



City of Littleton

Littleton Center
2255 West Berry Avenue
Littleton, CO 80120

Meeting Agenda - Final City Council

Tuesday, March 11, 2025

6:30 PM

Council Chamber

Study Session - joint with Planning Commission

1. Study Session Topics

- a) [ID# 25-042](#) Littleton Engineering Design Standards and Specifications Update
- Attachments:** [1. Presentation LEDS](#)
- Scheduled time: 30 minutes*
- b) [ID# 25-041](#) Discussion of topics in upcoming 2025 Unified Land Use Code (ULUC) amendments
- Attachments:** [1. Presentation 2025 ULUC Updates](#)
- Scheduled time: 30 minutes*
- c) [ID# 25-056](#) Stormwater Infrastructure Needs Discussion
- Attachments:** [1. Presentation Stormwater Infrastructure Needs](#)
- Scheduled time: 30 minutes*

2. Updates

- a) Council Members
- b) Mayor
- c) City Manager
- d) City Attorney

3. Adjournment

The public is invited to attend all regular meetings or study sessions of the city council or any city board, commission, or committee. Please call 303-795-3780 at least 48 hours prior to the meeting if you believe you will need special assistance or any reasonable accommodation in order to attend, or participate in, any such meeting. For any additional information concerning city meetings, please call the city clerk's office at the above referenced number.



Staff Communication

File #: ID# 25-042, **Version:** 1

Agenda Date: 03/11/2025

Subject:

Littleton Engineering Design Standards and Specifications Update

From:	James L. Becklenberg, City Manager
Prepared by:	Matt Knight, PE, Community Development Director
Presentations:	Jessica Stemley, Community Development Engineering Manager Brent Thompson, PE, City Engineer

PURPOSE:

This presentation will provide an overview of the Littleton Engineering Design Standards and Specifications (LEDS). This document outlines city requirements, design criteria, and implementation guidelines to ensure consistency, safety, and proper maintenance of public infrastructure and private construction.

LONG-TERM OUTCOME(S) SERVED:

Safe Community; Sustainable Community with Natural Beauty; High-Quality Governance

DISCUSSION:

The City of Littleton is one of the few jurisdictions in the surrounding area without established engineering design standards and specifications. Implementing standardized guidelines that reference federal, state, and local standards will provide clarity, improve efficiency, and ensure consistency, quality, and compliance for all public and private projects.

BACKGROUND:

Since the adoption of the Unified Land Use Code in 2021, staff has been working to establish a set of formal engineering design standards. The ULUC references the Littleton Engineering Design Standards (LEDS) as approval criteria in relation certain application types. Absent these established criteria, the city has been informally using various federal and state code, criteria, and guidelines such as those from the Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), and the Colorado Department of Transportation (CDOT) to ensure safety, consistency, and compliance.

LEDS will officially establish these industry best practices in one comprehensive document. It will serve as a critical resource not only for city staff but also for consultants, contractors, and developers working on projects in Littleton. LEDS will cover essential topics such as construction materials (e.g., asphalt and concrete), water quality requirements, traffic signal design, and contractor responsibilities, to name a few.

Once adopted, LEDS will apply to new construction for both City of Littleton and private development, new developments, right-of-way (ROW) permits, and infrastructure maintenance, helping to ensure high-quality, safe, and consistent development throughout the city. It will be updated periodically, as a trailing reference

document following higher-level policy projects such as the Transportation Master Plan.

Prior Actions or Discussions

N/A

FISCAL IMPACTS:

N/A

STAFF RECOMMENDATION:

N/A

ALTERNATIVES:

N/A

LITTLETON ENGINEERING DESIGN STANDARDS

Jessica Stemley, Development Engineering
Manager

Brent Thompson, City Engineer

MARCH 11, 2025



CITY OF LITTLETON ENGINEERING DESIGN STANDARDS (LEDS)

- What are LEDS
- LEDS vs Envision Littleton TMP
- Summary of Standards
- Next Steps

WHY DO WE NEED LEDS?

- Safety
- Consistency
- Compliance
- Quality of Life
- Sustainability



WHAT ARE LEDS?

- Engineering and construction industry standards and specifications at the federal, state, and local levels
 - Federal Highway Administration (FHWA)
 - Municipal Uniform Traffic Control Devices (MUTCD)
 - CDOT (Colorado Dept of Transportation)
 - Municipal Government Pavement Engineers Council (MGPEG)
 - Mile High Flood District (MHFD)
 - And more!

WHAT ARE LEDS?

- Applicable to:
 - New construction
 - New development
 - ROW permits
 - Maintenance
- Many surrounding jurisdictions have adopted standards including:
 - Arvada
 - Aurora
 - Denver
 - Greenwood Village
 - Centennial
 - Castle Rock



LEDs VS ENVISION LITTLETON TMP

Littleton Engineering Design Standards and Specifications

- Technical federal, state, and local industry standards document
- Standards are updated administratively following TMP, ULUC, or external agency revisions
- No projects, programs, or work plans identified in document
- Implementation requires no funding

Envision Littleton Transportation Master Plan

- Long range planning document guiding transportation policy
- Plan forecasted for 20 years; 2040
- Identifies projects and prioritization for the Capital Improvement Program
- Implementation relies on funding i.e., grants, capital investment

SUMMARY OF STANDARDS AND SPECIFICATIONS

- LEDS will provide industry guidance for consultants, contractors, and developers
- Including, but not limited to, the following topics:
 - Construction materials i.e. concrete, asphalt
 - Traffic signal design
 - Water quality requirements
 - Earthwork
 - Storm and sanitary facility design
 - Landscaping requirements
 - Contractor responsibilities



EXAMPLE OF LEDS IMPLEMENTATION

Public Roadway Improvements

- Composite Pavement Section on a Suburban Connector i.e., Mineral Ave
- A composite pavement section is a pavement design that combines two different layers of materials:
 - Top layer: 10 inches of hot mix asphalt (HMA)
 - HMA S75 PG64-22 or SX75 PG64-22
 - Bottom layer: 12 inches of aggregate base course (ABC) or treated subgrade
 - ABC Class 6

Public Improvement Acceptance – ULUC 10-6-3.3

- City Inspector will notify the Development Review Engineer, project is ready for initial warranty inspections
- Warranty period for public improvements and facilities shall be two years with additional requirements
- After the public improvements pass Final Acceptance and/or Release from Warranty inspection issue a Memorandum of Final Acceptance



NEXT STEPS

- LEDS draft will be available for 45-day public comment period
- City Council anticipated to adopt the Littleton Engineering Design Standards in Q3
- Updates to the standards will be made administratively as necessary in response to industry revisions and/or changes to the ULUC or TMP



QUESTIONS?



Staff Communication

File #: ID# 25-041, **Version:** 1

Agenda Date: 03/11/2025

Subject:

Discussion of topics in upcoming 2025 Unified Land Use Code (ULUC) amendments

From:	James L. Becklenberg, City Manager
Prepared by:	Matt Knight, Director of Community Development Jerad Chipman, Planning Manager Andrea Vaughn, Senior Planner
Presentations:	Andrea Vaughn, Senior Planner

PURPOSE:

Staff is seeking to inform city council and planning commission of proposed updates to the ULUC and hear discussion and feedback to help shape forthcoming ordinance proposals.

LONG-TERM OUTCOME(S) SERVED:

High-Quality Governance; Robust and Resilient Economy; Safe Community

DISCUSSION:

Staff will provide a presentation focusing on proposed text amendments to the ULUC that are in response to the 2024 State of Colorado Legislative Session and additional text amendments that have been identified as a city priority.

BACKGROUND:

The 2024 State of Colorado Legislative Session resulted in several pieces of legislation that require municipal compliance by means of ordinance amendment no later than July 1, 2025. Staff has been monitoring these legislative actions and intends to discuss the legislation, staff's proposed approach to amending the ULUC, and opportunities to further city goals prompted by the requirement to amend the ULUC. The legislative acts that staff intends to discuss are as follows:

- Occupancy limits in HB24-1007 - There is one minor update to a definition within the ULUC that is required.
- Accessory dwelling units (ADUs) in HB24-1152 - City council and planning commission discussed this topic and the legislative requirement with the 2024 effort to update the ULUC.
- Minimum parking in proximity to transit HB24-1304 - Removes minimum parking requirements for multi-family, mixed-use multi-family, and adaptive reuse projects located near transit.
- Nonfunctional turf in SB24-005 - Does not allow for turf and artificial turf on nonresidential properties with some exceptions.

City priority updates to the ULUC that are nonlegislative that will be discussed are as follows:

- An update to the city's regulations pertaining to platting and the platting process.
- Direction regarding whether city staff should be the only entity that is allowed to send out mailings notifying property owners of an upcoming neighborhood meeting.
- Direction regarding the creation of a Master Sign Plan process and associated restrictions.
- An update to the city's tree preservation requirements and updating the ULUC so that it does not conflict with the City's Tree Manual.

Prior Actions or Discussions

- At the January 23, 2024, city council study session, council gave staff direction to pursue work on future ULUC text amendments.
- At the August 26, 2024, planning commission study session, staff briefed the planning commission on future legislative updates that would be addressed in 2025.

FISCAL IMPACTS:

N/A

STAFF RECOMMENDATION:

Staff is seeking clarifying questions and feedback on proposed policy topics to be addressed in forthcoming ordinances.

ALTERNATIVES:

N/A

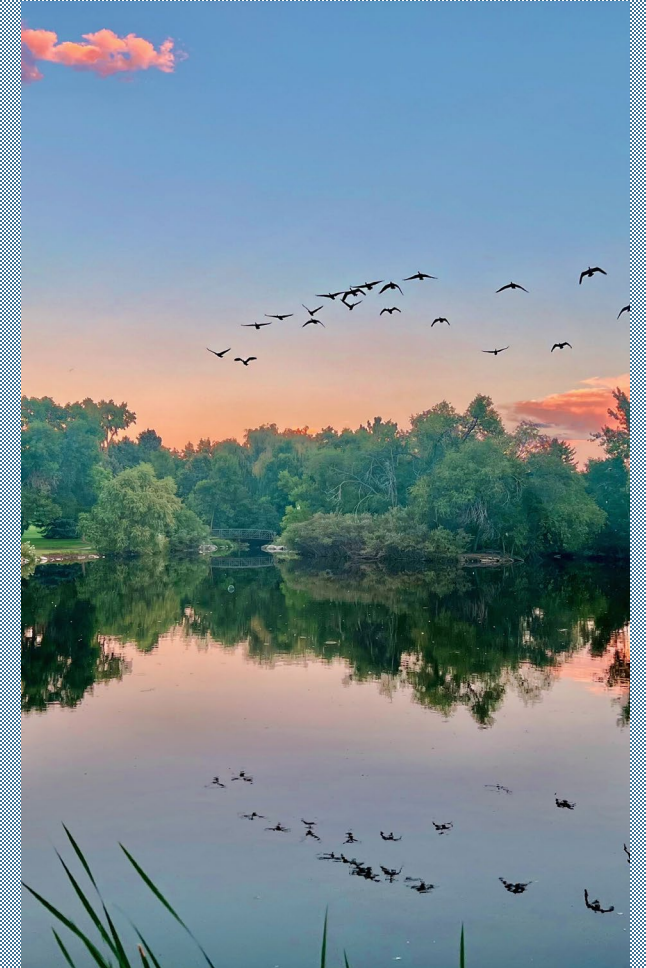
2025 ULUC UPDATES

Andrea Vaughn, AICP, Senior Planner

Jerad Chipman, AICP, Planning Manager

Kelsey Stansfield, Manager of Grounds,
Open Space and Natural Resources

MARCH 11, 2025



AGENDA

Legislative Updates

Nonlegislative ULUC Updates

LEGISLATIVE UPDATES

- Occupancy Limits
- Accessory Dwelling Units (ADUs)
- Minimum Parking
- Nonfunctional Turf

OCCUPANCY LIMITS HB24-1007

Legislative Requirement

- Jurisdictions may not determine occupancy limits based on familial-relation

Effective Date: July 1,2024



ADUS – HB24-1152

Legislative Intent

- Increase housing opportunities for intergenerational living
- Provide additional income to homeowners
- Increase housing supply for middle income earners
- Provide opportunities for aging homeowners to downsize

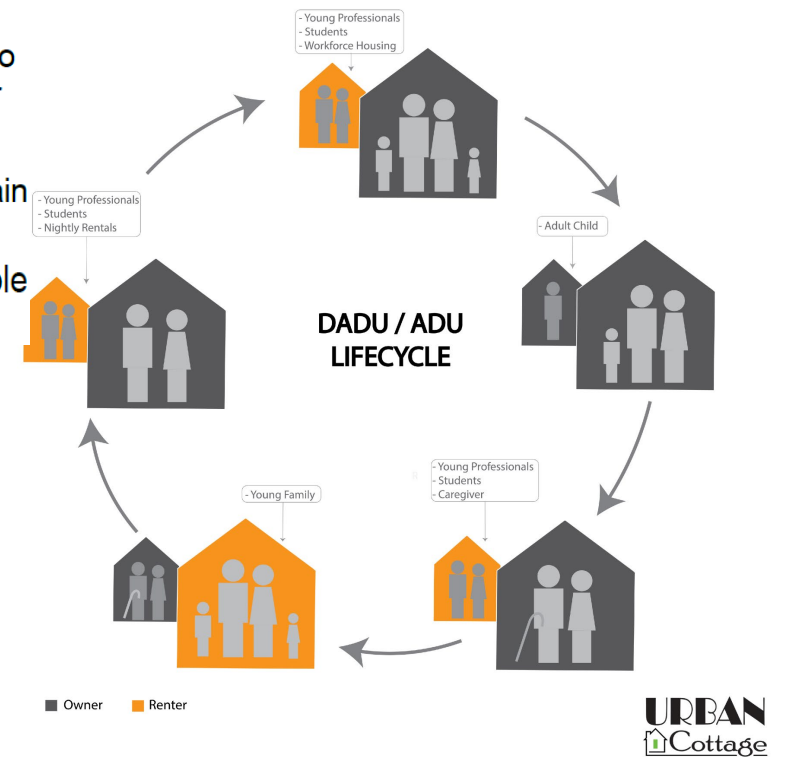
Effective Date: June 30, 2025



ADUS & CITY GOALS

- Difficulty of aging in place due to the cost of staying in an existing residence, dispersed support systems, or inability to find other available, viable housing options to transition into within Littleton, especially for those with assisted living or special care needs.
- Age of housing stock and opportunities for its revitalization, but also challenges for those who cannot afford to maintain or upgrade their homes.
- Concern for a potential loss of demographic diversity (by age, race/ethnicity, income level, etc.) driven by unattainable housing choices and/or neighborhood gentrification in Littleton.

GOAL H&N 1: A quantity and diversity of housing options that makes living in Littleton attainable for a wide range of age groups and income levels.



Policy H&N 1: Encourage an array of residential options within the city – through new development, redevelopment, and maintenance of existing housing stock – to respond to the need for varied housing types, sizes, and price points that are attainable for prospective owners and renters at all levels of income.

ADU LEGISLATIVE REQUIREMENTS

Legislative Requirement

- Remove requirement of constructing new parking for ADUs
- Removes restrictive design standards that are otherwise not applied to Single-Family Dwelling (SFD)
- Requires administrative allowance of ADUs of up to 750 sq ft in all zone districts where SFD is permitted
- Setbacks must match setbacks established for accessory structures

Opportunities to further City goals

- Increasing maximum size from for detached ADU 750 to 1,000 sq ft
- Remove buffer yard requirements for ADU construction

MINIMUM PARKING – HB24-1304

Legislative Intent

- Reduce construction costs associated with the construction of new parking
- Create opportunities for more housing along high-frequency transit corridors
- Reduce the Urban Heat Island (UHI) effect

Effective Date: June 30, 2025



MINIMUM PARKING & CITY GOALS

Policy L&C 6: Recognize and promote land use and development decisions that further community objectives for reduced traffic congestion, more pedestrian- and cyclist-friendly design, and expanded and viable public transit options.

Policy H&N 4: Encourage mixed-use development proposals that include a residential component, especially where this will support retail viability and transit ridership, place residents near education and local employment options, and provide living options for seniors and others close to transit, parks, and shopping, medical, and other services.

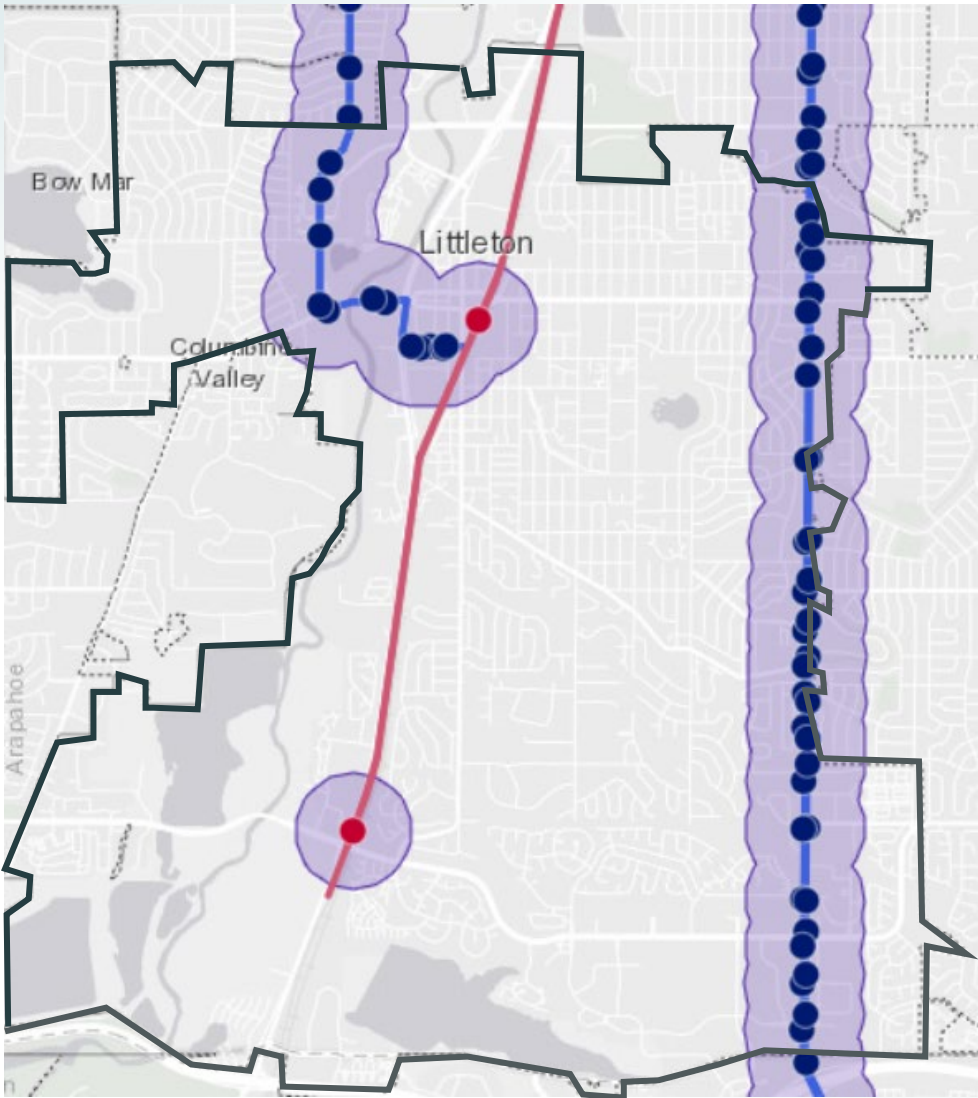
Policy TMP 19: In development proposals, limit curb cuts along proposed planned bicycle and pedestrian routes

Action L&C 5: As part of the City's zoning and code update initiative:

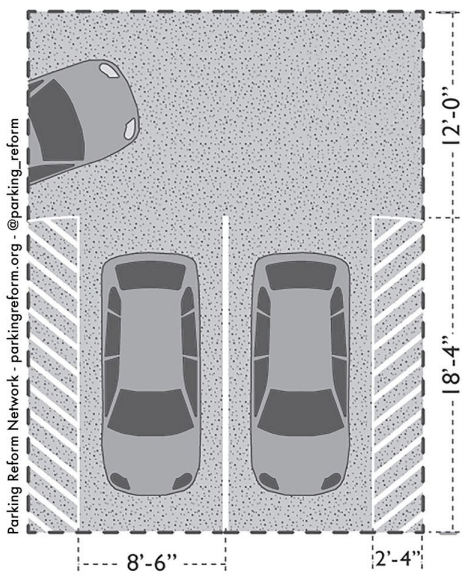
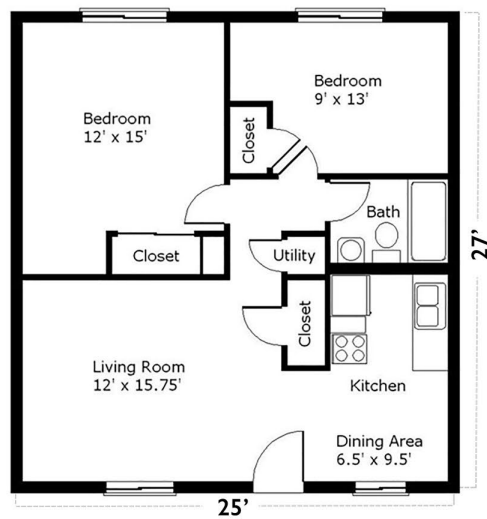
- Add new or amend current provisions that are directly linked to actions in other plan sections related to housing attainability, neighborhood conservation, business retention and attraction, leisure and lifestyle related land uses, transit support, a more pedestrian- and cycling-friendly community, and park and open space protection – and consider incentive-based techniques for guiding development applicants toward desired outcomes.

Action I&S 7: As part of the City's zoning and code update initiative, evaluate the potential for integrating any new or adjusted hazard mitigation considerations related to wildfire, flooding, drought, and other hazards.

MINIMUM PARKING



Living Space Vs. Parking Space



size for 2 bedroom apartment: 675 FT² size for 2 parking spaces: 650 FT²

Sources: Transportation Cost and Benefit Analysis II – Parking Costs Victoria Transport Policy Institute (www.vtpi.org)
Graphic Adapted from Graphing Parking (<https://graphingparking.com/2013/07/23/parking-across-cascadia/>)
Image compiled by the Parking Reform Network - <https://parkingreform.org/> - @Parking_Reform



MINIMUM PARKING

Legislative Requirement

- Removes minimum parking for multifamily, mixed-use multifamily and adaptive reuse projects located near a high-frequency transit stop

Opportunities to further City goals

- Expand exemption to all residential developments (1-4 units) within the Applicable Transit Area Map

MINIMUM PARKING

Legislative Option

- Allows for minimum parking for affordable housing developments or projects with 20 or more units, provided that the need is supported by data

Required Reporting

- Substantial evidence to demonstrate that not enforcing parking minimums would negatively impact pedestrians and cyclists or parking for nearby developments
- Analyze parking utilization data from the surrounding area
- **Required to publish findings within 90 days of receiving application**
- **Annual reporting required**

NONFUNCTIONAL TURF – SB24-005

Legislative Intent

- Reduce water consumption in nonresidential developments
- Mitigate the impacts of the Urban Heat Island (UHI)
- Improve water run off quality

Effective date: Jan. 1, 2026



NONFUNCTIONAL TURF & CITY GOALS

Policy ENV 5: Include habitat protection among its community planning considerations, recognizing that wildlife presence and movement within the city is a continuing reality and part of a healthy natural environment.

Action ENV 9: Update the City's zoning and subdivision regulations so that landscaping requirements reflect best management practices for plant and tree selection, xeriscaping, irrigation design, water use, and maintenance.

GOAL ENV 3: Efficient use and conservation of water resources.

Policy ENV 3: Continue to be a leader in promoting and incentivizing wise water use, water-saving measures, and water conservation and re-use.



NONFUNCTIONAL TURF

Legislative Requirement

- Does not allow the new installation of turf, including artificial turf, on nonresidential properties
- Exempts residential property

Opportunity to go beyond

- Can expand the requirement to include residential properties

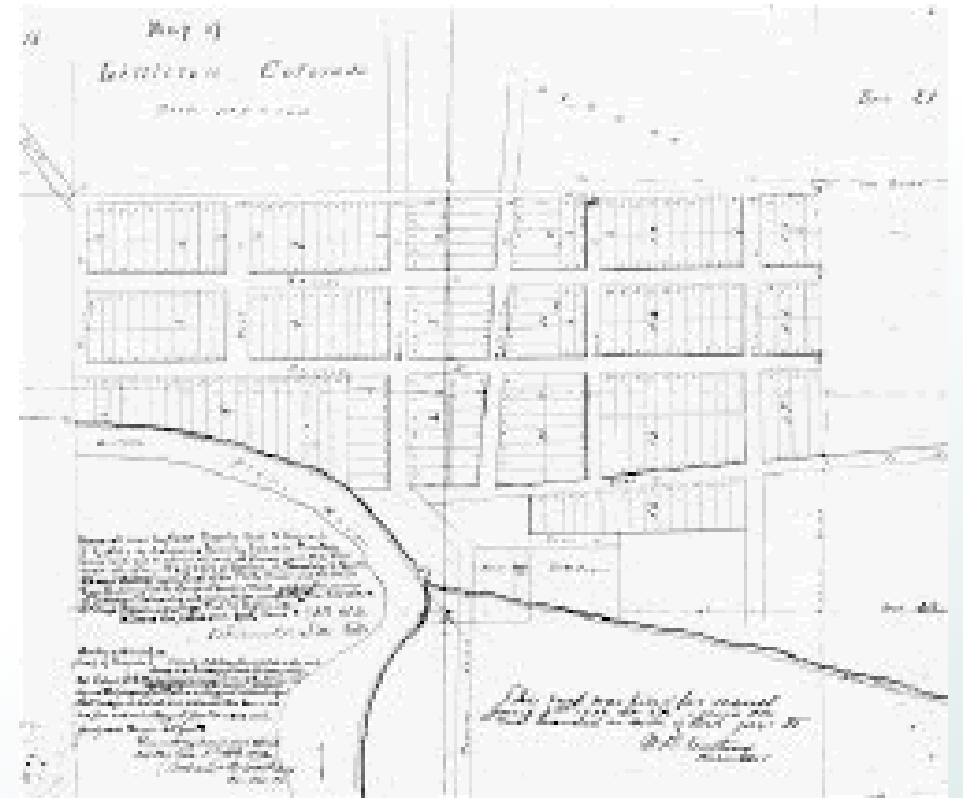
NONLEGISLATIVE ULUC UPDATES

- Platting
- Notice of Mailing
- Master Sign Plan
- Tree Preservation

PLATTING

Intent

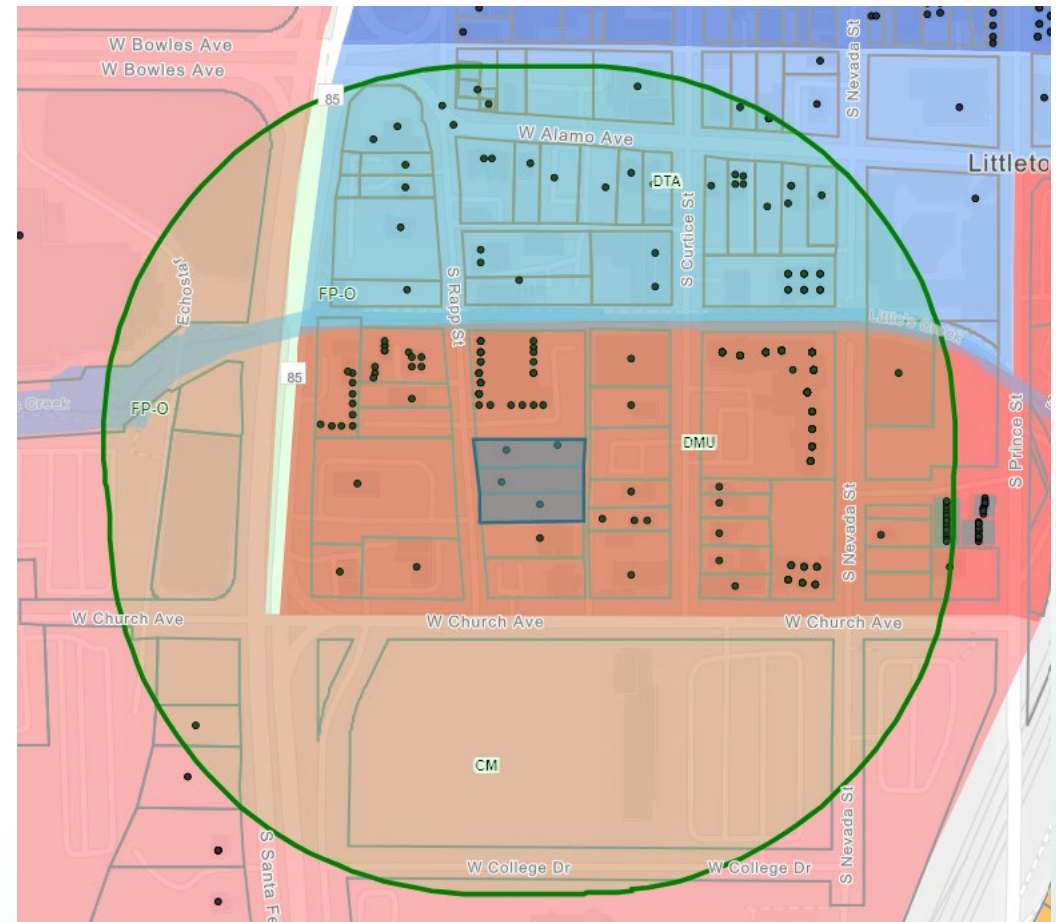
- Provide clarity in the Code
 - Update criteria to minimize need for conditional approval of plat
- Streamline the platting process
 - Re-evaluate the city's role in condo platting
 - Re-evaluate the Preliminary Plat criteria to consider removing the requirement for public right-of-way dedications, when dedication was contemplated in the Transportation Master Plan



NOTICE OF MAILING

Intent

- Shifts the requirement from staff to the applicant to mail notices for neighborhood meetings, as defined in Section 10-9-3.6



MASTER SIGN PLAN

Intent

- Was envisioned as a part of the original ULUC. Existing sections are “Reserved”.
- Allow for specific locations to be allowed large multi-parcel/multi-tenant signs with a consistent architecture that conforms with city design standards.
- Limit the number of signs for a development or location.
- Provide maximum size parameters for freestanding and attached signs.
- Currently proposed as an administrative process.

Current Code Challenges

- Multi-parcel signs are not allowed.
- Allows individual parcels within a commercial subdivision to have a pole sign, a monument sign, and a pylon sign.
- Maximum height varies based on sign type and the height of the principal structure on a site.

MASTER SIGN PLAN

- Johnstown Plaza



MASTER SIGN PLAN



- Promenade at Castle Rock



MASTER SIGN PLAN

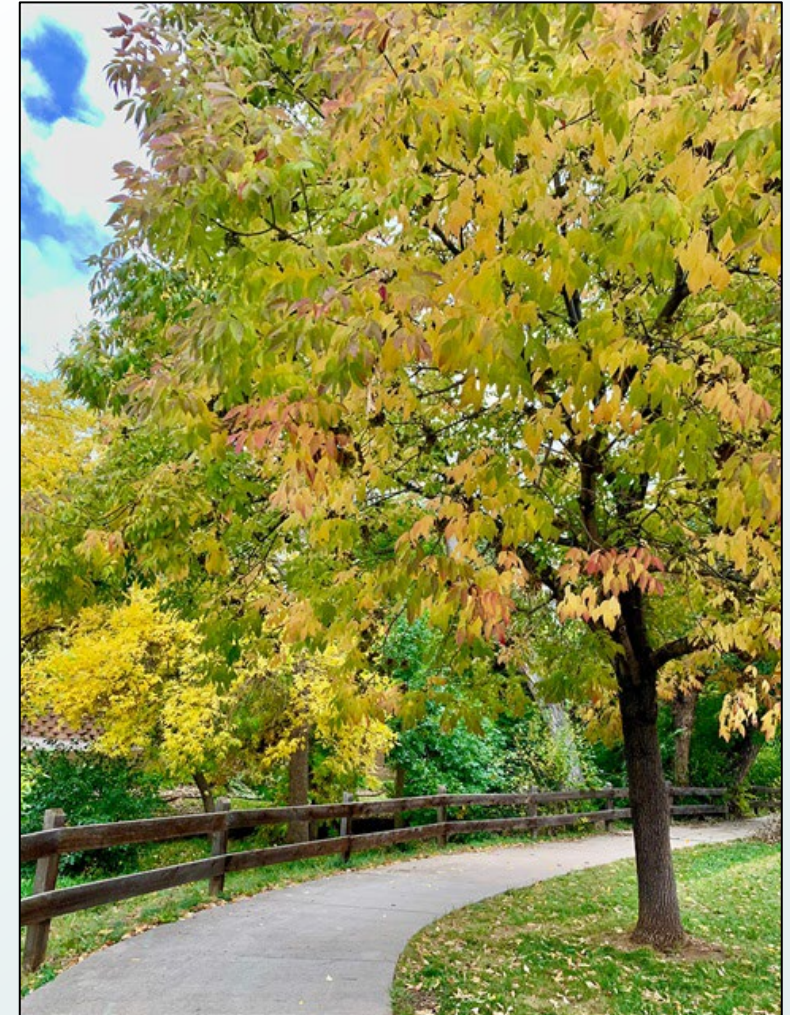
Planning Commission Discussion, February 24, 2025

- Focus on large commercial sites/development fronting on roads designated Commercial Corridor and Suburban Connector.
- Narrow choices of freestanding signs to monument only.
- Desire a focus on uniform architecture.
- Be more restrictive on size and illumination.

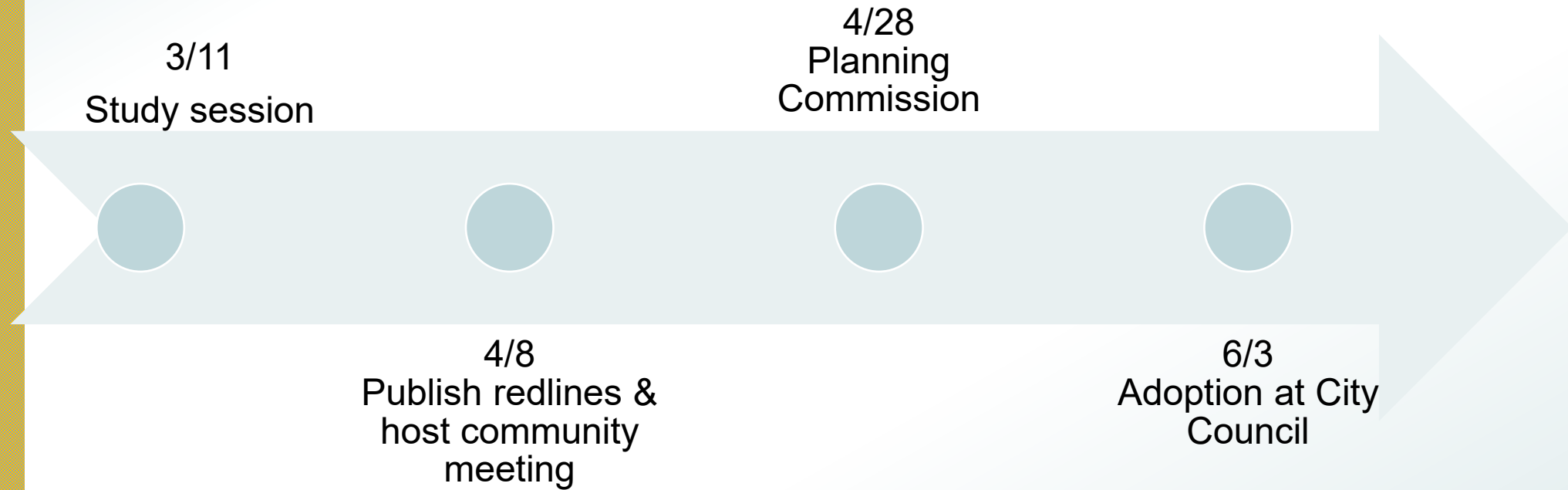
TREE PRESERVATION

Intent

- Implement the policy recommendations from the City's Tree Manual (subsection of Forestry Master Plan, adopted 2023) where it intersects with the ULUC
 - Prioritizes preservation of existing canopy with increased In-Lieu Fee for tree removal from a flat fee to a formula-based fee
 - Revises planting and tree-canopy requirements, according to standards previously established in the Tree Manual



ANTICIPATED TIMELINE



THANK YOU

Andrea Vaughn – avaughn@littletongov.org
Jerad Chipman – jchipman@littletongov.org
Kelsey Stansfield – kstansfield@littletongov.org



Littleton



Staff Communication

File #: ID# 25-056, Version: 1

Agenda Date: 03/11/2025

Subject:
Stormwater Infrastructure Needs Discussion

From:	James L. Becklenberg, City Manager
Prepared by:	Brent Soderlin, Director of Public Works & Utilities Sarah White, Water Resources Manager Kevin Orton, Budget Manager
Presentations:	N/A

PURPOSE:

Provide a comprehensive overview of the current state of the city's stormwater infrastructure, including recent challenges, ongoing repairs, and future funding needs. In addition, the memo will highlight the trend within the Storm Drainage Enterprise Fund, in which expenditures have exceeded revenues, and to highlight the high risk of failure impacting more than 18% of our storm sewer assets.

LONG-TERM OUTCOME(S) SERVED:

Safe Community

DISCUSSION:

The stormwater management system is vital for protecting our community from flooding and ensuring public safety. Since 2023, there has been exponential growth in the funding needs within the Storm Sewer Enterprise Fund. Emergency repairs have caused expenditures from the Storm Drainage Enterprise Fund to exceed revenues and staff anticipate that this trend will continue into the foreseeable future. Recent emergency conditions, particularly the record rainfall in 2023, have highlighted the vulnerabilities within our aging stormwater infrastructure, leading to the collapse of several corrugated metal pipes (CMP). Public Works staff is currently focused on corrugated metal pipes (CMPs), as most have been in service for 30 to 40 years and have exceeded their design lives. The city owns and maintains 54 miles of storm sewer, of which approximately 6.8% (or roughly 3.6 miles) are CMPs.

Revenue vs Expenditures FY 2021 through FY 2023

Category	FY 2021	FY 2022	FY 2023
Revenues ¹	\$2,654,188	\$2,320,262	\$2,855,139
Expenditures	\$1,329,464	\$1,940,994	\$5,204,168
Difference	\$1,324,724	\$379,268	(\$2,349,029)

¹Does not include a \$1,100,000 interfund loan from the Sewer Utility Enterprise Fund

In 2023, council authorized using a \$1,100,000 loan to help cover emergency repairs. The FY 2024 revenues

and expenditures are still being finalized but the cost of emergency repairs is anticipated to exceed stormwater charges for services.

Staff has identified approximately \$11.1 million of emergency repairs needed within the city. Of that amount, \$2.4 million has already been reserved, \$3.6 million is needed for 2025, \$1.2 million is needed for 2026, and the remaining \$3.9 million is planned for 2027. These project costs are initial estimates and may be adjusted as design work is completed.

Storm Drainage Enterprise Fund FY 2025 Adopted Budget

In 2025, the total adopted budget is \$3.5 million and includes both capital projects and operations and maintenance. Staff has identified \$3.6 million of urgent storm drainage projects that exceed current fund appropriations. The current FY 2025 funding gap is \$2.8 million.

Category	FY 2025 Expenditures
Personnel	\$616,910
Operating Expenses	188,443
Professional Services	196,000
Floodplain Projects or Studies	1,086,667
Projects already programed in 2025	703,000
<i>High Priority - Lee Gulch & Broadway²</i>	1,500,000
<i>High Priority - Belleview & Federal</i>	850,000
<i>High Priority - Elati South of Ridge</i>	800,000
<i>High Priority - Ridge and Prince</i>	400,000
Total FY 2025 Funding Need	\$6,341,020
Available FY 2025 Budget	\$3,517,853
Funding Gap	(\$2,823,167)

²Total project cost is \$4.0 million. The city has already contributed \$1.2 million and Mile High Flood District has contributed \$1.2 million.

Projects Planned for 2026 & 2027

Staff has identified seven high priority projects for 2026 and 2027:

High Priority Project	Estimated Cost
<i>High Priority - Sterne Parkway</i>	600,000
<i>High Priority - Broadway at Weaver</i>	600,000
Total FY 2026 Funding Needed	\$1,200,000
<i>Oakbrook Subdivision</i>	2,000,000
<i>Rafferty Gardens</i>	750,000
<i>Huron at Progress Park</i>	500,000
<i>Latonka at Powell</i>	350,000
<i>Arapahoe at Broadway</i>	250,000
Total FY 2027 Funding Needed	\$3,850,000

Storm Drainage Fund Availability

The Storm Drainage Fund does not have available fund balance to address the identified high priority projects. The estimated FY 2025 through FY 2028 fund available is shown in the table below.

Storm Drainage Fund with Emergency Projects Included (\$ in millions)

Category	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$0.5	(\$1.6)	(\$1.6)	(\$3.2)
Revenues	\$4.2	\$3.3	\$4.0	\$3.7
Expenditures	\$6.3	\$3.3	\$5.6	\$1.8
Ending Balance	(\$1.6)	(\$1.6)	(\$3.2)	(\$1.3)

Debt Funding Options vs Interfund Loan

To address long term funding needs staff plans to begin a rate study later in the summer of 2025. To address the “high” and “very high”-risk projects over the next 2-3 years, debt financing will be necessary, as current stormwater utility rates are not sufficient to fund the projects with the timeliness required. Presumably, the rate study will yield user rate recommendations that will fund needed capital project and operations over the next 5-10 years and repay any loans taken in 2025 to pay for emergency repairs.

The most common municipal debt financing tool for these types of improvements is the Colorado State Revolving Loan Fund, administered by the Colorado Department of Public Health and Environment (CDPHE). Staff has researched the availability of the program for these improvements, and while these improvements would likely qualify for the program, it takes 8-12 months to work through the process. For this reason, the CDPHE program is not available to finance the 2025 projects. This leaves the options of a bank loan, with interest rates estimated to be 4.40% to over 6.00%, or a loan from another City of Littleton fund that would be paid back to the lending fund at a rate equivalent to the average return on the City’s investment portfolio, which is approximately 2.5% annually.

The most appropriate fund for such a loan in this case is the Sewer Fund for projects identified in 2025. The sewer fund is structured to accumulate fund balance over a 10-year period in anticipation of very large wastewater treatment plant capital projects planned for the mid- 2030s.

Sewer Fund Model with Interfund Loan & Repayment

An approximate interfund loan from the sewer fund would be calculated with the following terms

- Total Loan Amount: \$2.8 million
 - Includes projects identified in 2025. Upon project completion, any remaining funds will be returned to the sewer fund.
- Interest Rate: 2.5 %
- Payment Terms: 7 years (beginning in 2027)
- Approximate increase to Stormwater Rates for single family residents would be \$16 per year. A finalized number will be calculated as part of the 2025 Stormwater rate study.

Sewer Fund with Forecast with Interfund Loan & Payment (\$ in millions)

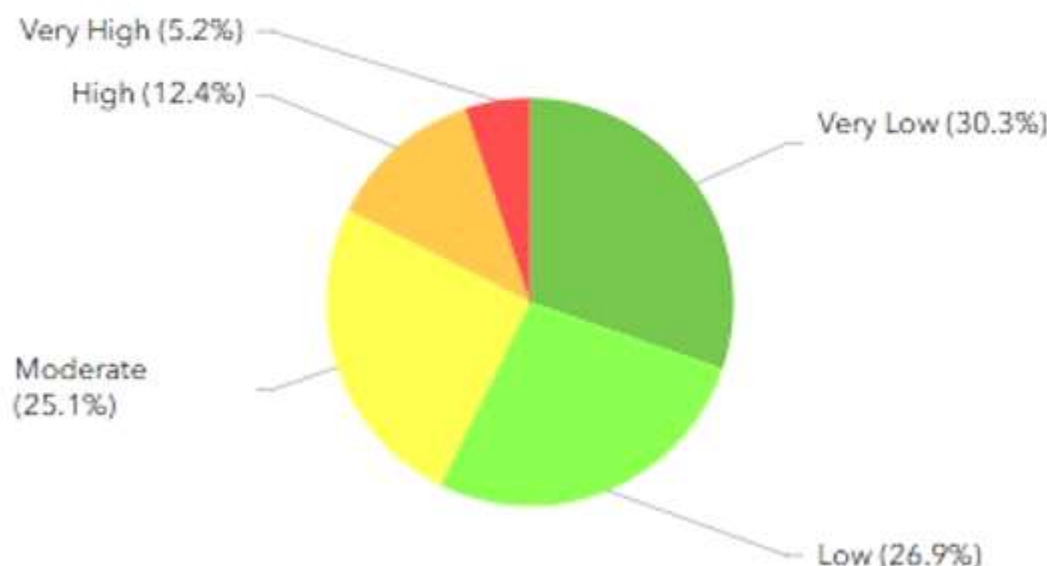
Category	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$14.0	\$5.7	\$4.7	\$5.0

Revenues	\$22.7	\$27.4	\$24.2	\$25.8
Repayment from Storm			\$0.4	\$0.4
Expenditures	\$28.2	\$28.4	\$24.3	\$23.7
Ending Balance	\$8.5	\$4.7	\$5.0	\$7.5
Loan to Storm	(\$2.8)			
Adjusted Ending Balance	\$5.7			

BACKGROUND:

In 2023, the city completed a Storm Drainage Master Plan that included managing the risks associated with structural failures of our assets. Additionally, we experienced significant flooding that resulted in several large-scale failures of our storm sewer system. The master plan identified that 17.6% of our storm pipes are at high or very high risk of failure. Our staff has determined that the corrugated metal pipes within the city are at the greatest risk. We are currently prioritizing projects for either lining or replacement.

Likelihood of Failure Score



Prior Actions or Discussions

N/A

FISCAL IMPACTS:

To address urgent high priority projects in 2025, the Storm Drainage Fund budget has a funding gap of approximately \$2.8 million. However, the Storm Drainage Fund does not have available fund balance to cover the cost of repairs.

Staff recommends an interfund loan from the Sewer Enterprise Fund of \$2.8 million in 2025 to cover these immediate needs in 2025. Alternatively, City Council may use a bank loan to cover the cost of these projects. The estimated terms, interest rate, annual payment, and total payment is in the table below.

Funding Type Option	Terms	Approx. Interest Rate	Approx. Annual Payment	Approx. Total Payment
Interfund Loan	7	2.5%	\$440,987	\$3,086,910
Bank Loan	7	5.0%	\$483,895	\$3,387,268

For high priority projects in 2026 and 2027, staff recommends using the Colorado State Revolving Loan Fund, administered by the Colorado Department of Public Health and Environment (CDPHE).

Repayment of the either the interfund loan or bank loan, and the Colorado State Revolving Loan Fund will be incorporated in the 2025 Rate Study.

STAFF RECOMMENDATION:

To address funding deficits and the urgent need to repair high-risk storm infrastructure, Public Works recommends the following actions:

1. For immediate 2025 projects - Issue an interfund loan of \$2.8 million from the Sewer Enterprise Fund to facilitate the initial project moving toward construction.
2. For projects identified in 2026 and 2027 or approximately \$5.1 million - Apply for state revolving funds, which essentially provide a low-interest loan against the Storm Sewer Enterprise Fund. The state revolving fund can issue up to \$18 million in debt, though the application process typically takes 8 to 10 months.
3. Complete a Storm Sewer and Sanitary Sewer Rate Study. This study would include revenue strategies to repay the loan from the state revolving fund and the Sewer Enterprise Fund.

ALTERNATIVES:

If council chooses to not use an interfund loan, alternatives include:

1. Working with our financial advisors to secure a bank loan for the projects.
2. Delay projects to continue a pay-as-you go model. This could stretch high priority projects into the 2030s.

STORM WATER NEEDS PRESENTATION

Sarah White, Water Resources
Manager

Brent Soderlin, Director of Public
Works and Utilities

MARCH 11, 2025



OVERVIEW

- Introduction
- State of Storm Infrastructure
- Floodplain Management
- Storm Drainage Enterprise Fund
- Summary - Goals, Timeline and Funding Needs

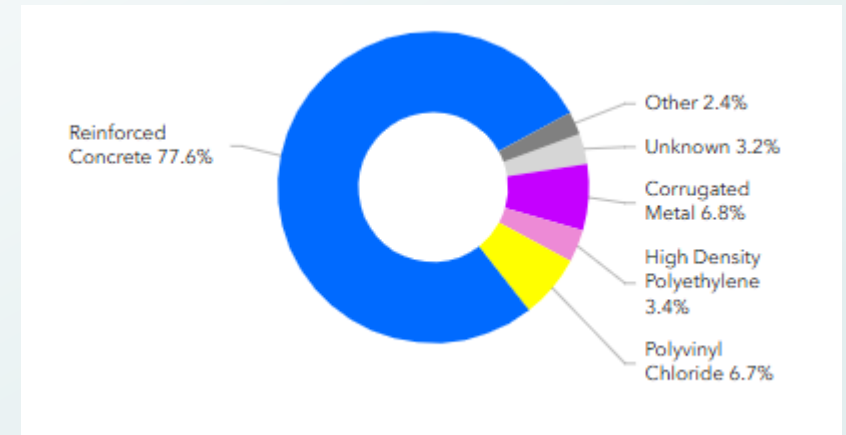
STORM SEWER COLLECTION

- Overview of Ownership and Maintenance

- 80.49 miles of total storm sewer
- 53.49 miles owned and maintained by City of Littleton
- 14.67 miles private storm sewer
- 12.32 miles other ownership

- Breakdown of Material

- 6.8% CMP
- 77.6% RCP
- 15.6 % Other (PVC, HDPE, unknown)



STORM SEWER MATERIALS

- Corrugated Metal Pipe (CMP)

- Life expectancy 40-50 years
- Common use in Littleton Subdivisions in 1980s
- Protective coating and rehab can extend pipe life



- Reinforced Concrete Pipe (RCP)

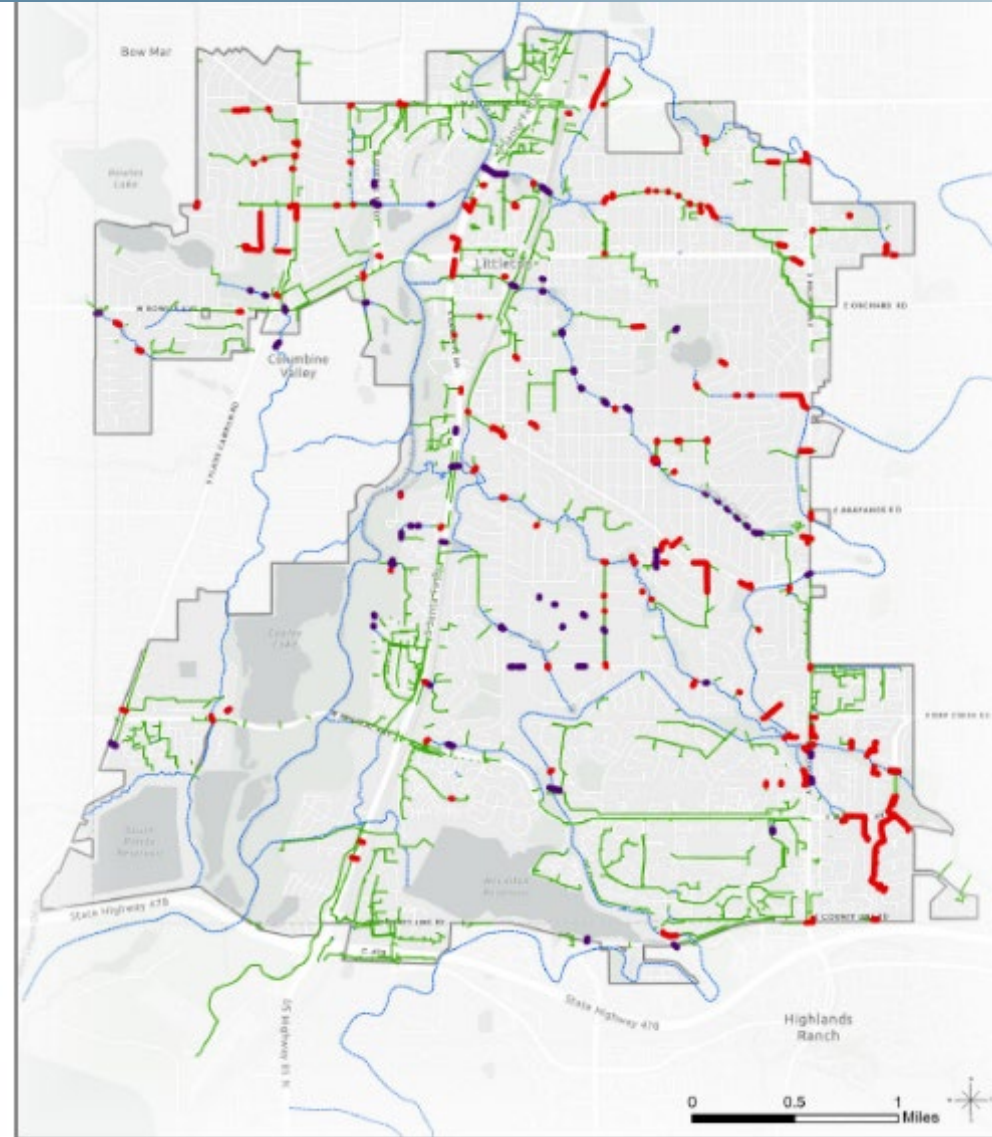
- Life expectancy 75-100 years
- Reinforced with steel bars or wire mesh to provide additional durability



- Other Materials

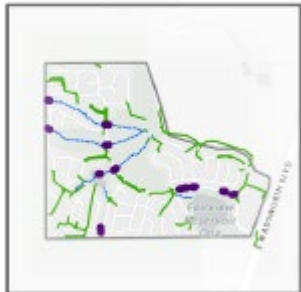
- PVC - polyvinyl chloride, a synthetic plastic
- HDPE - High-density polyethylene is a petroleum-based plastic

STORM SEWER LOCATION MAP



Basemap for Storm Assets With Distinction for CMP

- Storm Gravity Main
- Storm Gravity Main CMP
- Storm Culverts
- Storm Culverts CMP
- Storm Channels



2023 –EMERGENCY REPAIRS

Emergency Drainage Repairs

Record-breaking rainfall in the spring and summer of 2023 stressed Littleton's stormwater infrastructure, causing several aging Corrugated Metal Pipes (CMP) to collapse.

Infrastructure Failures:

- Jackass Hill Road
- Broadway & Jamison
- Powers Park
- East Mineral Ave



JACKASS HILL CULVERT COLLAPSE

June 12, 2023

- Sinkhole in Jackass Hill Road



- Two-48 inch CMP caused road failure / conveys Jackass Gulch
- Installed (2) 140 LF new storm sewer, upsized per master drainageway plans
- Repair Jackass Gulch, adjacent storm, water and roadway construction



Littleton

JACKASS HILL CULVERT COLLAPSE

- Total Cost to Repair:
 - \$1.3 Million
- Roadway and Sidewalk Closure:
 - 2.5 months



BROADWAY & JAMISON SEWER COLLAPSE

May 24, 2023 & June 21, 2023

- Sinkhole in open space along Broadway and Jamison



- Two-48 inch CMP collapsed in open space/ conveys Lee Gulch South Tributary
- Installed 200 LF new storm sewer
- Import soil, repair drainageway, line adjacent pipe

JAMISON AVE STORM SEWER COLLAPSE

- Total Cost to Repair:
 - \$600,000
- Roadway and Sidewalk Closure:
 - Shoulder closure only
 - 2.5 months



POWERS PARK SEWER COLLAPSE

June 8, 2023

- Sinkhole in Powers Park



- One-48 inch CMP had partial collapse / Conveys Slaughterhouse Gulch
- Install 350 LF new storm sewer, new sod and irrigation repairs

POWERS PARK STORM SEWER COLLAPSE

- Total Cost to Repair:
 - \$400,000
- Roadway and Sidewalk Closure:
 - Park closure only
 - 1.5 months



E MINERAL AVE SEWER COLLAPSE

August 3, 2023

- Sinkhole in East Mineral Avenue
- Collapse to multiple sections of storm sewer under Mineral including outfall into Lee Gulch
- Replace 1200LF new storm sewer, repair street, new outfall alignment



E MINERAL AVE STORM SEWER COLLAPSE

- Total Cost to Repair:
 - \$1.8 Million
- Roadway and Sidewalk Closure:
 - EB – 3.5 months
 - WB – 2.5 months

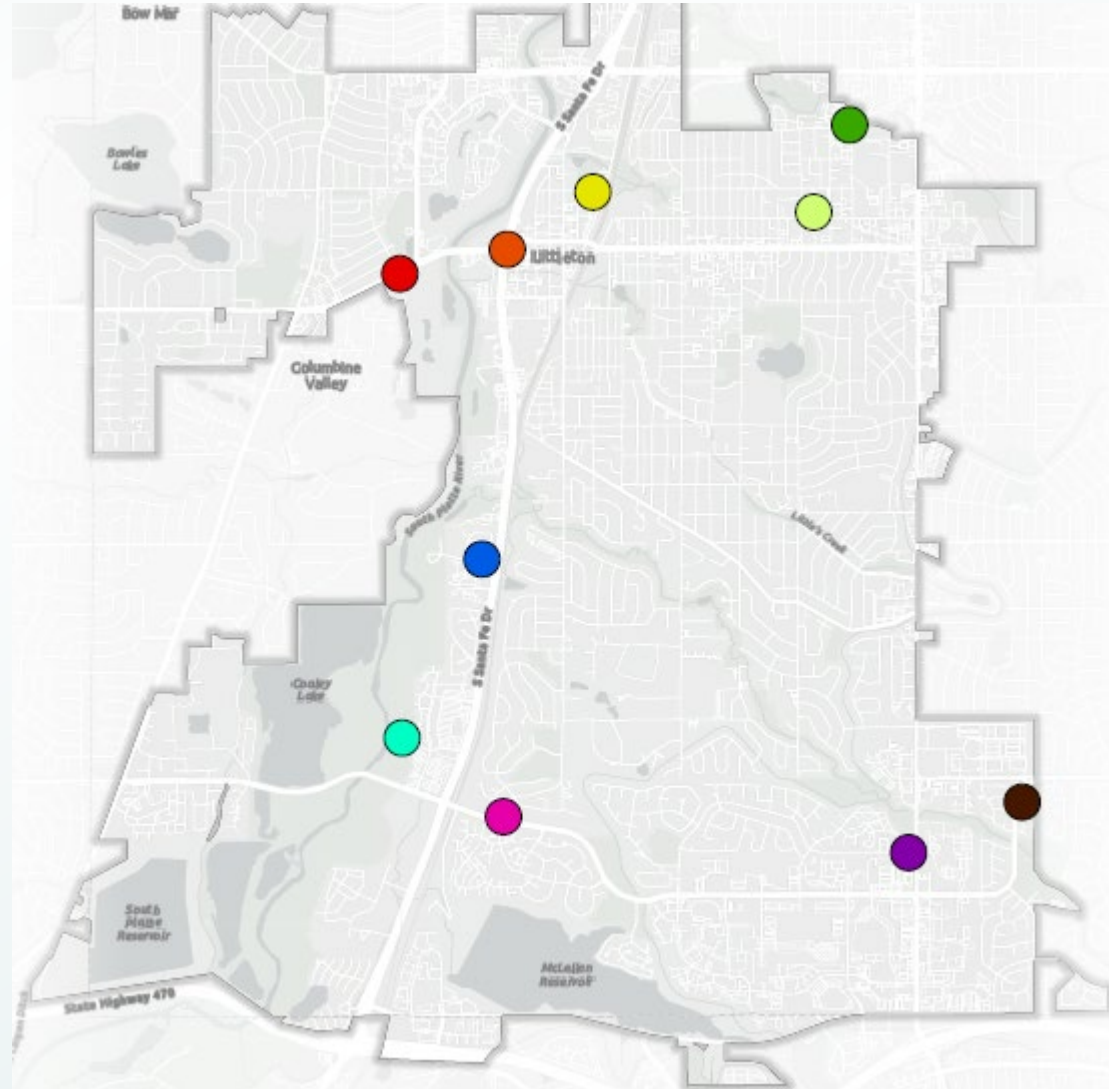


SINKHOLES SINCE MAY 2023



■ 2023 Emergency Events

- Replaced approx. 2,000 linear feet of pipe
- Cost \$4.0 million
- 17,500 LF of CMP remain



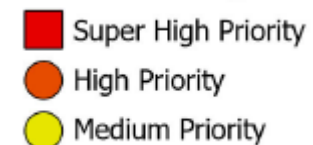
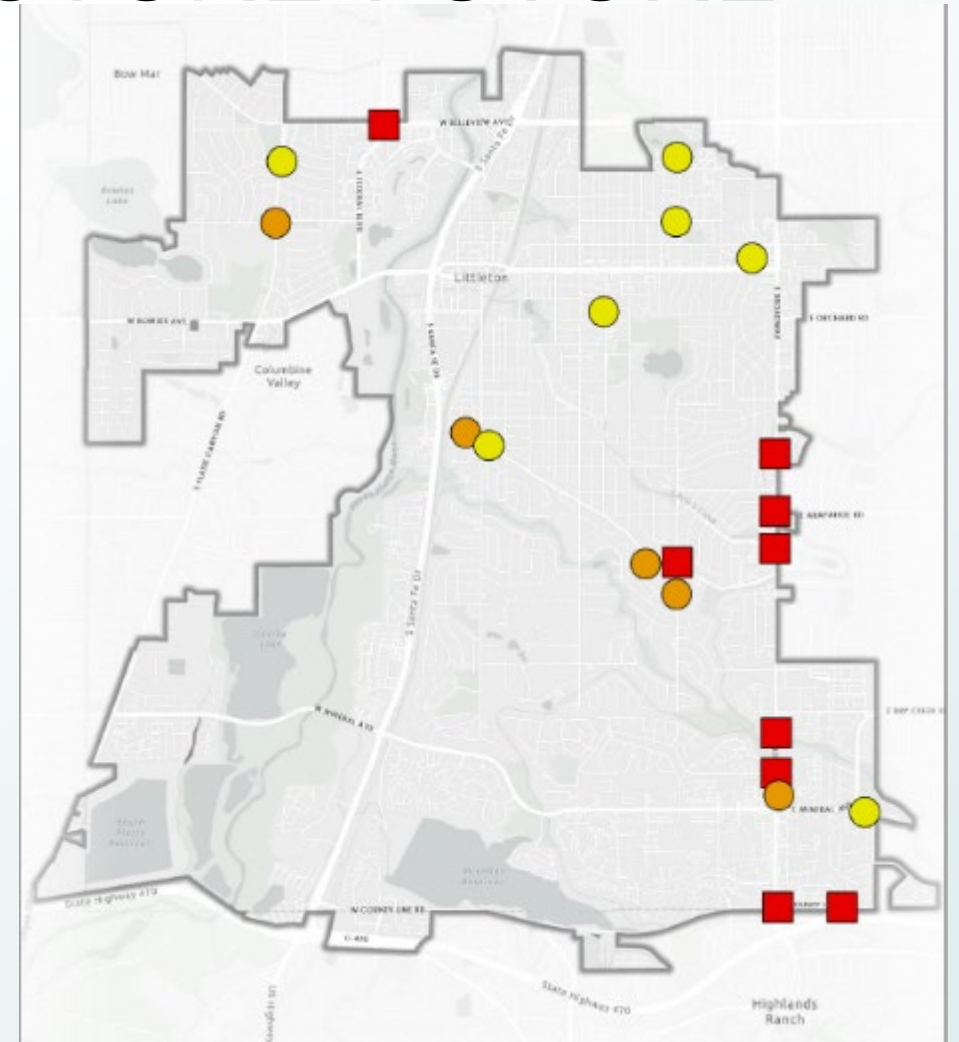
STORM INFRASTRUCTURE FUTURE

- Future projects being triaged based on risk assessment

- 6 projects currently identified High Risk/ High Priority

- Belleview & Federal
- Lee Gulch @ Broadway
- Elati South of Ridge
- Ridge @ Prince
- Sterne Parkway
- Broadway @ Weaver

*Countyline @ Phillips and Broadway – replaced with Countyline Road CIP project



BELLEVUE & FEDERAL

- **Scope of Work**

- Replace Storm Sewer
- Replace Junction Boxes
- Repair Street
- Line adjacent pipe

- **Time and Cost Estimates**

- Approx Cost \$850,000
- Road Closures 8-10 weeks



- Out to bid – Construction start Spring 2025

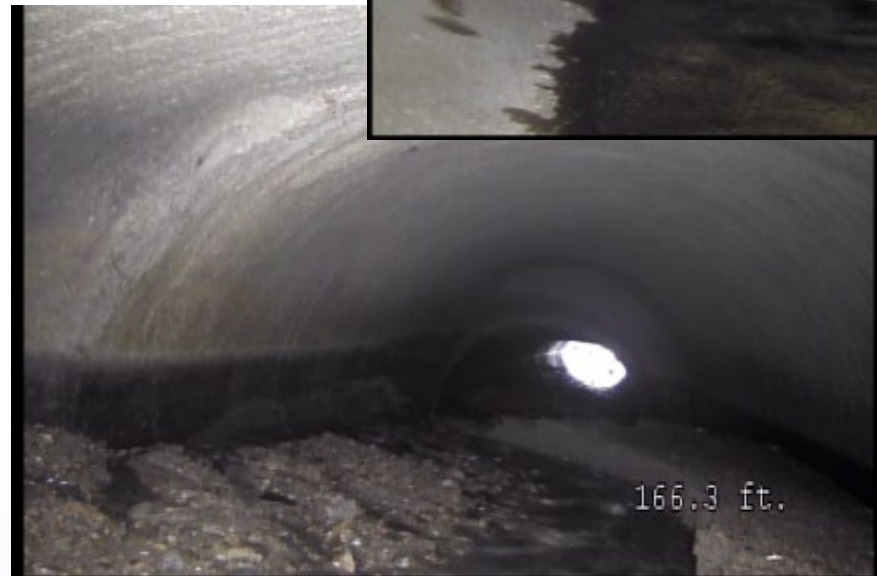
LEE GULCH AT BROADWAY

■ Scope of Work

- Emergency repair to stabilize slope & keep culvert open
- Spot repairs during design
- Sidewalk closure
- Full excavation (30 ft deep)

■ Emergency Repairs

- Approx Cost \$4,000,000
- Time frame 6-9 months
- Partial closure of Broadway
- Construction start March 2025



ELATI SOUTH OF RIDGE

- **Scope of Work**
 - Replace Storm Sewer
 - Repair Street
- **Time and Cost Estimates**
 - Approx Cost \$800,000
 - Road Closures 6-8 weeks
 - Time for summer – major school route
 - Planned - Construction start May 2025



RIDGE AND PRINCE

- Scope of Work
 - Replace 3 Storm Sewers
 - Repair Street
- Time and Cost Estimates
 - Approx Cost \$400,000
 - Road Closures 2-4 weeks
 - Time for summer – major school route
 - Planned – Construction June 2025



STERNE PARKWAY

- **Scope of Work**
 - Replace Storm Sewer
 - Repair Street
- **Time and Cost Estimates**
 - Approx Cost \$600,000
 - Road Closures minimal
 - Potential for lining under Broadway



BROADWAY AT WEAVER

- **Scope of Work**
 - Replace Storm Sewer
 - Repair outfall to HLC
- **Time and Cost Estimates**
 - Approx Cost \$600,000
 - Road Closures minimal
 - Potential for lining under Broadway



HIGH RISK SUMMARY

■ Lee Gulch @ Broadway	\$ 4,000,000
■ Bellevue and Federal	\$ 850,000
■ Elati South of Ridge	\$ 800,000
■ Ridge and Prince	\$ 400,000
■ Sterne Parkway	\$ 600,000
■ Broadway at Weaver	\$ 600,000

Total = \$7,250,000

HIGH PRIORITY & MEDIUM TO HIGH RISK

■ Oakbrook Subdivision	\$ 2,000,000
■ Rafferty Gardens	\$ 750,000
■ Huron @ Progress Park	\$ 500,000
■ Latonka Park @ Lowell	\$ 350,000
■ Arapahoe & Broadway	\$ 250,000

Total = \$3,850,000

PROJECTS ALREADY IDENTIFIED

■ Elati & Euclid	\$ 550,000 (with safer streets project)
■ Countyline Rd – SSPRD	\$ 75,000
■ Lee Gulch @ Charles Emery Park	\$ 100,000
■ Lowell and Wynetka	\$ 250,000
■ Lowell @ Berry	\$ 350,000
■ Trailmark Underdrains	\$ 550,000
■ Drainage Manual Update	\$ 125,000
■ Storm rate study	\$ 150,000 (split \$300k with sanitary)

Total = \$2,150,000

MISC AND UNASSESSED – OTHERS

- 50 miles of other storm sewer & assets in Littleton

- Misaligned
- Cracked
- Visible soil voids
- Manholes, inlets



- New concerns

- Drainage complaints
- Development connections
- Capacity issues
- Flooding



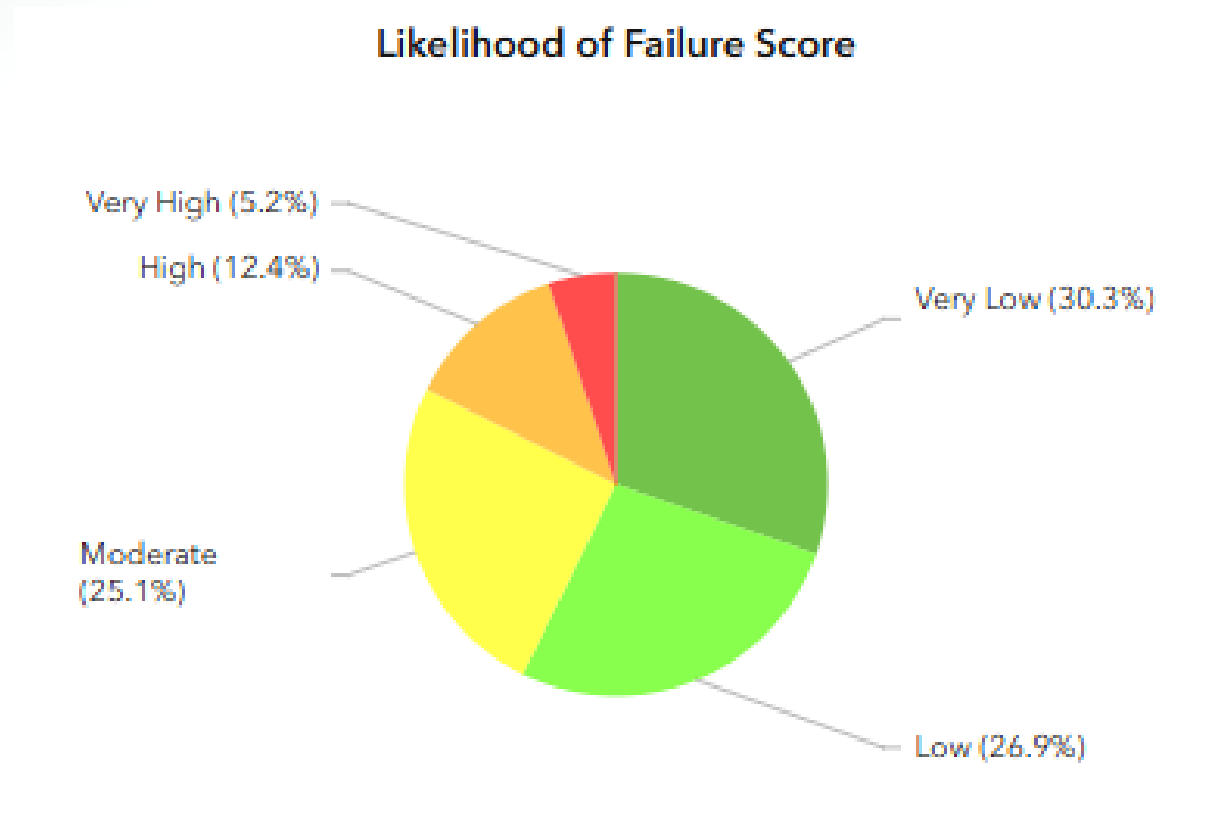
STORMWATER MASTER PLAN - 2023

2023 Littleton completed a Wastewater and Stormwater Master Plan

- Evaluated storm sewer condition and capacity in the City
- Noted areas of elevated flood risks in both major and minor storm events
- 27 immediate projects identified
 - Capacity Issues
 - Slaughterhouse Gulch (multiple areas)
 - Sterne Park
 - Localized Flooding
 - Erickson Blvd
 - Dry Creek & multiple locations
 - 7 residential areas
 - Intersection Flooding:
 - Federal south of Belleview
 - Bowles west of Federal & adjacent residential
 - Belleview at Santa Fe
 - Euclid & Elati
 - Front Range Rd
 - Houston Waring
 - Polo Ridge

STORMWATER MASTER PLAN - 2023

- 17.6% of infrastructure identified as Very High or High risk of failure



INFRASTRUCTURE FUTURE - SUMMARY

- **High Priority**
 - 6 projects high priority
 - \$7,250,000 (does not consider pedestrian underpass option)
- **Future Identified High and Medium Priority**
 - \$6,000,000 identified projects
 - \$10-15,000,000 from Master Plan
- **Miscellaneous CMP not yet assessed or triaged**
 - 3.4 miles
 - Lining estimate \$6,000,000
 - Full Replacement \$18,000,000

Cost of Prevention vs. Cost of Failure

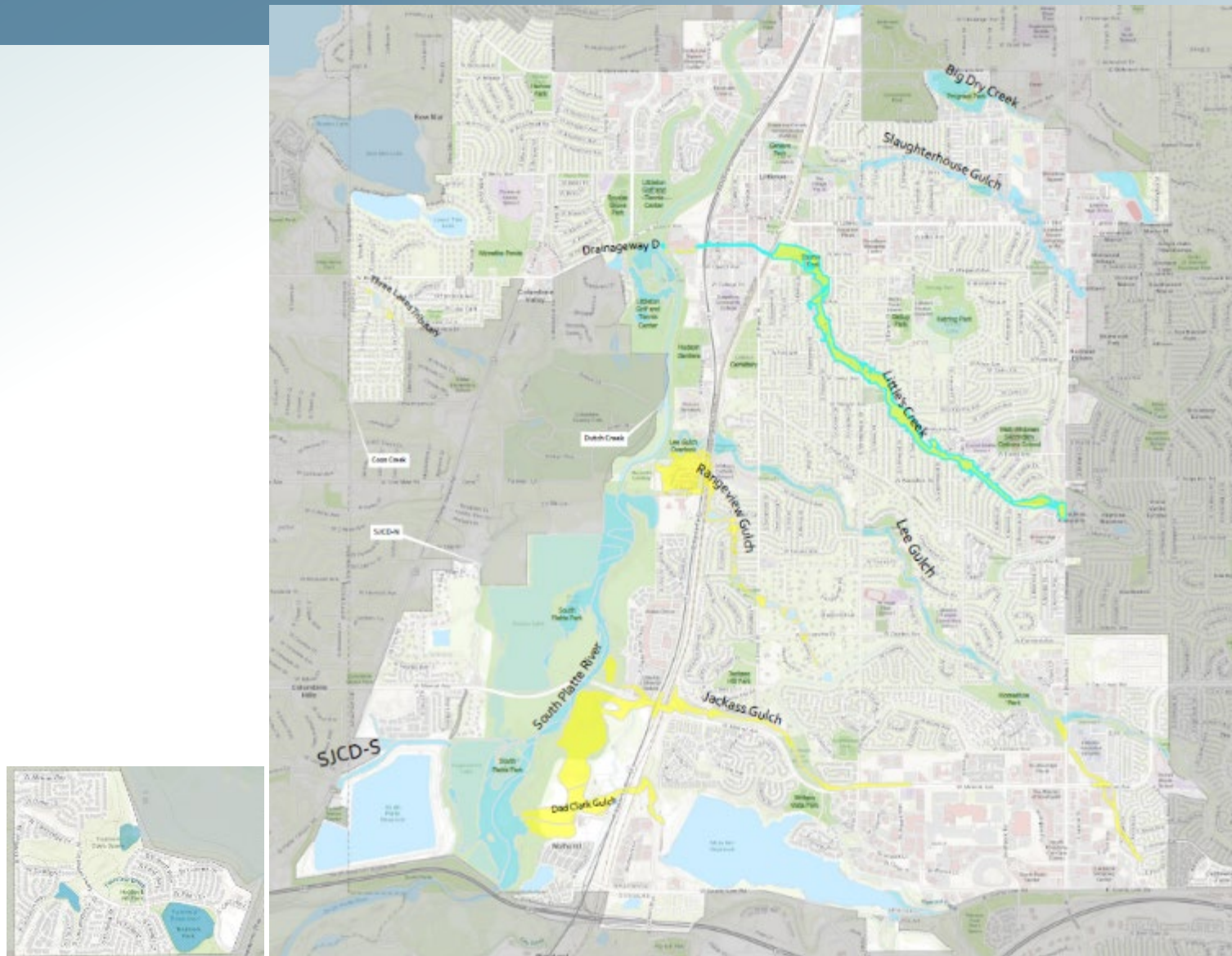
FLOODPLAIN MANAGEMENT

- 1,004 Parcels in the City of Littleton intersect a floodplain
- FEMA Floodplains
 - 818.45 Acres
 - 247 buildings
- Local Floodplains
 - 370.49 Acres
 - 281 buildings

Buildings in FEMA = 247 Total
16 Commercial
101 Garage/Shed
13 Miscellaneous
6 Public
111 Residential

Buildings in MHFD = 281 Total
7 Commercial
122 Garage/Shed
2 Miscellaneous
4 Public
145 Residential
1 Tank

FLOODPLAIN LOCATION MAP



Legend:

-  Local Floodplain
-  FEMA Floodplain

FLOOD MANAGEMENT – MASTER PLANS

City of Littleton in partnership with Mile High Flood District (MHFD) master plan improvements within regulatory floodplains.

Major Drainageway Plans and Flood Hazard Area Delineations

- Jackass Gulch (in process) – last updated 1991
- Slaughterhouse Gulch (2025) – last updated 1992
- Lee Gulch (2026) – last updated 1978
- Little's Creek (2025) – last updated 2012

MHFD pays 50% of MDP and 100% of FHAD. Average COL cost per study \$50,000.

FLOOD MANAGEMENT PROJECTS

- Jackass Gulch Channel Stabilization (in process)
 - Approximate Costs Funding completed \$3,500,000
- Little's Creek at Caley (in process)
 - Approximate Costs \$1,900,000
- Rangeview Gulch (w/Reynolds Landing)
 - Approximate Costs \$1,100,000
- Ridgeview Park/ Detention Basin
 - Approximate Costs \$1.0-7.5 million
- Lee Gulch @ Horseshoe Park
 - Approximate Costs \$1.5 million
- Lee Gulch @ Broadway**
 - Approximate Costs \$8 million
 - MHFD CIP funds to help with Culvert Repairs and includes trail costs

FLOOD MANAGEMENT PROJECTS

- **Highline Canal**
 - Stormwater Transition and Management Plan \$40,000
 - Drainage improvements from STAMP TBD
 - Maintenance \$20,000 / yr
- Reynolds Landing
- Rangeview Gulch outfall
- Various storm improvements
- Grant financing with MHFD, GOCO, SSPRD
 - Other than Rangeview Gulch drainageway improvement – no storm funds encumbered, only staff time

EMERGENCY HIGH PRIORITY PROJECTS

Category (\$ in millions)	2025 Plan	2026 Plan	2027 Plan	Total
Lee Gulch & Broadway ¹	\$1.5			\$1.5
Bellevue & Federal	0.9			0.9
Elati South of Ridge	0.8			0.8
Ridge and Prince	0.4			0.4
Sterne Parkway		0.6		0.6
Broadway at Weaver		0.6		0.6
Oakbrook Subdivision			2.0	2.0
Rafferty Gardens			0.8	0.8
Huron at Progress Park			0.5	0.5
Latonka at Powell			0.4	0.4
Arapahoe at Broadway			0.3	0.3
Total Priority Project Cost	\$3.6	\$1.2	\$3.9	\$8.7

¹Total project cost is \$4.0 million. The City has already contributed \$1.2 million and Mile High Flood District has contributed \$1.2 million

STORM DRAINAGE FUND – REV. VS EXP.

Storm Drainage Fund FY 2021 through FY 2023

(\$ in millions)	2021	2022	2023
Total Revenue	\$2.6	\$2.3	\$2.8
Total Expenditures	\$1.3	\$1.9	\$5.2
Difference	\$1.3	\$0.4	(\$2.4)

- Beginning in 2023, emergency repairs have caused expenditures to exceed revenues
- In 2023, City Council authorized a \$1,100,000 loan from the Sewer Enterprise Fund to help offset emergency repairs.
- Emergency repairs are causing trend to continue

2025 STORMWATER BUDGET

Category	2025 Expenditures (\$ in millions)
Personnel	\$0.6
Operating Expenses	0.2
Professional Services	0.2
Floodplain Projects or Studies	1.0
Projects Programmed for 2025	0.7
<i>High Priority – Lee Gulch & Broadway¹</i>	1.5
<i>High Priority – Belleview & Federal</i>	0.9
<i>High Priority – Elati South of Ridge</i>	0.8
<i>High Priority – Ridge and Prince</i>	0.4
Total Expenditures	\$6.3
Available FY 2025 Budget	\$3.5
FY 2025 Funding Gap	(\$2.8)

- 2025 Funding Gap of \$2.8 million
- Funding gap will create unavailable funds in 2026 and 2027

¹Total project cost is \$4.0 million. The City has already contributed \$1.2 million and Mile High Flood District has contributed \$1.2 million

STORM DRAINAGE FUND W/EMERGENCY PROJECTS

(\$ in millions)	2025 Bud.	2026 Proj.	2027 Proj.	2028 Proj.
Beginning Balance	\$0.5	(\$1.6)	(\$1.6)	(\$3.2)
Total Revenue	\$4.2	\$3.3	\$4.0	\$3.7
Expenditures				
Planned Expenditures	\$2.7	\$1.1	\$1.7	\$1.8
<i>High Priority Projects</i>	\$3.6	\$1.2	\$3.9	
Total Expenditures	\$6.3	\$3.3	\$5.6	\$1.8
Ending Balance	(\$1.6)	(\$1.6)	(\$3.2)	(\$1.3)

- Current revenues cannot cover high priority projects
- Fund will continue to be negative through 2028
- 2025 Rate Study will be conducted but any additional revenue won't be included until 2026 or 2027

GAP FUNDING OPTIONS

State Revolving Funds

- Administered by Colorado Department of Public Health and Environment (CDPHE)
- 8-12 months to qualify
- Limited statewide funding available

Sewer Fund Loan

- Same mechanism used in 2023
- Repayment part of 2025 Rate Study
- Estimated Terms:
 - 7 year repayment beginning 2027
 - Interest – 2.5%
 - Est. Repayment - \$440,987
- Estimated \$16 annual increase to Single Family home

Bank Loan

- Repayment part of 2025 Rate Study
- Estimated Terms:
 - 7 year repayment beginning 2026
 - Interest – 4.5 to over 6.00%
 - Est. Repayment - \$483,896
- At 5.00% interest, over \$300,000 additional payment over 7 years

- Recommend using Sewer Fund Loan for 2025 Projects - \$2.8 million
- Recommend applying for State Revolving Funds for 2026 & 2027 projects - \$5.1 million

SEWER LOAN REPAYMENT - \$4 MILLION

Sewer Fund Five Year Plan with Repayment

	2025 Bud.	2026 Proj.	2027 Proj.	2028 Proj.
Beginning Balance	\$14.0	\$5.7	\$4.7	\$5.0
Revenue				
Sewer Fund Revenue	\$22.7	\$27.2	\$24.0	\$25.6
2023 Storm Repayment		0.2	0.2	0.2
New Storm Repayment			0.4	0.4
Total Revenue	\$22.7	\$27.4	\$24.6	\$26.2
Expenditures				
Total Expenditures	\$28.2	\$28.4	\$24.3	\$23.7
Ending Balance	\$8.5	\$4.7	\$5.0	\$7.5
Loan to Stormwater	(\$2.8)			
Revised Ending Balance	\$5.7			

- For 2025, staff recommends a sewer loan repayment
- Repayment will be included in Stormwater Rate Study
- Rate study will adjust rates based on future repairs

WHAT'S NEXT?

- Stormwater Master Plan (Completed 2023)
- CCTV Assessment & Review
- Triage assets from CCTV review and site inspections
- 2-5 years for replacing or rehab all High Risk infrastructure
- 5-10 years to rehab or replace all medium risk
- Monitor or complete rehab on low risk as needed
- Lining projects to coincide with repairs as budget allows
- Floodplain Management from master plans
- Rate Study

STAFF RECOMMENDATION

1. FY 2025 Emergency Repairs - \$2.8 Million

- Issue an interfund loan from the Sewer Fund to the Storm Fund to begin moving forward
- Repayment will be included in Stormwater Rate Study

2. FY 2026 and FY 2027 Repairs- \$5.1 Million

- Begin process to apply for state revolving funds.
- Application process can take 8-10 months
- Repayment will be included in Stormwater Rate Study

3. Complete a Storm and Sewer Rate Study

- Begin study that would include strategies to repay the loan from the state revolving funds and sewer enterprise fund



QUESTIONS?

LEE GULCH AT BROADWAY

- Pedestrian Underpass
 - Final design to include pedestrian underpass near hospital
 - Additional costs for underpass \$4.0 million

