBSERVED
			FEDERAL ¹	STATE ²		
Birds	Least Tern (interior population)	<i>Sternula antillarum</i>	E	E	Nests in summer along reservoirs, lakes and rivers with bare sandy shorelines or islands. In Colorado, least terns breed only in the Lower Arkansas River Basin. During migration, they occasionally occur in the Lower South Platte River Basin, and less frequently on the west slope (CPW 2016b).	No, lack of suitable habitat.
	Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	T	T	Mature, old-growth forests that possess complex structural components; canyons, riparian, and conifer communities. Mixed-conifer forests are commonly used throughout most of the range which may include Douglas-fir and/or white fir, with codominant species including southwestern white pine, limber pine, and ponderosa pine. The understory often contains the above coniferous species as well as broadleaved species such as Gambel oak, maples, box elder, and/or New Mexico locust (USFWS 2016c).	No, lack of suitable habitat.
	Piping Plover	<i>Charadrius melodus</i>	T	T	Wetlands, lakeshores, and marshes. Nesting habitat is along reservoirs, lakes, and rivers with bare sandy/pebbly areas with sparse vegetation. They occur in eastern Colorado as very rare migrants and have been known to nest at a few reservoirs: Adobe Creek, John Martin, Neegronda, and Neeskah (CPW 2016c).	No, lack of suitable habitat.
	Whooping Crane	<i>Grus americana</i>	E	E	Utilizes wetlands, irrigated meadows, and reservoir edges as stopovers during migration.	No. It is rare for whooping cranes to stop in Colorado as they migrate from central Canada to Texas Gulf Coast each fall (CPW 2004)
	Burrowing Owl	<i>Athene cunicularia</i>	n/a	T	Inhabit treeless areas with short vegetation (<10 cm; 4 in), especially in association with colonies of prairie dogs or ground squirrels. Burrowing owls nest in burrows dug by the rodents, and prefer the extremely short vegetation found in the colonies. Burrowing owls breed throughout the eastern plains and in river valleys (Rocky Mountain Bird Observatory [RMBO] 2000a).	Yes. Known records in the Project Area.

CLASS	COMMON NAME	SCIENTIFIC NAME	LISTING STATUS		HABITAT DESCRIPTION	POTENTIALLY SUITABLE HABITAT OBSERVED
			FEDERAL ¹	STATE ²		
	Plains Sharp-Tailed Grouse	<i>Tympanuchus phasianellus jamesii</i>	n/a	E	Prefers subclimax brush-grasslands. The plains sharp-tailed grouse use rolling hills with scrub oak thickets and grassy glades. As an equivalent to sagebrush, they use scrub oaks, serviceberries and willows. In Colorado, birds of the subspecies <i>jamesii</i> reside in Douglas County, northern Weld County, and Logan County (RMBO 2000b).	No, no records or known to occur in Arapahoe County.
	American Peregrine Falcon	<i>Falco peregrinus anatum</i>	n/a	C	Peregrine falcons breed throughout the Colorado Plateau and Southern Rocky Mountain ecological provinces of Colorado. However, nesting does not occur on the eastern plains (CPW 2004).	No, suitable habitat
	Bald Eagle	<i>Haliaeetus leucocephalus</i>	n/a	T	Habitat includes reservoirs and rivers. In winter, they may also occur locally in semi-deserts and grasslands, especially near prairie dog towns.	Yes. Could occur during migration or winter roosting, although unlikely due to the lack of large trees in the Arapahoe County Project Area.
	Ferruginous Hawk	<i>Buteo regalis</i>	n/a	C	Preferred habitat is arid and semiarid grassland, foothills or mid-elevation plateaus with few trees. Avoids cultivated fields and developed areas.	Yes, suitable habitat
	Greater Sandhill Crane	<i>Grus canadensis tabida</i>	n/a	C	In Colorado, greater sandhill cranes select sites that are almost always closely associated with water. The species utilizes large wetlands, irrigated meadows, reservoirs, and river sandbars during the migration through the plains states. Willow-lined streams or beaver ponds are preferred sites in Colorado. At higher elevations, the species prefer open parkland was surrounded by quaking aspen mixed with lodgepole pine (<i>P. contorta</i>), fir (<i>Abies</i> sp.), and blue spruce (<i>P. pungens</i>) (Stone 2009). In Colorado, a greater sandhill crane migration stopover site is centered on the Monte Vista National Wildlife Refuge, a large complex of marsh habitat surrounded by many small grain fields (Van Graham 2014).	No, lack of suitable habitat and no known nesting sites or records in Arapahoe County.
	Long-Billed Curlew	<i>Numenius americanus</i>	n/a	C	Grassland species, but they are rarely observed far from water. In Colorado, they are usually associated with ponds, reservoirs, playas, and wet meadows. During migration, long-billed curlews occur sporadically in western Colorado and regularly throughout eastern Colorado (CPW 2016d).	Yes, potential habitat

CLASS	COMMON NAME	SCIENTIFIC NAME	LISTING STATUS		HABITAT DESCRIPTION	POTENTIALLY SUITABLE HABITAT OBSERVED
			FEDERAL ¹	STATE ²		
	Western Snowy Plover	<i>Charadrius alexandrinus</i>	n/a	C	Snowy plovers nest on sandy beaches or alkaline flats with little or no vegetation; nests are located within 150 m (500 ft.) of water. Within the Central Shortgrass Prairie in Colorado, they breed on the shores of reservoirs near the Arkansas River between La Junta and Lamar (RMBO 2000c).	No, lack of suitable habitat.
	Mountain Plover	<i>Charadrius montanus</i>	n/a	C	Habitat includes prairie grasslands, arid plains, and fields. Nesting occurs on grazed shortgrass prairies, overgrazed tallgrass prairies, and fallow fields.	Yes. Record of species in the area
Fish	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	E	Scaphirhynchus albus	The species requires turbid water, diverse habitat types, and flow rates afforded by large, free flowing rivers (USFWS 1993). Known population in Mississippi River from Missouri to the Gulf of Mexico.	No, lack of suitable habitat
Mammals	Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	T	T	Occurs in the Front Range along permanent or intermittent streams in areas with herbaceous cover and adequate cover of shrubs and trees.	No, lack of suitable habitat.
	Black-Tailed Prairie Dog	<i>Cynomys ludovicianus</i>	n/a	C	Habitat consists of intermixed shrublands, sagebrush habitat, and/or shortgrass and mixed-grass prairies. Occurs in central and south-central Colorado.	Yes, species known to occur in Project area.
	Black-Footed Ferret	<i>Mustela nigripes</i>	E	E	Occurs in grasslands or shrublands in association with prairie dog colonies.	No. Population has been extirpated in Colorado, with the exception of managed experimental populations.
	Northern Pocket Gopher	<i>Thomomys talpoides</i>	n/a	C	The northern pocket gopher occurs in upland areas of the eastern plains (Colorado State University 2016).	Yes. Suitable habitat present.
	Swift Fox	<i>Vulpes velox</i>	n/a	C	Swift fox typically prefer short- or mixed-grass prairie with flat to gently rolling terrain and low-growing sparse vegetation that allows for good mobility and visibility. The swift fox is native to the Great Plains region of North America. Today the swift fox can be found in fragmented, smaller populations in portions of Colorado (CPW 2013).	Yes. Suitable habitat is present and has been observed within the Project Area as recent as June 2016 during reconnaissance level site visits to the Project Area in Arapahoe County.

CLASS	COMMON NAME	SCIENTIFIC NAME	LISTING STATUS		HABITAT DESCRIPTION	POTENTIALLY SUITABLE HABITAT OBSERVED
			FEDERAL ¹	STATE ²		
Amphibians	Northern Leopard Frog	<i>Rana pipiens</i>	n/a	C	A variety of aquatic habitats that include slow-moving or still water along streams and rivers, wetlands, permanent or temporary pools, beaver ponds, and human-constructed habitats such as earthen stock tanks and borrow pits. Northern leopard frogs have also gone extinct or become severely reduced at low elevation sites in Colorado (CPW 2016e).	No, lack of suitable habitat
Reptiles	Common Garter Snake	<i>Thamnophis sirtalis</i>	n/a	C	Inhabits marshes, ponds, and the edges of streams and for the most part restricted to aquatic, wetland, and riparian habitats along the floodplains of streams.	Yes, very little suitable habitat exists within the project area.
	Massasauga	<i>Sistrurus catenatus</i>	n/a	C	In Colorado, massasaugas are associated with xeric grasslands in the southeastern portion of the state (USFWS and CPW 2007).	No, lack of suitable habitat.
Plants	Ute Ladies'-Tresses	<i>Spiranthes diluvialis</i>	T	n/a	Sub-irrigated alluvial soils along streams; open meadows on floodplains, including riparian areas.	No, lack of suitable habitat
	Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	T	n/a	Mesic to wet unplowed tallgrass prairies and meadows.	No, lack of suitable habitat

1 Federal status codes: LE = Endangered PE = Proposed Endangered PT = Proposed Threatened D3C = Delisted taxon, recovered C = Candidate n/a = Not applicable

2 State status codes: E = Endangered T = Threatened S = Special concern D = Deemed in need of management n/a = Not applicable

HIGHLIGHTED species are known to occur and/or likely to occur in the Project Area.

Eastern Plains Shrubland

This system is characterized by a sparse to moderately dense woody layer dominated by sand sagebrush. These shrubs usually do not grow as clumps but as individuals, and the intervening ground is most often dominated by a sparse to moderately dense layer of tall, mid- or short grasses (CNHP 2016). Associated species can vary with geography, precipitation, disturbance and soil texture. Graminoid species such as sand bluestem (*Andropogon hallii*), sand dropseed (*Sporobolus cryptandrus*), prairie sandreed (*Calamovilfa longifolia*), giant sandreed (*Calamovilfa gigantea*), needle and thread (*Hesperostipa comata*), and needle grama (*Bouteloua* spp.) are often associated with this system. Other shrub species may also be present including soapweed yucca (*Yucca glauca*), honey mesquite (*Prosopis glandulosa*), skunkbush sumac (*Rhus trilobata*), and Watson's plum (*Prunus angustifolia*).

In eastern Colorado, this system is found primarily in extensive tracts on Quaternary eolian deposits. There are patches of this community along Cottonwood Creek and Badger Creek in Arapahoe County. Land use within this vegetation community is primarily rangeland with grazing of domestic livestock.

Wetlands/Open Water

This system includes a variety of depressional wetlands or playas scattered throughout the eastern plains of Colorado and adjacent areas of the Shortgrass Prairie ecoregion. Occurrences are primarily upland depressional basins supporting freshwater wetland vegetation. These wetlands are small, shallow, and generally isolated in an extremely localized watershed, although they are typically part of a larger complex of depressional wetlands embedded in a terrestrial matrix system (CNHP 2016). The basins are typified by the presence of an impermeable layer such as dense clay, and hydric soils. They are rarely linked to outside groundwater sources, and are instead dependent on rainwater and nearby runoff. Ponds and lakes (i.e. open water) associated with this system can experience periodic drawdowns during drier seasons and years, and are often replenished by spring rains.

Please refer to Section 4.5 for additional details regarding surface water and wetland resources within the Project area.

4.6.2.3 Noxious Weeds

Noxious weeds are non-native plants and are considered invasive and often crowd out native vegetation, crops or other desirable vegetation. The State of Colorado considers 71 plant species noxious, and Arapahoe County is home to 17 species on this list. The state list is prioritized into three categories: A, B and C. Weeds that are considered List A are rare and have not established in Colorado or occur in limited areas. List B weeds are well established in defined areas throughout the state. List C weeds are widespread and well established, they are considered naturalized. The Colorado Department of Agriculture works with each county to maintain the weed program and develop specific lists of noxious weeds targeted for management (Colorado Department of Agriculture 2013). Ongoing coordination with the State Weed Coordinator is occurring to develop a specific list for the Project Area.

4.6.2.4 Federally Listed Plant Species

Two federally-listed plant species have the potential to occur within Arapahoe County, the Ute ladies'-tresses (*Spiranthes diluvialis*) and Western prairie fringed orchid (*Platanthera praeclara*). Refer to **Table 4-2** for details on the species habitat and potential for occurrence.

4.7 Paleontological and Cultural Resources

4.7.1 Existing Conditions

On behalf of PSCo, POWER Engineers conducted a formal file search request on April 22, 2016, of the Colorado Office of Archaeology and Historic Preservation cultural resource database. In Arapahoe County, the Project centerline alternatives cross one site, which is the only one within 1,000 feet of the Project centerline. **Tables 4-3 and 4-4** summarize these results.

Table 4-3 Previously Identified Cultural Resources Crossed by the Project Centerline – Arapahoe County

Site Num.	Age	Site Name	NRHP Status
5AH.808	Historic	1869 Union Pacific Railroad	Eligible

Table 4-4 Previously Identified Cultural Resources within 1,000 feet of the Project Centerline – Arapahoe County

Site Num.	Age	Site Name	NRHP Status
5AH.808	Historic	1869 Union Pacific Railroad	Eligible

Site 5AH.808 is the historic route of the Union Pacific Railroad through Arapahoe County (see Appendix H). This resource is considered Eligible for the National Register of Historic Places (NRHP). It is the only cultural resource located along the Preferred Route and the Alternatives in Arapahoe County. This is likely due to the relatively small number of cultural resource inventories that have been undertaken in this portion of the State.

4.8 Socioeconomics

Socioeconomics examines how social and economic variables interact to influence population patterns, which in turn can influence the land cover and use patterns described above. Identifying spatial and temporal boundaries helps to understand how social and economic variables interact. Spatial boundaries identify a given geography or place. Temporal boundaries identify a period of time. Unlike the transmission route alternatives' finite geographic boundaries, the Project's socioeconomic spatial boundary spans greater distances to include communities that might provide a labor force for Project construction, operation, and maintenance activities and would be expected to provide goods, services, and housing for the Project's temporary and permanent labor force. The Project's socioeconomic temporal boundary would be expected to last throughout Project construction, operation, and maintenance activities; essentially lasting for the life of the Project.

In analyzing the Project's spatial and temporal boundaries, PSCo can estimate where, when, and to what extent the Project would affect socioeconomic variables, which are described below to include population, employment and income, and housing characteristics. For these variables, State of Colorado and county data are presented for comparison to the communities below.

Data presented below were excerpted from the United States Census Bureau (USCB) and the Colorado Department of Labor and Employment's Labor Market Information Gateway.

4.8.1 Existing Conditions

In Arapahoe County, the Project's socioeconomic spatial boundary includes the City of Aurora, the Census-Designated Place (CDP) of Byers, the Town of Deer Trail, and the CDP of Strasburg. It is important to note that Aurora lies in Adams, Arapahoe, and Douglas Counties, while Byers and Deer Trail lie wholly in Arapahoe County. Strasburg lies in Adams and Arapahoe Counties. Socioeconomic spatial boundaries often cross county and other municipal borders due to favorable real estate prices and tax liabilities, and/or proximity to more goods, services, and housing.

In Arapahoe County, Deer Trail is the closest incorporated town to the transmission route alternatives. Byers and Strasburg lie approximately 11 miles and 17 miles northwest of Deer Trail, respectively. The City of Aurora lies approximately 44 miles west of Deer Trail. Byers, Deer Trail, and Strasburg are small communities compared to Aurora, but are closer to the transmission route alternatives than Aurora and would likely provide adequate goods, services, and housing for the Project's labor force. Given the uncertainty of where the Project's temporary laborers may reside, socioeconomic data for all of these communities are presented below.

4.8.1.1 Population

According to the USCB, between 2010 and 2014, the populations for Byers, Deer Trail, and Strasburg experienced increases of approximately 3.3% and 5.8%, respectively, while Strasburg's population increased by approximately 43.6%. Between 2010 and 2015, Aurora's and Arapahoe County's population each increased by 10 to 11%, and the State of Colorado's population increased by approximately 8.5%.

Table 4-5 presents these communities' most recent population estimates.

The City of Aurora's approximate 2,100 people per square mile (mi²) contrasts relatively to Arapahoe County's approximate 717 people per square mile, Deer Trail's approximate 351 people per square mile, Byers' approximate 318 people per square mile, and Strasburg's approximate 144 people per square mile. The State of Colorado's population density is far less at approximately 49 people per square mile (USCB 2015).

Table 4-5 Arapahoe County Population Data

AURORA	BYERS	DEER TRAIL	STRASBURG	ARAPAHOE COUNTY	STATE OF COLORADO
359,407 ^a	1,361 ^b	386 ^b	2,999 ^b	631,096 ^a	5,456,574 ^a

Source: USCB 2014 and 2015.

^a 2015 Census estimate.

^b 2014 Census estimate.

4.8.1.2 Employment and Income

From 2010 to 2014, the percentages of the populations age 16 or older who were employed in the civilian labor force in Aurora, Byers, Deer Trail, and Strasburg totaled 70.8%, 62.0%, 53.2%, and 72.0%, respectively. This sector of Arapahoe County's labor force totaled 71.1%, while the State of Colorado totaled 67.9%. The sector is defined as the population aged 16 or older employed in the civilian labor force. In these geographies, unemployment rates were the lowest in Deer Trail at 1.3% and greatest in Strasburg at 12.9%. Byers', Arapahoe County's, and the State of Colorado's unemployment rates ranged from 7.4% to 8.1%. Aurora's unemployment rate totaled 10.1% (USCB 2014).

According to economic characteristics compiled for the USCB's 2010-2014 American Community Survey, the educational, health care, and social assistance services industry employed the single-largest percentage of workers in Aurora, Byers, Deer Trail, Strasburg, Arapahoe County, and the State of Colorado. In each of these geographies, this industry's workers accounted for approximately 19 to 27% of the civilian labor force. Professional, scientific, and management services and the retail trade industries' workers accounted for 10 to 20% of these geographies' civilian labor force. Other industries' workers accounted for smaller percentages (USCB 2014).

Table 4-6 presents the median household incomes and per capita incomes for the communities, Arapahoe County, and the State of Colorado. Across these geographies, median household incomes vary by approximately 230% and per capita incomes vary by approximately 72%. The values presented in **Table 4-6** reflect 2014 inflation-adjusted dollars (USCB 2014).

Table 4-6 2014 Median Household Incomes and Per Capita Incomes – Arapahoe County

VARIABLE	AURORA	BYERS	DEER TRAIL	STRASBURG	ARAPAHOE COUNTY	STATE OF COLORADO
Median Household Income	\$52,275	\$57,721	\$32,083	\$74,018	\$62,213	\$59,448
Per Capita Income	\$24,732	\$27,490	\$19,511	\$25,443	\$33,574	\$31,674

Source: USCB 2014

4.8.1.3 Housing

Single-family, detached housing units dominate the housing by type in Aurora, Byers, Deer Trail, and Strasburg, though at greater densities than outlying portions of Arapahoe County. **Table 4-7** presents the total number of housing units in these geographies along with the percentage of single-family, detached housing units in these geographies.

Table 4-7 Total Housing Units and Percentage of Single-family, Detached Housing Units – Arapahoe County

VARIABLE	AURORA	BYERS	DEER TRAIL	STRASBURG	ARAPAHOE COUNTY	STATE OF COLORADO
Total Housing Units (Number)	130,835	564	228	1,004	240,486	2,238,624
Single-Family, Detached Housing Units (Percent)	51.0	73.9	59.6	80.2	56.2	62.9

Source: USCB 2014.

The percentage of vacant housing (single family and multi-family) units is the lowest in Strasburg at 1.5% and greatest in Deer Trail at 21.9%. Aurora's, Byers', Arapahoe County's, and the state's stock of vacant housing units represents 5.7%, 8.9%, 5.1%, and 10.7% of these geographies' total housing units, respectively. According to the USCB's data, there are 7,491 vacant housing units in Aurora, 50 vacant housing units in Byers, 50 vacant units in Deer Trail, and 15 vacant units in Strasburg (USCB 2014).

This page intentionally left blank.

5. ENVIRONMENTAL IMPACTS, MITIGATION, AND BEST MANAGEMENT PRACTICES

PSCo analyzed eight end-to-end route alternatives (Alternatives A – H) and selected a Preferred Alternative for the entire Rush Creek 345 kV Transmission Line Project. In Arapahoe County the eight end-to-end route alternatives represent three discrete routes due to several of the end-to-end route alternatives sharing common segments in Arapahoe County. For clarity and comparison of Alternatives, the discussion of the eight end-to-end alternatives that share common route segments have been combined into the following: 1) Alternatives A, B, E and H; 2) Alternatives C, F, and G; and 3) Alternative D. The combined alternative discussions are presented below for each resource.

When considering landowner interest, both within Arapahoe County and along the entire transmission line route, the selected Preferred Alternative was designed to balance minimizing the number of residences passed along the route within Arapahoe County, minimizing the distance passed through sensitive environmental areas, and minimizing impacts to various resources while maximizing engineering design optimization and the purpose and need of the Project. Alternative A was selected as the Preferred Alternative. Alternative A would be the longest alternative through Arapahoe County; however, it would minimize impacts to several key resources and would parallel the existing NextEra 345 kV Transmission Line for its entire length in Arapahoe County. The Preferred Alternative would pass by the fewest number of residences within 1,000 feet and crosses the fewest number of wetlands and floodplains. The Preferred Alternative would rank second for the number of stream crossings and the number of miles through Arapahoe County Sensitive Development Areas; three miles of the preliminary selected route in Arapahoe County were relocated to the west to avoid riparian habitat areas associated with the Muddy Creek drainage. The Preferred Alternative would pass through the most miles of potential prime farmland; however, soils comprising these lands are considered only potential prime farmland and are classified as prime if they are irrigated. The Preferred Alternative would rank second for miles passing through agricultural cropland lands and shortgrass prairie.

5.1 Land Use and Recreation

5.1.1 *Impacts and Mitigation*

5.1.1.1 Alternatives A (Preferred Alternative), B, E and H

Land use impacts are identical for Alternatives A, B, E, and H because they share the same alignment within Arapahoe County. Impacts would result primarily from the footprint area of the 345 kV H-frame transmission line structures removing small areas of dryland agriculture or pasture from production, affecting both private land production and State land leases on the northern portion of the Alternatives. Additionally, improved existing roads or new access roads may minimally affect the area available for grazing; no new permanent access roads are proposed in cultivated cropland. Grazing and pasture impacts would occur on the southern portions of the Alternative within the County. Overland access will be used to the extent possible, but road grading may occur in areas where overland access is not possible. The Preferred Alternative will parallel the existing NextEra 345kV transmission line project, thus reducing resource impacts compared to a greenfield alternative which would have higher resource impacts.

Agricultural activities would continue to occur unaffected along the vast majority of land within the 150-foot ROW. Planting and harvesting patterns may need to be adjusted in areas of dryland production to account for structures. Because these Alternatives follow an existing transmission line along the entire length of Alternatives A, B, E and H in Arapahoe County (see **Table 5-1**) where agricultural land uses occur, operators currently adjust their planting and harvesting patterns to account for existing (H-frame) structures located in agricultural fields. Grazing would continue around the transmission line structures. Existing transmission lines and pipelines would be crossed by these Alternatives (in the same locations) that would require coordination with the respective utility or owning entity (e.g., Tri State Electric, Colorado Interstate Gas Co.). **Table 5-1** summarizes land use impacts for Alternatives located in Arapahoe County.

Direct impacts on residential, commercial, institutional, and other land uses would not occur as a result of Alternatives A, B, E, and H. Residential and other structures occur within 0.5 mile of the Alternatives as detailed in **Table 5-1**, but would not be directly impacted by the Project (please refer to Section 5.3 for Visual Impacts).

No direct or indirect land use impacts on State, County, or local parks, trails, or fishing stream segments would occur as a result of these Alternatives, and there are no parks and recreational areas within 1,000-feet of these Alternatives.

These Alternatives would be consistent with the Arapahoe County Comprehensive Plan because the Project will be evaluated by the County under Use by Special Review/1041 Regulations, and the transmission line will not be constructed in riparian or Sensitive Development Area identified under the Plan. Mitigation measures will be implemented as discussed at the end of this section to reduce impacts on property owners and residents of the County.

5.1.1.2 Alternatives C, F and G

For Arapahoe County land use impacts on cultivated and grazing areas would be similar for Alternatives C, F, and G as they are for Alternatives A, B, E, and H, but would occur in a greenfield corridor within the western part of the study area. Cultivated area impacts would occur where the Alternatives cross cropland on the northern portion of the route and in the area east of Deer Trail. Although the total length of the ROW through cropland would be less than Alternatives C, F and G, these Alternatives do not parallel existing transmission lines except along a 2.2-mile section immediately south of the Missile Site Substation. Cultivation currently occurs along the existing lines in this area of Arapahoe County. In the area east of Deer Trail, the Project would create a new transmission line corridor through cultivated areas where none currently exist, causing new impacts as a result of modified planting and harvesting patterns and reduced production potential in areas occupied by the structures. Cultivated area impacts would occur along a higher proportion of Alternatives A, B, E, and H compared to Alternatives C, F, and G. Impacts on grazing would be similar to Alternatives A, B, E, and H. No State land leased for agricultural activities would be impacted by these Alternatives.

Although no residential areas are crossed, the total number of residences located within 0.5 mile and the total number of structures within 0.5 mile of Alternatives C, F, and G would be higher than Alternatives A, B, E, and H (refer to Section 5.3 for Visual Impacts). Impacts on recreation would be identical to Alternatives A, B, E, and H (none).

Consistency with the Arapahoe County Comprehensive Plan would be identical to Alternatives A, B, E, and H.

5.1.1.3 Alternative D

Land use impacts on cultivated areas and rangeland for Alternative D would be similar to Alternatives A, B, E and H in that they would occur adjacent to existing transmission line corridors, but these impacts would occur over greater distance for this Alternative. This Alternative also crosses a higher proportion of rangeland for the entire route as compared to the other Alternatives, and would affect 2.1 miles more cultivated agriculture and 6.4 miles more rangeland than Alternatives A, B, E and H. However, Alternative D has fewer residences within 500 feet, 0.25 mile and 0.5 mile of the Project than any of the other Alternatives. State land leased for agricultural activities in three locations over four miles along Segment 5 would be impacted by this Alternative. Impacts on recreation would be identical to Alternatives A, B, E and H (none).

Consistency with the Arapahoe County Comprehensive Plan would be identical to Alternatives A, B, E and H.

Table 5-1 Arapahoe County Land Use Impacts by Alternative

Land Use Impact	Alternative		
	A, B, E, H	C, F, G	D
Length within County (mi.)	13.5	8.4	22.1
Number of Residences within 500 ft. of ROW Centerline	1	1	0
Number of Residences within 0.25 mi. of ROW Centerline	4	4	2
Number of Residences within 0.5 mi. of ROW Centerline	9	12	2
Number of Other Structures within 500 ft. of ROW Centerline	0	5	0
Number of Other Structures within 0.25 mi. of ROW Centerline	4	6	0
Number of Other Structures within 0.5 mi. of ROW Centerline	7	11	0
Length of ROW Parallel to an Existing Transmission Line (mi.)	13.5	2.2	22.0
<i>Length of ROW Parallel to an Existing Transmission Line (% of total Alternative Length)</i>	<i>100.0</i>	<i>26.2</i>	<i>99.5</i>
Length of ROW through Cropland (mi.)	7.3	4.8	9.4
<i>Length of ROW through Cropland (% of total Alternative Length)</i>	<i>54.1</i>	<i>57.1</i>	<i>42.5</i>
Length of ROW through Pasture/Rangeland (mi.) ¹	5.7	2.4	12.1
Length of ROW through State Leased Agricultural/Grazing Land	1.0	0	3.0

¹All Barren Land, Forest, Wetlands, Shortgrass Prairie and Eastern Plains Shrubland Land Cover assumed to be used for Pasture/Rangeland

Impacts on land use are associated with agricultural operations and ranching. These impacts would be reduced by implementing the following Mitigation Measures:

LU-1: Modify Structure/ROW Location and Construction Timing

This mitigation measure will be implemented as necessary to avoid cultivated areas and other land use conflicts where identified by reducing the potential operational and maintenance interference, typically by spanning or micro-siting. Construction will also be timed, where practical, to minimize disruption of normal seasonal activities for cropland (planting and harvesting) and rangeland. Construction operations will avoid, to the extent feasible, the disturbance of agricultural soil during period of heavy precipitation.

LU-2: Match Existing Structure Locations

New structures would be sited span-for-span with the existing structures within the limits of standard tower design and in conformance with engineering and PSCo requirements. This mitigation measure will be implemented for Alternatives collocated with existing transmission lines to avoid intermittent structures that impact the operation of agricultural equipment and harvesting patterns.

LU-3: Maintain and Repair Fences, Gates and Other Improvements

To minimize impacts on grazing operations, fences and gates will be replaced or repaired to their original condition as required by the landowner in the event that they are removed, damaged, or destroyed by construction activities. Temporary gates or enclosures will be installed only with the permission of the landowner or the land management agency and will be removed following construction. Temporary gates will be kept closed and locked, depending on agreement with the landowners.

LU-4: Coordinated Livestock Management s

During Project construction, it may be necessary to relocate livestock from areas where heavy equipment operations are taking place. Arrangements will be made with landowners and livestock owners to keep livestock out of these areas during the specific construction periods.

5.2 Transportation

The following discussions describe general transportation impacts that PSCo anticipates for all of the route alternatives in Arapahoe County.

5.2.1 General Impacts

5.2.1.1 Construction Activities

As mentioned above, PSCo has prepared a Draft Road Use Agreement for Arapahoe County (**Appendix C - Draft Road Use Agreement**) in accordance with local, state, and federal requirements for transporting construction materials and overweight/oversize loads on local, state, and federal roads. Implementing the Draft Road Use Agreement would minimize or avoid to the extent possible impacts to the transportation network in and around the Preferred Alternative. The Final Road Use Agreement will identify access road locations and, where necessary, locations where upgraded existing roads and/or new access roads are required. The Final Road Use Agreement will include provisions for construction activities' hours of operation, potential traffic delays, pilot cars, flagmen, and alternative access routes for the traveling public to use during peak construction periods.

Near the Preferred Alternative, the majority of the roads feature dirt or gravel surfaces, with only the following paved roads:

- Interstate (I) 70
- U.S. Routes, 40, 287, 24 and 36
- State Route 40
- County Route 34/Jolly Road and South Price Road in Arapahoe County
- County Road 42/ Wall Road (partial)

During the construction period, temporary delays may occur on federal, state, and local roads during the movement of oversized/overweight loads. The delays would be expected to last only a few minutes at a time as construction vehicles enter and exit the roads en route to and from construction staging areas and structure work areas. Construction-related impacts to traffic along I-70 and the U.S. and state routes above would be expected to be minimal. These roads are accustomed to handling tractor trailers and other large vehicles and at greater volumes than the unpaved, local roads near the route alternatives. In contrast, construction-related impacts to traffic along local roads would be expected to be moderate, as the road surface condition can reduce driving speeds. While traveling along local roads near the route alternatives, local residents and visitors might experience slightly longer delays as construction vehicles enter, travel along, and exit these roads.

In addition to ground-based construction vehicles, PSCo may use helicopters to transport construction materials to structure work areas, and to string the proposed transmission line's conductors and shield wires. Prior to commencing these aerial operations, PSCo would coordinate with the FAA's Denver Flight Service Station to file a flight plan. PSCo would also coordinate with the owners and operators of nearby private airports to ensure that the Project's aerial transport activities avoid conflicts with aerial spraying operations on agricultural land or other aircraft operations at these private airports.

5.2.1.2 Operation and Maintenance Activities

Operating and maintaining the proposed transmission line would not be expected to adversely impact the transportation network near the route alternatives. During maintenance activities, temporary delays may occur as maintenance crews reduce traffic to one lane to perform work on roadside transmission structures and facilities. However, the first scheduled maintenance or inspection activities may occur at least 15 to 20 years after the transmission line is energized.

5.2.2 County Specific Impacts

Per the *Regulations for Governing Areas and Activities of State Interest in Arapahoe County*, the following discussions describe the Project's anticipated impacts on the transportation network near the route alternatives. The impacts are assumed to be similar for all of the route alternatives in Arapahoe County.

5.2.2.1 Transportation Facilities Required for Existing and Future Land Uses

During construction activities, PSCo would rely on the existing road network to the maximum extent practicable; thereby minimizing the need for new access roads in new locations. In Final Road Use Agreement, PSCo will identify existing dirt or gravel roads that might require modifications or upgrades to accommodate construction vehicles' turning radii and other physical considerations, as well as spur roads from existing roads. It is anticipated that construction activities would not modify existing paved roads. After construction activities are completed, PSCo would work with land owners and county officials to ensure that access roads are returned to pre-construction conditions. PSCo does not anticipate that the Project would substantially impact the existing transportation facilities that local residents use to access existing land uses during construction.

During operation and maintenance activities, it is anticipated that only negligible delays might occur along existing roads as maintenance crews travel to and from transmission structures. The first scheduled maintenance activities would not likely occur for at least 15 to 20 years after the transmission line is

energized. These activities would likely last for only a few hours at a time. PSCo does not anticipate that the Project would substantially impact the transportation facilities that local residents and visitors would use to access future land uses during operation and maintenance activities.

5.2.2.2 Traffic Volume and Level of Service Impacts

Given the low-density, sparsely populated area of the county in which the route alternatives would be situated, no substantial impacts would occur to existing and future traffic volumes and Level of Service (LOS). LOS is a qualitative measure used to relate the quality of traffic service. LOS is used to analyze highways by categorizing traffic flow and assigning quality levels of traffic based on performance measures including vehicle speed and volume. LOS is scored using letters from A to F, where A represents the best conditions (free-flow traffic conditions) and F represents failure of the system with excessive delay (failure or breakdown in the traffic system). Roadway corridors that operate at LOS C or better are categorized as uncongested and generally operate in free-flow conditions where drivers can operate at their desired speed without undue delay.

Rural roads in Arapahoe County currently operate at a LOC C or better (Arapahoe County 2010a). Roads near the route alternatives would be expected to continue to operate at or above LOS C during and after Project construction activities. PSCo anticipates that estimated construction traffic during the construction phase of the Project will be 15-20 vehicles per day. PSCo anticipates that construction activities would occur six days per week.

5.3 Visual Resources and Aesthetics

5.3.1 Alternatives A (Preferred Alternative), B, E, and H

Impacts on visual resources would occur primarily as a result of contrasts created by the H-frame 345 kV transmission structures that affect visual quality as seen from sensitive viewpoints. In addition to contrasts created from structures, structure contrasts would result in the short-term from the presence of construction equipment such as cranes, graders, concrete trucks, line trucks, and other associated equipment necessary to erect the structures, string the conductors, and access the ROW. Low levels of vegetation and landform contrasts may also result from the clearing of groundcover around structures and to allow access to the ROW. Vegetation contrast would be lower in agricultural areas because production and harvesting would still occur in and around the structures. In areas of rangeland (Shortgrass Prairie/Eastern Plains Shrubland), disturbed areas would be revegetated, and long-term contrasts would be very weak or would not occur. Landform contrasts could occur in steeper areas where road cut or fill is visible, but the majority of the landscape terrain is flat enough that these contrasts would be minimal. Substantial areas of road blading would not likely be necessary due to flat terrain and dominance of low rowing herbaceous vegetation where overland access could occur.

Distance to the Project (Distance Zone: immediate foreground-within 1,000 feet of the Project; foreground- 1,000 feet to 0.5 mile; middleground- 0.5 to 1 mile, background- beyond 1.0 mile), contrast levels (strong, moderate, weak), and landscape or viewer sensitivity (high, moderate, low) affect overall impacts. Strong contrasts seen by a high sensitivity viewer in the foreground would cause higher impacts on visual quality than weak contrasts seen in the middleground by a moderate sensitivity viewer. Visual impacts are identical for Alternatives A, B, E and H because they share the same alignment within

Arapahoe County. An illustration of a typical Project 345 kV Corten steel (self-weathering) structure is shown in **Figures 2-3 and 2-4**.

Moderate or weak structure contrasts, and weak to no vegetation and landform contrasts would be seen by highly sensitive residences in the immediate foreground in two locations for Alternative A/B/E/H. The Project would be viewed adjacent to an existing (Missile Site to Limon 1) 230 kV transmission line and near the existing Missile Site Substation. The existing 230 kV transmission line is of lower voltage than the Project and has the similar H-frame configuration as the Project structures. The Corten steel finish of the Project structures would be similar, but would be darker brown and of a more uniform texture than existing wood structures, and would more visually dominant. Weak structure contrasts would be seen in the vicinity of the substation due to the multiple transmission lines and substation equipment. Other highly sensitive receptors would also view these Alternatives in the context of the existing 230 kV transmission line in the foreground, middleground and background distance zones. Key Observation Point (KOP) 1, representing immediate foreground and foreground views by residences (**Exhibit F**), are documented with a photo simulation located in **Appendix F** showing a photo of the existing Missile Site to Limon 1 230 kV Transmission Line structures.

Sensitive receptors such as visitors and users of the Deer Trail Rodeo Grounds, residences located in Deer Trail, and the Richmil Ranch County Open Space area would not see these Alternatives due to distance and screening by vegetation, landform or built features. Local roads would be paralleled or crossed by these Alternatives, but due to their low sensitivity, low impacts would result. **Table 5-2** summarizes visual impacts for alternatives located in Arapahoe County.

The East Bijou Creek corridor would not be visually affected by Alternatives A, B, E and H due to distance from the corridor and terrain.

5.3.2 Alternatives C, F, and G

Visual impacts caused as a result of Alternatives C, F and G would be similar to Alternative A/B/E/H in the area of the Missile Site Substation and the two mile shared segment with those Alternatives. Impacts would be moderate to low due to the presence of the existing transmission line and substation infrastructure, with the Project creating moderate to weak contrasts within the immediate foreground and foreground distance zone view of residences. South and east of Deer Trail, these Alternatives would cross ranchland and agricultural landscapes where no transmission line corridors are currently located. The resulting strong structure contrasts, and weak vegetation and structure contrasts would be viewed in the immediate foreground by several residences located west of the Project causing high visual impacts. Alternatives C, F and G would be within about 0.6 miles of Deer Trail residences, and strong structure contrasts would be viewed in the middleground as a result of a new transmission line corridor. Overall, these Alternatives would cause the highest impacts of those located within Arapahoe County due to proximity to the highest number of sensitive viewpoints and number of viewers associated with local and state roads.

5.3.3 Alternative D

Visual impacts caused as a result of Alternative D would be similar to Alternatives A, B, E and H in that foreground views would occur from residential areas adjacent to existing transmission line corridors, but structure contrast would be somewhat stronger due to the difference of the existing single pole structures

and the new H-frame structures relative to structure configuration and visual complexity of the existing structures. However, fewer overall residences would view this Alternative in the immediate foreground, foreground and middleground. Visual impacts occurring in the vicinity of the Missile Site Substation would be similar to the other Alternatives, with the addition of an additional transmission line corridor viewed within the context of the substation infrastructure. Overall impacts would be lower than the other Alternatives due to the fewer number of sensitive viewers in the vicinity of Alternative D. Alternative D would also have the fewest number of residences potentially viewing the Project within the foreground.

Table 5-2 Arapahoe County Visual Impacts by Alternative

VISUAL IMPACT	ALTERNATIVE		
	A, B, E, H	C, F & G	D
Length within County (mi.)	13.5	8.4	22.1
Number of Residences within 500 ft. of ROW Centerline	1	1	0
Number of Residences within 0.25 mi. of ROW Centerline	4	4	2
Number of Residences within 0.5 mi. of ROW Centerline	9	12	2
Length ROW within Foreground of Interstate, US, or State Highway (mi.)	0	2.2	2.2
Length ROW within Foreground Park or Recreation Area (mi.)	0	0	0

Visual impacts would be reduced by implementing the following Mitigation Measures:

VIS-1: *Utilize Non-specular Conductors* – This mitigation measure will be implemented to reduce the potential glint and glare associated with standard aluminum conductor (wire).

VIS-2: *Match Existing Structure Locations* – Project segments that are collocated with existing transmission lines, new structures would be sited near existing structures within the limits of standard tower design and in conformance with engineering and PSCo requirements. This mitigation measure will be implemented to avoid intermittent structures that would otherwise increase structure contrasts.

5.4 Soils, Geology and Natural Hazards

5.4.1 Impacts Common to All Alternatives

5.4.1.1 Soil Erosion

Project construction activities affecting soils include permanent and temporary land-disturbance activities such as structure work areas, wire-pulling, tensioning and splicing sites, construction yards, and temporary and permanent access roads. Ground disturbance during construction may increase the potential for erosion, such as removal of protective vegetation may expose soil to potential wind and water erosion. Certain soils within the Project Area would be more susceptible to soil erosion impacts, including soils with high K Factor, low T Factor, and steep slopes. The primary soil erosion factor is water erosion on steep slopes and wind erosion on bare soils.

Potential erosional effects from Project operations would consist of soil disturbances necessary to maintain the transmission lines in working order and conduct necessary repairs. Stormwater BMPs, including erosion and sediment control structures, as well as new culverts would require inspection, maintenance, and repair throughout the operation life of the Project to minimize soil erosion or

sedimentation to surface water. Temporary access roads, not retained for operations, would be seeded with a native grass mix and allowed to revegetate and thereby minimizing the surface exposed to erosive conditions.

The areas used for construction would be reclaimed as soon as possible, which may include regrading to original land contours, topsoil replacement, and revegetation. Implementation of a SWPPP (a CDPHE requirement) and Grading, Erosion, and Sediment Control Plan (GESCP, an Arapahoe County requirement), and use of appropriate soil mitigation measures and BMPs would be used to reduce the effects of erosion. The SWPPP and GESCP are discussed more fully under the Water Resources and Wetlands section.

The majority of soil types in the eastern areas of the Arapahoe County are rated as slight to moderate erosion hazard primarily due to low to moderate slopes (0 to 15%). There were no slopes over 30% in the ROW for any of the alternatives. These factors indicate that impacts from soil erosion would be similar for all alternatives.

5.4.1.2 Prime Farmland

Potential soil impacts to prime farmland, if irrigated from transmission line construction include soil erosion, damage to agricultural drainage systems, mixing of topsoil and subsoil, potential loss of topsoil, and soil compaction. Prime farmland within the construction ROW may be unavailable to agriculture production during the construction period. Prime farmland would be reclaimed as soon as possible, which may include regrading to original land contours, relieving compaction, topsoil replacement, and revegetation.

Although the primary land use activity is farming and ranching, only approximately 30% of the area is considered prime farmland if irrigated or prime farmland if irrigated with other conditions as indicated by NRCS. Prime farmland was not a criteria used for routing because most agricultural activities in this area can be conducted within the proposed transmission line ROW. Due to this factor, impacts to prime farmland would be similar for all route alternatives.

5.4.1.3 Accidental Spills

During construction, use of trucks, heavy equipment, or stored supplies could result in accidental discharge of fuel, lubricants, and automotive fluids. Although the potential exists, any spills would be accidental, unlikely due to PSCo's safety and construction standards, of limited extent, and would be considered minor to negligible and temporary in duration. BMPs for construction housekeeping, spill prevention, and cleanup would be used to prevent and remediate accidental spills. Therefore, accidental spills would not result in widespread or long-term effects to Project soils.

5.4.1.4 Permanent Soil Loss

The area within the footprint of each transmission structure would result in minor long-term loss of that acreage to productive soil uses such as for agriculture (because of structures occupying the site); however the implementation of BMPs will avoid any long-term loss of soil.

5.4.2 *End-to-End Route Summary*

Alternative D would have greater potential for soil erosion and Alternative E would have slightly greater potential for soil erosion, both due to a small percentage of ROW slopes over 30%; otherwise the end-to-end alternatives would have similar potential impacts to soil, geology, and natural hazards. Alternative A, the Preferred Alternative, would have negligible to minor impacts to soil, geology, and natural hazards due to the relatively low to moderate slopes (0 to 15%), ability to conduct agricultural practices under the transmission line, and lack of geologic features and natural hazards.

5.5 Water Resources

5.5.1 *Impacts to Surface Water*

The potential sources of surface water resource impacts from the Project include permanent and temporary soil-disturbance activities from structure work areas, wire-pulling, tensioning and splicing sites, laydown and materials yards, and temporary and permanent roads as well as potential accidental spills of hazardous materials during the construction period. Short-term impacts from soil disturbances that increase erosion (or water runoff in areas with compacted soils) may result in an increase in suspended sediments within adjacent waterbodies and accidental spills of hazardous materials could wash into and pollute surface water; however, the potential impacts to surface water will be negligible and temporary in nature due to the implementation of BMPs to include properly maintaining equipment, storing fuels and petroleum away from excavated areas, cleaning up any spills and spanning water features and drainages.

In addition to soil-disturbance activities, impacts to surface waters may include stream crossings. All of the alternatives within Arapahoe County cross intermittent streams only; no perennial streams will be crossed. All of the intermittent streams will be spanned by the transmission line and individual structures will be located well outside the stream banks to avoid potential impacts. Where available, existing crossings of intermittent streams will be utilized for construction access. Intermittent stream crossings may result in short-term sedimentation impacts to waterbodies from stream bank disturbance and riparian vegetation disturbance and/or removal from the installation of culverts. If culverts are designed or installed incorrectly, they can alter or reduce water flow, change a stream's hydrodynamics and impede fish passage. If needed, culverts would be designed and installed to ensure the continued free flow of water, as well as to allow both the upstream and downstream movement of aquatic organisms. Culverts may get blocked by debris in streams and cause water to back up and flood areas. As appropriate, any permanent culverts would be inspected, maintained, and repaired regularly throughout the life of the Project to minimize impacts. These activities would be permitted through the applicable agencies.

Stormwater BMPs will be used during construction to reduce potential impacts from erosion, sedimentation, and turbidity in surface waters during construction. A SWPPP and GESC will be developed and implemented for the Project, which will meet the construction stormwater discharge permit requirements of the CDPHE and county GESC requirements. The SWPPP and GESC will include a number of measures to control runoff and to reduce erosion and sedimentation at construction sites. Additionally, the implementation of a SWPPP will also minimize potential impacts. Examples of potential BMPs that may be used includes silt barrier fences to control runoff, sediment traps and basins, and minimizing exposed soils by using temporary and permanent seeding and mulching. All disturbed areas

will be re-vegetated as requested by landowners. Seed mix and seeding rates will be developed through consultation with the local NRCS and landowner preference.

The construction, O&M of the Project would not contribute to surface water impairments identified by 303(d) listed waterbodies (Big Sandy Creek), which include *E. coli* and selenium, due to control of stormwater runoff and soil erosion, which will be included in the SWPPP and GESC.

5.5.2 Impacts to Floodplains

It is reasonable to assume that all watercourses that convey natural flows, whether mapped as floodplains, flood hazard areas, or not, present some level of flood hazard. Encroachment of a structure into a flood path could result in flooding of or erosion damage to the encroaching structure and diversion of flows. Transmission structures will be set back from channel banks to avoid impacts to floodplains.

5.5.3 Impacts to Ground Water

It is unlikely the Project would affect groundwater to any extent. Excavations for transmission line structures may contact shallow groundwater; however, the groundwater contact would be unlikely to adversely impact this resource, unless an accidental spill of fuel or petroleum from construction equipment occurs near an open excavation or is not cleaned up in a timely manner. Techniques to avoid and minimize groundwater impacts would include properly maintaining equipment, storing fuels and petroleum away from excavated areas, fueling in designated areas, and immediately cleaning up any spills before they become a problem. Typically, contact with construction equipment would not impact groundwater quality except to potentially increase turbidity temporarily, and only in a limited area. After application of mitigation measures and BMPs, impacts to groundwater will be negligible.

No water wells would be drilled for the proposed Project. All water used for Project construction will come from existing sources which will be identified and secured prior to construction.

5.5.4 Impacts to Wetlands

The potential wetlands identified by NWI will be verified in the field and inventoried and/or delineated to determine the actual locations and extent of wetlands prior to construction of the Project. All wetlands would be spanned by the transmission line to avoid impacts. Wire pulling and tensioning sites will be sited to avoid wetlands to the extent practicable. If wetlands cannot be avoided, matting and other protective temporary measures will be used. Depending on the condition of the wetland soil and hydrology, matting may be used in some cases to protect wetlands from rutting. No permanent loss of wetlands would occur from installation of transmission line structures and conductors.

Increased soil disturbances can lead to the germination of exotic plant species, which can alter the composition and function of wetlands. Impacts could result from soil compaction or alteration of surface or subsurface water movement in wetlands and riparian areas. Failure to restore disturbed areas to their pre-construction conditions (contours, hydrology, segregation, and restoration of topsoil), could impede the re-establishment of wetland vegetation during revegetation and restoration efforts.

5.5.5 Impacts Common to Alternatives with Forested Wetlands and Riparian Areas

Impacts to surface water resources may also result from vegetation disturbance and/or removal within the transmission line ROW. In areas where the transmission line crosses forested riparian areas, trees would be cleared from the width of the ROW. Tree stumps would not be removed to avoid soil erosion. Long-term impacts may result from removal of riparian vegetation may include reduced stream shading, reduced large woody debris input, reduced terrestrial organic input, and increased bank instability and erosion potential. Vegetation removal associated with crossings in forested settings is expected to be localized and minimal, without an overall increase in stream temperatures. In areas where the roots of riparian vegetation are the primary bank stabilizing force, loss of riparian vegetation can result in stream migration. Erosion, sedimentation, and stream instability would be minimized with the use of BMPs and appropriate revegetation activities.

5.5.6 Impacts Common to Alternatives with Geology and Natural Hazards Areas

Project construction, operation, and maintenance activities will not impact geologic resources due to lack of points of geological interest in this area and because much of the proposed Project area is considered low risk for geologic hazards. Project activities will not impact natural hazards due to the low occurrence of major landslide and earthquakes as well as the fairly level relief (0-10 percent slope throughout the Project area).

5.5.7 Impacts in Arapahoe County

PSCo analyzed eight end-to-end route alternatives (Alternatives A – H) for the entire Rush Creek 345 kV Transmission Line Project. In Arapahoe County the eight end-to-end route alternatives represent three discrete routes due to several of the end-to-end route alternatives sharing common segments in Arapahoe County. A crosswalk of the end-to-end route alternatives and route segments only occurring in Arapahoe County is included below. Impacts are discussed in the Impacts Common to All Alternatives section above. **Table 5-3** identifies the water resources and wetlands routing criteria and the numbers for each alternative.

Table 5-3 Water Resources and Wetlands Criteria for Arapahoe County Alternative Routes

ROUTING CRITERIA	ARAPAHOE COUNTY		
	A, B, E, H	C, F & G	D
Number of perennial stream crossings	0	0	0
Number of intermittent stream crossings	15	9	28
Miles of ROW parallel (within 100 feet) to streams	0	0	0.2
Miles of ROW crossing FEMA designated floodplains	0	0.8	0.2
Number of ROW crossings of Arapahoe County floodplains	7	8	26
Miles of ROW crossing NWI wetlands	0	0.3	0.2
Miles of ROW crossing playa lakes	0	0	0

5.5.7.1 Preferred Alternative A and Alternatives B, E, and H

Alternatives A, B, E, and H share common route segments in Arapahoe County and will share identical potential impacts from the proposed Project. The impacts for water resources and wetlands are discussed below.

Surface Water

Alternatives A, B, E and H do not cross any perennial streams, crosses 15 intermittent streams, and do not cross FEMA-designated floodplains, but do cross 15 Arapahoe County-regulated floodplains. The number of intermittent stream crossings is greater than Alternatives C, F, and G, but are lower than Alternative D. The potential impacts will be negligible to minor due to the ability to span water features and avoid impacts during construction.

Wetlands

The alternatives do not cross NWI wetlands or playa lakes. These represent smaller numbers than the other two alternatives. The potential impacts to wetlands will be negligible to minor due to the ability to span wetland features and avoid impacts during construction.

Floodplains

The alternatives do not cross FEMA mapped floodplains. The alternatives cross seven unmapped Arapahoe County defined floodplains. The total liner feet of Arapahoe County defined floodplains crossed is 632-feet. The shortest crossing is 29-feet and the longest crossing is 159-feet. A Floodplain Analysis Report was prepared and submitted as an accompanying document to this Application.

5.5.7.2 Alternatives C, F, and G

Alternatives C, F, and G share common route segments in Arapahoe County and will share identical potential impacts from the proposed Project. The impacts for water resources and wetlands are discussed below.

Surface Water

These alternatives cross no perennial streams, nine intermittent streams, and 0.8 mile of FEMA-designated floodplain, which is associated with East Bijou Creek. These alternatives also cross eight Arapahoe County regulated floodplains.

Wetlands

These alternatives cross 0.3 mile of NWI wetlands and no playa lakes. Aside from one small PEM and one R4 wetland (First Creek), all of these NWI wetlands are associated with East Bijou Creek, including PFO, PSS, and R4 wetlands.

Floodplains

The alternatives cross 0.8 miles of FEMA mapped floodplains. The alternatives cross eight unmapped Arapahoe County defined floodplains.

5.5.7.3 Alternative D

Surface Water

Alternative D would cross no perennial streams, 28 intermittent streams, 0.1 mile of playa lakes, and 0.2 mile of FEMA-designated floodplain, which is associated with Muddy Creek. This alternative also crosses 26 Arapahoe County regulated floodplains.

Floodplains

The alternatives cross 0.2 miles of FEMA mapped floodplains. The alternatives cross 26 unmapped Arapahoe County defined floodplains.

5.6 Biological Resources

In Arapahoe County, the eight end-to-end route alternatives represent three discrete routes due to several of the end-to-end route alternatives sharing common segments in Arapahoe County. A crosswalk of the end-to-end route alternatives and route segments only occurring in the County is in **Table 5-4**, which identifies the biological resources routing criteria crossed by all the alternatives in the County.

Table 5-4 Arapahoe County Biological Resource Impacts by Alternative Routes

BIOLOGICAL RESOURCES IMPACTS	ALTERNATIVES		
	A, B, E, H ¹	C, F, G ¹	D ¹
Length of ROW across known habitat of federally listed endangered or threatened species	0.0	0.0	0.0
Length of ROW across known habitat of state listed endangered or threatened species	0.0	0.0	0.0
Length of ROW across known raptor species nest or nest buffer	0.0	0.0	0.0
Length of ROW across developed land	2.0	3.3	0.6
Length of ROW across mixed woodland	0.0	0.0	0.0
Length of ROW across shortgrass prairie	5.7	2.0	12
Length of ROW across eastern plains shrubland	0.0	0.0	0.1
Length of ROW through cropland/pasture	7.3	4.8	9.4
Length of ROW across open water (lakes, ponds)	0.0	0.0	0.0
Length of ROW across playa lakes	0.0	0.0	0.0
Number of ephemeral stream crossings	0	0	0
Number of perennial stream crossings	0	0	0
Number of intermittent stream crossings	15	9	28
Number of river crossings	0	0	0
Length of ROW parallel (within 100 feet) to streams or rivers	0.0	0.0	0.2

¹ The length is calculated in miles

5.6.1 Alternatives A (Preferred Alternative), B, E, and H

Alternatives A, B, E, and H share common route segments in Arapahoe County and will share identical potential impacts from the Project. Below is the biological impact analysis for the portions of Alternatives A, B, E, and H with shared route segments.

5.6.1.1 Terrestrial and Aquatic Wildlife (Alternative A (Preferred), B, E, and H)

Wildlife and Wildlife Habitat

Wildlife species that may occur within the Project Area include those adapted to the habitats present. A diverse species composition is anticipated given the range of habitat identified within the Project Area however, species may be limited due to the extent of residential, cropland, and rangeland development. The primary impacts of construction activities on terrestrial wildlife species are typically associated with temporary disturbances from construction activities, and with the removal of vegetation (habitat modification/fragmentation) within the 150-foot ROW. Increased noise and equipment movement during construction may temporarily displace mobile wildlife species from the immediate workspace area. These impacts are considered short-term in duration and normal wildlife movements would be expected to resume after construction is completed. Potential long-term impacts include those resulting from habitat modifications and/or fragmentation. During the routing process, PSCo attempted to minimize potential habitat fragmentation by paralleling existing linear features and avoiding paralleling streams to the extent feasible.

Construction activities might also impact small, immobile, or fossorial (living underground) animal species through incidental takes or from the alteration of local habitats. Incidental takes of these species might occur due to equipment or vehicular movement on the ROW by direct impact or due to the compaction of the soil if the species is fossorial. Potential impacts of this type are not typically considered significant and are not likely to have an adverse effect on any species population dynamics.

It is anticipated that increased noise and human activity during construction will discourage wildlife from entering Project work sites. Additionally, implementation of the following BMPs will minimize the potential for injury or death to wildlife:

- Providing environmental awareness training to all construction personnel working on the Project.
- Properly disposing of trash and food debris in secured containers.
- Allowing wildlife that has entered the work area to leave the area on their own.
- Checking for wildlife under vehicles and equipment that have been stationary for more than one hour and each morning prior to moving or operation.
- Checking trenches, excavations, and uncapped pipe segments for wildlife.
- Installing escape ramps at night.
- Complying with posted speed limits.
- Prohibiting firearms or pets at Project work sites.

The construction of the project is not anticipated to have any effect on species in this area. If any potential suitable habitat for threatened endangered species is identified during a field survey of the Preferred Alternative, PSCo will further coordinate with USFWS and CPW to determine avoidance or mitigation strategies.

Raptors and Migratory Birds

No known raptor species nest or associated nest buffers are crossed by Alternatives A, B, E, and H. PSCo proposes to complete all ROW clearing and construction activities in compliance with the Migratory Bird Treaty Act (MBTA) to avoid or minimize potential impacts. If ROW clearing occurs during bird nesting season, potential impacts could occur within the ROW area related to migratory bird eggs and/or

nestlings. Increases in noise and equipment activity levels during construction could also potentially disturb breeding or other activities of bird species nesting in areas adjacent to the ROW.

Transmission lines can also present additional hazards to birds due to electrocutions and/or collisions. Measures can be implemented to minimize this risk with transmission line engineering designs. The electrocution risk to birds should not be significant since the engineering design distance between conductors, conductor to structure, or conductor to ground wire for the proposed 345 kV transmission line is greater than the wingspan of any bird potentially within the area (i.e., greater than eight feet). While the conductors are typically thick enough to be seen and avoided by birds in flight, the shield wire is thinner and can present a risk for avian collision. This risk can be minimized by installing bird flight or swan diverters or other marking devices on the line within high bird use areas. PSCo will coordinate with USFWS on the installation of bird flight or swan diverters or other marking devices as determined necessary for specific locations.

Measures to protect migratory birds and their habitats include:

- Conducting tree/vegetation clearing outside the nesting season (generally considered to be April 15 to August 1), where feasible, to discourage birds from establishing nests in Project work areas.
- Conducting pre-construction nest surveys prior to initiating construction activities, unless vegetation clearing has been completed prior to the nesting season.

If migratory bird nests are identified and activities that may disturb migratory bird habitat are unavoidable during the nesting season, protective measures to be implemented may include:

- Notifying the USFWS of the location of the nest(s) and determining appropriate site-specific protection measures, as necessary, in consultation with the USFWS and/or applicable state resource agency.
- Retaining a qualified biologist to monitor active nests and the associated birds' behavior.
- Establishing an appropriate buffer zone around the nest, as necessary, in consultation with the USFWS and/or applicable state resource agency.
- Suspending construction within the designated protective buffer zone until the young have fledged or until further instruction is given by the applicable agency. Personnel vehicles will still be allowed to travel along existing access roads that may fall within the active nest buffer zone.

Aquatic Wildlife

Fifteen intermittent streams are crossed by Alternatives A, B, E, and H. Potential impacts to aquatic systems would include effects of erosion, siltation, and sedimentation. Clearing the ROW of vegetation might result in increased suspended solids in the surface waters traversed by the transmission line. Increases in suspended solids might adversely affect aquatic organisms that require relatively clear water for foraging and/or reproduction. Physical aquatic habitat loss or alteration could result wherever riparian vegetation is removed and also at temporary crossings required for access roads. Increased levels of siltation or sedimentation might also potentially impact downstream areas, primarily affecting filter feeding benthic and other aquatic invertebrates.

To avoid or minimize these impacts, PSCo proposes to span all surface waters, riparian areas, and wetlands to the extent feasible. Temporary and permanent impacts to wetland vegetation will occur; however, refer to the Water Resources section for details on BMPs that will be implemented. Additionally, the implementation of a SWPPP will also minimize potential impacts. Therefore, no significant adverse impacts are anticipated to any aquatic habitats crossed or located adjacent to the ROW for any of the alternative routes.

Federal and State Listed Species

No known occurrences of any federal/state listed threatened or endangered plant or animal species or designated critical habitat areas were identified along Alternatives A, B, E and H within Arapahoe County, refer to **Table 4-2**. The construction of the project is not anticipated to have any effect on listed species in this area. If any potential suitable habitat for threatened endangered species is identified during a field survey of the Preferred Alternative, PSCo will further coordinate with USFWS to determine avoidance or mitigation strategies.

5.6.1.2 Terrestrial and Aquatic Plant Life (Alternative A (Preferred), B, E, and H)

Potential impacts to vegetation within Alternative A, B, and H would result from clearing the ROW of cropland (approximately 7.3 miles), short-grass prairie (approximately 5.7 miles) and developed lands (approximately 2.0 miles, refer to **Table 5-4**. These activities facilitate ROW access for structure construction, line stringing, and future maintenance activities of the proposed transmission line. Impacts to vegetation would be limited to the 150-foot wide ROW. ROW clearing activities would be completed while minimizing the impacts to existing groundcover vegetation when practical. Mowing and/or shredding of herbaceous vegetation might be required within grasslands/pasturelands. Future ROW maintenance activities might include periodic mowing and/or herbicide applications to maintain the herbaceous vegetation layer within the ROW. Measures to minimize vegetation-related impacts (in addition to the measures previously identified to minimize impacts on wildlife habitat and covered under Water Resources for wetlands) include:

- Restoring contours and seeding temporary disturbance areas following final grading (unless otherwise specified by local resource agencies), weather and soil conditions permitting.
- Preparing a seedbed to a depth of three to four inches using appropriate equipment.
- Adhering to recommended seed mixes, application methods and rates, and timing windows provided by local resource agencies.

Disturbance related to construction or maintenance activities has the potential to generate infestations of noxious weed species, particularly if vegetation is cleared. During re-growth, the native species will be competing to re-establish at the same time that the noxious weed species are attempting to dominate the cleared area. Soils and mud on vehicle and equipment tires, tracks, and undercarriages have the potential to carry and disperse weed seeds. Invasive and/or non-native species can then be spread along access roads and Project work areas, increasing the likelihood of introducing new populations or increasing existing populations. The potential for the introduction and/or spread of invasive non-native species (including noxious weeds) will be minimized by implementing the following best management practices BMPs:

- Ensuring all construction equipment is cleaned prior to beginning work on the Project.

- Requiring the construction contractor to use certified weed-free straw or hay bales for sediment barrier installations and/or mulch.
- Using certified weed-free seed mixes for post-construction revegetation.
- Controlling noxious weeds within the ROW using mechanical or herbicide application, as necessary.
- Adhering to applicable invasive species management practices in accordance with federal, state, and local regulations.
- Removing excess dirt and mud from equipment and vehicles prior to leaving areas with noxious weed populations.

5.6.2 *Alternatives C, F, and G*

Biological resources impacts on terrestrial and aquatic wildlife would be similar for Alternatives C, F and G as they are for Alternatives A, B, E, and H, but would occur in a different area. Impact on terrestrial and aquatic species would be identical to Alternatives A, B, E, and H. This Alternative crosses 9 intermittent streams. Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season. To avoid or minimize these impacts, PSCo proposes to span all surface waters and wetlands to the extent feasible. Additionally, the implementation of a SWPPP and BMPs will also minimize potential impacts. Therefore, no significant adverse impacts are anticipated to any aquatic habitats crossed or located adjacent to the ROW for Alternatives C, F, and G.

No known raptor species nest or associated nest buffers are crossed by these alternatives. PSCo proposes to complete all ROW clearing and construction activities in compliance with the MBTA to avoid or minimize potential impacts.

No known occurrences of any federal/state listed threatened or endangered plant or animal species or designated critical habitat areas were identified along any of the alternative routes within Arapahoe County, please refer to **Table 4-2**. If any potential suitable habitat for threatened endangered species is identified during a field survey of the Preferred Alternative, PSCo will further coordinate with USFWS to determine avoidance or mitigation strategies.

Alternatives C, F, and G would primarily cross existing disturbed areas such as cropland for approximately 4.8 miles. The total length of the ROW through shortgrass prairie would be less, approximately 2.0 miles; however, these Alternatives do not parallel existing transmission lines except along a 2.2 mile section immediately south of the Missile Substation. Impact on terrestrial and aquatic plant life would be identical to Alternatives A, B, E, and H.

5.6.3 *Alternative D*

Biological impacts on terrestrial wildlife and aquatic species would be similar to Alternatives A, B, E, and H, but these impacts would occur over greater distance for Alternative D. This Alternative crosses 28 intermittent streams. To avoid or minimize these impacts, PSCo proposes to span all surface waters and wetlands to the extent feasible. Additionally, the implementation of a SWPPP and BMPs will also minimize potential impacts. Therefore, no significant adverse impacts are anticipated to any aquatic habitats crossed or located adjacent to the ROW for Alternative D.

No known raptor species nest or associated nest buffers are crossed by Alternative D. PSCo proposes to complete all ROW clearing and construction activities in compliance with the MBTA to avoid or minimize potential impacts. This would include conducting tree/vegetation clearing outside the nesting season (generally considered to be April 15 to August 1), where feasible, to discourage birds from establishing nests in Project work areas and conducting pre-construction nest surveys prior to initiating construction activities, unless vegetation clearing has been completed prior to the nesting season.

No known occurrences of any federal/state listed threatened or endangered plant or animal species or designated critical habitat areas were identified along Alternative D within Arapahoe County, refer to **Table 4-2**. If any potential suitable habitat for threatened endangered species is identified during a field survey of the preferred route, PSCo will further coordinate with USFWS to determine avoidance or mitigation strategies.

Alternative D crosses 9.4 miles of cropland/pasture/rangeland, 12 miles of shortgrass prairie, and 0.1 mile of shrubland. Impact on terrestrial and aquatic plant life would be identical to Alternatives A, B, E, and H.

5.7 Paleontological and Cultural Resources

Identifying areas of high site potential is usually identified through the presence of previously identified archaeological sites or historic structures. However, due to the relatively sparse amount of previous cultural resource inventories in this part of Arapahoe County, this is not a reliable method. Instead, high probability areas were identified through the analysis of surrounding areas and topographic features in surrounding areas where more thorough cultural investigations have been undertaken.

POWER determined several criteria that would make a specific landform more likely to contain an archaeological site. For this Project this includes:

- 1) Proximity to a permanent or seasonal water source (up to 1 mile).
- 2) Relatively flat or gently rolling terrain above or along a major water source.
- 3) Landforms that are outside areas of previous ground surface disturbance.

A high probability area may include one or all of the above criteria (see Figure 5-1). Potential impacts to cultural resources along the Alternative Routes may include direct physical disturbance from heavy equipment, construction activities, and unmanaged erosion. Impacts may also include indirect visual disturbances caused by the visual intrusion of new transmission line infrastructure in the view shed of significant cultural resource. Mitigation for these potential impacts would be primarily met by avoidance of all cultural resources by the project design and regular monitoring of construction activities near known significant cultural resources. Visual impacts may be mitigated through structure design or through consultation with the Colorado SHPO and interested parties to determine acceptable levels of visual impacts to the significant cultural resources along the Alternative Routes.

5.7.1 Arapahoe County

PSCo analyzed eight (8) end-to-end route alternatives (Alternatives A – H) for the entire Rush Creek Connect 345 kV Project. In Arapahoe County, the eight end-to-end route alternatives represent three discrete segments due to several of the end-to-end route alternatives sharing common segments in

Arapahoe County. High probability segments are described below for the Project alternatives. See **Table 5-5** for Cultural Resource Impacts by Alternative.

5.7.1.1 Alternatives A (Preferred Alternative), B, E, and H

Alternatives A, B, E, and H share common route segments in Arapahoe County. Within Arapahoe County, high probability areas in Segments 1 and 2 are located on a large relatively high up-lift above First Creek. However, a majority of these two segments are within cultivated fields making them less likely to contain undisturbed cultural resources. Within Arapahoe County, high probability areas within Segment 4 run east and stay within the rolling hills and ridges east of Bijou Creek. This segment crosses the upper reaches of Bolden Gulch and the unnamed seasonal tributaries of Muddy Creek. Near the Arapahoe county line this segment runs along the first terraces above Muddy Creek itself. Approximately 6 miles of Segment is considered to be high probability areas for cultural resources.

5.7.1.2 Alternatives C, F, and G

Alternatives C, F and G share common route segments in Arapahoe County. High probability areas within Segments 1 and 2 are located on a large relatively high up-lift above First Creek. However, a majority of these two segments are within cultivated fields making them less likely to contain undisturbed cultural resources. Segment 3 runs south across First Creek and south across the terrace slopes and flood plain of Bijou Creek. Nearly all parts of this segment in Arapahoe County are considered high probability areas.

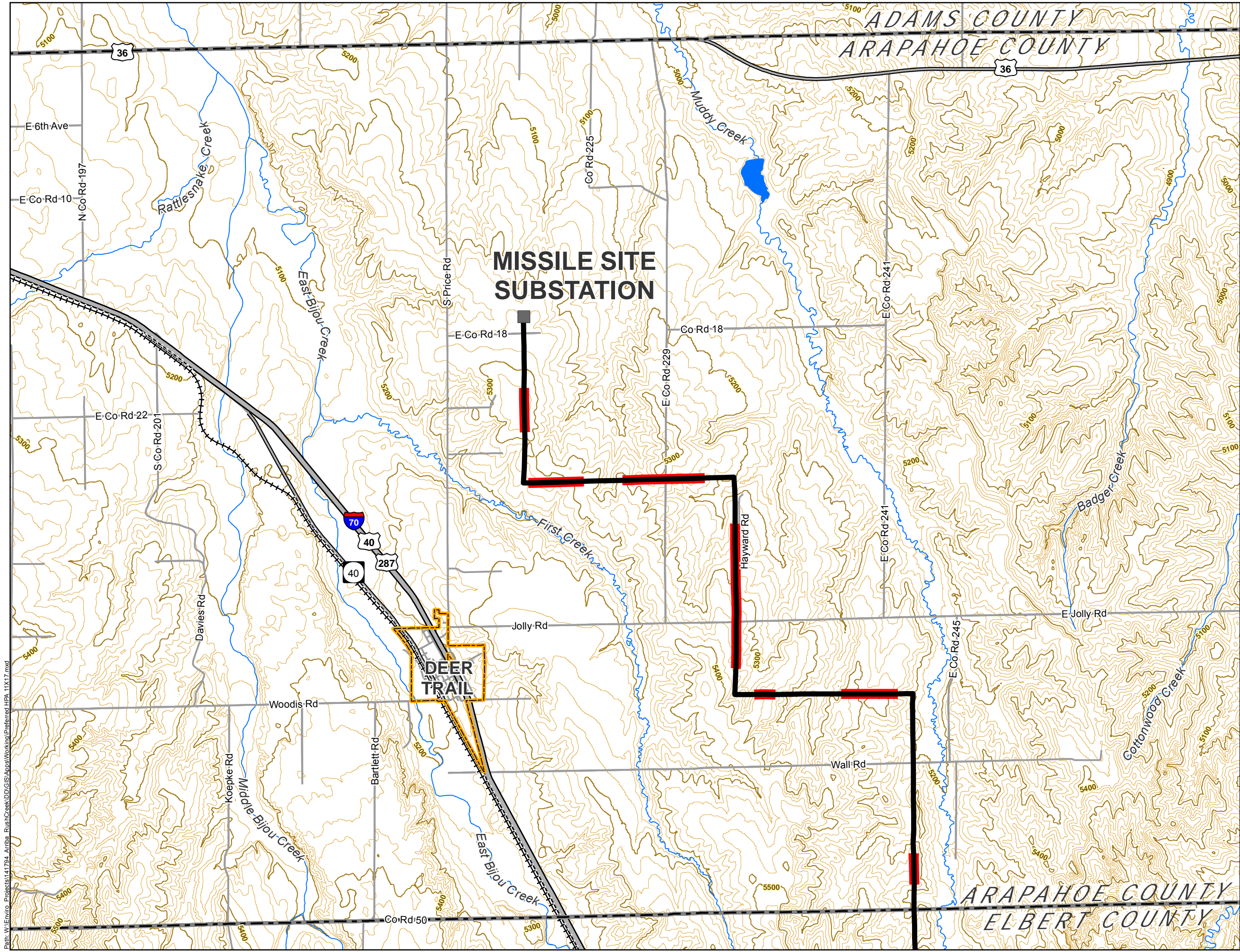


Figure 5-1
High Probability Areas
for Cultural Resources

Arapahoe County

RUSH CREEK 345 kV
TRANSMISSION LINE PROJECT

Project Components

- Project Substation
- Route A Centerline

Cultural Resources

- Area of Potential Site Locations

Transportation

- Interstate Highway
- US Highway
- State Highway
- Local Road
- ++++ Union Pacific Railroad

Administrative Boundaries

- Municipality
- County Boundary

Terrain

- 100 ft Contour
- 20 ft Contour

Surface Waters

- Stream
- Lake or Pond

Date: 9/22/2016

0 1 2
Miles

Xcel Energy
RESPONSIBLE BY NATURE

POWER ENGINEERS

Path: W:\Enviro Projects\141794_Arriba_RushCreek\DDGIS\Arapahoe\Working\Preferred_HPA_11X17.mxd

This page intentionally left blank.

Approximately 2.5 miles of this route is cultivated. These areas may contain sites but they are more likely to be dispersed or disturbed.

5.7.1.3 Alternative D

Within Alternative D Segment 5 is a high probability area that heads east from the Missile Silo Substation across rolling hills and flat terraces above Bolden Gulch, Muddy Creek, Badger Creek, Cottonwood Creek, and Rattlesnake Creek. Only a small portion of these landforms have not been cultivated leaving approximately 3 miles of high probability areas for cultural resources.

Table 5-5 Cultural Resource Impacts by Alternative – Arapahoe County

Cultural Resource Impact	Alternative							
	A	B	C	D	E	F	G	H
Number of recorded historic or prehistoric sites crossed by ROW	0	0	1	0	0	1	1	0
Number of additional recorded historic or prehistoric sites within 1,000 feet of ROW centerline	0	0	1	0	0	1	1	0
Number of National Register listed or determined eligible sites crossed by ROW	0	0	1	0	0	1	1	0
Number of additional National Register listed or determined eligible sites within 1,000 feet of ROW centerline	0	0	1	0	0	1	1	0
Length of ROW through areas of high archaeological/historic site potential	6	6	2.5	3	6	2.5	2.5	6

5.7.2 End-to-End Route Summary

5.7.2.1 Alternative A (Preferred Route)

Alternative A is a generally low impact route that crosses the lowest number of previously recorded sites and only 43 miles of high site potential areas. This route would likely represent a lower potential impact to significant cultural resources.

5.7.2.2 Alternative B

Alternative B is similar to Alternative A in many aspects including most of its route and its potential impacts to cultural resources. Alternative B only crosses one cultural resource and 43 miles of high site potential areas. This route would likely represent a lower potential impact to significant cultural resources.

5.7.2.3 Alternative C

Alternative C covers more miles of high potential site areas, approximately 53.5, and crosses and passes within 1,000 meters of 11 previously recorded cultural resources including the NRHP listed Union Pacific Railroad Segment and the Beuck Land Company Centennial Farm. The Union Pacific Railroad Segment is not likely to be significantly impacted by visual disturbances and should be spanned to avoid any direct impacts. The Centennial Farm does contain significant historic structures that may require indirect visual impact mitigation.

5.7.2.4 Alternative D

Alternative D crosses or is within 1,000 feet of 24 previously recorded cultural resources. It does however cross only 42 miles of high site potential areas, the lowest of the alternatives. Alternative D crosses site 5LN477, an NRHP eligible prehistoric site that would require avoidance of direct impacts or monitoring during construction near the site boundary.

5.7.2.5 Alternative E

Alternative E crosses or is within 1,000 feet of seven previously recorded cultural resources none of which are eligible for the NRHP. Alternative E crosses a total of 49 miles of high site potential areas.

5.7.2.6 Alternative F

Alternative F crosses or is within 1,000 feet of 17 cultural resources including the Beuck Land Company Centennial Farm and a Union Pacific Railroad Segment. Alternative F also crosses 64.5 miles of high site potential areas the largest of the Alternatives. The Union Pacific Railroad Segment is not likely to be significantly impacted by visual disturbances and should be spanned to avoid any direct impacts. The Centennial Farm does contain significant historic structures that may require indirect visual impact mitigation.

5.7.2.7 Alternative G

Alternative G crosses or is within 1,000 feet of 12 previously recorded cultural resources including the Beuck Land Company Centennial Farm and a Union Pacific Railroad Segment. Alternative G also crosses 53.5 miles of high site potential areas. The Union Pacific Railroad Segment is not likely to be significantly impacted by visual disturbances and should be spanned to avoid any direct impacts. The Centennial Farm does contain significant historic structures that may require indirect visual impact mitigation.

5.7.2.8 Alternative H

Alternative H crosses or is within 1,000 feet of 7 previously recorded cultural resources none of which are eligible for the NRHP. Alternative G also crosses 57 miles of high site potential areas.

5.8 Air Quality and Controls

The existing air quality in the region is typical of rural agricultural regions in the western United States. There is limited data collected in similar areas; however, the data collected indicate that ambient pollutant levels are typically near or below detection limits. Areas subject to poorer air quality are those sites immediately adjacent to surface-disturbing activities such as energy, oil, and gas development projects; farm tilling; and local population centers affected by residential emissions.

5.8.1 Existing Emission Sources

In the Project Area, air quality is primarily affected by emissions from energy development and production activities. Additional sources include agricultural activities such as planting and harvesting, sand and gravel quarries, automobiles, and small to medium-sized generators. These sources typically generate

and emit carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), sulfur dioxide (SO₂), and volatile organic compounds (VOCs). With the removal of leaded gasoline in the marketplace and the absence of industries such as non-ferrous smelters and battery plants, airborne lead pollution is not an issue of concern in the area (CDPHE 2016).

5.8.2 Attainment Status

In 2008, the State of Colorado recommended that the Denver Metro/North Front Range 8-hour nonattainment area be designated as nonattainment for the 2008 revised 8-hour ozone standard. The 8-hour ozone nonattainment area consists of a nine-county area that includes Arapahoe County. Elbert and Lincoln Counties have not been designated as nonattainment (CDPHE 2009).

The air quality in the eastern area of Arapahoe County where the Project Area is located is generally considered to be very good. For all criteria pollutants except ozone, the air quality is considered to be in attainment or unclassified. An unclassified designation indicates that the status of attainment has not been verified through data collection. For the purposes of permitting new sources, unclassified areas are considered to be in attainment.

5.8.3 Applicable State Requirements

The proposed Project does not have any long-term emission sources planned. Project-related air emissions will be short-term and primarily occur during construction activities. The Project will not significantly affect air quality.

The CDPHE – Air Pollution Control Division (APCD) implements and enforces the federal Clean Air Act permitting program and air quality standards in Colorado. Under Colorado air quality regulations, land development includes all land clearing activities such as excavating or grading for residential, commercial, or industrial development. These land disturbing activities release fugitive dust which is regulated by the APCD.

Land development projects greater than or equal to 25 continuous acres and/or 6 months in duration typically require the submission of an Air Pollutant Emission Notice (APEN) and an air permit. The APEN will document the general project information such as project description, location, size, and duration. In addition, the APEN will include detailed information on the Project's Fugitive Dust Control Plan.

5.8.4 Construction Emissions

The large equipment used during construction will likely be powered with diesel fuel or gasoline. The combustion of these fuel sources include pollutants such as NO_x, CO, VOCs, particulate matter (PM), small amounts of SO₂, and trace amounts of hazardous air pollutants. It is assumed that all equipment used for the project will be maintained to comply with all emissions standards. Therefore, air quality impacts associated with construction of the Project will primarily be limited to fugitive dust.

Fugitive dust arises from land clearing, grading, excavation, and vehicle traffic on unpaved roads. The amount of fugitive dust depends on the amount of vehicular traffic, construction activities, moisture content of the soil, and wind speed. During dry periods with high winds, fugitive dust would be much more

prevalent that during wet periods with low winds. Dust suppression methods such as watering will be used in construction zones during dry periods to minimize fugitive dust impacts.

As the fugitive dust emissions and emissions from combustion engines will be temporary (limited to the construction period) and will be transient, these sources will not significantly contribute to the ozone levels in Arapahoe County.

5.8.5 Operational Emissions

During operations of the Project, the primary emissions are expected to be fugitive dust from worker and maintenance vehicles traveling on unpaved roads. In addition, there will be emissions from vehicles or maintenance equipment. No significant emissions are anticipated and, therefore, no impacts to air quality are anticipated during the operation of the Project.

5.8.6 Mitigation Measures

Mitigation measures will be implemented to minimize any potential impacts to air quality from construction activities.

Project emissions are only anticipated to arise from ground disturbing activities, equipment movement, and fuel combustion. These emissions will be temporary and localized. Mitigation measures to address construction-related impacts will consist of:

- Maintaining all fossil fuel-fired construction equipment in accordance with manufacturers' recommendations to minimize construction-related combustion emissions.
- Controlling combustion emissions through engine manufacturing requirements for both mobile sources (40 CFR Part 85) and portable equipment such as air compressors.
- Limiting the idling time of equipment to no more than five minutes, unless idling must be maintained for proper operation (e.g., drilling, hoisting, and trenching).
- Limit the speed of vehicles within construction sites and along the utility ROW during construction to reduce the amount of fugitive dust generated.
- Water trucks will be utilized as necessary to reduce fugitive dust from construction activities.

5.9 Noise, Vibration, Odors, and Nuisances

The existing noise levels in the Project Area of rural Arapahoe County are relatively low. The primary existing sources of noise in the Project Area are traffic along local county roads and some agricultural machinery. Vibration, odors, or other nuisances from the Project are not anticipated, except for minimal noise associated with equipment operation during the construction period and maintenance activities. The noise impacts will be temporary in location and duration and all applicable state and local noise regulations will be complied with. After construction, operating noise emanating from the transmission line will be in compliance with Colorado PUC noise limits. The Project will not contribute to odor impacts in Arapahoe County.

The Rush Creek 345 kV Transmission Line Project will also be in compliance with Colorado PUC requirements regarding electromagnetic field (EMF) levels around the transmission line. The Colorado

PUC EMF limits are 150 milligauss at the edge of ROW, one-meter above ground. The Project's transmission line alignments have been designed to limit potential human exposure to EMF. The selection of Alternative A as the Preferred Alternative has limited potential human exposure to EMF since it has limited populations around the ROW.

5.10 Socioeconomics

The following discussions describe general socioeconomic impacts that PSCo anticipates for all of the transmission route alternatives in Arapahoe County, and considers construction labor costs, monetary capital, and material and consumer resources. There are no mitigation measures applicable to socioeconomic impacts.

5.10.1 General Impacts

PSCo anticipates that most of the Project's socioeconomic impacts would provide minor, direct and indirect benefits to local and regional economies during short-term construction activities and negligible benefits during long-term O&M activities, as described below. These benefits would likely be similar for all of the transmission route alternatives because all of the alternatives would occur in and around the same communities. The alternatives' route lengths, ROW and access road requirements do not factor into socioeconomic impacts in the quantitative way they would for land use and natural and cultural resources' impacts.

5.10.1.1 Construction Activities

During the Project's construction period, the local and regional population may experience a minor increase. For the alternatives within Arapahoe County, PSCo anticipates that most of the construction workers would be long-term Denver-Aurora-Lakewood, Colorado Metropolitan Statistical Area (Denver MSA) residents and some out-of-area specialty workers. The Denver MSA includes Arapahoe County. Many of these resident workers would possess the construction skills and experience needed for the Project, while others may require on-the-job training. These resident workers would likely have established incomes, and their short-term employment on the Project would not add substantial new revenue streams to the local and regional economies. The remainder of construction workers would be expected to originate from locations outside of the Denver MSA, possibly from other parts of Colorado or from out-of-state. These workers would temporarily relocate to the Denver MSA during the construction period.

As some construction workers temporarily relocate to the Denver MSA, it is anticipated that these workers would provide direct and indirect benefits to the economies in these areas. Direct benefits would include purchasing goods, services, and short-term housing arrangements. The purchases would increase local and regional business revenues and associated state and local tax revenues. While a portion of the workers' incomes would be spent on such purchases, most of their incomes would be transferred to their spouses/families at their permanent residences to pay for housing and other cost-of-living expenses. The workers would be expected to provide indirect benefits as their demand for goods and services might prompt local and regional businesses to hire more staff and/or order more supplies. Additional staff would spend a portion of their incomes on local and regional goods, services, and housing; and ordering supplies from non-local or non-regional wholesalers would provide economic benefits to the wholesalers'

communities. In this way, construction workers' initial purchases create a ripple effect that can extend far beyond the communities near the Project.

Construction activities would also be expected to have a minor benefit on local and regional economies in reducing unemployment rates and the stock of vacant short-term housing units. The indirect benefits mentioned above might reduce unemployment rates as convenience stores and gas stations, grocery stores, restaurants, shops, and lodging establishments hire more staff to accommodate the non-resident workers' demand for goods, services, and short-term housing. As some workers temporarily relocate to the communities near the Project, they would increase the demand for housing, including vacant single-family housing units and/or hotel/motel rooms. This increase in demand would provide a short-term benefit to local and regional real estate markets in the form of short-term rental payments and guest room fees and taxes.

Construction Labor Costs

Concerning construction labor costs, it is important to note the average wages for construction workers in Colorado, as PSCo anticipates that workers in and around the Denver MSA would compose the majority of the work force. The average wages for construction workers yields \$29.83 per hour (Colorado Department of Labor and Employment 2015). Using this wage and assuming that PSCo would employ between 12 and 30 workers during the construction period. Construction workers would spend a portion of this money to purchase the consumer resources listed below.

Material and Consumer Resources

For purposes of the Project, material resources would be expected to include, but are not limited to:

- Corten (self-weathering steel) for the transmission poles. Note that self-weathering steel for the transmission poles will be sourced from suppliers outside of the Denver MSA.
- Aluminum and steel for the conductors.
- Steel for the OPGWs.
- Transformers and other electrical equipment.
- Cement for substation component foundations.
- Fill material, if not available near the work area.
- Gravel for construction yards/staging areas and roads.
- Office trailers for construction yards/staging areas.
- Gasoline and diesel fuel for the construction equipment and vehicles mentioned above.

Consumer resources are those that construction workers would require, and include, but are not limited to:

- Food, including groceries and meals at eating and drinking establishments.
- Lodging at hotels, motels, campgrounds, or for rent housing units.
- Emergency services, including police, fire, and rescue.
- Medical, dental, and other health-related services.
- Laundry services.
- Banking and postal services.
- Automotive services.
- Arts, entertainment, shopping, and retail trade services.

In contrast to the construction activities' benefits, the Project might cause short-term, minor, adverse impacts to the local and regional economies if construction contractors purchase material resources from vendors outside of the Denver MSA. Purchasing material resources from outside vendors would help fund economies elsewhere instead of circulating funds in the local and regional economies. Additionally, as these resources are purchased elsewhere, the decreased demand for local and regional materials might prompt suppliers to reduce staff hours or postpone hiring more staff. This phenomenon could prolong existing unemployment conditions or potentially increase unemployment rates. Construction contractors would choose outside vendors if local or regional vendors do not have enough materials and supplies available and/or the local or regional prices are greater than those from outside vendors.

PSCo would purchase some material resources from suppliers outside of the Denver MSA. However, PSCo would purchase many other material resources, including rock, aggregate, cement, asphalt, and fuel from local and/or regional suppliers; thereby providing direct and indirect benefits to local and/or regional economies. Additionally, construction workers' expenditures on food, fuel, lodging, and the other consumer resources listed above would provide similar direct and indirect benefits to the local and/or regional economies.

5.10.1.2 Operation and Maintenance Activities

PSCo anticipates that the Project's O&M activities would provide slight socioeconomic benefits to the local and regional economies. More specifically, the Project's permanent O&M workers would represent a small fraction of the temporary construction work force. It is anticipated that the Project would require fewer than 5 permanent, full-time O&M workers for the substation and transmission line. Many of these O&M workers would likely have resided in the Denver MSA for many years and would likely have worked in the electric power transmission industry performing the same or similar O&M tasks. It is anticipated that these workers' salaries would not substantially increase or decrease from their current levels and their housing requirements would not substantially change.

During scheduled power outages and/or emergency situations, O&M workers might purchase job-related supplies from local or regional businesses and thereby increase local or regional business revenues and associated state and local tax revenues. However, given that scheduled maintenance activities would not occur for at least 15 to 20 years after the transmission line is energized, these increases would represent negligible benefits. A few O&M workers, who did not reside in the Denver MSA prior to the Project, might permanently relocate to the area for O&M employment. The workers' impact on the local or regional economies would also be negligible. For all of these reasons, the Project's O&M activities would provide only negligible socioeconomic benefits to the local and regional economies.

5.10.2 County-Specific Impacts

Per the *Regulations for Governing Areas and Activities of State Interest in Arapahoe County*, the following discussions describe the Project's anticipated impacts on the local economy, the net effect of the Project on the local economy, and opportunities for economic diversification, including the number and types of jobs that the Project would create. Among the transmission route alternatives, it is assumed that there would be no noticeable difference in socioeconomic impacts.

5.10.2.1 Description of Impacts

Population

The Project's temporary influx of workers who relocate for construction employment would have no noticeable impact on the county's 2015 population of 631,096 residents. The majority of this population lives in the greater Aurora area with comparatively smaller populations residing in Byers, Deer Trail, and Strasburg. It is assumed that most of the workers who relocate would live in Aurora. For the remainder of these workers who choose to live in these smaller communities, their impact on these communities' populations would not likely represent a substantial change from existing conditions.

During the Project's O&M activities, there would be no noticeable impact on the county's population. Most of the O&M workers would likely be long-term county residents. Should a few workers relocate to the county for O&M employment, they would have no noticeable impact on the county's population.

Employment and Income

The Project's temporary workers who relocate for construction employment would have no noticeable impact on the county's number of employed civilian laborers. These workers would increase the county's number of workers but would not help to reduce the unemployment rate unless local businesses hire additional staff to accommodate these workers' increased demands for goods and services and the staff were previously unemployed.

Temporary construction workers would spend a portion of their incomes on local goods and services, but they would transfer most of their incomes back to their permanent residences in communities outside of the County.

During the Project's O&M activities, there would be no noticeable impact on the county's employed workers or their incomes. Most of the workers hired for the Project's O&M activities would be long-term specialty workers with established O&M careers in the electric power transmission industry. Their new salaries for the Project's O&M activities would likely be similar to their previous salaries.

Housing

Across Aurora, Byers, Deer Trail, and Strasburg, there are approximately 7,606 vacant housing units and several hotels/ motels with approximately 112 rooms to accommodate the Project's temporary construction workers. These workers' short-term housing lease payments and guest room fees and taxes would provide a temporary increase in local and regional housing revenue streams. After construction activities are completed, it is anticipated that housing conditions would return to pre-construction conditions.

Net Effect of the Project on the Local Economy

The Project would be expected to have a net positive effect on Arapahoe County's economy. More specifically, as temporary construction workers relocate to the county, their expenditures on goods, services, and housing would increase local revenue streams and associated state and local tax revenues. Should a few workers relocate to the county for permanent O&M employment, they would likely have a small but positive impact on the local economy through purchasing goods, services, and long-term housing. Family members joining these workers might also contribute to the local economy's growth in obtaining employment and increasing total household incomes in the county.

Opportunities for Economic Diversification

The Project would not be expected to diversify the local economy's existing mix of employment sectors. The addition of a new transmission line in the county would not represent a different kind of facility or require skills that are different from those used to construct existing transmission lines in the county. PSCo anticipates employing 12 - 30 workers during the Project's construction period and 6-10 workers during the Project's O&M period.

5.11 Hazards and Emergency Procedures

Hazards, such as fire and the accidental spill of hazardous materials, could occur with the construction, O&M of the Project. These hazards and procedures for reducing them are described in more detail below.

5.11.1 Fire

Fire ignition in the Project Area could occur through natural causes (i.e., lightning) and human activities. The Project could increase fire ignition through construction and O&M activities (e.g., vehicle ignition). The implementation of the following BMPs will reduce potential hazards from fire:

- PSCo and its contractors, as appropriate, will initiate discussions with local fire districts and regional fire prevention staff prior to construction to discuss emergency procedures and to provide transmission line safety training, including safety procedures for conducting fire suppression activities near a power line.
- All construction, O&M vehicles will be equipped with appropriate fire suppression tools and equipment. Fire suppression equipment will include, but not limited to, shovels, buckets, and fire extinguishers.
- Smoking and equipment parking will be restricted to designated areas and prohibited in the vicinity of flammable materials.
- PSCo and /or its contractors will fuel all highway-authorized vehicles off-site to minimize the risk of fire. Fueling of construction equipment that is transported to the site via truck and is not highway authorized will be done in accordance with regulated construction practices and federal, state, and local laws.
- PSCo and/or its contractors will notify the federal, state, and local agencies of any fires and comply with all rules and regulations administered by the federal, state, and local land management agencies concerning the use, prevention, and suppression of fires including any fire prevention orders that may be in effect at the time of the construction, operation, or maintenance activity.

5.11.2 Accidental Spills

During construction, use of trucks, heavy equipment, or stored supplies could result in accidental discharge of fuel, lubricants, and automotive fluids. Although the potential exists, any spills would be accidental, occasional, and of limited extent and would be considered minor to negligible and temporary in duration. A Spill Prevention, Containment, and Countermeasure Plan will be prepared for the proposed Project and will contain information regarding training, equipment inspections maintenance and repair, spill prevention kits, and refueling operations for construction vehicles, with an emphasis on preventing spills. Hazardous materials will not be drained onto the ground or into streams or drainage areas. All construction waste including trash and litter, garbage, other solid waste, petroleum products and other

potentially hazardous materials will be removed to a disposal facility authorized to accept such materials weekly.

5.12 Cost-Benefit Analysis

The Project will present benefits to Arapahoe County, the State of Colorado, and PSCo's ratepayers. There are also limited costs associated with the Project. Costs and benefits are summarized below.

Potential Project benefits include:

- Increased tax base for Arapahoe County;
- Landowner easement payments provide additional income for residents;
- Local spending for Project construction materials and other goods and services;
- Economic generation for the State of Colorado for Project construction materials and other goods and services;
- Long-term cost savings for PSCo ratepayers;
- County road maintenance and improvements;
- Facilitating renewable, sustainable energy for the State of Colorado; and
- Support to local community organizations and events.
 - Sponsorship of County Fair events; and
 - Support community organizations (i.e., fire, ambulance, schools, libraries, community centers, churches, 4-H, FFA, etc.).

Potential Projects impacts include:

- Visual impacts due to heights of transmission line structures (see Section 5.3 Visual Resources); and
- Minimal community and local governmental service demands, including minor impacts to emergency, fire, and safety services

6. ENGINEERING STUDIES

6.1 Floodplain Delineation Study

A floodplain delineation study will be prepared as a condition of approval. The floodplain study will be submitted to Arapahoe County under a separate cover to address issues associated with the proposed transmission line.

6.2 Grading, Erosion, and Sediment Control

A grading, erosion, and sediment control study ("Study") was prepared for the original construction of the Missile Site Substation in 2012. The 2012 Study was prepared to account for the buildout of an additional 345kV transmission and therefore covers the proposed Project. A new Grading, Erosion, and Sediment Control Study for the transmission line will be prepared, submitted, and approved prior to construction.

This page intentionally left blank.

7. REFERENCES

- AirNav.com. 2016. Information for East Moore Field. Available online at <http://www.airnav.com/airport/8CO4>. Accessed on June 24, 2016.
- Arapahoe County. 2001. Arapahoe County Comprehensive Plan. Adopted June 19, 2001, Amended January 7, 2014
- _____. 2010a. Arapahoe County 2035 Transportation Plan. Adopted December 7, 2010. Available at: <https://www.arapahoegov.com/index.aspx?NID=948>. Accessed on July 5, 2016.
- _____. 2010b. Arapahoe County Open Space Master Plan. Available at: <http://co-arapahoecounty.civicplus.com/index.aspx?NID=462>. Accessed on June 16, 2016.
- _____. 2016. Arapahoe County Open Spaces Website. Available at (<http://www.co.arapahoe.co.us/index.aspx?nid=453>). Accessed on June 16, 2016.
- Bailey, R.G. 1995. *Description of the Ecoregions of the United States, second edition*. Miscellaneous Publication 1391 (revised). Washington, DC: U.S. Department of Agriculture, Forest Service. Available at: http://www.fs.fed.us/land/ecosysmgmt/ecoreg1_home.html.
- Chapman, S.S., Griffith, G.E., Omernik, J.M., Price, A.B., Freeouf, J., and Schrupp, D.L., 2006, Ecoregions of Colorado (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,200,000). Available online at: http://ulpeis.anl.gov/documents/dpeis/references/pdfs/Chapman_et_al_2006.pdf. Accessed on June 21, 2016.
- Colorado Department of Agriculture. 2013. Colorado Noxious Weeds, Available online at: <http://www.colorado.gov/>. Accessed on June 29, 2016.
- Colorado Department of Labor. 2015. Statistics for construction wages per the state's Labor Market Information Gateway. Available online at <https://www.colmigateway.com/vosnet/Default.aspx>. Accessed on June 30, 2016.
- Colorado Department of Public Health and Environment (CDPHE). 2009. State of Colorado Technical Support Document for Recommended 8_Hour Ozone Designations. Available online at: https://www.colorado.gov/pacific/sites/default/files/AP_PO_Recommended-8-Hour-Ozone-Area-Designations.pdf. Accessed on June 27, 2016.
- _____. 2016. Queried Sources of Air Pollution. Available online at: http://www.colorado.gov/airquality/ss_map_wm.aspx. Accessed on June 27, 2016.
- Colorado Division of Water Resources. 2016. Grand Water Levels. Available online at: <http://water.state.co.us/groundwater/Levels/Pages/HydroGeo.aspx>. Accessed June 24, 2016.

- Colorado Geological Survey. 2016. Colorado Points of Geological Interest. Available online at:
<http://coloradogeologicalsurvey.org/colorado-geology/colorado-points-of-geological-interest/>.
Accessed on June 24, 2016.
- Colorado Natural Heritage Program (CNHP). 2005. Western Great Plains Shortgrass Prairie. Available
online at:
http://www.cnhp.colostate.edu/download/projects/eco_systems/pdf/WGP_Shortgrass_Prairie.pdf
Accessed on June 22, 2016.
- _____. 2016. CNHP's Biodiversity Tracking and Conservation System, Available online by request at:
<http://www.cnhp.colostate.edu/exchange/request.asp>. Accessed on June 22, 2016.
- Colorado Parks and Wildlife (CPW). 2003. Conservation Plan for Grassland Species in Colorado. 205 pp.
Available online at: <http://cpw.state.co.us/Documents/WildlifeSpecies/Grasslands/plan.pdf>
Accessed on June 29, 2016.
- _____. 2004. Rare Whooping Crane Spotted in Colorado, CPW News Release. Available online at:
<http://cpw.state.co.us/aboutus/Pages/News-Release-Archive-Details.aspx?NewsID=1598>
Accessed on June 24, 2016.
- _____. 2008. "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors", Colorado
Parks and Wildlife, Revised February 2008.
- _____. 2013. Swift Fox Sighting Investigation Report. Available online at:
[http://cpw.state.co.us/Documents/WildlifeSpecies/Grasslands/SwiftFoxSightingReportMay2013.p
df](http://cpw.state.co.us/Documents/WildlifeSpecies/Grasslands/SwiftFoxSightingReportMay2013.pdf). Accessed on June 24, 2016.
- _____. 2016a. Least Tern Species Distribution and Habitat factsheet. Available online at:
[https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-
Habitat-Scorecard_LeastTern.pdf](https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard_LeastTern.pdf) Accessed on June 24, 2016.
- _____. 2016b. Piping Plover Species Distribution and Habitat factsheet. Available online at:
[https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-
Habitat-Scorecard_PipingPlover.pdf](https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard_PipingPlover.pdf) Accessed on June 24, 2016.
- _____. 2016c. Long-billed Curlew Species Distribution and Habitat factsheet. Available online at:
[https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-
Habitat-Scorecard_LeopardFrogs.pdf](https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard_LeopardFrogs.pdf) Accessed on June 24, 2016.
- _____. 2016d. Leopard Frogs Species Distribution and Habitat factsheet. Available online at:
[https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-
Habitat-Scorecard_LongBilledCurlew.pdf](https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard_LongBilledCurlew.pdf) Accessed on June 24, 2016.
- _____. 2016e. Leopard Frogs Species Distribution and Habitat factsheet. Available online at:
[https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-
Habitat-Scorecard_LongBilledCurlew.pdf](https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard_LongBilledCurlew.pdf) Accessed on June 24, 2016.

- Colorado State University. 2016. Managing Pocket Gophers, Natural Resources Series, Fact Sheet No. 6.515. Available online at: <http://extension.colostate.edu/docs/pubs/natres/06515.pdf> Accessed on June 24, 2016.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. Laroe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. United States Department of Interior, Fish and Wildlife Service. FWS/OBS-79/31.
- Culver, D.R. and J.M. Lemly. 2013. Field Guide to Colorado's Wetland Plants: Identification, Ecology and Conservation. Colorado Natural Heritage Program, Colorado State University. Available online at: http://www.cnhp.colostate.edu/cwic/documents/wetlandplantscolorado_p1.pdf. Accessed on June 29, 2013.
- Dahl, T.E. 1990. *Wetland losses in the United States 1780's to 1980's*. Washington, DC: U.S. Fish and Wildlife Service. 21 pp.
- EDM International. 2003. Avian Protection Plan for the Public Service Company of Colorado.
- Environmental Protection Agency. 2012. 2012 Waterbody Quality Assessment Report. Available at: https://iaspub.epa.gov/tmdl_waters10/attains_waterbody.control?p_list_id=COSPLS02B_1600&p_cycle=2012&p_state=CO&p_report_type=T#causes. Accessed on June 22, 2016.
- National Diversity Information Source (NDIS) 2016. The National Diversity Information Source. Available online at: <http://ndis.nrel.colostate.edu/>. Accessed on June 22, 2016.
- National Land Cover Database (NLCD). 2011. National Land Cover Database 2011. Available at http://www.mrlc.gov/nlcd11_data.php.
- Natural Resources Conservation Service (NRCS). 2016. Soil Survey Geographic (SSURGO) database for Arapahoe, Elbert, and Lincoln counties. Available online at: <http://SoilDataMart.nrcs.usda.gov/>. Accessed June 23, 2016.
- Playa Lakes Joint Venture (PLJV). 2016. Maps of Probable Playas. Available online at: <http://pljv.org/habitat-partners/maps-and-data/maps-of-probable-playas/>. Accessed on June 23, 2016.
- Richardson, J.L., J.L. Arndt, and J.A. Montgomery. 2001. Hydrology of wetlands and related soils. In *Wetland soils – Genesis, hydrology, landscapes, and classification*, ed. J. L. Richardson, and M. J. Vepraskas, 35-84. Boca Raton, FL: Lewis Publishers.
- Rocky Mountain Bird Observatory (RMBO). 2000a. Burrowing Owl (*Athene cunicularia*). Physiographic Region 87: Colorado Plateau. Accessed online at: <http://www.rmbo.org/pif/bcp/phy87/semi-des/buow.htm> Accessed on June 24, 2016.
- Rocky Mountain Bird Observatory (RMBO). 2000b. Plains Sharp-tailed Grouse (*Tympanuchus phasianellus jamesi*) Physiographic Region 36: Central Shortgrass Prairie. Accessed online at: <http://www.rmbo.org/pif/bcp/phy36/grasland/stgr.htm>. Accessed on June 24, 2016.

- Rocky Mountain Bird Observatory (RMBO). 2000c. Snowy Plover (*Charadrius alexandrinus*) Physiographic Region 36: Central Shortgrass Prairie. Available online at: <http://www.rmbo.org/pif/bcp/phy36/shore/snpl.htm>. Accessed on June 24, 2016.
- Stone, K.R. 2009. *Grus canadensis*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available online at: <http://www.fs.fed.us/database/feis/animals/bird/grca/all.html>. Accessed on July 5, 2016].
- SWCA. 2016. Final Report for Raptor Nest Survey Rush Creek Wind-generated electricity Project. Report prepared for Invenergy Wind Development LLC. June 2016.
- U.S. Census Bureau (USCB). 2014. United States Census Bureau data for population, employment and income, and housing in Arapahoe County, Colorado. Available: <http://factfinder.census.gov/>. Accessed on June 18, 2016.
- _____. 2015. United States Census Bureau data for population data for Arapahoe County, Colorado and the State of Colorado. Available: <http://www.census.gov/quickfacts/>. Accessed on June 18, 2016.
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*. U.S. Department of Agriculture Handbook 296.
- USDA. 2016. "Plant Database," plants.usda.gov, United States Department of Agriculture, Natural Resources Conservation Service. Accessed on June 22, 2016.
- U.S. Fish and Wildlife Service (USFWS). 1993. Pallid sturgeon recovery plan (9.65 MB). USFWS, Denver, Colorado. 55 pp. Available online at: <https://www.fws.gov/southdakotafieldoffice/STURGEON.HTM>. Accessed on June 24, 2016
- _____. 2016. "IPaC- Information, Planning and Conservation System", Available online at: <http://ecos.fws.gov/ipac/> Accessed on June 22, 2016.
- _____. 2016a. USFWS Critical Habitat Mapper, Environmental Conservation Online System Available online at: <http://ecos.fws.gov/ecp/report/table/critical-habitat.html> Accessed on June 22, 2016.
- _____. 2016b. Central Flyway Mid-Winter Survey Results. Available online at: <https://www.fws.gov/migratorybirds/pdf/management/Flyways/CFMWS2016.pdf> Accessed on June 29, 2016.
- U.S. Fish and Wildlife Service (USFWS) and Colorado Parks and Wildlife (CPW). 2007. Ecology of the Desert Massasauga Rattlesnake in Colorado: Habitat and Resources Utilization. Available online at: <https://cpw.state.co.us/Documents/WildlifeSpecies/Grasslands/2007EcologyofDesertMassasaugaRattlesnakeinCO.pdf> Accessed on June 24, 2016.

Van Graham. 2014. Colorado Greater Sandhill Cranes. Available online at:

<http://coloradocranes.net/crane-facts/colorado-greater-sandhill-cranes/>. Accessed on June 24, 2016.

This page intentionally left blank.