

2021 5-YEAR CIP PLAN



CITY AND COUNTY OF

**BROOMFIELD
COLORADO**



2021 5-YEAR CAPITAL
IMPROVEMENT PROJECT PLAN

CITY AND COUNTY OF BROOMFIELD, COLORADO
2021 BUDGET
5-YEAR CAPITAL IMPROVEMENT PLAN
TABLE OF CONTENTS

Introduction 1
Summary of 5-Year Plan 10

Project Details

Building and Facilities 41
Information Technology 88
Landscaping 106
Open Space & Trails 114
Parks & Recreation Facility 148
Transportation 203
Vehicles & Other Equipment 263
Planning, Administration, & Other Projects 264
Water Fund 268
Sewer Fund 285
Reuse Fund 335

5-YEAR CAPITAL IMPROVEMENT PLAN OVERALL SUMMARY



Capital Improvement Program

The Capital Improvement Program (CIP) budget is the result of careful planning and use of the 2016 City and County Comprehensive Plan, the Long Range Financial Plan (LRFP), and collaboration between citizen committees and department staff. The CIP primarily focuses on the next five years, but also includes details for the next 20 years, in addition to the projects that have been identified beyond the 20-year scope.

The plan includes capital rehabilitation and asset replacement needs, in addition to desires for new amenities and expanded and new facilities. The plan assists with forecasting needs for enhanced capital revenues, such as bond funding, to meet large infrastructure needs.

Capital Improvement Budget Policies

- The City and County will project its equipment replacement and maintenance schedule needs for the next five years and will update this projection annually. From this projection, a maintenance and replacement schedule will be developed and followed.
- The City and County will develop a multi-year plan for capital improvements, including CIP design, development, implementation, and operating and maintenance costs.
- A capital project is defined as a project with a useful life greater than two years and a cost equal to or greater than \$10,000. Projects not meeting these criteria are generally funded in operating budgets.
- Equipment will be included in the Capital Budget if it is a replacement of a current asset with a cost equal to or greater than \$5,000. New equipment, regardless of the cost, and replacement of equipment costing less than \$5,000 are generally funded in operating budgets.

The Budget Development Process: begins at the start of the fiscal year, which coincides with the calendar year, for the next year's budget. Current revenues and capital project expenditures are closely analyzed to determine if projections are accurate. This process allows for any possible excess project funding to be reduced and programmed into the next year's budget. The current year budget is generally amended to appropriate prior-year projects that are in progress and release any funding no longer required.

The CIP staff begins its qualitative review of a project with the use of a project evaluation form. This form is a decision-making tool that assists in the recommendation of projects. The evaluation primarily focuses on the needs of the community and progress towards Broomfield goals. Staff considers how the project will impact the community, how it fits within the Comprehensive Plan and Long Range Financial Plan, and how the construction costs compare to the end benefit. Projects are also weighted higher if they meet at least one of the following criteria:

- Health and welfare of Broomfield's citizens
- Safety conditions for Broomfield's staff
- Asset protection - to prevent increased future cost
- Opportunity cost - such as grant or joint projects with other entities

Once a project is accepted, the CIP staff proceeds with a more in-depth analysis by considering the following factors:

- If this is a replacement of a current asset, are the expenditures necessary to continue providing the same level of service?
- Will the replacement reduce operating costs? For example, will the cost of labor, materials or other items, such as electricity, be lowered by replacing obsolete equipment?
- What are the future service demands, and will this project be able to meet those demands?
- Is this project required to comply with safety or environmental mandates?

The CIP staff also reviews the estimated cost to ensure it is projected at a reasonable cost. Once a project reaches this point, it is then categorized within one (1) of the twelve (12) categories and added to the Capital Plan. Projects are then compared within each category and prioritized to like-kind projects. The twelve categories include: Facilities, Information Technology, Landscaping, Open Space and Trails, Parks and Recreation, Transportation, Vehicles and Equipment Replacement, Planning and Administration, Drainage and StormWater, Water, Sewer, and Water Reclamation.

In some cases, such as Open Space and Trails, citizen committees help prioritize the projects within the category. In other cases, staff prioritizes the projects based on need, value to the community, availability of funding source, and other factors. CIP staff also complete alternative analyses, whenever possible. The benefit of this analysis is to ensure that construction costs do not outweigh the benefits of the project.

Capital Budget Calendar: are important dates for the development of the capital budget, listed in the table below. Due to the Coronavirus (COVID-19) pandemic in 2020, the development of capital budget aligned with operating budget development and was delayed to account for a detailed forecast of anticipated revenues.

March	Citizens and Committees Submit Capital Project Ideas to Staff
April	CIP Staff Evaluates Current Year Projects and Develops Future Projects
April-May	Budget and CIP Staff Review Requests
July-August	Collaboration occurs to Prioritize Projects
September	Review Draft Budget with Council Council Provides Direction on Priorities Staff Present Public Workshop to Obtain Comments
October	Proposed Budget is Available for Review Public Hearing held on Proposed Budget
December	Council Adopts Budget

CIP Fund Summaries

The Sales and Use Tax Capital Improvement Fund: was established to account for the deposit of a portion of sales and use tax revenues collected and dedicated for capital improvements. One-third of Broomfield's 3.5% city sales and use tax collected is earmarked for capital improvements and other capital costs such as studies, planning, consulting, engineering, legal, and financing. The asset replacement fund is a sub fund created to provide for the replacement of existing capital equipment items within the General Government type funds, while Enterprise fund items are budgeted within the appropriate Enterprise fund.

Sales and Use Tax Capital Improvements Fund						
	Actual 2019	Original Budget 2020	Revised 2020	Budget 2021	% Change 2020 Original v 2021	% Change 2020 Revised v 2021
Beginning Balance	\$ 94,148,028	\$ 4,913,270	\$ 62,574,276	\$ 19,534,306	297.58%	-68.78%
Revenues	47,705,145	35,123,464	42,950,826	32,549,003	-7.33%	-24.22%
Interfund Activity	1,344,807	2,611,683	2,611,683	313,684	-87.99%	-87.99%
Total Sources of Funds	\$ 143,197,980	\$ 42,648,417	\$ 108,136,785	\$ 52,396,993	22.86%	-51.55%
Expenditures	\$ 68,822,061	\$ 28,270,120	\$ 75,939,620	\$ 39,139,219	38.45%	-48.46%
Interfund Activity	8,166,964	8,628,413	8,651,262	8,658,265	0.35%	0.08%
Transfer to Reserves	3,634,679	2,767,396	4,011,597	500,000	-81.93%	-87.54%
Total Uses of Funds	\$ 80,623,704	\$ 39,665,929	\$ 88,602,479	\$ 48,297,484	21.76%	-45.49%
Ending Balance	\$ 62,574,276	\$ 2,982,488	\$ 19,534,306	\$ 4,099,509	37.45%	-79.01%

The Sales and Use Tax Fund also accumulates funds each year for the financing of large projects in a facilities reserve fund. These funds are allocated for facilities improvements, asset protection and transportation projects, such as the new Service Center building in 2020. In addition to these reserves, \$17,000,000 was set aside in a debt service sinking fund to assist in repayment of the 2017 bonds. The sinking fund is budgeted to be fully utilized by the end of 2020.

Sales and Use Tax Capital Improvements Reserves						
(Allocation for Asset Protection and Facilities Improvements)						
	Actual 2019	Original Budget 2020	Revised 2020	Budget 2021	% Change 2020 Original v 2021	% Change 2020 Revised v 2021
Beginning Balance	\$ 23,468,866	\$ 6,459,088	\$ 14,432,559	\$ 13,820,685	113.97%	-4.24%
Additions	3,634,679	2,767,396	4,011,597	500,000	-81.93%	-87.54%
Uses	12,670,986	1,350,000	4,623,471	1,000,000	-25.93%	-78.37%
Ending Balance	\$ 14,432,559	\$ 7,876,484	\$ 13,820,685	\$ 13,320,685	69.12%	-3.62%

The Services Expansion Fee (SEF) Fund: was established to account for the deposit of SEF revenues collected by the City. In 1995, the City began imposing an excise tax of \$1.00 per square foot of new residential construction. The purpose of this fee is to provide funds for future capital costs associated with residential growth. In practice, Broomfield has designated 50% of SEF revenues to be used to fund joint-use educational/municipal facilities in cooperation with the school districts that serve Broomfield. The remaining 50% of SEF revenues are used to fund capital improvements benefiting the residential area paying the fee, such as arterial roadways, parks, community facilities, traffic signals, etc.

Service Expansion Fee (SEF) Fund						
	Actual 2019	Original Budget 2020	Revised 2020	Budget 2021	% Change 2020 Original v 2021	% Change 2020 Revised v 2021
Beginning Balance	\$ 7,444,155	\$ 8,282,313	\$ 8,338,541	\$ 7,657,128	-7.55%	-8.17%
Revenues	1,618,395	1,832,200	2,134,757	1,407,368	-23.19%	-34.07%
Interfund Activity	-	-	-	-	NA	NA
Total Sources of Funds	\$ 9,062,550	\$ 10,114,513	\$ 10,473,298	\$ 9,064,496	-10.38%	-13.45%
Expenditures	\$ 180,006	\$ 1,256,808	\$ 2,343,470	\$ 22,000	-98.25%	-99.06%
Interfund Activity	544,003	657,850	472,700	585,000	-11.07%	23.76%
Total Uses of Funds	\$ 724,009	\$ 1,914,658	\$ 2,816,170	\$ 607,000	-68.30%	-78.45%
Ending Balance	\$ 8,338,541	\$ 8,199,855	\$ 7,657,128	\$ 8,457,496	3.14%	10.45%

The Development Agreement Capital Improvements Fund: allows for the City to structure future revenues to meet development obligations, but only as the revenues are earned in development agreements. If revenues are not earned from the sources outlined in the agreements, the City is not obligated to fund the expenditures from other sources. The Development Agreement Fund was established to account for these contractual obligations. A development agreement is an agreement entered into between the City and a developer designed to:

1. Share the cost of infrastructure improvements with the developer, so that Broomfield is not solely paying for these improvements, or
2. Provide incentives for the developer to do business in Broomfield, in the form of reimbursed sales, use, or property tax generated by the new development.

Development Agreements enable Broomfield to promote and protect its sales tax base. The total expected obligations to be repaid through these future revenues are summarized in the table below.

Outstanding Development Obligations	
	Actual 2019
Total Estimated Obligation	\$ 390,705,116
Cumulative Payments as of 2019	172,804,332
Preliminary Actual Payment in 2020	12,896,443
Estimated Payment in 2021	12,811,498
Total Estimated Obligation as of 12/31/2021	\$ 192,192,843

The Conservation Trust Fund: was established to account for the deposit of Colorado Lottery proceeds, which the State shares with city and county governments. Proceeds can be used for the acquisition, development, and maintenance of new conservation sites and capital improvements or maintenance for recreational purposes on any public sites.

Conservation Trust Fund						
	Actual 2019	Original Budget 2020	Revised 2020	Budget 2021	% Change 2020 Original v 2021	% Change 2020 Revised v 2021
Beginning Balance	\$ 1,474,545	\$ 684,838	\$ 1,533,898	\$ 1,478,785	115.93%	-3.59%
Revenues	816,707	751,400	760,318	755,631	0.56%	-0.62%
Total Sources of Funds	\$ 2,291,252	\$ 1,436,238	\$ 2,294,216	\$ 2,234,416	55.57%	-2.61%
Expenditures	\$ 757,354	\$ 950,100	\$ 815,431	\$ 1,048,156	10.32%	28.54%
Interfund Activity	-	-	-	-	NA	NA
Total Uses of Funds	\$ 757,354	\$ 950,100	\$ 815,431	\$ 1,048,156	10.32%	28.54%

The Open Space and Park Land Fund: accounts for sales and use tax revenues earmarked for capital improvements related to open space and park land. In 2021, Open Space and Park Land Fund sales and use tax revenues are estimated at \$4,341,444 based on a sales tax rate of 0.25%. The designation for open space projects is 80%, while 20% remains designated for park land and recreation facility projects.

Open Space and Park Land Fund						
	Actual 2019	Original Budget 2020	Revised 2020	Budget 2021	% Change 2020 Original v 2021	% Change 2020 Revised v 2021
Beginning Balance	\$ 4,214,877	\$ 1,386,274	\$ 6,452,494	\$ 4,975,375	258.90%	-22.89%
Revenues	5,352,228	4,941,501	5,127,327	4,429,030	-10.37%	-13.62%
Interfund Activity	-	-	22,848	-	NA	-100.00%
Intra-Fund Activity	-	-	-	-	NA	NA
Total Sources of Funds	\$ 9,567,105	\$ 6,327,775	\$ 11,602,669	\$ 9,404,405	48.62%	-18.95%
Expenditures	\$ 1,888,291	\$ 3,463,112	\$ 5,515,330	\$ 2,280,915	-34.14%	-58.64%
Lease/Purchase Payments	-	-	-	-	NA	NA
Transfer to Reserves	33,131	-	11,878	12,235	100.00%	3.01%
Total Uses of Funds	\$ 3,114,611	\$ 4,563,198	\$ 6,627,294	\$ 2,606,834	-42.87%	-60.67%

Expenditures by Category

The CIP expenditures by category are summarized in the following chart. As illustrated, substantial projects have been completed in the last five years. Projects scheduled in 2020 and 2021 are detailed in the subsequent capital program pages.

CITY AND COUNTY OF BROOMFIELD 5-YEAR CAPITAL PROJECT EXPENDITURES

Capital Improvement Projects	2017 Actual	2018 Actual	2019 Actual	2020 Revised Budget	2021 Budget
Building & Facilities	1,548,983	5,351,528	13,758,176	6,620,171	2,777,383
Drainage & Storm Water	37,950	50,485	23,261	144,582	125,078
Information Technology	3,308,542	1,538,853	1,283,224	2,057,675	2,035,798
Landscaping	469,578	707,382	914,348	1,368,814	983,197
Open Space and Trails	1,132,944	1,295,014	2,346,119	4,998,787	940,718
Parks and Recreation	4,383,508	13,335,403	27,862,892	19,735,945	8,699,426
Transportation System	14,949,980	14,060,988	18,485,132	42,247,640	22,532,983
Vehicle & Other Equipment	2,063,618	1,724,519	1,965,202	1,271,398	2,389,819
Development Agreements	7,378,097	8,748,854	9,451,046	8,793,524	8,763,155
Planning, Admin, & Other	1,752,635	605,992	891,850	1,609,614	1,816,000
Public Art - 1% Allocation	81,745	82,011	63,955	502,142	189,888
Water Fund	7,556,599	5,478,925	20,008,143	44,338,194	22,110,395
Sewer Fund	6,571,688	2,761,710	6,609,214	26,803,434	17,766,232
Water Reclamation Fund	302,422	686,290	107,062	1,767,358	1,734,213
TOTAL	51,538,289	56,427,954	103,769,624	162,259,278	92,864,285

Recurring Capital Expenditures

The CIP budget includes many projects that are classified as recurring capital expenditures. These expenditures are defined by Government Finance Officers Association (GFOA) as 1) costs that are included in almost every budget and 2) costs that will have no significant impact on the operating budget. The chart below lists the recurring capital expenses by category.

Capital Improvement Projects	Actual 2019	Revised Budget 2020	Estimate 2021
Building & Facility Projects			
Asset Replacement & Refurbishment Fund			
Building Repairs - Citywide	\$ 129,807	\$ 133,414	\$ 113,000
Floor Covering Replacement - Citywide	198,000	-	103,000
HVAC Systems Rehabilitation - Citywide	79,718	83,845	100,000
Parking Lot Repair/Replacement - Citywide	-	-	304,704
Total Building & Facility Projects	\$ 407,525	\$ 217,259	\$ 620,704
Drainage & Storm Water Projects			
Capital Improvements Fund			
Culvert and Small Bridge Inspections - Citywide	\$ -	\$ 62,660	\$ -
Erosion Control Maintenance - Citywide	-	10,500	10,500
FEMA - Letters of Map Revision	9,520	17,000	17,000
Park Drainage Improvements - Citywide	13,741	4,422	47,578
Residential Street Drainage Improvements - Citywide	-	50,000	50,000
Total Drainage & Storm Water Projects	\$ 23,261	\$ 144,582	\$ 125,078
Information Technology Projects			
Asset Replacement & Refurbishment Fund			
IT - PC Equipment Tech Refresh	\$ 380,680	\$ 303,946	\$ 526,000
IT - Network Hardware/Telecom Replacement - Citywide	53,108	126,852	30,000
Total Information Technology Projects	\$ 433,788	\$ 430,798	\$ 556,000
Landscaping Projects			
Open Space & Parks Fund			
Irrigation Replacements - Citywide	\$ 102,640	\$ 148,780	\$ 340,268
Park Landscape Improvements - Citywide	81,571	30,000	188,429
Shrub Replacement - Citywide	14,741	25,259	80,000
Tree Replacement - Citywide	114,980	-	258,500
Total Landscaping Projects	\$ 313,932	\$ 204,039	\$ 867,197
Open Space Projects			
Open Space & Parks Fund			
Metzger Open Space - Acquisition Payments to Foundation	\$ 276,959	\$ 275,502	\$ 271,508
Metzger Open Space - Administration and Maintenance	30,000	65,000	35,000
Mitchem Property - Environmental Insurance Payment	5,906	-	-
Open Space - Due Diligence Services	168,488	60,000	60,000
Open Space and Trails Misc. Improvements - Citywide	19,199	51,000	6,000
Open Space and Trails Signage & Kiosks - Citywide	40,004	174,909	30,000
Trail Improvements - Citywide	-	-	72,210
Wildlife Research and Monitoring	-	149,000	45,000
Total Open Space Projects	\$ 540,556	\$ 775,411	\$ 519,718
Planning and Administration			
Prairie Dog Management	\$ 17,783	\$ 15,000	\$ 14,000
Total Planning and Administration	\$ 17,783	\$ 15,000	\$ 14,000
Parks & Recreation Facility Projects			
Capital Improvements Fund			
Parks - Water Reclamation Tap Payments	\$ 516,915	\$ 785,820	\$ 785,820

Capital Improvement Projects	Actual 2019	Revised Budget 2020	Estimate 2021
Parks & Recreation Facility Projects			
Asset Replacement & Refurbishment Fund			
Parks - Concrete Replacement and Maintenance	-	120,000	163,000
Conservation Trust Fund			
Playground Improvements - Citywide	159,727	70,273	-
Pool Accessory Equipment Replacement - All City Pools	10,965	14,000	14,000
Open Space & Parks Fund			
Playground Improvements - Citywide	124,194	375,130	230,000
Total Parks & Recreation Facility Projects	\$ 811,801	\$ 1,365,223	\$ 1,192,820

Transportation System Projects			
Capital Improvements Fund			
Bike and Pedestrian Striping Modifications - Citywide	\$ 48,216	\$ 50,000	\$ 50,000
Bicycle and Pedestrian Wayfinding Signs - Citywide	-	19,583	10,000
Pedestrian Bridge and Underpass Repairs	-	-	100,000
Sidewalk Connections - Citywide	10,604	100,000	100,000
Street Light Installation - Citywide	-	22,000	22,000
Traffic Mitigation - Citywide	191,435	160,000	160,000
Traffic Signal Upgrades - Citywide	190,093	104,898	148,630
Transportation Studies - Citywide	74,114	100,000	100,000
Asset Replacement & Refurbishment Fund			
Bridge Inspections and Repairs - Citywide	23,140	68,000	68,000
City-Owned Concrete Replacement (Streets)	240,893	203,000	217,000
Concrete Curb Ramp Replacement - Citywide	52,059	80,000	85,000
Pavement Management/Street Sealing Program - Citywide	3,844,178	1,152,520	6,000,000
Residential Concrete Rebate Program	74,934	80,000	80,000
Traffic Signal & Light Pole Replacement - Citywide	93,922	210,000	258,000
Services Expansion Fee Fund			
School Safety Program	22,000	22,000	22,000
Total Transportation System Projects	\$ 4,865,588	\$ 2,372,001	\$ 7,420,630

Vehicles, Other Equipment and Furniture			
Asset Replacement & Refurbishment Fund			
Facilities - Office Furniture and Equipment Replacement	\$ 43,927	\$ 66,899	\$ 85,200
Non-Mobile Equipment Replacement - Citywide	82,644	388,200	-
Recreation - Indoor Playground Equipment Replacement	-	-	166,065
Recreation & Auditorium - Electronic Audio/Video Equipment Replacement	102,703	41,242	32,303
Recreation & Police - Fitness Equipment Replacement	100,407	52,827	306,200
Vehicle and Mobile Equipment Replacement - Citywide	1,635,521	722,230	1,549,840
Total Vehicles, Other Equipment and Furniture	\$ 1,965,202	\$ 1,271,398	\$ 2,139,608

Community Development Projects			
Development Agreements Fund			
<i>Anthem</i>			
Infrastructure Public Improvements	\$ 988,948	\$ 589,476	\$ 812,478
<i>Arista</i>			
Infrastructure Public Improvements	413,991	316,679	581,565
<i>Broadlands</i>			
Street Improvements	7,089	6,500	7,000
<i>Flatirons Market Place</i>			
Repayment to Metro District	284,670	179,486	167,859
<i>Lambertson Farm</i>			
Reimbursement for Public Infrastructure	1,159,596	1,231,856	1,231,856
<i>Macerich</i>			
Infrastructure Public Improvements	192,288	111,944	117,541

Capital Improvement Projects	Actual 2019	Revised Budget 2020	Estimate 2021
Community Development Projects			
<i>Community Development Projects</i>			
<i>MidCities (Main Street)</i>			
Payment to Metro District	2,653,944	2,100,987	2,111,492
<i>Parkway Circle</i>			
Reimbursement Developer for Improvements	325,230	230,037	231,456
<i>General Development Reimbursements</i>			
Allocation to BURA	307,466	915,636	239,363
<i>Revenue Allocation to BURA</i>			
Allocation to BURA	3,117,824	3,110,770	3,262,545
Total Community Development Projects	\$ 9,451,046	\$ 8,793,371	\$ 8,763,155
Water Utility Projects			
<i>Water Utility Projects</i>			
Raw Water - Purchases, Transmission, & Reservoirs			
Windy Gap - Payment Of Broomfield's Share of Water Lease	\$ 2,940,444	\$ 26,676,033	\$ 11,762,050
Total Raw Water Projects	\$ 2,940,444	\$ 26,676,033	\$ 11,762,050
Planning & Administration			
Anthem Infrastructure Reimbursement	\$ 26,828	\$ -	\$ -
Water Fund - Master Plan Updates/ Hydraulic Model	14,188	75,951	25,000
Total Planning & Administration	\$ 41,016	\$ 75,951	\$ 25,000
Total Water Utility Capital Improvements	\$ 2,981,460	\$ 26,751,984	\$ 11,787,050
Sewer Utility Projects			
<i>Sewer Utility Projects</i>			
Planning & Administration			
Developer Reimbursement - Anthem Infrastructure License Fee Credits	\$ 177,390	\$ 601,155	\$ 274,845
Developer Reimbursement - South Sewer Outfall (Arista area) Old Wadsworth Blvd. to State HWY 121	34,459	14,000	31,387
Total Planning & Administration	\$ 211,849	\$ 615,155	\$ 306,232
Total Sewer Utility Capital Improvements	\$ 211,849	\$ 615,155	\$ 306,232
Water Reclamation Utility Projects			
<i>Water Reclamation Utility Projects</i>			
Utilities Planning & Administration			
Public Works - Engineering and Legal Services - General	\$ 105,042	\$ 67,358	\$ 80,000
Total Utilities Planning & Administration Projects	\$ 105,042	\$ 67,358	\$ 80,000
Total Water Reclamation Utility Capital Improvements	\$ 105,042	\$ 67,358	\$ 80,000
Planning, Administration & Other Expenditures			
<i>Planning, Administration & Other Expenditures</i>			
Capital Improvements Fund			
Adams 12 STEM School - (Joint Use/Library)	\$ -	\$ -	\$ 1,000,000
Asset Protection Fund Projects- Citywide	-	50,000	50,000
Citizen/Council Priority Projects - Citywide	-	25,000	25,000
CMO Project Requests	-	800,000	100,000
Enhance Broomfield Program	135,886	665,714	100,000
Neighborhood Grant Program - Citywide	3,357	10,000	10,000
Total Planning, Administration & Other Expenditures	\$ 139,243	\$ 1,550,714	\$ 1,285,000
Public Art & Cultural Projects			
<i>Public Art & Cultural Projects</i>			
Capital Improvements Fund			
Public Art - 1% Funding	\$ 63,955	\$ 502,142	\$ 189,888
Public Art - Collection Maintenance	-	-	31,000
Total Public Art & Cultural Projects	\$ 63,955	\$ 502,142	\$ 220,888
Total Capital Improvement Projects	\$ 22,332,031	\$ 45,076,435	\$ 35,898,080

Major Non-Recurring Projects

The Government Finance Officers Association (GFOA) defines the classification of major non-recurring capital expenditures as projects that are infrequent and have a specific and significant impact upon current and future years. Some examples of significant costs are where the project would:

1. require an increase in the tax rate, or
2. result in a large financial operating cost in future years, or
3. require additional full time equivalents (FTEs).

Each major non-recurring project is described in detail on the following project pages. These pages have the following information:

- **Title Bar:** Lists the category, project title, and project code and the total project cost for all years.
- **Project Code:** Unique identifier. For example, Project Code 21N0035, representing the 149th Avenue (Silverleaf) Street Improvements was funded in 2021.
 - First two digits represent the year the project was first funded.
 - The next letter identifies the year the project was added to the CIP list.
 - The last four digits represent the numerical order the project was added to the list, starting over each year.
 - The chart below indicates the meaning of the letter codes:

Year Project First Appeared on CIP Plan			
OA = Recurring Project			
Z = 2006 and older years			
A = 2007	E = 2011	J = 2015	N = 2019
B = 2008	F = 2012	K = 2016	P = 2020
C = 2009	G = 2013	L = 2017	Q = 2021
D = 2010	H = 2014	M = 2018	

- **Project Description:** Brief description of each project.
- **Photo/Map:** A photo or map has been included, if available.
- **Background and Justification:** Describes the conditions leading to the necessity of the request and how it fits in with Broomfield’s master planning and/or Council priorities.
- **Problem to be Solved and/or Benefit to Citizens:** Explains why this project is needed. What existing problems will it solve? Will it improve efficiency? How will the citizens benefit from this project?
- **Alternatives/Consequences if not Funded:** Describes any alternative that may have been considered, and if there will be consequences if the request is not funded.
- **Project Association:** Provides general information about the project and its impact on other capital projects.
- **Operating Budget Impact:** Estimates the impact this project will have on the Operating Budget. Staff continues to develop standard operating costs for each type of project. For example, determining a standard trail maintenance cost per foot of trail that will be developed allows for that standard cost to be applied to new trails added by the project.
- **Funding Source/Project Budget by Year:** Indicates the fund the project will be paid from, the prior year actual cost, current budget, and future estimated cost to complete the project.

2021-2025 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Building and Facilities # 70010														
Projects Currently in 5-Year Plan														
New Capital Projects														
1	18M0053	AR	City and County Building - Community Development Space Analysis and Reconfiguration	315,000	10,245	122,765	165,000	0	0	181,990	0	0	0	0
2	19N0020	CIP	City and County Building - Reconfiguration	150,000	0	2,830	0	0	147,170	0	0	0	0	0
3	Q0008	CIP	City and County Building - Second Floor Space Utilization and Reconfiguration	526,746	0	0	0	0	0	526,746	0	0	0	0
4	20P0058	CIP	Electric Vehicle Charging Station - Citywide	60,000	0	0	60,000	30,000	30,000	0	0	0	0	0
5	18M0052	CIP	IT Network Closet Badge Readers - Citywide	43,076	36,826	6,250	0	0	0	0	0	0	0	0
6	18N0042	SEF	Jefferson Academy Expansion - Joint Use	1,150,000	1,000,000	0	0	150,000	0	0	0	0	0	0
7	20H0029	CIP	Library/Auditorium - Children's Library Extension	0	0	0	87,000	0	0	0	0	0	0	0
8	18M0054	CIP	Library/Auditorium - Master Plan	175,000	22,975	14,525	0	137,500	0	0	0	0	0	0
9	20N0005	CIP	Library/Auditorium - Roof Top Unit Replacement and VAV Upgrades	460,900	0	0	475,900	0	460,900	0	0	0	0	0
10	20P0006	CIP	Library/Auditorium - Staff Workroom and Auditorium, Office Reconfigurations	26,054	0	0	82,600	26,054	0	0	0	0	0	0
11	18M0039	CIP	Lowell House Demolition	47,365	1,543	38,422	0	7,400	0	0	0	0	0	0
12	20P0005	CIP	Police/Courts - Investigations Space Reconfiguration	158,330	0	0	158,330	158,330	0	0	0	0	0	0
13	09C0005	CIP	Police/Courts - Police Vehicle Lot Security Fencing	250,000	0	0	0	250,000	0	0	0	0	0	0
14	16L0026	CIP	Police/Detention Center - HVAC Equipment Expansion	1,024,947	942,422	82,525	0	0	0	0	0	0	0	0
15	18M0047	CIP	Police/Detention Center - Security Gates	48,386	0	0	0	48,386	0	0	0	0	0	0
16	17L0022	CIP	Police/Range - Firearms Range Safety Improvements	1,211,000	0	0	0	0	161,000	0	0	0	1,050,000	0
17	18N0034	CIP	Service Center - IT Room Expansion	100,000	0	0	0	100,000	0	0	0	0	0	0
18	20P0003	CIP	Service Center - Norman Smith Service Center Remodel	700,000	0	0	700,000	0	100,000	600,000	0	0	0	0
19	03Z0316	CIP	Service Center - Phase I New Building / Remodel of Existing Building - 60% of Total Cost (Project Total \$30M)	17,752,000	766,743	12,670,986	0	4,314,271	0	0	0	0	0	0
20	18N0040	CIP	Service Center - Property and Evidence Storage Room	309,200	0	0	0	309,200	0	0	0	0	0	0
21	20P0055	CIP	Service Center - Technology for New Building - 60% of Cost	105,000	0	0	105,000	105,000	0	0	0	0	0	0
22			Repair & Maintenance Projects											

2021-2025 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
23	19P0016	CIP	6 Garden Center - Building Automation System Upgrade	17,682	0	6,000	0	11,682	0	0	0	0	0	0
24	18M0037	AR	12 Garden Center Improvements	30,210	30,047	163	0	0	0	0	0	0	0	0
25	19M0057	AR	Broomfield Depot Museum - Outbuilding Rehabilitation	345,500	0	14,042	0	20,585	0	310,873	0	0	0	0
26	19N0029	AR	Broomfield Facilities - Parking Lot Lighting Upgrade	498,150	0	12,323	22,500	87,307	22,500	37,500	22,500	22,500	37,500	256,020
27	19N0011	AR	Broomfield Recycling Center - Interior Remodel and Restroom Addition	19,850	0	17,885	0	1,965	0	0	0	0	0	0
28	0AZ0033	AR	Building Repairs - Citywide	Annual Program		129,807	100,000	133,414	113,000	100,000	100,000	100,000	100,000	1,500,000
29	18M0059	AR	City and County Building - Lighting Upgrade	120,000	4,463	745	0	0	0	114,792	0	0	0	0
30	16F0012	AR	City and County Building - Replace 8 roof top units (2010 Building Assessment)	1,034,374	955,217	79,157	0	0	0	0	0	0	0	0
31	20P0012	AR	City and County Building - Roof Restoration	313,000	0	0	313,000	0	313,000	0	0	0	0	0
32	16K0018	AR	Emergency Generator Upgrades - Citywide	150,000	43,451	37,646	0	2,100	0	66,803	0	0	0	0
33	19K0020	AR	Facility UPS Battery Replacement - Citywide	257,945	0	22,745	0	0	0	0	39,200	0	0	196,000
34	0AZ0066	AR	Floor Covering Replacement - Citywide	Annual Program		198,000	103,000	0	103,000	75,000	75,000	75,000	75,000	1,475,000
35	0AZ0075	AR	HVAC Systems Rehabilitation - Citywide	Annual Program		79,718	50,000	83,845	100,000	50,000	50,000	50,000	50,000	750,000
36	20N0023	CIP	Library/Auditorium - Boiler Replacement and Upgrade	150,000	0	0	135,000	150,000	0	0	0	0	0	0
37	21Q0007	AR	Library/Auditorium - Lighting Technology Upgrade	1,065,590	0	0	0	0	250,000	815,590	0	0	0	0
38	20P0014	AR	Library/Auditorium - Lobby Restroom Remodel	60,000	0	0	60,000	0	60,000	0	0	0	0	0
39	0AZ0085	AR	Parking Lot Repair/Replacement - Citywide	Annual Program		0	304,704	0	304,704	414,000	216,000	479,300	1,242,000	0
40	21P0023	AR	Police/Courts - Boiler Plant Upgrade	223,650	0	0	0	0	223,650	0	0	0	0	0
41	19N0022	AR	Police/Courts - Courtroom Bench Replacement	36,800	0	0	0	36,800	0	0	0	0	0	0
42	16K0015	AR	Police/Courts - IT Room Cooling Upgrade	35,000	556	0	0	34,444	0	0	0	0	0	0
43	18M0050	AR	Police/Courts - Lighting Upgrade	140,000	0	2,343	0	0	0	137,657	0	0	0	0
44	18M0048	AR	Police/Courts - Rooftop Unit 3 Replacement	87,505	0	80,105	0	7,400	0	0	0	0	0	0
45	16K0017	AR	Police/Detention Center - AV Room Cooling Upgrade	86,000	8,040	62,240	0	15,720	0	0	0	0	0	0
46	16K0016	AR	Police/Detention Center - Driveway Repair	68,666	16,439	52,227	0	0	0	0	0	0	0	0
47	19P0010	CIP	Safeway Property - Roof Replacement	513,975	0	4,975	0	9,000	0	500,000	0	0	0	0

2021-2025 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
48	19P0011	CIP	Police/Detention Center - Roof G Replacement	230,000	0	4,900	0	225,100	0	0	0	0	0	0
49	20P0013	CIP	Police/Detention Center - RTU 1 & 2 Replacement/Upgrade	357,459	0	0	357,459	0	357,459	0	0	0	0	0
50	20P0017	CIP	Safeway - RTU Upgrade/Building Automation Integrations	491,400	0	0	491,400	0	0	491,400	0	0	0	0
51	M0058	AR	Service Center - HVAC Replacements - 60% of Total Cost	198,000	0	0	0	0	0	0	0	0	198,000	0
52	21M0060	AR	Service Center - Lighting Upgrades - 60% of Cost	21,000	0	0	0	0	21,000	0	0	0	0	0
53	16K0019	CIP	Surge Protection - Citywide	133,030	18,178	14,852	20,000	10,000	10,000	40,000	20,000	20,000	0	0
54			Projects Beyond Current Plan											
55	Z0401		Animal Shelter - New Facility	5,000,000	0	0	0	0	0	0	0	0	0	5,000,000
56	07A0049		Broomfield County Commons - Parks Maintenance Facility Construction	80,000	0	0	0	0	0	0	0	0	0	80,000
57	05Z0350		Broomfield County Commons - Cemetery Maintenance Facility Construction	900,000	0	0	0	0	0	0	0	0	0	900,000
58	Z0102		City and County Building - Accessory Storage Building	0	0	0	0	0	0	0	0	0	0	0
59	Q0021	CIP	Library/Auditorium - Expansion	42,350,000	0	0	0	0	0	0	0	0	0	42,350,000
60	N0012		Permanent LED Holiday Lighting - Citywide	358,400	0	0	0	0	0	0	0	0	0	358,400
61	C0051		Police/Courts - Court Building Expansion	9,500,800	0	0	0	0	0	0	0	0	0	9,500,800
62			Police/Courts - North Area Police Substation	0	0	0	0	0	0	0	0	0	0	0
63			Police/Courts - Police Building Expansion	6,000,000	0	0	0	0	0	0	0	0	0	6,000,000
64	Z0104		Public Works - Great Western Reservoir Area - Satellite Facility	0	0	0	0	0	0	0	0	0	0	0
65	F0060		Service Center - Phase II New Building / Remodel of Existing Building - 60% of Total Cost (Project Total \$4M)	2,400,000	0	0	0	0	0	0	0	0	0	2,400,000
66	Z0052		Utility Vent Replacement - Citywide	500,000	0	0	0	0	0	0	0	0	0	500,000
			Facility Projects Sub-Total	98,386,989	3,857,144	13,758,176	3,790,893	6,465,503	2,777,383	4,462,351	522,700	746,800	2,752,500	71,266,220

2021-2025 CIP PLAN - INFORMATION TECHNOLOGY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Information Technology Projects # 70030														
Projects Currently in 5-Year Plan														
New Capital Projects														
1	14H0047	CIP	Communications - CRM Software Road Map	425,332	16,332	0	0	0	0	0	150,000	0	0	259,000
2	19N0027	CIP	IT - CAD to GIS Data Integration	40,400	0	0	0	0	40,400	0	0	0	0	0
3	17M0003	CIP	IT - Communications Conduit Installation	1,035,362	81,024	0	150,000	504,338	150,000	150,000	150,000	0	0	0
4	19N0033	CIP	IT - Computer Endpoint Encryption	48,000	0	0	0	0	48,000	0	0	0	0	0
5	17L0003	CIP	IT - Data Center Migration	311,221	185,132	13,615	0	42,474	0	70,000	0	0	0	0
6	21Q0039	CIP	IT - New World Server Environment Migration	115,104	0	0	0	0	115,104	0	0	0	0	0
7	19M0005	CIP	IT - Smart City Project	4,136,066	0	12,925	0	923,141	800,000	800,000	800,000	800,000	0	0
8	19P0032	CIP	IT - Municipal Court Separation	227,800	0	106,807	0	120,993	0	0	0	0	0	0
9	Repair & Maintenance Projects													
10	15J0049	CIP	Cemetery Management System Software Replacement	40,000	32,817	3,125	0	0	4,058	0	0	0	0	0
11	21N0028	AR	ComDev - Innoprise Replacement	1,335,000	0	0	0	0	160,000	595,000	520,000	60,000	0	0
12	0AZ0097	AR	Conference Room Refresh - Citywide	Annual Program		0	0	0	13,250	35,000	35,000	35,000	35,000	525,000
13	15J0053	AR	Council Chambers and Conference Room A/V Equipment Upgrade	526,519	480,340	11,179	35,000	21,014	13,986	0	0	0	0	0
14	0AZ0015	AR	IT - PC Equipment Tech Refresh	Annual Program		380,680	508,500	303,946	526,000	788,900	536,100	618,300	375,000	5,625,000
15	11D0037	AR	Police - Vehicle Laptop Computer Replacements (includes installation)	1,752,189	552,189	0	0	0	0	240,000	0	0	240,000	720,000
16	17L0014	CIP	IT - Document Management	177,079	172,723	4,356	0	0	0	0	0	0	0	0
17	17M0001	AR	IT - Fiber Infrastructure Transition/Replacement (iNet)	937,553	318,560	604,076	0	14,917	0	0	0	0	0	0
18	16L0009	AR	IT - Payment Processing Consolidation	16,035	9,787	6,248	0	0	0	0	0	0	0	0
19	0AZ0089	AR	IT - Network Hardware/Telecom Replacement - Citywide	Annual Program		53,108	120,000	126,852	30,000	120,000	120,000	120,000	120,000	1,800,000
20	11C0092	CIP	Police - Data Records Management Systems Replacement	3,523,878	3,445,840	78,038	0	0	0	0	0	0	0	0
21	18F0044	CIP	Public Works - Computerized Asset Maintenance Management System (60% of cost)	900,000	0	0	135,000	0	135,000	765,000	0	0	0	0
22	15J0050	AR	Recreation Management System Software Replacement	373,741	364,674	9,067	0	0	0	0	0	0	0	0
23	Projects Beyond Current Plan													
24	E0011	CIP	Police/Courts - Police Dispatch & Communication Center Back-up	200,000	0	0	0	0	0	0	0	0	0	200,000
Total Information Technology Projects				16,121,279	5,659,418	1,283,224	948,500	2,057,675	2,035,798	3,563,900	2,311,100	1,633,300	770,000	9,129,000

2021-2025 CIP PLAN - LANDSCAPING PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Landscaping Projects #70040														
Projects Currently in 5-Year Plan														
New Capital Projects														
1	Q0006	CIP	Aspen Street Landscaping	192,000	0	0	0	0	0	0	0	192,000	0	0
2	Q0036	CIP	Brunner House Driveway and Landscaping Improvement	18,150	0	0	0	0	0	0	0	18,150	0	0
3	12D0045	PK	Lamar Street - Island Improvements	247,462	0	0	0	0	0	125,000	0	122,462	0	0
4	19N0002	SCTF	McKay Lake Park & Open Lands - Landscaping	74,000	0	0	74,000	0	0	74,000	0	0	0	0
5	18Z0115	CIP	Zuni Street - E. Midway to W. 136th Ave. Power Burial/Landscaping	988,793	0	211,793	500,000	777,000	0	0	0	0	0	0
6	Repair & Maintenance Projects													
7	15J0017	PK	Ash Tree Replacement - Citywide	644,798	247,928	93,870	93,500	93,500	116,000	93,500	0	0	0	0
8	18M0064	AR	Irrigation Control Replacements - Citywide	864,144	275,116	294,753	294,275	294,275	0	0	0	0	0	0
9	0AZ0017	PK	Irrigation Replacements - Citywide	Annual Program		102,640	200,000	148,780	340,268	225,000	225,000	225,000	225,000	3,650,000
10	M0007	PK	Library - Solar Panel Landscape Upgrade	80,000	0	0	0	0	0	80,000	0	0	0	0
11	0AZ0046	PK	Park Landscape Improvements - Citywide	Annual Program		81,571	100,000	30,000	188,429	100,000	100,000	100,000	100,000	1,500,000
12	0AZ0087	PK	Shrub Replacement - Citywide	Annual Program		14,741	40,000	25,259	80,000	40,000	40,000	40,000	40,000	600,000
13	0AZ0018	PK	Tree Replacement - Citywide	Annual Program		114,980	115,500	0	258,500	115,500	115,500	115,500	115,500	1,732,500
14	Projects Beyond Current Plan													
15	G0034	PK	136th Avenue Landscaping South Side - Sheridan to Cottonwood Street	78,000	0	0	0	0	0	0	0	0	0	78,000
16	F0024	PK	136th Avenue Landscaping and Street Lights - Lowell to Westlake Drive	384,000	0	0	0	0	0	0	0	0	0	384,000
17	06Z0052	PK	Entry Monument Improvements - Citywide	253,629	143,629	0	0	0	0	0	0	0	0	110,000
18	P0044	CIP	Memorial Garden - Flower Clock	49,450	0	0	0	0	0	0	0	0	0	49,450
19	F0018	PK	Sheridan Blvd Median Landscaping Enhancements - Wildgrass to Lowell	2,800,000	0	0	0	0	0	0	0	0	0	2,800,000
20	M0008	CIP	US 287/Midway - Island Landscape Improvement	1,527,915	0	0	0	0	0	0	0	0	0	1,527,915
Landscaping Sub-Total				8,202,341	666,673	914,348	1,417,275	1,368,814	983,197	853,000	480,500	813,112	480,500	12,431,865

2021-2025 CIP PLAN - OPEN SPACE & TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Open Space Projects #70060														
Projects Currently in 5-Year Plan														
New Capital Projects														
1	19L0020	OS	Harmer-Galasso Open Space Management Plan	100,000	0	0	100,000	0	0	0	100,000	0	0	0
2	21Q0027	OS	Huron Open Space Master Plan	150,000	0	0	0	0	150,000	0	0	0	0	0
3	18N0036	CIP	Kabert Property - Open Lands Acquisition and Site Clearance	541,769	13,779	365,275	0	162,715	0	0	0	0	0	0
4	18M0061	OS	Open Space - Grassland Restoration	100,000	0	0	0	0	0	0	100,000	0	0	0
5	17K0051	OS	Open Space - Master Plan Update	325,000	0	0	0	0	0	325,000	0	0	0	0
6	20Q0018	OS	Open Space - Raw Water Purchases - Marshall Shares	74,350	0	0	0	74,350	0	0	0	0	0	0
7	0AZ0036	OS	Open Space and Trails Signage & Kiosks - Citywide	Annual Program		40,004	172,400	174,909	30,000	30,000	30,000	30,000	30,000	450,000
8	19N0018	OS	Raptor Policy Study	85,000	0	0	0	0	85,000	0	0	0	0	0
9	20P0062	OS	Vive Project Eagle Monitoring - Meritage Homes	80,000	0	0	0	80,000	0	0	0	0	0	0
10	0AZ0099	OS	Wildlife Research and Monitoring	Annual Program		0	149,000	149,000	45,000	60,000	60,000	60,000	60,000	900,000
11	Repair & Maintenance Projects													
12	Q0029	OS	Metzger Farmhouse Interior Renovation (Broomfield's Share)	100,000	0	0	0	0	0	0	0	100,000	0	0
13	14H0056	OS	Metzger Open Space - Acquisition Payments to Foundation	6,410,217	4,276,388	276,959	275,502	275,502	271,508	277,221	342,938	344,438	345,263	0
14	09C0038	OS	Metzger Open Space - Administration and Maintenance	Annual Program		30,000	65,000	65,000	35,000	35,000	35,000	35,000	35,000	525,000
15	06Z0050	OS	Mitchem Property - Environmental Insurance Payment	Annual Program		5,906	0	0	0	0	0	0	0	0
16	06Z0092	OS	Open Space - Due Diligence Services	Annual Program		168,488	100,000	60,000	60,000	35,000	35,000	35,000	35,000	525,000
17	0AZ0024	OS	Open Space and Trails Misc. Improvements - Citywide	Annual Program		19,199	45,000	51,000	60,000	60,000	60,000	60,000	60,000	900,000
18	06Z0083	OS	Prairie Dog Management (from Endowment Fund)	Annual Program		17,783	15,000	15,000	14,000	15,000	15,000	15,000	15,000	225,000
19	Projects Beyond Current Plan													
20	Z0415	OS	Broomfield County Commons Open Space - Grassland Restoration & Overlook	0	0	0	0	0	0	0	0	0	0	0
21	Z0416	OS	Broomfield County Commons Open Space - Grassland Restoration Phase II	0	0	0	0	0	0	0	0	0	0	0
22	Z0417	OS	Davis/Nordstrom OS Management Plan	30,000	0	0	0	0	0	0	0	0	0	30,000
23	Q0026	OS	Kabert Master Plan and Trail	50,000	0	0	0	0	0	0	0	0	0	50,000

2021-2025 CIP PLAN - OPEN SPACE & TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
24			Open Space Projects Sub-Total	8,046,336	4,290,167	923,614	921,902	1,107,476	750,508	837,221	777,938	679,438	580,263	3,605,000
25			Trail System Projects #70070											
26			Projects Currently in 5-Year Plan											
27			New Capital Projects											
28	Q0002	OS	Anthem Community Park Underpass	475,000	0	0	0	0	0	475,000	0	0	0	0
29	Q0024	OS	Aspen Street Pedestrian Crossing	55,000	0	0	0	0	0	0	55,000	0	0	0
30	18Z0133	OS	Broomfield Trail - Aspen to Sheridan (BT5)	725,000	0	0	0	0	50,000	675,000	0	0	0	0
31	20Z0143	OS	Broomfield Trail - Aspen through Markel Property (BT4)	350,000	0	0	275,000	0	0	350,000	0	0	0	0
32	Q0023	OS	Bromfield Trail - Federal Cul-de-Sac To Broomfield Trail Connection	160,000	0	0	0	0	0	160,000	0	0	0	0
33	12F0002	OS	Broomfield Trail - Lowell to Spruce Meadows - (BT6 phase 3)	736,850	11,850	0	100,000	0	0	0	100,000	625,000	0	0
34	14Z0433	OS	Broomfield Trail - RR bridge to Industrial Lane to Midway (BT2)	3,308,495	841,150	266,500	0	2,200,845	0	0	0	0	0	0
35	14Z0433	CIP	Broomfield Trail - RR bridge to Industrial Lane to Midway (BT2)	247,500	0	247,500	0	0	0	0	0	0	0	0
36	20F0006	OS	Broomfield-Trail - RR Underpass at Airport Creek	150,000	0	0	150,000	0	0	150,000	0	0	0	0
37	20P0052	OS	Commerce Street Trail Connection	261,500	0	0	68,000	0	68,000	193,500	0	0	0	0
38	11C0096	SCTF	County Commons Open Space - Tom Frost Reservoir Amenities and Landscape Improvements	278,322	241,587	36,735	0	0	0	0	0	0	0	0
39	19N0001	OS	Frank Varra Park - US 36 Bikeway Trail Realignment	1,535,668	0	81,530	0	1,454,138	0	0	0	0	0	0
40	19L0019	OS	Great Western Loop Trail	29,225	0	4,304	0	0	0	0	0	0	24,921	0
41	20N0032	OS	Industrial Lane Pedestrian Bridge	2,131,500	0	0	250,000	0	0	0	250,000	1,881,500	0	0
42	18M0063	CIP	Interpark - Broomfield Industrial Park Pedestrian Bridge	285,000	35,573	234,599	0	14,828	0	0	0	0	0	0
43	19Z0155	OS	Neighborhood Connection - Hwy 287 to Midway Boulevard (NC5) - Blue Star Park	148,423	0	144,923	0	3,500	0	0	0	0	0	0
44	11D0019	OS	Neighborhood Connection - Iris Street to the Lake Link Trail	100,000	0	0	100,000	0	0	100,000	0	0	0	0
45	19N0004	OS	Neighborhood Connection - Lowell Blvd. to Mead Street Trail (NC-17)	114,500	0	1,500	0	113,000	0	0	0	0	0	0
46	Z0139	OS	Neighborhood Connection - Wildgrass at NW Parkway to Rock Creek Trail (NC22)	375,000	0	0	0	0	0	0	375,000	0	0	0
47	20N0010	OS	Nissen Reservoir Channel Trail	270,000	0	0	270,000	0	0	0	270,000	0	0	0
48	07Z0017	OS	Regional Trail - Flatiron Crossing to Storage Tek Drive Trail (RT-1)	732,820	0	0	0	0	0	0	0	0	732,820	0
49	13F0003	OS	Regional Trail - Rock Creek to Brainard Drive Underpass and Trail	3,356,000	6,000	0	350,000	0	0	350,000	3,000,000	0	0	0

2021-2025 CIP PLAN - OPEN SPACE & TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
50	13Z0422	OS	Regional Trail - Storage Tek Dr. - Underpass Improvements	336,005	329,705	6,300	0	0	0	0	0	0	0	0
51	19N0019	OS	Rocky Mountain Greenway Trail (Broomfield's Share)	105,000	0	0	0	105,000	0	0	0	0	0	0
52	18Z0134	OS	Trail Connection - Brandywine Park to Mountain View Elementary School (NC-15)	239,316	0	239,316	0	0	0	0	0	0	0	0
53			Repair & Maintenance Projects											
54	0AZ0095	OS	Trail Improvements - Citywide	Annual Program		0	72,210	0	72,210	55,000	55,000	55,000	0	0
55			Projects Beyond Current Plan											
56	Z0131	OS	Broomfield Trail - 144th Avenue Bridge Crossing (BT5)	2,860,000	0	0	0	0	0	0	0	0	0	2,860,000
57	Z0138		Broomfield Trail - Detention Center to Highway 128 (BT1)	282,500	0	0	0	0	0	0	0	0	0	282,500
58	12Z0152		Broomfield Trail - Equestrian Loop through Hoopes	93,600	0	0	0	0	0	0	0	0	0	93,600
59	Z0423	OS	Broomfield Trail - Underpass at SH7 (#38)	1,276,000	0	0	0	0	0	0	0	0	0	1,276,000
60	Z0429	OS	Intersection Improvement #44 - Underpass at Indiana	1,629,000	0	0	0	0	0	0	0	0	0	1,629,000
61	Z0424		Intersection Improvement #53 - I-25 Underpass north of SH7	1,795,856	0	0	0	0	0	0	0	0	0	1,795,856
62	Z0425		Intersection Improvement #55 - I-25 Underpass north of CR6	1,886,000	0	0	0	0	0	0	0	0	0	1,886,000
63	Z0426		Intersection Improvement #7 - 10th Ave to Zang Spur	35,200	0	0	0	0	0	0	0	0	0	35,200
64	Z0189		Lowell Blvd. Underpass Between 144th & 152nd	1,500,000	0	0	0	0	0	0	0	0	0	1,500,000
65	Z0141		Neighborhood Connection - 136th Ave to Trails at Westlake (NC21)	350,000	0	0	0	0	0	0	0	0	0	350,000
66	07Z0015		Neighborhood Connection - Broomfield County Commons to Westlake Trails (NC20)	232,000	0	0	0	0	0	0	0	0	0	232,000
67	Z0150		Neighborhood Connection - Cottonwood Park to SECL trail (NC18)	255,300	0	0	0	0	0	0	0	0	0	255,300
68	Z0135		Neighborhood Connection - Highland Park to E Midway (NC10) Including Midway Crossing (#19)	70,200	0	0	0	0	0	0	0	0	0	70,200
69	Z0159		Neighborhood Connection - Path connecting The Field to Broomfield County Commons (NC26)	45,500	0	0	0	0	0	0	0	0	0	45,500
70	07Z0018		Neighborhood Connection - Steele Park to Lake Link Trail (NC2)	200,000	0	0	0	0	0	0	0	0	0	200,000
71	Z0140		Trail Connection - 10th Ave to Lac Amora - crusher fine (NC3)	0	0	0	0	0	0	0	0	0	0	0
72	Z0144		Trail Connection - Brandywine to Lowell (NC17)	165,000	0	0	0	0	0	0	0	0	0	165,000
73	Z0147		Trail Connection - Commercial area at Sheridan & 120th (NC27)	0	0	0	0	0	0	0	0	0	0	0
74	Z0148		Trail Connection - Commons & the Field to Birch Elementary (NC12)	193,000	0	0	0	0	0	0	0	0	0	193,000
75	Z0156		Trail Connection - Lac Amora to N Oak Circle (NC4)	107,200	0	0	0	0	0	0	0	0	0	107,200

2021-2025 CIP PLAN - OPEN SPACE & TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
76	15J0011		Trail Connection - Legends to Crofton Park and Columbine Meadows	49,700	0	0	0	0	0	0	0	0	0	49,700
77	16J0018		Trail Connection - Lowell Blvd. Metzger Underpass towards Perry Street (SECL6 west)	45,000	0	0	0	0	0	0	0	0	0	45,000
78	Z0157		Trail Connection - McKay Landing to 144th Ave (NC23)	0	0	0	0	0	0	0	0	0	0	0
79	Z0145		Trail Connection - Broomfield Trail to Thornton and Adams County (RT5)	296,200	0	0	0	0	0	0	0	0	0	296,200
80	Z0153		Trail Connection - Great Western to Rocky Flats (RT2)	353,000	0	0	0	0	0	0	0	0	0	353,000
81	Z0162		Trail Connection - to Weld County and Big Dry Creek (RT9) - E. of CCOB limit	256,551	0	0	0	0	0	0	0	0	0	256,551
82	Z0169		Southeast Community Loop Trail – 124th Avenue to Columbine Park and north to Midway Blvd. (SECL 8-9)	132,000	0	0	0	0	0	0	0	0	0	132,000
83	Z0136		Southeast Community Loop Trail - North of McKay Lake to Broomfield Trail (SECL11)	731,000	0	0	0	0	0	0	0	0	0	731,000
84	Z0161	OS	Southeast Community Loop Trail - Through South Midway Park (SECL3)	118,700	0	0	0	0	0	0	0	0	0	118,700
85	Z0151	OS	Trail Connection - Country Vista to Lowell Underpass (SECL6 east)	355,000	0	0	0	0	0	0	0	0	0	355,000
86	Z0137		Trail Connection - Westlake Middle School to W 136th Ave (SECL10)	1,011,000	0	0	0	0	0	0	0	0	0	1,011,000
			Trail System Projects Sub-Total	32,830,631	1,465,865	1,263,207	1,635,210	3,891,311	190,210	2,508,500	4,105,000	2,561,500	757,741	16,324,507
			Total Trails and Open Space Projects	40,876,967	5,756,032	2,186,821	2,557,112	4,998,787	940,718	3,345,721	4,882,938	3,240,938	1,338,004	19,929,507

2021-2025 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Recreation and Parks Facility Projects # 70080														
Projects Currently in 5-Year Plan														
New Capital Projects														
1	09C0015	CIP	124th Avenue - Tree Branch Recycling Center Relocation	533,127	531,017	2,110	0	0	0	0	0	0	0	0
2	18M0067	CIP	Anthem - Asphalt Pump Track	365,000	65,000	300,000	0	0	0	0	0	0	0	0
3	21B0074	CIP	Anthem Community Park Improvements	10,677,465	0	0	0	0	4,212,465	0	2,965,000	2,000,000	1,500,000	0
4	16K0056	SEF	Anthem Highlands K-8 Playground and Parking Lot	2,000,000	1,845,332	0	0	154,668	0	0	0	0	0	0
5	21Q0031	CIP	Athletic Facility Concrete Improvements	273,850	0	0	0	0	273,850	0	0	0	0	0
6	21F0047	CIP	Bay - Renovation Phase IV - Repair Pool/ADA Compliant	2,500,000	0	0	0	0	500,000	2,000,000	0	0	0	0
7	19M0013	SCTF	Blue Star Park - Upgrade	0	0	0	43,500	0	0	0	0	0	0	0
8	19N0024	SCTF	Brandywine Park - Parking Lot	340,000	24,619	288,064	0	27,317	0	0	0	0	0	0
9	16K0040	SCTF	Brandywine Soccer Fields - Upgrade & Renovation	192,053	170,088	21,965	0	0	0	0	0	0	0	0
10	21K0022	SCTF	Bronco Park - Restroom Building Replacement	344,400	0	0	0	0	344,400	0	0	0	0	0
11	19N0039	SCTF	Broomfield Community Center - Brunner Reservoir Boardwalk Trail Connection	512,000	0	0	462,000	512,000	0	0	0	0	0	0
12	17M0021	TBONDS	Broomfield Community Center - Reconstruction (Bond Funding)	40,000,000	7,287,491	24,910,350	0	7,802,159	0	0	0	0	0	0
13	17M0021	CIP	Broomfield Community Center - Reconstruction (CIP Funds)	7,994,559	0	0	0	7,994,559	0	0	0	0	0	0
14	17M0021	CIP	Broomfield Community Center - Reconstruction (Deferred Sewer Taps)	0	0	0	46,512	0	0	0	0	0	0	0
15	17M0021	CIP	Broomfield Community Center - Reconstruction (Deferred Water Taps)	0	0	0	80,604	0	0	0	0	0	0	0
16	P0040	CIP	Broomfield Community Center - Rooftop Solar Panels	1,135,000	0	0	0	0	0	0	1,135,000	0	0	0
17	15Z0175	CIP	Broomfield County Commons - Expansion - Yellow Pod	5,415,994	5,358,716	0	0	0	57,278	0	0	0	0	0
18	20L0030	CIP	Broomfield County Commons - Maintenance Facility	31,650	0	0	31,650	0	0	0	0	0	31,650	0
19	19M0014	SCTF	Community Park Ball Field - Playground Shade Structure	30,419	0	1,872	0	28,547	0	0	0	0	0	0
20	21N0014	SCTF	Community Park Ball Field Complex - Improvements	796,800	0	0	0	0	100,000	0	0	696,800	0	0
21	18K0024	SCTF	Community Park Ball Field Complex - Signage	48,000	0	0	0	0	48,000	0	0	0	0	0
22	15Z0171	SEF	Emerald Park - Ballfield and Park Improvements	765,000	0	41,368	0	723,632	0	0	0	0	0	0
23	18L0033	SCTF	Interlocken East Park Playground	145,130	0	0	0	0	0	0	145,130	0	0	0

2021-2025 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
24	M0016	SCTF	Interlocken East Park Playground - Restroom and Shelter Replacement	573,550	0	0	0	0	0	0	573,550	0	0	0
25	Q0022	CIP	Lakeview Cemetery Infrastructure	50,500	0	0	0	0	0	0	0	0	0	50,500
26	Q0032	CIP	Library - Outdoor Play Area Improvements	41,800	0	0	0	0	0	0	0	0	0	20,900
27	Q0037	SCTF	McKay Lake - Dumpster Enclosure	33,840	0	0	0	0	0	33,840	0	0	0	0
28	09C0013	PK	McKay Lake Regional Park - Park Design/Construction/Alterations	1,839,723	1,764,723	53,583	0	21,417	0	0	0	0	0	0
29	21Q0044	SCTF	Midway Park North and South - Master Plan	573,060	0	0	0	0	150,000	423,060	0	0	0	0
30	17L0058	CIP	North Broomfield Park - Land Acquisition	4,433,097	1,266,606	1,055,497	1,055,497	1,055,497	1,055,497	0	0	0	0	0
31	18M0017	SCTF	Parks - Portalet Enclosures	224,700	15,195	151,661	0	57,844	0	0	0	0	0	0
32	20P0043	PK	Parks - Recycle Receptacles	127,000	0	0	127,000	0	127,000	0	0	0	0	0
33	21P0024	SCTF	Paul Derda Recreation Center - Climbing Wall Space Renovation	225,000	0	0	0	0	225,000	0	0	0	0	0
34	Z0084	CIP	Paul Derda Recreation Center- Outdoor Playground	513,000	0	0	0	0	0	0	0	0	0	513,000
35	20P0026	CIP	Paul Derda Recreation Center - Parking Lot Camera Additions	19,800	0	0	19,800	19,800	0	0	0	0	0	0
36	0AZ0038	PK	Playground Improvements - Citywide	Annual Program		124,194	230,000	375,130	230,000	230,000	230,000	230,000	230,000	3,450,000
37	0AZ0038	SCTF	Playground Improvements - Citywide	Annual Program		159,727	0	70,273	0	0	0	0	0	0
38	Q0033	SCTF	Playground Shade Structures	112,200	0	0	0	0	0	0	112,200	0	0	0
39	18K0038	SCTF	Siena/Anthem Community Park Playground	258,750	2,200	0	0	0	0	256,550	0	0	0	0
40			Repair & Maintenance Projects											
41	17L0046	SCTF	Bay - Tower Body Slide Refurbish	40,500	6,500	31,550	0	2,450	0	0	0	0	0	0
42	19N0015	SCTF	Broomfield County Commons and Broomfield Industrial Park - Lighting Retrofit and Upgrade	39,371	0	39,371	0	0	0	0	0	0	0	0
43	Z0181	AR	Highland Park Soccer Field Improvements & Irrigation Replacement	1,378,800	0	0	0	0	0	0	0	0	138,800	1,240,000
44	20P0045	AR	Midway Park Electrical Upgrades	0	0	0	135,000	0	0	0	0	0	0	0
45	0AZ0101	AR	Parks - Concrete Replacement and Maintenance	Annual Program		0	120,000	120,000	163,000	120,000	120,000	120,000	120,000	1,800,000
46	18M0018	AR	Parks - Picnic Shelter Concrete Replacement	118,457	0	118,457	0	0	0	0	0	0	0	0
47	18M0012	PK	Parks - Structures Condition Assessments	300,000	0	0	0	0	0	0	50,000	0	0	250,000
48	06Z0055	CIP	Parks - Water Reclamation Tap Payments	17,147,631	13,078,747	516,915	785,820	785,820	785,820	785,820	785,820	408,689	0	0
49	18M0056	AR	Paul Derda Center - Boiler Upgrade	85,569	65,770	19,799	0	0	0	0	0	0	0	0

2021-2025 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
50	20P0033	CIP	Paul Derda Recreation Center - Building Automation System Upgrade	22,500	0	0	22,500	22,500	0	0	0	0	0	0
51	19P0025	SCTF	Paul Derda Recreation Center - Gymnastics Spring Floor & Carpet	33,000	0	0	0	33,000	0	0	0	0	0	0
52	21Q0014	SCTF	Paul Derda Recreation Center - Leisure Pool Plumbing Repairs	58,000	0	0	0	0	58,000	0	0	0	0	0
53	20P0015	AR	Paul Derda Recreation Center - Outdoor Concrete Replacement	122,000	0	0	61,000	0	122,000	0	0	0	0	0
54	Q0042	SCTF	Paul Derda Recreation Center - Paint Refresh	38,870	0	0	0	0	0	38,870	0	0	0	0
55	19K0045	SCTF	Paul Derda Recreation Center - Pool Grate and Gutter Repair	30,000	0	0	0	30,000	0	0	0	0	0	0
56	19M0011	SCTF	Paul Derda Recreation Center - Pool Slide Area Concrete Replacement	40,000	0	0	0	40,000	0	0	0	0	0	0
57	16H0013	SCTF	Paul Derda Recreation Center - Replace/Upgrade Florescent Lighting	364,908	94,464	15,444	0	0	0	0	0	85,000	0	170,000
58	19N0030	SCTF	Paul Derda Center - Sign Replacement	71,000	0	0	0	0	0	71,000	0	0	0	0
59	Q0043	SCTF	Paul Derda Recreation Center - Track Flooring Replacement	129,000	0	0	0	0	0	129,000	0	0	0	0
60	0AZ0078	SCTF	Pool Accessory Equipment Replacement - All City Pools	Annual Program		10,965	14,000	14,000	14,000	14,000	14,000	14,000	14,000	210,000
61	20L0034	SCTF	Quail Creek Park Restroom Rebuild	356,600	0	0	356,600	0	0	356,600	0	0	0	0
62	21M0019	AR	Siena Reservoir - Dock Replacement	84,360	0	0	0	0	84,360	0	0	0	0	0
63	Q0041	SCTF	Skate Park Refresh	189,000	0	0	0	0	0	189,000	0	0	0	0
64	Q0035	SCTF	Sport Court LED Lighting Upgrades	41,000	0	0	0	0	0	0	41,000	0	0	0
65	14H0027	CIP	Wildgrass Underpass Water Sealing Design	40,000	0	0	40,000	0	40,000	0	0	0	0	0
66	21Q0025	SCTF	Willow Grove Park - Trail Replacement	108,756	0	0	0	0	108,756	0	0	0	0	0
67			Projects Beyond Current Plan											
68	F0049	CIP	Bay - Renovation Phase V - Lazy River/Waterwalk/Additional Slides	4,488,000	0	0	0	0	0	0	0	0	0	4,488,000
69	Z0166		Bronco Park Irrigation Replacement	0	0	0	0	0	0	0	0	0	0	0
70	Z0103	CIP	Broomfield County Commons Cemetery - Phase III Expansion	621,000	0	0	0	0	0	0	0	0	0	621,000
71	G0019	CIP	Broomfield Field House	20,000,000	0	0	0	0	0	0	0	0	0	20,000,000
72	C0075	AR	Broomfield Reservoir - Recreational Improvements	3,800,000	0	0	0	0	0	0	0	0	0	3,500,000
73	04Z0309	AR	Brunner Reservoir - Reservoir Improvements and Trail Construction	2,233,417	33,417	0	0	0	0	0	0	0	0	2,200,000
74	Z0045		Civic Center - Landscape electrical upgrades	0	0	0	0	0	0	0	0	0	0	0
75	Z0099		Community Event Signage/Notification Citywide	0	0	0	0	0	0	0	0	0	0	0

2021-2025 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
76	Z0178		Community Park Redevelopment (is this Civic Center?)	0	0	0	0	0	0	0	0	0	0	0
77	16K0041	SCTF	Conoco Park - Inline Hockey Rink Repurposing	115,000	0	0	0	0	0	0	0	0	0	115,000
78	Z0407		Dirt Bike Trails	0	0	0	0	0	0	0	0	0	0	0
79	Z0081	CIP	Discovery Park Playground Expansion	402,000	0	0	0	0	0	0	0	0	0	201,000
80	Z0170	CIP	136th & Sheridan Park Development	5,150,000	0	0	0	0	0	0	0	0	0	5,150,000
81	C0053		Easy Ride Parking Area	0	0	0	0	0	0	0	0	0	0	0
82	14H0004	AR	Hockey Rink Dasher Board Replacement-Citywide	394,450	154,450	0	0	0	0	0	0	0	0	240,000
83	Z0409		Indoor Tennis Facility (design only)	0	0	0	0	0	0	0	0	0	0	0
84	Z0172		LacAmora Greenbelts Irrigation Replacement	0	0	0	0	0	0	0	0	0	0	0
85	14H0033	SCTF	LacAmora Park - Master Plan	556,900	6,900	0	0	0	0	0	0	0	0	550,000
86	Z0128		Lamar Island Improvements	0	0	0	0	0	0	0	0	0	0	0
87	Z0112		Landscaping around Utility Stations/Switch Cabinets, etc	0	0	0	0	0	0	0	0	0	0	0
88	Z0113		Landscaping Improvements - E. 7th/Dexter (Northmoor)	0	0	0	0	0	0	0	0	0	0	0
89	Z0120		Main Street ROW Landscaping west of Eagle Trace Entry	0	0	0	0	0	0	0	0	0	0	0
90	Z0410		Monitored Internet Café for Students (Teen Center - Civic Center)	0	0	0	0	0	0	0	0	0	0	0
91	Z0182		Outdoor Lap & Diving Pool	0	0	0	0	0	0	0	0	0	0	0
92	Z0412		Outdoor Theater - Civic Center	0	0	0	0	0	0	0	0	0	0	0
93	B0065		Park Lighting - McKay Landing Filing No. 3	0	0	0	0	0	0	0	0	0	0	0
94	Z0168		Paul Derda Recreation Center - Wind Break on West Side	0	0	0	0	0	0	0	0	0	0	0
95	Z0183		Pool - Indoor Competitive 50 x 25	0	0	0	0	0	0	0	0	0	0	0
96	B0073		Towncenter Lighting replacement	0	0	0	0	0	0	0	0	0	0	0
97	Z0092		W. 136th & Lowell Park Development	0	0	0	0	0	0	0	0	0	0	0
98	K0047	CIP	Youth Recreational Baseball/Softball Complex - Study	40,000	0	0	0	0	0	0	0	0	0	40,000
Recreation Facilities Sub-Total				141,766,556	31,771,235	27,862,892	3,631,483	19,890,613	8,699,426	4,647,740	6,171,700	3,554,489	2,034,450	44,809,400

2021-2025 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Transportation Projects #70090														
Projects Currently in 5-Year Plan														
New Capital Projects														
1	21P0041	CIP	112th Avenue & Uptown Avenue - Roadway Improvements	5,625,000	0	0	0	0	5,625,000	0	0	0	0	0
2	21Q0003	CIP	136th Avenue & Aspen Street - Traffic Signal	485,070	0	0	0	0	485,070	0	0	0	0	0
3	21N0035	CIP	149th Avenue (Silverleaf) - Street Improvements	242,600	0	0	0	0	242,600	0	0	0	0	0
4	20P0051	CIP	Active Transportation Wayfinding Pilot (TIP)	350,000	0	0	150,000	350,000	0	0	0	0	0	0
5	21Q0001	CIP	Aspen Street Improvements - Developer Reimbursement	191,000	0	0	0	0	191,000	0	0	0	0	0
6	0AZ0098	CIP	Bicycle and Pedestrian Wayfinding Signs - Citywide	Annual Program		0	10,000	19,583	10,000	10,000	10,000	10,000	10,000	150,000
7	16L0055	CIP	Bike N Ride Shelter Payment to RTD	36,000	0	0	0	0	0	0	0	0	0	36,000
8	16K0006	CIP	Bike N Ride Shelters - Citywide	30,000	0	0	0	30,000	0	0	0	0	0	0
9	21M0032	CIP	County Commons - Roundabout	225,000	0	0	0	0	225,000	0	0	0	0	0
10	17M0020	TBONDS	Dillon Road/W 144th Ave - Improvements (Bond Funding)	40,135,192	2,017,193	9,891,757	0	28,226,242	0	0	0	0	0	0
11	10D0049	CIP	East 1st Ave and Sheridan Boulevard - Intersection Improvements -Turn Lane	557,703	53,754	3,606	0	25,135	475,208	0	0	0	0	0
12	18D0031	CIP	Eldorado Blvd - Eastbound Double Left to Northbound Interlocken	623,044	30,037	21,677	0	571,330	0	0	0	0	0	0
13	21Q0005	CIP	Eldorado Boulevard and Interlocken Boulevard - Traffic Signal	506,485	0	0	0	0	506,485	0	0	0	0	0
14	19L0002	CIP	Huron and 160th Ave Turn Lanes	919,683	0	113,214	0	806,469	0	0	0	0	0	0
15	17K0002	CIP	Industrial Lane Bike Lane and Sidewalk - Phase I	2,453,500	111,898	159,298	0	150,000	0	2,032,304	0	0	0	0
16	21P0037	CIP	Industrial Lane Bike Lane and Sidewalk - Phase 2	2,682,500	0	0	0	0	767,500	1,915,000	0	0	0	0
17	18M0029	CIP	Interlocken/Flatiron Crossing - Directional Monuments	44,730	0	0	0	0	44,730	0	0	0	0	0
18	Q0016	CIP	Longs Peak Dr. to 116th Circle Sidewalk on West Side of Wadsworth Parkway	373,000	0	0	0	0	0	0	0	0	0	373,000
19	07Z0040	CIP	Lowell Blvd. - E. Midway to W. 136th Ave. - Widening and Landscape Improvements	8,355,567	7,715,411	82,566	0	557,590	0	0	0	0	0	0
20	18Z0088	CIP	Main St Improvements at W. 120th Ave	612,000	0	0	0	0	0	0	42,000	570,000	0	0
21	18L0006	CIP	Midway Boulevard - Street Lights	269,000	0	0	123,500	269,000	0	0	0	0	0	0
22	20P0008	CIP	Midway Boulevard - Multimodal Corridor Action Plan	500,000	0	0	200,000	500,000	0	0	0	0	0	0
23	Q0004	CIP	Miramonte Boulevard and Kohl Street - Traffic Signal	459,170	0	0	0	0	0	0	459,170	0	0	0

2021-2025 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
24	P0004	CIP	Miramonte Boulevard/Main Street - Roundabout	598,361	0	0	0	0	0	0	0	0	0	598,361
25	17L0007	CIP	Nickel Street - Improvements	286,445	46,776	207,851	0	31,818	0	0	0	0	0	0
26	19M0030	CIP	Nickel Street and Industrial Ln - Intersection Improvements	1,268,000	0	0	250,000	0	400,000	868,000	0	0	0	0
27	J0038	CIP	Original Broomfield - Emerald Lane Paving	464,945	0	0	0	0	0	0	0	464,945	0	0
28	20N0038	CIP	Pedestrian Signal - Spader Way (Broomfield Community Center)	157,000	0	0	157,000	157,000	0	0	0	0	0	0
29	09C0018	CIP	Railroad Crossings - Quiet Zone Improvements	1,394,586	32,552	103,861	0	1,258,173	0	0	0	0	0	0
30	20P0053	CIP	SH 7 Preliminary & Environmental Engineering (TIP)	1,000,000	0	0	152,000	1,000,000	0	0	0	0	0	0
31	18M0022	CIP	SH 128 and US 36 - Bikeway Connection	437,456	0	30,747	0	36,709	370,000	0	0	0	0	0
32	0AZ0019	SEF	School Safety Improvements - Citywide	Annual Program		22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	330,000
33	0AZ0091	CIP	Sidewalk Connections - Citywide	Annual Program		10,604	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,500,000
34	0AZ0009	CIP	Street Light Installation - Citywide	Annual Program		0	22,000	22,000	22,000	22,500	22,500	22,500	22,500	365,000
35	20Q0030	CIP	Transit Needs Assessment & Pilot	800,000	0	0	0	800,000	0	0	0	0	0	0
36	20P0031	CIP	US 36 Bike N Ride Shelters, Amenities, Operations & Marketing (TIP)	650,000	0	0	60,000	650,000	0	0	0	0	0	0
37	15J0033	CIP	US 36 - Bikeway Signage	20,000	14,258	0	0	5,742	0	0	0	0	0	0
38	20P0049	CIP	US 36 - Bikeway Interlocken East Park Safety Improvements	93,500	0	0	93,500	0	93,500	0	0	0	0	0
39	21P0007	CIP	US 287/120th Avenue - Multimodal and Safety Study	60,000	0	0	0	0	60,000	0	0	0	0	0
40	21Q0040	CIP	US 287/120th Avenue - Sidepath Infill & Transit Access Improvements	2,500,000	0	0	0	0	2,500,000	0	0	0	0	0
41	10C0049	SEF	W. 136th Ave. - Westbound Right Turn at Legacy HS	1,433,911	24,103	116,638	1,234,808	1,293,170	0	0	0	0	0	0
42	17D0048	CIP	W. Midway Blvd - Bridge over Railroad (Land Purchase)	841,990	0	841,990	0	0	0	0	0	0	0	0
43	20D0001	CIP	W. Midway Blvd. - Right Turn Lane at Nativity School	177,000	0	0	177,000	0	0	0	0	177,000	0	0
44	08B0047	CIP	W. Midway Blvd. and Kohl Street - Intersection Improvements	297,500	0	0	272,500	0	0	297,500	0	0	0	0
45	08B0060	CIP	Wadsworth Blvd. Interchange /120th Ave Connection Participation (Broomfield's share =20%)	22,224,029	20,439,108	1,514,062	0	270,859	0	0	0	0	0	0
46	18K0003	CIP	Zuni Street and Quail Creek Drive Roundabout	627,885	0	26,893	363,231	57,072	0	543,920	0	0	0	0
47			Repair & Maintenance Projects											
48	N0006	AR	Anthem Ranch Road - Lowell Blvd to Hope Circle Reconstruction	861,000	0	0	0	0	0	861,000	0	0	0	0
49	16K0027	AR	Arista Street Lighting Upgrade	3,521,911	20,831	0	500,000	1,080	500,000	500,000	500,000	500,000	500,000	1,000,000

2021-2025 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
50	0AZ0093	CIP	Bike and Pedestrian Striping Modifications - Citywide	Annual Program		48,216	50,000	50,000	50,000	50,000	50,000	50,000	50,000	750,000
51	Q0020	AR	Bridge Approach Repairs - Northwest Parkway Bridges	165,000	0	0	0	0	0	55,000	55,000	55,000	0	0
52	09C0016	AR	Bridge Inspections and Repairs - Citywide	Annual Program		23,140	68,000	68,000	68,000	68,000	68,000	68,000	68,000	1,020,000
53	21P0036	AR	Broadlands Lane - Troon Circle West to Muirfield Circle West Reconstruction	675,036	0	0	0	0	675,036	0	0	0	0	0
54	0AZ0090	AR	City-Owned Concrete Replacement (Streets)	Annual Program		240,893	203,000	203,000	217,000	203,000	203,000	203,000	203,000	3,045,000
55	0AZ0062	AR	Concrete Curb Ramp Replacement - Citywide	Annual Program		52,059	80,000	80,000	85,000	80,000	80,000	80,000	80,000	1,200,000
56	18M0031	AR	East 1st Ave - Street Light Replacement	250,000	0	0	0	0	0	0	250,000	0	0	0
57	K0031	AR	East 3rd Ave. - Main Street to Spader Way Reconstruction	491,300	0	0	0	0	0	0	0	491,300	0	0
58	18K0033	CIP	East Flatiron Crossing Drive - Flatiron Marketplace Dr. Intersection Reconstruction	443,300	22,715	351,237	0	69,348	0	0	0	0	0	0
59	18K0032	AR	East Flatiron Crossing Drive - US 36 to Brainard Drive - Reconstruction	714,600	25,960	5,388	667,600	683,252	0	0	0	0	0	0
60	20M0028	CIP	Elmwood St - East 14th Ave to East 18th Ave Reconstruct	576,250	0	0	576,250	0	0	76,250	500,000	0	0	0
61	20P0038	CIP	Lowell Blvd. - Indian Peaks Blvd. - Guard Rail/Fence Repair	202,000	0	0	202,000	0	202,000	0	0	0	0	0
62	0AZ0020	AR	Pavement Management/Street Sealing Program - Citywide	Annual Program		3,844,178	4,650,000	1,152,520	6,000,000	4,952,362	5,110,837	5,417,487	5,590,847	114,429,106
63	0AZ0435	CIP	Pedestrian Bridge and Underpass Repairs	Annual Program		0	50,000	0	100,000	50,000	50,000	50,000	50,000	750,000
64	0AZ0011	AR	Residential Concrete Rebate Program	Annual Program		74,934	80,000	80,000	80,000	80,000	80,000	80,000	80,000	1,200,000
65	18H0024	CIP	Sheridan Blvd/Midway Intersection Improvements	1,258,846	59,360	57,784	0	1,141,702	0	0	0	0	0	0
66	17G0025	CIP	Sidewalk - 120th Avenue - Main to Teller (South side of street)	350,000	8,731	61,003	0	280,266	0	0	0	0	0	0
67	18M0027	CIP	Sidewalk - 120th Avenue (Local) - Pedestrian and Roadway Improvements	1,401,510	49,444	70,228	0	68,247	1,213,591	0	0	0	0	0
68	18F0007	CIP	Sidewalk - Wadsworth to 116th Circle (RT12) Repair and Construction (Phase 2) - Design Amount Only	15,000	0	0	0	15,000	0	0	0	0	0	0
69	0AZ0044	CIP	Traffic Mitigation - Citywide	Annual Program		191,435	160,000	160,000	160,000	160,000	160,000	160,000	160,000	2,400,000
70	0AZ0012	AR	Traffic Signal & Light Pole Replacement - Citywide	Annual Program		93,922	210,000	210,000	258,000	210,000	210,000	210,000	210,000	1,980,000
71	0AZ0045	CIP	Traffic Signal Upgrades - Citywide	Annual Program		190,093	136,260	104,898	148,630	110,250	110,250	110,250	110,250	1,706,000
72	0AZ0007	CIP	Transportation Studies - Citywide	Annual Program		74,114	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,500,000
73	18M0033	CIP	Upham Street - Local Roadway and Sidewalk Improvements	574,450	35,805	112,307	0	49,420	0	376,918	0	0	0	0
74	21P0039	AR	W. 11th Ave Court - Street Reconstruction	535,633	0	0	0	0	535,633	0	0	0	0	0
75	18L0040	AR	W. 12th Ave Reconstruction	560,200	32,450	6,735	0	521,015	0	0	0	0	0	0

2021-2025 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
76			Projects Beyond Current Plan											
77	C0095		1st Ave/Community Park Ball field Access Road - In Civic Center	0	0	0	0	0	0	0	0	0	0	0
78	Z0187	CIP	Alter Street connection to US 287	400,000	0	0	0	0	0	0	0	0	0	400,000
79	C0072	CIP	Aspen Street - Aspen Creek Drive to W. 144th Ave Widening	1,730,925	0	0	0	0	0	0	0	0	0	1,730,925
80	C0073		Baseline Rd: WCR 11 to York Street Widening	0	0	0	0	0	0	0	0	0	0	0
81	C0054	CIP	Huron St. 150th to 160th Ave - Widening and re-alignment	8,268,750	0	0	0	0	0	0	0	0	0	8,268,750
82	Z0188	CIP	Lowell Blvd. Improvements - 144th to 152nd	1,930,000	0	0	0	0	0	0	0	0	0	1,930,000
83	Z0191	CIP	Original Broomfield Street Reconstruction	1,947,611	0	0	0	0	0	0	0	0	0	1,947,611
84	C0060		S. Boulder Rd/160th Ave: Broomfield Co. line to Lowell - New Road	0	0	0	0	0	0	0	0	0	0	0
85	C0061		S. Boulder Rd/160th Ave: Lowell to Sheridan Pkwy Widening	0	0	0	0	0	0	0	0	0	0	0
86	Z0192	CIP	SH 128 Improvements - Indiana Street to SH 121	7,265,000	0	0	0	0	0	0	0	0	0	7,265,000
87	C0057		SH 128: SH-121 to Eldorado Blvd. Widening	0	0	0	0	0	0	0	0	0	0	0
88	Z0193	CIP	SH 7 - I-25 Interchange Improvements	58,000,000	0	0	0	0	0	0	0	0	0	58,000,000
89	Z0194	CIP	SH 7 - Sheridan to WCR 11	2,805,330	0	0	0	0	0	0	0	0	0	2,805,330
90	C0056	CIP	SH 7: Boulder County Line to Sheridan Parkway Widening	5,200,000	0	0	0	0	0	0	0	0	0	5,200,000
91	C0058	CIP	Sheridan Blvd. - Lowell to Northwest Pkwy - 2 lanes only	2,917,215	0	0	0	0	0	0	0	0	0	2,917,215
92	Z0195	CIP	Sheridan Blvd. from SH 7 to I-25 (Broomfield's Share)	25,910,000	0	0	0	0	0	0	0	0	0	25,910,000
93	Z0196	CIP	Sheridan Blvd. Interchange at I-25 Preliminary Design (Broomfield's Share)	2,000,000	0	0	0	0	0	0	0	0	0	2,000,000
94	E0026	CIP	Sheridan Blvd. - W. 120th to E 9th Ave. - Median and Landscape Improvements	5,066,000	0	0	0	0	0	0	0	0	0	5,066,000
95	D0005	CIP	State Highway Access Control Plan for 120th Avenue -Sheridan to Lowell	15,000	0	0	0	0	0	0	0	0	0	15,000
96	E0022	CIP	Teller Street Improvements Adjacent to Vista Pointe	200,000	0	0	0	0	0	0	0	0	0	200,000
97	Z0201		Undergrounding Utility Poles Citywide	0	0	0	0	0	0	0	0	0	0	0
98	Z0186		US 287 left turn lane into Broomfield Market Place south of Miramonte	0	0	0	0	0	0	0	0	0	0	0
99	Z0198		W. 119th Ave. Paving in Original Broomfield	0	0	0	0	0	0	0	0	0	0	0
100	09C0020		W. 120th Ave - Main St to US 287 - Access Plan	0	0	0	0	0	0	0	0	0	0	0
101	Z0116		W. 120th Ave Median Improvements - Main to Sheridan (net of developer)	0	0	0	0	0	0	0	0	0	0	0

2021-2025 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
102	D0009	CIP	W. 132nd Ave Bus Shelter - Westlake	12,500	0	0	0	0	0	0	0	0	0	12,500
103	C0070		W. 136th Avenue: Zuni Street to Huron Street Widening	0	0	0	0	0	0	0	0	0	0	0
104	M0024	CIP	Weld County Road 4 - Rehabilitation	689,000	0	0	0	0	0	0	0	0	0	689,000
Transportation Projects Sub-Total				237,962,219	30,740,386	18,644,430	11,120,649	42,247,640	22,532,983	13,744,004	8,182,757	8,941,482	7,356,597	258,689,799

2021-2025 CIP PLAN - VEHICLE & EQUIPMENT REPLACEMENT PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Equipment Replacement Projects #70110														
Projects Currently in 5-Year Plan														
1	0AZ0047	AR	Facilities - Office Furniture and Equipment Replacement	Annual Program		43,927	110,400	66,899	85,200	30,000	30,000	30,000	30,000	450,000
2	0AZ0079	AR	Non-Mobile Equipment Replacement- Citywide	Annual Program		82,644	413,200	388,200	0	525,000	500,000	525,000	551,250	12,489,970
3	20P0060	AR	Police - Time Division Multiple Access Radio System Upgrade (Broomfield's Share)	500,422	0	0	300,000	0	250,211	250,211	0	0	0	0
4	0AZ0092	AR	Recreation - Indoor Playground Equipment Replacement	Annual Program		0	166,065	0	166,065	0	47,074	0	148,425	527,118
5	0AZ0076	AR	Recreation & Auditorium - Electronic Audio/Video Equipment Replacement	Annual Program		102,703	57,242	41,242	32,303	40,005	40,853	22,806	31,051	841,308
6	0AZ0060	AR	Recreation & Police - Fitness Equipment Replacement	Annual Program		100,407	166,827	52,827	306,200	140,000	211,500	319,663	151,447	3,331,288
7	0AZ0022	AR	Vehicle and Mobile Equipment Replacement - Citywide	Annual Program		1,635,521	1,006,500	722,230	1,549,840	1,874,000	1,800,000	1,908,000	2,022,480	49,899,695
Total Equipment Replacement Projects				500,422	0	1,965,202	2,220,234	1,271,398	2,389,819	2,859,216	2,629,427	2,805,469	2,934,653	67,539,379

2021-2025 CIP PLAN - PLANNING, ADMINISTRATIVE, & MISC. PROJECTS

Line	Account #	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Planning, Administrative & Miscellaneous Projects #70130															
Projects Currently in 5-Year Plan															
1	20-70130-55600	20P0001	CIP	Adams 12 STEM School - (Joint Use/Library)	Annual Program		0	1,000,000	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
2	20-70130-55600	07A0048	CIP	Asset Protection Fund Projects - Citywide	Annual Program		0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	750,000
3	20-70130-55600	17M0065	CIP	Butterfly Pavilion		9,420,000	70,000	500,000	350,000	0	0	2,550,000	350,000	350,000	5,250,000
4	20-70130-55600	0AZ0035	CIP	Citizen/Council Priority Projects - Citywide	Annual Program		0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	375,000
5	20-70130-55600	06Z0079	CIP	Civic Center - Vision Development		827,098	111,316	215,782	0	500,000	0	0	0	0	0
6	20-70130-55600	0AZ0088	CIP	Enhance Broomfield Program	Annual Program		135,886	100,000	665,714	100,000	100,000	100,000	100,000	100,000	1,500,000
7	20-70130-55600	20P0009	CIP	GPS Network Upgrade (GIS)		58,900	0	0	58,900	58,900	0	0	0	0	0
8	20-70130-55600	09C0028	CIP	CMO Project Requests		4,358,330	3,458,330	0	2,400,000	800,000	100,000	0	0	0	0
9	20-70130-55600	0AZ0032	CIP	Neighborhood Grant Program - Citywide	Annual Program		3,357	10,000	10,000	10,000	10,000	10,000	10,000	10,000	150,000
10	20-70130-55600	OILGAS	CIP	Oil and Gas - Environmental Testing	Annual Program		0	0	0	0	0	0	0	0	0
11	20-70120-55200	0AZ0005	CIP	Public Art - 1% Funding	Annual Program		63,955	70,567	502,142	189,888	50,000	50,000	50,000	50,000	750,000
12	20-70121-55600	0AZ0102	AR	Public Art - Collection Maintenance	Annual Program		0	0	0	31,000	12,000	12,000	12,000	12,000	180,000
13	20-70130-55600	15J0055	CIP	Ralston House - Broomfield's Share		243,403	206,578	36,825	0	0	0	0	0	0	0
14				Planning, Administrative & Misc Sub-Total		14,907,731	3,846,224	955,805	4,064,467	2,111,756	2,005,888	3,797,000	1,597,000	1,597,000	13,955,000
15				Capital Project Reserves											
16	20-92100-57220	0AZ0014	CIP	Asset Protection - Transfer to Allocation	Goal: 10,000,000		500,000	500,000	2,500,000	500,000	500,000	500,000	500,000	500,000	5,500,000
17	20-92100-57220	0AZ0065	CIP	Facilities Improvements Allocation	Annual Program		3,134,679	2,267,396	1,511,597	0	2,423,646	2,456,214	2,547,492	2,663,316	43,587,734
18	20-92100-57220	0AZ0006	CIP	IT - Systems Replacement - Allocation	Annual Program		0	0	0	0	0	0	0	0	0
19	20-92100-57220	10D0074	CIP	Transportation - Transfer to Allocation	Annual Program		0	0	0	0	0	0	0	0	0
				Allocation to Reserves Sub-Total		0	3,634,679	2,767,396	4,011,597	500,000	2,923,646	2,956,214	3,047,492	3,163,316	49,087,734
				Total Planning, Admin, Misc, and Reserves		14,907,731	4,590,484	6,831,863	6,123,353	2,505,888	6,720,646	4,553,214	4,644,492	4,760,316	63,042,734

2021-2025 CIP PLAN - BURA PROJECTS

Line	Account #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
BURA PROJECTS															
Projects Currently in 5-Year Plan															
General Projects															
1	60-81150-55200	06Z0079	BURA	Civic Center - Vision Development	511,605	57,600	174,005	0	280,000	0	0	0	0	0	0
2			BURA	Event Center Lighting Replacement	2,000,000	0	0	0	0	0	0	2,000,000	0	0	0
3	60-81010-55200	0AZ0008	BURA	General - Misc. BURA Improvements	658,481	133,481	0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	375,000
4	60-81090-55200	20P0061	BURA	North Park West - Infrastructure Improvements	2,000,000	0	0	0	2,000,000	0	0	0	0	0	0
Projects Beyond Current Plan															
6		C0107	BURA	Alter Street - Connection to US 287 Loop Ramp	200,000	0	0	0	0	0	0	0	0	0	200,000
7			BURA	Civic Center - Roadway Modifications	0	0	0	0	0	0	0	0	0	0	0
8			BURA	Midway Blvd - US287 to W Midway Bridge - Widening	0	0	0	0	0	0	0	0	0	0	0
9			BURA	US 287 - Original Broomfield Segment Conversion from 4 Lanes to 2 Lanes	0	0	0	0	0	0	0	0	0	0	0
10			BURA	W. 120th Avenue - Main to Lamar Street - Underpass Feasibility Study	0	0	0	0	0	0	0	0	0	0	0
11			BURA	W. Midway Blvd - W. Midway Bridge - East Directional Interchange - Widening	0	0	0	0	0	0	0	0	0	0	0
West Midway Extended - 81020															
13		D0048	BURA	W. Midway Blvd - Bridge over Railroad	17,342,992	0	0	0	0	0	0	0	0	0	16,842,992
Total BURA Projects					22,713,078	191,081	174,005	25,000	2,305,000	25,000	25,000	2,025,000	25,000	25,000	17,417,992

2021-2025 CIP PLAN - DRAINAGE & STORM WATER PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Drainage and Storm Water Projects #70020														
Projects Currently in 5-Year Plan														
1	12F0035	CIP	FEMA - Letters of Map Revision	Annual Program		9,520	17,000	17,000	17,000	17,000	17,000	17,000	17,000	238,000
2	08B0006	CIP	Culvert and Small Bridge Inspections - Citywide	Annual Program		0	30,000	62,660	0	23,500	0	24,000	0	174,500
3	0AZ0058	CIP	Erosion Control Maintenance - Citywide	Annual Program		0	10,500	10,500	10,500	11,000	11,000	11,000	11,000	197,000
4	0AZ0016	CIP	Park Drainage Improvements - Citywide	Annual Program		13,741	26,000	4,422	47,578	26,000	26,000	27,000	27,000	384,500
5	0AZ0083	CIP	Residential Street Drainage Improvements - Citywide	Annual Program		0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	700,000
6	Projects Beyond Current Plan													
7	City Park Basin													
8	Z0384	CIP	W. 120th Avenue - Storm Drainage Capacity Improvements - Main St to Sheridan Blvd	238,000	0	0	0	0	0	0	0	0	0	238,000
9	3207 Basin													
10	Z0379		Tom Frost Reservoir - Pond Dredging and Trail Improvements	0	0	0	0	0	0	0	0	0	0	0
11	Rock Creek Basin													
12	Z0398	CIP	Frank Varra	250,000	0	0	0	0	0	0	0	0	0	250,000
13	Z0399	CIP	Josh's Pond	406,500	0	0	0	0	0	0	0	0	0	406,500
Total Drainage and Storm Water Projects				894,500	0	23,261	133,500	144,582	125,078	127,500	104,000	129,000	105,000	2,588,500

2021-2025 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Water Fund Projects														
			RAW WATER PURCHASES & RESERVOIRS #70510, #70511											
			New Capital Projects											
1	10Z0123	G	Carter Lake Pipeline - In-Line Pump Station Share	505,947	33,015	0	0	472,932	0	0	0	0	0	0
2	15G0036	G	Sienna Reservoir/Pump Station/Pipeline	12,339,303	3,839,303	0	0	1,500,000	7,000,000	0	0	0	0	0
3	00Z0267	G	Windy Gap- Storage Reservoir Design And Construction	267,775,782	14,680,342	2,940,444	9,993,899	26,676,033	11,762,050	11,762,050	11,762,050	11,762,050	11,762,050	164,668,713
4			POTABLE WATER AQU. TREATMENT & STORAGE #70520, #70521											
5			New Capital Projects											
6	20Q0028	G	Baseline Water System Reimbursement	2,930,000	0	0	0	830,000	2,100,000	0	0	0	0	0
7	02Z0291	G	North Area Water System Master Plan Improvements - Pipe Capacity and Connections	5,739,626	2,840,279	1,899,347	2,840,000	1,000,000	0	0	0	0	0	0
8	21Q0019	G	North Area Water System Improvements - Tank	13,250,000	0	0	0	0	1,000,000	12,250,000	0	0	0	0
9			Repair & Maintenance Projects											
10	02Z0112	O	Meter Conversion/Replacement - Citywide	5,106,412	2,906,455	99,957	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,500,000
11	18M0046	O	Residential Meter Replacement/Conversion (Itron to Orion Reading System) - Citywide	2,992,435	2,472,254	520,181	0	0	0	0	0	0	0	0
12	18M0045	O	Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting	188,200	0	99,526	0	88,674	0	0	0	0	0	0
13			POTABLE WATER TRANSMISSION LINES & FACILITIES #70530, #70531											
14			New Capital Projects											
15	20P0046	G	Interlocken Tank Land Acquisition	325,000	0	0	475,000	325,000	0	0	0	0	0	0
16	18M0044	G	Mesa Zone - Booster Station	6,530,000	273,065	33,590	0	0	223,345	6,000,000	0	0	0	0
17	03Z0316	G	Service Center - Phase I New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$30M)	5,751,499	228,853	4,115,470	0	1,407,176	0	0	0	0	0	0
18	20P0055	G	Service Center - Technology for New Building - 20% of Cost	35,000	0	0	35,000	35,000	0	0	0	0	0	0
19	14H0048	G	Water Treatment Facility - Expansion	34,008,917	2,014,539	10,978,276	0	12,016,102	0	0	0	0	0	9,000,000
20			Repair & Maintenance Projects											
21	20P0030	O	136th Ave and Lowell Blvd - Water Main Replacement	723,900	0	0	723,900	0	723,900	0	0	0	0	0
22	19N0009	O	Interlocken Booster Zone 1 to Airport Zone - Water Interconnect	40,000	0	1,766	0	38,234	0	0	0	0	0	0

2021-2025 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan	
23	18M0043	O	Potable Water Sampling Stations - Citywide	82,620	18,620	13,338	16,000	18,662	16,000	16,000	0	0	0	0	
24	M0058	O	Service Center - HVAC Replacements - 20% of Total Cost	66,000	0	0	0	0	0	0	0	0	66,000	0	
25	21M0060	O	Service Center - Lighting Upgrades - 20% of Cost	7,000	0	0	0	0	7,000	0	0	0	0	0	
26	19N0007	O	Town Center/Chase Street - Water Distribution Loop	242,000	0	838	0	22,292	218,870	0	0	0	0	0	
27	0AZ0051	O	Utilities - Street Reconstruction	Annual Program		7,242	20,000	50,332	20,000	20,000	20,000	20,000	20,000	20,000	300,000
28	0AZ0001	O	Water Line Replacements And Extensions - Citywide	Annual Program		145,014	900,000	57,812	900,000	0	900,000	0	900,000	6,300,000	
29	20P0019	O	Water Treatment Facility - Building Automation System Installation	73,500	0	0	73,500	73,500	0	0	0	0	0	0	
30	20P0018	O	Water Treatment Facility - Flooring Replacement	0	0	0	43,000	0	0	0	0	0	0	0	
31	20P0020	O	Water Treatment Facility - Lighting Upgrades	0	0	0	72,000	0	0	0	0	0	0	0	
32	20P0021	O	Water Treatment Facility - Roof Replacement	0	0	0	410,720	0	0	0	0	0	0	0	
33	0AZ0048	O	Water Valve Box Adjustments - Pavement Preservation	Annual Program		0	15,000	15,000	15,000	15,000	15,000	15,000	0	0	
34			PLANNING & ADMINISTRATION #70590, #70591												
35			New Capital Projects												
36	0AZ0041	G	Developer Reimbursement - Anthem Infrastructure License Fee Credits	Reimb. Amt		26,828	0	0	0	0	0	0	0	0	
37			Repair & Maintenance Projects												
38	20P0056	O	Marshall Water Rights Change of Use (50% of cost)	577,500	0	0	177,500	177,500	200,000	200,000	0	0	0	0	
39	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		48,165	31,400	227,400	47,400	50,000	50,000	50,000	50,000	750,000	
40	18F0044	O	Public Works - Computerized Asset Maintenance Management System (20% of cost)	300,000	0	0	45,000	0	45,000	255,000	0	0	0		
41	15K0035	O	SCADA Programmable Logic Controls	1,888,801	197,223	712,453	0	979,125	0	0	0	0	0	0	
42	18N0031	O	Utilities Network Infrastructure	2,748,850	0	0	750,000	1,748,850	500,000	500,000	0	0	0	0	
43	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		24,144	46,100	46,100	204,750	200,000	0	200,000	0	1,200,000	
44	0AZ0003	O	Water Fund - Engineering And Legal Services	Annual Program		51,314	55,000	78,686	75,000	147,830	152,265	156,833	161,538	3,094,561	
45	06Z0003	G	Water Fund - Master Plan Updates/ Hydraulic Model	876,021	285,882	14,188	50,000	75,951	25,000	25,000	25,000	25,000	25,000	375,000	
46			Projects Beyond Current Plan												
47	03Z0303	G	Broomfield Reservoir - Raw Water Storage Reservoir Construction	45,138,223	26,688,223	0	0	0	0	0	0	0	0	18,450,000	

2021-2025 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
48	08B0053	O	Great Western Reservoir Water Treatment Plant - Demolition	442,831	81,831	0	0	0	0	0	0	0	0	361,000
49	F0060	G	Service Center - Phase II New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$4M)	800,000	0	0	0	0	0	0	0	0	0	800,000
50	19N0017	O	Town of Erie - Water Interconnect	99,162	0	0	0	0	0	0	0	0	0	99,162
			TOTAL	411,584,529	56,559,884	21,732,081	16,873,019	48,060,361	25,183,315	31,540,880	13,024,315	12,328,883	13,084,588	206,898,436
		G	PROJECT TOTALS -GROWTH	396,005,319	50,883,502	20,008,143	13,393,899	44,338,194	22,110,395	30,037,050	11,787,050	11,787,050	11,787,050	193,293,713
		O	PROJECT TOTALS - NON-GROWTH	15,579,211	5,676,383	1,723,938	3,479,120	3,722,167	3,072,920	1,503,830	1,237,265	541,833	1,297,538	13,604,723

2021-2025 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Sewer Fund Projects														
STORMWATER														
New Capital Projects														
1	15H0026	G	City Park Channel - Overflow Connection to Nissen Channel	1,538,157	202,160	0	0	1,335,997	0	0	0	0	0	0
2	16H0050	G	Nissen Channel - Drainage Improvements Country Vista to Big Dry Creek (Broomfield Match 50%)	3,340,000	780,000	270,000	270,000	270,000	830,000	580,000	610,000	0	0	0
3	16K0050	G	Quail Creek Channel Improvements at Broadlands	509,843	3,843	4,400	0	501,600	0	0	0	0	0	0
4	16J0041	G	Wilcox Subdivision - McKay Lake Lateral Drainage Improvements	3,669,079	236,885	330,568	0	669,432	0	500,000	1,932,194	0	0	0
Repair & Maintenance Projects														
6	17L0038	O	136th Ave/Community Ditch - Culvert Pipe Crossing Rehab	475,693	58,120	417,573	0	0	0	0	0	0	0	0
7	17L0039	O	Aspen St/Community Ditch - Culvert Pipe Crossing Rehab	198,252	15,726	182,526	0	0	0	0	0	0	0	0
8	18N0013	O	Broadlands Lane and Lowell - Drainage Channel Improvements	170,000	0	21,434	0	33,566	115,000	0	0	0	0	0
9	16K0052	O	City Park Channel - Midway Park Modifications	1,510,000	0	238,470	250,000	0	250,000	771,530	250,000	0	0	0
10	21M0038	O	Community Ditch - 16th Ave. Culvert Replacement	76,000	0	0	0	0	76,000	0	0	0	0	0
11	20P0002	O	Community Ditch - Aspen Street at 15th Ave Culvert Lining/Replacement	254,500	0	0	254,500	254,500	0	0	0	0	0	0
12	21M0041	O	Community Ditch - St. Andrews Pipe Replacement	109,445	0	0	0	0	109,445	0	0	0	0	0
13	18M0062	O	Frank Varra Park - Multi-Use Trail Repairs	393,000	12,490	19,916	0	360,594	0	0	0	0	0	0
14	19N0008	O	Highland Park Channel - Improvements	275,000	0	0	25,000	0	0	25,000	250,000	0	0	0
15	19J0019	O	Main Street and Miramonte Blvd - Drainage Improvement	150,000	0	0	0	0	150,000	0	0	0	0	0
16	20P0034	O	McKay Park Drainage Repair	199,021	0	0	0	199,021	0	0	0	0	0	0
17	20Z0380	O	Plaster Reservoir Dredging and Habitat Improvements	250,000	0	0	250,000	50,000	200,000	0	0	0	0	0
18	19J0031	O	Rock Creek Basin B Outfall - Erosion Control	75,000	0	0	75,000	0	0	75,000	0	0	0	0
19	0AZ0084	O	Stormwater Rehabilitation -Citywide	Annual Program		77,653	150,000	231,055	169,482	150,000	150,000	150,000	150,000	2,250,000
TREATMENT FACILITIES														
New Capital Projects														
22	19N0037	G	Wastewater Treatment Facility - Capacity Re-Rating	180,000	0	0	0	180,000	0	0	0	0	0	0
23	21Q0011	G	Wastewater Treatment Facility - Centrate Storage and Equalization	3,630,000	0	0	0	0	3,630,000	0	0	0	0	0

2021-2025 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
24	P0042	G	Wastewater Treatment Facility - Flow Equalization Basin Improvements	1,667,400	0	0	0	0	0	1,667,400	0	0	0	0
25	17Z0205	G	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Temperature (Growth)	9,685,000	0	0	0	0	0	0	0	0	1,940,000	7,745,000
26	11E0005	G	Wastewater Treatment Facility - Odor Control Monitoring and Improvements	4,250,000	0	0	0	0	0	4,250,000	0	0	0	0
27	14F0042	G	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Nutrients (Growth)	49,972,532	52,532	0	3,900,000	4,420,000	0	0	0	0	0	45,500,000
28	11E0003	G	Wastewater Treatment Facility - Process Covers and Equipment Replacements	3,401,265	1,063,421	1,214,915	0	1,122,929	0	0	0	0	0	0
29			Repair & Maintenance Projects											
30	98Z0235	O	Biosolids Farm - Maintenance and Equipment Repair	Annual Program		0	64,000	251,438	68,000	64,000	64,000	64,000	64,000	960,000
31	20P0050	O	UV Disinfection System Replacement	689,500	0	0	689,500	689,500	0	0	0	0	0	0
32	19P0029	O	Wastewater Digester #2 Piping Repair and Improvements	360,500	0	0	0	0	360,500	0	0	0	0	0
33	Q0010	O	Wastewater Treatment Facility - Aeration Blower and Air Distribution Enhancement	600,000	0	0	0	0	0	600,000	0	0	0	0
34	05Z0327	O	Wastewater Treatment Facility - Bldg Repairs	Annual Program		38,486	50,000	96,787	50,000	50,000	50,000	50,000	50,000	750,000
35	18M0034	O	Wastewater Treatment Facility - Centrifuge Backdrive Controls Upgrade	170,001	1,818	500	0	167,683	0	0	0	0	0	0
36	17Z0205	O	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Temperature (Operating)	5,215,000	0	0	0	0	0	0	0	0	1,040,000	4,175,000
37	14F0042	O	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Nutrients (Operating)	37,419,502	4,437,853	64,275	2,100,000	2,397,374	0	0	0	0	0	30,520,000
38	21Q0012	O	Wastewater Treatment Facility - Roof Replacement	296,321	0	0	0	0	296,321	0	0	0	0	0
39	13Z0203	O	Wastewater Treatment Facility - Solids Dewatering	2,500,000	0	0	0	0	0	0	2,500,000	0	0	0
40	21Q0013	O	Wastewater Treatment Facility - Wireless Technology	93,600	0	0	0	0	93,600	0	0	0	0	0
41			COLLECTION LINES & FACILITIES											
42			New Capital Projects											
43	07Z0050	G	257 Property Lift Station and Forced Main – East of I-25	6,000,000	0	0	0	0	6,000,000	0	0	0	0	0
44	14H0014	G	Baseline (North Park) - Gravity Sewer Lines	1,909,667	0	0	0	1,909,667	0	0	0	0	0	0
45	16J0042	G	Baseline (North Park) - Sac Creek Basin Lift Station	3,000,000	0	0	0	0	3,000,000	0	0	0	0	0
46	15G0009	G	Baseline (North Park) - South Preble Creek Lift Station	3,000,000	0	0	0	0	3,000,000	0	0	0	0	0
47	Z0207	G	County Road 8 (NE Broomfield) Lift Station and Force Mains	5,500,000	0	0	0	0	0	0	0	0	5,500,000	0
48	19N0025	G	Interlocken Interceptor Capacity Study	150,000	0	0	0	150,000	0	0	0	0	0	0
49	21Q0034	G	Midcities Sanitary Sewer	1,000,000	0	0	0	0	1,000,000	0	0	0	0	0

2021-2025 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
50	08B0057	G	North Area - Construct Lift Station and Sewer Lines (Subbasin 2A & 2B) Additional Pumps	12,583,247	10,083,247	0	0	0	0	0	2,500,000	0	0	0
51	13Z0208	G	North Area Force Main (Subbasin 2 to WWTP)	13,804,121	1,626,323	351,115	0	11,826,683	0	0	0	0	0	0
52	09C0032	G	North Broomfield Expansion (24 Inch Forcemain Pump Station to Highway 7)	2,186,982	0	0	0	0	0	0	0	0	2,186,982	0
53	19N0016	G	Northlands Lift Station - Access Road Design	82,500	0	0	0	0	0	82,500	0	0	0	0
54	03Z0316	G	Service Center - Phase I New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$30M)	5,591,832	264,296	4,115,932	0	1,211,604	0	0	0	0	0	0
55	20P0055	G	Service Center - Technology for New Building - 20% of Cost	35,000	0	0	35,000	35,000	0	0	0	0	0	0
56	14H0007	G	Super Oxygenation System for Rock Creek Lift Station and Force Main Odor Control	2,794,593	128,791	110,435	0	2,555,367	0	0	0	0	0	0
57	13G0029	G	Westbrooke/Ridge View Lift Station	3,000,001	17,152	0	0	0	0	0	0	0	2,982,849	0
58			Repair & Maintenance Projects											
59	20P0022	O	Baseline (North Park)/Prospect Ridge Academy - Lift Station Removal	70,500	0	0	70,500	70,500	0	0	0	0	0	0
60	M0058	O	Service Center - HVAC Replacements - 20% of Total Cost	66,000	0	0	0	0	0	0	0	0	66,000	0
61	21M0060	O	Service Center - Lighting Upgrades - 20% of Cost	7,000	0	0	0	0	7,000	0	0	0	0	0
62	16K0049	O	Sewer Lift Station Assessment/Study (CDPHE)	30,000	10,374	7,971	0	11,655	0	0	0	0	0	0
63	21Q0038	O	Sewer Lift Station Compliance	8,800,000	0	0	0	0	4,300,000	1,500,000	1,500,000	1,500,000	0	0
64	0AZ0004	O	Sewer Line Replacement and Rehab- Citywide	Annual Program		651,994	306,000	342,948	315,500	0	631,000	0	631,000	4,417,000
65	0AZ0052	O	Sewer Manhole Resets - Pavement Preservation Program	Annual Program		0	20,000	20,000	20,000	20,000	20,000	20,000	0	0
66	0AZ0051	O	Utilities - Street Reconstruction	Annual Program		17,996	10,000	10,000	10,000	10,000	10,000	10,000	10,000	150,000
67	20P0027	O	W 123rd Place and Utica St - Sewer Mainline Rehabilitation	493,124	0	0	493,124	0	493,124	0	0	0	0	0
68	19N0021	O	West 144th Ave. Sanitary Sewer - Lowell Blvd to Clay St	432,000	0	143,918	0	288,082	0	0	0	0	0	0
69	20P0035	O	Willow Run Wet Well Rehab	272,663	57,663	0	215,000	215,000	0	0	0	0	0	0
70			PLANNING AND ADMINISTRATION											
71			New Capital Projects											
72	0AZ0041	G	Developer Reimbursement - Anthem Infrastructure License Fee Credits	Reimb. Amt		177,390	601,155	601,155	274,845	491,655	91,980	421,575	90,885	1,675,350
73	08B0063	G	Developer Reimbursement - South Sewer Outfall (Arista area) Old Wadsworth Blvd. to State HWY 121	279,654	199,808	34,459	14,000	14,000	31,387	0	0	0	0	0
74			Repair & Maintenance Projects											
75	18F0044	O	Public Works - Computerized Asset Maintenance Management System (20% of cost)	300,000	0	0	45,000	0	45,000	255,000	0	0	0	0

2021-2025 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
76	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		80,638	160,800	421,233	170,700	75,000	75,000	75,000	75,000	1,125,000
77	15K0035	O	SCADA Programmable Logic Controls	2,340,001	226,103	865,371	0	1,248,527	0	0	0	0	0	0
78	18N0031	O	Utilities Network Infrastructure	2,748,850	0	0	750,000	1,748,850	500,000	500,000	0	0	0	0
79	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	518,500	518,500	0	100,000	0	100,000	0	600,000
80			Projects Beyond Current Plan											
81	F0060	G	Service Center - Phase II New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$4M)	800,000	0	0	0	0	0	0	0	0	0	800,000
82	09Z0111	O	Sunnyslope Subdivision - Drainage Improvements	550,000	0	0	0	0	0	0	0	0	0	550,000
83	14H0040	O	Wastewater Treatment Facility - Digester Methane Gas Control	704,306	152,306	0	0	0	0	0	0	0	0	552,000
84	H0051	G	Wastewater Treatment Facility - Improvements and Expansion Phase III	30,000,000	0	0	0	0	0	0	0	0	0	30,000,000
			TOTAL	241,855,651	19,630,910	9,437,935	11,317,079	36,430,247	25,565,904	11,767,085	10,634,174	2,390,575	14,786,716	131,769,350
		G	PROJECT TOTALS -GROWTH	173,560,872	14,658,457	6,609,214	4,820,155	26,803,434	17,766,232	7,571,555	5,134,174	421,575	12,700,716	85,720,350
		O	PROJECT TOTALS - NON-GROWTH	68,294,779	4,972,453	2,828,721	6,496,924	9,626,813	7,799,672	4,195,530	5,500,000	1,969,000	2,086,000	46,049,000

2021-2025 CIP PLAN - REUSE WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
Reuse Water Fund Projects														
Acquisition & Storage														
New Capital Projects														
1	09C0031	G	3.2MG Reuse Water Tank (Lowell & Sheridan)	4,836,318	2,336,318	0	0	0	500,000	2,000,000	0	0	0	0
2	10C0084	G	Heit Pit - Pump Station/Inlet Improvements	2,311,908	0	0	1,848,210	0	225,000	2,086,908	0	0	0	0
3	10C0085	G	Heit Pit - Well Field	1,826,236	169,723	0	0	0	506,513	1,150,000	0	0	0	0
4	Repair & Maintenance Projects													
5	06Z0008	O	Reservoir Monitoring and Maintenance	Annual Program		44,383	35,000	121,200	55,000	55,000	55,000	55,000	55,000	525,000
6	06Z0007	O	Raw Water Purchases - Marshall Shares	Annual Program		0	52,000	104,000	52,000	52,000	52,000	52,000	52,000	780,000
7	18M0045	O	Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting	231,800	0	119,520	0	112,280	0	0	0	0	0	0
8	Distribution - Lines & Facilities													
9	New Capital Projects													
10	19N0026	G	Anthem - Connect Reuse Mainlines at Preble Creek and Indian Peaks	1,702,020	0	2,020	0	1,700,000	0	0	0	0	0	0
11	16D0035	G	Meadow Island Diversion Structure	422,700	0	0	84,540	0	422,700	0	0	0	0	0
12	0AZ0040	G	Public Works - Engineering and Legal Services - Projects	4,486,367	4,233,967	105,042	50,000	67,358	80,000	0	0	0	0	0
13	01Z0272	G	Pump Station - Construction (Wastewater Treatment Facility)	2,520,953	1,620,953	0	0	0	0	0	0	900,000	0	0
14	Repair & Maintenance Projects													
15	17L0041	O	Augmentation Station at Slate Ditch	49,000	0	0	49,000	0	49,000	0	0	0	0	0
16	21Q0009	O	Great Western Reservoir Fencing and Security	242,000	0	0	0	242,000	0	0	0	0	0	0
17	16K0037	O	Walnut Creek Water Measurement Flume at Indiana	141,231	32,404	7,555	0	101,272	0	0	0	0	0	0
18	Utilities Planning & Administration													
19	Repair & Maintenance Projects													
20	20P0056	O	Marshall Water Rights Change of Use (50% of cost)	577,500	0	0	177,500	177,500	200,000	200,000	0	0	0	0
21	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		2,682	0	134,195	0	0	0	0	0	0
22	0AZ0040	O	Public Works - Engineering and Legal Services - General	Annual Program		53,349	155,000	181,451	160,000	38,000	38,000	38,000	38,000	570,000
23	20P0057	O	Water Resources Telemetry and SCADA Upgrade	341,250	0	0	341,250	0	341,250	0	0	0	0	0

2021-2025 CIP PLAN - REUSE WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2019 Actual	2020 Original	2020 Revised	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	Beyond the Current Plan
24	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	0	0	0	0	0	0	0	0
25			Projects Beyond Current Plan											
26	D0002	G	Filtration Building Expansion (2 MGD @ Wastewater Treatment Facility)	10,047,900	0	0	0	0	0	0	0	0	0	10,047,900
26	07Z0053	G	North Broomfield/Highway 7 - Reuse Water Line Extensions	3,151,305	1,305	0	0	0	0	0	0	0	0	3,150,000
27	07Z0052	G	North Broomfield/Highway 7 Water Rights (1,816 AF total)	34,764,540	10,434,540	0	0	0	0	0	0	0	0	24,330,000
			TOTAL	67,653,028	18,829,210	334,551	2,792,500	2,941,256	2,591,463	5,581,908	145,000	1,045,000	145,000	39,402,900
		G	PROJECT TOTALS-GROWTH	66,070,247	18,796,806	107,062	1,982,750	1,767,358	1,734,213	5,236,908	0	900,000	0	37,527,900
		O	PROJECT TOTALS- NON-GROWTH	1,582,781	32,404	227,489	809,750	1,173,898	857,250	345,000	145,000	145,000	145,000	1,875,000

5-YEAR CAPITAL IMPROVEMENT PLAN PROJECT DETAILS





City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **6 Garden Center - Building Automation System Upgrade** Project #: 19P0016

Project Description:

Total Project Cost: \$17,682

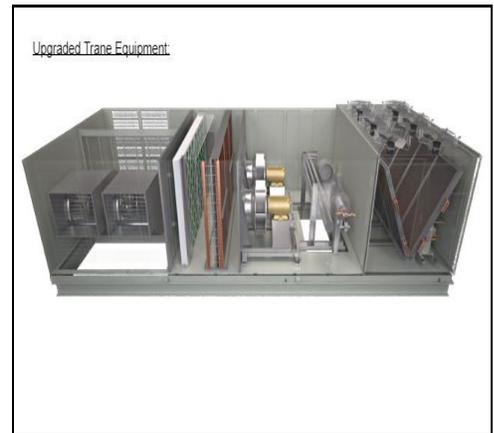
Upgrade the Building Automation System (BAS) platform that manages the complex HVAC equipment at 6 Garden Center in Broomfield.

Background and Justification:

A Building Automation System is a key component in managing the complex HVAC equipment associated with the City’s facilities. The BAS platform at 6 Garden is antiquated, outdated, and will no longer be supported in the next few years. The existing platform is very basic and cannot perform many of the functions the upgraded platform can.

Problem to be Solved and/or Benefit to Citizens:

Upgrading the BAS will also allow consistency amongst users in the city, navigation and changes are easier to accomplish leading to faster response times. The existing Trane Tracer Summit platform will be upgraded with newestest platform available which will ensure reliable operation for decades to come.



Alternatives/Consequences if not Funded:

System failure with the potential that parts cannot be procured or supported. This could lead to emergency funding being required to upgrade the system with elevated costs for expedited services to upgrade.

Project Association:

PDRC BAS Upgrade, P0033.

Operating Budget Impact:

Annual fee of \$2500 for BAS Service/Maintenance Agreement per facility.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	6,000	11,682	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	17,682



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: 12 Garden Center Improvements

Project #: 18M0037

Project Description:

Total Project Cost: \$30,210

Space improvements at 12 Garden Center for the expansion of services of the Broomfield Veterans Museum.

Background and Justification:

With the FISH operations moving to 6 Garden Center, the basement of 12 Garden Center has been freed up to expand the services of the Veterans Museum, with approval from City Council.

Problem to be Solved and/or Benefit to Citizens:

Improvements needed include reconfiguration of the space (i.e. walls, doors, etc.), new flooring, paint, modifications of electrical infrastructure, and HVAC improvements.

Alternatives/Consequences if not Funded:

The space currently is not functional and keeping the space vacant until the improvements are completed is not a practical option.

Project Association:

None

Operating Budget Impact:

No anticipated increase in operating budget.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
30,047	163	0	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	30,210	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Broomfield Depot Museum - Outbuilding Rehabilitation** Project #: 19M0057

Project Description:

Total Project Cost: \$345,500

This request is to stabilize and rehabilitate three historic outbuildings—a Pumphouse, an Outhouse, and the Broomfield-landmarked Honey House—at the Broomfield Depot Museum that are in poor condition.

Background and Justification:

All three structures were on the Crawford Farm and were saved and then moved to their current location on the museum grounds—the Pumphouse and Outhouse in 1992, and the Honey House in 1996. Both the Pumphouse and Outhouse are in very poor condition and are showing signs of imminent failure. The Pumphouse is a safety hazard. If someone were to lean on one of the deteriorated horizontal boards, it is possible it would break.

Problem to be Solved and/or Benefit to Citizens:

Stabilizing and preserving the Outhouse and Pumphouse will allow museum staff and volunteers to interpret them for school groups and the general public. The rehabilitated Honey House could be used for programming space, exhibit space, or storage. This would be a significant benefit to Broomfield and its citizens, both young and old.



Alternatives/Consequences if not Funded:

If the structures are not rehabilitated, they will continue to deteriorate and will eventually need to be torn down for safety reasons.

Project Association:

None

Operating Budget Impact:

There will be no additional operating appropriations once the buildings are rehabilitated. The weekly cleaning schedule for the Depot could include a cleaning of the Honey House, which is modest in size.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	14,042	20,585	0	310,873	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	345,500	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Broomfield Facilities - Parking Lot Lighting Upgrade

Project #: 19N0029

Project Description:

Total Project Cost: \$498,150

This is a 5 year project request to improve 246 existing Metal Halide and High Pressure Sodium parking lot lights with LED's.

Background and Justification:

We currently have in place LED lighting at the Health and Human Services, Library and Dog Park parking areas. Light outages from burnt out lamps or ballast in the City and County of Broomfield facility parking lots have been problematic.

Problem to be Solved and/or Benefit to Citizens:

Replace current parking lot lighting with new and efficient LED lighting, improve lighting conditions and reduce energy consumption at George DeCiero Building, Police/Courts, Paul Derda Recreation Center, Commons Park, Broomfield Industrial Park, Detention Center, Service Center, Water Treatment Plant, Wastewater Treatment Plant & Depot Hill.



Alternatives/Consequences if not Funded:

Leave the parking light conditions as is.

Project Association:

None

Operating Budget Impact:

Decrease the energy consumption and may reduce hours required to maintain city owned street lighting and operating materials.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	12,323	87,307	22,500	37,500
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
22,500	22,500	37,500	256,520	498,150



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Broomfield Recycling Center - Interior Remodel and Restroom Addition**

Project #: 19N0011

Project Description:

Total Project Cost: \$19,850

Remove a wall in Broomfield Recycling Center interior office and add a second restroom back-to-back with the existing restroom.

Background and Justification:

EcoCycle Inc. remodeled the interior of the facility when they were the operating contractor beginning in 2000. EcoCycle provided a very low budget interior finish for the recycled facility. As a cost containment measure they constructed one unisex ADA compliant restroom. The interior of the building hasn't been updated in 18 years.

Problem to be Solved and/or Benefit to Citizens:

The average class size has increased from 8-10 participants to 35-45 participants and average tour group size is currently 25-30 participants. Moving the classes to other locations around the city defeats the original intent of having a one-stop shop with the education center, xeriscape garden, compost demonstration and the recycling drop-off center all co-located at the Broomfield Recycling Center. It is challenging to keep participants engaged while they are watching for an opening in the one and only restroom.



Alternatives/Consequences if not Funded:

Continue to move classes to different venues including the Library, Council Chambers, Zang Spur and Bal Swan Conference Rooms.

Project Association:

Service Center Phase I New Building / Remodel of Existing Building.

Operating Budget Impact:

Maintenance hours will increase slightly because the custodial staff will have two restrooms to clean instead of one.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	17,885	1,965	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	19,850



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **City and County Building - Community Development Space Analysis and Reconfiguration**

Project #: 18M0053

Project Description:

Total Project Cost: \$315,000

This updated request is to finish replacing the remaining cubicle workstations in GIS, Engineering, and Building to match the newer furniture.

Background and Justification:

This request is an update to the Community Development Department’s office space configuration in 2018/2019. The original request allowed Community Development to replace/add cubicle workstations in Planning, CIP, Code Compliance, and Public Works. Additionally the reconfiguration of the front counter, addition of a conference room door, and moving the drinking fountain to allow better access through the main hallway were all achieved.

Problem to be Solved and/or Benefit to Citizens:

The original request was made because there was insufficient office/desk space which has resulted in recently hired staff using the Public Works Administration office space. A review of office/cubicle/desk configurations is needed to allow work groups to be adjacent to each other and space to be used efficiently, while ensuring ADA compliance. Storage space is insufficient for desk files or required hard copies, and there are small areas of space not being well utilized.



Alternatives/Consequences if not Funded:

Staff will not be near others in their workgroups or have needed space to work. Effectiveness and efficiency will decrease.

Project Association:

None

Operating Budget Impact:

There will be minimal impact to operating costs.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
10,245	122,765	0	0	181,990
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	315,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: City and County Building - Lighting Upgrade

Project #: 18M0059

Project Description:

Total Project Cost: \$120,000

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures throughout the entire facility (a total of 628 luminaries) with an energy efficient LED light fixture.

Background and Justification:

Existing lighting is energy inefficient and potentially harmful to the environment. Supposedly these lights can last about 10,000 hours, but their lives are reduced significantly if they are turned on and off too frequently. As a result, users should not use them in places where people could turn them on only briefly. Instead, they should be used in areas where they will be left on for a while. The most alarming drawback of fluorescent lamps, especially among environmentally conscious users, is that the lamps contain mercury. While this element is not toxic or dangerous when the bulbs are being used, it will surely be if the bulbs are broken and not disposed of correctly.

Problem to be Solved and/or Benefit to Citizens:

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars. With an average life expectancy of 100,000 hours, this LED lighting upgrade will equate to potentially 20 years of lighting with minimal maintenance.

Alternatives/Consequences if not Funded:

The consequences of not funding this project will continue to be costly not only by the cost of maintenance but by the cost of ballasts and lamps.

Project Association:

PD Lighting Upgrade

Operating Budget Impact:

The payback on this project is projected to be about 3 years.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
4,463	745	0	0	114,792
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	120,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **City and County Building - Reconfiguration**

Project #: 19N0020

Project Description:

Total Project Cost: \$150,000

Analyze space on the second floor, including Human Resources, Open Space, Finance, and Communications.

Background and Justification:

Facility Services is frequently requested to make changes to office space to make room for new staff, or for changes to the current use of an area. Storage space is insufficient for desk files or required hard copies, and there are small areas of space not being well utilized.

Problem to be Solved and/or Benefit to Citizens:

An in-depth analysis of how the space is being used and the potential for growth is necessary to give staff adequate space to perform their jobs. A review of office/cubicle/desk configurations is needed to allow work groups to be adjacent to each other and space to be used efficiently, while ensuring ADA compliance.

Alternatives/Consequences if not Funded:

Continue to make changes on an as-needed basis.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	2,830	0	147,170	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility - GDC Bldg

Project Name: City and County Building - Replace Eight Roof Top Units **Project #:** 16F0012
(2010 Building Assessment)

Project Description:

Total Project Cost: \$1,034,374

In a 2010 Building Assessment, it was noted that eight roof top HVAC units at the City and County building need to be replaced due to age and low efficiency. (Project combined with annual HVAC Rehab project - 0az0075 - in 2016.)

Background and Justification:

These units should be replaced with energy efficient equipment that provide a return on investment for the life of the equipment.

Problem to be Solved and/or Benefit to Citizens:

This project will replace older inefficient equipment with new equipment to save energy costs and avoid repair costs.

Alternatives/Consequences if not Funded:

Consequences include continuing to make repairs and risking equipment failure.

Project Association:

None

Operating Budget Impact:

This should save time and money, as the existing equipment requires regular repairs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
955,217	79,157	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,034,374



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility - GDC Bldg

Project Name: City and County Building - Roof Restoration

Project #: 20P0012

Project Description:

Total Project Cost: \$313,000

Roof system restoration at the George DeCierio City and County Building.

Background and Justification:

The existing 26,692 square foot EPDM (an extremely durable synthetic rubber roofing membrane) roofing system has four areas: Roof A 17,117 square feet, Roof B 4,426 square feet, Roof C 3,829 square feet, and Roof D 1,320 square feet. The 19 year old EPDM (an extremely durable synthetic rubber roofing membrane) roofing system has reached the end of its life cycle. The EPDM has shrunk to the point that the seams are beginning to tear. This is typical for an EPDM roof of this age. The roof has reached a point where, if not restored in 2020, it will need to be torn off and replaced. Roof tear off and replacement involves a significant disruption to the occupants of the building in the form of excessive noise, dust/debris and solvent odors during a 3 month project.

Problem to be Solved and/or Benefit to Citizens:

Restoring the roof would provide zero disruption to the occupants of the building.

Alternatives/Consequences if not Funded:

Continue to maintain roofing system leaks and repairs. Roof tear off and replacement would be costly.

Project Association:

None

Operating Budget Impact:

Ongoing roof inspections are currently included in annual operating budget



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	313,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	313,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: City and County Building - Second Floor Space Utilization and Reconfiguration

Project #: Q0008

Project Description:

Total Project Cost: \$526,746

Redesign and restructuring of the second floor employee workspace to accommodate efficient workforce growth, productivity and safety.

Background and Justification:

The current office space and cubicle configuration on the second floor has exceeded functional capacity for staff with regards to safety, spacing, and productivity. This issue creates a problem for accommodating the additional staff growth anticipated to meet the needs of the rapidly growing citizen population of the City and County of Broomfield.

Problem to be Solved and/or Benefit to Citizens:

The second floor is home to a number of departments that provide critical internal and external customer support. As the City and County of Broomfield grows, so do the demands for these services. The addition of employees to meet the needs of our growing community has created an increase in the demand for workspace in order to meet customer needs, a growing workload and both internal and external service requests.

Alternatives/Consequences if not Funded:

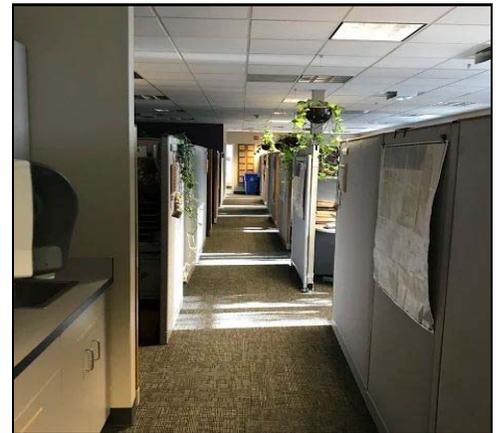
CCOB will be unable to provide workstations to accommodate projected staff growth or provide customers with effective and efficient service.

Project Association:

Facilities Staff have requested funding to make HVAC adjustments for ductwork and VAVs located in the City and County Building.

Operating Budget Impact:

Decrease the demand and overtime that Facilities staff have been dedicating to cubicle adjustments.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	0	526,746	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	526,746	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility

Project Name: Electric Vehicle Charging Stations

Project #: 20P0058

Project Description:

Total Project Cost: \$60,000

Install four *level two Electric Vehicle (EV) stations at the Human Health Services building and one level two EV at PDRC.

Background and Justification:

EVs are a relatively new part of the transportation system. Public charging stations allow EV drivers to have the ability and confidence to drive throughout Broomfield for travel within and between the surrounding areas. Incorporating EV charging station planning into broader local and regional planning processes can help ease the adoption of this new technology. While gasoline powered vehicles will be around for many years, there is a shift in the transportation industry towards electrification that will change how we drive and fuel our vehicles. Evs can be very beneficial to the community and the residents. Unlike gasoline powered vehicles, Evs emit no air pollution, do not require imported fuel that must be transported via tankers or pipelines (which also eliminates the risk of fuel or oil spills and leaks), and are quieter. To achieve these benefits and support the residents who make the investment in cleaner cars, the community can promote the use of Evs by becoming EV-ready.

Problem to be Solved and/or Benefit to Citizens:

EV stations will support and provide an option for staff and citizens to charge their electric vehicles as needed. As technology and innovation with EVs continue to advance, implementing and preparing for the current and future EV needs will give residents who have invested in an EV peace of mind knowing they have a way to charge their vehicles within the city.

Alternatives/Consequences if not Funded:

Residents and visitors that have made the switch to electric vehicles may be hesitant to visit the city if there is a chance they could become stranded.

Project Association:

None

Operating Budget Impact:

Operating budget would need to increase to cover broken, vandalized, or worn replacements/repairs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	30,000	30,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	60,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Emergency Generator Upgrades - Citywide

Project #: 16K0018

Project Description:

Total Project Cost: \$150,000

Upgrade emergency generators at George Di Ciero City and County Building, Police and Courts Building, Detention and Training Center, and the Broomfield Community and Senior Center.

Background and Justification:

Equipment will include an outdoor rated manual transfer switch. The switch will be equipped with cam-locks and a 120 volt outlet to provide shore power to the connected portable generator for battery charger and coolant heater operation. Automatic remote starting will be installed via isolated relay contacts. This upgrade would enhance safety and reduce required connection time significantly when an alternate power source is needed.

Problem to be Solved and/or Benefit to Citizens:

Developing a standby system will protect the existing emergency generators from a catastrophic event, response time will be more efficient, and downtime will be decreased. Most importantly, safety will not be compromised.

Alternatives/Consequences if not Funded:

Response time and downtime would both be higher if the main emergency generator fails.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
43,451	37,646	2,100	0	66,803
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Facility UPS Battery Replacement**

Project #: 19K0020

Project Description:

Total Project Cost: \$257,945

The building Uninterrupted Power Source (UPS) units installed in the George Di Ciero City and County Building, the Detention and Training Center, and the Police/Courts Building will require battery replacement every three years.

Background and Justification:

In the event of a power loss, the UPS units are used to provide short-term power to network servers and computer equipment for continuous, uninterrupted operations until the building generator reaches full power or utility power is restored.

Problem to be Solved and/or Benefit to Citizens:

The life expectancy for the batteries in these units is three years. This request is to have ongoing funds available for replacement every three years to ensure reliable, redundant power.

Alternatives/Consequences if not Funded:

The alternative would be to wait until the batteries fail and not replace at life expectancy.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	22,745	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
39,200	0	0	196,000	257,945



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **IT Network Closet Badge Readers - Citywide**

Project #: 18M0052

Project Description:

Total Project Cost: \$43,076

Install ID badge readers to all information technology data closets located in City and County facilities to improve control and monitor access to these locations.

Background and Justification:

In October 2015, an independent IT security assessment was conducted and found that access to several data closets was limited to the use of a physical key. The finding was rated as a medium risk and recommended that all data closets have controlled access through the use of the employee ID. Adding badge access readers to these locations improves access control to limit who can access the data closet, remove/add access immediately from a central console, and capture date/time information on who opened the door. There are twenty-three data closets that need to have badge readers installed.

Problem to be Solved and/or Benefit to Citizens:

The IT Department has implemented motion activated cameras to capture images of entry, however, adding an additional control with the badge readers significantly increases the protection of the sensitive equipment located in these areas. Badge readers provide increased protection if a disgruntled employee's access needs to be removed or if outside vendors need temporary access.



Alternatives/Consequences if not Funded:

If this request is not funded, the risk to unauthorized access to our network remains a medium risk and the finding from October 2015 will remain open.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
36,826	6,250	0	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	43,076	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Jefferson Academy Expansion - Joint Use

Project #: 18N0042

Project Description:

Total Project Cost: \$1,150,000

Jefferson Academy Secondary School Expansion.

Background and Justification:

Jefferson Academy (JA) Secondary School is a seventh through 12th grade charter school approved by the State Board of Education and the Jefferson County School District R-1. JA is the only Jefferson County School District school located within Broomfield's jurisdiction. This project will provide funding for the construction of a 28,000 square foot, one-story building addition at JA.

Problem to be Solved and/or Benefit to Citizens:

This project will expand the JA gymnasium and fitness room, add a performing arts space, maker (creative flex) space and art classroom. The new facility will increase Broomfield's capacity in the creative/arts/cultural affairs arena.

Alternatives/Consequences if not Funded:

The Jefferson Academy Secondary School will need to find alternative financing for the expansion.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Service Expansion Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,000,000	0	150,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,150,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Library/Auditorium - Master Plan

Project #: 18M0054

Project Description:

Total Project Cost: \$175,000

This is a request to begin a community needs assessment and facility analysis for the creation of a master plan for the Library Services and Cultural Affairs department.

Background and Justification:

An assessment was conducted in 2007 by the Library Board and Library Staff. At that time, Broomfield fell far below the essential standard for library space per capita. In 2007, the Broomfield population was 52,745, and library space was .50 square feet per capita. The Colorado State Demographer's office estimates Broomfield's population will hit 68,771 in 2017 and 70,490 in 2018. Broomfield continues to fall vastly below the essential space standard for a community of its size.

The existing Library and 300-seat Auditorium space was built in 2001 and totals 37,000 sq. ft.

Problem to be Solved and/or Benefit to Citizens:

A master planning process will allow the department to identify service standards, facilities, technology, and other community priorities to meet current and future needs for all Broomfield residents. A consultant would be hired to assist staff with the community needs assessment and facility analysis.

If this proposal is approved, the Library/Cultural Affairs department could present options to Council regarding evaluation and benefit comparison of adding to the existing facility and/or constructing an additional library building.



Alternatives/Consequences if not Funded:

Community priorities would not be addressed. Space would continue to be a struggle for the current facility. Current service levels would diminish and, as a result, discourage residents from using the Library and Auditorium. Residents in the northern part of Broomfield would remain underserved.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
22,975	14,525	137,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	175,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Library/Auditorium - Boiler Upgrade

Project #: 20N0023

Project Description:

Total Project Cost: \$150,000

Replace and upgrade the existing HVAC boiler (1.5 MMBTU input heating water boiler), with a high efficiency condensing boiler.

Background and Justification:

The original HVAC hot water boiler has been in place and in constant use for over 15 years, which is the manufacturers estimated life expectancy. It is becoming increasingly difficult to obtain parts, making servicing more difficult. Additionally, lead time on parts has been averaging 4-5 weeks. Without an operational and reliable domestic hot water boiler, the facility cannot be open for public use. Although the library has never closed due to a boiler failure, comfort complaints are a regular occurrence due to an unreliable unit.

Problem to be Solved and/or Benefit to Citizens:

The proposed high efficiency boiler system would provide the citizens/taxpayers with new, reliable, and energy efficient equipment.

Alternatives/Consequences if not Funded:

Energy loss will continue to exist and system failure will cause closure of the facility.

Project Association:

None

Operating Budget Impact:

Ongoing preventive maintenance



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	150,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Library/Auditorium - Lighting Technology Upgrade

Project #: 21Q0007

Project Description:

Total Project Cost: \$1,065,590

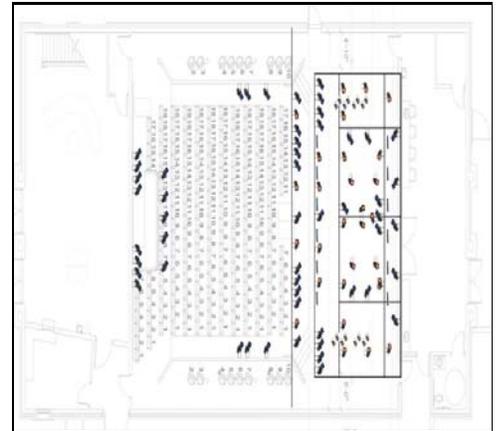
Upgrade the Auditorium Performance and House lighting systems, dimming panel, front-of-house lighting control board, associated lighting controls, projection system as well as to install catwalks.

Background and Justification:

The current lighting system is over 19 years old, and has already started experiencing age-related failures.

Problem to be Solved and/or Benefit to Citizens:

Upgrade of our existing and outdated lighting system, with some additional lighting positions added. We plan to upgrade to energy-efficient LED lighting that will save costs in multiple ways while enhancing our technical capabilities to allow renters to run more professional looking shows.



Alternatives/Consequences if not Funded:

Carbon emissions will be increased overall if the existing system continues to be run. Lamp costs will continue to increase over time, and ongoing maintenance is costly in tech time and carries liability involved with being in the genie lift.

Project Association:

None

Operating Budget Impact:

Ongoing maintenance/operating expenses will decrease significantly from the existing system, though existing maintenance routines would still need to be applied to the lighting dimmer rack system.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	250,000	815,590
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,065,590



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Library/Auditorium - Lobby Restroom Remodel

Project #: 20P0014

Project Description:

Total Project Cost: \$60,000

Remodel of the restrooms of the main lobby at the Mamie Doud Eisenhower Library and Auditorium Building.

Background and Justification:

This highly used facility, with Library patrons and Audi special events has had complaints on the condition of the shared restrooms in the lobby. The current restroom has wall paper which is peeling and extremely worn. Countertops and partitions date from the original construction, and have exceeded their 15 year life expectancy and are showing signs of denting, fading and delamination. Mirrors are also damaged beyond repair and need replaced.

Problem to be Solved and/or Benefit to Citizens:

The remodel is needed to update/repair the existing counters, faucets, walls and partitions.

Alternatives/Consequences if not Funded:

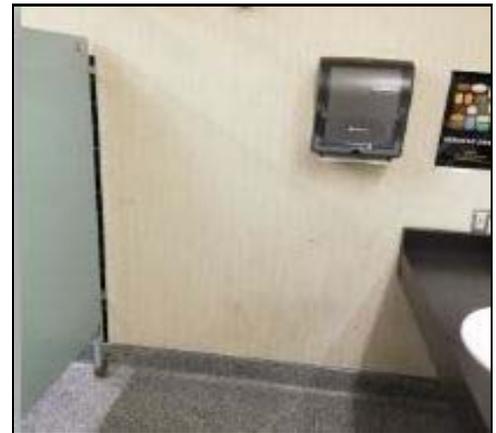
Even with minor maintenance and daily cleaning, restrooms will continue to look neglected and worn.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	60,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	60,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Library/Auditorium - RTU Replacement and VAV Upgrades**

Project #: 20N0005

Project Description:

Total Project Cost: \$460,900

Upgrade and replace (3) existing rooftop HVAC units, as well as (1) associated VAV Box at the facility.

Background and Justification:

Due to the age of the existing equipment (installed in 2001), mechanical failures have become consistent and costly. We have seen work requests and failures raise significantly with a least a dozen trouble calls per month associated with the equipment. The equipment has reached its serviceable life span and parts have been increasingly difficult to obtain, and the energy efficiency ratings do not conform to today's standards. The existing RTU's were a custom made application for for the library and obtaining true efficiency ratings is difficult.

Problem to be Solved and/or Benefit to Citizens:

New high efficiency units use about 35% less electricity than 15 year old units. If older units are starting to incur significant repair costs, a new unit will pay for itself in under two years if both energy and maintenance costs are combined. New equipment would provide sustainable and reliable comfort while allowing building operators greater zonal control for increased building occupant comfort.



Alternatives/Consequences if not Funded:

Energy loss will continue to exist and system failure will cause closure of the facility.

Project Association:

None

Operating Budget Impact:

Ongoing preventative maintenance costs.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	460,900	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	460,900



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Library/Auditorium - Staff Workroom and Auditorium, Office Reconfigurations** Project #: 20P0006

Project Description:

Total Project Cost: \$26,054

The purpose of this CIP request is to address issues related to insufficient and/or outdated staff workspace for Library and Cultural Affairs staff.

Background and Justification:

Over the past 18 years since the construction and opening of Broomfield Library and Auditorium, the Library and Cultural Affairs department has greatly evolved. The department now consists of four divisions (Library, Cultural Affairs, Museum and CSU Extension). In 2017 and 2018, the Library and Cultural Affairs department restructured to better meet the needs of the community. Focused expectations and efforts were communicated to all department staff for the need for increased collaboration for services and programs between divisions within and external of the department.

Problem to be Solved and/or Benefit to Citizens:

With this culture shift, the department is actively seeking ways to further integrate each division as part of the whole service and program plan for the department. This focus on cross-collaboration to provide more efficient and effective services and programs has led to the need to reconfigure existing staff areas within the Library and Cultural Affairs facilities.



Alternatives/Consequences if not Funded:

CSU Extension remains in the basement of the City/County building impacting the needs of the Election staff. Staff work areas will continue to be ineffective. Impact on morale.

Project Association:

Other Library projects also associated with Civic Center.

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	26,054	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	26,054	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Lowell House Demolition

Project #: 18M0039

Project Description:

Total Project Cost: \$47,365

Demolition of all buildings and utility related appurtenances on the property.

Background and Justification:

Demolition also includes the abandonment of an existing domestic water well and removal of the septic system in accordance with local and state regulations.

Problem to be Solved and/or Benefit to Citizens:

Removing the house, garage, and outbuildings will eliminate potential vandalism, attraction for vagrants, and liability risks for the City with an unoccupied facility.

Alternatives/Consequences if not Funded:

Leave buildings in tack and monitor/maintain as needed.

Project Association:

None

Operating Budget Impact:

If the project is not approved, operating budget will need to be created for ongoing maintenance.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
1,543	38,422	7,400	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	47,365	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Courts - Boiler Plant Upgrade

Project #: 21P0023

Project Description:

Total Project Cost: \$223,650

This CIP is to request provides funding for a Mechanical Boiler and Domestic Water heater upgrade at the Police and Courts facility.

Background and Justification:

The existing system utilizes two 990,000 BTU Lochinvar boilers (original to the building in 2001) to provide heating water to the building. The domestic water loop is heated by a 300,000 BTU Lochinvar boiler (also original to the building) that heats a 318 gallon storage tank. This CIP would focus on replacing the eighteen year old 85% efficient boilers with redundant 99% efficient condensing boilers which will allow lower operating supply temperatures and superior energy efficiency and reliability.

Problem to be Solved and/or Benefit to Citizens:

With replacement of the boiler, the existing domestic water boiler will be replaced with a heat exchanger. Domestic water will then be heated from the boiler loop eliminating the need for a separate boiler to heat the water. This method would substantially decrease natural gas consumption by approximately 14% on each piece of equipment. The existing boilers have an efficiency rating of 85% and are non-condensable. This means the boiler can not run below 140 degrees without damaging the unit. The new redundant units will be a condensing boilers rated at 99% efficiency, and can run at much lower temperatures than a non-condensing boiler leading to substantial energy savings.



Alternatives/Consequences if not Funded:

Continued loss of efficiency leading to high utility bills, increased occupant discomfort, high cost repairs/maintenance, potential heat exchanger failures causing emergency funding to replace.

Project Association:

None

Operating Budget Impact:

Standard in-house preventive maintenance services.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	223,650	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	223,650



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Courts - Courtroom Bench Replacement**

Project #: 19N0022

Project Description:

Total Project Cost: \$36,800

Courtroom bench repairs and refinish of 32 wood benches needing attention.

Background and Justification:

Due to the age (installed in 2001) and daily use of these benches, they have become scratched, cracked, and unrepresentable to the public.

Problem to be Solved and/or Benefit to Citizens:

Cost savings by repairing and refinishing.

Alternatives/Consequences if not Funded:

Leaving benches as is may result in safety issues for public with splintering wood.

Project Association:

None

Operating Budget Impact:

If the project is not approved, operating budget will need to be created for ongoing maintenance.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	36,800	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	36,800



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Courts - Investigations Space Reconfiguration** Project #: 20P0005

Project Description: Total Project Cost: \$158,330

This request is to build a wall in the Victim Services waiting room, reconfigure space to accommodate additional cubicles, and move equipment to better meet staff needs for the Investigations Division.

Background and Justification:

This portion of the building has had the same configuration since the Police Department building was built in 2001; however, increased staffing is necessary to meet increased workload demands, and additional workstations are needed to accommodate those staff members, as well as improve the workflow that occurs among detectives and sergeants assigned to this space.

Problem to be Solved and/or Benefit to Citizens:

The proposed changes include shrinking the Victim Services waiting room to allow for three to four cubicles to be installed. Additionally, parts are no longer available for the existing cubicles. The Victim Services waiting room will also need new furniture as the existing furniture is 18 years old.

Alternatives/Consequences if not Funded:

Sharing cubicles, placing detectives off-site, or modified schedules is not feasible or functional due to detective workloads and requirements to maintain separate computers, files, and cases.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	158,330	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	158,330	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Courts - IT Room Cooling Upgrade

Project #: 16K0015

Project Description:

Total Project Cost: \$35,000

This request is to add an additional cooling unit to the Courts Building IT Room for redundant cooling in the event of a power loss or mechanical failure of the existing unit.

Background and Justification:

The existing cooling equipment is inadequately sized to control the heat load generated by the equipment in the room. If the temperature in the computer room exceeds or drops below the limits set by the hardware manufacturers, the product warranties could be voided. This request would add desired redundancy.

Problem to be Solved and/or Benefit to Citizens:

The current AV cooling system is at full cooling capacity with no cooling backup. It is critical that the AV equipment stays cool and does not overheat. Without proper cooling, the equipment could be lost or damaged, resulting in security downtime or costly repairs.



Alternatives/Consequences if not Funded:

An alternative is to continue operation with no backup system.

Project Association:

None

Operating Budget Impact:

The additional cooling equipment will slightly increase the utility costs for this facility.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
556	0	34,444	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	35,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Courts - Lighting Upgrade**

Project #: 18M0050

Project Description:

Total Project Cost: \$140,000

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures throughout the entire facility (a total of 760 luminaires) with an energy efficient LED light fixture.

Background and Justification:

Existing lighting is energy inefficient and potentially harmful to the environment.

Problem to be Solved and/or Benefit to Citizens:

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars. With an average life expectancy of 100,000 hours, this LED lighting upgrade will potentially last for 20 years with minimal maintenance.



Alternatives/Consequences if not Funded:

Consequences include the cost of maintenance and the cost of ballasts and lamps.

Project Association:

None

Operating Budget Impact:

The energy cost savings from this project will cover the capital investment in just over two years.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	2,343	0	0	137,657
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	140,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Courts - Police Vehicle Lot Security Fencing**

Project #: 09C0005

Project Description:

Total Project Cost: \$250,000

This request is to augment the perimeter fence around the west and north parking areas of the Police/Courts building with an electronic security gate and pedestrian gate.

Background and Justification:

The parking areas are utilized for police vehicles and Police/Courts employee vehicles. There have been incidents where City owned and privately owned vehicles have been damaged. Individuals have been found loitering in the parking lot.

Problem to be Solved and/or Benefit to Citizens:

The purpose of the project is to enhance security around the Police/Courts vehicle parking area.

Alternatives/Consequences if not Funded:

Keep the parking area open (as it currently is), use parking lot security cameras, and increase lighting.

Project Association:

None

Operating Budget Impact:

This request reduces operating costs by eliminating vandalism repairs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	250,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	250,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Courts - Rooftop Unit 3 Replacement

Project #: 18M0048

Project Description:

Total Project Cost: \$87,505

Replace and redesign one rooftop unit (RTU-3), which services the Dispatch area of the Police Building.

Background and Justification:

The existing unit is obsolete and distressed due to age. RTU-3 was manufactured in 2001, which puts its age over fifteen years. ASHRAE standard (International Technical Society of HVAC) is replacement of any refrigerant unit at fifteen years to reduce mechanical breakdown and increased maintenance. The unit runs 24/7/365 at the Dispatch Center, which puts further wear on the mechanical systems within the unit.

Problem to be Solved and/or Benefit to Citizens:

The refrigerant in the RTU is r22, which is being phased out of production in 2020. RTU-3 is a critical system for the City and County of Broomfield and its emergency operations 911 dispatch call center. Since the original design, the equipment has increased its load, which exceeds the current unit capacity. Therefore, RTU-3 needs to be redesigned to accommodate increased heating and cooling loads. The 2011 building assessment report recommended replacement of this unit in 2016 due to age and condition.



Alternatives/Consequences if not Funded:

Energy loss will continue to exist and system failure will eventually result in complete failure.

Project Association:

None

Operating Budget Impact:

The energy efficiency of a new unit would cut the power usage to approximately one-third of the current system.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	80,105	7,400	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	87,505



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Detention Center - HVAC Equipment Expansion** Project #: 16L0026

Project Description:

Total Project Cost: \$1,024,947

Certain elements of the HVAC equipment installed in the expansion area of the Detention and Training Center are not adequate for the area served and need to be replaced, converted, and reconfigured to effectively heat and cool the area.

Background and Justification:

Despite HVAC system modifications since 2010, the current system, even at maximum capacity, is unable to consistently regulate area temperatures in the housing pods during the hottest and coldest times of the year.

Problem to be Solved and/or Benefit to Citizens:

All male and female inmates, currently housed off-site, will be returned to the CCOB, subsequently providing equal treatment for all inmates.

Alternatives/Consequences if not Funded:

Continue to outsource overflow inmates to Washington County, at an estimated \$117,600 per year.

Project Association:

None

Operating Budget Impact:

Operating cost decrease.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
942,422	82,525	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,024,947



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Detention Center - AV Room Cooling Upgrade** Project #: 16K0017

Project Description:

Total Project Cost: \$86,000

This request is to add an additional cooling unit to the audio visual (AV) equipment room at the Detention and Training Center for redundant cooling in the event of a mechanical failure of the existing unit.

Background and Justification:

This room houses the AV equipment that supports the security equipment (door locks, cameras, and communications). This project would require an engineered design and a bid process for the contracted installation of a three ton ductless split system to back up the existing cooling unit.

Problem to be Solved and/or Benefit to Citizens:

The current AV cooling system is at full cooling capacity with no cooling back up. It is critical that the AV equipment stays cool and does not overheat. Without proper cooling, the equipment could be lost or damaged, resulting in security downtime or costly repairs. The current unit has not been keeping up with heat loads in approximately the past 14 months, and it has been necessary to purchase additional portable cooling units as an interim remedy.



Alternatives/Consequences if not Funded:

Energy loss will continue to exist, and system failure will eventually result in complete failure.

Project Association:

None

Operating Budget Impact:

The energy efficiency of a new unit would cut the power usage to approximately three-quarters of the current system. Overall maintenance and repairs will decrease by 25%.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
8,040	62,240	15,720	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	86,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Detention Center - Driveway Repair

Project #: 16K0016

Project Description:

Total Project Cost: \$68,666

The north and south entrances into the sally port at the Detention and Training Center have heaved. This has created both a trip hazard and a drainage issue into the building.

Background and Justification:

This project was originally requested for 2016 completion. After further investigation, it was determined that expansive soils in the project area are contributing to the heaving pavement, which eliminates the ability to grind the area down. In order to gain a better understanding of the existing soil properties and provide the best solution, we are requesting assistance from an engineering firm to provide design services for the scope of work on repairs.

Problem to be Solved and/or Benefit to Citizens:

This request would remove the asphalt at the entry of both the southeast and northwest entrance of the sally port with one-foot of over-excavation beneath the surface grade and would add imported fill to help stabilize the subgrade material. In addition, this project would replace the asphalt with a larger concrete area to tie into the existing pad.



Alternatives/Consequences if not Funded:

If this is not repaired, the asphalt will continue to heave and will cause additional damage.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
16,439	52,227	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	68,666



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Detention Center - Roof G Replacement

Project #: 19P0011

Project Description:

Total Project Cost: \$230,000

Repair existing 15,256 square foot EPDM (an extremely durable synthetic rubber roofing membrane) roofing system for roof G at the Broomfield Detention and Training Center Building.

Background and Justification:

70% of the roof membrane has become delaminated to the roof structure due to the excessive air pressure being introduced into the roofing system from the HVAC ducting and airflow. The airflow is escaping between the curb and the decking of the HVAC unit and will be corrected when the roof membrane is removed during replacement. The constant air pressure from the underside of the HVAC system has caused the membrane to lift from approximately 70% of the roof's surface. This portion of the building was constructed in 2007 and was not recently replaced under the 2018 hail insurance claim.

Problem to be Solved and/or Benefit to Citizens:

The airflow is escaping between the curb and the decking of the HVAC unit and will be corrected when the roof membrane is removed during replacement.

Alternatives/Consequences if not Funded:

The roofing system is at a high risk of a blow off during a high wind event due to this condition.

Project Association:

None

Operating Budget Impact:

Ongoing roof inspections are currently included in annual operating budget.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	4,900	225,100	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	230,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Detention Center - RTU 1 & 2 Replacement/Upgrade

Project #: 20P0013

Project Description:

Total Project Cost: \$357,459

Replacement of Rooftop Units (RTU) numbers 1 and 2 at the Broomfield Detention Center.

Background and Justification:

The units are original to the building (2001) and serve the main housing population, medical, booking, administrative and training areas. The units utilize hydronic water from the boiler system to heat these spaces. The Detention Center recently underwent a CIP project to replace three RTU's (4,5, and 6) that were undersized in the new pod area. Corrections in this area were high and immediate priorities at the facility. Since the deficiencies in the area have been corrected, this CIP request is to correct another area that has been problematic for years. RTU's one and two have struggled to maintain adequate discharge temperatures (in both heating and cooling modes) to keep the associated spaces in a comfortable range. The existing units use hydronic boiler water to heat the spaces yet the capacity does not provide enough heat to condition the spaces. This is especially true when outdoor temperatures fall below 25 degrees as the systems struggles to provide a 30 degree rise in temperature.

Problem to be Solved and/or Benefit to Citizens:

This new equipment will be removed from the boiler loop and be converted to gas fired units after natural gas line modifications are completed. The eighteen year old equipment will be removed and new units installed utilizing crane services. After factory start up, air balancing and building automation system (BAS) integration will occur. New gas fired equipment would allow effective control strategies such as supply air tempering, demand control ventilation, and will have capacity on the coldest or hottest days to adequately control space temperatures.



Alternatives/Consequences if not Funded:

Occupant discomfort will continue resulting in after hour calls with overtime rates. The equipment compressors and fan motors are past their life cycle causing expensive and extensive repairs. Energy performance will continue to decl

Project Association:

None

Operating Budget Impact:

Anticipated decrease of 35% in electrical utility costs per unit. Gas usage also expected to decrease 5%-10% per unit utilizing advanced control strategies.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	357,459	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	357,459



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Detention Center - Security Gates**

Project #: 18M0047

Project Description:

Total Project Cost: \$48,386

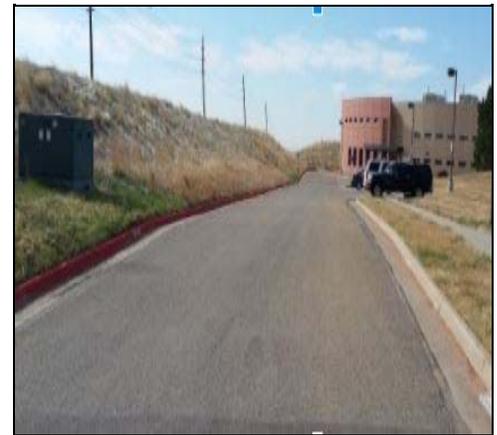
This request is for the installation of two security gates on the west and east entrances to the Broomfield Police Detention Center to restrict both vehicle and pedestrian traffic.

Background and Justification:

The facility has been experiencing a significant increase in the number of incidents with respect to both vehicle and pedestrian traffic that come onto the property throughout the day and night. This has also resulted in several incidents where staff property has been damaged in addition to other security issues requiring staff/citizen contacts. The presence of unauthorized vehicular traffic is of particular concern as there is no defensible space for staff who conduct daily perimeter security checks. While it is impossible to completely stop all pedestrian traffic, the installation of access gates will dramatically reduce the number of unauthorized vehicles that are able to drive up to the restricted areas of the building.

Problem to be Solved and/or Benefit to Citizens:

This project would create four security gates along with physical/visual rock barriers covering both facility entrances to the property for the purpose of limiting both pedestrian and vehicle traffic to "official business" only. The gates will be integrated into the existing security electronics infrastructure that the facility already has. This system will enable all currently authorized personnel to have access to the property without limiting public access to allowable areas.



Alternatives/Consequences if not Funded:

If not approved, staff and inmates will continue to be at risk as the facility currently has no manner in which it can limit vehicular and pedestrian traffic from unauthorized access to the property. Risks to staff and inmates in the facility will continue to be an issue.

Project Association:

None

Operating Budget Impact:

There are no increases to staff time for the maintenance of proposed gates. The addition of security gates will be included in the existing security electronics maintenance contract with the facility's vendor at no additional cost.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	48,386	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	48,386



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Range - Range Sound Mitigation and Facility Improvement**

Project #: 17L0022

Project Description:

Total Project Cost: \$1,211,000

Construct an indoor less-lethal munitions scenario building for the purpose of further mitigating outdoor noise by creating an additional noise barrier and completing more simunition-based training indoors.

Background and Justification:

When the range as a city/county owned property began operations in 2001, the nearest commercial and/or residential sites were 5,387 feet away. Since 2001, significant development has taken place to the east, south, and north of the range, with the nearest Broomfield property now just 2,608 feet away. Additionally, the land directly to the east of the range is actively being marketed for sale, with the Jefferson County border just 240 feet from the range property. Of significant future importance to this problem, CCOB parcel #171708206001 which adjoins Skyestone Parkway, is a mere 1,329 feet from the existing range.

Problem to be Solved and/or Benefit to Citizens:

Mitigate the handgun and rifle noise generated on the property. BPD has begun to receive noise complaints and inquiries from both the nearby Skyestone complex as well as the FedEx Distribution Center. Additionally, Broomfield Facilities and Maintenance staff have found shrapnel near their outdoor storage containers just south of the range.

Alternatives/Consequences if not Funded:

BPD could maintain course with no changes to its current operations; however, this option risks alienating local housing and business groups particularly as the expansion of both Skyestone and the Jefferson County business complex continues.



Project Association:

None

Operating Budget Impact:

One FTE. Maintenance would be similar to current budget.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	161,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	1,050,000	1,050,000	1,211,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Safeway - RTU Upgrade/Building Automation Integrations**

Project #: 20P0017

Project Description:

Total Project Cost: \$491,400

Replacement of five commercial rooftop units located at the previous Safeway building on 120th Ave and Main Street.

Background and Justification:

The existing units are original to the building and have been in service since 1992. The 51 ton Mcquay unit has a broken flue vent chamber and is missing several exterior panels. This unit in particular would require a lot of time and funding to get it operational. In its current condition there is a high potential for flue gases being pulled into the building as it cannot vent properly into the atmosphere. The other units on the roof are in equally poor condition. These units are also missing exterior panels leaving expensive components such as motors and electrical circuitry exposed to the elements for years.

Problem to be Solved and/or Benefit to Citizens:

This building is to be a valuable asset for the City’s future growth and community plans. Given the service life of this equipment the risk of heat exchanger failures is high and would warrant replacement. Another factor to consider is old rooftops can waste between \$900-\$3,700 per unit annually in energy consumption according to the Department of Energy. The addition of a BAS (Building Automation System) platform at the facility would have an immediate and long term impact on energy, labor savings, and extend equipment life. BAS integration typically saves an additional 15% to 30% of the operating cost of building equipment which could equate to \$0.20 to \$0.40 per square foot.



Alternatives/Consequences if not Funded:

Continual allocation of funds for unexpected repairs, large investment of capital to get equipment safe and operational, continued energy loss and performance deficiencies.

Project Association:

Civic center.

Operating Budget Impact:

Standard in-house preventive maintenance services.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	491,400
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	491,400



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Safeway Property - Roof Replacement**

Project #: 19P0010

Project Description:

Total Project Cost: \$513,975

A new roofing system to be installed for the previous Safeway facility at 6775 W.120th Avenue. The new roofing will be needed to replace existing 60,160 sq ft roofing system.

Background and Justification:

The roof covering has massive hail damage. There is massive interior leakage that has led to collapsed ceiling tiles, water on the floor and in some areas the ceiling tiles have mold.

Problem to be Solved and/or Benefit to Citizens:

Testing revealed extensive mold inside the building however, the mold may not be completely eradicated until the roof is replaced.

Alternatives/Consequences if not Funded:

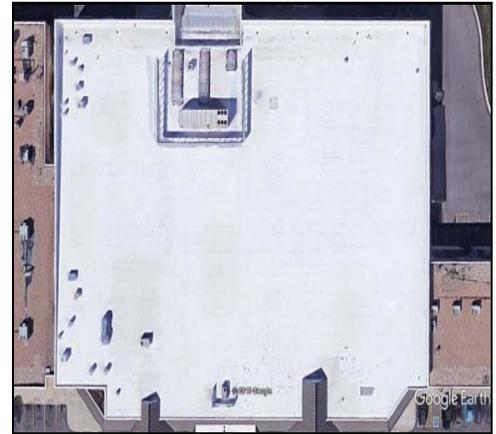
The roof system is beyond the point of making repairs.

Project Association:

Civic Center Development

Operating Budget Impact:

Ongoing roof inspections are currently included in annual operating budget.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	4,975	9,000	0	500,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	513,975



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Service Center - HVAC Replacements

Project #: M0058

Project Description:

Total Project Cost: \$330,000

Replace two roof top units (RTU) and six make-up air (MUA) units with evaporative cooling.

Background and Justification:

The units were manufactured in 1996, which puts them at 20 years of age. Ashrae (International Technical Society of HVAC) standards suggest replacement for gas fired heaters at 15 years of service to reduce high maintenance costs and improve energy efficiency. The units are not energy efficient and appear to be undersized. Rooftop units represent a very large opportunity to increase energy efficiency in commercial buildings. This equipment is exposed to the elements, since it is on a rooftop and in outdoor space. Exposure shortens equipment life, so even well cared for RTUs have a life expectancy of about 15 years.

Problem to be Solved and/or Benefit to Citizens:

The replacement HVAC equipment would benefit the citizens/taxpayers by providing new energy efficient equipment and reducing maintenance and downtime.

The 2011 building assessment indicated that these units were all in fair condition, past their life expectancy and in need of replacement.

Alternatives/Consequences if not Funded:

Energy loss will continue to exist, and system failure will eventually result in complete failure.

Project Association:

Service Center Remodel/Expansion.

Operating Budget Impact:

No additional expense



Funding Source: Sales and Use Tax and Utility Fees

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	330,000	330,000	330,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Service Center - IT Room Expansion

Project #: 18N0034

Project Description:

Total Project Cost: \$100,000

Request that the design/construction of the new Service Center include 400 SQ FT of raised floor space to support critical network equipment.

Background and Justification:

At this current time, City facilities have a single connection that is connected back to the George Di Ciero (GDC) building. Nearly all internet traffic goes through the GDC building making it a significant single point of failure. Developing a fiber backbone will allow network traffic to flow even if the GDC building is not available, however, this approach does require equipment to be added to other facilities.

Problem to be Solved and/or Benefit to Citizens:

The location of the new Service Center at 144th and Lowell is an ideal location to install network equipment planned to be installed as part of the Broomfield Fiber Master Plan. This planned facility is lateral to where the City’s fiber backbone will be installed. The City will need an additional location to facilitate the routing of data across the backbone network. This will also become the primary service point for all current and future City facilities north of 144th. Lastly, this will add significant capacity and redundancy for access to network resources to support all operations within the new Service Center and the Water Treatment Facility.



Alternatives/Consequences if not Funded:

The Water Treatment Facility expansion could be another alternative.

Project Association:

New Service Center.

Operating Budget Impact:

Operating expense increase.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	100,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	100,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Service Center - Lighting Upgrades**

Project #: 21M0060

Project Description:

Total Project Cost: \$35,000

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures throughout the entire facility (a total of 330 luminaires) with an energy efficient LED light fixture.

Background and Justification:

Existing lighting is energy inefficient and potentially harmful to the environment.

Problem to be Solved and/or Benefit to Citizens:

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars. With an average life expectancy of 100,000 hours, this LED lighting upgrade will potentially last for 20 years with minimal maintenance.



Alternatives/Consequences if not Funded:

Consequences include the cost of maintenance and the cost of ballasts and lamps.

Project Association:

GDC Lighting Upgrade

Operating Budget Impact:

The payback on this project is projected to be about 3 years.

Funding Source: Sales and Use Tax and Utility Fees

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	35,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	35,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility

Project Name: **Service Center - Norman Smith Service Center Remodel** Project #: 20P0003

Project Description:

Total Project Cost: \$700,000

This request is for flooring replacement, painting, cubicle workstation upgrades, and some renovations throughout the Norman Smith Service Center on 124th Avenue.

Background and Justification:

The new Service Center at 144th Avenue is beginning construction and will be completed by April 2020. At that time, Utilities, Street Maintenance, some of Fleet, and Construction Inspection will move to the new location.

Problem to be Solved and/or Benefit to Citizens:

The existing Norman Smith Service Center needs to be remodeled to support the Parks Maintenance and Facilities Divisions. The remodel will upgrade the existing facility minimally with new paint, flooring and workstations.



Alternatives/Consequences if not Funded:

The building would have to be used as is, which may not support efficient Parks Maintenance and Facilities operations. The best time for this refresh would be immediately after the other staff members relocate.

Project Association:

None

Operating Budget Impact:

The project may reduce ongoing maintenance since it proposes new flooring and workstations.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	100,000	600,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	700,000



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Service Center - Phase I New Building / Remodel of Existing Building

Project #: 03Z0316

Project Description:

Total Project Cost: \$29,095,331

The project funds the design and construction of a second Service Center Building and expansion of the existing Service Center. The new building will house Utilities field operations, Streets, Fleet, and Facilities Services staff.

Background and Justification:

An additional facility area will increase operating and maintenance costs.

Problem to be Solved and/or Benefit to Citizens:

The facility is in need of expansion to provide adequate area to perform support activities for the Public Works divisions. The current site is constrained by a residential subdivision (Crofton Park) on the north and west of the property, and by the Wastewater Treatment Plant on the east.

Alternatives/Consequences if not Funded:

Several alternatives will be evaluated, including remodeling and/or expanding the existing facility, and/or constructing a new facility near the Water Treatment Plant.

Project Association:

None

Operating Budget Impact:

The Budget impact will be determined once the design is completed.



Funding Source: Sales and Use Tax/Utility License Fees

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,259,892	20,902,388	6,933,051	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	29,095,331



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Service Center - Property and Evidence Storage Room** Project #: 18N0040

Project Description:

Total Project Cost: \$309,200

Secured room addition to the new Public Works Service Center building to ensure sufficient storage space for evidence.

Background and Justification:

The PD's current storage in the Property/Evidence Room is at capacity, and exceeding it in the near future will violate fire code and safety regulations. Currently, shelving extends to the ceiling of the room. Many items of evidentiary value are stored for determinant timelines and cannot be destroyed, specifically regulated by statutory requirements.

Problem to be Solved and/or Benefit to Citizens:

These items need to be secured for an undetermined amount of time in a climate controlled environment. This building project would enable the PD to continue compliance with standards of storage involving police evidence and property obtained during the course of duties. This project promotes future needs and accommodates anticipated growth within the PD's specific responsibilities.



Alternatives/Consequences if not Funded:

Determine other buildings that could be purchased or rented that meet the climate and security components for proper storage requirements.

Project Association:

New Service Center.

Operating Budget Impact:

Discussed with Public Works as part of their existing building project; this request would not increase FTE.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	309,200	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	309,200	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: **Service Center - Technology for New Building - 60% of Cost** Project #: 20P0055

Project Description:

Total Project Cost: \$175,000

This project will provide audio/visual, meeting room scheduling display, network, data and telecommunications equipment for the new Broomfield Service Center.

Background and Justification:

This will include detailed and integrated designs for each conference room, connection devices, cabling, installation, warranties for all hardware and software, network and telecommunications infrastructure, and other equipment necessary to support the buildings technology and connectivity needs.

Problem to be Solved and/or Benefit to Citizens:

The design of the networking and audio/visual equipment and other devices being deployed will allow for collaboration, communication efficiencies, and better utilization of conference and meeting rooms. The networking and telecommunications design and equipment will allow for the connectivity and telephony needs for the staff and residents who use this facility.



Alternatives/Consequences if not Funded:

There are no alternatives for the telecommunications and networking equipment. These are required for the ability to use the phone system and support the network connectivity of this building.

Project Association:

Service Center Building Construction.

Operating Budget Impact:

This equipment will require ongoing maintenance contracts, upgrades, and replacement costs that we have in existence now for all building equipment.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	175,000	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	175,000	



City and County of Broomfield 2021 Capital Improvement Projects

Building and Facility Projects

Project Name: Surge Protection - Citywide

Project #: 16K0019

Project Description:

Total Project Cost: \$133,030

Integrate/modify surge protection devices (SPD) and/or transient voltage surge suppressors (TVSS) in critical and emergency main distribution centers (MDC) as well as electrical panels throughout Broomfield.

Background and Justification:

Install SPD or TVSS devices in power distribution panels, process control systems, communication systems and/or other heavy-duty industrial like systems for the purpose of protecting against electrical surges and spikes, including those caused by lightning, limiting the voltage supplied to an electric device by either blocking or by shorting to ground any unwanted voltages above the safe threshold.

Problem to be Solved and/or Benefit to Citizens:

Numerous facilities are without any surge protection. Surge protection for emergency power distribution is required by the National Electrical Code (NEC) to protect life safety equipment. Annually, the cost of equipment damage and operational downtime due to power/lightning problems comes at a significant price. Data center/IT infrastructures, including desktops and printers, are susceptible to sever damage.

Alternatives/Consequences if not Funded:

Surges could continue negatively affecting equipment; electrical damages can lead to operational upsets even before failure occurs. The semiconductor junctions of electric devices are particularly susceptible to progressive deterioration.



Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
18,178	14,852	10,000	10,000	40,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
20,000	20,000	0	0	133,030



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **Cemetery Management System Software Replacement** Project #: 15J0049

Project Description:

Total Project Cost: \$40,000

The objective is to acquire and implement a comprehensive data management and mapping software application for tracking all aspects of cemetery management and operations to allow CCOB to more efficiently manage the daily operations of two cemeteries.

Background and Justification:

The solution should provide an automated process to manage cemetery services; to produce legal and business documents; and to manage the administration of all spaces based on who owns the spaces, who occupies individual spaces, and legal requirements tied to cemetery spaces.

Problem to be Solved and/or Benefit to Citizens:

Plot Finder Cemetery Management System has not been supported for several years and no technical or training support is available for this product. The system is experiencing difficulty with multiple user stations and is unable to provide all users the ability to update the map with sales and interment information. Only one user and location is able to process updates leaving the team vulnerable to selling a space that has already been sold. We do not have remote access to Plot Finder and the map with all space data.



Alternatives/Consequences if not Funded:

There is fear that the current system could crash taking all records with it and leaving the cemeteries with only written records.

Project Association:

None

Operating Budget Impact:

IT will assist with loading the new system and providing expert assistance with system selection, start-up, and ongoing support.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
32,817	3,125	0	4,058	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	40,000	



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **ComDev - Innoprise Replacement**

Project #: 21N0028

Project Description:

Total Project Cost: \$1,335,000

Develop a technology roadmap around the community development customer service and process efficiencies.

Background and Justification:

To mitigate the risk of replacing a software at the end of its lifecycle, all major technology solutions should be evaluated for best fit/function every 8-10 years. In alignment with this practice, the City and County of Broomfield has reached this mark in the lifecycle with Innoprise.

Problem to be Solved and/or Benefit to Citizens:

Evaluate if current systems, like Innoprise continue to be a good fit for the organization's needs and conduct market research to determine what other systems might be a viable replacement to our legacy software products. This conversation and market research during a stable software environment allow for determining the best approach in both software replacement and change management for the users affected.

Alternatives/Consequences if not Funded:

Research is conducted with operational department funds and CIP request may be submitted at a later time for the product replacement

Project Association:

None

Operating Budget Impact:

The IT Department Operating Budget would acquire the cost of annual maintenance and licensure for software product(s) for the replacement for Innoprise for the Community Development Department.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	160,000	595,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
520,000	60,000	0	0	1,335,000



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **Communications - CRM Road Map**

Project #: 14H0047

Project Description:

Total Project Cost: \$425,332

Purpose of this request is to seek CIP funding to develop a CRM roadmap and lead into a solution procurement for the City and County wide CRM software initiative. Future phases of this project will require additional funding.

Background and Justification:

The City and County of Broomfield currently uses a variety of methods to request, track, respond to, and report on citizen inquiries or requests for various services. These citizen requests come in the form of phone calls to one of dozens of published telephone numbers, emails directly to staff, emails to department group inboxes, web forms and inquiries, U.S. mail, fax, and social media. Currently, the City and County of Broomfield handles each of these inquiries in a different manner, and each department handles its own inquiries in its own way.

Problem to be Solved and/or Benefit to Citizens:

CRM software will provide the ability to track citizen requests from the initial inquiry through the completion or resolution of the request along with the ability to provide detailed reporting on the types of requests and the service quality provided. A hired consultant concluded that Broomfield does an excellent job at providing service to the citizens of Broomfield and consistently goes above and beyond to do things the "Broomfield Way". At the same time, it became evident that there are opportunities for improvements in the efficiency for which these services are provided.



Alternatives/Consequences if not Funded:

Continue business as usual.

Project Association:

None

Operating Budget Impact:

Software maintenance dollars will impact future I.T. operating budget.

Estimated cost of 300,000 (high end) with 20% annual software maintenance.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
16,332	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
150,000	0	0	259,000	425,332



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **Council Chambers and Conference Room A/V Equipment Upgrade**

Project #: 15J0053

Project Description:

Total Project Cost: \$526,519

This project will replace the equipment in the Council chambers and meeting room.

Background and Justification:

This project was initially funded in 2016 with the IT Department refreshing some initial conference rooms with new displays, conference phones, and wireless display connections. Due to the volume of rooms that require individual attention and planning with several other departments, this project is revised to be accomplished over multiple years. The original equipment was installed when the building was constructed in 1996.

Problem to be Solved and/or Benefit to Citizens:

Completing this project on a planned, multi-year timeline will allow IT to efficiently approach this project, while maintaining service levels and response times to customers with IT-related issues and projects. The equipment is old, outdated, and no longer works well for the live and viewing audience.

Alternatives/Consequences if not Funded:

Should funding not be provided for this project, the full use and utility of becoming a mobile workforce will be hindered, and additional strain will be placed on the availability of the few conference rooms that have been equipped with collaboration technology



Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
480,340	11,179	21,014	13,986	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	526,519



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: IT - CAD to GIS Data Integration

Project #: 19N0027

Project Description:

Total Project Cost: \$40,400

Purchase Feature Manipulation Engine (FME) Cloud and Desktop software licenses.

Background and Justification:

As a growing city Broomfield must find cost effective and efficient ways to manage input to GIS database systems that record GIS data such as parcels, roads, rights-of-way, easements, bridges, buildings, signs, and utility infrastructure. At present the engineering data submitted to Broomfield in the form of AutoCAD design and as-built files are not in a process to be automatically converted to GIS data.

Problem to be Solved and/or Benefit to Citizens:

For a robust extract, transform, and load (ETL) of Computer Aided Drafting (CAD) to Geographic Information System (GIS) conversion solution for the City and County. The data conversion solution will provide decision makers with more data earlier in the design process to make better decisions and give us the potential to create datasets with a huge level of detail. FME Cloud and Desktop also provides data interoperability with several other database and file formats and will be useful for many ETL efforts.

Alternatives/Consequences if not Funded:

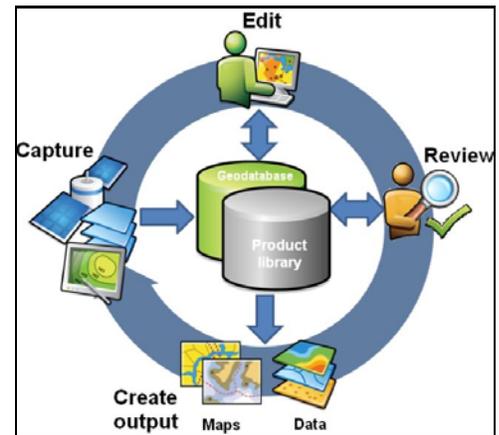
Continue to hire private contractors to review, process, and convert data to the GIS format.

Project Association:

None

Operating Budget Impact:

Increase operating budget for annual software maintenance estimated to be \$12,500 per year.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	40,400	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	40,400



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Communications Conduit Installation**

Project #: 17M0003

Project Description:

Total Project Cost: \$1,035,362

This request is to establish an annual reserve fund to support opportunities to install conduit as part of other development projects when it is in the best interest of the City and County of Broomfield.

Background and Justification:

The majority of the costs to install fiber or other communications media into the ground are the digging costs. It is in the best interest of the City and County of Broomfield to request that the developer add extra conduit for the City and County's future use, which will save hundreds of thousands of dollars. The demand for connectivity has increased exponentially with multiple projects requiring access to a stable and reliable network. Often times, a project will be approved that requires new conduit and fiber in an area that has been dug up for the same purpose within the last two years.

Problem to be Solved and/or Benefit to Citizens:

Several permits to install fiber optics and similar network media are submitted each month. Some of these permits require digging along major roadways or through areas with limited connectivity. A process has been developed to allow the IT Department and other interested parties to participate in the permit review process and determine if there is an opportunity to request the developer to install additional conduits for future use by the City and County. Capturing the opportunity to add conduit significantly reduces the overall costs and expedites the process to utilize the conduit to meet the new requirements.



Alternatives/Consequences if not Funded:

The City and County may continue to miss opportunities to partner with developers and be required to pay full costs for fiber or similar communications media for all future projects.

Project Association:

This project could be associated with all projects that require installing fiber optics or other communications media in the ground throughout the City and County of Broomfield.

Operating Budget Impact:

No anticipated impacts to operating budgets.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
81,024	0	504,338	150,000	150,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
150,000	0	0	0	1,035,362



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Computer Endpoint Encryption**

Project #: 19N0033

Project Description:

Total Project Cost: \$48,000

This project will provide an encryption solution for mobile computers (laptops/tablets) for the City and County.

Background and Justification:

At present all information stored on computers and laptops used by the City and County is accessible to anyone who can login or read the hard drive. If one of these computers were to be lost, stolen, or otherwise end up in someone else's hands, a person could easily read all contents of the hard disk including any sensitive data that the City is responsible for protecting.

Problem to be Solved and/or Benefit to Citizens:

The encryption solution will protect Broomfield's data in the event that a computer is lost or stolen by ensuring the computer's hard disk can only be read by authorized users.

Alternatives/Consequences if not Funded:

Continue to operate at risk with computers that have sensitive data.

Project Association:

None

Operating Budget Impact:

Annual operating expense for support coverage and warranty renewal.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	48,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	48,000



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Data Center Migration**

Project #: 17L0003

Project Description:

Total Project Cost: \$311,221

Update the original Infrastructure as a Service (IaaS) project to migrate the majority of the server and associated applications/systems from the basement of the George DiCiero City and County Building to a commercially data center hosted environment.

Background and Justification:

The existing location for nearly all servers supporting the services for the City and County of Broomfield (CCOB) is in the basement of the George Di Ciero building. Although the server room has been remodeled to provide sufficient power, there are significant concerns related to the physical security, environmental controls, as well as the realistic ability to recover in a timely manner in the event of a disaster. Relocating these servers to a third-party provider will improve levels of service, improve security, enhance system performance, and allow CCOB to establish reliable disaster recovery and continuity of operations capabilities. This project will allow IT Department staff to spend more time solving business challenges and less time maintaining equipment. It will also reduce the burden on the Facilities Department Staff to maintain power, UPS, generator, security, and HVAC systems. Strict service levels would be employed to ensure that hardware and data are secure and maintained and that appropriate backup and recovery protocols are enforced.

Problem to be Solved and/or Benefit to Citizens:

Migrating to an outsourced model will provide a secure, reliable, and redundant alternative. Some servers will remain onsite due to security and performance requirements; however, the objective is to minimize the need to house, support, maintain, and lifecycle server infrastructure.

Alternatives/Consequences if not Funded:

The IT Department will need to make major hardware, software, and firmware upgrades to the existing system in the next three years.

Project Association:

None

Operating Budget Impact:

There will be an increase in the IT Department’s operating budget.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
185,132	13,615	42,474	0	70,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	311,221



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Document Management**

Project #: 17L0014

Project Description:

Total Project Cost: \$177,079

Replace the current document management solution, Hummingbird, with a new system that can meet current and future document management needs for the City and County of Broomfield.

Background and Justification:

This project will include defining current document management practices, new needed document management capabilities, implementation of a new technology or extension of an existing technology, and coordinated development of workflows and management of documents for all associated departments, divisions, and work centers.

Problem to be Solved and/or Benefit to Citizens:

The existing system is ineffective and reaching end of life support. Maintenance of the existing system is limited and the current content is at risk of being lost. The IT Department will coordinate implementing a modern solution that will allow electronic documents to be captured, categorized, reviewed, and stored for easy retrieval.

Alternatives/Consequences if not Funded:

The existing system cannot be upgraded or moved to new hardware that will continue to be supported by vendors. If this initiative is not funded, the risk of lost content in the existing system will increase exponentially and could lead to the permanent loss of public records.



Project Association:

None

Operating Budget Impact:

Operating budgets for the IT Department will have to be modified to allow for ongoing maintenance and support contracts for any software, hardware, or other equipment that will be required for full implementation.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
172,723	4,356	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	177,079



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Fiber Infrastructure Transition/Replacement (iNet)** Project #: 17M0001

Project Description:

Total Project Cost: \$937,553

The project implements an alternative to the current iNet dark fiber currently provided by Comcast through the Cable Franchise Agreement.

Background and Justification:

The current Comcast Cable Franchise Agreement expires June 2018. The City and County currently utilize dark fiber through this agreement to provide network connectivity from the George DiCiero building to the following facilities: 6 Garden Center, the Detention Center, the Paul Derda Recreation Center, Carbon Road Towers (136th and Kohl), and the Public Works Service Center.

Comcast will not renew iNet services through the franchise agreement and has completely removed dark fiber lease agreements as a line of business. Several local municipalities have had their franchise agreements get renewed and confirmed that the only option from Comcast is to move away from dark fiber services and convert to their managed services offerings. This has been a source of significant concern given that the new managed services are significantly higher (factors of 20-30) compared to the iNet rates.

Separate low speed connections are currently leased from local vendors to provide access to 1st Bank Event Center and the FlatIron Crossing Mall substations. The connectivity at these locations are not sufficient and are leased at a premium rate given that connectivity is limited in those areas.

Problem to be Solved and/or Benefit to Citizens:

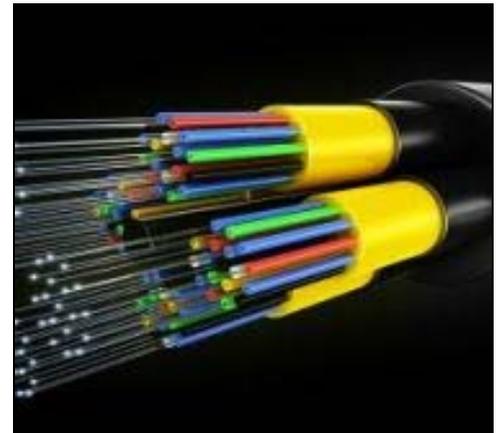
Improving the connections and adding them to a larger agreement as the iNet services are replaced will resolve multiple issues at these locations.

Alternatives/Consequences if not Funded:

Given that a complete replacement of the iNet fiber would require construction across the City and County and at significant cost over a period of 12-18 months, the only option is to enter into another lease agreement for the services.

Project Association:

This project could be combined with any other CIP request that involves adding or replacing fiber optics in the community.



Operating Budget Impact:

The IT Department's operating budget will be impacted.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
318,560	604,076	14,917	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	937,553



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: IT - Municipal Court Separation

Project #: 19P0032

Project Description:

Total Project Cost: \$227,800

Purchase and support new court management software, computers, and printers/copier for municipal staff. There will be reorganization in the clerks area which will require some minor remodeling.

Background and Justification:

After eighteen years, the state court administrator’s office has decided that city employees should no longer have access to the state court management software, hardware, computers and IT support. They are also bringing in a new phone system for the state court employees only. These changes will necessitate the municipal court to separate from the county/district court, requiring each court to function on it’s own, rather than as a combined court.

The municipal court will need a software system to process ticket entry, pleas, payments, accounting, reports and day to day functions.

Problem to be Solved and/or Benefit to Citizens:

The municipal court will separate from the county/district court, requiring each court to function on it’s own, rather than as a combined court.

Alternatives/Consequences if not Funded:

Municipal Court will not be able to function. We will only have limited access to the state court management software for a time period to be determined. Remaining computer life on existing computers is short. Daily operations will not be optimal and the ability to perform our work and serve the public will be compromised.

Project Association:

None

Operating Budget Impact:

IT will budget for annual software maintenance fees and computer/copier replacement fees.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	106,807	120,993	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	227,800



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: IT - New World Server Environment Migration

Project #: 21Q0039

Project Description:

Total Project Cost: \$115,104

Migrate the Police Information System, New World, to our off-premise data center, Green House Data which is the primary, highly available data center for CCOB.

Background and Justification:

The majority of the City and County hardware, software, servers, storage and other infrastructure components are now hosted at Green House Data. New World infrastructure was installed in 2014, and the infrastructure it runs on will be 7 years old in 2021. Typical lifespan for server and storage infrastructure is 3-5 years and as the equipment ages it becomes incredibly difficult to properly support and service.

Problem to be Solved and/or Benefit to Citizens:

Consolidating the New World infrastructure to our off-site data center will allow IT to further scale down the aging, on-site data center infrastructure. Green House Data fulfills redundancy, scalability, and security requirements that the Police Information System requires including CJIS certification of their data center. Migrating New World to Green House Data would provide an opportunity for IT to further reduce our current, aging hardware and software footprint at our data centers at GDC and Detention.

Alternatives/Consequences if not Funded:

Maintenance and support costs for our current VMWare environment and our on-site storage and backup solution will continue to increase annually.

Project Association:

17L0003

Operating Budget Impact:

Annual hosting, support, and maintenance fees that will require increased annual funding in IT's operating budget in 2022.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	115,104	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	115,104



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Payment Processing Consolidation**

Project #: 16L0009

Project Description:

Total Project Cost: \$16,035

This project is aimed at implementing a standard payment processing solution for collecting payments from the public for services across the City and County of Broomfield.

Background and Justification:

At this time, there are multiple payment processing systems that are integrated into business applications across the City and County. Each system has individual fee agreements related to credit card processing. These fee agreements are often with the same company.

Problem to be Solved and/or Benefit to Citizens:

Having a single payment processing solution brings multiple opportunities beyond allowing the City and County to take advantage of consolidating the volume to get the best rate possible for patrons and the City and County operating budgets.

Alternatives/Consequences if not Funded:

Multiple payment processing providers are being evaluated. Many of the major players do not charge implementation fees, so the payment system can be implemented prior to 2017. If this is not funded, the costs of processing credit card payments will likely double.



Project Association:

None

Operating Budget Impact:

The impacts will vary but the goal will be to minimize or reduce the overall costs.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
9,787	6,248	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	16,035



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Smart City Project**

Project #: 19M0005

Project Description:

Total Project Cost: \$4,136,066

Improve the quality of life by enhancing and adding new City and County of Broomfield services to the community through the use and access of unified high-speed connected technologies.

Background and Justification:

The factors that are driving the City and County to evaluate the need to connect citizens, businesses and our community to new and emerging opportunities that require access and use of connected technologies. These opportunities include smart cars, smart homes, automated traffic control, sensor based real time monitoring of industrial affects on the environment, telemedicine, uses of artificial intelligence, and many more example of how the Internet of Things (IoT).

The common denominator behind all of the smart technologies and future use of dynamic sensors and artificial intelligence is a universal fast, affordable, and reliable connection. Commonly referred to as broadband services, that are delivered to mobile and static devices. The foundation for broadband services is a network that is comprised of fiber-optics and high-speed wireless communications systems.

Problem to be Solved and/or Benefit to Citizens:

Should City Council decide to proceed with coordinating the development of a universal network, the goals will be to promote economic development, increase options and competition for internet service providers, reduce time to delivery and access barriers for communications between organizations, sensors, or other network aware devices, and paving the way for future education, lifestyle, and health and transportation services.



Alternatives/Consequences if not Funded:

The Information Technology department would recommend utilizing an add service on top of the public WiFi network that could be used to recover costs and possibly support future development of a Smart City network.

Project Association:

This project could be associated with any other CIP request involving the use of fiber optics or other communications media.

Operating Budget Impact:

Depending on the size and scope of what would need to be accomplished, the plan is to utilize a master developer approach to minimize impacts on existing resources.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	12,925	923,141	800,000	800,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
800,000	800,000	0	0	4,136,066



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **Police - Data Records Management Systems Replacement**

Project #: 11C0092

Project Description:

Total Project Cost: \$3,523,878

This project funds the replacement of Police Records Management Systems (RMS). A consultant will be retained to complete a needs assessment and critical task assessment.

Background and Justification:

A comprehensive system, taking into account all of the current needs of the Police Department, would reduce the overall maintenance costs.

Problem to be Solved and/or Benefit to Citizens:

The current software was implemented in 1998. There have been significant changes in police software since that time, as well as changes to the Police Department's responsibilities, including fire service dispatch and the management of a detention facility.

Alternatives/Consequences if not Funded:

An alternative would be to commit substantial funding to overhaul the current software system (H.T.E.) to bring it to the highest level possible. The proposed needs and critical task assessment will identify alternatives to address the need.



Project Association:

None

Operating Budget Impact:

It is estimated that one full-time employee will need to be added to the IT Department once the system is implemented.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
3,445,840	78,038	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	3,523,878



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: Police - Vehicle Laptop Computer Replacements
(includes installation)

Project #: 11D0037

Project Description:

Total Project Cost: \$1,752,189

This project replaces the computers installed in the police vehicles. There are a total of 40 computers that will be replaced over a three-year period. This funding will replace 13 computers.

Background and Justification:

The computers needing to be replaced are more than five years old. They are a necessary tool for the Police Department to do its job and to provide services to the community.

Problem to be Solved and/or Benefit to Citizens:

The computers in the police vehicles have exceeded their warranty.

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project due to the functionality that police vehicle computers provide to the Police Department.

Project Association:

None

Operating Budget Impact:

This project does not affect operating costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
552,189	0	0	0	240,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	240,000	0,000	1,752,189



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **Public Works - Computerized Asset Maintenance Management System**

Project #: 18F0044

Project Description:

Total Project Cost: \$1,500,000

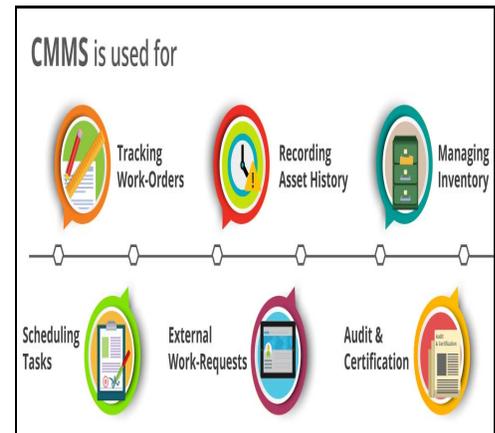
The IT Department requests future funding to replace the current work order software used by Public Works. The software is used to schedule street and utilities repairs and maintenance work.

Background and Justification:

The current software system was purchased in 2001. The company is no longer in business, so updates are not available.

Problem to be Solved and/or Benefit to Citizens:

The software will allow the Public Works Department to make replace/repair decisions based on useful life data that is captured by the Computerized Asset Maintenance Management System (CMMS). In addition to managing work and activities in Public Works, the CMMS will also standardize the manner in which the City and County tracks its assets. Various operating departments, as well as the Finance Department, used different types of applications and systems to maintain asset ledgers and records. Standardizing the asset inventory on a single platform was recommended by the Performance and Internal Audit Department as part of an audit of the capital improvement program.



Alternatives/Consequences if not Funded:

The alternative would be to continue to use the current outdated software until it fails.

Project Association:

None

Operating Budget Impact:

The IT Department Operating Budget would acquire the cost of annual maintenance and licensure of the CMMS System for the Public Works Department.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	225,000	1,275,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,500,000



City and County of Broomfield 2021 Capital Improvement Projects

Information Technology Projects

Project Name: **Recreation Management System Software Replacement** Project #: 15J0050

Project Description:

Total Project Cost: \$373,741

The objectives are to acquire and implement a comprehensive data management software application for tracking all aspects of recreation management and operations and to allow Recreation staff to more efficiently manage daily operations.

Background and Justification:

Recreation staff are currently operating with an unsupported management system.

Problem to be Solved and/or Benefit to Citizens:

The CLASS Recreation Management System has been acquired by Active Network and will be phased out in less than 3 years.

Alternatives/Consequences if not Funded:

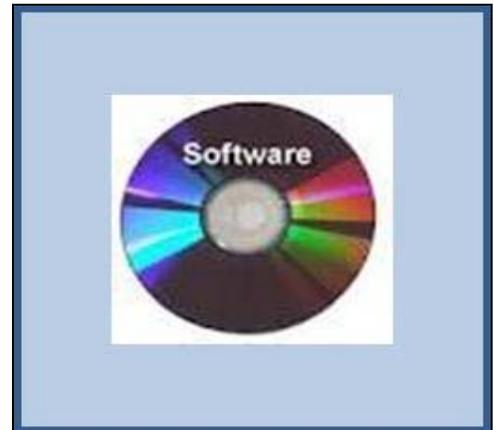
If this project does not get approved, the Recreation Services and Senior Services divisions will be operating with an un-supported management system, leaving the division and the City and County of Broomfield vulnerable to major system failure and significant operations and r

Project Association:

None

Operating Budget Impact:

Depending on whether the new software is an on-premise vs. subscription product, the operation budget could be significantly impacted.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
364,674	9,067	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	373,741



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: Ash Tree Replacement - Citywide

Project #: 15J0017

Project Description:

Total Project Cost: \$644,798

The Emerald Ash Borer (EAB), an evasive insect that attacks and kills Ash trees (Fraxinus species), has been detected in Boulder. A quarantine on the movement of the EAB has been put in place for Boulder County and portions of Jefferson and Weld Counties.

Background and Justification:

The Ash Tree Replacement Program would be an annual program that would last 5 to 10 years. The program would replant the estimated 2,500 to 3,000 Ash trees that would be lost to EAB. 250 trees would be removed each year, and 200 trees would be replanted annually. Prior to the detection of EAB in Broomfield, large populations of Ash trees located in parks, greenbelts, and street rights-of-way would be strategically selected. After EAB is detected in Broomfield, the removal and replanting of the Ash trees would be concentrated in the areas around where the borer is found. Removal of the small and unhealthy Ash trees, prior to being attacked by EAB, would spread out the replacement cost over a number of years. This request is for planting new trees that will replace the Ash trees that were removed - not for the removal of trees.

Problem to be Solved and/or Benefit to Citizens:

Broomfield's Master Plan requires the planting of trees in greenbelts, parks, and street rights-of-way. This program would provide the resources to replant the Ash trees that will be removed as a result of the Emerald Ash Borer infestation, making it possible for the Parks Department to comply with the Master Plan. Trees were planted for the benefits they bring to the Broomfield community. Replanting the Ash trees will provide benefits and create an urban forest that has both tree species and age diversity. This diversity will lessen the impact that future diseases and insect infestations will have on the urban forest.



Alternatives/Consequences if not Funded:

The Ash tree makes up 13% to 15% of Broomfield's tree population. If the trees that are removed as result of the Emerald Ash Borer infestation are not replanted, the benefits that these trees provide will be lost.

Project Association:

None

Operating Budget Impact:

An additional FTE may be required to coordinate and supervise the Ash replacement program, remove Ash trees, and water newly planted trees.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
247,928	93,870	93,500	116,000	93,500
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	644,798



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: Aspen Street Landscaping

Project #: Q0006

Project Description:

Total Project Cost: \$192,000

Complete the segment of right-of-way landscaping along the east side of Aspen Street along the Aspen Creek Subdivision.

Background and Justification:

The developer of the proposed Aspen Creek Filing No. 8 to the north has agreed to construct the sidewalk, and curb & gutter, to have a continuous sidewalk and roadway. Broomfield would reimburse for the roadway per the subdivision improvement agreement, however, the developer is not installing landscaping improvements for this offsite segment of the roadway.

Problem to be Solved and/or Benefit to Citizens:

Currently, Aspen Street improvements stop mid-way along the Aspen Creek subdivision.

Alternatives/Consequences if not Funded:

Leave the area without landscaping.

Project Association:

Could be combined with a proposed pedestrian crossing at the south end of the new planned sidewalk that is planned to connect to the Lake Link Trail.

Operating Budget Impact:

This project will add approximately 0.4 acres of landscape and irrigation to be maintained.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	192,000	0	0	192,000



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: **Brunner House Driveway Improvement**

Project #: Q0036

Project Description:

Total Project Cost: \$18,150

This request is for widening the entrance to the Brunner house, and replacing the numerous dead trees.

Background and Justification:

Currently there is room for only one vehicle at a time to either enter the property or exit it. The landscape just inside of the entrance looks like it has just been neglected. The dead trees should be removed and the landscape revitalized.

Problem to be Solved and/or Benefit to Citizens:

Improve the flow of traffic entering and exiting the Brunner house on to Main Street. Removing the trees would eliminate the risk of the tree falling and injuring persons or causing property damage. Re-landscaping the entrance would improve the curb appeal of the Brunner house.



Alternatives/Consequences if not Funded:

Congested entrance/exit to the Brunner house which is difficult to navigate due to being narrow, and the possibility of damage from tree failure.

Project Association:

None

Operating Budget Impact:

Very small amount of additional snow removal, approximately 100 square feet. The new trees will need regular care to establish them and then pruning as they get larger.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	18,150	0	0	18,150



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: Irrigation Control Replacements - Citywide

Project #: 18M0064

Project Description:

Total Project Cost: \$864,144

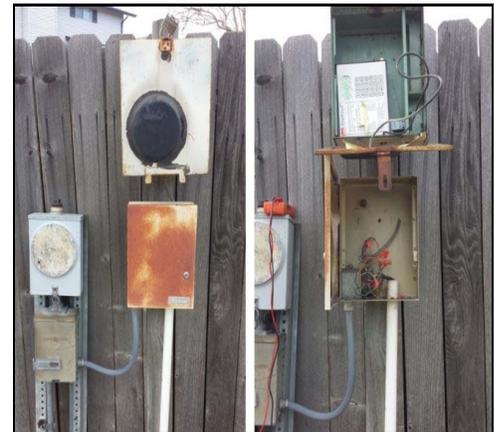
This project addresses a lack of management capability to ninety-seven obsolete irrigation controllers through a technology hardware refresh.

Background and Justification:

In 2015, Parks adopted the newly released Toro Sentinel Version 3, and to date one hundred and ninety-three controllers have been updated to this new operating system. Ninety-seven controllers remain whose outdated hardware components are no longer compatible with Sentinel. Fifty-eight of these were installed prior to 2000 and their enclosures and coordinating peripherals have been rendered obsolete. An additional thirty-four controllers located throughout Arista, Flatirons, and Interlocken were installed under an alternate operating platform (Rainmaster) and were never managed through central control. Since taking back maintenance of these areas from Vargas Property Services in 2011, staff and newly assigned contractors have managed these as stand alone units with no ability to manage or monitor these systems remotely.

Problem to be Solved and/or Benefit to Citizens:

Replacing these controllers located throughout Broomfield will provide full control to all City owned and irrigated properties not currently online with the Toro Sentinel Water Management System. The overall intent is to reduce costs and decrease maintenance needs. To expedite replacement of the controllers and take advantage of the latest technology, Parks is seeking additional funding to complete the update over a three year span. Full control and monitoring capability of all irrigated properties owned and maintained by Broomfield could be achieved by 2020.



Alternatives/Consequences if not Funded:

If additional funding is not supplied, the refresh will be delayed by up to 10 years. A cheaper and non-compatible replacement sacrifices the current \$3 million invested in the Sentinel network to date and will not provide the management tools needed to provide higher services with fewer staffing inputs.

Project Association:

None

Operating Budget Impact:

Water usage will decrease up to 25% with the improved management platform resulting in reduction of water costs at affected properties.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
275,116	294,753	294,275	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	864,144



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: **Island Improvements - Lamar Street and 120th Avenue** Project #: 12D0045

Project Description:

Total Project Cost: \$247,462

This project would relandscape the islands along Lamar Street from 120th Avenue to East 1st Avenue and 120th Avenue from Lamar St. to Ash St.

Background and Justification:

The road segment in these two locations is unsightly. The trees and concrete are in decline and are becoming a hazard.

Problem to be Solved and/or Benefit to Citizens:

This project would improve major entryways in Broomfield.

Alternatives/Consequences if not Funded:

Defer the project or do not improve the islands.

Project Association:

This project will be coordinated with the Civic Center development plan.

Operating Budget Impact:

The project would not significantly affect operating or maintenance costs.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	125,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	122,462	0	0	247,462



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: Library - Solar Panel Landscape Upgrade

Project #: M0007

Project Description:

Total Project Cost: \$80,000

Upgrade the current irrigation system from drip to overhead sprays. Relocate/remove the irrigation controller for this system due to interference from the solar panel field.

Background and Justification:

This area is located in the front of the Library and Auditorium facility. Residents have to pass by this area to visit the Library and Auditorium facility, the amphitheater for concerts and events, and the 9/11 memorial. The Solar panel planting in front of the Library was meant to be an example of an efficient low water use planting. The irrigation system is based off of reuse water. The reuse water contains contaminants that clog the filter and drip emitters, even with cleaning the filter regularly. This has led to the loss of plant material which has led to a decline in the aesthetics of the area. The proximity of the current controller to the solar panels causes communication interference, and this increases the staff hours to reset this controller.

Problem to be Solved and/or Benefit to Citizens:

This project supports Broomfield's strategic outcomes of "Environmental Stewardship", "Facilities and Transportation Infrastructure", and "Engaged and Fiscally Responsible".

Alternatives/Consequences if not Funded:

The overall appeal of the site will continue to decline.

Project Association:

None

Operating Budget Impact:

None anticipated.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	80,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	80,000



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: McKay Lake Park & Open Lands - Landscaping

Project #: 19N0002

Project Description:

Total Project Cost: \$74,000

This request is for appropriate landscaping at the McKay Lake Park and Open Lands in accordance with design plans and the conceptual renderings presented at public meetings.

Background and Justification:

The 15-acre McKay Lake Park and Open Lands project, including the Broomfield Bike Park, was constructed in 2018. Due to the design-build and pioneering aspects of this project and the limited budget, the landscaping was not completed. The habitat enhancement buffer, parking lot and traffic circle areas were landscaped; however, the active play areas (bike park, nature play zones and fitness loop) and public art shade structure in the park were not.

Problem to be Solved and/or Benefit to Citizens:

The park areas and trails are very open and exposed. In the late spring, summer and fall months, it will be very hot. Trees are key to providing adequate shade for users on this large site. While the new nature education and picnic pavilion along the west side of McKay Lake provides significant shade, it is about 0.3 miles (1,800 LF) away from the nature play zones in the park and even further from the nature fitness loop, an inconvenient distance for many users. In addition to providing much-needed shade, landscaping will improve aesthetics and reduce erosion of the large earthen features in the bike park and nature play zones.



Alternatives/Consequences if not Funded:

Continue to not provide shade trees and possible erosion will occur on hillsides in active play areas that would otherwise be retained by the plant material.

Project Association:

It could be combined with construction of the Zuni Street and Quail Creek Drive Roundabout (Project 18K0003).

Operating Budget Impact:

Coordination of all aspects of maintenance and upkeep of the park and open lands with Parks.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	74,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	74,000



City and County of Broomfield 2021 Capital Improvement Projects

Landscaping Projects

Project Name: **Zuni Street - E. Midway to W. 136th Ave. Power Burial/Landscaping**

Project #: 18Z0115

Project Description:

Total Project Cost: \$988,793

This project includes power burial, street lights and sidewalk widening along the west side of Zuni Street from East Midway Boulevard to West 136th Avenue.

Background and Justification:

The landscape portion of this project has been moved to an independent project. The project promotes economic vitality and goal CF-A: Community Identity from the Comprehensive Plan.

Problem to be Solved and/or Benefit to Citizens:

Widening of the sidewalk to 10 feet along the west side of Zuni Street from East Midway Boulevard to West 136th Avenue.

Alternatives/Consequences if not Funded:

None.

Project Association:

None

Operating Budget Impact:

This project would increase water and landscape maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	211,793	777,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	988,793



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: Harmer-Galasso Open Space Management Plan

Project #: 19L0020

Project Description:

Total Project Cost: \$100,000

Define a management plan for 132 acres of open space uses on the property such as trails, farming, native grass restoration, wildlife preservation, trailhead parking, signage, open space buffers, and picnicking.

Background and Justification:

In 2015, Broomfield purchased the Harmer-Galasso Open Space. This site is approximately 132 acres and is located east of County Road 7 and south of County Road 6.

Problem to be Solved and/or Benefit to Citizens:

Broomfield’s Comprehensive Plan calls for the preservation of 40% open lands. This project contributes to the 40% goal and will allow citizens to more fully enjoy the property by planning for trails and other open space uses.

Alternatives/Consequences if not Funded:

If not funded, the site will continue to exist but public access will be limited.

Project Association:

If any design is anticipated in the near future for the Huron and Sheridan Parkways, the two projects could benefit by sharing information.

Operating Budget Impact:

This project will require standard open space and trails maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
100,000	0	0	0	100,000



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: Huron Open Space Master Plan

Project #: 21Q0027

Total Project Cost: \$150,000

Project Description:

The intent of the project is to develop a plan to make modest improvements so the public can access the site safely and enjoy the open space.

Background and Justification:

The Huron Open Space is located between Huron Street and I-25. The land was dedicated to Broomfield by Extraction Oil and Gas. The site is approximately 40 acres. There is a small pond on the east side of the project.

Problem to be Solved and/or Benefit to Citizens:

The project will involve evaluating natural resources and designing a small trailhead with parking, perhaps a picnic table or picnic pavilion, portalet, and trail with benches.

Alternatives/Consequences if not Funded:

The open space could continue to serve as a buffer, while not allowing for public access.

Project Association:

None

Operating Budget Impact:

The proposed trailhead parking lot, picnic shelter and trail will require maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	150,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: Kabert Property - Open Lands Acquisition and Site Clearance

Project #: 18N0036

Project Description:

Total Project Cost: \$541,769

Purchase of Kabert Property and site clean up.

Background and Justification:

The Kaberty Property is located just north of West 120th Avenue and Sheridan Boulevard and is approximately 2.1 acres. An appraisal was completed in October 2017. The land is proposed to be used for a trail corridor that will connect to the Southeast Community Loop Trail, Metzger Farm Open Space and Big Dry Creek Trail. The land will also allow for an open lands buffer between the residential area and commercial center. The Open Space and Trails Advisory Committee reviewed the request on January 20, 2018. City Council also discussed the acquisition on March 13, 2018. As the land is being purchased with the CIP fund, this land may also be used for other purposes that benefit the community.

Problem to be Solved and/or Benefit to Citizens:

The W. 120th Avenue Corridor Sub-Area-Plan call for this parcel to become part of an open lands corridor to buffer the residents to the north and to provide for a trail connection from North Midway Park to Lowell Boulevard.

Alternatives/Consequences if not Funded:

The trail would have to be relocated or not pursued.

Project Association:

A future project is proposed to allow for the removal of the buildings and site clean-up.

Operating Budget Impact:

This property will require standard open lands and trail maintenance.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
13,779	365,275	162,715	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	541,769



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: **Metzger Farmhouse Interior Renovation (Broomfield's Share)** Project #: Q0029

Project Description:

Total Project Cost: \$100,000

This project provides planning and design money to renovate the existing Metzger Farmhouse that is located on the Metzger Farm Open Space.

Background and Justification:

This property is owned jointly by Westminster and Broomfield and is managed by the Broomfield-Westminster Open Space Foundation. The renovation of the exterior of the house was completed in 2019.

Problem to be Solved and/or Benefit to Citizens:

The renovated farmhouse is intended to provide community space for a nature, history, and agricultural heritage center. The house would be used for educational purposes and other types of community gatherings.

Alternatives/Consequences if not Funded:

The farmhouse can still be enjoyed by viewing the exterior of the home.

Project Association:

None

Operating Budget Impact:

There are several options that could be pursued as Westminster and Broomfield would need to agree on the appropriate approach for maintenance and split the costs equally.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	100,000	0	0	100,000



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: **Metzger Open Space - Acquisition Payments to Foundation**

Project #: 14H0056

Project Description:

Total Project Cost: \$6,410,217

This project will fund the acquisition of the Metzger Open Space area.

Background and Justification:

Open Space property purchases contribute to the Comprehensive Plan goal of maintaining 40% of all land as open land within the community.

Problem to be Solved and/or Benefit to Citizens:

None

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

Payment only



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
4,276,388	276,959	275,502	271,508	277,221
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
342,938	344,438	345,263	345,263	6,410,217



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: **Open Space - Grassland Restoration**

Project #: 18M0061

Project Description:

Total Project Cost: \$100,000

OSTAC has requested that a grassland restoration project be pursued on an existing open space site to improve wildlife habitat and perhaps eventually use the site for a prairie dog relocation site.

Background and Justification:

Broomfield’s native habitat is disappearing at a rapid rate. Restoration projects take five to ten years to establish. If this project is not pursued, it will be even longer before a relocation site for prairie dogs can be established. Some members of the public are concerned about the lack of potential locations for future prairie dogs.

Problem to be Solved and/or Benefit to Citizens:

This project provides a proactive approach to the establishment of native wildlife habitat.

It would also allow for the restoration of approximately 30 acres of open space. It is anticipated that perhaps the Davis or Nordstrom open space properties could be converted from winter wheat to native grasses over a period of years.



Alternatives/Consequences if not Funded:

Do not pursue grassland restoration.

Project Association:

None

Operating Budget Impact:

On-going weed maintenance and site monitoring for the restored parcel will be required.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
100,000	0	0	0	100,000



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: Open Space - Master Plan Update

Project #: 17K0051

Project Description:

Total Project Cost: \$325,000

The Open Space, Parks, Recreation, and Trails Master Plan (Plan) was approved in 2005. The Plan requires a tune-up to reflect changes in the community and innovations related to open space, parks, recreation, and trails.

Background and Justification:

The Plan needs to be updated given the 12 year span of time since its approval. Without the update, the Plan could become out of step with the Comprehensive Plan Update and City Council and citizen goals.

Problem to be Solved and/or Benefit to Citizens:

A survey of the community is also proposed as was done with the previous Plan. The statistical survey proved to be very helpful in guiding the development of the Plan. Once the Comprehensive Plan Update is completed, there will likely be follow-up policy and planning issues that will also need to be addressed.



Alternatives/Consequences if not Funded:

Broomfield’s key planning document will become outdated and not relate to new thoughts, the growth of the community, and community goals related to open space, parks, recreation, and trails.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	325,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	325,000



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: **Open Space - Raw Water Purchases - Marshall Shares** Project #: 20Q0018

Project Description:

Total Project Cost: \$74,350

Open Space Fund payment of 2.57 shares of Marshall Division (Marshall) water shares.

Background and Justification:

The Marshall shares are currently decreed for irrigation. Broomfield is preparing an application for water court that will change the use of the shares to all purposes, including storage, municipal, irrigation, and augmentation. This will allow the shares to be stored in multiple ponds throughout Broomfield, or if needed, brought into the municipal system for treatment and potable use. 2.57 shares will be paid for from the Open Space Fund and 5.00 shares will be paid for from the Reuse CIP Fund.

Problem to be Solved and/or Benefit to Citizens:

This purchase will allow for water to 1) support habitat at public ponds in open space areas, including the proposed pond in the Aspen Creek Filing 8 project if approved; 2) enhance passive recreation such as fishing and bird watching by augmenting water flows to selected ponds; 3) provide water for the future Civic Center project; and 4) allow for more flexibility in how Broomfield’s water is managed. Broomfield’s citizens will benefit from these habitat and recreational improvements.



Alternatives/Consequences if not Funded:

There may not be an adequate water supply for the pond being constructed near Aspen St. and Dillon Rd --a key open space and park feature in the proposed neighborhood.

Project Association:

06Z0007 Annual fund

Operating Budget Impact:

None

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	74,350	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	74,350



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: Raptor Policy Study

Project #: 19N0018

Project Description:

Total Project Cost: \$85,000

The Broomfield Bird Club requested that staff and the Open Space and Trails Advisory Committee develop a Raptor Policy.

Background and Justification:

This request was discussed with OSTAC and it was agreed that it would be appropriate to proceed with the project. The funding will cover a wildlife biologist's time to assist the open space staff with development of the policy.

Problem to be Solved and/or Benefit to Citizens:

The Raptor Policy will be an addition to the Broomfield Prairie Dog Policies and Coexistence with Wildlife Policy that will benefit the Broomfield community by identifying ways to conserve raptors in Broomfield.

Alternatives/Consequences if not Funded:

Broomfield will not have information available to the public and developers to foster raptor conservation.

Project Association:

Tie concepts from the proposed Raptor Policy into the update of the Open Space, Parks, Recreation and Trails (OSPRT) Master Plan.

Operating Budget Impact:

None



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	85,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	85,000



City and County of Broomfield 2021 Capital Improvement Projects

Open Space Projects

Project Name: Commerce Street Trail Connection

Project #: 20P0052

Project Description:

Total Project Cost: \$261,500

The project will extend and fill a trail gap from Industrial Lane to Commerce via Park Ave and provide a low-stress alternative for bicyclists and a more direct option for pedestrians to Industrial Lane.

Background and Justification:

Currently, there is only a sidewalk on the east side of Commerce in this segment. The sidewalk on the west side will be challenging to complete due to business access, the path will provide a low-stress and direct option to Industrial lane on the west side of the road and more direct access to Industrial Lane Bikeway. Bike lanes are narrow, pavement quality not high and there is regular truck traffic on Commerce that is not welcoming to less confident cyclists. The Broomfield Pedestrian & Bicycle Assessment identified a theme gathered from residents to improve non-motorized connectivity to/from the Bus Rapid Transit Stations and US 36 Bikeway as well as to Broomfield Civic areas.

Problem to be Solved and/or Benefit to Citizens:

The Project will provide a more direct, low-stress option from Commerce Street to/from the Industrial Lane Bikeway which will be anticipated to be completed in 2021 and avoid the Industrial Lane/ Commerce/Nickel Street intersection. Commerce Street is identified to be a part of the low-stress that is welcoming to all ages and abilities. The project is supported by 2019 Council Priority to support first & final mile access to US 36 BRT stations and implement findings from the Pedestrian & Bicycle Assessment.



Alternatives/Consequences if not Funded:

The project is a strategic component of a long term vision of increased low-stress connectivity for people walking and bicycling to/from Broomfield Station, Industrial Lane and Nickel/Midway commercial area and eventually to Broomfield Civic Center.

Project Association:

Industrial Lane Bikeway Phase 1
Industrial Lane /Commerce/ Nickel Street intersection improvements (design is federally funded), Nickel Street Path Connection (across BNSF).

Operating Budget Impact:

Public Works maintenance staff will be a part of the project review.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	68,000	193,500
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	261,500



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Vive Project Eagle Monitoring - Meritage Homes**

Project #: 20P0062

Project Description:

Total Project Cost: \$80,000

The Vive Housing Development by Meritage Home is required to provide \$80,000 for eagle monitoring annually during the construction of its project.

Background and Justification:

A biologist with ERO Resources will be conducting the eagle monitoring during the construction of the Vive project and they will be paid out of this revenue fund. The ERO biologist will provide a bill to the Open Space Department and this bill will be paid from the \$80,000 revenue account provided by the developer. A specific plan for eagle monitoring has been developed and incorporated into the update SIA. This monitoring plan was also reviewed by the Open Space and Trails Advisory Committee.

Eagle monitoring is important to protect the eagles and their young. The eagles are a local Broomfield treasure and the community takes great pride in having the eagles in the area. Monitoring involves observing the eagles, documenting activity in a written report, and providing this information to the Open Space staff for posting on the web site.

Problem to be Solved and/or Benefit to Citizens:

The eagle monitoring is a way to try to protect the eagles from human impacts, particularly construction impacts that can disrupt their nesting behavior and raising of young. Currently, the eagles have moved their nest to a new location on Boulder County open space but they are still in the area. Also, the eagles may move back to the nest tree in Broomfield after this year's nesting season. Monitoring is anticipated to be necessary until the Vive project is completed.



Alternatives/Consequences if not Funded:

The developer provided this payment and monitoring will be conducted.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	80,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	80,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Anthem Community Park Underpass

Project #: Q0002

Project Description:

Total Project Cost: \$475,000

This project will complete the trail connection from Anthem Community Park to Anthem Highlands.

Background and Justification:

The project is proposed in 2022 to coordinate with the developer of Anthem Highlands’ (Newland), plan to complete the first phase of improvements to Anthem Community Park on the east side of Community Ditch. The Broomfield Trail is part of the improvements planned in the first phase of park improvements. The developer’s segment of the Broomfield Trail will end on the south side of the Parkway underpass. The proposed CIP project will provide safe travel through the Parkway underpass and complete the trail connection to 160th Avenue. A contribution of \$100,000 to provide for the Northwest Parkway Trail in a previous Anthem Subdivision Improvement Agreement can be used to offset costs for this project as the Parkway underpass and associated trail are also part of the Northwest Parkway Trail as well as the Broomfield Trail.

Problem to be Solved and/or Benefit to Citizens:

A retrofit of the existing box culvert under the Northwest Parkway (Parkway) will be required to allow for safe bike and pedestrian travel beneath the Parkway. The trail will then head north of this underpass and cross 160th Avenue to connect to the existing Broomfield Trail along Community Ditch in Anthem Highlands. The project will provide a 12-wide concrete trail with an attached 3-foot wide crusher fines trail to match the trail that the developer of the Anthem Community Park (Newland), proposes to build from Sheridan Boulevard north to the Parkway underpass.



Alternatives/Consequences if not Funded:

Safety concerns could arise as even more pedestrians and cyclists will be using the unimproved ditch access road and Parkway underpass to reach Anthem Community Park and Anthem bike pump park.

Project Association:

Anthem Community Park Improvements

Operating Budget Impact:

Parks will need to maintain the structure, lighting, and trail. Electricity will need to be provided to the lighting within the pedestrian underpass.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	475,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	475,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Aspen Street Pedestrian Crossing

Project #: Q0024

Project Description:

Total Project Cost: \$55,000

This request is to add a flashing pedestrian crossing on Aspen Street due approximately 500 feet north of the intersection with Durango Avenue.

Background and Justification:

The Lake Link Trail is one of the major trail systems across Broomfield, featuring high usership and spanning 11 miles across the community. When the trail reaches Aspen Street, there is a right angle turn and users can cross Aspen Street through a pedestrian underpass adjacent to Aspen Creek Drive. However there is not an option to cross Aspen Street where the trail reaches the roadway, 600-feet to the north of the underpass. With the anticipated development and planned new trails to the north, trail users will want to cross Aspen Street at this spot and will likely not travel 600 feet south for the underpass. There is currently no crossing at all in this spot.

Problem to be Solved and/or Benefit to Citizens:

This crossing would tie in the existing Lake Link Trail to a planned trail that will extend toward planned subdivision, Aspen Creek Filing No. 8. This crossing will better connect Broomfield’s trail system by allowing pedestrians to safely cross Aspen Street at this location, and proceed to the north and west. Without a crossing here, it is likely that trail users will still attempt to cross the street, presenting a safety and traffic concern.



Alternatives/Consequences if not Funded:

Do not install the crossing.

Project Association:

This project could potentially be combined with the Aspen Street Landscaping project.

Operating Budget Impact:

Project will add approximately 45 linear feet of trail that will need to be maintained and plowed, and flashing pedestrian crossing signs.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
55,000	0	0	0	55,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Broomfield Trail - Aspen to Sheridan (BT5)**

Project #: 18Z0133

Project Description:

Total Project Cost: \$725,000

This is a revised description of the original project request. The project will connect Aspen Street to West 144th Avenue at Sheridan Boulevard. The trail will be a 10-foot concrete trail with a potential 2 to 3-foot adjacent crusher fines trail.

Background and Justification:

If the Wilde property is acquired, the trail will run along the north side of the pond and extend east to the Wottge property to West 144th and Sheridan (trail length 5,600 l.f. approx.). If it is not possible to acquire the Wilde property, the trail will extend from Aspen Creek neighborhood through the Wottge property (trail length 3,400 l.f. approx.). The alignment will be evaluated in the Wottge Management Plan.

Problem to be Solved and/or Benefit to Citizens:

This project will complete a major segment of the Broomfield Trail and will link the neighborhoods south of West 144th to the Broomfield Reservoir, Anthem Community Park, and neighborhoods to the north.

Alternatives/Consequences if not Funded:

Defer the trail construction to another year or phase the trail construction.

Project Association:

None

Operating Budget Impact:

Once constructed, this trail will require standard trail maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	50,000	675,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	725,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Broomfield Trail - Aspen Street through Markel Property** Project #: 20Z0143
(BT4)

Project Description:

Total Project Cost: \$350,000

This project is to construct a signed bicycle route on East 14th Ave, a 10-foot concrete pathway, and a jogging strip on the ditch corridor. The project will also install regulatory signage from Main Street along Community Ditch to West 136th Ave.

Background and Justification:

This segment is part of the Broomfield Trail, a major community trail identified in the Open Space, Parks, Recreation and Trails Master Plan. The intent is to create a continuous trail from southwest Broomfield to northeast Broomfield. This proposed segment is part of the vision for this trail.

Problem to be Solved and/or Benefit to Citizens:

The trail will provide public access to the Markel site and complete a segment of the Broomfield Trail.

Alternatives/Consequences if not Funded:

Defer the trail construction to another year or phase the trail construction.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	350,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



City and County of Broomfield 2021 Capital Improvement Projects

Trails - Broomfield Trail System

Project Name: **Broomfield Trail - Federal Cul-de-Sac To Broomfield Trail Connection** **Project #:** Q0023

Project Description:

Total Project Cost: \$160,000

Trail connection from the north end of Federal Boulevard (which ends in a cul-de-sac) to the Broomfield Trail which runs through Spruce Meadows and up to Anthem Community Park.

Background and Justification:

Currently there is a gap in the trail system where Broomfield residents in the Wilcox Estates area north of 144th Ave. cannot reach the Broomfield Trail to the north. This gap only spans about 600-feet, where Broomfield has right-of-way in the undeveloped alignment of Federal Blvd, and would cross an irrigation ditch with a foot bridge.

Problem to be Solved and/or Benefit to Citizens:

This connection has been requested by residents in the area and there have been instances of trespassing on private property to reach the trail. The connection would provide a direct link to the Broomfield Trail and access to the Broomfield Trail, Spruce Meadows, and Anthem Community Park to the north.



Alternatives/Consequences if not Funded:

Residents in the area will not have access to the Broomfield Trail, and some users seeking to cross this gap will continue to trespass on private property and potentially unsafe terrain.

Project Association:

This project could be combined with Broomfield Trail - the Lowell to Spruce Meadows connection - (BT6 phase 3), Project No. 12F0002.

Operating Budget Impact:

This trail would add approximately 655 additional linear feet of concrete trail to Broomfield’s trail system, and a small foot bridge over the irrigation ditch.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	0	160,000	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	160,000	



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Broomfield Trail - Lowell to Spruce Meadows (BT6 phase 3)**

Project #: 12F0002

Project Description:

Total Project Cost: \$736,850

This project includes a 10-foot wide concrete trail with a two to three foot soft surface jogging/equestrian path, spanning 4,300 feet from Lowell Boulevard to the boundary of Spruce Meadows near Federal Boulevard.

Background and Justification:

Phase III will be passing along the south side of the Community Ditch through residential neighborhoods and will utilize the FRICO ditch road. There may need to be an improved and constructed crossing of a lateral ditch near Federal Boulevard within this project. Because the BT-6 Trail is such a large section of trail, it has been broken into three phases.

Problem to be Solved and/or Benefit to Citizens:

This section is a part of the Broomfield Trail system and would close part of the gap between the southern portion of Broomfield, Spruce Meadows, Anthem, and North Park neighborhoods to the north.

Alternatives/Consequences if not Funded:

The alternative would be to defer or phase this project in sections.

Project Association:

None

Operating Budget Impact:

Once constructed, this project will require standard trail maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
11,850	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
100,000	625,000	0	0	736,850



City and County of Broomfield 2021 Capital Improvement Projects

Trails System Projects

Project Name: Broomfield Trail - RR Bridge to Industrial Lane to Midway (BT2)

Project #: 14Z0433

Project Description:

Total Project Cost: \$3,555,995

Pedestrian bridge over the train tracks from W. Midway Blvd near Hoyt Street to Industrial Lane near the US 36 underpass to East Park.

Background and Justification:

Additions to the scope include a signalized crossing at Industrial Lane and a 12-foot wide pedestrian bridge and trail. Additions to the scope have been requested by staff and OSTAC.

Problem to be Solved and/or Benefit to Citizens:

The trail connection will allow users coming from the north side of BNSF tracks to reach the US 36 bikeway and Interlocken on the south side of US 36. This is a missing link in the regional Broomfield Trail. The wider trail and signalized crossing at Industrial Lane will improve safety for users.

Alternatives/Consequences if not Funded:

If not funded, trail users will have to cross Industrial Lane using the at-grade crossing, and the pedestrian bridge and trail will need to stay 10-foot wide.

Project Association:

None

Operating Budget Impact:

This project will require standard pedestrian bridge maintenance and snow removal.



Funding Source: Open Space and Parks Fund and Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
841,150	514,000	2,200,845	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	3,555,995



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Broomfield Trail - RR Underpass at Airport Creek**

Project #: 20F0006

Project Description:

Total Project Cost: \$150,000

Study to evaluate construction of an underpass that would convey drainage and allow trail access beneath the RR tracks along the west side of the Broomfield Industrial Park Ballfields.

Background and Justification:

The underpass will connect the 8-foot concrete trail that ends on the west end of the BIP Ballfields into the Transit Oriented Development in the Original Broomfield neighborhood over to the US 36 Pedestrian Overpass and the Arista Transit Oriented neighborhood.

Problem to be Solved and/or Benefit to Citizens:

The proposed underpass will connect several neighborhoods in Broomfield and also allow for drainage. The project will increase livability by making it easier for citizens to reach other parts of the community. The underpass connects residents to the FirstBank Events Center and the RTD transit stop. The project will also consider improvements to the floodplain recommended by the Airport Creek (US 36 to BNSF) Major Drainageway Plan.



Alternatives/Consequences if not Funded:

Defer the project to another year.

Project Association:

The project should be coordinated with future development and trail access in the Original Broomfield neighborhood.

Operating Budget Impact:

The project will require standard trail and underpass maintenance.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	150,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: County Commons Open Space - Tom Frost Reservoir Amenities and Landscape Improvements

Project #: 11C0096

Project Description:

Total Project Cost: \$278,322

Proposed improvements include adding a picnic shelter that also serves as an environmental education center. This shelter will also include a presentation table, a sunlet with screening, and native trees.

Background and Justification:

This project will provide space for picnicking as well as nature education in the pavilion. The plans have been discussed with representatives of the Broomfield Nature Program and OSTAC. This project is part of the Broomfield County Commons Management Plan. The picnic shelter was completed in 2013 and was partially funded by a Great Outdoors Colorado grant.

Problem to be Solved and/or Benefit to Citizens:

This project will improve the existing trail experience for the public.

Alternatives/Consequences if not Funded:

Defer the next phase of the project.

Project Association:

None

Operating Budget Impact:

Once completed, this project will require standard maintenance of the sunlet and some tree maintenance.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
241,587	36,735	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	278,322



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Frank Varra Park - US 36 Bikeway Trail Realignment

Project #: 19N0001

Project Description:

Total Project Cost: \$1,535,668

Re-align a section of the multi-use trail/US 36 bikeway in Frank Varra Park. The proposed trail alignment was revised to flatten the trail slope to accommodate ADA requirements.

Background and Justification:

During the 2013 rain events, the retaining wall that supported this section of trail was damaged and portions washed away, which has allowed for erosion to continue to occur just below this section of trail. In 2015, the bikeway section that was undermined by both the runoff and erosion necessitated the use of a polyfoam material to level the trail and fill the void occurring under the concrete. In October 2016, the irrigation mainline for the Varra Park and Flatirons crossing mall along this section was damaged by further erosion and burst. The resulting water flow that occurred caused additional erosion undermining the bikeway and caused further erosion of the hill below. Temporary fill material and erosion control measures were put in place after the irrigation main was repaired. During the warm weather season, because of the steep slope above the bikeway, there is a lot of runoff from irrigation as well as rainwater across and under the trail. This is undermining the trail as well as creating slick conditions on the trail surface. There is also a buildup of moss at times that makes the bikeway slippery, causing a hazard for both bicycles as well as pedestrians. The same shading and drainage causes an above average number of ice issues during the winter, resulting in numerous complaints from trail users.

Problem to be Solved and/or Benefit to Citizens:

This project includes: construction of approximately 2,400 lf of 12-foot wide concrete trail, earthwork, potential retaining walls, and safety railings; to make it safer for pedestrians and bicycles year round. Realignment and widening the trail to 12ft allows for users to navigate each other more safely and brings this segment of trail up to the same width as the other parts of the US 36 bikeway.



Alternatives/Consequences if not Funded:

This trail segment has been incorporated into the 18 mile US 36 Bikeway described as “A Highway for Cyclist”. The consequences if not funded are a likely increase in complaints and claims from its many regional users.

Project Association:

There is currently a request to fix the slope issues-18M0062

Operating Budget Impact:

The trail will require plowing per Broomfield’s US 36 Bikeway maintenance agreement.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	81,530	1,454,138	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,535,668



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Great Western Loop Trail

Project #: 19L0019

Project Description:

Total Project Cost: \$29,225

The Great Western Loop includes two trail segments. The first segment will branch off of the future Skyestone Trail and connect to the Rocky Mountain greenway Trail. The second will connect Skyestone neighborhood to Rocky Mountain Greenway Trail.

Background and Justification:

The Rocky Mountain Greenway Trail is a regional trail that extends from the Rocky Mountain Arsenal, connects to the Two Ponds Wildlife Refuge, and currently ends in Bromfield on the east side of Indiana Street. The Rocky Mountain Greenway is planned to extend all the way to Rocky Mountain National Park.

Problem to be Solved and/or Benefit to Citizens:

The Great Western Loop Trail will provide public trail access from Broomfield to the Rocky Mountain Greenway Trail. The Comprehensive Plan encourages an appreciation of the outdoors, active living, and an interconnected trail system.

Alternatives/Consequences if not Funded:

Social trails will develop in the area as there will likely be trail access pressure to reach the Rocky Mountain Greenway.

Project Association:

None

Operating Budget Impact:

This trail will require standard trail maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	4,304	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	24,921	24,921	29,225



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Industrial Lane Pedestrian Bridge

Project #: 20N0032

Project Description:

Total Project Cost: \$2,131,500

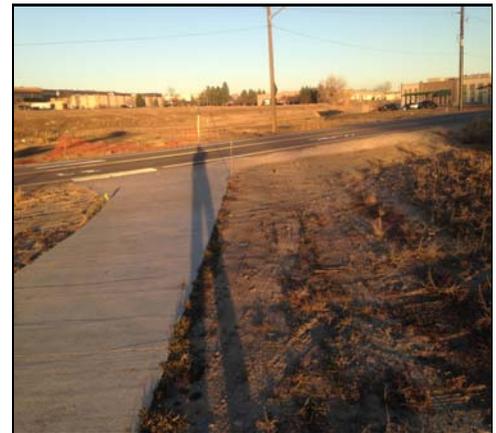
This request is to construct a grade separated crossing (pedestrian bridge) over Industrial Lane.

Background and Justification:

The Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2) project is currently in the budget. This proposed new phase of the current project will construct a pedestrian bridge and trail connections from West Midway Boulevard to Industrial lane over the BNSF Railroad improving pedestrian and bike access to the US 36 Bikeway, Interlocken, and the Flatiron shopping district.

Problem to be Solved and/or Benefit to Citizens:

The current Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2) project will provide an at-grade crossing at Industrial Lane. Improving the Industrial Lane crossing to a grade separated crossing will improve safety for trail users. The improved safety will provide for a more stress free experience that may encourage more trail use. The proposed trail alignment will also provide for a more direct route benefiting bike commuters.



Alternatives/Consequences if not Funded:

Trail users will have to cross Industrial Lane using the at-grade crossing.

Project Association:

Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2).

Operating Budget Impact:

Standard pedestrian bridge maintenance and snow removal.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
250,000	1,881,500	0	0	2,131,500



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Interpark - Broomfield Industrial Park Pedestrian Bridge** Project #: 18M0063

Project Description:

Total Project Cost: \$285,000

Pedestrian/bike bridge across Airport Creek and a small amount of trail to connect the bridge to existing sidewalk and future Reed Way.

Background and Justification:

The original agreement with the developer requires that the developer contribute cash in lieu of construction in the amount of \$75,000, as adjusted for inflation from the date of the original agreement according to changes in the Construction Cost Index as published by the Engineering News Record. CCOB has determined that based on these published inflation rates, the developer is now responsible for \$85,875 of the total cost of the bridge.

Problem to be Solved and/or Benefit to Citizens:

The bridge will provide a pedestrian and bike crossing from Broomfield Industrial Park to the Interpark development.

Alternatives/Consequences if not Funded:

Pedestrians and bikers will not have the ability to get from the Interpark Development to Broomfield Industrial Park.

Project Association:

None

Operating Budget Impact:

The installation of a bridge and additional bike path will impact the operating budget of Public Works' Streets Division, since they will require inspection and maintenance.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
35,573	234,599	14,828	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	285,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Neighborhood Connection - Highway 287 to Midway Boulevard (NC-5) - Blue Star Park

Project #: 19Z0155

Project Description:

Total Project Cost: \$148,423

This project will construct an 8'-10' concrete pathway with appropriate wayfinding, regulatory signage and intersection improvements along West Midway Blvd. from the Garden Center and along the east side US 287 to W. 6th Avenue.

Background and Justification:

The existing pathway from Midway Park ends near the Garden Center and does not offer a connection to, or across, US Highway 287.

Problem to be Solved and/or Benefit to Citizens:

This trail connection will provide a safe walkway from the residential areas to the business section on Midway.

Alternatives/Consequences if not Funded:

Defer project

Project Association:

None

Operating Budget Impact:

This project will require standard sidewalk maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	144,923	3,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	148,423



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Neighborhood Connection - Iris Street to the Lake Link Trail** Project #: 11D0019

Project Description:

Total Project Cost: \$100,000

The project is to construct a trail from Iris Street to the Lake Link Trail. The "social trails" are causing significant erosion and have widened to over eight feet.

Background and Justification:

Constructing an actual trail will give people the option to get where they are going without eroding the open space. The project will also include re-grading and re-vegetating the eroded scar.

Problem to be Solved and/or Benefit to Citizens:

A social trail is creating erosion to the hill side. This project will construct a trail and revegetate the eroded scar.

Alternatives/Consequences if not Funded:

An alternative would be to revegetate the area and post signs prohibiting access. However, it is presumed that the area would still be used as a short cut. For safety and maintenance reasons, the connection should be addressed.



Project Association:

None

Operating Budget Impact:

Once completed, the project will require standard trail maintenance.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	0	100,000	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	100,000	



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Neighborhood Connection - Lowell Blvd to Meade Street Trail (NC-17)** Project #: 19N0004

Project Description:

Total Project Cost: \$114,500

Provide a short-cut for residents between Broomfield County Commons Open Space and Metzger Farm Open Space to the south.

Background and Justification:

This trail was identified as “Neighborhood Connection-17” in the Open Space, Trails, Parks, and Recreation Master Plan. The project will include a 6- to 8-foot concrete trail, several new trees, and a fence to buffer the residence to the south. A construction easement will also be necessary to build the project. The trail is 250 feet long.

Problem to be Solved and/or Benefit to Citizens:

This neighborhood trail will provide a convenient shortcut for residents that want quick access to Lowell Boulevard businesses, Broomfield County Commons Open Space and Metzger Farm.

Alternatives/Consequences if not Funded:

Not build this trail.

Project Association:

None

Operating Budget Impact:

This concrete trail will need to be maintained and plowed. The trees and irrigation will need to be maintained.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	1,500	113,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	114,500



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Neighborhood Connection - Wildgrass at NW Parkway to Rock Creek Trail (NC22)** Project #: Z0139

Project Description:

Total Project Cost: \$375,000

This trail would connect the existing Wildgrass Trails to the Rock Creek Trail in Boulder County via an existing underpass beneath the Northwest Parkway.

Background and Justification:

The project will provide an 8-foot crusher fines trail. The trail alignment will extend from the north end of Wildgrass and go through the Northwest Parkway underpass. The trail will continue north from the underpass to the Rock Creek Trail. A bridge or culvert may be needed to allow for access from Wildgrass into the underpass. The underpass may also need retrofitting to accommodate the trail and maintenance vehicles. Coordination with Boulder County, Lafayette, and area residents will be important components of the project. One to two public meetings will be necessary for residents to communicate with the Open Space and Trails Advisory Committee.

Problem to be Solved and/or Benefit to Citizens:

Broomfield citizens will benefit because of the increased regional trail access that will be available to them.

Alternatives/Consequences if not Funded:

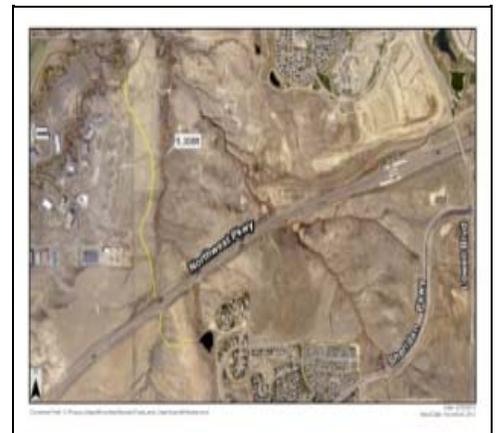
If unfunded, citizens will not have the opportunity to enjoy direct trail access from Wildgrass to Boulder County regional trails.

Project Association:

None

Operating Budget Impact:

Maintenance will be necessary for the 5,400 l. f. (approx.) of trail and the underpass. The Northwest Parkway agreements should be checked to see if the Northwest Parkway Authority agreed to maintain any portion of the underpass.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
375,000	0	0	0	375,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Nissen Reservoir Channel Trail

Project #: 20N0010

Project Description:

Total Project Cost: \$270,000

Construction of an 8' wide concrete trail along Nissen Reservoir Channel from the east side of Walmart on W. 120th Ave. to the underpass at Lowell Blvd.

Background and Justification:

The trail will follow the Nissen Channel in what is planned as a trail corridor and may be used as an access route for channel maintenance work.

Problem to be Solved and/or Benefit to Citizens:

This project would provide a trail link between existing trail terminus near the Walmart detention pond and the underpass constructed with the Lowell Blvd. project.

Alternatives/Consequences if not Funded:

The trail will end at the Walmart detention pond and continue to the connection built with the Lowell Blvd. underpass.

Project Association:

May be constructed in conjunction with the UDFCD Nissen Channel improvement project.

Operating Budget Impact:

As a channel maintenance access route, the trail may be eligible for UDFCD maintenance. Otherwise Broomfield Public Works will maintain the trail.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
270,000	0	0	0	270,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Regional Trail - Flatiron Crossing to Storage Tek Drive Trail (RT-1)** Project #: 07Z0017

Project Description:

Total Project Cost: \$732,820

Develop a 12-foot concrete trail connection from the existing underpass at W. Flatiron Cir. to box culvert underpass at Storage Tek Dr. and 96th St.

Background and Justification:

One drainage crossing may be required. The project is being coordinated with plans for the Conoco Phillips site. The trail is approximately 3,000 l.f. A public access easement across the Conoco Phillips property will also be needed to allow for the trail.

Problem to be Solved and/or Benefit to Citizens:

The project will connect the West Flatiron Circle underpass to the box culvert underpass at Storage Tek Drive and 96th Street, which is scheduled for construction in the summer of 2018. The trail provides a new connection to the US 36 Bikeway. This trail is also part of the regional Rock Creek Trail and is called for in the Open Space, Parks, Recreation, and Trails Master Plan and will provide new opportunities for trail access for Broomfield residents.



Alternatives/Consequences if not Funded:

Defer the trail project but coordinate with any Conoco Phillips trail construction improvements.

Project Association:

This project will connect to the Storage Tek Underpass project which will be constructed in 2018.

Operating Budget Impact:

Once completed, this project would require standard trail and underpass maintenance.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	732,820	0	732,820



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Regional Trail - Rock Creek to Brainard Drive Underpass and Trail

Project #: 13F0003

Project Description:

Total Project Cost: \$3,356,000

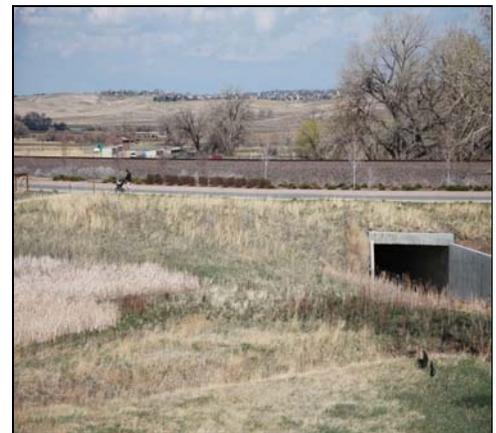
Construct an underpass beneath Midway Blvd. and the BNSF railroad track in the vicinity of the Parkway Cir. neighborhood and Rock Creek.

Background and Justification:

In anticipation of this project, a public land dedication from the Varra family was also completed to allow for the trail and underpass construction on the east side of the BNSF railroad tracks. This dedication was part of the Varra Estates project. A 2015 feasibility study was completed to look at the potential crossing locations. This project will require BNSF coordination and approval to be built. Electrical will be needed to light the underpass. The project includes 2,900 L.F. of 10 to 12-foot concrete or crusher fines trail. The underpass is approximately 200 L.F. The project will need to cross Midway Blvd. and the BNSF railroad tracks. The Terracina cash-in-lieu payment (approximately \$744,000) is proposed to be used to pay for a portion of the project as the overpass over the BNSF railroad tracks at Terracina was not feasible. The agreement with the developer allows Broomfield to use the public land cash-in-lieu money for the underpass and trail.

Problem to be Solved and/or Benefit to Citizens:

A 10 to 12-foot concrete or crusher fines trail will be extended from Midway to the Carolyn Holmberg Open Space trailhead on the edge of Boulder County at Brainard Drive to connect with the regional Rock Creek Trail. The project creates a continuous trail connection from the Lac Amora neighborhood to the 96th Street neighborhood, into the FlatIron Crossing Mall and Interlocken areas. This project facilitates bike and pedestrian access to these areas.



Alternatives/Consequences if not Funded:

Defer the trail construction to another year or phase the construction.

Project Association:

None

Operating Budget Impact:

Once completed, this project will require standard maintenance.

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
6,000	0	0	0	350,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
3,000,000	0	0	0	3,356,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Regional Trail - Storage Tek Dr. - Underpass Improvements**

Project #: 13Z0422

Project Description:

Total Project Cost: \$336,005

An underpass structure was constructed under 96th Street/Storage Tek Drive in the mid-1990s in anticipation of a future trail. The underpass would be part of the RT1 trail segment.

Background and Justification:

The improvements would include a concrete floor, lighting, and possibly some drainage improvements.

Problem to be Solved and/or Benefit to Citizens:

The project will provide a safe pedestrian and bike connection beneath 96th Street/Northwest Parkway.

Alternatives/Consequences if not Funded:

Defer the trail project but coordinate any improvements off of Conoco Phillips' land so that their trail construction coordinates with Broomfield's improvements.

Project Association:

None

Operating Budget Impact:

Once completed, this project would require standard trail maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
329,705	6,300	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	336,005



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Rocky Mountain Greenway Trail (Broomfield's Share)** Project #: 19N0019

Project Description: Total Project Cost: \$105,000

An Intergovernmental Agreement was approved by City Council on September 5, 2017 that calls for a Broomfield contribution to the project of \$105,000 subject to City Council approval.

Background and Justification:

Broomfield is a partner in the Rocky Mountain Greenway Trail project along with five other local governments.

Problem to be Solved and/or Benefit to Citizens:

This request is submitted to plan for the potential trail.

Alternatives/Consequences if not Funded:

Broomfield would not participate in the project.

Project Association:

The Great Western Loop Trail.

Operating Budget Impact:

Broomfield would maintain the potential trail segment on Broomfield property.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	105,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	105,000



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: **Trail Connection - Brandywine Park to Mountain View Elementary School (NC-15)** Project #: 18Z0134

Project Description:

Total Project Cost: \$261,102

This proposed trail connects Brandywine Park and the Mountain View Elementary School to the South East Community Loop Trail along the Perry Street right-of-way.

Background and Justification:

The trail is approximately 2,650 linear feet. The trail is proposed to be a 10-foot concrete trail.

Problem to be Solved and/or Benefit to Citizens:

This trail is part of a community-wide trail and will benefit citizens by providing school and neighborhood access to the Southeast Community Loop Trail that connects to Metzger Farm Open Space and commercial areas along West 120th Avenue. The trail benefits a variety of users, from commuters to recreationalists.

Alternatives/Consequences if not Funded:

If the project is not funded, residents will be more likely to rely on the automobile.

Project Association:

None

Operating Budget Impact:

Standard trail maintenance will be required.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
21,786	239,316	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	261,102



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: 124th Avenue - Tree Branch Recycling Center Relocation

Project #: 09C0015

Project Description:

Total Project Cost: \$533,127

This project will fund improvements on the 5.73 acres of land adjacent to the Water Treatment Plant. This site will provide an expanded yard waste drop-off site with extended hours to meet the needs of Broomfield residents.

Background and Justification:

This project was originally submitted as a request in 2008 in the amount of \$496,000. The original \$496,000 amount was based upon a construction estimate at that time. The budget also did not account for design costs associated with an Official Development Plan process with the City of Westminster. Furthermore, it did not account for 9 years of construction inflation or the additional landscaping and screening requirements that are required by the City of Westminster. A request for \$250,000 is needed to complete the project. The diversion of additional organic material supports the Master Plan Goal of Environmental Stewardship. Broomfield strives to be a leader in implementing environmental stewardship policies that help create a desirable and sustainable community.

Problem to be Solved and/or Benefit to Citizens:

Benefits include the relocation of the tree branch drop-off site and expansion of the Tree Branch Recycle Program to include grass. In addition, the site will divert approximately 51,700 cubic yards of waste per year. Broomfield strives to be a leader in implementing environmental stewardship policies that help create a desirable and sustainable community now and for future generations.



Alternatives/Consequences if not Funded:

If the additional funding associated with this CIP request and the additional funding associated with the RV Dump Station CIP request are not approved, Broomfield residents will have to continue to use the existing facilities. Also, the 5.73 acre site will remain undeveloped.

Project Association:

The RV Waste Disposal Station and the Tree Branch Recycle Program will be located on the same site. The management of these two projects can be combined. Some of the construction costs for the fence, grading, and surfacing could be shared.

Operating Budget Impact:

The new facility will not increase operating and maintenance costs. However, if the program expands, additional operating costs may be incurred.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
531,017	2,110	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	533,127



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Anthem - Asphalt Pump Track**

Project #: 18M0067

Project Description:

Total Project Cost: \$365,000

This project would design and construct a pump track with year-round use by bikes, scooters, skateboards and in-line skates with funding from a private donation.

Background and Justification:

Anthem Community Park is located between Sheridan Parkway and Northwest Parkway, east of Lowell. The Anthem site was selected for this project because of its accessible location, incredible views, popularity of our new bike park at McKay Lake and the community's support for bike and pedestrian improvements.

Problem to be Solved and/or Benefit to Citizens:

The pump track will be designed for use by all ages and abilities.

Alternatives/Consequences if not Funded:

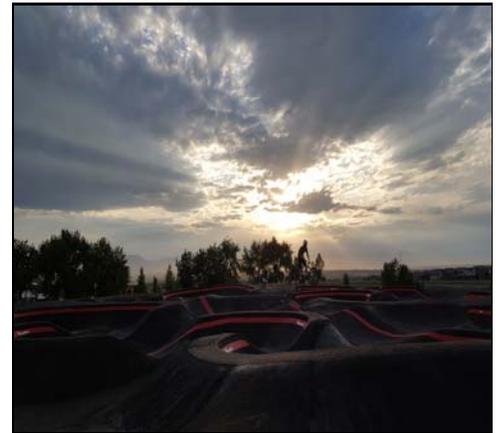
The private donation would not be received and the project would not move forward.

Project Association:

None

Operating Budget Impact:

General park maintenance



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
65,000	300,000	0	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	365,000	



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Anthem Community Park Improvements

Project #: 21B0074

Project Description:

Total Project Cost: \$10,677,465

This project will include: four lighted tennis courts, a lighted basketball court, two shelters, two lighted baseball/softball fields, an inline skate rink, a parking lot for 115 spaces, landscaping, and irrigation.

Background and Justification:

As part of Broomfield's obligations in accordance with the Preble Creek Filing #2 Site Development Plan, Anthem Community Park will be partially completed by the developer and partially completed by the City and County of Broomfield.

Problem to be Solved and/or Benefit to Citizens:

The park improvements are Broomfield's obligations in accordance with the Preble Creek Filing #2 Site Development Plan.

Alternatives/Consequences if not Funded:

Specific design and construction alternatives will be evaluated during the design phase.

Project Association:

Anthem Park Underpass Project.

Operating Budget Impact:

The project will increase ongoing operating costs for Parks and Recreation and will require new staff in order to maintain the park.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	4,212,465	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
2,965,000	2,000,000	1,500,000	1,500,000	10,677,465



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Anthem Highlands K-8 Playground and Parking Lot

Project #: 16K0056

Project Description:

Total Project Cost: \$2,000,000

This project is part of an Intergovernmental Agreement (IGA) with Adams 12 Five Star Schools to use Service Expansion Fees (SEF) to help fund the development of the new school's play areas and north parking lot.

Background and Justification:

The school is located in the Anthem Filing 20 subdivision, east of Lowell Boulevard and north of Preble Creek Parkway. On December 13, 2016, City Council passed Resolution No. 2016-213, which approved the IGA, and designated SEF funding for this request.

Problem to be Solved and/or Benefit to Citizens:

This is SEF funding designated by IGA.

Alternatives/Consequences if not Funded:

None - this funding was approved by City Council as part of an IGA with Adams 12 Five Star Schools.

Project Association:

None

Operating Budget Impact:

None expected for the City and County of Broomfield.



Funding Source: Service Expansion Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,845,332	0	154,668	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,000,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Athletic Facility Concrete Improvements**

Project #: 21Q0031

Project Description:

Total Project Cost: \$273,850

Funding to install 19,650 sq ft of new concrete at Broomfield’s athletic facilities.

Background and Justification:

In 2019, Park Services staff was tasked with evaluating all athletic facilities for ADA compliance. During this evaluation, approximately 9,850 square feet of access areas around athletic facilities were identified as non-compliant and in need of immediate attention in order to comply with current ADA requirements. 9,710 sq ft of access areas around the sports fields were also identified to need immediate repair or enhancement for improved accessibility to the facilities.

Problem to be Solved and/or Benefit to Citizens:

Included in this square footage would be 9,850 of new concrete to bring the facilities into ADA compliance. The remaining 9,710 sq ft would be to replace damaged concrete or install new concrete to enhance existing areas at the sports fields.

Alternatives/Consequences if not Funded:

Broomfield will continue to have sports facilities and spectator areas that are not accessible to those with reduced mobility. Broomfield will continue to have trip and fall hazards in highly trafficked spectator areas and sidewalks around the sports facilities.



Project Association:

Misc. Concrete replacement program 0AZ0101

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	273,850	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	273,850



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Bay - Renovation Phase IV - Repair pool/ADA Compliant** Project #: 21F0047

Project Description:

Total Project Cost: \$2,500,000

Staff hired a consultant to work on phasing improvements for The Bay. These improvements are necessary for maintenance as well as to keep the park competitive with other community water parks.

Background and Justification:

Phase IV will add improvements to the leisure pool and will add new slides and new pool deck drainage.

Problem to be Solved and/or Benefit to Citizens:

Some equipment has to be shut down for emergency maintenance during the busy summer months. This causes frustration to the public and staff.

Alternatives/Consequences if not Funded:

Continue to repair older equipment as necessary to keep the park safe and open.

Project Association:

None

Operating Budget Impact:

This project could increase revenue with a remodeled concession stand and will improve service levels to the customers.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	500,000	2,000,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,500,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Bay - Tower Body Slide Refurbish**

Project #: 17L0046

Project Description:

Total Project Cost: \$40,500

The body slides, otter slide and the tube slide at the Bay Aquatic Park need to be repaired.

Background and Justification:

The vinyl liner that is covering the slide suffered from the winter elements and now has several rips/tears in the slide. Both fiberglass slides are starting to show wear and tear including pitting, cracking, and bubbling. The gel-coat needs to be replaced and repaired in areas to protect the fiberglass structure. All slides need to be sanded, repaired, buffed, and caulked to increase their longevity until they are renovated and replaced in future phasing as proposed in the master plan.

Problem to be Solved and/or Benefit to Citizens:

All slides need to be sanded, repaired, buffed and seams caulked to increase their longevity and keep them open and running until they are renovated and replaced in future phasing as proposed in the master plan.



Alternatives/Consequences if not Funded:

The slides would become unsafe and would be shut down until repaired. Revenue would be lost.

Project Association:

Future main pool renovations are planned for 2020.

Operating Budget Impact:

Slides will require repairs and upkeep to keep them functional until renovations.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
6,500	31,550	2,450	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	40,500



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Brandywine Park - Parking Lot**

Project #: 19N0024

Project Description:

Total Project Cost: \$340,000

This request originally funded an upgrade to the parking lot at Brandywine Park including repaving the existing lot, adding a turn-around loop, permanent shade structure, and port-o-let structure. This request is amended to eliminate the turn-around loop

Background and Justification:

Due to limited parking, citizens, the Recreation Department, and the Parks Division all requested that additional parking be installed instead of a turnaround loop.

The existing parking lot at Brandywine Park is in poor condition. The asphalt appears to only be about 2" thick, and has numerous potholes that go clear through to the subgrade. By removing this damaged surface, regrading the lot and adding an inlet and storm sewer for better drainage, the parking lot will have a much longer lifespan.

Problem to be Solved and/or Benefit to Citizens:

By removing this damaged surface, regrading the lot and adding an inlet and storm sewer for better drainage, the parking lot will have a much longer lifespan.

Alternatives/Consequences if not Funded:

Alternatives include leaving the parking lot as it is and hiring a geotechnical engineer to evaluate the asphalt and subgrade so that they may potentially provide additional choices. Because the asphalt surface is so thin to begin with, milling and overlaying is likely not a viable option.

Project Association:

Brandywine Park Upgrades.

Operating Budget Impact:

Slight increase to operational costs for snow removal.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
24,619	288,064	27,317	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	340,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Brandywine Soccer Fields - Upgrade and Renovation** Project #: 16K0040

Project Description:

Total Project Cost: \$192,053

Pedestrian bridge over a storm drainage ditch.

Background and Justification:

After completing the baseball field and soccer field renovations, there will be remaining project funds that can be used to pay for the design and construction of a pedestrian bridge within Brandywine Park that is part of the trail connection within the Perry Street right-of-way.

Problem to be Solved and/or Benefit to Citizens:

This bridge along with associated trail will provide connectivity between Brandywine Park and neighborhoods to the south.

Alternatives/Consequences if not Funded:

The Brandywine Park to Mountain View Elementary School project would need to be postponed.

Project Association:

Brandywine Park to Mountain View Elementary School project.

Operating Budget Impact:

Required inspection and maintenance.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
170,088	21,965	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	192,053



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Bronco Park - Restroom Building Replacement

Project #: 21K0022

Project Description:

Total Project Cost: \$344,400

Staff is requesting funding to replace the existing Bronco Park Restroom Facilities.

Background and Justification:

The current facilities are decaying due to high amounts of vandalism. Staff is also combating deficiency issues with plumbing and other aspects, since the current equipment is reaching the end of its normal operating lifespan.

Problem to be Solved and/or Benefit to Citizens:

If the facility is replaced, we would be able to meet the high standard that is expected by Broomfield residents. New automated lock systems would be able to maintain a higher level of security, locking the doors to unwanted patrons at night during higher vandalism times. The larger facility would provide a more adequate facility for multi-use and would prevent single users from locking the doors to other patrons and from participating in illegal activities. The larger facility would also accommodate the growing number of users who are attracted by new playground structures and increased athletic field/shelter usages.



Alternatives/Consequences if not Funded:

If these facilities are not considered for an upgrade, the condition of the facility will steadily decrease.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	344,400	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	344,400



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Broomfield Community Center - Brunner Reservoir Boardwalk Trail Connection

Project #: 19N0039

Project Description:

Total Project Cost: \$512,000

Reconstruct a trail connection between the Community Center and Brunner Reservoir.

Background and Justification:

Due to the constraints of the Broomfield Community Center Reconstruction project, the existing concrete trail connection along the west bank of the Brunner Reservoir will be removed to make room for the new facility and associated parking. To keep the existing Senior Center open during construction of the new facility, minimizing wetland impacts and to keep the existing trail connection within the project, the new facility would need to be shifted to the west to make room between the wetlands along Brunner Reservoir and the new facility; however, this shift would significantly reduce the available parking on site by approximately 32 spaces as well as complicate the constructability of the new facility due to the proximity of the existing Senior Center during construction.

Problem to be Solved and/or Benefit to Citizens:

To maintain a similar trail connection while maintaining all the desired programming and building layout needs and minimizing impacts to the existing wetlands, the proposed solution is to construct an 8 foot wide boardwalk trail connection over the wetlands and open water of Brunner Reservoir to connect the promenade trail between the Community Center and the Bay to the trail that runs along the north of Brunner Reservoir. The proposed solution would maintain a similar travel distance as the existing trail connection while minimizing the wetland impacts as well as creating an new trail experience over water that currently does not exist in Broomfield.



Alternatives/Consequences if not Funded:

An added trail connection between the existing trail to the north of Brunner Reservoir over the irrigation ditch to The Field trail network that connects to the sidewalk along Spader Way at E 3rd Avenue.

Project Association:

Broomfield Community Center Reconstruction project.

Operating Budget Impact:

Boardwalks in marine environments require various levels of maintenance.

Funding Source: Treasury Bonds/Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	512,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	512,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield Community Center - Reconstruction (Bond Funded)** Project #: 17M0021

Project Description:

Total Project Cost: \$47,994,619

Broomfield Community Center Reconstruction Project will replace the existing Community Center with a larger facility to better meet the needs of the citizens of Broomfield.

Background and Justification:

The Broomfield Community Center (Community Center) was constructed in 1974. A substantial renovation and addition of the Senior Center was completed in 1990. Prior to 2014, multiple CIP requests for building renovations, maintenance repairs, and other improvements had been added into the CIP program budget; however, it was observed that the facility needed a Master Plan in order to coordinate and prioritize the multiple projects so that they would work with a future expansion and renovation project. In 2015, a proposed master plan was approved by Council and the Phase I Improvements project was designed. In 2016, the Phase 1 Improvements project was bid; however, prior to the award of a construction agreement for the project, the project was halted due to the discovery of structural deficiencies at the Community Center’s pool. The associated logistics and cost implications to repair or replace the pool resulted in research of alternative options to replace the entire facility. Subsequently, staff presented a conceptual design option to demolish the north recreation half of the building to build a new 87,500 square foot facility while continuing to operate the Senior Center through construction. Upon completion of the new facility and relocation of the Senior Services into the new facility, the remaining existing building would be demolished to allow for the completion of the parking lot and associated site work. At the May 23, 2017 Council meeting, Council authorized the City and County Manager to pursue the \$40 million in debt financing required to build the new Community Center.

Problem to be Solved and/or Benefit to Citizens:

The Broomfield Community Center Reconstruction project will replace the existing facility which has numerous deficiencies as well as meet the growing needs of the community.

Alternatives/Consequences if not Funded:

Council has approved \$40 million in debt financing to complete the project.

Project Association:

None

Operating Budget Impact:

The Broomfield Community Center will increase in size and scope. When complete, the project will require ongoing maintenance/operating expenses.



Funding Source: Sales and Use Tax Bonds and Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
7,287,551	24,910,350	15,796,718	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	47,994,619



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield Community Center - Rooftop Solar Panels** Project #: P0040

Project Description:

Total Project Cost: \$1,135,000

This project request is to add rooftop photovoltaic (PV) solar panels and all associated infrastructure to new Broomfield Community Center.

Background and Justification:

In early 2018, the new Broomfield Community Center, currently under construction, was evaluated along with the Health and Human Services and new Service Center facilities for viability for solar power under a Colorado Commercial Property Assessed Clean Energy (C-PACE) Power Purchase Agreement (PPA). The addition of a PV array to the Broomfield Community Center will address sustainability priorities within Broomfield in association with the Environmental Stewardship Advisory Task Force.

Problem to be Solved and/or Benefit to Citizens:

There is a potential of incentives from Xcel Energy; however, the amount of the incentives have yet to be determined through Xcel.

Alternatives/Consequences if not Funded:

Currently, there are no other suggestions to address the sustainability priorities. The new Community Center has a large roof surface area that could accommodate a large PV system to get an economy of scale and the roof structure has been designed to accommodate a PV array.



Project Association:

Broomfield Community Center Reconstruction project.

Operating Budget Impact:

Annual Preventative Maintenance would be approximately \$4,000 per year. Will require removal and replacement to re-roof the building, which would add to the cost of a future re-roofing project.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
1,135,000	0	0	0	1,135,000	



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Expansion - Yellow Pod** Project #: 15Z0175

Project Description:

Total Project Cost: \$5,415,994

Two of the four athletic pods (green and yellow) within the Broomfield County Commons Park remain undeveloped since the park was constructed in 2002. The yellow pod is located east of Sheridan and north of County Commons Drive.

Background and Justification:

This request is to develop design drawings and construction plans to install a synthetic turf field in the yellow pod. The pod needs to be excavated, a sub base and drainage system need to be constructed, and a synthetic turf needs to be installed over the 13 acres. There is no field lighting within the Commons Park.

Problem to be Solved and/or Benefit to Citizens:

Since the number of Broomfield residents has increased, the need and request for additional field space has also increased. The potential uses for this pod include football, field hockey, soccer, rugby, lacrosse, and ultimate frisbee. With the addition the 13 acres of playfield space, recreation services will be able to reallocate practices to more appropriate play field space and accommodate additional, although not all, requests for field use. The yellow pod would be used primarily as a practice field.



Alternatives/Consequences if not Funded:

Staff will continue to be unable to accommodate all field space requests and may need to develop an alternate method to allocate space amongst users.

Project Association:

None

Operating Budget Impact:

The additional area will require maintenance.

Funding Source: Sales and Use Tax, Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
5,358,716	0	0	57,278	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	5,415,994	



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Maintenance Facility**

Project #: 20L0030

Project Description:

Total Project Cost: \$31,650

Construct a new 1,350 s.f. CMU block/metal roof concrete slab storage building with 2 bays and additional secure chemical storage.

Background and Justification:

The existing storage/maintenance area cannot provide the amount of storage necessary for all maintenance equipment and materials required for the County Commons Park/Complex. The current facility only provides 250 square feet of storage area.

Problem to be Solved and/or Benefit to Citizens:

The completion of the yellow pod will add 13 acres of synthetic turf to this site. New equipment and maintenance material purchases were necessary to maintain such a large piece of artificial turf.

Alternatives/Consequences if not Funded:

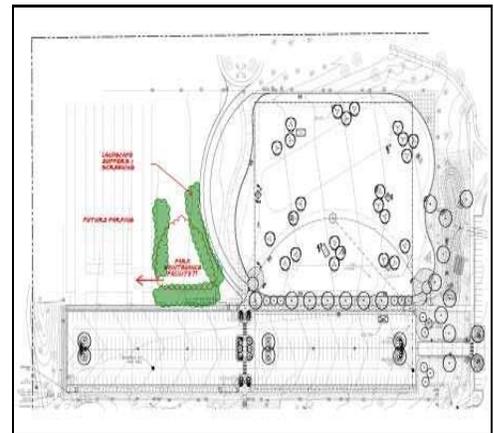
Use vehicle and personnel resources to transport materials and equipment daily to and from the County Commons Park, which is not currently being done.

Project Association:

Green Pod parking lot and dog park (2016).

Operating Budget Impact:

Additional cost to Parks base budget for electrical and water expenditures, and future maintenance of the new building.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	31,650	0	31,650



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons and Broomfield Industrial Park - Lighting Retrofit and Upgrade** **Project #:** 19N0015

Project Description:

Total Project Cost: \$39,371

Retrofit 55 existing park lighting fixtures to energy efficient LED lighting at Broomfield Industrial Park and County Commons Park.

Background and Justification:

Existing ballasts are at the end of life expectancy.

Problem to be Solved and/or Benefit to Citizens:

LED Lighting will allow for annual energy savings and labor cost. Decreasing wattage will result in a decrease of energy consumption and lower costs to the CCOB.

Alternatives/Consequences if not Funded:

Continue to utilize outdated and more costly lighting technology and continue to replace ballasts and components as they fail.

Project Association:

None

Operating Budget Impact:

After retrofit has been completed, it will allow for maintenance to be focused in other areas.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	39,371	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	39,371



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Community Ballfields - Playground Shade Structure**

Project #: 19M0014

Project Description:

Total Project Cost: \$30,419

This project is for the addition of a concrete pad/shade structure/picnic tables at the Community Ballfield playground, to accommodate the high number of patron use.

Background and Justification:

In 2016, the Community Ballfields playground was upgraded. This upgrade was meant to boost the size and attributes, which in turn has made this playground one of the most heavily used throughout the City and County. The use of this area has grown significantly over the year, with baseball usages, bay users, and a regular stream of people coming to the park to specifically use the playground. In addition, during the past year we have also had a steady increase of complaints from the park users at this site, often inquiring about additional seating and shade. We have temporarily set out portable tables, but this has presented issues with patrons moving these tables to unideal locations for other users and city works such as mowing operations. With the future developments of the Civic Center, we would like to also be more adaptive to the potential growth that will eventually occur in this area.

Problem to be Solved and/or Benefit to Citizens:

This project would include: a concrete pad (350 sq./ft.), a 10'x10' shade structure, 2 new picnic tables, a trash receptacle, a recycling receptacle, and possibly a grill. These improvements would prove extremely useful in providing accommodations that have been requested several times since the playgrounds improvements have occurred. This would also provide greater accommodations for the increasing number of patrons that attend baseball/softball tournaments, and the spillover crowd that frequents this area during attendance at The Bay.



Alternatives/Consequences if not Funded:

Continue to have a large number of patron requests for shade and seating. Continued staff time will be needed by the Mowing Operations and the Ballfield Maintenance Crew to relocate the temporary tables that have been placed near the playground a

Project Association:

None

Operating Budget Impact:

Small increase to the operating budget for maintenance.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	1,872	28,547	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	30,419



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Community Park Ball Field Complex - Improvements**

Project #: 21N0014

Project Description:

Total Project Cost: \$796,800

Update backstops, dugouts, and score shacks at the Community Park baseball/softball fields, outfield wing fences to John Shaw Field and safety netting at Community Ball fields.

Background and Justification:

The infrastructure at the Community Park Ball Fields is old and outdated. The backstops and dugouts were constructed in the 1980s or prior and do not match the field designs at more recently constructed fields such as Broomfield Industrial Park and Brandywine Park. The current backstops are also small in size at 40' long and 20' tall, which allows foul balls to be easily hit out of the field of play. This poses a danger to spectators and vehicles as they may be hit by batted balls.

Problem to be Solved and/or Benefit to Citizens:

A larger backstop with higher wing fences down the sides would keep these batted balls in the field of play and would provide an added safety feature for spectators along with fewer disruptions during game play.

Alternatives/Consequences if not Funded:

Continue to be outdated and could possibly see a decrease in user participation due to competition from neighboring cities.

Project Association:

Possibly the new Civic Center development.

Operating Budget Impact:

None



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	100,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	696,800	0	0	796,800



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Community Park - Ball Field Complex Signage

Project #: 18K0024

Project Description:

Total Project Cost: \$48,000

Staff is requesting funding to construct needed signage at the Community Park Ball Field Complex.

Background and Justification:

This project would include the installation of the following needed signage: a Monument Sign on Spader Way at the entrance to the complex, a "You Are Here" sign along roadway, and field name signs placed at appropriate locations for each of the four fields. The Community Park Ball Field Complex is an iconic athletic complex that represents Broomfield and its proud sports facilities. The complex is in serious need of additional signage.

Problem to be Solved and/or Benefit to Citizens:

Broomfield Staff have reported countless encounters with patrons and spectators asking where their scheduled field lies within the complex. This is also a great opportunity to improve the overall appearance and presentation of the complex with new signage.

Alternatives/Consequences if not Funded:

If this request is not funded, users of the Community Park Ball Field Complex will continue to be uninformed and somewhat lost regarding field location within the complex. The strengthened image of the site will also continue to fade without new additions an

Project Association:

This project could be combined with the Community Park Shade Structure Request for this budget season.

Operating Budget Impact:

None



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	48,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	48,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Emerald Park - Ball Field and Park Improvements**

Project #: 15Z0171

Project Description:

Total Project Cost: \$765,000

This project would enhance and upgrade the Emerald Park ball field area adjacent to Emerald Elementary School.

Background and Justification:

Improvements to the fields will include a new irrigation system, a new backstop and fence structures, new turf, improved infields, a park shelter, and replacement of the old basketball court and horseshoe pits.

Problem to be Solved and/or Benefit to Citizens:

This project will improve the existing outdated ball park. The backstop fencing is not sufficient and is unstable. Updating this field will give Broomfield an additional area for games.

Alternatives/Consequences if not Funded:

Defer the project or phase the project.

Project Association:

None

Operating Budget Impact:

Depending upon the terms of an agreement with Boulder Valley School District, maintenance and operating costs could increase.



Funding Source: Service Expansion Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	41,368	723,632	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	765,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Highland Park - Soccer Field Improvements & Irrigation Replace** Project #: Z0181

Project Description:

Total Project Cost: \$1,378,800

Staff is requesting funding to improve the Highland Park Soccer Fields drainage, playability, and functionality.

Background and Justification:

This project will include re-leveling of turf areas, improvements to site drainage, irrigation system repairs, and improved amenities such as parking availability. The proposed re-leveling of the sports turf will remove the drain swales (pictured) between fields which will allow for field rotation. This rotation ability will improve the overall health and durability of the fields by moving the worn areas several times a year. This process will also include a design that drains the fields by the grade (similar to Commons pods drainage) rather than the current channel drain system.

Problem to be Solved and/or Benefit to Citizens:

This project will level playing surfaces so the athletic fields can be rotated and turned. Highland Park Soccer Fields have some of the highest maintenance costs within Broomfield due to the extreme wear from practices and games. This is the result of having the playing fields located in the same general area. This project will make it possible to move the fields and rotate them in order to change where the highest level of wear takes place. The existing swale drains between the fields will be filled in. They typically hold water, creating issues while mowing and performing routine maintenance. Currently, the turf is crowned or domed in the center, pushing precipitation away from the center of the field in all directions. The new grading will push all precipitation in one direction across the entire profile of the field surface.



Alternatives/Consequences if not Funded:

Alternatives would include taking no action or installing alternative sports field surfaces. If this request is not funded, Highland Park soccer fields will continue to see high use and declines in quality.

Project Association:

None

Operating Budget Impact:

Once completed, there will be a small increase in sidewalk and parking lot maintenance

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	138,800	1,378,800	1,378,800



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Interlocken East Park Playground**

Project #: 18L0033

Project Description:

Total Project Cost: \$145,130

Adding a 2 to 5 year old (preschool) playground play structure to most appropriately fit the available area, at East Park in Interlocken.

Background and Justification:

Broomfield’s Interlocken area has developed over the past couple years. Between Interlocken East and West Parks, there has been an increase in visitors at the parks. These parks both offer a variety of recreational opportunities, but do not provide any play structures for children.

Problem to be Solved and/or Benefit to Citizens:

During many scheduled events, children have been observed playing on the adult workout equipment located next to the restroom facilities. Typically, there is a playground available at or near every rentable shelter in the City and County.

Alternatives/Consequences if not Funded:

Children will not have a structured play area at this park, and may continue with reported interference at the adult workout stations.

Project Association:

None

Operating Budget Impact:

Minimal maintenance costs.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
145,130	0	0	0	145,130



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Interlocken East Park Playground - Restroom and Shelter Replacement**

Project #: M0016

Project Description:

Total Project Cost: \$573,550

This request is for the replacement of the Interlocken East Park Restroom Facilities and Shelters constructed in 1985. (Upper and Lower Shelters).

Background and Justification:

The facilities currently located here have reached the end of their specified lifespan. Specifically, the interior of the roofs have begun to decay and rot, creating an unsafe situation and a need to spend significant amounts on replacements/reconstruction of the soffit area of the lower shelter. Vandalism in the restrooms and shelters requires upgrades to burned areas, repainting of tagged areas, and replacement of damaged materials such as the partitions. The plumbing on the interior of the restrooms constantly needs repairs and attention. This building was initially built with many inadequacies and given to the City without any concerns. One of the major defaults is that access to the interior plumbing is completely closed off, making it necessary to complete all plumbing repairs on the interior walls through a 12"x12" access panel, a task that is nearly impossible without eventually deconstructing the interior walls. It is only a matter of time before there is a major incident that requires significant resources to address.

Problem to be Solved and/or Benefit to Citizens:

If the facilities were replaced with the proposed structures, we could accommodate and maintain the high standards Broomfield residents expect. New automated lock systems would provide a higher level of security, locking the doors at night to prevent vandalism. An updated design to this restroom facility would provide better access to facility plumbing and facilitate identification, recording, and repair of issues. Replacing the facility and shelters would offer a more updated and user friendly facility amid the surrounding developments and attractive opportunities for recreation at this park.



Alternatives/Consequences if not Funded:

We will continue to receive patron complaints on recurring issues with plumbing, outdated infrastructure, and inadequate facilities at a heavily patronized area.

Project Association:

None

Operating Budget Impact:

None anticipated

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
573,550	0	0	0	573,550



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Lakeview Cemetery Infrastructure

Project #: Q0022

Project Description:

Total Project Cost: \$50,500

Complete the basic foundation infrastructure required to add the additional four upright columbariums plus install two additional 64-niche granite upright columbariums.

Background and Justification:

The initial upright columbarium was added in 2012, to complement the in ground niche wall. In 2017, an additional upright columbarium was added which increased the capacity of the cemetery by 64 spaces. Currently, the cemetery averages approximately 9 space sales per year (2015-7, 2016-7, 2017-14, 2018-16, 2019-5). The Lakeview Cemetery is a historical cemetery dating back to the late 1800's. The costs at this cemetery are set so as to be an economical option for those citizens looking for a final resting place for their cremated remains. Many long time citizens of Broomfield and those that live in the surrounding area consider this option because of its central location and historical significance to Broomfield.

Problem to be Solved and/or Benefit to Citizens:

There are currently 50 spaces available at the Lakeview Cemetery so by 2025, if this average holds true, Lakeview will only have 1 or 2 spaces left for the community to purchase.

Alternatives/Consequences if not Funded:

Option 1:

Phase 1 - Foundation infrastructure for all four future columbariums and the purchase of 1 upright granite columbarium (2024)

Phase 2 - Purchase of an additional upright granite columbarium (2029) - approximately \$20,000

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	50,500	50,500



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Library Outdoor Play Area Improvements**

Project #: Q0032

Project Description:

Total Project Cost: \$20,900

The small outdoor play area adjacent to the Children’s Library is in need of renovations to the play pit area.

Background and Justification:

The Children’s Library outdoor play area is utilized by the Children’s Library as an outdoor learning and play space. The Children’s Library doors open directly onto this gated outdoor area. A large portion of the play space consists of a play pit. The pit utilizes poured in place surfacing as well as a large steel shade structure with a mesh canopy. The poured in place surfacing has reached its life span and is showing significant signs of deterioration and cracking. The mesh shade canopy has also reached its life span and is showing significant signs of deterioration and fraying. The brick veneer on the interior walls of the pit are peeling away from the block wall. The concrete seat wall has settled and separated from the sidewalk and needs to be replaced.

Problem to be Solved and/or Benefit to Citizens:

This project would replace existing poured in place surfacing, veneer brick, mesh shade canopy, and add a motion sensor alarm system to the 2 existing gates.

Alternatives/Consequences if not Funded:

The play area will continue to deteriorate and display a poor appearance and possible safety risk due to cracked surfacing. There is not currently a good alternative for secure outdoor play immediately adjacent to the Children’s Library.

Project Association:

May be considered as part of the new Civic Center upgrades and Master Plan or Library Expansion.

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	20,900	20,900



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: McKay Lake Dumpster Enclosure

Project #: Q0037

Project Description:

Total Project Cost: \$33,840

A request to add a concrete pad, dumpster enclosure, a trash dumpster, and a recycling dumpster with weekly servicing to the McKay Lake Park parking lot.

Background and Justification:

McKay Lake Park opened in 2018 and is one of Broomfield’s most heavily used parks. With this park came the addition of 17 new trash and recycle receptacles. Due to the heavy use of the park, large volumes of trash are being generated which require all receptacles to be emptied 3 times per week or more during the busy season. The closest dumpster to dispose of this trash is currently located at the Norman Smith Service Center, 3.2 miles from the park.

Problem to be Solved and/or Benefit to Citizens:

Placing a dumpster on site will allow for staff to better and more efficiently manage the large volume of waste generated in this region. In addition, this dumpster can be utilized to help manage waste removal from nearby Quail Creek Park, which also generates waste from shelter rentals and athletic field use. The cans on-site fill up quickly and frequently and sometimes cause litter to blow out of the cans into the surrounding open space. Ultimately this dumpster will help to keep our parks cleaner by simplifying waste management and allow Parks staff to operate more efficiently with on site waste management.



Alternatives/Consequences if not Funded:

Continue to drive truck loads of waste and recycling from McKay Lake Park and Quail Creek Parks back to the Norman Smith Service Center 3 or more days per week.

Project Association:

Possibly combined with restroom replacement at Quail Creek Park, if it would be more advisable to build the dumpster enclosure at Quail Creek as opposed to McKay.

Operating Budget Impact:

Weekly dumpster service which is currently managed and budgeted for by Facilities.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	33,840
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	33,840



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **McKay Lake Regional Park - Park Design/Construction/Alterations**

Project #: 09C0013

Project Description:

Total Project Cost: \$1,839,723

Alterations to the park are to increase safety for citizens who utilize the play area at McKay Lake Park and Open Lands.

Background and Justification:

The 15-acre McKay Lake Park and Open Lands project, including the Broomfield Bike Park, was constructed in 2018. Although staff coordinated closely with the city’s insurance provider, CIRSA, the insurance provider came back to the city after project completion with some safety concerns related to fall and trip hazards. Additional funding is being requested to address these safety issues.

Problem to be Solved and/or Benefit to Citizens:

Alterations to the park are to increase safety for citizens who utilize the play area at McKay Lake Park and Open Lands.

Alternatives/Consequences if not Funded:

If this request is not funded, we will be unable to correct the safety issues that CIRSA has documented.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,764,723	53,583	21,417	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,839,723



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Midway Park North & South Master Plan

Project #: 21Q0044

Project Description:

Total Project Cost: \$573,060

This request is to conduct a site master plan to look at improvements to site access, electrical infrastructure, and space development for multi use activities, festivals, and events.

Background and Justification:

Midway park has two sections both North and South. Currently this is the primary site for Broomfield Days, several other events, practice fields for various youth sports, and supports a local private school. There are several internal and external projects going on in and around Midway park; Emerald Park, NMF D Station rebuild, and Mile High Flood Plain. We would be looking to bring existing funds into one fund to develop the master plan and begin site improvements.

Problem to be Solved and/or Benefit to Citizens:

The intent of the master plan is to look at the overall site, on-going projects, and develop a master plan to create the infrastructure that supports the multi use of this facility.

Alternatives/Consequences if not Funded:

Continue to move forward with the current projects without a long term plan.

Project Association:

19M0013 Blue Star Park Upgrade, 20P0045 Midway Park Electrical Upgrades

Operating Budget Impact:

None



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	150,000	423,060
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	573,060



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: North Broomfield Park - Land Acquisition

Project #: 17L0058

Project Description:

Total Project Cost: \$4,433,097

Review and acquire 75 - 100 acre property in Northern Broomfield for a regional Parks and Recreation complex.

Background and Justification:

Preparing for future growth and demand on Parks and Recreation facilities. This additional parks inventory will help meet growing demand for multi-use playing fields.

Problem to be Solved and/or Benefit to Citizens:

As Broomfield's population increases, it will also be necessary to provide recreation and library services to the residents in this location.

Alternatives/Consequences if not Funded:

Not explore possible sites for a future regional park and facility.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,266,606	1,055,497	1,055,497	1,055,497	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	4,433,097



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Parks - Picnic Shelter Concrete Replacement

Project #: 18M0018

Project Description:

Total Project Cost: \$118,457

Replace/stabilize/seal the concrete surfaces in several shelters citywide.

Background and Justification:

The concrete in and around several shelters has shifted, cracked, deteriorated, heaved, or settled significantly, creating unsafe and unsightly conditions for patrons. Some shelters have wide gaps between sections with a high potential for ankle and tripping injuries. Many of the gaps are too wide to effectively repair. Some of these shelters have lips that CIRSA says violate the ADA standards since they are more than ½" tall. Other shelters have only minor settling and cracking issues and need foam injection to stabilize the concrete, the concrete edges ground down, or caulking or sealing to prevent further deterioration.

Problem to be Solved and/or Benefit to Citizens:

The benefits to citizens are improved safety, better aesthetics, and the prevention of more costly repairs or injury claims at these facilities. Concrete replacement is needed at the following facilities:

1. East Park
2. Commons North Shelter
3. Richard Steele
4. 4th and Garnet



Alternatives/Consequences if not Funded:

The consequences would be potential injury to users, potential ADA compliance issues, and further deterioration of these important assets.

Project Association:

None

Operating Budget Impact:

None anticipated

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	118,457	0	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	118,457	



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Parks - Portalet Enclosures**

Project #: 18M0017

Project Description:

Total Project Cost: \$224,700

Construct four new portalet enclosures and upgrade ten existing portalet enclosures in park areas without permanent restroom facilities.

Background and Justification:

Freestanding portalet units present multiple concerns to the public and city staff. They are considered eyesores that detract from the overall aesthetics in park settings. Broomfield residents have submitted numerous complaints regarding the placement of freestanding portalet units in existing parks that are visible from their homes. On these occasions, Parks staff has either moved the unit to another site or removed it completely from the area to accommodate the complaint.

Problem to be Solved and/or Benefit to Citizens:

Freestanding portalet units are much more susceptible to tipping over due to high winds or by vandals. When portalets tip over, the contents within the unit spill onto the ground, causing unsanitary conditions that must be remedied immediately. The portalet company must be contacted to perform an emergency service, which is an additional fee that is not included in the portalet service contract and an additional cost to the Parks Operating Budget. If the portalet company is not able to respond within 24 hours, the unit remains unusable to the public until cleaning is completed. On multiple occasions, Parks On-call staff has been contacted to respond to tipped over portalets after hours. Placing portalet units within an acceptable enclosure would allow Parks staff to secure the unit to a stationary structure, thus greatly reducing the risk of tipping over.



Alternatives/Consequences if not Funded:

The freestanding portalets will continue to be subject to tipping and other forms of vandalism. Optimal service levels will not be met due to these units being taken out of service. Older portalet enclosures will continue to have restricted access, thus excluding residents with disabilities from being able to access the units.

Project Association:

None

Operating Budget Impact:

None anticipated

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
15,195	151,661	57,844	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	224,700



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Parks - Recycle Receptacles**

Project #: 20P0043

Project Description:

Total Project Cost: \$127,000

This is a request to put recycle receptacles next to current waste receptacles throughout the parks and trails system in Broomfield.

Background and Justification:

With this request Park Services will be able to provide the option to recycle to our residents throughout our community. Park Services currently maintains approximately 525 trash receptacles within the City and County of Broomfield and approximately 100 of those have a recycle receptacle paired with it.

Problem to be Solved and/or Benefit to Citizens:

This request is to add recycle receptacles to the remaining 425 locations. This will allow residents to make a choice about recycling and potentially reduce landfill waste.

Alternatives/Consequences if not Funded:

Additional items that could have been diverted, will end up in the landfill.

Project Association:

None

Operating Budget Impact:

Ongoing and increased maintenance.



Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	127,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	127,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Parks - Structure Condition Assessments**

Project #: 18M0012

Project Description:

Total Project Cost: \$300,000

Assessment of 56 existing park and open space structures (for example docks and picnic shelters), restroom facilities, and concession buildings.

Background and Justification:

There are 54 parks in Broomfield with 12 pavilions that have restroom facilities and 36 picnic shelters without restroom facilities. There are also 3 maintenance buildings and 5 viewing docks that require inspections and condition assessments. Broomfield residents expect park facilities to be safe, functional, and pleasant. Currently, staff deals with issues reactively. A full assessment of all facilities would enable staff to budget and maintain these facilities in a more proactive and productive manner. Multiple aging park structures and facilities no longer adequately accommodate the increased public use and need updates and repairs to meet demand.

Problem to be Solved and/or Benefit to Citizens:

This will be a biennial project with the scope increased to include new structures as they are taken on by Broomfield for maintenance. The first year will include mapping and documenting of the structures, encompassing a larger scope. Subsequent years will include verification of previous reports and notes of changes. The assessment will include current condition and anticipated maintenance in the next 5 years ranked by priority with a cost estimate. The assessment will also consider actual use and anticipated future demand to determine if improvements or upgrades are warranted.



Alternatives/Consequences if not Funded:

If these facilities are not considered for updates and improvements, they will continue to degrade and could possibly become a financial or safety liability. Increased public demand will stress aging structures, and Parks and Facilities will continue to reactively maintain assets.

Project Association:

None

Operating Budget Impact:

None anticipated

Funding Source: Open Space and Parks Fund

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
50,000	0	0	250,000	300,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Boiler Upgrade**

Project #: 18M0056

Project Description:

Total Project Cost: \$85,569

Domestic hot water boiler replacement for a redundant boiler style system. Existing boiler provides all domestic hot water throughout the facility.

Background and Justification:

The original domestic hot water boiler has been in place and in constant operation for over fourteen years. Manufacturer recommends replacement of this boiler at twenty years which increases the ability to obtain parts.

Problem to be Solved and/or Benefit to Citizens:

If we are able to locate the necessary part, lead times have been averaging 4-5 weeks. Without an operational domestic hot water boiler, the facility cannot be operational/open for the public.

The replacement redundant boiler system would benefit the citizens/taxpayers with new energy efficient equipment and reduce maintenance downtime. The building assessment that was performed in 2011 identified the unit to be replaced in 2023, but further research with the manufacturer indicated a 15 year life expectancy.



Alternatives/Consequences if not Funded:

Energy loss will continue and system failure will require closure of the facility for 6 to 12 weeks due to the lead time on equipment. The energy efficiency of a new unit would cut power usage to approximately one-third of the current system.

Project Association:

None

Operating Budget Impact:

The boiler upgrade can be done during closure week and will not affect the public or employee's work schedule. There will be no impact to normal operations.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
65,770	19,799	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	85,569



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Center - Sign Replacement**

Project #: 19N0030

Project Description:

Total Project Cost: \$71,000

Replace the entrance sign at the Paul Derda Recreation Center.

Background and Justification:

The Paul Derda Recreation Center (PDRC) was constructed in 2003. With construction, a monument sign at the entrance from Lowell Boulevard was built. Due to shifting subgrade, the sign has developed a crack across the face of the sign, the emblems have fallen off and the western plaster has cracked.

Problem to be Solved and/or Benefit to Citizens:

The monument sign to the PDRC provides information to residents and visitors and the monument sign style is consistent within Broomfield. All major Broomfield facilities have signage. The existing sign is in disrepair and is not meeting Broomfield’s residents expectations.

Alternatives/Consequences if not Funded:

The facility could have no monument sign or a less expensive sign could be installed.

Project Association:

Monument sign at the dog park.

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	71,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	71,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Building Automation System Upgrade** **Project #:** 20P0033

Project Description:

Total Project Cost: \$22,500

Upgrade the Building Automation System (BAS) platform that manages the complex HVAC equipment at Paul Derda Recreation Center in Broomfield.

Background and Justification:

A Building Automation System is a key component in managing the complex HVAC equipment associated with the City’s facilities. The BAS platform at PDRC is antiquated, outdated, and will no longer be supported in the next few years. The existing platform is very basic and cannot perform many of the functions the upgraded platform can.

Problem to be Solved and/or Benefit to Citizens:

Upgrading the BAS will also allow consistency amongst users in the city, navigation and changes are easier to accomplish leading to faster response times. The existing Trane Tracer Summit platform will be upgraded with newestest platform available which will ensure reliable operation for decades to come.



Alternatives/Consequences if not Funded:

System failure with the potential that parts cannot be procured or supported. This could lead to emergency funding being required to upgrade the system with elevated costs for expedited services to upgrade.

Project Association:

6 Garden BAS Upgrade, P0016.

Operating Budget Impact:

Annual fee of \$2500 for BAS Service/Maintenance Agreement per facility.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	22,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	22,500



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Climbing Wall Space Renovation**

Project #: 21P0024

Project Description:

Total Project Cost: \$225,000

Recreation Services is requesting to remove the climbing wall from the Paul Derda Recreation Center and repurpose the space into a multi-use area that can be used more effectively by patrons and programs.

Background and Justification:

The climbing industry has increased in the Colorado area leading to regulations and requirements for maintenance and inspections on equipment also increasing. In response to these changes, Recreation eliminated drop in climbing at the PDRC because the facility could not hire and maintain front end staff able to provide this service in a safe manner. Recreation attempted to hire dedicated staff with more climbing experience but were unable to develop and retain staff that could meet the needs of the inspections and classes/programs being offered. To continue to serve patrons in a safe environment, lead climbing assessments were eliminated due to the equipment being hard to inspect and having high risk when used. Top rope climbing assessments and use has continued, however, Recreation was unable to hire and retain staff members who can complete the requisite inspections and assessments. A Request for Proposal was issued to find a vendor to facilitate the climbing wall program on a contractual basis with no proposals being received and little inquiry.

Problem to be Solved and/or Benefit to Citizens:

Renovating the climbing area into a multi purpose space that could include an area for games, activities, smaller climbing apparatus or could provide a much needed space for programs that currently use gym space, and offer an option for the 10-15 year old age groups that used to utilize the old game room. The overall space could be more efficiently and effectively utilized by the patrons and allow Recreation staff additional flexibility in programming.



Alternatives/Consequences if not Funded:

The climbing wall area has reached the end of its life cycle and Recreation has exhausted the alternatives to keep this amenity functioning. Staff is proposing to change the operations to a traverse wall (no top rope climbing) until the climbing wall can be removed.

Project Association:

None

Operating Budget Impact:

Replacement of equipment as it fails. The overall impact to maintenance will be negligible.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	225,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	225,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Gymnastics Spring Floor & Carpet**

Project #: 19P0025

Project Description:

Total Project Cost: \$33,000

The Gymnastic Center carpet is in need of replacement or at minimum repair due to the high use and existing condition.

Background and Justification:

Carpet in gymnastics centers typically lasts between 5 and 10 years depending on usage. The Gymnastics Center has between 800 and 1000 participants each week in the 7,500 square foot space. The Gymnastics Center is one of the most used features in the facility. The Gymnastics Center was designed with a Spring Floor which consists of a tightly fitted wood floor set in an excavated hole (open below) with carpet pulled tightly around the boards and firmly attached. With a high number of participants, the carpet wears down faster than normal carpet and wears down faster than the boards. There are rips and open seams in many of the high areas which can cause injury and lead to unsafe situations to participants.

Problem to be Solved and/or Benefit to Citizens:

It is more cost effective to replace the carpet and spring floor in the same year since the carpet must be removed to adjust and replace the underlying boards.

Alternatives/Consequences if not Funded:

Due to the popularity of the program and the safety of the participants we want to make sure that all the equipment in the Gymnastics Center is in great condition.

Project Association:

An Asset Replacement request will be submitted for the Gymnastics Center which will include the flooring replacement and schedule for replacement of other gymnastics assets.



Operating Budget Impact:

The operating budget is not expected to change as a result of the request. Facilities will be included in any changes to the maintenance requirements.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	33,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	33,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Leisure Pool Plumbing Repairs** **Project #:** 21Q0014

Project Description:

Total Project Cost: \$58,000

Repair damage on the main leisure/lap pool plumbing, including cracking and leaking.

Background and Justification:

An aquatic engineer evaluated the plumbing and concluded that the areas affected would have to be replaced and replumbed to avoid any major failure in the pool mechanical room.

Problem to be Solved and/or Benefit to Citizens:

The main leisure/lap pool plumbing issues pose a significant risk. If a plumbing break were to occur, the mechanical room would be flooded, causing major damage to all critical pool equipment in the mechanical room. Furthermore, if emergency repairs were needed, the natatorium would have to be shut down until major plumbing repairs were made which could take two weeks. If this request is approved the repair work can be completed during the maintenance closure period to reduce downtime of the pool system.



Alternatives/Consequences if not Funded:

Temporary repairs are only good for approximately one year.

Project Association:

None

Operating Budget Impact:

There will be no impact to normal operations.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	58,000	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	58,000	



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Outdoor Concrete Replacement**

Project #: 20P0015

Project Description:

Total Project Cost: \$122,000

Replacement of heaved/settled concrete in several areas at the outdoor deck area of the PDRC pool and around the exit doors from the pool area.

Background and Justification:

This high-traffic public area is experiencing significant movement in the concrete causing trip hazards and damage to fencing. Exit doors have difficulty opening and closing. Water pools along the edge of the building increasing the hazard and exacerbating the problem.

Problem to be Solved and/or Benefit to Citizens:

Concrete needs to be removed and replaced. Additional subgrade work may be needed as well as installation of trench drains or area drains to reduce the risk of future concrete movement. Repairs would improve accessibility for recreation patrons.

Alternatives/Consequences if not Funded:

Continue to patch/grind concrete as shifting continues. Risk exposure for potential injury claims.

Project Association:

None

Operating Budget Impact:

Repairs will assist in reducing time and funding spent on grinding and patching.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	122,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	122,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Paul Derda Recreation Center - Outdoor Playground

Project #: Z0084

Project Description:

Total Project Cost: \$513,000

Install a public, outdoor playground at the Paul Derda Recreation Center (PDRC) designed for children (toddler through 12 years) and include a small covered area with at least one picnic table.

Background and Justification:

The PDRC averages 40,000 paid visits per month, with most patrons under the age of 12. Currently, we have an indoor playground that services children under the age of eight and a private outdoor playground that is used by the child-sitting and preschool programs. The outdoor playground is not available for drop-in use. The nearest outdoor public playground is located at the Broomfield County Commons main pavilion, approximately ¾ mile from PDRC. The proposed playground would service PDRC visitors as well as the Red Leaf, Trails, and Westlake neighborhoods.

Year-round, many families and groups of adults with children bring their lunch or dinner to PDRC and spend the day. These groups do not reserve a room for their lunch time, resulting in food being eaten throughout the facility. An outdoor public playground with a shelter and picnic tables would provide an alternative to eating lunch indoors during fair weather days.

As part of the Broomfield County Commons Park and Open Space, PDRC is an integral part of this "signature" facility. Another public park on the east side of the complex would meet the comprehensive plan goals of Community Image and Identity, OP-C.2 and OP-C.3, and Meeting Future Needs, OP-E.

Problem to be Solved and/or Benefit to Citizens:

An outdoor playground and shelter facility would help accommodate overflow use at PDRC and provide a space for the public to play outdoors at no charge while visiting the recreation facility.

Alternatives/Consequences if not Funded:

No other alternatives were examined. If not funded, we will continue to provide users a place to play and eat indoors.

Project Association:

None

Operating Budget Impact:

Additional 30 minutes per month for inspection of proposed playground. After the first five years, \$300 annually for repairs and replacement parts, increasing approximately \$50 per year as the equipment gets older and more repairs are needed.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	513,000	513,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Paint Refresh**

Project #: Q0042

Project Description:

Total Project Cost: \$38,870

The interior of the facility needs to be repainted along with other minor repairs that exceed the expertise of the Recreation and Facilities staff.

Background and Justification:

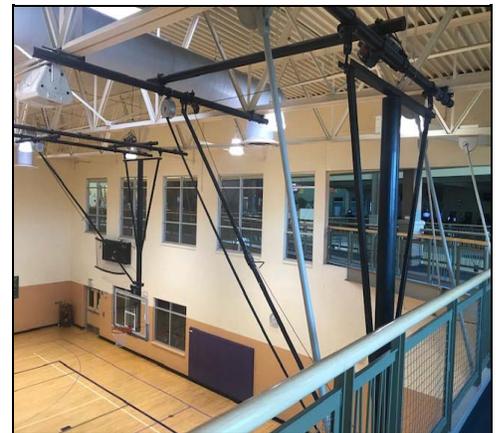
The Paul Derda Recreation Center (PDRC) is in its 18th year of operation. Currently the building sees approximately 35,000 visitors a month. In order to visually maintain the high standards the Broomfield Community has become accustomed to, we need to invest in maintenance and repairs. Investing in the aesthetics at the PDRC is important to keep our current and potential members choosing the facility over other facilities in the private sector. Since 2006, the PDRC has been closed for a week for general maintenance and cleaning. Recreation staff work on these items however, staff lacks the expertise and equipment to complete all of the needed tasks.

Problem to be Solved and/or Benefit to Citizens:

Due to the size and architecture of the facility (tall ceilings, balconies, etc.), hiring outside painters would allow the work to be completed safely, efficiently and in a professional manner that cannot be completed by Recreation staff.

Alternatives/Consequences if not Funded:

The demand on the Facilities staff may result in their team working multiple overnight shifts while accruing overtime or working overnight shifts and trying to flex the time they worked resulting in pulling them from their assigned duties at other facilities. The scope of work required for painting some of the areas will require rental of additional equipment.



Project Association:

This project may be combined with the replacement of the walking track.

Operating Budget Impact:

None

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	38,870
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	38,870



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Paul Derda Recreation Center - Parking Lot Camera Additions

Project #: 20P0026

Project Description:

Total Project Cost: \$19,800

Recreation Services is proposing to add an additional four cameras to the exterior of the building which would cover the entire parking lot and service entrance road.

Background and Justification:

The parking lot at the Paul Derda Recreation Center (PDRC) currently has two cameras monitoring the parking lot which were installed with the original construction of the facility in 2003. The coverage and quality of the video surveillance is limited. This has led to challenges in identifying vehicles of suspects (of incidents both interior and exterior to the facility) and addressing patrons concerns when they are leaving the facility. In 2018, Facilities and Recreation expanded the camera system for the interior of the PDRC from 16 cameras to 33 cameras, and moved toward digital cameras and an online recording system.

Problem to be Solved and/or Benefit to Citizens:

The additional four exterior cameras would have a higher resolution allowing areas to be clearly zoomed in on in the parking lot and service drive as needed. The cameras would provide a more comprehensive coverage of the parking lot. The Police Department would be provided with information that would be usable to investigate issues. The additional coverage would provide an additional level of safety to both patrons and staff members as they enter and exit the facility.



Alternatives/Consequences if not Funded:

PDRC will continue to monitor the parking lot in the same manner.

Project Association:

None

Operating Budget Impact:

Camera replacement will be addressed as they fail but should not be a forecastable expenditure at this time.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	19,800	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	19,800



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Pool Grate and Gutter Repair** **Project #:** 19K0045

Project Description:

Total Project Cost: \$30,000

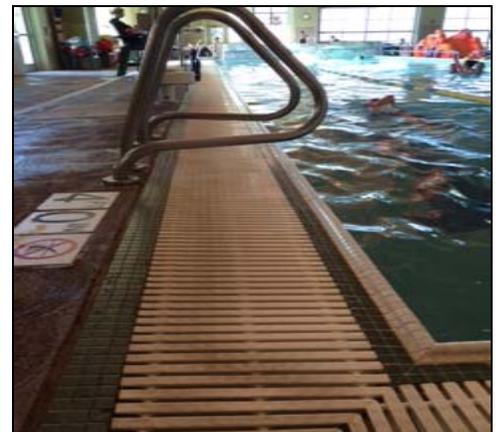
The deck and pool grate system on and around the pool at the Paul Derda Recreation Center is in need of replacement. Current grates are 10 years old and are starting to breakdown due to use.

Background and Justification:

The gutters are losing their non-skid surface, are worn, faded, have lost color and do not appear attractive. Over the years and due to the soil erosion and ground shifting around and under the building, the current deck drainage is no longer adequate. Additional drainage holes are needed to help with flow and turnover, as well as proper drainage from the deck to sewer, and to maintain health and safety standards.

Problem to be Solved and/or Benefit to Citizens:

Due to shifting ground, the deck drainage is no longer efficiently draining to the sewer. Water and debris sit idle and becomes stagnant. In order to remove the build-up, the gutters have to be taken off, cleaned, scrubbed, hosed, and occasionally snaked due to back up. The drains often smell due to improper drainage and chemicals must be used to maintain the health and well-being of customers.



Alternatives/Consequences if not Funded:

Will continue to use current system in place, replacing and repairing sections of the deck and pool grate and gutter system as they become chipped, cracked, or too slippery for use.

Project Association:

This project will be completed during scheduled facility closure.

Operating Budget Impact:

None

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	30,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Paul Derda Recreation Center - Pool Slide Area Concrete Replacement

Project #: 19M0011

Project Description:

Total Project Cost: \$40,000

Replace current concrete area around bottom of both the innertube slide and body slides. Current deck is set in about an inch to allow for mats to be placed on top.

Background and Justification:

Currently dri-dek mats are installed at the bottom of the slide areas at PDRC in the swimming pool area. For the mats to fit flush with the deck, there is an inch drop between the edge of the tile, and the current concrete deck. The mats lay on top of the concrete deck. The original design was intended to help with water drainage as well as potential safety concerns with an abundance of water on the deck. Design was intended to allow the water to flow over the mats, drain down, and the mats to provide added slip protection due to the drainage holes and added texture on the mats.

Due to consistent use, water, chemicals, cleaning and general wear and tear, the mats needs to be totally replaced to maintain their appearance as well as for safety. Over time, they shrink, no longer match up with the edge of the pool, rip/break, or bunch up in areas, all causing potential safety concerns.

Mats have been replaced five times over the past 12 years, averaging replacement needed once every 2 years. Mats will be replaced again in 2017. Total cost to replace the mats is \$4,000 totaling \$20,000 spent over the past 12 years.

A long term solution is desired to avoid continued replacement of the mats as well as labor to keep them clean, replace them, and general maintenance, as well as costs associated with replacing them every 2 years. Removing the existing mats and re-doing the existing concrete so that it matches the rest of the deck, will replace the need for mats in that area.

Problem to be Solved and/or Benefit to Citizens:

Cost savings in not replacing the mats, staff time and labor, increased safety and overall function in area.

Alternatives/Consequences if not Funded:

Mats will need to continue to be replaced every 2 years, averaging a total cost of \$4,000 every other year that will need to be budgeted.

Project Association:

None

Operating Budget Impact:

None anticipated



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	40,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Replace/Upgrade Fluorescent Lighting**

Project #: 16H0013

Project Description:

Total Project Cost: \$364,908

Replace/upgrade present fluorescent indirect lighting in cove cavities throughout Paul Derda Recreation Center with LED strip lighting. The present lamps are positioned in difficult-to-reach areas throughout the building.

Background and Justification:

Remove present fixtures (approximately 900), replace with modified LED strip lighting (approximately 2,500 feet), and provide the same foot candle requirements as the existing fixtures. Installation will be performed by Facility Services staff. The project would be completed in sections, as different areas are accessible without interfering with customers. It is anticipated that the work will be completed in approximately 60 to 90 days. The LED lights last an average of 60,000 to 100,000 hours with a five-year product warranty.

Problem to be Solved and/or Benefit to Citizens:

The cove lighting serves as an aesthetically enhancing feature in the facility, not a direct-use light. This would save money on staff time and electric costs by reducing needed maintenance and energy usage.

Alternatives/Consequences if not Funded:

Continue to pay excessive electrical and maintenance costs annually.

Project Association:

None

Operating Budget Impact:

Potential savings of \$96,360 per year.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
94,464	15,444	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	85,000	0	170,000	364,908



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Track Flooring Replacement**

Project #: Q0043

Project Description:

Total Project Cost: \$129,000

The Paul Derda Recreation Center (PDRC) track floor has met its life expectancy and needs to be replaced.

Background and Justification:

The facility was opened in 2003, and on average sees approximately 35,000 visitors a month. The track is the originally installed surface, which is outside the general life expectancy of the track surface of 10-15 years. The track at PDRC is utilized by many programs in Recreation, including The Healthy Hearts walking program (which logged 3,925 miles on the track in 2019), Youth Cardio Games, Stroller and Me, Spring Fitness Challenge, Holiday Meltdown and is one of the most heavily used amenities in the facility for drop in users. Over the last 17 years almost all of the flooring in the facility has been replaced, except for the track. The life expectancy of this flooring is approximately 10-15 years based on the resiliency of the material and manufacturers recommendations. At this point the flooring is showing signs of wear, and more importantly, has lost a lot of the resiliency it was designed to have. This provides comfort and cushioning for customers joints and is the most important aspect of a walking/running track.

Problem to be Solved and/or Benefit to Citizens:

With the addition of the indoor walking track at the Broomfield Community Center we want to ensure that we are continuing to offer high quality amenities at the PDRC and not allow that facility to fall into disrepair.

Alternatives/Consequences if not Funded:

Facilities will continue to do their best to keep the floor functioning in a safe and most visually acceptable condition possible.

Project Association:

May be combined with the CIP Refresh being proposed to paint the interior areas of Paul Derda Recreation Center.



Operating Budget Impact:

None

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	129,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	129,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Playground Shade Structures**

Project #: Q0033

Project Description:

Total Project Cost: \$112,200

Addition of multiple 15 ft. x 15ft. monopost shade structures, concrete pads, and picnic tables at ten different playground locations.

Background and Justification:

Some of our playgrounds lack a shaded area near the playground to protect those supervising children. Currently, the proposed project areas do have shaded shelters within the vicinity of the playgrounds, but these shaded areas are too far away from the playground to provide a complete line of sight and a quick response time to physically aid a child. Thus, the supervisors stand in the sun near the playground in order to adequately supervise the children.

Problem to be Solved and/or Benefit to Citizens:

ddition of multiple 15 ft. x 15ft. monopost shade structures, concrete pads, and picnic tables at ten different playground locations.

Alternatives/Consequences if not Funded:

Those supervising children playing on the playgrounds will have to bring their own form of shade protection, stand in the sun while supervising, or find a shaded area away from the playgrounds to have reprieve from the sun.

Project Association:

It may be possible to combine the shade additions at Girl Scout playground with the Midway Park Master Plan.



Operating Budget Impact:

Removal before Winter and reinstallation in the Spring. Also, they have a typical lifespan of 10 years, so they will need to be replaced approximately every 10 years.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
112,200	0	0	0	112,200



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Quail Creek Park Restroom Rebuild**

Project #: 20L0034

Project Description:

Total Project Cost: \$356,600

Rebuild and upgrade the Quail Creek Park Restroom facilities.

Background and Justification:

The facilities were originally constructed with limited funding, water access, and sewer availability. There is no running water and the toilets are vaulted over pits.

Problem to be Solved and/or Benefit to Citizens:

Utility lines are now available and a more adequate facility can be constructed. This may also reduce vandalism.

Alternatives/Consequences if not Funded:

Continued complaints and lack of service for growing number of patrons.

Project Association:

McKay Regional Park

Operating Budget Impact:

Maintenance and utilities costs.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	356,600
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	356,600



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Siena Reservoir - Dock Replacement

Project #: 21M0019

Project Description:

Total Project Cost: \$84,360

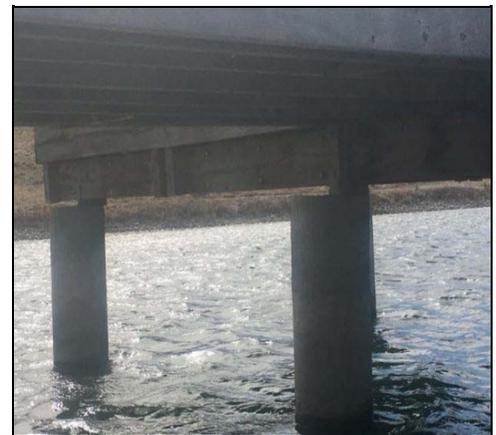
Demolition of the existing stationary dock at Siena Reservoir and replacement with a floating dock.

Background and Justification:

The dock at Siena Reservoir is reaching the end of its normal safe life span. This dock has been subject to vandalism on numerous occasions. These vandalism cases have damaged the framing and railing system essential to the safety of this amenity. While vandalism has harmed the integrity of this amenity, it has also been subject to the normal wear and tear of the elements, such as high winds, hydraulic forces within the reservoir, fluctuating temperatures, and shifting soils have moved the dock off the concrete bases that hold the entire structure in place. The dock has moved significantly from the center of the support pillars, to unsafe positions. The dock has been brought up during a number of inspections performed by CIRSA, citing issues with safety railings, reflectors, and rail caps.

Problem to be Solved and/or Benefit to Citizens:

Convert to a floating dock system made of aluminum with stainless steel hardware and foam filled floats that will prove effective against the elements. According to Alumadock Marine Systems, a dock like this would have a warranty of 20 years and would only need occasional maintenance on defective floats. This dock would be easy to maintain and would potentially be accessible and ADA compliant.



Alternatives/Consequences if not Funded:

If this issue is not alleviated soon, the dock may shift from the concrete supports, resulting in park patron injury or death. Vandalism to the safety railings could also lead to park patron injury or death.

Project Association:

None

Operating Budget Impact:

None anticipated

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	84,360	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	84,360



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Siena/Anthem Community Park - Playground**

Project #: 18K0038

Project Description:

Total Project Cost: \$258,750

Staff is requesting funding to construct a 2 to 5 year old playground at the existing Anthem (Siena) Community Park.

Background and Justification:

The existing Siena/Anthem Community Park is part of the larger Community Park to be constructed as part of the Anthem development. At this time, only the western portion of the larger park has been constructed. This includes athletic play fields, a large pavilion, parking, and restrooms. The addition of a 2 to 5 year old playground would enhance the park and provide activities for younger children at the park for picnics, sports games and practices, or track meets.

Problem to be Solved and/or Benefit to Citizens:

This site is rented nearly every weekend during the summer for family gatherings and the fields are used nearly every evening and weekend from March through October for various field sports programs. Increasingly, this park is requested for large special events. Typically, there is a playground available at or near every rentable shelter in the city and county. The addition of this playground would complete the current developed area and provide the same amenities as are typically available at CCOB parks.



Alternatives/Consequences if not Funded:

If not funded, children will not have a structured play area at this park.

Project Association:

This could be coordinated with the annual playground replacement program.

Operating Budget Impact:

Operating costs would slightly increase for playground maintenance.

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
2,200	0	0	0	256,550
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	258,750



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Skate Park Refresh

Project #: Q0041

Project Description:

Total Project Cost: \$189,000

A scheduled renovation project to make larger repairs and update the skate park facility to maintain interest and relevance.

Background and Justification:

The Broomfield Skate Park was last renovated in 2010. The request for complete removal and replacement was approved in the 2009 CIP budget and the project was completed in 2010. In late 2019 staff became aware of some minor damage that had occurred to the concrete due to use and weather. CIP and Recreation began exploring options for those immediate needs and began discussing the need for an overall refresh to the amenity, which would also look at resolving any additional damage that needed repair.

Problem to be Solved and/or Benefit to Citizens:

Fully updating/renovating the Skate Park to coincide with the 20 year life mark of the park.

Alternatives/Consequences if not Funded:

Minor repairs to concrete as they occur and continual upkeep of the amenity.

Project Association:

None

Operating Budget Impact:

There should be minimal impact to operations of this amenity.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	189,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	189,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Sport Court LED Lighting Upgrades**

Project #: Q0035

Project Description:

Total Project Cost: \$41,000

Replace HID lighting (retrofit) to more efficient LED lighting upgrade for Community Skate Park/BIP Pickleball, Hockey Rink.

Background and Justification:

Community Skate Park/BIP Pickleball, Hockey Rink currently have HID lighting.

Problem to be Solved and/or Benefit to Citizens:

Performing this lighting upgrade will cut energy use in half, saving money on annual utility bills as well as cutting contractor maintenance and material cost saving of \$954.00 annually on lamps . The payback on the project will be approximately 10 years.

Alternatives/Consequences if not Funded:

Cost of waiting to retrofit would be about \$300.00 of continued monthly energy costs and future funding requirements for contractual services.

Project Association:

Skate Park resurfacing

Operating Budget Impact:

With this proposed upgrade with an energy consumption of 313 watts per fixture, this should allow maintenance free for next 5 years on any drivers and 100,000 hours on LED fixture retrofit.



Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
41,000	0	0	0	41,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Wildgrass Underpass Water Sealing Design

Project #: 14H0027

Project Description:

Total Project Cost: \$40,000

The pedestrian underpass (segmented box culvert) running under Sheridan Boulevard at the north intersection of Eagle River Loop leaks constantly throughout the year. It is a nuisance in both summer and winter and needs to be repaired for safety reasons.

Background and Justification:

Since acceptance in September 2008, parks staff have experienced problems caused by water leaking through seams in this underpass. These problems have become worse over time. In the summer, water in the underpass creates a slippery algae-like slime.

Problem to be Solved and/or Benefit to Citizens:

This project would reduce hazardous conditions for all underpass users.

Alternatives/Consequences if not Funded:

The year round hazards created by the water leaking into the tunnel would persist and could cause an accident or injury.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	40,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2021 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Willow Grove Park Trail Replacement**

Project #: 21Q0025

Project Description:

Total Project Cost: \$108,756

This project is to replace and widen the deteriorated path in Willow Grove Park.

Background and Justification:

The upgraded standards allow maintenance vehicles to safely access the playground and shelter area for routine maintenance operations without causing damage that causes the current walk to fail. It would also remove the trail from the playground to the north that dead ends and fill it in with sod to both reduce cost as well as make a larger area for athletic activities.

Problem to be Solved and/or Benefit to Citizens:

This replacement project will allow Parks to replace the current unsafe broken sidewalk, as well as allow us to meet current trail design standards.

Alternatives/Consequences if not Funded:

As the walk continues to degrade further, snow removal operations will no longer be able to be performed without at the risk of damaging the equipment and potentially injuring plow operators.

Project Association:

This project could be incorporated into the Parks annual concrete program with the landscape portion included with the Parks annual small projects bid.



Operating Budget Impact:

None

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	108,756	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	108,756



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: 112th Avenue & Uptown Avenue Complete Street Improvements

Project #: 21P0041

Project Description:

Total Project Cost: \$5,625,000

Complete the 112th Avenue and Uptown Avenue corridor to its ultimate configuration from Main Street to 400 l.f. west of Central Court.

Background and Justification:

The project is anticipated to be submitted for a grant application for use of federal funds through a new program from DRCOG funding opportunity for Urban Arterial Multimodal Safety.

The grant requires a minimum 20% match, additional points may be scored for over match. The grant would be reimbursable to Broomfield if all criteria are met. The project must complete construction by June 1, 2024. The project request could be scaled back to one or two corridors. This project is a combination of 112th Avenue between Parkland and Main (H0025) and Uptown Avenue - South Half Construction (H0018). 112th Avenue has traffic volumes and congestion that justify widening the road. The approved Dry Creek Valley Business Center Development Agreement requires the City to construct the south half of Uptown Avenue when warranted by traffic volumes.

Problem to be Solved and/or Benefit to Citizens:

The Project would widen the road to a 4-lane road with 5' bike lanes, sidewalks, ADA improvements at intersections and bus stops as appropriate. Railroad quiet zone safety improvements will be completed. An additional trail connection along Old Wadsworth, south to the US 36 Bikeway connection will improve safe mobility options to the regional bikeway. Street lights will be relocated or added where necessary.



Alternatives/Consequences if not Funded:

If the Uptown Avenue portion is not funded Broomfield may be in violation of the Development Agreement. Continued traffic congestion will occur at 112th Avenue if that portion of the project is not funded.

Project Association:

There is not another known related project. The project completes the corridor and includes railroad quiet zone safety improvements and includes an additional trail access to the US 36 Bikeway.

Operating Budget Impact:

Standard maintenance of roadways will apply.
BNSF will maintain the railroad crossing.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	5,625,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	5,625,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: 136th Ave and Aspen Street Traffic Signal

Project #: 21Q0003

Project Description:

Total Project Cost: \$485,070

Installation of a traffic signal at the intersection of W 136th Avenue and Aspen Street

Background and Justification:

Increases in residential and office complex development north of the area has resulted in increased traffic volumes and school pedestrian usage at the intersection, justifying traffic signal installation.

Problem to be Solved and/or Benefit to Citizens:

The intersection meets traffic signal warrants as determined by the Manual on Uniform Traffic Control Devices in order to be considered for traffic signal installation.



Alternatives/Consequences if not Funded:

A roundabout was considered at the intersection. However, because of the ROW required affecting adjacent residential it was dropped from consideration. If a traffic signal is not installed, the Level Of Service at the intersection will continue to decrease, possibly resulting in additional accidents.

Project Association:

Aspen Creek Development

Operating Budget Impact:

This project will require ongoing regular operating expenses for maintenance with our Public Works Department and has been discussed with Public Works.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	485,070	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	485,070



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: 149th Avenue (Silverleaf) - Street Improvements

Project #: 21N0035

Project Description:

Total Project Cost: \$242,600

Add curb, gutter and sidewalk along the entrance into Silverleaf between Lowell Boulevard and Kestrel Drive.

Background and Justification:

The Silverleaf Homeowners Association submitted a CIP Request to improve the 149th Avenue secondary access into the Silverleaf (Mountain View Estates).

Problem to be Solved and/or Benefit to Citizens:

The CIP request was to add curb and gutter so that the HOA could landscape the entrance without vehicles damaging the roadside by driving off the road and creating muddy ruts and damaging native grasses. The CIP Committee approved the project and recommended that the adjacent soft-surface trail on the south side of the road be reconstructed as a typical concrete sidewalk since the entrance is being used more frequently than envisioned by the developer. The sidewalk would better connect the subdivision to Lowell Boulevard and the North Community Loop Trail.



Alternatives/Consequences if not Funded:

The 149th Ave entrance would continue to function as it does today.

Project Association:

None

Operating Budget Impact:

Assuming Silverleaf is responsible for snow removal along the sidewalk, this project does not significantly impact operating costs. The added curb and gutter provides improved drainage conditions and protect the asphalt roadway from degradation.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	242,600	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	242,600



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Active Transportation Wayfinding Pilot (TIP)

Project #: 20P0051

Project Description:

Total Project Cost: \$350,000

This project furthers recommendations of the Broomfield Ped-Bike Assessment (draft) to provide connectivity of the Low-Stress Network with wayfinding. Develop an Active Transportation Routes Wayfinding Package.

Background and Justification:

This is a DRCOG TIP Broomfield Subregional Project, the project has been approved by the Broomfield Subregional Forum (Mayor & 4 Councilmembers) it is anticipated that the DRCOG Board will adopt the project in August 2019. Currently, Broomfield's vast network of trails and streets lack information that assists active transportation users in navigating their neighborhoods and to key community destinations. Implementing wayfinding to connect our trails, low volume streets, and neighborhoods to our civic areas, employment/commercial areas, open spaces, parks, regional trails, and transit facilities bring together several components that are a part of Broomfield's identity as a great place to live, work and play

Problem to be Solved and/or Benefit to Citizens:

The overall impact of the project on the greater Broomfield community is that a Wayfinding Plan Package of details will be developed that can be replicated throughout the community and implemented over time through key corridors, as well as, give guidance for necessary wayfinding with new development projects.

Alternatives/Consequences if not Funded:

If not funded, there will likely be penalties from DRCOG for not using funds in a timely manner and may impact future funding of Broomfield projects with Federal funds. A priority first & final mile project will not be completed.

Project Association:

Bicycle and Pedestrian Wayfinding Signs Citywide 17L0048

Operating Budget Impact:

Both Streets & Parks will be included to incorporate low-maintenance ideas and strategies for maintaining the wayfinding along our streets, trails, and parks.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	350,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Anthem Ranch Road Reconstruction

Project #: N0006

Project Description:

Total Project Cost: \$861,000

Reconstruct of Anthem Ranch Road from Lowell Blvd to Hope Circle.

Background and Justification:

Due to subbase issues and possible utilities trench failures, the road heaves in this area to such a point, that the residents in Anthem subdivision express concern about the safety of driving on this segment of roadway, on a recurring bases. There is also a significant drainage issue with the curb and gutter from Lowell Blvd to Whetstone Dr. The water is designed to flow east from Whetstone Dr approximately 300 linear feet to the inlet near Lowell Blvd but it fails to do so, due to loss of grade.

Problem to be Solved and/or Benefit to Citizens:

Reconstruction will correct the trench failures and improve drainage issues.

Alternatives/Consequences if not Funded:

Street Services will attempt to mitigate the heaving as best as possible, by profile milling and paving the affected areas.

Project Association:

None

Operating Budget Impact:

Once reconstructed, street services would apply a slurry seal within five years.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	861,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	861,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Arista Street Lighting Upgrade**

Project #: 16K0027

Project Description:

Total Project Cost: \$3,521,911

The project request is to bring the Arista Development to Xcel Energy standards and specifications for street lighting and retrofit existing Induction Street lighting to a full LED system.

Background and Justification:

The street lighting throughout the Arista development is failing on a large scale and is not maintainable in its current configuration. The lighting was installed to meet private parking lot criteria instead of Xcel's standards and included the use of direct bury aluminum that ran to the street lights from shared power distribution center panel board boxes. The shared power distribution centers were installed side by side with irrigation and other buildings' electrical power that share one meter that runs everyone's electrical requirements. As a result, the city is most likely paying for private electricity usage in the area

Problem to be Solved and/or Benefit to Citizens:

Bring the Arista Development to Xcel Energy standards and specifications for street lighting and retrofit existing Induction Street lighting to a full LED system.

Alternatives/Consequences if not Funded:

Mobile light towers can provide street lighting and power traffic signals if necessary. This solution will increase overtime and fuel costs significantly.

Project Association:

None

Operating Budget Impact:

Once completed, this project is anticipated to save staff time due to decreased maintenance.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
20,831	0	1,080	500,000	500,000	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
500,000	500,000	500,000	1,500,000	3,521,911	



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Aspen Street Improvements - Developer Reimbursement** Project #: 21Q0001

Project Description:

Total Project Cost: \$191,000

Aspen Creek Filing 5 developer has agreed to construct 800 foot segment of the east side of Aspen Street from Dillon Road to the south end of the property with reimbursement from Broomfield upon acceptance.

Background and Justification:

Aspen Street improvements stop mid-way along Aspen Creek Filing 5. The sidewalk ends on the east side and the curb and gutter roadway sections transition to a rural roadway section.

Problem to be Solved and/or Benefit to Citizens:

If Aspen Creek Filing No. 8 proceeds and Aspen Street is improved, there will be a missing 800 foot gap of sidewalk and curb and gutter. The Open Space and Trails Committee requested that this segment of sidewalk be completed because this is an active residential neighborhood with a school and major park nearby. For adequate drainage, the curb and gutter should also be continuous through this segment. The developer of Aspen Creek Filing 8 has agreed to construct the improvements if reimbursed by Broomfield.



Alternatives/Consequences if not Funded:

We anticipate complaints and requests to build the missing segment through the CIP.

Project Association:

Aspen Creek Landscaping.

Operating Budget Impact:

Once the improvements are constructed, the project will slightly increase operations and maintenance costs.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	191,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	191,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Bike N Ride Shelter Payment to RTD**

Project #: 16L0055

Project Description:

Total Project Cost: \$36,000

This project would contract to provide up to 8 bike share locations in Broomfield as an initial phase.

Background and Justification:

A priority map has been developed by several staff members representing Community Development, Open Space and Trails, Economic Development, Public Works, and the City and County Manager’s office. Additional sites have been identified for future phases. The Bike Share program would be owned and operated by a private company.

Problem to be Solved and/or Benefit to Citizens:

This project helps Broomfield work towards its multi-modal transportation and recreation goals.

Alternatives/Consequences if not Funded:

There would be no change. This is a proposed amenity, not a replacement or repair.

Project Association:

None

Operating Budget Impact:

The bikes and bike racks would be owned and operated by the bike share company, so there would be no operating impact to Broomfield.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	36,000	36,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Bike and Ride Shelters - Citywide

Project #: 16K0006

Project Description:

Total Project Cost: \$30,000

Funding to select the ideal locations and create construction plan sets for the three remaining Bike-n-Ride Shelters in Broomfield through coordination with RTD and Broomfield staff.

Background and Justification:

Bike-n-Ride Shelters provide secure and weather proof bike parking. The Bike-n-Ride Shelters (located at the US 36 & Flatiron Station (2) and at the US 36 & Broomfield Station (1)) will support the success of US 36 Bus Rapid Transit (BRT) by providing a First and Final Mile solution for transit riders who bike to and from the BRT stations. They provide an ideal solution to the lack of storage/carrying space available on buses. Bike-n-Ride Shelters provide a safe place for residents who bike to the BRT stations to leave their bikes when taking transit or for workers in the corridor to safely keep their bikes for their journey from the BRT stations to their place of employment. Bike-n-Ride Shelters especially support low-income members of our community and youth who may not have access to a car.

Problem to be Solved and/or Benefit to Citizens:

Bike shelters are a first and final mile amenity that removes a barrier to riding a bicycle by providing a secure location to park bikes during the day or overnight. Siting bike shelters at transit stations encourage people to ride to the stations and use transit.

Alternatives/Consequences if not Funded:

If not funded, there will be a gap in the network of first and final mile amenities along the US 36 corridor connected by the 18-mile US 36 Bikeway and Flatiron Flyer Regional Bus Rapid Transit service to Denver and Boulder.

Project Association:

None

Operating Budget Impact:

Cost to maintain is \$5,000/ shelter/ year. This fee will be paid to RTD to maintain the shelters. Costs will be reviewed annually with Broomfield staff.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	30,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Bridge Approach Repairs - Northwest Parkway Bridges** Project #: Q0020

Project Description:

Total Project Cost: \$165,000

This is a request to raise the approach slabs by compaction grouting each of the three bridges over the Northwest Parkway.

Background and Justification:

Per an August 27, 2003 memorandum with the Northwest Parkway Public Highway Authority, the City and County of Broomfield is responsible for maintenance of the decks of three bridges over the Northwest Parkway that are part of the local street system: Lowell Boulevard, Huron Street, and Sheridan Parkway. The sleeper slabs that exist in the subgrade under the bridge approach, are used to equalize settlements beneath the roadway end. The bump that is often felt while driving over an approach slab reveals a differential settlement of an embankment relative to the bridge superstructure and is a condition that could cause damage to vehicles.

Problem to be Solved and/or Benefit to Citizens:

Raising the approach slabs would resolve these issues. Compaction grouting improves ground conditions by volumetric displacement and to fill any voids present. A very viscous (low-mobility), aggregate grout is pumped in stages to displace and densify the surrounding soils. Spacing of the compaction grout locations will be as necessary to accommodate the environment and the desired level of densification. The purpose of the compaction is to densify the soils. The grout is manufactured on-site so adjustments in flowability and slump can be made real-time.



Alternatives/Consequences if not Funded:

The speed limit could be reduced in the area of the bridges and “DIP” signs could be placed in the area to warn of the condition.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	55,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
55,000	55,000	0	0	165,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Broadlands Lane - Troon Circle West to Muirfield Circle West Reconstruction** Project #: 21P0036

Project Description:

Total Project Cost: \$675,036

Reconstruct Broadlands Lane from Troon Circle west to Muirfield Circle west.

Background and Justification:

Streets Services has been mitigating this road since 2010, The subgrade continues to cause issues with drainage with both the road and the curb and gutter. Residents have expressed concern with the safety of driving on the road, as well as failures with the curb and gutter abutting their properties on a recurring basis.

Problem to be Solved and/or Benefit to Citizens:

This issue affects twenty-six homes with driveways connected to the road.

Alternatives/Consequences if not Funded:

Continue to mitigate the road due to subgrade failures.

Project Association:

None

Operating Budget Impact:

Once reconstructed, street services would preserve the road as needed according to our pavement preservation program.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	675,036	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	675,036	



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: County Commons - Roundabout

Project #: 21M0032

Project Description:

Total Project Cost: \$225,000

Reconfiguring and widening the medians entering and exiting the roundabout and removing the apron around the center landscaping.

Background and Justification:

Broomfield County Commons Park was constructed in 2002 and opened in 2003 when the centralized roundabout was put into service at that time. Since the first year it was open, general vehicle traffic has periodically traveled outside and over the curb lines, rutted irrigated turf, and damaged the irrigation. Broomfield snow control operations and maintenance vehicles have impacted and broken the delineation islands. Annual maintenance funds have been used to fix the damaged areas on a continuing basis.

Problem to be Solved and/or Benefit to Citizens:

Reduce annual maintenance funds used to fix the repeatedly damaged areas.

Alternatives/Consequences if not Funded:

Continue to allow further damage to the area that would be required to be fixed using annual maintenance funds.

Project Association:

None

Operating Budget Impact:

None anticipated



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	225,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	225,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Dillon Road/West 144th Avenue Improvements - Bond Funded** Project #: 17M0020

Project Description:

Total Project Cost: \$40,135,192

Add the US 287 to South 120th and Sheridan Boulevard to Zuni Street segments to complete the widening of Dillon Rd/W 144th Ave through Broomfield in general conformance with the Dillon Road/West 144th Avenue master plan.

Background and Justification:

Dillon Road/West 144th Avenue is a regional roadway with connectivity to I-25, US 287, and arterial street connections to Lafayette and Louisville. The roadway between the Northwest Parkway (NWP) and Zuni Street is in the City and County of Broomfield. The original (2014) Phase 1 project included the ultimate widening of Dillon Road to four continuous through lanes from South 120th Street to Sheridan Boulevard. Design has been underway since 2015. Existing and future long-term traffic analyses will be conducted to determine intersection geometry, acceleration and deceleration lane lengths and traffic signal improvements. Traffic signal plans will be prepared for the intersections of Dillon Road/West 144th Avenue with Road K (Reid-Wright Access), South 120th Street, Aspen Street, Sheridan Boulevard, Karly Way, Broadlands Marketplace, Lowell Boulevard, McKay Park Drive, and Zuni Street.

Problem to be Solved and/or Benefit to Citizens:

The stretch of Dillon Road/West 144th Avenue from just east of US 287 to Zuni Street carries approximately 17,000 average daily trip (ADT) cars per day. Traffic congestion is heaviest in the westbound direction during the morning peak hour and in the eastbound direction during afternoon peak times. Broomfield’s Transportation Master Plan anticipates between 30,000 and 35,000 ADT by the year 2030. Given the significant congestion existing along the corridor today, it is projected the delay will increase in the future if four continuous through lanes are not implemented between US 287 and Zuni Street.



Alternatives/Consequences if not Funded:

Continue to deal with increasing traffic congestion and negative feedback from drivers.

Project Association:

None

Operating Budget Impact:

When complete, will project require ongoing maintenance/operating expenses

Funding Source: Sales and Use Tax Bonds

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
2,017,193	9,891,757	28,226,242	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	40,135,192



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: East 1st Ave - Street Light Replacement

Project #: 18M0031

Project Description:

Total Project Cost: \$250,000

Replacement of the street lights along E 1st Avenue from Ash Street to Sheridan Boulevard with Xcel standard street lights.

Background and Justification:

There are 54 street lights on both sides of E 1st Avenue. By installing Xcel standard street lights, this number could be reduced by half.

Problem to be Solved and/or Benefit to Citizens:

The drop lights along E 1st Avenue are non-standard for Xcel Energy, leaving CCOB responsible for maintaining them. Local residents have complained that the lights frequently do not work, making it a safety hazard for pedestrians after dark.

Alternatives/Consequences if not Funded:

If the lights are not replaced, CCOB will continue to incur maintenance costs for fixing the lights and will likely continue to receive citizen complaints.

Project Association:

None

Operating Budget Impact:

The Public Works operating budget would be slightly reduced because Xcel Energy would take on maintenance responsibility for these street lights.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
250,000	0	0	0	250,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **East 1st Avenue at Sheridan Boulevard - Intersection Improvements - Turn Lane** Project #: 10D0049

Project Description:

Total Project Cost: \$557,703

This project will widen eastbound East 1st Avenue at the Sheridan Boulevard intersection to allow for two left-turn lanes, a through lane, and a right-turn lane. Preliminary design was funded in 2012.

Background and Justification:

This project was created to alleviate traffic backups along East 1st Avenue in the Broomfield Town Center Shopping Center.

Problem to be Solved and/or Benefit to Citizens:

This project will reduce traffic build up at peak a.m. and p.m. times.

Alternatives/Consequences if not Funded:

Defer the project.

Project Association:

None

Operating Budget Impact:

Once design is complete, budget impacts will be determined.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
53,754	3,606	25,135	475,208	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	557,703	



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: East 3rd Avenue - Main Street to Spader Way Reconstruction

Project #: K0031

Project Description:

Total Project Cost: \$491,300

This is a request to reconstruct East 3rd Avenue from Main Street to Spader Way

Background and Justification:

The road was cut in during its original construction and has high ground on both sides of it. Street Services placed a double chip seal in 2011 to help mitigate the street and extend its serviceable life, which is quickly coming to an end.

Problem to be Solved and/or Benefit to Citizens:

The ground water in the area has damaged the aggregate base course to such a point that it no longer applies structure to the asphalt surface. The road undulates and is becoming unsafe to drive at the posted speed limit of 25 miles per hour.



Alternatives/Consequences if not Funded:

If the project is not funded, maintenance of condition will continue to asphalt patch the areas that fail and pavement preservation will continue

Project Association:

None

Operating Budget Impact:

Reconstructing the road should reduce costs for maintenance of condition and mitigation.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	491,300	0	0	491,300



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **East Flatiron Crossing Drive - Flatiron Marketplace Dr. Intersection Reconstruction** Project #: 18K0033

Project Description:

Total Project Cost: \$443,300

This project will reconstruct the intersection of East Flatiron Crossing Drive and Flatiron Marketplace Drive.

Background and Justification:

Reconstruction of the intersection of East Flatiron Crossing Drive and Flatiron Marketplace Drive. Replacement of three pedestrian ramps and cross pan that abuts to Flatiron Marketplace Drive.

Problem to be Solved and/or Benefit to Citizens:

There is a significant drainage issue with the cross pan at Flatiron Marketplace Drive due to sub-base failure. The cross pan has dropped four- to six-inches and has reached a point that vehicles bottom out when turning south onto Flatiron Marketplace Drive from westbound East Flatiron Crossing Drive. Due to the dip, the water cannot reach the inlets on either side of the intersection. The entire intersection on East Flatiron Crossing Drive is becoming a safety issue to the motoring public.



Alternatives/Consequences if not Funded:

If the project is not funded, Street Services will attempt to mitigate the dip with asphalt patching.

Project Association:

None

Operating Budget Impact:

Reduced maintenance for this area.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
22,715	351,237	69,348	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	443,300	



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **East Flatiron Crossing Drive - US 36 to Brainard Drive - Reconstruction** Project #: 18K0032

Project Description:

Total Project Cost: \$714,600

Reconstruct eastbound East Flatiron Crossing Drive from the US 36 bridge to the new Brainard Drive intersection.

Background and Justification:

There is a significant drainage issue with about 400 linear feet of curb and gutter on the south side of East Flatiron Crossing Drive. The water was originally designed to drain to the inlet at the intersection of East Flatiron Crossing Drive and Industrial Lane.

Problem to be Solved and/or Benefit to Citizens:

The road has heaved to such a point that it is becoming unsafe to drive at the posted speed limit.

Alternatives/Consequences if not Funded:

If the project is not funded, Street Services will attempt to mitigate the heaving as best as possible by profile milling the affected areas.

Project Association:

None

Operating Budget Impact:

Reduced cost for maintenance of condition and mitigation.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
25,960	5,388	683,252	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	714,600



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Eldorado Boulevard - Eastbound Double Left to Northbound Interlocken

Project #: 18D0031

Project Description:

Total Project Cost: \$623,044

This project would construct a double left-turn lane from eastbound Eldorado Boulevard to northbound Interlocken Loop.

Background and Justification:

Traffic backs up beyond the existing left turn lane, especially during the noon rush.

Problem to be Solved and/or Benefit to Citizens:

Vehicles are stacking into the through lane causing delays for the through traffic.

Alternatives/Consequences if not Funded:

The intersection Levels of Service and recommendations will be revisited during the conceptual design stage of the project.

Project Association:

None

Operating Budget Impact:

This project would not significantly affect operating or maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
30,037	21,677	571,330	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	623,044



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Eldorado Boulevard and Interlocken Boulevard Traffic Signal **Project #:** 21Q0005

Project Description:

Total Project Cost: \$506,485

Installation of a Traffic Signal at intersection of Eldorado Boulevard and Interlocken Boulevard.

Background and Justification:

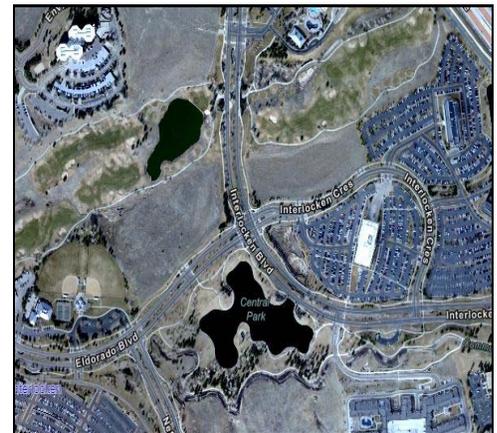
The intersection meets traffic signal warrants as determined by the Manual on Uniform Traffic Control Devices in order to be considered for traffic signal installation. Increases in residential and office complex development in the area has resulted in increased traffic volumes and pedestrian usage at the intersection, justifying traffic signal installation.

Problem to be Solved and/or Benefit to Citizens:

This project fits in with Broomfield’s Comprehensive Plan and/or Council Priorities. To help with safe and efficient traffic flow in Broomfield.

Alternatives/Consequences if not Funded:

A roundabout was considered at the intersection. However, because of the ROW required affecting adjacent businesses it was dropped from consideration. If a traffic signal is not installed, the Level of Service at the intersection will continue to decrease, possibly resulting in additional accidents.



Project Association:

None

Operating Budget Impact:

This project will require ongoing regular operating expenses for maintenance with our Public Works

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	506,485	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	506,485



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Elmwood St - East 14th Ave to East 18th Ave
Reconstruct

Project #: 20M0028

Project Description:

Total Project Cost: \$576,250

Redesign and reconstruction of Elmwood St and possibly parts of E 18th Ave.

Background and Justification:

There is a significant issue with the drainage on both the east and west side of Elmwood St from E 14th Ave to E 18th Ave. After any significant precipitation event, water will stay in the flow line on either side of the street for several hundred feet, remaining there for several weeks or until it evaporates. Street Services has mitigated Elmwood Street from E 13th Ave to E 14th Ave and from E 18th Ave to W 136th Ave. Street Services is unable to come up with a solution for the drainage problem.

Problem to be Solved and/or Benefit to Citizens:

Professional redesign and landscape reset to improve drainage that Streets has been unable to successfully mitigate.

Alternatives/Consequences if not Funded:

Residents living along Elmwood Street will continue to live on a street that does not function properly.

Project Association:

None

Operating Budget Impact:

With proper design and reconstruction and an appropriate preservation strategy, we should get at least 40 years of service life from the pavement surface.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	76,250
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
500,000	0	0	0	576,250



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Huron and 160th Avenue Turn Lanes

Project #: 19L0002

Project Description:

Total Project Cost: \$919,683

Installation of separate north-bound left and right turn lanes and a separate south-bound left turn lane on Huron. Installation of a separate west-bound right turn lane and a separate east bound right turn lane on 160th.

Background and Justification:

The existing intersection, with the installation of a traffic signal (2016), provides existing sufficient ROW and the appropriate traffic signal equipment (installed in 2016) to accommodate this work. This is an interim installation until Lowell Boulevard and 160th Avenue are widened in the future.

Problem to be Solved and/or Benefit to Citizens:

In 2014 this intersection ranked number one in crash frequency for Broomfield maintained intersections. The installation of a traffic signal (2016) and the installation of the separate turn lanes will solve accident and congestion problems at the intersection.

Alternatives/Consequences if not Funded:

Accidents will continue if not constructed. Congestion will increase over time.

Project Association:

None

Operating Budget Impact:

Increased maintenance with the additional asphalt installation.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	113,214	806,469	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	919,683



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Industrial Lane Trail - Phase 2

Project #: 21P0037

Project Description:

Total Project Cost: \$2,682,500

This CIP project request is for Phase 2 to complete the 12-foot concrete trail from the East Park Underpass to Flatiron Crossing.

Background and Justification:

The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIPP funding cycle. This request is associated with the Industrial Lane Bike Lane Sidewalk project #17K0002. That project was planned to construct a 10-foot concrete trail from Nickel Street to the East Park Underpass at US 36 and to add bike lanes from the East Park Underpass to Flatiron Crossing. The entire 12-foot trail could not be constructed under the original budget of the Industrial Lane Bike Lane and Sidewalk project. As originally contemplated, the project was divided into phases. Phase 1 is from Nickel Street to the East Park Underpass and Phase 2 is from the East Park Underpass to Flatiron Crossing Drive. Phase 1 has continued to move forward under the Industrial lane Bike Lane and Sidewalk project.

Problem to be Solved and/or Benefit to Citizens:

Create safe pedestrian and bicycle access along Industrial Lane, increase accessibility to the US 36 Bikeway and the new pedestrian bridge, and to provide safe access from the developing 96th Street neighborhood to existing neighborhoods and commercial areas in Broomfield.

Alternatives/Consequences if not Funded:

The original project scope of adding asphalt to accommodate a bike lane is feasible but was not the desired option based on the public feedback.

Project Association:

Phase 1 - 17K0002.

Operating Budget Impact:

Parks will need to maintain the approx. one mile trail including landscaping and snow removal.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	767,500	1,915,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,682,500



City and County of Broomfield 2021 Capital Improvement Projects

Trail System Projects

Project Name: Industrial Lane Trail - Phase I

Project #: 17K0002

Project Description:

Total Project Cost: \$2,453,500

Create safe pedestrian and bicycle access along Industrial Lane.

Background and Justification:

The entire 12-foot trail could not be constructed under the original budget of the Industrial Lane Bike Lane and Sidewalk project. As originally contemplated, the project was divided into phases. Phase 1 is from Nickel Street to the East Park Underpass and Phase 2 is from the East Park Underpass to Flatiron Crossing Drive. The original project scope of adding asphalt to accommodate a bike lane is feasible but was not the desired option based on the public feedback. This project is included in the DRCOG 2020-2023 TIPP Funding Cycle. If it is not approved, the TIPP funding should be reallocated.

Problem to be Solved and/or Benefit to Citizens:

Increase accessibility to the US 36 Bikeway and the new pedestrian bridge, and to provide safe access from the developing 96th Street neighborhood to existing neighborhoods and commercial areas in Broomfield.

Alternatives/Consequences if not Funded:

Many alternatives are not feasible because of limited right of way and the numerous driveway cuts along Industrial Lane.

Project Association:

This project is associated with the Midway Pedestrian Bridge and Industrial Lane Trail Phase 2.

Operating Budget Impact:

Additional asphalt and concrete would increase maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
111,898	159,298	150,000	0	2,032,304
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,453,500



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Interlocken/Flatiron Crossing - Directional Monuments** Project #: 18M0029

Project Description:

Total Project Cost: \$44,730

Currently the City and County of Broomfield is responsible for the maintenance of 18 monument signs in the Flatiron Crossing / Interlocken area. These signs are unique and follow different standards and specifications than the rest of the city.

Background and Justification:

The signs were last reconditioned in 2007 and currently are display signs of weather related wear such as fading and color deterioration.

Problem to be Solved and/or Benefit to Citizens:

These monuments are essential to identifying, directing, and guiding the general traffic to their destinations.

Alternatives/Consequences if not Funded:

The signs continue to deteriorate and we will receive complaints about their illegible message information.

Project Association:

None

Operating Budget Impact:

None Anticipated



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	44,730	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	44,730



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Longs Peak Dr. to 116th Circle Sidewalk on West Side of Wadsworth Parkway** Project #: Q0016

Project Description:

Total Project Cost: \$373,000

Addition of a 10' concrete wide sidewalk connection along the west side of Wadsworth Parkway between Longs Peak Drive and south end of West 116th Circle.

Background and Justification:

Currently there is no sidewalk along Wadsworth/287 on the west side and there has been significant commercial development in this area, with more expected in the future. This stretch is along an RTD bus route as well.

Problem to be Solved and/or Benefit to Citizens:

This sidewalk would provide a trail connection to the U.S. Post Office to the south and connect to a variety of businesses along that stretch. In the future this segment of trail could also provide a connection to Westminster further to the south. Project would construct a 10' sidewalk/trail along Wadsworth Blvd/Hwy 287, on the west side, spanning from Long's Reak Drive to the southern end of West 116th Circle. Currently there is no sidewalk along Wadsworth/287 on the west side and there has been significant commercial development in this area, with more expected in the future.



Alternatives/Consequences if not Funded:

There will be no connection between the existing sidewalk to the north and the 116th Circle area.

Project Association:

This project could be associated with a sidewalk trail connection to Westminster further to the south.

Operating Budget Impact:

This project will add approximately 1,400 linear feet of sidewalk and a 30 foot bridge that will need to be maintained and plowed.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	373,000	373,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Lowell Boulevard - East Midway to West 136th Avenue - Widening and Landscape Improvements** Project #: 07Z0040

Project Description:

Total Project Cost: \$8,874,706

This funding will be used to design and construct improvements to Lowell Boulevard from East Midway Boulevard to West 136th Avenue.

Background and Justification:

This project was identified in 2006 as part of the Internal Transportation System Improvements, a City Council Priority.

Problem to be Solved and/or Benefit to Citizens:

This project will create a more consistent roadway by adding curb and gutter, sidewalks, and street lights, burying the overhead utility lines, and adding landscaping in the medians and along the sides of the street.

Alternatives/Consequences if not Funded:

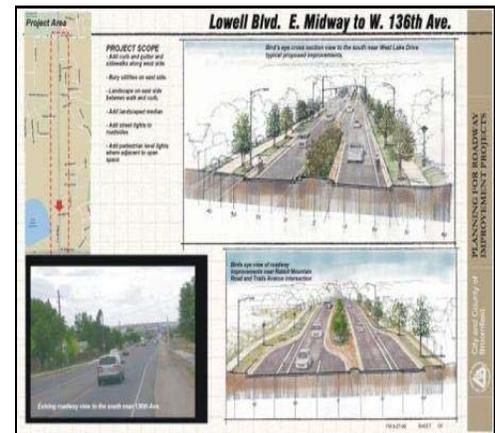
City Council looked at alternatives for the level of improvements in 2006 and agreed on the proposed plan.

Project Association:

None

Operating Budget Impact:

Once constructed, the additional lanes will increase maintenance costs.



Funding Source: Sales and Use Tax and Utility License Fees

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
8,234,550	82,566	557,590	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	8,874,706



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Lowell Blvd - Indian Peaks Blvd - Guard Rail/Fence Repair**

Project #: 20P0038

Project Description:

Total Project Cost: \$202,000

Guard rail and fence repair at Lowell Blvd and Indian Peaks Blvd.

Background and Justification:

The condition of the guard rail and fence has severe facill rust. Damage caused from exposure to winter time deicer and year-round moisture. These structures were installed in 2007.

Problem to be Solved and/or Benefit to Citizens:

Assure safe travel for motorists, and continued safety for the pedestrians.

Alternatives/Consequences if not Funded:

The guardrail will further deteriorate, and the protective barriers would no longer provide adequate protection.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	202,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	202,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Main St. Improvements at 120th Ave

Project #: 18Z0088

Project Description:

Total Project Cost: \$612,000

This project would reconstruct the northbound approach to include a second through lane.

Background and Justification:

A "Traffic Flow Evaluation" study was performed in 2007 and it was determined the northbound approach would be improved by the installation of an additional north bound through lane.

Problem to be Solved and/or Benefit to Citizens:

This project would improve capacity at the intersection and reduce delays and traffic backups.

Alternatives/Consequences if not Funded:

Alternatives will be reviewed during the scoping and design phase of the project.

Project Association:

None

Operating Budget Impact:

The additional paving would marginally increase maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
42,000	570,000	0	0	612,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Midway Boulevard - Multimodal Corridor Action Plan** Project #: 20P0008

Project Description:

Total Project Cost: \$500,000

Perform a study and develop plans to improve multimodal access and safety for all ages and abilities along Midway Boulevard from Lake Link Trail to Zuni Street.

Background and Justification:

Midway Boulevard was identified as a key transportation corridor in the Broomfield Bike/Ped Assessment. The majority of the corridor received a rating of LTS 4 or LTS 5 indicating there are high levels of stress. Some sections were deemed unsuitable for bicycling due to a lack of facilities on segments with higher speeds. This area received the third most comments by Broomfield residents only trailing the Midway Pedestrian Bridge and Industrial Lane.

Problem to be Solved and/or Benefit to Citizens:

The project will develop an overall action plan and preliminary concept plans and cost estimates for key segments based on the study results. The concept plans can then be developed into capital improvement projects for construction. The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIPP funding cycle.



Alternatives/Consequences if not Funded:

Do not evaluate improvements recommended by the Broomfield Bike Ped Assessment. Coordination with DRCOG would need to occur not to lose the federal funding money.

Project Association:

None

Operating Budget Impact:

Unknown at this time.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	500,000	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	500,000	



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Midway Boulevard - Street Lights**

Project #: 18L0006

Project Description:

Total Project Cost: \$269,000

Install 19 overhead street lights on both sides of Midway Boulevard south of Via Varra to Flatiron Crossing Drive.

Background and Justification:

These are streets lights that are fill in the missing links but are not the responsibility of developers.

Problem to be Solved and/or Benefit to Citizens:

This project addresses concerns of residents living on Via Varra and traversing to the RTD Park-n-ride facility near Flatiron Crossing Drive regarding hazards due to lack of street light.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

Increase in existing maintenance budget for street lights



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	269,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	269,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Miramonte Boulevard/Main Street Roundabout

Project #: P0004

Project Description:

Total Project Cost: \$598,361

Installation of a roundabout at the current three way intersection of Miramonte Boulevard and Main Street.

Background and Justification:

Being next to Broomfield High School, this intersection experiences traffic delays during certain hours of the day. The intersection does not qualify for the installation of a traffic signal. However delays during the arrival and dismissal time of Broomfield High School compounded by peak hour conditions (especially am peak) has this intersection as a candidate for the installation of a roundabout

Problem to be Solved and/or Benefit to Citizens:

In addition to controlling traffic speeds this will help regulate the flow of frequent speeding concerns. this type of devices has been recommended by our current City Council.

Alternatives/Consequences if not Funded:

The intersection does not meet traffic signal warrants in accordance with the Manual On Uniform Traffic Control Devices (MUTCD). However, consideration should be given for the installation of a traffic signal, given as a less expensive alternative.

Project Association:

None

Operating Budget Impact:

Yes, will be maintained by Public Works Department as part of an existing roadway system.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	598,361	598,361



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Miramonte Boulevard/Main Street Roundabout

Project #: P0004

Project Description:

Total Project Cost: \$598,361

Installation of a roundabout at the current three way intersection of Miramonte Boulevard and Main Street.

Background and Justification:

Being next to Broomfield High School, this intersection experiences traffic delays during certain hours of the day. The intersection does not qualify for the installation of a traffic signal. However delays during the arrival and dismissal time of Broomfield High School compounded by peak hour conditions (especially am peak) has this intersection as a candidate for the installation of a roundabout

Problem to be Solved and/or Benefit to Citizens:

In addition to controlling traffic speeds this will help regulate the flow of frequent speeding concerns. this type of devices has been recommended by our current City Council.

Alternatives/Consequences if not Funded:

The intersection does not meet traffic signal warrants in accordance with the Manual On Uniform Traffic Control Devices (MUTCD). However, consideration should be given for the installation of a traffic signal, given as a less expensive alternative.

Project Association:

None

Operating Budget Impact:

Yes, will be maintained by Public Works Department as part of an existing roadway system.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	598,361	598,361



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Miramonte Boulevard and Kohl Street Traffic Signal

Project #: Q0004

Project Description:

Total Project Cost: \$459,170

Installation of a traffic signal at the intersection of Miramonte Boulevard and Kohl Street.

Background and Justification:

The intersection meets traffic signal warrants as determined by the Manual on Uniform Traffic Control Devices in order to be considered for traffic signal installation. Increases in residential and office complex development north of the area has resulted in increased traffic volumes and school pedestrian usage at the intersection, justifying traffic signal installation.

Problem to be Solved and/or Benefit to Citizens:

This project fits in with Broomfield’s Comprehensive Plan and/or Council Priorities. To help with safe and efficient traffic flow in Broomfield.

Alternatives/Consequences if not Funded:

A roundabout was considered at the intersection. However, because of the ROW required affecting adjacent residential and park areas it was dropped from consideration. If a traffic signal is not installed, the Level Of Service at the intersection will continue to decrease, possibly resulting in additional accidents.



Project Association:

None

Operating Budget Impact:

This project will require ongoing regular operating expenses for maintenance with our Public Works

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
459,170	0	0	0	459,170



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Nickel Street - Improvements

Project #: 17L0007

Project Description:

Total Project Cost: \$286,445

Installation of sidewalk and bike lanes on Nickel Street between Midway Boulevard and the crossing of US 287 and the railroad crossing to Industrial Lane.

Background and Justification:

This is an update to a previously submitted CIP Request to update the project cost.

Problem to be Solved and/or Benefit to Citizens:

Improve safety for bicycling and pedestrian access on Nickel Street at the intersection of US 287 and the existing railroad crossing area. Installation of sidewalk on the east side of Nickel Street between US 287 and 1st Avenue and on the west side of Nickel Street between US 287 and Industrial Lane to the existing concrete trail to SH 121. Stripe in bike lanes on Nickel Street from US 287 to Midway Boulevard to accommodate bike lanes on both sides of Nickel Street and removal of a portion of the raised median at Nickel and 3rd Avenue. Improve the handicap ramps and pedestrian crossings at US 287 and Nickel Street. Re-stripe the lanes at the US 287 and Nickel Street Intersection. Add a median refuge on the west side of US 287 and Nickel Street. Modify the curb at the SW corner of US 287 and Nickel Street.



Alternatives/Consequences if not Funded:

Do not improve safety on Nickel Street.

Project Association:

None

Operating Budget Impact:

Additional asphalt and sidewalk maintenance.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
46,776	207,851	31,818	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	286,445



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Nickel Street and Industrial Ln - Intersection Improvements

Project #: 19M0030

Project Description:

Total Project Cost: \$1,268,000

The project will improve the Industrial Lane and Commerce Street intersection by adding synchronized traffic signals, a left turn at NB Commerce St, right turn at EB Industrial Ln and connect bike and pedestrian safety improvements at Nickel St.

Background and Justification:

The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIP funding cycle. The proposed reimbursement amount is \$320,000 of the \$400,000 proposed design budget. This budget update reflects some additional cost for meeting federal project requirements. After CCOB completed a stop sign study at the intersection of Nickel St. and Industrial Ln., it was determined that this location warranted a traffic signal.

Problem to be Solved and/or Benefit to Citizens:

A traffic signal would increase safety for motor vehicles as well as bicycles that will use the future bike lane along Industrial Lane. The relocation of the tree branch recycle facility will create additional land that could accommodate a roundabout. Staff requested a consultant create a concept plan and determined a roundabout could work in this location. Unfortunately, there were queuing issues related to the railroad tracks. BNSF would not likely approve the roundabout near the railroad without signals. The use of both signals and a roundabout was not efficient. A new plan was developed by a local expert in traffic signal design and railroad crossings.



Alternatives/Consequences if not Funded:

The roundabout alternative is not viable because of the close proximity to the railroad. Roundabouts can cause queuing issues across the railroad tracks. Solving the queuing problem would likely require a traffic signal. It was determined a standard signal design would be more appropriate. If a signal is not installed the motorist will continue to experience a higher risk of collision.

Project Association:

Industrial Lane and Nickel Street.

Operating Budget Impact:

Installation of a traffic signal will impact the operating budget of Public Works - Streets as it will require periodic inspection and maintenance.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	400,000	868,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,268,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Original Broomfield - Emerald Lane Paving

Project #: J0038

Project Description:

Total Project Cost: \$464,945

This is a request to pave the gravel section of Emerald Lane in the Elliot subdivision.

Background and Justification:

A citizen’s CIP request was initially received in 2013 to pave the gravel section of Emerald Lane in the Original Broomfield Area. In 2013, a neighborhood survey was sent to residents along Emerald Lane to gauge the interest of the project. The majority of the surveys that were returned supported paving the street. In February 2020, the residents along Emerald Lane submitted a petition, which was signed by all the residents along Emerald Lane, requesting that the gravel section of Emerald Lane be paved.

Problem to be Solved and/or Benefit to Citizens:

Asphalt pavement would eliminate dust, rutting, and mud on this roadway. Public Works Streets Maintenance also supports the project as it would reduce maintenance costs.

Alternatives/Consequences if not Funded:

The street would remain gravel. No change would be anticipated and no other alternatives were reviewed.

Project Association:

None

Operating Budget Impact:

Public works felt that this project would not impact operations, significantly. Gravel road maintenance would decrease, but the asphalt surface would need to be maintained through the pavement management system.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	464,945	0	0	464,945



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Pedestrian Signal - Spader Way (Broomfield Community Center)

Project #: 20N0038

Project Description:

Total Project Cost: \$157,000

Install an active pedestrian crossing notification system at Spader Way between the Police and Courts parking lot and both The Bay and the Community Center.

Background and Justification:

A recent parking study associated with the development of the Broomfield Community Center Reconstruction project provided recommendations to utilize an “urban campus” shared parking lot approach to address the parking needs for the new expanded Community Center facility. The approach would utilize the eastern portion of the Police and Courts parking lot as an overflow lot to handle the peak parking demand that is projected to happen during the summer months when The Bay and the new Community Center are open. Existing mid-block pedestrian crossings throughout Broomfield with similar projected increased traffic and pedestrian activity have either have pedestrian push button activated flashing yellow lights to notify vehicular traffic of pedestrians in the crosswalk, or for higher traffic roads, pedestrian activated traffic signals.

Problem to be Solved and/or Benefit to Citizens:

This approach has been accepted by City Council as the solution to the increased parking needs associated with the Community Center project scheduled to open in 2020.

Alternatives/Consequences if not Funded:

Visitors will be required to navigate the existing crossing without an enhanced notification system which may result in longer wait times and potentially difficult navigation for both pedestrians and vehicular traffic.

Project Association:

Broomfield Community Center Reconstruction and The Bay - Renovation Phase - Parking Lot projects.

Operating Budget Impact:

Additional monitoring and maintenance needs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	157,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	157,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Railroad Crossings - Quiet Zone Improvements**

Project #: 09C0018

Project Description:

Total Project Cost: \$1,394,586

These improvements allow trains to run "quiet" through grade crossings - they do not have to blow their horns once safety measures are in place.

Background and Justification:

Broomfield has at-grade crossings at West 112th Avenue, West 120th Avenue, Nickel Street and Brainard Drive. This funding is for the design and construction of physical barriers to channel traffic safely through crossings.

Problem to be Solved and/or Benefit to Citizens:

This project will create computerized railroad crossing gates allowing the trains to go through the crossings without blowing their horns. This will create a better environment for the citizens of Broomfield.

Alternatives/Consequences if not Funded:

Broomfield is exploring alternative funding sources.

Project Association:

None

Operating Budget Impact:

This project will not affect operating costs.



Funding Source: Sales and Use Tax and Grant Funds

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
32,552	103,861	1,258,173	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,394,586



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: SH 128 and US 36 - Bikeway Connection

Project #: 18M0022

Project Description:

Total Project Cost: \$437,456

A 12ft wide concrete bike trail connection from SH-128 westbound to the US 36 bikeway at approximately mile marker 10.25.

Background and Justification:

Presently, there is a connection from eastbound SH-128 to the US 36 bikeway. For a west bound cyclist to reach this, they either make a left turn at Destination Drive requiring them to cross 4 lanes of traffic with no signal or they can continue out of direction to the signal at Wadsworth Parkway (this is 4000ft out of direction of travel).

Problem to be Solved and/or Benefit to Citizens:

Safer bike route at SH-128 and US 36.

Alternatives/Consequences if not Funded:

Cyclists will continue to use the nearest entrances/exits to get on and off the bikeway. Increased traffic will make the left turn at Destination Drive an increased safety issue.

Project Association:

None

Operating Budget Impact:

Periodic inspection and maintenance by the Public Works Streets Division.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	30,747	36,709	370,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	437,456



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: SH 7 Preliminary & Environmental Engineering (TIP)

Project #: 20P0053

Project Description:

Total Project Cost: \$1,000,000

This is a budget request for \$1,000,000 local grant match to CDOT for Broomfield’s application to the 2020-2023 DRCOG Regional Transportation Improvement Program (TIP) federal funding for SH7 Preliminary & Environmental Engineering.

Background and Justification:

Broomfield’s local match commitment \$152,000

Broomfield is collecting \$848,000 in revenue (non-federal funds) from local agencies. Broomfield was the main applicant on behalf of Broomfield and 7 other jurisdictions. Broomfield is contributing approximately \$610,000 of Broomfield Subregional DRCOG (federal) funds as approved by the Broomfield Subregional Forum comprised of the Mayor and 4 councilmembers. The total project impact will be \$10 million to be delivered by CDOT. An IGA is required for commitment of funds to CDOT and funds from local agencies. The 2014 & 2018 Planning Environmental Linkage (PEL) Studies and the East Arapahoe Transportation Plan (EATP) provide multimodal design recommendations for the extent of the corridor to meet the mobility needs for 2040 and beyond. Communities on the SH 7 corridor have been planning for safety and multimodal capacity improvements for a number of years.

Problem to be Solved and/or Benefit to Citizens:

This Project will take the recommendations from the previous studies and develop preliminary plan packages that will allow municipalities, counties, agencies, and developers to rapidly invest into the corridor to implement the transportation recommendations.

Alternatives/Consequences if not Funded:

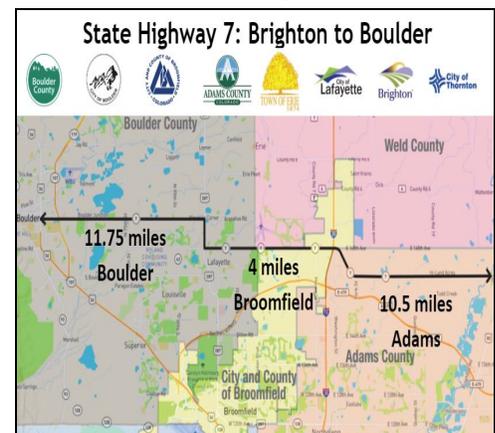
It is required that the local match is committed. Not funding this project will put future projects with DRCOG at risk and also damage relations with the 7 other jurisdictions that also have committed local match and subregional federal funds for this project.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	1,000,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,000,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Sheridan Blvd/Midway Intersection Improvements

Project #: 18H0024

Project Description:

Total Project Cost: \$1,258,846

This project involves several improvements to southbound, eastbound and westbound lanes of this intersection. The scope increased to add EB bike lane on Midway resulting in further widening of the roadway.

Background and Justification:

This project proposes the following changes: 1) Adding a southbound right turn lane on Sheridan to Midway; 2) Converting of the westbound right turn lane into a combination right turn lane/through lane and extending the through lane west to the residential area; 3) Modifying the island in eastbound Midway and extension of the left turn lane.

Problem to be Solved and/or Benefit to Citizens:

Improve safety and reduce traffic congestion during peak hours, relieve westbound a.m. peak hour through-traffic congestion, and relieve eastbound p.m. peak hour left turn traffic congestion.

Alternatives/Consequences if not Funded:

No alternatives. Right turn lane is warranted in accordance with Broomfield Standards - 100 vehicles turning right during a.m. peak hour, and 92 during p.m. peak hour.

Project Association:

None

Operating Budget Impact:

Additional asphalt will slightly increase maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
59,360	57,784	1,141,702	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,258,846



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Sidewalk - 120th Avenue - Main to Teller (South side of street)** Project #: 17G0025

Project Description:

Total Project Cost: \$350,000

This project would construct a sidewalk along the south side of US 287/120th Avenue from Main Street to Teller Street and would connect to the sidewalk that CDOT is constructing for the 120th Avenue connection.

Background and Justification:

Following construction of the 120th Avenue Connection Phase 2, there will be sidewalk along the south side of 120th Avenue to Teller Street, but a missing segment from Teller Street to Main Street.

Problem to be Solved and/or Benefit to Citizens:

This project improves livability and pedestrian safety by constructing a continuous sidewalk and street lighting from Greenway Drive to SH 121 and beyond.

Alternatives/Consequences if not Funded:

No alternatives were identified.

Project Association:

None

Operating Budget Impact:

This project would increase operating costs



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
8,731	61,003	280,266	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Sidewalk - 120th Avenue (local) - Pedestrian and Roadway Improvements

Project #: 18M0027

Project Description:

Total Project Cost: \$1,401,510

The improvements include acquisition of right-of-way, storm sewer and storm inlets, and curb and gutter in order to construct the sidewalk. Additionally, the overhead power may need to be relocated.

Background and Justification:

Broomfield should consider if this area is a high priority to underground the power lines using Xcel Energy’s one percent fund (“undergrounding” fund). If overhead power is buried, free-standing street lights will need to be added. The request does not include landscaping, irrigation or water license fees. Costs could be reduced by attaching a sidewalk and minimizing right-of-way acquisition.

Problem to be Solved and/or Benefit to Citizens:

Broomfield received a resident request to add sidewalks along W. 120th Avenue (local). Pedestrian circulation is generally poor in the Original Broomfield area, particularly with the BNSF Railroad crossing at W. 120th Avenue and the new S.H 128 that is currently under construction. Sidewalks, and the associated roadway improvements will link to the proposed traffic signal at SH 128/120th Avenue and Upham Street, and will allow pedestrians to cross 120th Ave./US 287 and to access the new SH 128.



Alternatives/Consequences if not Funded:

The area’s roads, sidewalks, drainage, and streetlights will remain substandard.

Project Association:

This project could be completed concurrently with the W 120th Avenue Phase 2 Connection project to minimize successive construction zones for the residents and business in the area.

Operating Budget Impact:

It will impact the operating budget of the Public Works’ Streets Division and Utilities Division

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
49,444	70,228	68,247	1,213,591	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,401,510



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Sidewalk - Wadsworth to 116th Circle (RT12) Repair and Construction (Phase 2) - Design Amount Only** Project #: 18F0007

Project Description: Total Project Cost: \$15,000

The project includes the design of an eight to ten foot wide sidewalk on the west side of Wadsworth Blvd. The sidewalk spans approximately 2,075 feet between Jeffco Airport Avenue and the southern end of 116th Circle.

Background and Justification:

This project is shown in the OSPRT Master Plan. This project provides a pedestrian connection to the Arista neighborhood and would connect to the US-36 Bikeway in the future.

Problem to be Solved and/or Benefit to Citizens:

This project would connect Interlocken to Arista. The trail connects Broomfield to the commercial area and open space at 116th Circle.

Alternatives/Consequences if not Funded:

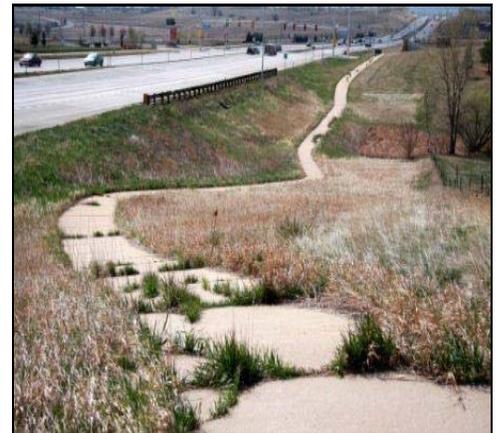
The alternative would be to defer or phase this project in sections.

Project Association:

None

Operating Budget Impact:

Once construction is completed, standard sidewalk maintenance would be required.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	15,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	15,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Transit Needs Assessment & Pilot

Project #: 20Q0030

Project Description:

Total Project Cost: \$800,000

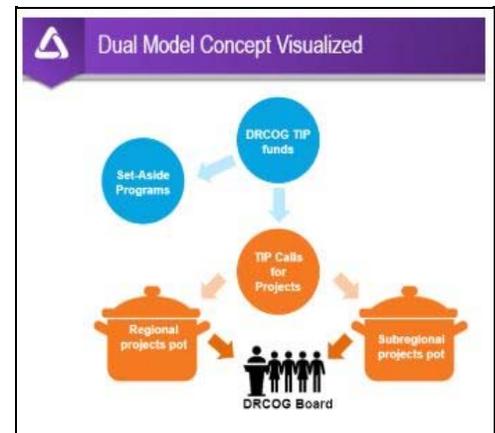
This funding request is to support the funding needed to support the Transit Needs Assessment & Pilot reimbursable grant program over the course of four years.

Background and Justification:

This new process requires the establishment of a Subregional Forum, which acts as an extension of DRCOG to review and approve projects for funding. These are publicly noticed meetings. The Council established the Broomfield Subregional Forum. These forum meetings discussed and review priority projects that met the TIP criteria. The Forum reviewed and approved 8 project applications, including the Transit Needs Assessment And Pilot. The Forum and staff determined a need to increase transit options in Broomfield, assess current unmet needs and prepare for the needs of the future.

Problem to be Solved and/or Benefit to Citizens:

DRCOG (Denver Regional Council of Governments) Board has implemented a new funding model that increases equity in access to over \$337 million in regional federal transportation dollars. The process was developed with stakeholders from the 55 DRCOG agencies, including Broomfield. The New (Transportation Improvement Program) TIP model has increased City & County of Broomfield’s direct access to over \$5.4 million in federal funding for the first four years of the pilot, in addition to the opportunities in the regional TIP and the set-aside programs. It is anticipated that the 2nd four year TIP cycle will have more funding available for Broomfield, increasing Broomfield's access to federal dollars to at least \$11 million over 8 years.



Alternatives/Consequences if not Funded:

Broomfield will forfeit \$640,000 in federal grant funds.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax and Grant Funds

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	800,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	800,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **Upham Street - Local Roadway and Sidewalk Improvements**

Project #: 18M0033

Project Description:

Total Project Cost: \$574,450

This request is for roadway improvements to Upham Street adjacent to the 120th Phase 2 (SH 128) Connection project in order to improve pedestrian circulation.

Background and Justification:

Broomfield received a resident request to add sidewalks, curb and gutter, street lights, and landscaping. Pedestrian circulation is generally poor in the Original Broomfield area, particularly with the BNSF Railroad crossing at W. 120th Avenue and the new S.H 128 that is currently under construction.

Problem to be Solved and/or Benefit to Citizens:

Sidewalks, and the associated roadway improvements will link to the proposed traffic signal at SH 128/120th Avenue and Upham Street, and will allow pedestrians to cross 120th Ave./US 287 and to access the new SH 128.

Alternatives/Consequences if not Funded:

The area's roads, sidewalks, drainage, and streetlights will remain substandard.

Project Association:

This project could be completed concurrently with the W 120th Avenue Phase 2 Connection project to minimize successive construction zones for the residents and business in the area.



Operating Budget Impact:

It will impact the operating budget of the Public Works' Streets Division and Utilities Division

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
35,805	112,307	49,420	0	376,918
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	574,450



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: US 287/120th Avenue Multimodal and Safety Study

Project #: 21P0007

Project Description:

Total Project Cost: \$60,000

The project will perform a traffic and multimodal capacity and safety evaluation of US 287 and 120th Avenue from US 287 loop ramps to Lowell Blvd through Broomfield

Background and Justification:

Due to the recent completion of the 120th Avenue Connection to Wadsworth Blvd & SH 128 there is a need to study and develop concepts to improve the US 287/120th Ave corridor from US 287 loop ramps to Lowell Blvd through Broomfield. The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIPP funding cycle. The proposed reimbursement amount is \$480,000 of the \$600,000 proposed budget. CDOT is also committed to contributing \$60,000.

Problem to be Solved and/or Benefit to Citizens:

The Project will seek to understand the impact of changing traffic patterns, multimodal capacity & safety. There also remain significant gaps in infrastructure for pedestrians and bicycles along the urbanized corridor that need to be addressed. Additionally, the corridor is identified as a potential Bus Rapid Transit (BRT) corridor in the 2014 Northwest Area Mobility Study (NAMS) should also look at options for providing enhanced transit facilities that increase the reliability of transit service operations. The corridor is identified in the RTD BRT Study as a candidate corridor. The 120th Ave. is identified as a candidate corridor for BRT service in the RTD BRT district-wide study that is in progress.



Alternatives/Consequences if not Funded:

Broomfield would lose the federal funding for the project.

Project Association:

None

Operating Budget Impact:

The improvements that result would have an impact.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	60,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	60,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **US 287/120th Avenue - Sidepath Infill & Transit Access Improvements** Project #: 21Q0040

Project Description:

Total Project Cost: \$2,500,000

The project improves safety for people walking, cycling and using transit along state highways in Broomfield, including US 287/120th Ave., SH121/Wadsworth Blvd., and CO 128.

Background and Justification:

These segments scored highly in the Pedestrian and Bicycle Assessment, US287/120th Ave also received many public comments in regard to safety and access for people walking and cycling. The project is anticipated to be submitted for a grant application for use of state funds through a new program from DRCOG funding opportunity for Urban Arterial Multimodal Safety. It is anticipated source of funds would be from the state. The grant requires a minimum 20% match, additional points may be scored for overmatch. The grant would be reimbursable to Broomfield if all criteria are met. The project must complete construction by June 1, 2024. The project request could be scaled back to one or two corridors. Project may also seek match from CDOT and/or request CDOT to lead project.

Problem to be Solved and/or Benefit to Citizens:

Improvements would complete critical missing sidewalk/sidepath gaps, improving ADA and transit access. Project may also include improvements to shoulders where they are inadequate to accommodate bicycles or transit as a jump lane.



Alternatives/Consequences if not Funded:

This is an opportunity to leverage state funds to support complete street elements for all road users along state highways in Broomfield and improve safety for all road users.

Project Association:

Sidewalks - 120th Ave - Main to Teller, SH 128 & US 36 Bikeway Connection, Sidewalk - Wadsworth to 116th Circle

Operating Budget Impact:

CDOT maintains facilities in their right of way.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	2,500,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,500,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **US 36 - Bikeway Interlocken East Park Safety Improvements**

Project #: 20P0049

Project Description:

Total Project Cost: \$93,500

Improve safety and access to/from the US 36 Bikeway in Interlocken East Park, primarily at the south side of the US 36 highway underpass to Industrial Lane & Midway Multipurpose Bridge.

Background and Justification:

The retaining wall on the south side of the underpass obstructs visibility and there is limited maneuver room for bicyclists traveling to/from the underpass and US 36 Bikeway. It is anticipated that there will be increased pedestrian and bicycling activity in the area when the new Midway Multiuse Bridge opens in 2020 and Industrial Lane Path is completed in 2021, increasing opportunity for conflicts.

Problem to be Solved and/or Benefit to Citizens:

Improve safety and access to/from the US 36 Bikeway in Interlocken East Park, primarily at the south side of the US 36 highway underpass to Industrial Lane & Midway Multipurpose Bridge.

Alternatives/Consequences if not Funded:

The project may look at alternatives such as modification of retaining wall or minor realignment of connector path over the drainage/culvert.

Project Association:

The project is associated with the impacts increased ped/bike activity due to the upcoming completion of Midway Pedestrian (Multiuse) Bridge and Industrial Lane Bikeway.



Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	93,500	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	93,500



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: US 36 - Bikeway Signage

Project #: 15J0033

Project Description:

Total Project Cost: \$20,000

A 12-foot wide concrete bikeway is being constructed as part of the US 36 Express Lanes Project. The Federal Highway Transportation’s Manual on Uniform Traffic Control Devices (MUTCD) recommends that guide and minimal directional signage be included.

Background and Justification:

The US 36 bikeway is under construction. As part of the project, MUTCD signage and minimal directional signage is included. Additional signage is needed along the bikeway to assist users in determining where they are and how to get to their destination. The emergency responders have also requested that mile markers be utilized to identify where an emergency might be on the bikeway. The CDOT project is anticipated to be complete in 2015.

Problem to be Solved and/or Benefit to Citizens:

The easier it is to use the bikeway, the more people will use it. Completion of connections to key activity and commercial centers promotes wellness and helps attract businesses seeking to provide an active lifestyle for their employees.

Alternatives/Consequences if not Funded:

There will be missed opportunities for bike connections to important locations in the community.

Project Association:

It could be combined with the open space and trails signage program.

Operating Budget Impact:

Public Works would need to allow for maintenance of the signs in the event they are damaged by snow plows or other events.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
14,258	0	5,742	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	20,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: US 36 Bike N Ride Shelters, Amenities, Operations & Marketing

Project #: 20P0031

Project Description:

Total Project Cost: \$650,000

Design & construct the remaining 3 Bike N Ride shelters at US 36 & Broomfield Station (1) and US 36 & Flatiron Station (2) to support first and final cycling trips by providing more secure mid to long term bicycle parking for commuters.

Background and Justification:

This is a DRCOG TIP Broomfield Subregional Project, the project has been approved by the Broomfield Subregional Forum (Mayor & 4 Councilmembers) it is anticipated that the DRCOG Board will adopt the project in August 2019. The project was the number one recommendation from the US 36 First and Mile Study, completed in 2013. The project will realize full implementation of the recommendation approximately 4 years after the opening of the BRT service in 2016. It is critical that Broomfield works implement identified amenities in a timely fashion to support first and final mile access to the station that supports our corridor communities along US 36 and to the greater region.

Problem to be Solved and/or Benefit to Citizens:

First and Final Mile Projects are a 2019 Council Priority.

Alternatives/Consequences if not Funded:

If not funded, there will likely be penalties from DRCOG for not using funds in a timely manner and may impact future funding of Broomfield projects with Federal funds. A priority first & final mile project will not be complete.

Project Association:

This project is related to the the Bike and Ride Shelters City Wide project, 16K0006. A new project is requested created to keep funds separate for grant purposes.



Operating Budget Impact:

Currently, RTD is requesting \$5,000 per year for shelter maintenance per the 2018 IGA.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	650,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	650,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: W. 11th Ave Court Street Reconstruction

Project #: 21P0039

Project Description:

Total Project Cost: \$535,633

Reconstruct West 11th Avenue Court from Oak Cir South to W 11th Avenue Drive.

Background and Justification:

Streets services have been receiving recurring communication from residents expressing concern about the drainage of this segment of road, in particular, the sidewalk. One stretch of concern is between 3236 and 3206 W 11th Avenue Court. Streets Services met with CIP and the residents of the aforementioned properties, shot grades, and determined that ultimately the work would have to re-establish the high-point because of the lack of slope, which is somewhere around 0.5%, with multiple failures along the way that stop the water for long stretches, and affects three houses. The issue will not be resolved by simply replacing the concrete. There are also issues beyond this specific location; the sidewalk across the street was poured with a negative slope towards the houses causing problems with standing water on driveways/pathways, which is compounded because of the low percentage fall in grade along the road. This affects an additional three houses.

Problem to be Solved and/or Benefit to Citizens:

Streets Services has considered trying to mitigate the problem with the 25/75 Cost-Sharing Program and/or the Pavement Preservation Program. In order for either of these programs to effectively solve the issues, all affected residents would need to participate, which may not occur. In addition, that would still leave the outlying issues such as driveways, pathways and landscaping that may need to be fixed after the sidewalk is replaced.



Alternatives/Consequences if not Funded:

If this drainage issue is not resolved the asset will see further damage to the subgrade due to water standing on the sidewalk and road.

Project Association:

Could be combined with other street reconstruction projects.

Operating Budget Impact:

Reduced cost for maintenance.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	535,633	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	535,633



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: W. 12th Avenue Reconstruction

Project #: 18L0040

Project Description:

Total Project Cost: \$560,200

Reconstruct West 12th Ave from Kohl St to West 13th Ave.

Background and Justification:

Streets services have mitigated West 12th Avenue in the past with cap seals and extensive asphalt patching, but the sidewalk and curb, and gutter continue heaving and asphalt continues to fail. The challenge with West 12th Avenue is that the mitigation only addresses the asphalt road surface. With the extensive heaving that is occurring, sidewalks, curb and gutter, driveways, and landscape resetting could be extensive and require a partial or complete redesign. This is beyond Street Service's skill set. Street Services has received multiple complaints from the residents on West 12th Avenue.

Problem to be Solved and/or Benefit to Citizens:

Both sides of the street are heaving and settling. In some areas there is up to 4" of movement, which no longer allows the curb and gutter to act as designed. The asphalt road has also failed. Reconstruction will correct these problems.

Alternatives/Consequences if not Funded:

Continue mitigation at a cost of \$14,000 per year.

Project Association:

None

Operating Budget Impact:

Reduced cost for mitigation.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
32,450	6,735	521,015	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	560,200



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: W. 136th Avenue - Westbound Right Turn at Legacy High School

Project #: 10C0049

Project Description:

Total Project Cost: \$1,433,911

Extend westbound right turn lane on West 136th Avenue into the Legacy High School parking lot area.

Background and Justification:

During the morning peak hour, there are significant traffic back-ups caused by the number of students accessing Legacy High School.

Problem to be Solved and/or Benefit to Citizens:

This project will alleviate some of the congestion during peak hours.

Alternatives/Consequences if not Funded:

Staff discussed an option for the school to construct an access across their property on the north side of the High School, which would allow students to access the parking lots off of Zuni. They have not agreed to this.

Project Association:

This project should be coordinated with the Eastbound West 136th Avenue project.

Operating Budget Impact:

This project will slightly increase operating costs due to the additional pavement.



Funding Source: Service Expansion Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
24,103	116,638	1,293,170	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,433,911



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **W. Midway Blvd - Bridge over Railroad (Land Purchase)** Project #: 17D0048

Project Description:

Total Project Cost: \$841,990

Right-of-way acquisitions will be required for the future vehicular bridge connecting W. Midway Boulevard to Industrial over the BNSF Railway.

Background and Justification:

One of the needed parcels is part of the 3400 Industrial Lane property. The owner of the property is planning a near-term development that would make future right-of-way acquisitions very difficult and expensive. It is better to acquire the property now, prior to development.

Problem to be Solved and/or Benefit to Citizens:

The connection of W. Midway Boulevard to Industrial Lane is a key vehicular connection shown in the Transportation Master Plan, and was also required by the Colorado Department of Transportation as a condition for the approval of the E. Flatiron Circle interchange in the early 2000's. The project is shown in the Long Range Plan BURA plan.



Alternatives/Consequences if not Funded:

The property will likely be developed, which could result in redesign and realignment of Broomfield's vehicular bridge or higher property costs due to purchasing an improved site.

Project Association:

The project request is for property acquisition only at this stage, so project coordination is not applicable.

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	841,990	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	841,990



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **W. Midway Boulevard - Right Turn Lane at Nativity School**

Project #: 20D0001

Project Description:

Total Project Cost: \$177,000

This project would provide a separate right turn lane on eastbound Midway for the west entrance of the church.

Background and Justification:

This project would improve safety and help alleviate congestion on Midway Boulevard, especially during school drop-off and pick-up hours.

Problem to be Solved and/or Benefit to Citizens:

This project should help with traffic backups for school and church services.

Alternatives/Consequences if not Funded:

Operational analyses will be performed during the conceptual design stage of the project.

Project Association:

None

Operating Budget Impact:

This project would not significantly affect operating or maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	177,000	0	0	177,000



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: **W. Midway Blvd and Kohl Street - Intersection Improvements**

Project #: 08B0047

Project Description:

Total Project Cost: \$297,500

Add a separate southbound right-turn lane between Kohl St. and Midway Blvd.

Background and Justification:

The project would improve traffic flow and reduce backups along Kohl Street.

Problem to be Solved and/or Benefit to Citizens:

This project would reduce backup and improve pedestrian safety at this intersection. The project would also include modifications to the turning radius and upgrade the signal detection equipment.

Alternatives/Consequences if not Funded:

Defer the project or keep the intersection geometry as is.

Project Association:

None

Operating Budget Impact:

The project would not significantly affect operating or maintenance costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	297,500
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	297,500



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Wadsworth Blvd. Interchange/120th Avenue Connection **Project #:** 08B0060
Participation (Broomfield's Share 20%)

Project Description:

Total Project Cost: \$22,224,029

These funds are bond proceeds to pay for Broomfield's share of the Wadsworth Interchange - 120th Avenue Connection. The project will be completed over multiple years and in three phases. Phases 1 and 3 were completed in 2010.

Background and Justification:

The 120th Connection and Wadsworth Interchange has been a Council Priority for several years.

Problem to be Solved and/or Benefit to Citizens:

This intersection is specifically identified as a roadway capacity improvement in the Comprehensive Plan.

Alternatives/Consequences if not Funded:

Alternatives were evaluated through the Environmental Assessment process and throughout design.

Project Association:

None

Operating Budget Impact:

This project will increase operating and maintenance costs.



Funding Source: Treasury Bonds/Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
20,439,108	1,514,062	270,859	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	22,224,029



City and County of Broomfield 2021 Capital Improvement Projects

Transportation System Projects

Project Name: Zuni Street and Quail Creek Drive Roundabout

Project #: 18K0003

Project Description:

Total Project Cost: \$627,885

JF Sato and Associates, a traffic engineering firm, recommends a new roundabout at Zuni Street and Quail Creek Drive to provide access to a 50 space parking lot included in the McKay/Lambertson Open Lands Phase 1 Improvement Plan.

Background and Justification:

The project will design and construct a 90-foot diameter urban compact roundabout at the intersection of Zuni Street and Quail Creek Drive. Crosswalks will be built at the four legs of the intersection to enhance pedestrian and bicycle connectivity. There may be utility and right-of-way impacts. To minimize site distance concerns, no landscaping is proposed inside the roundabout.

Problem to be Solved and/or Benefit to Citizens:

A preliminary traffic study was completed based on the Phase 1 Plan improvements. An urban compact roundabout will provide traffic calming on Zuni Street and will work in conjunction with the existing 150-foot diameter roundabout at McKay Landing Parkway (to the north) to reducing running speeds. This type of roundabout is pedestrian and bicyclist-friendly and requires low vehicle speeds to make right turns into and out of the circulatory roadway.



Alternatives/Consequences if not Funded:

If not funded by the Capital Improvement Program, a roundabout would need to be included in the Phase 1 Plan and funded as part of that project.

Project Association:

The project is associated with the McKay/Lambertson Open Lands Phase 1 Improvement Plan.

Operating Budget Impact:

Increased operating costs associated with the additional roadway.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	26,893	57,072	0	543,920
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	627,885



City and County of Broomfield 2021 Capital Improvement Projects

Vehicles & Other Equipment

Project Name: Police - Time Division Multiple Access Radio System Upgrade (Broomfield's Share)

Project #: 20P0060

Project Description:

Total Project Cost: \$500,422

Upgrade of the Police Department's shared radio system as a result of capacity limitations experienced by BPD and partner agencies.

Background and Justification:

Broomfield PD currently enjoys a partnership with ADCOM, Federal Heights Police Department, and Thornton Police Department that provides emergency radio coverage to police and fire personnel.

In order to maintain the simulcast radio system, all the involved agencies are dependant upon the backbone of the radio structure, which is owned by ADCOM. This partnership was entered into in 2009 when Broomfield Police and the other agencies pooled efforts and resources towards a shared radio system. In 2018, ADCOM notified the partner agencies that they were experiencing capacity limitations on the shared system.

To add system capacity, only two options exist. Option number one would upgrade the system to utilize Time Division Multiple Access (TDMA). The second option would be to add equipment at each radio tower site (Broomfield has two), add equipment to the central radio site, add more radio repeaters and request additional radio frequencies from the FCC. After a critical review of the two options, ADCOM decided to utilize TDMA as the solution. The partner agencies supported this decision.

Problem to be Solved and/or Benefit to Citizens:

This upgrade would double radio channel capacity without adding equipment, infrastructure, and radio frequencies.

Alternatives/Consequences if not Funded:

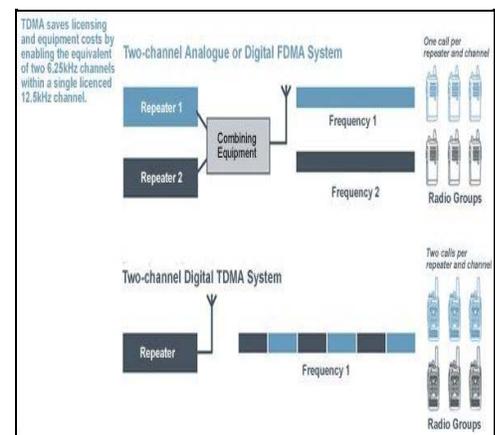
Failing to participate will render our radios unusable once system upgrades are completed by ADCOM.

Project Association:

None

Operating Budget Impact:

This will be a one-time expense with no ongoing costs.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	250,211	250,211
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	500,422



City and County of Broomfield 2021 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **Joint Effort with the Butterfly Pavilion**

Project #: 17M0065

Project Description:

Total Project Cost: \$9,420,000

The North Park Managed Growth and Development Agreement (Agreement), approved in 2011 includes a provision that the City and Developer will work cooperatively to develop a Science and Technology Park.

Background and Justification:

The Agreement states that the Developer, subject to mutually agreed upon terms, will contribute up to 20-acres for such purposes. The Adams 12 Five Star School District has recently completed very preliminary schematic design work on how its needs could be met in the project and how that might partner with Broomfield’s needs for facilities in the north area. The Butterfly Pavilion is a potential third-party to this shared project. To allow this potential project to take shape in Broomfield, this project will commit funding to prepare schematic plans and story-boards for a potential joint use project with the Butterfly Pavilion and the District.

Problem to be Solved and/or Benefit to Citizens:

If this project moves forward, this center would include a Science, Technology, Engineering and Mathematics (STEM) center and the Butterfly Pavilion center within North Park.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

None



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
70,000	500,000	0	0	2,550,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
350,000	350,000	350,000	5, 50 000	9,420,000



City and County of Broomfield 2021 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **Civic Center - Vision Development**

Project #: 06Z0079

Project Description:

Total Project Cost: \$827,098

The property located at the northeast corner of West 120th and Main Street is in the area referred to as Civic Center. This area has a master plan that was adopted in 2010 to provide mixed use of residential and commercial.

Background and Justification:

The property includes the previously purchased vacant large box store. The master plan redevelops the land use to a pedestrian friendly area with park land, small shops and retail, and meeting places. This phase of the project will assist in the design of the ultimate plan for development of the area by retaining multiple design firms and working with the input of a citizen task force.

Problem to be Solved and/or Benefit to Citizens:

The Civic Center development will reduce the number of vacant large box stores along 120th Avenue and provide an area for residents to shop and gather. The Civic Center will provide a gathering place for Broomfield residents to come and enjoy each other, restaurants, stores and other activities.

Alternatives/Consequences if not Funded:

Do not develop the Civic Center.

Project Association:

None

Operating Budget Impact:

None expected.



Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
111,316	215,782	0	500,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	827,098



City and County of Broomfield 2021 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **GPS Network Upgrade (GIS)**

Project #: 20P0009

Project Description:

Total Project Cost: \$58,900

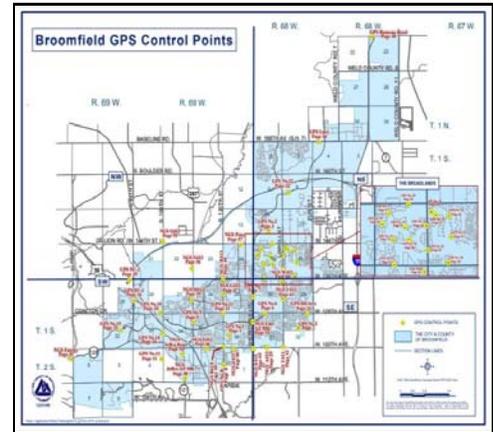
Evaluation, Review and Updating of the City and County of Broomfield GPS Network.

Background and Justification:

The current stations that make up the existing GPS network have been in the ground for a minimum of a decade or more, and may have shifted in their horizontal position and/or vertical elevation during that time. Also due to the elapsed time and construction within network limits, there has been a destruction of a number of stations.

Problem to be Solved and/or Benefit to Citizens:

Evaluation of existing 32 Broomfield station/monuments, 34 NGS or other Agency Monuments, and ten 66-Station network to determine if replacements are warranted, expansion is needed, or appropriate positioning is required. A set of new GPS control point data sheets will be created for each station in the network.



Alternatives/Consequences if not Funded:

If this project is not approved developers will have to use the outdated and damaged GPS network as the base for their plat submittals and for any surveying work being done within the City and County limits.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	58,900	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	58,900



City and County of Broomfield 2021 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: Ralston House - Broomfield's Share

Project #: 15J0055

Project Description:

Total Project Cost: \$243,403

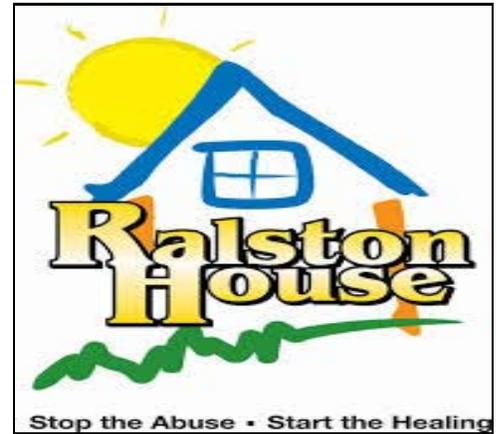
Intergovernmental Agreement for the Design of the Northglenn Ralston House

Background and Justification:

Ralston House is a nonprofit agency founded in 1990 that serves children who have been sexually and physically abused. They provide assistance from facilities in Arvada, Lakewood, and Northglenn. Ralston House and the City of Northglenn propose to design and construct a new facility in Northglenn to serve Adams and Broomfield Counties.

Problem to be Solved and/or Benefit to Citizens:

The City and County of Broomfield Police and Health and Human Services Departments use services from Ralston House on a regular basis. The agreement between Ralston House, the cities, and the counties provides that each community will provide \$30,000 to design and receive an engineer's estimate of cost for a new facility in Northglenn.



Alternatives/Consequences if not Funded:

Not participate in the project.

Project Association:

None

Operating Budget Impact:

Initial contribution plus potential construction costs.

Funding Source: Sales and Use Tax

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
206,578	36,825	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	243,403



City and County of Broomfield 2021 Capital Improvement Projects

Water - Purchases and Reservoirs Projects

Project Name: Carter Lake Pipeline - In-line Pump Station Share

Project #: 10Z0123

Project Description:

Total Project Cost: \$505,947

This project will cover Broomfield's pro-rata share of a third pump station on the Carter Lake pipeline.

Background and Justification:

In 2001, the Southern Water Supply Project (SWSP) Enterprise began a project to add capacity to the SWSP through pump stations. This project was to be implemented in three phases. The first phase is known as the West Longmont Phase and has been completed. The second phase involved the construction of the Broomfield Pump Station. The final phase is known as the Eastern Phase, and consists of the Eastern Pumping Plant. The Eastern Pumping Plant will complete the overall capacity addition for SWSP.

Problem to be Solved and/or Benefit to Citizens:

This project completes the overall capacity addition for the Southern Water Supply Pipeline, which is the pipeline that supplies Broomfield its water supplies from the Northern Colorado Water Conservancy District. This water accounts for approximately 60% of Broomfield's overall potable water supply.

Alternatives/Consequences if not Funded:

Broomfield entered into an Allotment Contract for Additional Capacity which requires the cost sharing as described in this request.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
33,015	0	472,932	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	505,947



City and County of Broomfield 2021 Capital Improvement Projects

Water - Purchases and Reservoirs Projects

Project Name: **Siena Reservoir/Pump Station/Pipeline**

Project #: 15G0036

Project Description:

Total Project Cost: \$12,339,303

Construct a new pump station and pipeline to deliver water from Siena Reservoir to the Broomfield Water Treatment Plant by 2017. The proposed facilities would meet peak summer demands for the potable water system on an interim basis.

Background and Justification:

The scope of this project includes the design and construction of a new pump station with a capacity of 10 to 15 cfs, and 14,200 feet of pipeline. Broomfield Reservoir, with a 5,000 acre-feet capacity, was originally sized to (1) meet peak summer demands at build-out and (2) provide interim firming of Windy Gap supplies until Chimney Hollow Reservoir was constructed. The economic downturn in 2008 delayed the need to construct Broomfield Reservoir to meet the supply and peaking demands that were associated with new growth. On January 17, 2012, Broomfield staff presented a proposal at a Council Study Session to convert Siena Reservoir for use in the potable water system. The proposed pump station and pipeline improvements would effectively delay the need for adding additional peaking capacity until the 2025 to 2027 timeframe. The project would also include the sale of the Siena Reservoir property from the Water Reclamation Fund to the Water Fund in the amount of \$4 million.

Problem to be Solved and/or Benefit to Citizens:

Provide the necessary facilities to serve projected increases in peak summer water demand due to new development and growth.

Alternatives/Consequences if not Funded:

The existing water supply, treatment, and distribution facilities are adequately sized to meet current conditions. Additional water system capital improvements must be constructed in order to serve new growth. If these facilities are not constructed, then either future water license sales will need to be curtailed or suspended, mandatory summer water restrictions would need to be implemented, or Broomfield Reservoir would need to be constructed.



Project Association:

None

Operating Budget Impact:

The impact on the operating budget will be approximately \$50,000 per year. This cost includes the additional electricity for pumping and the maintenance of the equipment.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
3,839,303	0	1,500,000	7,000,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	12,339,303



City and County of Broomfield 2021 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **Baseline Water System Reimbursement**

Project #: 20Q0028

Project Description:

Total Project Cost: \$2,930,000

Broomfield is responsible for all water lines 16" in diameter or larger. The Baseline developer has proposed to construct these distribution lines and be reimbursed by Broomfield.

Background and Justification:

Broomfield is responsible for all water lines 16" in diameter or larger within the Baseline subdivision per the Managed Growth and Development Agreement.

Problem to be Solved and/or Benefit to Citizens:

The water distribution system is necessary for the Baseline development.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

This is a reimbursement.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	830,000	2,100,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,930,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **North Area Water System Master Plan Improvements** Project #: 02Z0291

Project Description: Total Project Cost: \$5,739,626

This project will extend water service to the northeast area of Broomfield to serve potential new development demands.

Background and Justification:

This project provides essential infrastructure to support development in northeastern Broomfield.

Problem to be Solved and/or Benefit to Citizens:

The project works towards Broomfield's economic development vision.

Alternatives/Consequences if not Funded:

Water line extension options and alternatives, including size and location, will be considered during the master planning and design phases.

Project Association:

None

Operating Budget Impact:

Expansion of infrastructure will increase operating and maintenance costs.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
2,840,279	1,899,347	1,000,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	5,739,626



City and County of Broomfield 2021 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **North Area Water System Improvements - Tank**

Project #: 21Q0019

Project Description:

Total Project Cost: \$13,250,000

This request is for the design and construction of a potable water storage tank and booster pump system to be located on Broomfield-owned property in Anthem Filing 24.

Background and Justification:

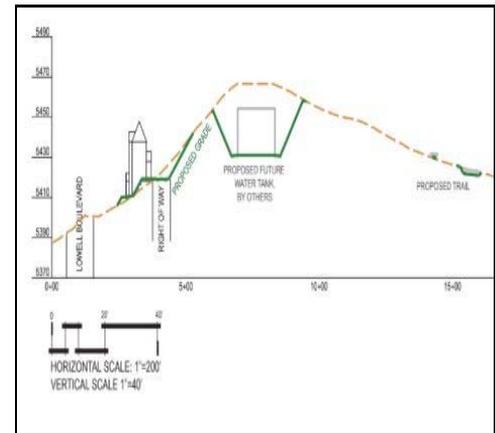
Broomfield’s water system model identifies capital improvements which will be needed as Broomfield develops. The model specifically focuses on the phased development of the areas north of W. 144th Avenue that are quickly developing.

Problem to be Solved and/or Benefit to Citizens:

Additional water storage is needed by approximately 2022 to serve north Broomfield and ensure adequate fire flows. A tract of land was dedicated to Broomfield with the platting of Anthem Filing 24 for the tank. Due to the necessary hydraulic grade elevation, the tank will require a booster pump system.

Alternatives/Consequences if not Funded:

If development continues without the necessary water infrastructure, there will be inadequate storage and supply for fire flows. Regular, peak hour usage, will result in inadequate water supply and pressures to the higher elevation properties.



Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	1,000,000	12,250,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	13,250,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: Residential Meter Replacement/Conversion (Itron to Orion Reading System) - Citywide

Project #: 18M0046

Project Description:

Total Project Cost: \$2,992,435

Replace 7,750 ¾ Inch residential meters (6400 inside and 1350 Outside) and 184 Commercial/Apartment meters ranging in size from ¾ Inch to 3”.

Background and Justification:

The Residential, Commercial and Apartment meters need replacement due to age (over 10 to 15 years old) and each of these meters is equipped with an Itron transmitter reading system. The Itron reading system will no longer receive support in 2019. Since the 2006 Itron to Orion conversion, 6400 residential inside meter sets, 1350 residential outside meter sets, and 184 commercial/Apartment/irrigation meter sets with Itron equipment or reading systems remain. The 6400 residential inside meter sets were last replaced in 2002 with Itron equipment. These inside meters are 15 years old, while industry standards recommend replacement every 10 to 15 years.

Problem to be Solved and/or Benefit to Citizens:

This request includes the purchase of updated Badger/Orion technology and a move from the residential Badger/Orion model 25 disc meter with a 10-15 year service life to the residential Badger/Orion E series Ultrasonic meter with a 20 year service life. This CIP request also includes the support of contractual replacements for the 6400 inside meters. Currently, both the Utilities Meter unit and Utility Billing pay annual fees for software upgrades and support to both Itron and Orion. Annual costs are \$5,970 for Itron and \$1,680 for Orion. Once the typical ¾-inch Model 25 meter used for single family residences in Broomfield exceeds its typical lifespan, it will underestimate the actual volume of water running through it due to gradual wearing of the internal parts that measure water flow.



Alternatives/Consequences if not Funded:

The separation between the amount of revenue that should be collected for water sales and amount billed to customer will continue to increase over time.

Additionally the Itron software program is outdated and will no longer be supported in 2019.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
2,472,254	520,181	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,992,435



City and County of Broomfield 2021 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting** Project #: 18M0045

Project Description:

Total Project Cost: \$420,000

Exterior painting of 3 aboveground steel storage tanks located at Jefferson County Airport.

Background and Justification:

One is a 3 million gallon (MG) domestic water storage tank and the other two are a 3MG Reuse tank and 750,000 gallon Reuse tank. The exteriors of these three tanks were last painted in the year 2000. The service life of exterior paints is 10 to 20 years, depending on the type of exterior paint applied.

Problem to be Solved and/or Benefit to Citizens:

In February 2017, the Utilities Division contacted M&M Tank Coating Company and scheduled an exterior inspection and estimate for painting the exteriors of the three tanks. The inspection confirmed that each of the tanks needs to be sand blasted and recoated within one to three years.

Alternatives/Consequences if not Funded:

Paint can continue to erode exposing more of the steel structure. When this happens, the cost to recoat the tanks will increase overtime.



Project Association:

None

Operating Budget Impact:

None anticipated

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	219,046	200,954	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	420,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **136th Ave and Lowell Blvd - Water Main Replacement** Project #: 20P0030

Project Description:

Total Project Cost: \$723,900

Replacement of 20" water main on W. 136th Avenue from Lowell Blvd west 2,700 feet.

Background and Justification:

The 20" water main is an essential part of the Denver Water feed that fills the Carbon Road tanks and fulfills water demands throughout Broomfield. This stretch of transmission line starts at the Zuni Chlorine Station and continues along Midway Blvd west to Lowell Blvd, then north on Lowell Blvd to W. 136th Avenue, and continues west to the Carbon Road tanks. The pipe replacement is categorized as high-priority because of its size (20 inch), location (high-volume arterial roadway), number of breaks that have occurred, and extent of each repair. The 20" ductile iron pipe is susceptible to corrosion and deterioration and has failed five times from 2014 to 2019 and has increased in frequency with three breaks in the proposed replacement section in 2018, resulting in distribution disruption to water users.

Problem to be Solved and/or Benefit to Citizens:

This replacement has met the requirement criteria based on number of breaks (5+), age of pipe (47 years old), and pipe material (metallic). PVC is the recommended replacement because of its reliability and long lifespan.

Alternatives/Consequences if not Funded:

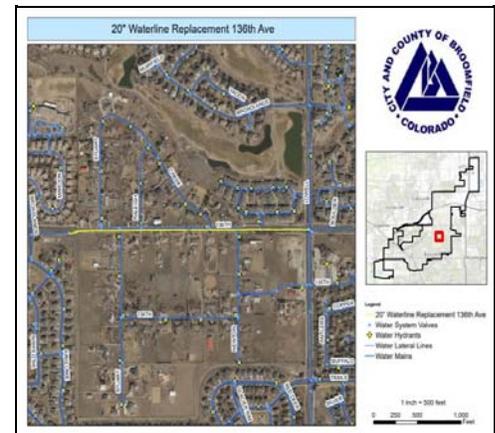
If unfunded, this section of line will continue to fail, accruing costs for the materials and labor, and impacting citizens while repairs are performed. Breaks on this section of 20" main during summer months can impact the ability to meet peak demands in the water system.

Project Association:

This request could be included as part of annual Waterline Replacement Project.

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	723,900	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	723,900



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Interlocken Booster Zone 1 to Airport Zone - Water Interconnect**

Project #: 19N0009

Project Description:

Total Project Cost: \$40,000

This project will add a second Water connection from the Airport Booser Zone to the Interlocken Booster (Zone 1).

Background and Justification:

Currently there is a back up connection between the Airport Booser Zone to the Interlocken Booster (Zone 1). This current connection is in place for emergencies for either of the two Distribution Zones mentioned above during emergency operations and maintenance. This current connection is a 12" and can temporarily feed each of the Zones in need.

Problem to be Solved and/or Benefit to Citizens:

This project is for a second Connection between the two zones, to provide longer term connections with fire flow protection. The Utilities Division has recently had to activate this interconnect more often due to maintenance and or operational problems at either of the Booster Stations that feed these Zones. For Example, This interconnect was relied upon for a two week period during the Airport Booster station failure in August 2016. In addition, Operationally it makes sense to move the Airport zone onto the Interlocken Zone during winter months for water quality.



Alternatives/Consequences if not Funded:

Consequences if not funded, fire flow protection to either the Interlocken Zone or Airport Zone during emergency events when interconnect is activated.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	1,766	38,234	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Interlocken Tank Land Acquisition**

Project #: 20P0046

Project Description:

Total Project Cost: \$325,000

This project involves an acquisition and a land swap with Partners Group (Project Chalet) in the Interlocken Subdivision for the Mesa Zone Booster Station and a future second water tank. The net land acquisition will be 0.91 acres.

Background and Justification:

The Mesa Zone Water Booster Station is needed to provide redundancy for the higher elevation areas in Broomfield including Interlocken, Rocky Mountain Metro Airport, and surrounding developments. The Mesa Zone Booster Station project is included in the Water Fund CIP. Land acquisition for the booster station is necessary from the Partners Group to locate the booster station near the Interlocken Water Tank. Also, Project Chalet is requesting that the future (second) water tank be relocated to the north away from their building site in order for them to construct parking. This requires that they swap land with Broomfield for the future tank.

Problem to be Solved and/or Benefit to Citizens:

The work involves survey, platting, and land purchase. The project is a win-win for Broomfield and the Partners Group for land use.

Alternatives/Consequences if not Funded:

The Mesa Zone Booster Station could not be constructed as designed.

Project Association:

Mesa Zone Water Booster Station

Operating Budget Impact:

None for the land acquisition.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	325,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	325,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Mesa Zone - Booster Station

Project #: 18M0044

Project Description:

Total Project Cost: \$6,530,000

Build a secondary water booster station in the Mesa Zone. The Mesa Zone booster station will be sized to serve daily distribution pressure, flows, and fire flow protection to the Mesa and Walnut water distribution zones.

Background and Justification:

Broomfield owns and operates the existing Airport Pump Station, located east of Simms Street near Rocky Mountain Airport. This facility provides pressure to the Mesa and Walnut pressure zones of Broomfield’s potable water system service area. Presently, this area is a “closed” system and the only source of water pressure is the Airport Pump Station. In August 2016, the Airport Pump Station experienced a failure due to a complete loss of pressure to its service area. Fortunately, there was enough residual pressure within the distribution system to maintain minimal service during the outage. Extensive repairs were performed and normal operation resumed. This failure highlighted the vulnerability of the system that combined with growth in the service area emphasized the need for redundancy to maintain required levels of service to customers. Broomfield has identified a location for a redundant pump station, initially named the “Mesa Pump Station” which will serve as a back-up pressure source for the Mesa and Walnut pressure zones. Broomfield is currently consulting with Arcadis to perform a hydraulic analysis to determine performance criteria for the proposed future Mesa Pump Station.

Problem to be Solved and/or Benefit to Citizens:

Flows and fire flow protection to the Mesa and Walnut water distribution zones.

Alternatives/Consequences if not Funded:

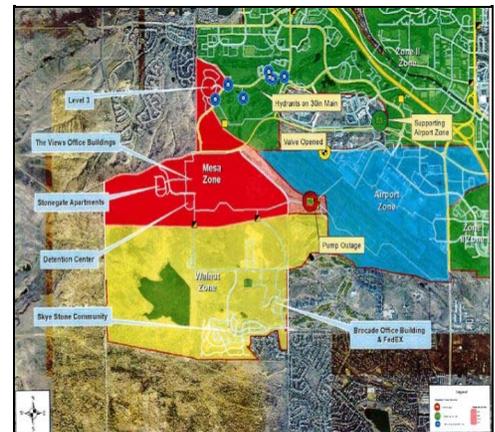
Any future failure at the Airport Pump Station will directly affect all customers in the Mesa and Walnut Zones with unexpected water outages and reduced fire protection.

Project Association:

None

Operating Budget Impact:

Operating budget will be impacted for gas and electric.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
273,065	33,590	0	223,345	6,000,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	6,530,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Potable Water Sampling Stations - Citywide**

Project #: 18M0043

Project Description:

Total Project Cost: \$82,620

Water sampling stations to provide access for sampling in areas with high density multi-family housing (especially townhomes) that are not currently accessible.

Background and Justification:

The Safe Drinking Water Act requires that the potable water distribution system be sampled routinely for Total Coliform and E. Coli bacteria. It also requires that the monitoring plan include locations that provide good geographic coverage of the population served by the water treatment facility. Water suppliers generally have a choice of using existing water outlets or dedicated sampling stations. Broomfield has been using existing water outlets including outside wall faucets at private homes and kitchen faucets in businesses or public buildings. The biggest problems from using existing water outlets are:

1. Access (due to weather, time of day, day of week, nobody home)
2. Control (other uses of the outlets can cause unpredictability)
3. Reliability (when the supplier is actually inadvertently testing the plumbing of the sampling site and not just the supplier's system).
4. Sterilization techniques (usually "flaming" the outlet nozzle), which are not frequently welcomed by private owners
5. Increased susceptibility to advertent contamination from animals, insects, weather, etc.

Dedicated sampling stations are preferable because they solve the problems of access, control, reliability, external contamination, acceptance and practicality.

Problem to be Solved and/or Benefit to Citizens:

The program will install 20 stations per year based on priority ranking. A total of 100 stations are anticipated under current Safe Drinking Water Act regulations. This number will continue to increase with population growth.

Alternatives/Consequences if not Funded:

Continue using existing water outlets including outside wall faucets at private homes and kitchen faucets in businesses or public buildings, which are at greater risk of contamination.

Project Association:

None

Operating Budget Impact:

Increase of 10-20 hours/year for Utilities staff to maintain sampling stations and/or repair stations in the event of damage from freezing or vandalism.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
18,620	13,338	18,662	16,000	16,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	82,620



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Town Center/Chase Street - Water Distribution Loop **Project #:** 19N0007

Project Description:

Total Project Cost: \$242,000

Engineering, design, and installation of 500 feet of 8” water distribution main from East 1st Avenue (Town Center) to Chase Street.

Background and Justification:

Initially the Chase Street water line served a bank and fire hydrant protection along this section. Currently it serves a nursing home, bank, major car wash, auto store and a brewery. Potential problems arise since there is no secondary feed or “looping” of the distribution system. Any operations and maintenance (water breaks and valve repairs) by the Utility Division requires shutting down the main, which puts all existing businesses out of water. A majority of the City and County of Broomfields water distribution system has secondary feeds and all new design and construction reviews require secondary feeds for future development.

Problem to be Solved and/or Benefit to Citizens:

Adding a second connection will improve and loop the water distribution system and allow sections of this water main to be isolated so that these businesses will not be impacted when a shut-down is necessary.

Alternatives/Consequences if not Funded:

Potential water or service outages.

Project Association:

An interconnect with the City of Westminster requiring an intergovernmental agreement (IGA). Interconnections provide a second feed only during emergencies.

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	838	22,292	218,870	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	242,000



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Building Automation System Installation** Project #: 20P0019

Project Description:

Total Project Cost: \$73,500

This CIP request is to install a Building Management System (BAS) to control the HVAC equipment at the Water Treatment Plant.

Background and Justification:

The Water Treatment facility plays a critical role in delivering safe drinking water that reaches every citizen in Broomfield. The facility has expensive equipment and labs that require precise temperature control in order to maintain their operation. This project will include installing the infrastructure required for the communication devices, adding electrically controlled devices and sensors, providing graphics and licensing required for the platform. Five (5) rooftop units, 17 VAV's, and 8 large exhaust fans will be connected to the BAS.

Problem to be Solved and/or Benefit to Citizens:

Installing a BAS will allow Facility Services staff to continually monitor the building's operation and resolve issues with an immediate response time.

Alternatives/Consequences if not Funded:

Continued occupancy discomfort, high cost repairs/maintenance, and decreased department productivity.

Project Association:

Water Treatment Plant expansion/remodel project.

Operating Budget Impact:

Annual fee of \$2500 for BAS Service/Maintenance Agreement



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	73,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	73,500



City and County of Broomfield 2021 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Expansion**

Project #: 14H0048

Project Description:

Total Project Cost: \$34,008,917

This funding is for the design to increase the capacity of the Water Treatment Plant to 24 million gallons daily.

Background and Justification:

This expansion is needed to support additional water tap sales in the northeast area.

Problem to be Solved and/or Benefit to Citizens:

The additional capacity is necessary to support the new development.

Alternatives/Consequences if not Funded:

Process alternatives will be reviewed during design.

Project Association:

None

Operating Budget Impact:

This project will increase operating costs once completed.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
2,014,539	10,978,276	12,016,102	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	9,000,000	34,008,917



City and County of Broomfield 2021 Capital Improvement Projects

Utilities Planning, Administration & Other Projects

Project Name: Marshall Water Rights Change of Use

Project #: 20P0056

Project Description:

Total Project Cost: \$1,155,000

This CIP request would cover the legal and engineering expenses associated with a change of use case.

Background and Justification:

The City and County of Broomfield owns 150.57 shares of the Farmer’s Reservoir and Irrigation Company Marshall Division water rights. These water rights have historically been used for pond level maintenance and irrigation. In order to be used for municipal purposes, these water rights need to go through a legal change of use case. Once the water rights are changed to incorporate municipal use, they can be used to fill ponds and reservoirs within the city (Tom Frost, Markel’s Pond, the future Civic Center Pond and Siena Reservoir). If the change application is filed in court by December 31, 2019, costs associated with the change case would likely occur over a three year period (2020 - 2022). Historically, the Marshall water rights have been used for irrigation and pond level maintenance within Broomfield. Recently, the State of Colorado Division of Water Resources has increased enforcement on pond level maintenance as an illegal use for water rights authorized for irrigation if the water does not flow through the pond within 72 hours (72 Hour Rule). In order to be able to fully utilize Broomfield’s 150.57 Marshall shares, approximately 465.82 acre-feet, these water rights need to go through a legal change of use case.

Problem to be Solved and/or Benefit to Citizens:

Once the water rights are changed to incorporate municipal use, they can be used to fill ponds and reservoirs within the city (Tom Frost, Markel’s Pond, the future Civic Center Pond and Siena Reservoir).

Alternatives/Consequences if not Funded:

Broomfield will no longer be able to use the Marshall water rights for pond level maintenance. The Utilities and Water Resources Divisions would need to coordinate on how to construct and fund the necessary infrastructure and/or operations to provide municipal water to fill Broomfield ponds (Tom Frost, Markel’s and the future Civic Center Pond) and Siena Reservoir.



Project Association:

0AZ0040, 0AZ0003 for Engineering and Legal Services

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	355,000	400,000	400,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,155,000



City and County of Broomfield 2021 Capital Improvement Projects

Utilities Planning, Administration & Other Projects

Project Name: SCADA Programmable Logic Controls

Project #: 15K0035

Project Description:

Total Project Cost: \$4,228,802

Complete a study/evaluation of the City and County of Broomfield’s Wastewater, Water and Utilities Divisions supervisory control and data acquisition (SCADA) systems and programmable logic controls (PLC).

Background and Justification:

The purpose of the evaluation is to assist staff in reviewing potential replacements, purchase/lease options, coordination of communication systems and standardization of equipment. A majority of the PLC equipment is nearing or has exceeded life expectancy. The cost of this request will be split 50/50 between water and sewer funds.

Problem to be Solved and/or Benefit to Citizens:

All 3 divisions have aging SCADA and PLC equipment and systems. Failures of these systems and equipment can lead to sanitary sewer overflows, wastewater discharge permit violations and interruption of service to the community. The study will assist staff with the coordination of the systems to improve communication and reliability between the three division providing the water and wastewater services and to establish a replacement schedule along with standardization of equipment. The benefits include improved service, reduction in costs of equipment and resources.



Alternatives/Consequences if not Funded:

Alternatives include purchasing or leasing the replacement SCADA and PLC equipment and systems based on vendor reviews and formal bidding process; adding staff to monitor facilities 24/7 and operate in manual mode.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
423,326	1,577,824	2,227,652	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	4,228,802



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **136th Ave/Community Ditch - Culvert Pipe Crossing Rehab**

Project #: 17L0038

Project Description:

Total Project Cost: \$475,693

Remove and replace the corrugated culvert pipe, which has been undermined by water. The deterioration of the pipe allows debris to build up and restrict water flow.

Background and Justification:

The metal culvert on the lower half of the pipe has deteriorated. The rusted out surface causes a negative flow, allowing debris to compile inside the pipe. The wing wall is not long enough on the south side, causing the soil to erode away. Additionally, the headwall on the south side needs concrete repair.

Problem to be Solved and/or Benefit to Citizens:

Replacing the six foot oval corrugated pipe will allow better water flow and prevent hosting of debris inside. The new pipe will fully support the roadway, preventing failure, and possible damage to phone lines.

Alternatives/Consequences if not Funded:

When the pipe rusts out, it will collapse and the road will fail.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
58,120	417,573	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	475,693



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Aspen St/Community Ditch - Culvert Pipe Crossing Rehab**

Project #: 17L0039

Project Description:

Total Project Cost: \$198,252

Remove and replace the corrugated culvert pipe crossing Aspen Street. Water has undermined the pipe and allows debris to build up and restrict water flow.

Background and Justification:

The condition of the metal culvert pipe crossing Aspen St. has deteriorated on the lower half of the pipe and will eventually collapse. The surface is rusted out, causing a negative flow that allows debris to build up inside the pipe.

Problem to be Solved and/or Benefit to Citizens:

Replacing the six foot oval corrugated pipe will allow better drainage flow and debris won't host inside. The new pipe will better support the road way, preventing failure.

Alternatives/Consequences if not Funded:

Continued failure to the culvert will cause more debris build-up in the drain, causing the pipe to rust out sooner. When the pipe rusts out, it will collapse and the road will fail at the same time.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
15,726	182,526	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	198,252



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Broadlands Lane and Lowell - Drainage Channel Improvements**

Project #: 18N0013

Project Description:

Total Project Cost: \$170,000

This project is to conduct a study, design and implement correction of drainage issues occurring at channel located south of Broadlands Lane and Lowell Blvd.

Background and Justification:

In 2019, Broomfield acquired a study from a consultant to consider alternatives and costs to correct drainage issues occurring at the Quail Creek underpass at Lowell Blvd. (south of Broadlands Lane). This request is Part, to design and implement a combination of two of the proposed alternatives (Alternatives 2 and 4). For many years, Park Services working in conjunction with the Utility Division has responded to numerous calls of drainage backups in the pedestrian box culvert located underneath Lowell Boulevard and has closed the pedestrian underpass for weeks at a time. Recently, pedestrian underpass was closed from November 25, 2017 to January 11, 2018 until temporary repairs were completed to allow for underpass to be opened. In December 2017 and January 2018, there were approximately 100 staff hours associated with the drainage issue. During camering the line, it was discovered that the pipe was pulling apart in some locations, flow was irregular and the pipe outlet was not flowing downstream but opposite direction of required flow.

Problem to be Solved and/or Benefit to Citizens:

When constructed the solution will enable pumping of any stormwater entering the trail side of the box culvert and promote more efficient gravity flow from the two existing grate inlets located at either end of the trail cell of the box culvert.

Alternatives/Consequences if not Funded:

Continue to allocate staff to safely make it passable for residents that use underpass under Lowell Blvd. to travel from one side to other side.

Project Association:

None

Operating Budget Impact:

General maintenance and channel maintenance.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	21,434	33,566	115,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	170,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: City Park Channel - Midway Park Modifications

Project #: 16K0052

Project Description:

Total Project Cost: \$1,510,000

Updates and modifications for projects 16K0052 - North Midway Channel at Midway Boulevard, 18M0042 - Midway Park - Concrete Channel Replacements, and Z0394 - Midway Pond Dredging.

Background and Justification:

The culverts under US 287 and Midway Boulevard have deteriorated, compromising the integrity of the roadway above. The culverts need to be repaired with a structural liner or replaced. The channel upstream and downstream of Midway Boulevard is a boulder-lined channel with a concrete bottom. The channel has sunk in several areas, causing standing water and tripping hazards. The concrete trickle channel and several sections of boulders will need to be repaired and replaced.

Problem to be Solved and/or Benefit to Citizens:

The City Park Channel through Midway Park is eligible for maintenance by the Urban Drainage and Flood Control District (UDFCD). It is recommended that these projects be combined into a single maintenance project to be managed and funded at 50% by UDFCD over several years (2019-2023). Midway Pond dredging should be completed concurrently with the channel and culvert improvements.



Alternatives/Consequences if not Funded:

US 287 and Midway could collapse if the culverts fail and collapse under the roadway, similar to the damage experienced on Indiana Blvd in 2016. The open channel through the park will continue to shift and collapse in areas if not improved, causing safety issues.

Project Association:

Combining 3 existing projects to maximize funding and sequence the construction logically.

Operating Budget Impact:

These maintenance repairs will reduce future maintenance activities.

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	238,470	0	250,000	771,530
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
250,000	0	0	0	1,510,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: City Park Channel - Overflow Connection to Nissen Channel

Project #: 15H0026

Project Description:

Total Project Cost: \$1,538,157

Reimbursement of drainage improvements constructed by a developer designed to convey City Park Channel Overflow to the Nissen Reservoir Channel.

Background and Justification:

Funds would be available to offset a portion of the developer's cost, while the timing, design alternatives, and construction of improvements would remain in the developer's control. The City Park Channel Overflow previously flowed at approximately 770 cubic feet per second (cfs) along the north side of West 120th Avenue rather than being conveyed to the main City Park Channel on the south. A 2015 LOMR reduced the FEMA flows to 320 cfs for conveyance, making the alternative of a Box Culvert possible.

Problem to be Solved and/or Benefit to Citizens:

The West 120th Avenue Sub-Area plan suggests a possible route to connect the City Park Channel Overflow to Nissen Reservoir Channel by conveying flow in a box between the southeast corner of Broomfield Corners to the open channel running north/south along the eastern side of Walmart. The 2006 Outfall System Planning Study for the Nissen Reservoir Channel and City Park Channel indicates that the City Park Channel Overflow be conveyed in a pipe along the north side of West 120th Avenue and directed into Nissen Reservoir Channel along the west side of Perry Street. This improvement would require ROW or easement acquisition from multiple property owners along West 120th Avenue. This project would provide a missing link to connect the existing infrastructure and disconnected improvements completed by developers along West 120th Avenue.



Alternatives/Consequences if not Funded:

Properties along the West 120th Avenue corridor will remain in the floodplain until developer driven improvements resolve the conveyance capacity challenges.

Project Association:

Other Nissen Reservoir Channel and associated trail improvement projects could be undertaken together. Future projects will benefit from this connection being in place.

Operating Budget Impact:

None

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
202,160	0	1,335,997	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,538,157



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Community Ditch - 16th Ave. Culvert Replacement

Project #: 21M0038

Project Description:

Total Project Cost: \$76,000

Replace 52' galvanized culvert pipe.

Background and Justification:

AYRES Associates comments: Heavy corrosion with section loss along the entire length from the waterline down. AYRES report is attached to this request.

Problem to be Solved and/or Benefit to Citizens:

Replacing the pipe will improve flow through the channel and eliminate sediment buildup and erosion.

Alternatives/Consequences if not Funded:

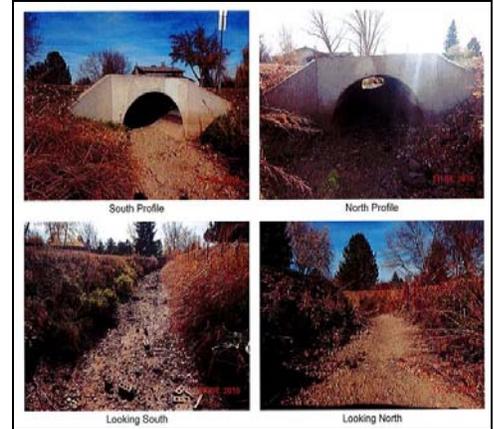
Continued erosion to the pipe will cause cavitation that will cause the road surface to fail.

Project Association:

None

Operating Budget Impact:

None Anticipated



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	76,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	76,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Community Ditch - Aspen Street at 15th Ave Culvert Lining/Replacement

Project #: 20P0002

Project Description:

Total Project Cost: \$254,500

Line or replace approximately 54 ft. of CMP on Community Ditch. Culvert is approximately 36" diameter and goes under Aspen Street between 15th and 16th Avenue.

Background and Justification:

Ayers Associates completed an inspection of minor culverts throughout the city in 2018 and, due to its current condition, this culvert was recommended for replacement.

Problem to be Solved and/or Benefit to Citizens:

Based on its current condition, staff believes that this culvert can be lined to extend its life instead of replaced.

Alternatives/Consequences if not Funded:

Culvert/roadway failure. Attempt to do a full culvert replacement. Because this culvert is on a FRICO owned ditch, it is possible that the ditch company would not allow for an in kind replacement. If the current culvert does not meet FRICO's existing requirements, they could require an upgrade at the city's expense.



Project Association:

It could be associated with M0038 and M0041

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	254,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	254,500



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Community Ditch - St. Andrews Pipe Replacement

Project #: 21M0041

Project Description:

Total Project Cost: \$109,445

Replace the RCP pipe with CMP pipe and seal the cracks in the headwall.

Background and Justification:

AYRES Associates comments: Heavy corrosion with section loss along the entire length of the pipe from the water line down. Missing brick on the bridge railing and vertical cracks of up to 1/8 inch between the wingwall and the headwall. Replacing the pipe will allow better flow and keep the road from cavitating.

Problem to be Solved and/or Benefit to Citizens:

Repairing the cracks in the wing wall area will prevent further damage to the concrete structure.

Alternatives/Consequences if not Funded:

The galvanized pipe will continue to corrode which will collapse then the roadway will fail.

Project Association:

None

Operating Budget Impact:

None Anticipated



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	109,445	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	109,445



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Frank Varra Park - Multi-Use Trail Repairs

Project #: 18M0062

Project Description:

Total Project Cost: \$393,000

Stabilize the slope below a section of the multi-use trail in Frank Varra Park that has suffered damage due to upslope drainage undermining the trail and downhill slope instability.

Background and Justification:

During the 2013 rain events, the retaining wall that supported this section of trail was damaged. Portions washed away, which allowed erosion to continue to occur just below this section of trail. In October 2016, the irrigation mainline for the Varra Park and Flatirons crossing mall was damaged by further erosion and burst. There is a lot of runoff from irrigation and by rainwater across and under the trail during the warm weather season because of the steep slope above the bikeway. This is undermining the trail as well as creating slick conditions on the trail surface. There is also a buildup of moss at times that makes the bikeway slippery, causing a hazard for both bicyclists and pedestrians. The same shading and drainage causes an above average number of ice issues during the winter, resulting in numerous complaints from trail users.

Problem to be Solved and/or Benefit to Citizens:

The project will create a safety shoulder where practical. Additionally, the project will include soils testing, design, and budgetary pricing recommendations for a future phase downslope of the current project work area and to the East along Rock Creek. This Phase I construction will include establishing a temporary construction access off of US 36 to allow the continuous use of the bikeway. The plan is to revise the irrigation system above the trail and to install a low water wildland flower mixture in place of the bluegrass sod that currently exists above all of the CCOB owned planter walls.



Alternatives/Consequences if not Funded:

An alternative trail route has been proposed as a separate project, so the consequences if the project is not funded are a likely increase in complaints and potential claims from users.

Project Association:

This project could be paired with the proposed re-located US 36 bikeway. This pairing allows the bikeway widening to be taken out of this project.

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
12,490	19,916	360,594	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	393,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Highland Park Channel - Improvements**

Project #: 19N0008

Project Description:

Total Project Cost: \$275,000

Channel improvements to control water flow during flood events, prevent erosion and reduce debris in the channel invert and improving aesthetics.

Background and Justification:

The rocks being placed in the channel slow the flow on the very flat concrete trickle channel and lead to flow back-ups, standing water, algae growth and the need for frequent maintenance. Street Services Drainage Maintenance personnel are spending approximately 12 hours a month removing rock dams that are diverting water out of the concrete channel creating erosion problems higher on the bank and resulting in a slippery channel bed.

Problem to be Solved and/or Benefit to Citizens:

Modifying the surface by applying large boulders or burying riprap with vegetative cover will provide the needed protection with flood flow that exceeds the width of the improved channel and stop the rocks from being placed in the channel by children playing in the park.

Alternatives/Consequences if not Funded:

Continue working in a very slick channel removing the dams and the debris caught by the dams.

Project Association:

None

Operating Budget Impact:

The project could result in additional turf area to be maintained.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	25,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
250,000	0	0	0	275,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Main Street and Miramonte Blvd - Drainage Improvement**

Project #: 19J0019

Project Description:

Total Project Cost: \$150,000

The condition of the cross pan and surrounding asphalt continues to fail due to the amount of water that flows from north to south along Main Street year-round.

Background and Justification:

Removing the cross pan and adding storm inlets on the north and south side of Miramonte could help reduce road damage caused by water and ice. This project also includes the repair of the concrete curb and gutter and ADA ramp.

Problem to be Solved and/or Benefit to Citizens:

This project will help eliminate potholing, concrete damage, and pedestrian slip/trip hazards due to standing water and ice.

Alternatives/Consequences if not Funded:

Continue making weekly repairs to the street and concrete drain pan.

Project Association:

None

Operating Budget Impact:

This project could reduce maintenance costs due to reduced repair time.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	150,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: McKay Park Drainage Repair

Project #: 20P0034

Project Description:

Total Project Cost: \$199,021

Construct a 1,700 linear foot ditch to restore historic drainage seepage flows from McKay Lake.

Background and Justification:

Seepage flows have created maintenance issues within McKay Park, the Open Spcae and across sidewalks along Zuni Street and 136th Avenue. Public concerns have been expressed.

Problem to be Solved and/or Benefit to Citizens:

Resore historic drainage and resolve maintenance issues.

Alternatives/Consequences if not Funded:

Continued maintenance issues.

Project Association:

None

Operating Budget Impact:

Reduced maintenance.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	199,021	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	199,021



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Nissen Channel - Drainage Improvements Country Vista to Big Dry Creek (Broomfield Match (50%)) **Project #:** 16H0050

Project Description:

Total Project Cost: \$3,340,000

Matching funds for design and construction of Nissen Channel Improvement project for the channel from Tennyson Street (E of Walmart) to just upstream (west) of Lowell.

Background and Justification:

Mills collected as part of Broomfield residents' property taxes fund Mile High Flood District (MHFD) (previously called the Urban Drainage and Flood Control District (UDFCD)) projects with a match from the local government for all capital projects (defined by MHFD as projects which increase flood water conveyance). The Nissen Channel Improvement project is part of a multi-year capital project with the MHFD matching funds for design and construction of improvement for the channel from Tennyson Street (east of Walmart) to just upstream (west) of Lowell Blvd. An annual IGA committing these funds is required. The area between these limits currently consists of a narrow channel and wide floodplain which impacts businesses, undeveloped land, and overtops Perry Street.

Problem to be Solved and/or Benefit to Citizens:

The project will design channel improvements, identify and acquire easements needed for improvements, obtain permitting (including U.S. Army Corps of Engineers 404 permitting), and construct improvements.

Alternatives/Consequences if not Funded:

Properties along the Nissen Channel corridor will remain in the floodplain and Perry Street will continue to overtop in large rain events. Due to channel work and vegetative impacts, it will be difficult for to permit developer driven improvements.

Project Association:

A trail along this corridor and developer constructed drainage improvements in Tennyson Way will be coordinated with this work.

Operating Budget Impact:

These channel improvements will be eligible for UDFCD maintenance assistance.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
780,000	270,000	270,000	830,000	580,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
610,000	0	0	0	3,340,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Plaster Reservoir Dredging and Habitat Improvements** Project #: 20Z0380

Total Project Cost: \$250,000

Project Description:

The 2012 Reservoir Dredging Needs Assessment recommended improvements to Plaster Reservoir to manage algae blooms and maintain the ecological value of the reservoir.

Background and Justification:

The improvements include dredging part of the reservoir and planting additional trees and shrubs along the south shoreline and golf course.

Problem to be Solved and/or Benefit to Citizens:

The habitat around Plaster Reservoir enhances its ecological value and is generally in good shape. This habitat should continue to be managed to control noxious and invasive species. Additional tree and shrub plantings in gaps along the south shoreline and golf course would increase screening of waterfowl from human activity around the reservoir. The pond should continue to be managed to minimize algae blooms. Dredging one or more areas in the reservoir to a depth of 6 feet or greater would improve the ability of the reservoir to support fish.



Alternatives/Consequences if not Funded:

Funding could be delayed until the following year.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	50,000	200,000	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs		Total Project Cost
0	0	0	0		250,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Quail Creek Channel/FRICO Improvements at Broadlands**

Project #: 16K0050

Project Description:

Total Project Cost: \$509,843

This project would pipe a section of FRICO's Westlake lateral to limit the amount of flows entering the irrigation lateral.

Background and Justification:

Currently, all Quail Creek flows are routed into the Westlake lateral, which overtops in major storms. The overtopping damages private property in the Sunnyslope Estates subdivision. Residents have contacted the City Council and City and County Manager on several occasions. Per FRICO criteria, additional items were added to construction that were not initially considered, such as a 10' concrete access path along the project improvements and the rebuilding of additional diversion structures. These items, additional surveys, and inflation since the original project request have resulted in cost increases.

Problem to be Solved and/or Benefit to Citizens:

Storm water flows in excess of the pipe capacity will spill north into the main Quail Creek floodplain as was originally contemplated. The project also includes modifications to two diversion structures. The project would include a post-construction floodplain hydrologic and hydraulic analysis and modifications to the Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) through FEMA for Quail Creek.



Alternatives/Consequences if not Funded:

Flooding and erosion will continue to damage private property.

Project Association:

None

Operating Budget Impact:

The improved section of the Westlake Lateral, including approximately 200' of pipe, would become Broomfield's to maintain.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
3,843	4,400	501,600	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	509,843



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Rock Creek Basin B Outfall - Erosion Control

Project #: 19J0031

Project Description:

Total Project Cost: \$75,000

There is erosion on a channel adjacent to the Ridgeview Trail. This request is to armor the channel headwall to prevent the erosion from continuing. The channel is near the Lake Link trail connection from Ridgeview to the Outlook neighborhood.

Background and Justification:

Broomfield entered into a permanent trail easement with Boulder County for the Lake Link trail segment that goes from the Ridgeview to the Outlook neighborhoods through the Ruth Roberts Open Space in Boulder County. There is a clause in this easement agreement that addresses the erosion of the open space and addresses Broomfield's responsibility to monitor and fix it when necessary.

Problem to be Solved and/or Benefit to Citizens:

If the erosion in the channel is not addressed, in time the trail could be undermined and collapse. It will also be easier to construct erosion control while there is still space between the trail and the headwall of the channel.

Alternatives/Consequences if not Funded:

If the erosion continues, it could lead to the trail being undermined and collapsing in this location.

Project Association:

None

Operating Budget Impact:

Weed control in the area may increase during the first couple of years prior to native vegetation establishing back in the vicinity of the work. Broomfield is already mows adjacent to the trail in this area.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	75,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	75,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Stormwater

Project Name: Wilcox Subdivision - McKay Lake Lateral Drainage Improvements

Project #: 16J0041

Project Description:

Total Project Cost: \$3,669,079

This is a request for drainage improvements to the McKay Lake Lateral and Northwest Tributary in the Wilcox annexation area and along West 144th Avenue.

Background and Justification:

The scope of the project includes construction of an open channel along the 149th Avenue alignment between Community Ditch and the McKay Lateral, an open channel along the west side of Zuni Street from the McKay Lateral and West 144th Avenue, and an open channel along West 144th Avenue from the west side of Clay Street to the McKay Lateral east of Zuni. The project includes roadway culverts under Clay Street and Zuni Street. Drainage easements and/or right-of-way will be required as well as coordination, and possibly participation, from the City of Westminster.

Problem to be Solved and/or Benefit to Citizens:

Drainage from the Wilcox annexation area is poorly defined and problematic. In the McKay Lake Basin (northern part of the Wilcox area), the residential area drains to Community Ditch, causing problems with the Farmers Reservoir and Irrigation Company (FRICO) and does not meet Broomfield specifications since stormwater may not discharge to irrigation ditches. FRICO has asked that Broomfield make improvements to convey water to the McKay Lateral ditch as called for in the McKay Lake Outfall Systems plan developed by Broomfield, Westminster, and the Urban Drainage and Flood Control District. The improvements would help with flooding along the north side of West 144th Avenue.



Alternatives/Consequences if not Funded:

Drainage conditions will remain poor in the Wilcox annexation area and along West 144th Avenue.

Project Association:

This project replaces two drainage improvement projects shown in the Long Range Plan - 152nd Avenue at Wilcox Storm Drainage Culvert, and Zuni Street at Wilcox Estates, storm drainage culvert.

Operating Budget Impact:

The project would not significantly affect operating costs. There would be more channel to maintain. Streets currently maintains the undefined shoulders.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
236,885	330,568	669,432	0	500,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
1,932,194	0	0	0	3,669,079



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: UV Disinfection System Replacement

Project #: 20P0050

Project Description:

Total Project Cost: \$689,500

Replace the existing Wastewater Reclamation Facility (WWRF) ultraviolet (UV) disinfection system including the control system and replacement of the electrical equipment for the UV disinfection system.

Background and Justification:

The WWRF is required by federal and state laws, regulations and rules to provide disinfection treatment of the treated wastewater prior to releasing the treated wastewater to Big Dry Creek, Great Western Reservoir or reusing reclaimed water in the City and County of Broomfield non-potable reuse program. The system has worked well, however per the manufacturer, the control system is no longer supported by the manufacturer. One of the major improvements has been to move the electronics into a separate enclosure to provide overheating failures. This improvement will require the electrical equipment to be replaced. The UV hardware equipment is designed for a 20-year life. Due to manufacturer specific layout, sizing and footprint, replacement options are limited.

Problem to be Solved and/or Benefit to Citizens:

The benefits of the Generation 2 Aquaray 40 HO modules include:
 Fits in existing UV channels allowing for reusing the existing footprint.
 Electronics (ballasts, DCA cards) are located remotely in a separate air conditioned NEMA 4X enclosure, away from the UV modules reducing failures and improving worker safety. New DCA card with Ethernet Communication to PLC which will integrate with the new PLC/SCADA project currently underway. 360 degree UV intensity sensor inside a quartz sleeve for improved disinfection. Current overload protection on wiper motor. Additional alarm and monitoring features for improved overall operations.



Alternatives/Consequences if not Funded:

Failure to provide disinfection is a permit violation. In addition, inadequate disinfection may result in human health issues as well as deterioration of aquatic life.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	689,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	689,500



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Digester #2 Piping Repair and Improvements**

Project #: 19P0029

Project Description:

Total Project Cost: \$360,500

Digester #2 is out of service due to the failure of the digester overflow piping, fitting and overflow box.

Background and Justification:

The digester was originally built in 1954. The overflow piping was updated in 1986. The failures are a direct result of hydrogen sulfide corrosion and age. The Wastewater Reclamation Facility (WWRF) utilizes anaerobic digestion technology as part of the wastewater treatment process. Currently, the WWRF uses three anaerobic digesters for meeting the wastewater solids treatment demands. Since the failure of digester #2, and overloading of digester #3, the overall digestion capacity has been reduced by 51%. This operational change is increasing solids dewatering and processing costs by an estimate of \$20,600 per year. In addition, it prevents the WWRF from producing enough renewable energy to use it as a fuel source.

Problem to be Solved and/or Benefit to Citizens:

In addition to the cost savings stated above, the digestion process converts the organic material into a renewable energy source (i.e. methane) which may be used as a substitute to natural gas for providing the fuel for heating the digesters. Approximately 40% to 60% of the organic solids are converted to gas.



Alternatives/Consequences if not Funded:

Continue to operate under the current reduction of digester capacity resulting in an increased cost of processing/dewatering and composting. In addition, the pH of digester #3 is averaging approximately 5.0. The lower pH has increased the hydrogen sulfide gas content which causes premature equipment failures due to increased corrosion.

Project Association:

None

Operating Budget Impact:

No additional maintenance/operating expenses for on-going operations.

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	360,500	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	360,500



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Aeration Blower and Air Distribution Enhancement** Project #: Q0010

Project Description:

Total Project Cost: \$600,000

Aeration blower and air distribution enhancement for the south and middle aeration treatment trains.

Background and Justification:

The Broomfield Wastewater Treatment Facility uses a treatment technology known as integrated fixed film activated sludge (IFAS) to accomplish the removal of organic pollutants (BOD) as well as conversion of ammonia to nitrate.

In order for the IFAS process to work, dissolved oxygen (DO) must be added to the aeration basin. The purpose of DO is to provide the aerobic microorganisms with the necessary oxygen to consume the pollutants. One of the key permit requirements is to remove nitrogen from the wastewater. This requires 4.3 lbs of DO per 1 lb of ammonia nitrogen removed compared to BOD removal of 1 lb of oxygen per 1 lb of BOD. Wastewater aeration is a vital part of every biological treatment system.

Problem to be Solved and/or Benefit to Citizens:

This project is designed to provide basin control by separating both the air intakes and air header supplying the air to the 2 different treatment trains. The modification is needed to use the blowers in tandem.

Alternatives/Consequences if not Funded:

Continue batching and repairing the existing roofing systems.

Project Association:

This project could be combined with the centrate equalization project.

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	600,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	600,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Capacity Re-Rating**

Project #: 19N0037

Project Description:

Total Project Cost: \$180,000

Complete a Capacity Assessment and submit the required documentation to the Colorado Department of Public Health and Environment Water Quality Control Division.

Background and Justification:

The Wastewater Treatment Facility has a current hydraulic capacity of 12 million gallons per day and an organic load capacity of 23,018 lbs. The State of Colorado sets forth laws and regulations requiring domestic wastewater treatment facilities to initiate engineering and financial planning for expansion whenever throughput reaches eight (80) percent of the treatment capacity. In 2017, the Wastewater Treatment Facility was at 79% of organic loading capacity for our annual average. The re-rating of a Wastewater Treatment Facility is a common practice since Wastewater treatment plants are often designed by employing conservative empirical design methods and it may be justified to re-rate a plant's capacity based on actual performance data.

Problem to be Solved and/or Benefit to Citizens:

The objectives of the Wastewater Treatment Facility Capacity Assessment Report will include both organic and hydraulic evaluation to ensure compliance with state laws.

Alternatives/Consequences if not Funded:

Pursuant to Colorado Law, C.R.S. 25-8-501-(5(d),(e), the Wastewater Treatment Facility shall Initiate engineering and financial planning for expansion of the domestic wastewater treatment works whenever throughput and treatment reaches eighty percent of d



Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	180,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	180,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Centrate Storage and Equalization** Project #: 21Q0011

Project Description:

Total Project Cost: \$3,630,000

The purpose of this project is to expand solids dewatering centrate storage and equalize the return of ammonia-laden sidestream flow back to the liquid treatment process in order to optimize nutrient treatment.

Background and Justification:

The wastewater treatment facility is required to remove the nutrients (nitrogen and phosphorus) from the incoming wastewater in order to meet the new and more restrictive wastewater discharge permit issued in January 2020. The new permit requires the wastewater treatment facility to treat and remove Nitrogen, ammonia, Total inorganic nitrogen and Total phosphorus. The existing centrate holding tank was designed in 2000 prior to the development of the new and more restrictive wastewater treatment standards. The current centrate holding tank has a capacity of approximate 50,000 gallons and is too small to provide the degree of equalization needed to optimize nitrification and denitrification in the liquid stream treatment processes.

Problem to be Solved and/or Benefit to Citizens:

The East Overflow Basin will be renovated so it would serve as an expanded centrate basin with a capacity of approximately 700,000 gallons. The tank would be plumbed so it retains the ability to provide overflow storage for primary effluent and digested sludge.



Alternatives/Consequences if not Funded:

Based on the data provided, sidestream treatment is not an option for Broomfield.

Project Association:

An option is to combine with the aeration blower and air distribution enhancement.

Operating Budget Impact:

None

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	3,630,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	3,630,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Centrifuge Backdrive Tonstrols Upgrade** Project #: 18M0034

Project Description:

Total Project Cost: \$170,001

The Wastewater Treatment Facility needs to upgrade the centrifuge backdrive controls for both biosolids dewatering centrifuges.

Background and Justification:

The existing units were installed in 2003 and have a projected lifespan of 20 years. The manufacturer discontinued using backdrive controls currently installed on our units in 2005 and now uses variable frequency drive (VFD) controls. The newer controls provide enhanced control, improved motor efficiency, quicker equipment response time, and improved overall operations. Centrifuges have long acceleration times. Our current units use a heavy-duty, constant-torque drive known as an "Eddy Brake". It has acceleration times of 3 to 4 minutes, drawing a tremendous amount of electrical current. This project would replace them with VFDs. VFDs allow the user to slowly bring the centrifuge up to speed, greatly reducing the mechanical stress on the motor, bearings, and bowl and providing better process and speed control.

This request includes replacement of the starter panels, installation of new back drive VFD units, engineering, and startup service.

Problem to be Solved and/or Benefit to Citizens:

Dewatering offers the following advantages: 1) Reduces volume, saving money on storage and transportation. 2) Eliminates free liquids if solids were to be landfilled. 3) Reduces fuel requirements if the residuals are to be incinerated or heat dried. 4) Produces a material, which, when blended with a bulking agent, will have sufficient void space and volatile solids for composting. 5) Eliminates ponding and runoff, which can be a problem when liquid is land applied on the surface rather than injected. 6) Optimizes air drying and many stabilization processes.



Alternatives/Consequences if not Funded:

Continue using the existing controls until parts are no longer available.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,818	500	167,683	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	170,001



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Flow Equalization Basin Improvements**

Project #: P0042

Project Description:

Total Project Cost: \$1,667,400

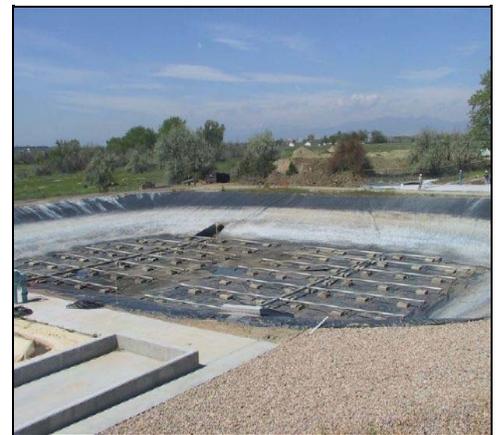
Demolition and disposal of the existing liner and mixing system; install a new mixing system designed to reduce air emissions/odors, and install concrete floor to improve durability, life span and to improve dewatering and solids removal.

Background and Justification:

The Flow Equalization (EQ) system is designed to regulate high flows throughout the day. This is accomplished by diverting the excessive flow to the equalization basin. Once the influent flows drop below a preset level, the excess wastewater stored in the flow equalization basin is returned back to the treatment processes. The equalization of the flow throughout the day makes it easier to meet the regulatory standards. During 2018, the WWRF took the EQ basin offline due to multiple odor complaints.

Problem to be Solved and/or Benefit to Citizens:

The equalization of the flow throughout the day makes it easier to meet the regulatory standards on a consistent basis, supports operations of the non-potable reuse water system during low flows when most irrigation systems are operating, and refilling of Great Western Reservoir as needed. The improvements will reduce odor emission rate and staff will no longer have to clean the basin by hand.



Alternatives/Consequences if not Funded:

Violation of State of Colorado Water Quality regulations.

Project Association:

Nutrient improvement project.

Operating Budget Impact:

None

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	0	1,667,400	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,667,400	



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Improvements -New
Clean Water Standards - Nutrients**

Project #: 14F0042

Project Description:

Total Project Cost: \$87,392,034

The Wastewater Treatment Facility is issued a discharge permit from the State of Colorado Department of Public Health and Environment (CDPHE) to discharge treated wastewater to Big Dry Creek.

Background and Justification:

The discharge permit places limitations on certain pollutants. Two major regulatory initiatives that will affect the 2015 renewal are CDPHE’s existing temperature rule and nutrient quality rule. In June 2012, the Water Quality Control Commission approved the nutrient quality rule requiring enhanced treatment to totally remove phosphorus and inorganic nitrogen.

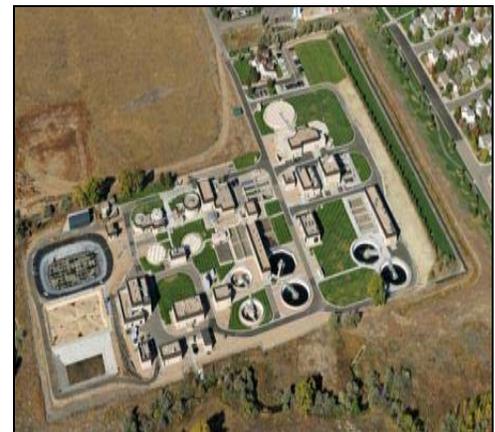
Problem to be Solved and/or Benefit to Citizens:

The nutrient rule will be included in our next permit renewal. In order to meet the more restrictive limitations, the wastewater treatment facility will need to expand our treatment technology from a three-stage biological nutrient removal (BNR) to a five-stage BNR process.

Alternatives/Consequences if not Funded:

Currently, no operational changes will meet the proposed nutrient limitations without adding treatment processes.

- Purchase additional water rights with 2nd use priority and increase reuse storage capacity so that we do not have to discharge to Big Dry Creek, or
- Connect the effluent discharge to Denver Metro Wastewater and discharge all wastewater in excess of reuse demands to Metro Wastewater and pay connection fees and monthly service costs.



Project Association:

None

Operating Budget Impact:

Once design is complete, operating impacts will be determined.

Funding Source: Utility Service Charge/License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
4,490,385	64,275	6,817,374	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	76,020,000	87,392,034



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Improvements - New Clean Water STDS - Temperature** Project #: 17Z0205

Project Description:

Total Project Cost: \$5,215,000

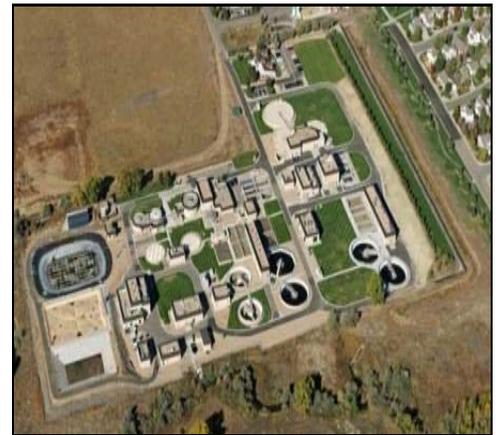
The Wastewater Treatment Facility is issued a discharge permit from the State of Colorado Department of Public Health and Environment (CDPHE) to discharge treated wastewater to Big Dry Creek.

Background and Justification:

The discharge permit consists of limitations on specific pollutants. This project includes engineering design and construction of additional treatment processes to meet the temperature regulation and digester capacity.

Problem to be Solved and/or Benefit to Citizens:

Two major regulatory initiatives that will affect the 2015 renewal are CDPHE's existing temperature rule and nutrient quality rule. Broomfield's permit, issued in 2010, requires the City to begin monitoring for effluent temperature. The initial results indicate the wastewater facility discharge will not be able to comply with the daily maximum or weekly maximum average temperature requirements between the months of November and February.



Alternatives/Consequences if not Funded:

Between 2011 and 2015, Broomfield intends to explore options to (1) reduce effluent discharge temperature; and (2) opt out of these requirements through such regulatory compliance pathways as securing a waiver, variance, or site-specific temperature standards.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge/License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	1,040,000	5,215,000	5,215,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Odor Control Monitoring and Improvements**

Project #: 11E0005

Project Description:

Total Project Cost: \$4,250,000

Modify inlet air ductwork within the Dewatering Building so the new air ionization units are easily accessible for cleaning and other routine maintenance.

Background and Justification:

Because of the large amount of air used to mix and aerate the stored primary effluent, a new biofilter will be required to treat the foul air from this basin.

Problem to be Solved and/or Benefit to Citizens:

The City has received occasional odor complaints from residents in the community near the facility. The City desires to minimize odor emissions from the Wastewater Treatment Facility.

Alternatives/Consequences if not Funded:

Consider fiberglass and flexible covers and select best fit based on cost, durability, and in-basin equipment access. Pumped recirculation mixing for the North Sludge Storage Tank will free up biofilter capacity that can be used for treating exhaust air from the anaerobic-anoxic basin covers.



Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	4,250,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	4,250,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Process Covers and Equipment Replacements**

Project #: 11E0003

Project Description:

Total Project Cost: \$3,401,265

Install two, 10 horse-power recirculation pumps, each with its own variable frequency drive, in the Digester Control Building.

Background and Justification:

This project will modify the ductwork within the Screenings Building so that new air ionization units are easily accessible for cleaning and routine maintenance. The circular primary clarifier and two sludge storage tanks will be taken off line to facilitate replacement of the steel covers. If the two existing octagonal primary clarifiers are re-tasked for other purposes (i.e. gravity thickening/fermenting or odor control biofilter), the existing covers will be removed, but not replaced.

Problem to be Solved and/or Benefit to Citizens:

The City receives occasional odor complaints from residents in the community near the facility. The City desires to minimize odor emissions from the Wastewater Treatment Facility.

Alternatives/Consequences if not Funded:

Operate the E-noses and air dispersion modeling program for at least one year before deciding on which Phase 2 improvements to make.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,063,421	1,214,915	1,122,929	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	3,401,265



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Roof Replacement**

Project #: 21Q0012

Project Description:

Total Project Cost: \$296,321

Roof Replacement for the buildings located at the Wastewater Reclamation Facility.

Background and Justification:

The Wastewater Division contracted with Bodis Group, Inc. of Denver Colorado who specializes in providing a visual examination and evaluation of existing conditions of roof covering and components. Their work consisted of a visual inspection of the roof. Inspection of roof covering, flashing components and sheet metal detailing.

Problem to be Solved and/or Benefit to Citizens:

Each of the buildings house high voltage motor control centers and equipment which are controlled by programmable logic controllers (PLC) to operate the wastewater treatment processes. The failure of the roofing systems would result in equipment failures leading to possible overflow and/or under treated wastewater discharges negatively impacting water quality, the City's ability to reuse treated effluent and possible discharge permit violations.



Alternatives/Consequences if not Funded:

Alternative to complete replacement is to continue batching and repairing the existing roofing systems.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	296,321	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	296,321



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Solids Dewatering**

Project #: 13Z0203

Project Description:

Total Project Cost: \$2,500,000

The Wastewater Treatment Facility needs to increase solids dewatering capacity by adding a third centrifugal solids dewatering unit.

Background and Justification:

Dewatering offers the following advantages: 1) Reduces volume, saving money on storage and transportation. 2) Eliminates free liquids if solids were to be landfilled. 3) Reduces fuel requirements if the residuals are to be incinerated or heat dried. 4) Produces a material, which, when blended with a bulking agent, will have sufficient void space and volatile solids for composting. 5) Eliminates ponding and runoff, which can be a problem when liquid is land applied on the surface rather than injected. 6) Optimizes air drying and many stabilization processes.

Problem to be Solved and/or Benefit to Citizens:

During the past seven years, there have been three failures for a 43% chance of failure annually.

Alternatives/Consequences if not Funded:

Maintain existing capacity - with no backup capacity for equipment failures; if we lose one of the centrifuges we will need to operate 24/7 to process solids until equipment is returned to service, approximately 12 weeks.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
2,500,000	0	0	0	2,500,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Wireless Technology** Project #: 21Q0013

Project Description:

Total Project Cost: \$93,600

Install facility wide wireless communication technology throughout the Wastewater Treatment Facility.

Background and Justification:

The Wastewater Treatment Facility consists of 29 buildings on 13+ acres of land. A majority of the treatment facility has been constructed to include conduit for ethernet communications between treatment buildings and processes, however, a majority of the conduit is full requiring installation of new conduit to expand communications.

In 2019-2020, the Wastewater Treatment Facility, Water Treatment Facility and the Utilities Division upgraded our supervisory control and data acquisition (SCADA) system and the programmable logic controller (PLC), which are used to monitor and control facilities and treatment processes. The importance of SCADA systems is automation and gathering of real time data. It allows each of the Divisions to optimize responses to various conditions and execute those responses automatically. This automation improves staff efficiency, helps to contain staffing levels and reduces operations costs while reducing human error.

Problem to be Solved and/or Benefit to Citizens:

The new SCADA software (Ignition) allows unlimited tags, clients, and connections making it expandible for wireless integration. Wireless technology reduces capital expenditures and operating costs through less installation time and has greater flexibility.

Alternatives/Consequences if not Funded:

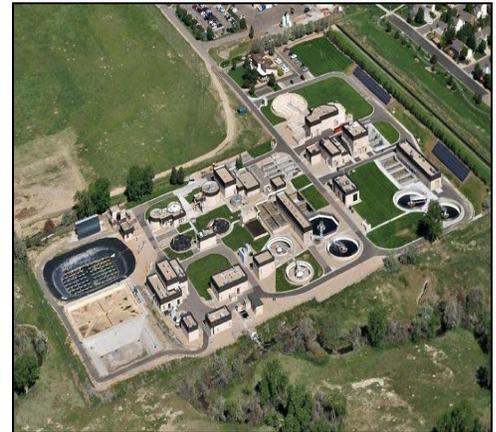
Staff will continue to manually record information on paper then manually enter data into the database when the tasks are completed.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	93,600	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	93,600



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **257 Property Lift Station and Forced Main - East of I-25** Project #: 07Z0050

Project Description:

Total Project Cost: \$6,000,000

The North Broomfield Lift Station is the ultimate lift station to serve the northern area of Broomfield. The lift station will be built in phases.

Background and Justification:

The initial phase of this project will pump wastewater flows to the existing Anthem Lift Station until that facility reaches 70% capacity. The lift station modifications include replacement of the pumps for requirements to utilize the North Broomfield force main to the Waste Water Treatment Facility.

Problem to be Solved and/or Benefit to Citizens:

Modification to the North Broomfield Lift Station will be required for pumping requirements for the additional lift (head) and length of the North Broomfield Force main.

Alternatives/Consequences if not Funded:

Alternatives will be reviewed during the scoping and design phases of the project.

Project Association:

None

Operating Budget Impact:

The new pumping systems will increase maintenance cost due to the size of the systems.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	6,000,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	6,000,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: Baseline (North Park) - Gravity Sewer Lines

Project #: 14H0014

Project Description:

Total Project Cost: \$1,909,667

Design and construct all gravity sewer lines that are 18 inches and greater in size within the North Park development area. In addition, construct two gravity lines that Broomfield is obligated to supply.

Background and Justification:

Within the development agreement for North Park, Broomfield is obliged to construct all gravity sewer lines greater than 18 inches in diameter as well as two lift stations and associated force mains within the North Park development. Preliminary design planning by an engineering firm retained by Broomfield indicates it may be feasible to construct gravity sewer lines in place of the lift stations and force mains. This project would include design and construction document development and construction of the gravity lines described above. Construction may be phased into two or three sections as development progresses.

Problem to be Solved and/or Benefit to Citizens:

If the sewer lines are not constructed, we will be in violation of the development agreement.

Alternatives/Consequences if not Funded:

Will not be able to provide sewer service to the North Park development area.

Project Association:

None

Operating Budget Impact:

This project will increase operating costs due to the maintenance on the additional sewer lines.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	1,909,667	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,909,667



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Baseline (North Park) - Sac Creek Basin Lift Station**

Project #: 16J0042

Project Description:

Total Project Cost: \$3,000,000

This project is for the design and construction the Sac Creek Lift Station and force main as shown on the North Park Utility Plan, or if feasible, design and construction of gravity mains to serve the sewer basin.

Background and Justification:

Per the development agreement for North Park, Broomfield is obligated to construct all gravity sewer lines greater than 18 inches in diameter as well as two lift stations and associated force mains within the North Park development. Preliminary design planning, completed by an engineering firm retained by Broomfield, indicates it may be feasible to construct gravity sewer lines in place of the lift stations and force mains. Broomfield would be responsible for the cost of the gravity lines in the Sac Creek basin regardless of diameter. This project would include design and construction document development and construction of the lift station and force main, or gravity lines described above. Construction may be phased into 2 or 3 sections as development progresses.

Problem to be Solved and/or Benefit to Citizens:

This project will provide sewer service to the South Preble Creek basin within North Park.

Alternatives/Consequences if not Funded:

If not funded, Broomfield will not be able to provide sewer service to a portion of the North Park development area.

Project Association:

North Park Gravity Sewer Lines, South Preble Creek Lift Station.

Operating Budget Impact:

Once completed, operating costs will increase to support the new lift station or gravity lines.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	3,000,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	3,000,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Baseline (North Park) - South Preble Creek Lift Station** Project #: 15G0009

Project Description:

Total Project Cost: \$3,000,000

Design and construct the South Preble Creek Lift Station and force main as shown on the North Park Utility Plan or design and construct gravity mains to serve the sewer basin if feasible.

Background and Justification:

Per the development agreement for North Park, Broomfield is obligated to construct all gravity sewer lines greater than 18 inches in diameter as well as two lift stations and associated force mains within the North Park development. Preliminary design planning by an engineering firm retained by Broomfield indicates it may be feasible to construct gravity sewer lines in place of the lift stations and force mains. Broomfield would be responsible for the cost of the gravity lines in the South Preble Creek basin regardless of diameter.

Problem to be Solved and/or Benefit to Citizens:

This project will provide sewer service to the South Preble Creek basin within North Park.

Alternatives/Consequences if not Funded:

Will not be able to provide sewer service to a portion of the North Park development area.

Project Association:

Construction could be coordinated with the North Park Gravity Sewer Lines and/or Sac Creek Lift Station

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	3,000,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	3,000,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: Baseline (North Park)/Prospect Ridge Academy - Lift Station Removal

Project #: 20P0022

Project Description:

Total Project Cost: \$70,500

The Baseline (North Park)/Prospect Ridge Academy lift station must be decommissioned according to state regulations.

Background and Justification:

The existing temporary Prospect Ridge Academy/North Park Lift Station (PRA/NP LS) was constructed to service the area west of Sheridan Boulevard and north of Preble Creek Parkway is forecasted to no longer be needed by 2020. The PRA/NP was constructed to service the area on a temporary basis until the gravity infrastructure could be constructed. Based on development and submission of plans by the developer to Community Development, the station is expected to no longer be needed in the near future.

Problem to be Solved and/or Benefit to Citizens:

The PRA/NP LS is owned and operated by Broomfield and must be decommissioned according to requirements by the State.

Alternatives/Consequences if not Funded:

Not decommissioning and removing the station will hamper the development in the area.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	70,500	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	70,500



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **County Road 8 (NE Broomfield) Lift Station and Force Mains** Project #: Z0207

Project Description:

Total Project Cost: \$5,500,000

This project is for the design and construction of the Northeast Broomfield Lift Station and force mains as shown on the North Park Utility Plan to serve the northeast area of Broomfield.

Background and Justification:

This project would include design, construction document development, and construction of the lift station and force main(s) to provide sanitary sewer service to the most northeastern portion of Broomfield (County Road 8). Currently, this area has no sanitary service.

Problem to be Solved and/or Benefit to Citizens:

Sewer service will be necessary for this area to develop. There are no development agreements in place for northeast Broomfield.

Alternatives/Consequences if not Funded:

Development in the area will be limited to development that septic tanks can support.

Project Association:

North Area Lift Station, North Area Force Mains, 257 Lift Station.

Operating Budget Impact:

Additional maintenance will be required for the new lift station.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	5,500,000	0	5,500,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Interlocken Interceptor Capacity Study**

Project #: 19N0025

Project Description:

Total Project Cost: \$150,000

Design study - This requests updates Interlocken Interceptor Capacity Study to broaden the scope to include more of southwest Broomfield. The original project focused on the Interlocken Lift Station and basin area.

Background and Justification:

This would expand the study area to the Flatiron Crossing, Midcities, and Flatiron Marketplace areas, also known as the “Rock Creek Basin”; and the area that drains to the Great Western Park lift station. The scope would also include flow monitoring in vulnerable collection mains and project capacity issues and needs based on land use. Broomfield currently does not have a wastewater model to review the capacities of the existing sewer lines. Without a review of the capacities and future plan for new flows, future development could be hampered. The Interlocken Sewer Lift Station along with the 5,000 feet of ductile iron force main was built in 1983. The station currently pumps 230,000 gallons a day and serves the greater part of Interlocken, Hunter Douglas Campus, and the commercial buildings north of the Rocky Mountain Metropolitan Airport and south of US 128.

Problem to be Solved and/or Benefit to Citizens:

The study would include determining the feasibility, cost for construction, pay back time (proforma), schedule and modifications that would be needed at the Rock Creek Lift Station or to proceed with a request for a station and force main rehabilitation project.

Alternatives/Consequences if not Funded:

Maintain the current wastewater system, lift stations and force mains. Interlocken Lift Station and main will require maintenance and rehabilitation.

Project Association:

Rock Creek Lift Station Oxygenation and Station Upgrades.

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	150,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Midcities Sanitary Sewer**

Project #: 21Q0034

Project Description:

Total Project Cost: \$1,000,000

The project will increase the sanitary sewer capacity along Interlocken Boulevard, Interlocken Loop, and Flatiron Boulevard in the Midcities Subdivision to prevent sewer flow back ups and allow for future development.

Background and Justification:

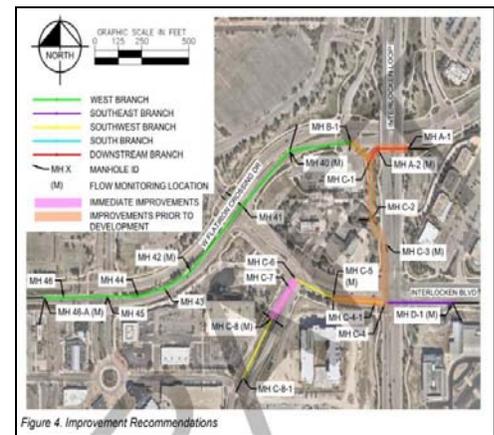
Broomfield has seen recent development in the Midcities area and identified a study area of the sanitary collection system that need upgrades in the near future to accommodate the continued development anticipated. Currently the sanitary sewer system is undersized because the original land use plan for Midcities was predominantly commercial and retail.

Problem to be Solved and/or Benefit to Citizens:

With the addition of higher density multifamily apartments and several hotels, the sanitary sewer system has reached, or is near to reaching its maximum capacity. If the capacity is not increased Broomfield may need to issue a moratorium on new construction in specific areas in Midcities.

Alternatives/Consequences if not Funded:

During the design process, staff will work with the design team to determine the best construction solution. It could be pipe replacement, building a parallel system, or in-situ pipe bursting. For these reasons a budget cost estimate was not developed. The request is for \$1M as a conservative estimate for all possibilities.



Project Association:

None

Operating Budget Impact:

No additional maintenance or operating expenses are expected.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	1,000,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,000,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

**Project Name: North Area - Construct Lift Station and Sewer Lines
(Subbasin 2A & 2B)**

Project #: 08B0057

Project Description:

Total Project Cost: \$12,583,247

The project designed and constructed the North Area Lift Station to provide sanitary sewer service to the future development north of the Northwest Parkway and east of Sheridan Parkway. This project was completed in early 2014.

Background and Justification:

Significant urban development, including that by the University of Colorado Health Systems in North Park, is anticipated in the north area sewer basin. In order to provide sewer service for the anticipated development, additional sanitary sewer infrastructure is required.

Problem to be Solved and/or Benefit to Citizens:

The area of Broomfield north of West 160th Avenue, excluding the Anthem development, has limited wastewater service. Currently, Broomfield owns and operates the Children’s Hospital lift station (TCHLS) with a permitted capacity of 0.1 MGD in the Palisade Park subdivision. This lift station was modified to also serve the National Archives and Records Administration facility and is now very near capacity.



Alternatives/Consequences if not Funded:

No alternatives were reviewed.

Project Association:

None

Operating Budget Impact:

This project will increase operating and maintenance costs.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
10,083,247	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
2,500,000	0	0	0	12,583,247



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: Northlands Lift Station - Access Road Design

Project #: 19N0016

Project Description:

Total Project Cost: \$82,500

Design of access through the Northlands development to the Northland/North Area lift station.

Background and Justification:

Broomfield has a temporary access agreement with CDOT for use of this roadway. The temporary access will be terminated when CDOT begins work on the planned diverging diamond interchange project at Hwy 7 and Interstate 25.

Problem to be Solved and/or Benefit to Citizens:

An all weather access road that is available 24/7 is required by the State for all lift stations. The Northlands development will not be providing the roadway to the station and it is the responsibility of Broomfield. Development in Northlands is assumed be occurring in the next one to two years. Broomfield will need to design, budget and construct the roadway in conjunction with the future development.



Alternatives/Consequences if not Funded:

Not design the access road.

Project Association:

None

Operating Budget Impact:

This will increase Streets operating budget for road maintenance.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	82,500
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	82,500



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: North Area Force Main (Subbasin 2 to WWTP)

Project #: 13Z0208

Project Description:

Total Project Cost: \$13,804,121

The North Broomfield force main will be routed from the North Broomfield Lift Station to the Wastewater Treatment Facility.

Background and Justification:

The project is needed to provide capacity at the North Broomfield Lift Station to meet future growth in the northern area of Broomfield.

Problem to be Solved and/or Benefit to Citizens:

This project will eliminate wastewater flows to the existing Anthem Lift Station and is required by agreement to be designed prior to the Anthem Lift Station reaching 70% capacity.

Alternatives/Consequences if not Funded:

An alternative would be a sanitary sewer connection to the City of Northglenn Wastewater Treatment Facility.

Project Association:

None

Operating Budget Impact:

Operation and Maintenance costs will increase based on the length of the force main and transmission systems and potential odor control modifications at the WWTP.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,626,323	351,115	11,826,683	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	13,804,121



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Planning & Administration

Project Name: Utilities Network Infrastructure

Project #: 18N0031

Project Description:

Total Project Cost: \$2,748,850

This request supports adding secondary path connections to the primary facilities and bringing fiber to the lift/pump stations.

Background and Justification:

All primary facilities(i.e treatment plants) currently have a single fiber connection with lift/pump stations limited to a single radio connection. As the SCADA equipment is modernized, there will be an increased demand for data throughput as well as redundant connections to minimize the potential for loss of connectivity to these critical assets. Loss of communication can result in service outages which directly impact utility customers. The additional capability will also allow the City and County to continue to make improvements to the SCADA system without limitations to data communications.

Problem to be Solved and/or Benefit to Citizens:

This project will increase the overall reliability and redundancy of the utility systems.

Alternatives/Consequences if not Funded:

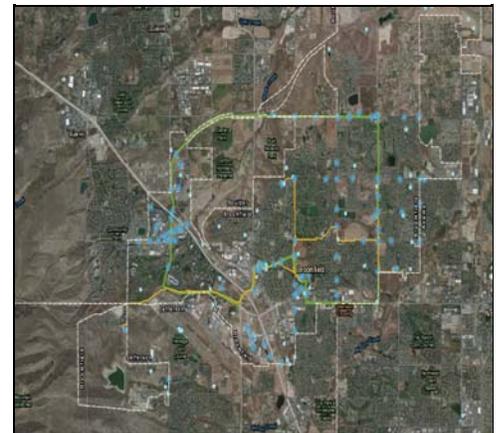
Continue to operate at risk of losing access and control of the SCADA system.

Project Association:

This project should be matched up with other improvement or expansion projects that involve digging or boring.

Operating Budget Impact:

Maintenance and emergency repair services will be required to support the conduit and fiber assets.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	1,748,800	500,000	500,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,748,850



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: Sewer Lift Station Assessment/Study (CDPHE)

Project #: 16K0049

Project Description:

Total Project Cost: \$30,000

This is a request for an engineering assessment/study for the Interlocken, Lac Amora, Sunridge, and Outlook sewer lift stations.

Background and Justification:

The consultant will provide a site evaluation and cost estimate for improvements needed at each site prior to the site application and design approval process with the Colorado Department of Public Health and Environment (CDPHE).

Problem to be Solved and/or Benefit to Citizens:

The City and County of Broomfield Utility Division maintains 15 sewer lift stations. Each site must have a site approval number registered with the CDPHE. During a June 2012 CDPHE wastewater collection system inspection, it was discovered that four of the 15 sewer lift stations operated and maintained by the City and County of Broomfield Utility Division did not have site approval numbers registered with CDPHE.



Alternatives/Consequences if not Funded:

The City and County of Broomfield Utility Division is currently in violation, discovered during a June 2012 CDPHE wastewater collection system inspection. If the Utility Division does not make an attempt to seek site approval for the four lift stations, formal enforcement actions may result.

Project Association:

None

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
10,374	7,971	11,655	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: Sewer Lift Station Compliance

Project #: 21Q0038

Project Description:

Total Project Cost: \$8,800,000

This request is for funds over a four year period to provide the modifications, improvements, and replacements to get four lift stations into compliance with CDPHE.

Background and Justification:

The City and County of Broomfield has four sewer lift stations (Interlocken, LacAmora, Outlook and Sunridge) currently under permit violations with the Colorado Department of Public Health and Environment (CDPHE). The permit violation is for no recorded site approval numbers with the State of Colorado. The City and County of Broomfield currently maintains 14 sewer lift stations. 10 of the sewer lift stations have site approval numbers, all approved lift stations were built after the year 2000. The four that are under violation were built before 1986 and neither CDPHE or Broomfield have any record of the design approval.

Problem to be Solved and/or Benefit to Citizens:

This project is proposed over a four year period in conjunction with Broomfield’s proposed compliance schedule with CDPHE. Benefits to the sewer system is a maintainable, safe, reliable and free flowing sewer system to the residents and businesses of Broomfield.

Alternatives/Consequences if not Funded:

CDPHE can fine the City and County of Broomfield \$10,000 a day for noncompliance.

Project Association:

Interlocken Lift Station or Rock Creek Lift Station.

Operating Budget Impact:

The maintenance budgets may change depending on the final requirements of the modifications.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
0	0	0	4,300,000	1,500,000	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
1,500,000	1,500,000	0	0	8,800,000	



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Super Oxygenation System for Rock Creek Lift Station and Force Main Odor Control** Project #: 14H0007

Project Description:

Total Project Cost: \$2,794,593

Installation and Purchase of ECO2 SuperOxygenation System at the Rock Creek lift station and force main to eliminate Hydrogen Sulfide (H2S) odors and corrosion.

Background and Justification:

The ECO2 SuperOxygenation system would replace the Bioxide currently used at the Rock Creek lift station for odor control. ECO2 SuperOxygenation Technology prevents odor and corrosion from H2S formation in pump stations by providing enough pure oxygen in wastewater to maintain aerobic conditions, preventing the formation of H2S. The ECO2 system can be added to existing facilities with no disruption to service.

Problem to be Solved and/or Benefit to Citizens:

1. Lower long-term cost for odor control and infrastructure protection
2. Odor control along the 3.5 miles of the Rock Creek force main
3. Corrosion control for sewer manholes located along the gravity system of the Rock Creek lift station and force main.
4. 5-year payback on capital costs with an annual operating budget of \$21,100 for electrical. Compare to the \$113,652 currently budgeted annually for the purchase of Bioxide.



Alternatives/Consequences if not Funded:

Continue to budget annually for Bioxide for odor and corrosion control at the Rock Creek lift station.

Project Association:

None

Operating Budget Impact:

Annual cost savings of \$92,552.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding	
128,791	110,435	2,555,367	0	0	
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,794,593	



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **W 123rd Place and Utica St - Sewer Mainline Rehabilitation**

Project #: 20P0027

Project Description:

Total Project Cost: \$493,124

This request is for the rehabilitation of 5,990 feet of 24" sewer mainline from W.123rd Pl. & Utica St West toward Sheridan Blvd and through Hyland Park.

Background and Justification:

The 24" sewer line is the original 1955 concrete pipe that was installed in the collection system and has corroded due to H2S gases. TV inspections on this stretch revealed the extent of the corrosion inside of the pipe, and it was categorized as a high priority for rehabilitation.

Problem to be Solved and/or Benefit to Citizens:

Rehabilitation of this sewer transmission line would eliminate the likelihood of pipe failure, and the resulting backups that would accompany it. Lining the sewer main with a cured in place pipe product would increase the life of the pipe and protect it from further corrosion.

Alternatives/Consequences if not Funded:

The likelihood of pipe failure is extremely high if this request is not funded. Pipe failure would result in service interruption and a major sewer backup.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	493,124	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	493,124



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: West 144th Ave. Sanitary Sewer - Lowell Blvd to Clay St **Project #:** 19N0021

Project Description:

Total Project Cost: \$432,000

Install 3,850 LF of new 8-inch sanitary sewer system in West 144th Avenue between Lowell Boulevard and Clay Street.

Background and Justification:

There is no existing sanitary sewer system in this stretch of West 144th Avenue, and the properties have septic systems.

Problem to be Solved and/or Benefit to Citizens:

The new system will stub public sewer services to the properties within the Transitional Overlay Area District (T.O.A.D.) zoning that front West 144th Avenue. Manholes will be stubbed to the north in Irving Street and Federal Boulevard to allow future expansion of the system to serve additional properties within the 600-foot wide T.O.A.D.

Alternatives/Consequences if not Funded:

If sanitary sewer is not installed in conjunction with the Dillon Road/West 144th Avenue Improvements project, it will be more costly and disruptive to the traveling public to install it in the future.

Project Association:

Dillon Road/West 144th Avenue Improvements project.

Operating Budget Impact:

Regular operation and maintenance will be required by Public Works



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	143,918	288,082	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	432,000



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Byers Lift Station and Force Main**

Project #: 13G0029

Project Description:

Total Project Cost: \$3,000,001

The properties east of Huron Street between West 152nd Avenue and the Northwest Parkway are in a separate sanitary sewer sub-basin that cannot be served by a gravity collection system. The North Area lift stations are unable to serve this area.

Background and Justification:

The developers, including the Westbrook Preserve, the Crossing, Church of God, and the Nordstrom property are initiating the design and construction of a 1.6 million gallon per day (MGD) lift station. Broomfield would be responsible for reimbursement of the lift station and forcemain costs to meet the terms of the annexation agreements for those properties.

Problem to be Solved and/or Benefit to Citizens:

The project would provide for the construction of utilities to the area to support economic development.

Alternatives/Consequences if not Funded:

Do not budget for reimbursement. Amend the Utility Service Plan to include small lift stations at each private parcel.

Project Association:

None

Operating Budget Impact:

Once completed, this project will affect operating costs. Costs will be determined once design is complete.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
17,152	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	2,982,849	2,982,849	3,000,001



City and County of Broomfield 2021 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Willow Run Wet Well Rehab**

Project #: 20P0035

Project Description:

Total Project Cost: \$215,000

Removal and replacement of existing sluice gates located in the wet well at Willow Run Lift Station with Hydro Gate Model H2B-24 and rehabilitation of the concrete wet well with spray liner.

Background and Justification:

The Willow Run Lift Station was built in 1997. Lift stations are a corrosive environment because of the H2S gas that they produce. There are two sluice gates on the premises; the gate to the overflow wet well is broken and unable to operate, and the gate to the main wetwell is in poor condition.

The sluice gates are used to isolate the wastewater flows from the main wetwell to the overflow wet well. This is done to allow maintenance or repairs to be performed in the wet well while flows are diverted to the opposite well.

The concrete walls are showing significant deterioration due to H2S gas which could lead to lift station failure.

Problem to be Solved and/or Benefit to Citizens:

A wet well spray liner will not only extend the life of the concrete, it will also protect it from further deterioration.

Alternatives/Consequences if not Funded:

If gates are not replaced, maintenance and repairs cannot be completed and potentially lead to lift station failure. Concrete failure could result in the wet well collapsing. This would result in significant main line back-ups, impacting the entire Willow Run service area.



Project Association:

Yes for the Wetwell lining Piece of this request. The Annual CIP Sewer Rehabilitation project will be in its final year in 2020.

Operating Budget Impact:

None

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	215,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	215,000



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **North Broomfield Expansion (24: fm PS to SH 7)**

Project #: 09C0032

Project Description:

Total Project Cost: \$2,186,982

This project will install a 24-inch reuse line from Siena Reservoir to SH 7, then north into northeast developments, and a connection line along SH 7.

Background and Justification:

This project will install a 24-inch reuse line from Siena Reservoir to SH 7.

Problem to be Solved and/or Benefit to Citizens:

This expansion would serve the development in the northern portion of Broomfield County.

Alternatives/Consequences if not Funded:

Alternatives will be reviewed as part of the Reuse Water Master Plan.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	2,186,982	2,186,982	2,186,982



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: **3.2 MG Reuse Water Tank Construction (Lowell & Sheridan)**

Project #: 09C0031

Project Description:

Total Project Cost: \$4,836,318

This project would design and construct a tank for reuse water. The reuse water would serve the development in the northern portion of Broomfield County.

Background and Justification:

This project would design and construct a tank for reuse water.

Problem to be Solved and/or Benefit to Citizens:

The reuse water would serve the development in the northern portion of Broomfield County.

Alternatives/Consequences if not Funded:

Continue to use irrigation shares for reuse (raw) water despite limited supply.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
2,336,318	0	0	500,000	2,000,000
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	4,836,318



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: **Heit Pit - Pump Station/Inlet Improvements**

Project #: 10C0084

Project Description:

Total Project Cost: \$2,311,908

This project will be the last of three major improvements at Broomfield’s Heit Pit. This phase of the project will provide a connection between Heit Pit and the splitter structure of the outlet facility.

Background and Justification:

Significant components include a discharge apron along the side of the pit to serve as a reservoir inlet, and an outlet tower and pump station to extract water from the reservoir.

Problem to be Solved and/or Benefit to Citizens:

The improvements are necessary to convert Heit Pit into an operational storage facility and support the full potential of the non-potable water system.

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	225,000	2,086,908
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	2,311,908



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: Heit Pit - Well Field

Project #: 10C0085

Project Description:

Total Project Cost: \$1,826,236

This project includes the construction of a well field to pump water from the South Platte River for storage in Heit and Koenig Pits.

Background and Justification:

Heit Pit is not currently an operational storage facility.

Problem to be Solved and/or Benefit to Citizens:

The improvements are necessary to convert Heit Pit into an operational storage facility and support the full potential of the non-potable water system.

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project.

Project Association:

None

Operating Budget Impact:

Annual maintenance costs will be approximately \$20,000 per year.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
169,723	0	506,513	1,150,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,826,236



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Anthem - Connect Reuse Mainlines at Preble Creek and Indian Peaks** Project #: 19N0026

Project Description:

Total Project Cost: \$1,702,020

Connect existing dead end reuse mains on Indian Peaks Parkway (2200') and Preble Creek Parkway (3300').

Background and Justification:

Dead ends in the distribution system create problems consisting of dirty water, one-way feeds, and a starved system. In the past, the Anthem subdivision failed to connect the lines for reasons unknown. Yearly problems with pressures and flows are common.

Problem to be Solved and/or Benefit to Citizens:

Create a looped system by eliminating dead-ends in the reuse distribution system. Looping the reuse system will provide the necessary flow and pressure required for irrigation during high demand periods.

Alternatives/Consequences if not Funded:

Problems on one-way feeds create a total shutdown of that section of the system. Flushing is required to avoid compromising irrigation systems.

Project Association:

None

Operating Budget Impact:

None



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	2,020	1,700,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	1,702,020



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: **Augmentation Station at Slate Ditch**

Project #: 17L0041

Project Description:

Total Project Cost: \$49,000

Installation of a new augmentation station to be located in the vicinity of the Slate Ditch headgate in Weld County which will carry Broomfield’s Lupton Meadows Ditch Company water rights diverted through the Slate Ditch back to Little Dry Creek.

Background and Justification:

The purpose of the augmentation station is to deliver changed ditch shares diverted through a ditch back to a natural water way. This water will then be delivered into Heit Pit for use in Broomfield’s non-potable system, or used to make augmentation releases to the South Platte River.

Problem to be Solved and/or Benefit to Citizens:

The State has since decided that these shares must be delivered through the Slate Ditch, thus rendering them unable to be stored in Heit Pit without using Little Dry Creek as a conveyance channel. There is currently no physical means to divert this water back to Little Dry Creek after the initial diversion through the Slate Ditch headgate.

Alternatives/Consequences if not Funded:

If the project is not funded, Broomfield will be unable to utilize its 115 shares of Lupton Meadows Ditch Company water in its non-potable system. This equates to 116 acre-feet of water annually, which is valued at over \$2 million.



Project Association:

None

Operating Budget Impact:

This project will increase the operating budget for the Water Resources division by approximately \$1,000 a year to cover the cost of remote data transmittal.

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	49,000	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	49,000



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Great Western Reservoir Fencing and Security**

Project #: 21Q0009

Project Description:

Total Project Cost: \$242,000

This is a request for funding to build a continuous fence around Great Western Reservoir.

Background and Justification:

Currently, Great Western Reservoir is partially fenced and secured from the public. The Reuse Treatment Facility, former Water Treatment Plant, and Pump House are secured with heavy duty 6' tall chain link fencing with barbed wire. There are also sections of five strand barbed wire fencing around the reservoir with no trespassing signage, but the fencing is not continuous. Great Western Reservoir is located near 112th Avenue and Simms Street. The water stored in Great Western is: treated wastewater effluent (second use Windy Gap units), Church Ditch water rights (via Dry Creek Valley Ditch), Clear Creek water rights (via Upper Church and McKay Ditches) and natural precipitation. This water is non-potable. It is used for the irrigation of Broomfield parks, open spaces, athletic fields, and streetscapes.

Problem to be Solved and/or Benefit to Citizens:

Prevent trespassing and tampering, enhance citizen safety, and maintain Broomfield's current recreation classification under the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission's Regulation No. 38 regarding stream classifications and water quality standards.

Alternatives/Consequences if not Funded:

More citizens will attempt to access the Great Western Reservoir and it will be given a new Regulation No. 38 Recreation Classification. At that point, Broomfield will need to adapt to the water quality standards associated with the new classification. This will require more sampling, lab work, and potentially changes in wastewater treatment.



Project Association:

None

Operating Budget Impact:

Additional funds should not be required.

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	242,000	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	242,000



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Meadow Island Diversion Structure**

Project #: 16D0035

Project Description:

Total Project Cost: \$422,700

Construct a new water diversion and conveyance facility from Meadow Island ditch to Heit Pit.

Background and Justification:

Broomfield entered into a carriage agreement with Meadow Island #1 Ditch Company in 2009. The agreement allows Broomfield to use excess capacity in the ditch when available to deliver water from the South Platte River to Heit Pit.

Problem to be Solved and/or Benefit to Citizens:

N/A

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project.

Project Association:

None

Operating Budget Impact:

This project will increase operating and maintenance costs by approximately \$12,000 per year.



Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	422,700	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	422,700



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: Pump Station - Construction (Wastewater Treatment Facility)

Project #: 01Z0272

Project Description:

Total Project Cost: \$2,520,953

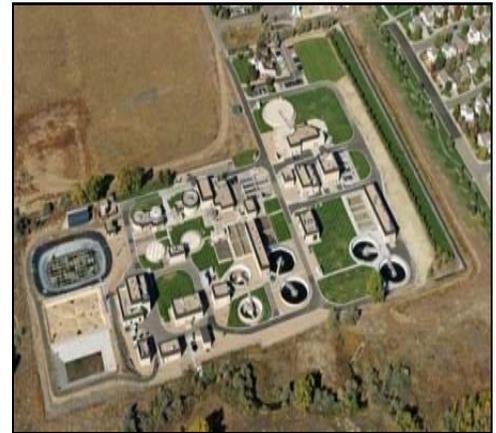
Renovation and expansion of the reclaimed water treatment pumping capacity.

Background and Justification:

In 2001, the City and County of Broomfield Wastewater Reclamation Facility constructed a 6 million gallon per day (MGD) reclaimed water filtration treatment process and pump station as part of the City’s non-potable reclaimed water system. The reclaimed water produced from this facility is used throughout the City for landscape irrigation. The useful life of this system is 25 years.

Problem to be Solved and/or Benefit to Citizens:

This project will replace the existing pumps with the next generation motor and pumps, replace the 2 VFDs and convert the fixed drive to a VFD, upgrade the motor control center and add one additional 2 MGD pump, VFD to include the necessary instrumentation and controls for the pump station. The upgrade and expansion will increase the pumping capacity to 8 million gallons per day. The Non-potable Water Master Plan describes a maximum capacity scenario of 8,583 ac/ft (approximately 8.0 million gallons per day). This project will assist the Wastewater Reclamation Facility’s ability to meet reclaimed water demands.



Alternatives/Consequences if not Funded:

Failure to provide additional pumping capacity would prevent the Wastewater Reclamation Facility from meeting reclaimed water demands.

Project Association:

None

Operating Budget Impact:

The annual ongoing maintenance/operating expenses would include repair and maintenance expenses of an estimated \$4,000 and electrical cost of \$40,600 at an average of 68 hours of run time per week for 40 weeks.

Funding Source: Utility License Fee

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
1,620,953	0	0	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	900,000	0	0	2,520,953



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Walnut Creek Water Measurement Flume at Indiana**

Project #: 16K0037

Project Description:

Total Project Cost: \$141,231

Request is for installation of a new 4-foot Parshall Flume to be located downstream of the Walnut Creek at Indiana Control Structure on the east side of Indiana.

Background and Justification:

This project consists of site surveying, grading, and installation of a 4-foot Parshall flume and recording equipment to be located just downstream of the Walnut Creek at Indiana Control Structure. This structure will measure surface water inflows into Great Western Reservoir from Walnut Creek and both the Upper Church Ditch and the McKay Ditch (the Upper Ditches). The Upper Ditches divert water from Coal Creek when in priority and are decreed for storage in Great Western Reservoir.

Problem to be Solved and/or Benefit to Citizens:

The need for this project comes primarily from the State of Colorado and the increasing pressure to build and maintain adequate measurement devices to track Colorado’s water resources. This includes water supplies delivered to water storage reservoirs, such as Great Western Reservoir. In addition, the need for Broomfield staff to adequately account for diversions into and stored in Great Western Reservoir is crucial. This allows for better tracking of supplies available for the reuse system and allows staff to better utilize Broomfield’s current water resource portfolio.



Alternatives/Consequences if not Funded:

If this project is not funded, Broomfield’s water resources staff will have no way of knowing exactly how much water is being stored in Great Western Reservoir from these sources.

Project Association:

None

Operating Budget Impact:

Minimal increase in operating budget for batteries and charts.

Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
32,404	7,555	101,272	0	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	141,231



City and County of Broomfield 2021 Capital Improvement Projects

Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Water Resources Telemetry and SCADA Upgrade**

Project #: 20P0057

Project Description:

Total Project Cost: \$341,250

Engineering, telemetry/SCADA equipment, software, and equipment installation necessary to have the ability to monitor streamflows and to monitor and operate the raw water pump station remotely.

Background and Justification:

At this time, Broomfield’s water measurement flumes and reservoir levels must be read manually. Data for the water measurement flumes is recorded hourly using a chart recorder which must be switched out manually every week and converted manually into a daily flow. The recorders Broomfield has used in the past have been discontinued and are obsolete. Only four new chart recorders remain in the warehouse for Broomfield’s past vendor, Steven’s Recorders. Steven’s and similar vendors are switching to the production of digital electronic data loggers with either telemetry or radio data transmission capability.

Problem to be Solved and/or Benefit to Citizens:

This project would help modernize and improve Water Resources streamflow monitoring, reservoir monitoring and non-potable water operations.

Alternatives/Consequences if not Funded:

Water Resources staff will continue to monitor and operate these sites and facilities manually.

Project Association:

Supervisory Control and Data Acquisition System Modernization Project

Operating Budget Impact:

Equipment would require occasional inspection and maintenance by Water Resources staff. Annual maintenance is not expected to be more than \$15,000 per year.



Funding Source: Utility Service Charge

Prior Year Costs	2019 Actual	2020 Funding	2021 Funding	2022 Funding
0	0	0	341,250	0
2023 Funding	2024 Funding	2025 Funding	Future Needs	Total Project Cost
0	0	0	0	341,250