



Completed by: Joseph Puhr
 Department Head Review: Dan Hartman

Responsible Department: Public Works
 Fund: Drainage Fund #4

Project Name:	Drainage System Replacement				
Brief Description:	Replacement of existing drainage infrastructure at or nearing the end of useful service life.				
Funding Source	Existing Grant Funds Identified for Project	Potential Grant Funds Identified	Funds Identified From Capital Project Fund	Funds Identified From Other Fund (Name)	No Identified Funding
New/Additional Revenue Generated	Significant Ongoing Revenue Source	Small Ongoing Revenue Source	One-Time Revenue Generated	X	
Legally Mandated	Court Decision	Regulatory Requirement	Pending Legal Action	Potential Legal Action	Normal Liability
Public Health & Safety	Existing Severe Hazard	Existing Minor Hazard	Potential Severe Hazard	Potential Minor Hazard	No Health or Safety Issue
Operating Budget Impact	Decreases Operating and/or Personnel Costs	Minimal or No Impact on Operating and/or Personnel Costs	Slight Increase to Operating and/or Personnel Costs	Significant Increase to Operating and/or Personnel Costs	
Environment and Sustainability	Enhances Environment and/or Sustainability	Benefits Environment and/or Sustainability	No Environmental Impact	Minor or Negative Environmental Impact	Diminishes Environment
% Of Population Served	100% of Population Served by Project	Majority of Population Served	Approximately 50% of Population Served	Less than 50% of the Population Served	
Preservation of Facility	Loss of Facility Imminent without Project Completion	Additional Damage Likely without Project Completion	Project Constitutes Normal Major Maintenance	Project Constitutes Normal Minor Maintenance	New Facility/ Safety Issue
Project Useful Life	20+ Years With Little/No Maintenance	20+ Years With Normal Maintenance	10-20 Years With Normal Maintenance	5-9 Years with Normal Maintenance	1-4 Years with Normal Maintenance
Conformity to Strategic Plans & Department Goals	Critical to accomplishing Established Plans / Goals	Assists in Accomplishing Established Plans / Goals	Will Not Assist or Will Hinder Accomplishing Plans / Goals	Recommended by City Council	Recommended by Staff
Recreational or Aesthetic Value	Major Value	Moderate value	No Value	Possibly Detrimental	
Estimated Frequency of Use	Every Day	Several Times per Week	Several Times per Month	Once per Month or Less	

Vision 2030 Guiding Principles Priority - (Choose One Best Fit)

☒ (A) Safe and Reliable Public Infrastructure ☐ (B) Economic Vitality and Community Amenities that Improve Quality of Life ☐ (C) Public Safety ☐ (D) Other

Category of Capital Expenditures - (Choose One Best Fit)

☐ Land Improvement ☐ Building Improvement ☐ Equipment ☐ Vehicle ☐ Technology ☒ Infrastructure

Financial Impact - Expenses

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Project Costs		250,000	200,000	200,000	872,200	899,400	927,800	957,800	1,016,100	1,050,000	1,100,000	7,473,300
On-Going Maintenance												-
Total Project Costs	-	250,000	200,000	200,000	872,200	899,400	927,800	957,800	1,016,100	1,050,000	1,100,000	7,473,300

*Life-to-date includes any actual expenditures from start of project through July 2021 and estimates for the remainder of FY 2021

Basis for Project Cost Estimate

☐ Formal Proposal ☐ Contractor/Engineer Estimate ☐ State Purchasing Co-Op ☒ Staff Estimate

Financial Impact - Revenues

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Revenue Estimate												-

*Life-to-date includes any actual revenue generated from start of project through July 2021 and estimates for the remainder of FY 2021

Project Name:	Drainage System Replacement
Please provide details for the following: 1. Project Description 2. Justification 3. Measure of Success 4. Description of Revenue Generated (if applicable)	<p>Tied to acct# 10-9011-91014. The Drainage System Replacement Program replaces the City's existing drainage infrastructure that has reached or is nearing the end of useful service life. Failing to replace these various pipes, manholes, inlets, etc, would result in areas of the City not draining correctly which could potentially result in altered drainage flows with the possible outcome of localized flooding including the potential of flooding private properties and structures. Further, failure of a main beneath one of our streets could result in the failure of the street and the formation of a sinkhole. Success for this project would be measured by the replacement and extended life of the drainage infrastructure and continued operation that minimizes the risk of localized flooding.</p> <p>The budget request amount was found by taking the amounts of all Storm assets that the City of Golden is responsible for (pipes, inlets, channels, etc...) then dividing by the useful life for that asset type to determine the amount of each asset that needs to be replaced annually. Those amounts were then multiplied by the average cost to replace to determine funding levels.</p> <p>The types of assets involved in the stormwater system are incredibly varied with respect to lifespan and cost. Adding the calculation for each is not practical. An example calculation is provided below along with the end result for each type of asset.</p> <p>Total number of inlets, manholes, outfalls within the storm system is 1878. The average life for these assets is 60 years. Meaning that in order to maintain the system 31 of these assets should be replaced annually. $1878/60 = 31.3$ or 31. The average cost of this asset type is roughly \$6,121.00. $31 \times \\$6,121 = \\$189,751$. The annual replacement costs for the other types of storm assets were similarly calculated and the annual replacement costs are outlined below.</p> <p>Storm Pipe. Annual Replacement Cost \$189,751.00.</p> <p>Storm Channel. Annual Replacement Cost \$42,038.</p> <p>Appurtenances. Annual Replacement Cost \$199,227.00.</p> <p>Drainage System Replacement Annual Cost Total. \$431,016.</p> <p>It should be noted that the replacement costs above do not include ancillary costs associated with this type of construction. For example, the costs of traffic control, asphalt replacement, dewatering, permitting, design, new subsurface utility engineering laws, etc... are all significant additional costs not captured in the amounts outlined above. It is additionally worthy to note that the "Drainage System Replacement Annual Cost Total" line item calculated above does not include Urban Drainage projects. These Urban Drainage partnership projects have historically been significant in cost but have also been proportionally beneficial to the City in the form of large asset replacement and floodplain limit reduction. Note that the funding request in '21 through '23 is lowered to accommodate the Lena Gulch project.</p>
Strategic Action Plan Success Factor(s):	Quality Services & Safe, Inclusive and Engaged
Describe how this project connects to and supports Strategic Action Plan success factor(s) identified above.	<p>This drainage infrastructure replacement effort will ensure that the drainage system continues to operate and does not diminish with respect to level of service. Additionally maintaining the drainage infrastructure would diminish the threat of localized flooding and thereby improve the safety of the City.</p>
List any obstacles for implementation	

Finance Use Only

	Date
Received by Finance Department	
Reviewed by City Manager:	



Completed by: Joseph Puhr
 Department Head Review: Dan Hartman

Responsible Department: Public Works
 Fund: Drainage Fund #5

Project Name:	Local Drainage Improvements				
Brief Description:	This request is for funding to the Local Drainage Improvements Program which is responsible for making new additions to the Drainage System as opposed to replacement of existing infrastructure.				
Funding Source	Existing Grant Funds Identified for Project	Potential Grant Funds Identified	Funds Identified From Capital Project Fund	Funds Identified From Other Fund (Name)	No Identified Funding
New/Additional Revenue Generated	Significant Ongoing Revenue Source	Small Ongoing Revenue Source	One-Time Revenue Generated	No New/Additional Revenue Generated	
Legally Mandated	Court Decision	Regulatory Requirement	Pending Legal Action	Potential Legal Action	Normal Liability
Public Health & Safety	Existing Severe Hazard	Existing Minor Hazard	Potential Severe Hazard	Potential Minor Hazard	No Health or Safety Issue
Operating Budget Impact	Decreases Operating and/or Personnel Costs	Minimal or No Impact on Operating and/or Personnel Costs	Slight Increase to Operating and/or Personnel Costs	Significant Increase to Operating and/or Personnel Costs	
Environment and Sustainability	Enhances Environment and/or Sustainability	Benefits Environment and/or Sustainability	No Environmental Impact	Minor or Negative Environmental Impact	Diminishes Environment
% Of Population Served	100% of Population Served by Project	Majority of Population Served	Approximately 50% of Population Served	Less than 50% of the Population Served	
Preservation of Facility	Loss of Facility Imminent without Project Completion	Additional Damage Likely without Project Completion	Project Constitutes Normal Major Maintenance	Project Constitutes Normal Minor Maintenance	New Facility/ Safety Issue
Project Useful Life	20+ Years With Little/No Maintenance	20+ Years With Normal Maintenance	10-20 Years With Normal Maintenance	5-9 Years with Normal Maintenance	1-4 Years with Normal Maintenance
Conformity to Strategic Plans & Department Goals	Critical to accomplishing Established Plans / Goals	Assists in Accomplishing Established Plans / Goals	Will Not Assist or Will Hinder Accomplishing Plans / Goals	Recommended by City Council	Recommended by Staff
Recreational or Aesthetic Value	Major Value	Moderate value	No Value	Possibly Detrimental	
Estimated Frequency of Use	Every Day	Several Times per Week	Several Times per Month	Once per Month or Less	

Vision 2030 Guiding Principles Priority - (Choose One Best Fit)

☒ (A) Safe and Reliable Public Infrastructure ☐ (B) Economic Vitality and Community Amenities that Improve Quality of Life ☐ (C) Public Safety ☐ (D) Other

Category of Capital Expenditures - (Choose One Best Fit)

☐ Land Improvement ☐ Building Improvement ☐ Equipment ☐ Vehicle ☐ Technology ☒ Infrastructure

Financial Impact - Expenses

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Project Costs		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
On-Going Maintenance												-
Total Project Costs	-	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000

*Life-to-date includes any actual expenditures from start of project through July 2021 and estimates for the remainder of FY 2021

Basis for Project Cost Estimate

☐ Formal Proposal ☐ Contractor/Engineer Estimate ☐ State Purchasing Co-Op ☒ Staff Estimate

Financial Impact - Revenues

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Revenue Estimate												-

*Life-to-date includes any actual revenue generated from start of project through July 2021 and estimates for the remainder of FY 2021

Project Name:	Local Drainage Improvements
Please provide details for the following: 1. Project Description 2. Justification 3. Measure of Success 4. Description of Revenue Generated (if applicable)	The City Drainage System is comprised of storm sewer mains, inlets, ponds, major drainage ways (Tucker Gulch, Kennys Run, Lena Gulch, etc...). The purpose of the drainage system is to convey runoff from rain events downhill through the City in a manner that minimizes flooding issues and maximizes water quality. Localized issues with the Drainage System (storm pipes, inlets, drainage ways, etc...) are identified regularly. Issues such as low points in the gutter that do not drain or lack of adequate collection via inlets. The Local Drainage Improvement Program addresses these issues through the installation of new infrastructure. For example the addition of pipes and inlets to address an area that does not adequately drain and causes issues such as standing water and icing in the cold months, or the addition of a sidewalk chase to collect and safely convey a roof drain underneath a sidewalk to prevent icing and slip issues. This program adds storm infrastructure which will increase future maintenance needs but does not alter existing maintenance budgets. In some instances, not providing the drainage improvements could increase the maintenance costs of other assets, such as sidewalks or asphalt streets, if the assets are subjected to standing water or ice freeze/thaw conditions.
Strategic Action Plan Success Factor(s):	Quality Services & Safe, Inclusive and Engaged
Describe how this project connects to and supports Strategic Action Plan success factor(s) identified above.	This drainage infrastructure replacement effort will ensure that the drainage system continues to operate and does not diminish with respect to level of service. Additionally maintaining the drainage infrastructure would diminish the threat of localized flooding and thereby improve the safety of the City.
List any obstacles for implementation	

Finance Use Only

	Date
Received by Finance Department	
Reviewed by City Manager:	



Completed by: Joseph Puhr
 Department Head Review: Dan Hartman

Responsible Department: Public Works
 Fund: Drainage Fund #8

Project Name:	Lena Gulch Improvements				
Brief Description:	Improvements to Lena Gulch from US of Heritage Rd to C470				
Funding Source	Existing Grant Funds Identified for Project	Potential Grant Funds Identified	Funds Identified From Capital Project Fund	Funds Identified From Other Fund (Name)	No Identified Funding
New/Additional Revenue Generated	Significant Ongoing Revenue Source	Small Ongoing Revenue Source	One-Time Revenue Generated	No New/Additional Revenue Generated	
Legally Mandated	Court Decision	Regulatory Requirement	Pending Legal Action	Potential Legal Action	Normal Liability
Public Health & Safety	Existing Severe Hazard	Existing Minor Hazard	Potential Severe Hazard	Potential Minor Hazard	No Health or Safety Issue
Operating Budget Impact	Decreases Operating and/or Personnel Costs	Minimal or No Impact on Operating and/or Personnel Costs	Slight Increase to Operating and/or Personnel Costs	Significant Increase to Operating and/or Personnel Costs	
Environment and Sustainability	Enhances Environment and/or Sustainability	Benefits Environment and/or Sustainability	No Environmental Impact	Minor or Negative Environmental Impact	Diminishes Environment
% Of Population Served	100% of Population Served by Project	Majority of Population Served	Approximately 50% of Population Served	Less than 50% of the Population Served	
Preservation of Facility	Loss of Facility Imminent without Project Completion	Additional Damage Likely without Project Completion	Project Constitutes Normal Major Maintenance	Project Constitutes Normal Minor Maintenance	New Facility/ Safety Issue
Project Useful Life	20+ Years With Little/No Maintenance	20+ Years With Normal Maintenance	10-20 Years With Normal Maintenance	5-9 Years with Normal Maintenance	1-4 Years with Normal Maintenance
Conformity to Strategic Plans & Department Goals	Critical to accomplishing Established Plans / Goals	Assists in Accomplishing Established Plans / Goals	Will Not Assist or Will Hinder Accomplishing Plans / Goals	Recommended by City Council	Recommended by Staff
Recreational or Aesthetic Value	Major Value	Moderate value	No Value	Possibly Detrimental	
Estimated Frequency of Use	Every Day	Several Times per Week	Several Times per Month	Once per Month or Less	

Vision 2030 Guiding Principles Priority - (Choose One Best Fit)

☒ (A) Safe and Reliable Public Infrastructure ☐ (B) Economic Vitality and Community Amenities that Improve Quality of Life ☐ (C) Public Safety ☐ (D) Other

Category of Capital Expenditures - (Choose One Best Fit)

☐ Land Improvement ☐ Building Improvement ☐ Equipment ☐ Vehicle ☐ Technology ☒ Infrastructure

Financial Impact - Expenses

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Project Costs	1,000,000	750,000	750,000									2,500,000
On-Going Maintenance												-
Total Project Costs	1,000,000	750,000	750,000	-	-	-	-	-	-	-	-	2,500,000

*Life-to-date includes any actual expenditures from start of project through July 2021 and estimates for the remainder of FY 2021

Basis for Project Cost Estimate

☐ Formal Proposal ☐ Contractor/Engineer Estimate ☐ State Purchasing Co-Op ☒ Staff Estimate

Financial Impact - Revenues

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Revenue Estimate												-

*Life-to-date includes any actual revenue generated from start of project through July 2021 and estimates for the remainder of FY 2021

Project Name:	Lena Gulch Improvements
Please provide details for the following: 1. Project Description 2. Justification 3. Measure of Success 4. Description of Revenue Generated (if applicable)	This project has been placed in out years historically. Development of an adjacent project, "Colfax Avenue Complete Street," led to the discovery of some necessary drainage improvements as part of the street corridor project. Specifically the removal of a piped section of Lena Gulch and associated channelization as well as some other area drainage improvements to Lena. The funds indicated above would be the City's portion of the Mile High Flood District's (MHFD, formerly the Urban Drainage Flood Control District) project.
Strategic Action Plan Success Factor(s):	Active, Connected, and Sustainable & Safe, Inclusive and Engaged
Describe how this project connects to and supports Strategic Action Plan success factor(s) identified above.	This drainage improvement will primarily benefit sustainability and safety. Sustainability is benefitted is by the improvements to runoff water quality by reduction of erosion along the channel. Safety is benefitted by reducing the footprint of the 1% flood and reducing the threat to people and property.
List any obstacles for implementation	

Finance Use Only

	Date
Received by Finance Department	
Reviewed by City Manager:	



Completed by: Joe Puhr
 Department Head Review: Dan Hartman

Responsible Department: Public Works
 Fund: Drainage Fund #9

Project Name:	Kinney Run Flood Mitigation, Downtown Golden				
Brief Description:	This project involves an extension of a planned greenway channel being constructed by Molson Coors as part of their major construction project. The project would construct an improved channel for Kinney Run from north of 14th street to 16th Street, greatly reducing the floodplain impacts on the East Downtown area.				
Funding Source	Existing Grant Funds Identified for Project	Potential Grant Funds Identified	Funds Identified From Capital Project Fund	Funds Identified From Other Fund (Name)	No Identified Funding
					X
New/Additional Revenue Generated	Significant Ongoing Revenue Source	Small Ongoing Revenue Source	One-Time Revenue Generated	No New/Additional Revenue Generated	
			X		
Legally Mandated	Court Decision	Regulatory Requirement	Pending Legal Action	Potential Legal Action	Normal Liability
					X
Public Health & Safety	Existing Severe Hazard	Existing Minor Hazard	Potential Severe Hazard	Potential Minor Hazard	No Health or Safety Issue
			X		
Operating Budget Impact	Decreases Operating and/or Personnel Costs	Minimal or No Impact on Operating and/or Personnel Costs	Slight Increase to Operating and/or Personnel Costs	Significant Increase to Operating and/or Personnel Costs	
		X			
Environment and Sustainability	Enhances Environment and/or Sustainability	Benefits Environment and/or Sustainability	No Environmental Impact	Minor or Negative Environmental Impact	Diminishes Environment
		X			
% Of Population Served	100% of Population Served by Project	Majority of Population Served	Approximately 50% of Population Served	Less than 50% of the Population Served	
	X				
Preservation of Facility	Loss of Facility Imminent without Project Completion	Additional Damage Likely without Project Completion	Project Constitutes Normal Major Maintenance	Project Constitutes Normal Minor Maintenance	New Facility/ Safety Issue
					No X
Project Useful Life	20+ Years With Little/No Maintenance	20+ Years With Normal Maintenance	10-20 Years With Normal Maintenance	5-9 Years with Normal Maintenance	1-4 Years with Normal Maintenance
		X			
Conformity to Strategic Plans & Department Goals	Critical to accomplishing Established Plans / Goals	Assists in Accomplishing Established Plans / Goals	Will Not Assist or Will Hinder Accomplishing Plans / Goals	Recommended by City Council	Recommended by Staff
		X			
Recreational or Aesthetic Value	Major Value	Moderate value	No Value	Possibly Detrimental	
		X			
Estimated Frequency of Use	Every Day	Several Times per Week	Several Times per Month	Once per Month or Less	
	X				

Vision 2030 Guiding Principles Priority - (Choose One Best Fit)

☒ (A) Safe and Reliable Public Infrastructure ☐ (B) Economic Vitality and Community Amenities that Improve Quality of Life ☐ (C) Public Safety ☐ (D) Other

Category of Capital Expenditures - (Choose One Best Fit)

☐ Land Improvement ☐ Building Improvement ☐ Equipment ☐ Vehicle ☐ Technology ☒ Infrastructure

Financial Impact - Expenses

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Project Costs			1,200,000	2,500,000	3,000,000							6,700,000
On-Going Maintenance												-
Total Project Costs	-	-	1,200,000	2,500,000	3,000,000	-	-	-	-	-	-	6,700,000

*Life-to-date includes any actual expenditures from start of project through July 2021 and estimates for the remainder of FY 2021

Basis for Project Cost Estimate

☐ Formal Proposal ☐ Contractor/Engineer Estimate ☐ State Purchasing Co-Op ☐ Staff Estimate

Financial Impact - Revenues

	Life-To-Date*	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Revenue Estimate			600,000	1,250,000	1,500,000							3,350,000

*Life-to-date includes any actual revenue generated from start of project through July 2021 and estimates for the remainder of FY 2021

Project Name:	Kinney Run Flood Mitigation, Downtown Golden
Please provide details for the following: 1. Project Description 2. Justification 3. Measure of Success 4. Description of Revenue Generated (if applicable)	In conjunction with the Mile High Flood Control District, this project would reduce flood risk to much of downtown and improve the operations and aesthetics of this major community drainageway. By extending a channel to be constructed by Molson Coors starting in 2021, Golden has the opportunity to greatly benefit downtown properties and encourage responsible redevelopment of the most significant part of downtown for any future change. In addition to Mile High Flood Control District, the DDA is a potential partner.
Strategic Action Plan Success Factor(s):	Active, Connected, and Sustainable & Safe, Inclusive and Engaged
Describe how this project connects to and supports Strategic Action Plan success factor(s) identified above.	This drainage improvement will primarily benefit sustainability and safety. Sustainability is benefitted is by the improvements to runoff water quality by reduction of erosion along the channel. Safety is benefitted by reducing the footprint of the 1% flood and reducing the threat to people and property.
List any obstacles for implementation	

Finance Use Only

	Date
Received by Finance Department	
Reviewed by City Manager:	