

2018 5-YEAR CIP PLAN



CITY AND COUNTY OF

**BROOMFIELD
COLORADO**



**2018 5-YEAR CAPITAL
IMPROVEMENT PROJECT PLAN**

**CITY AND COUNTY OF BROOMFIELD, COLORADO
2018 BUDGET
5-YEAR CAPITAL IMPROVEMENT PLAN
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**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 2005 City and County Comprehensive Plan, The Long Range Financial Plan (LRFP), and cooperation between citizen committees and department staff. The Long Range Plans will be updated during 2018 and 2019 to reflect the 2017 City and County Comprehensive Plan. The focus is on the next five years, but the plan includes details for the next 20 years, plus projects that have been identified that are 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 each year. 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 Capital Improvement Program (CIP) design, development, implementation, and operating and maintenance costs.
- A capital project is defined as a project with a useful life greater than one year 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.

Budget Development Process

The City and County's planning and budget process begins early in the 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 in March to appropriate prior-year projects that are in progress and release any funding no longer needed.

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 of the 12 city categories and added to the Capital Plan. Projects are then compared within each category and prioritized to like-kind projects. 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.

Budget Calendar

Important dates for the development of the budget are listed in the chart below.

January - February	City Council sets Priorities for Coming Year
March	Citizens and Committees Submit Capital Project Ideas to Staff
April	CIP Department Staff evaluates the current year's projects
April	CIP Department Staff evaluates and develops next year's projects
April-May	Budget and CIP Staff review capital requests with Department Staff
June-July	Citizen Suggestions and input are received
August	Draft Budget is submitted to City and County Manager's Office
September	Proposed Budget is presented to Council for review and consent
September-October	Public Hearing on Proposed Budget; Council Adopts Budget Resolution
December	Budget Document Completed

CIP Fund Summaries

The Sales and Use Tax Capital Improvement Fund

This 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 revenue collected is earmarked for capital improvements and other costs related to capital improvements, 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 (enterprise fund items are budgeted within the appropriate enterprise fund).

Sales and Use Tax Capital Improvements Fund						
Sources and Uses of Funds						
	Actual 2016	Original Budget 2017	Revised Estimate 2017	Budget 2018	% Change 17 Original 2018	% Change 17 Revised 2018
Beginning Balance	\$ 39,833,013	\$ 3,764,817	\$ 42,611,609	\$ 5,699,653	51.39%	-86.62%
Revenues	32,593,832	25,903,228	112,135,137	49,363,315	90.57%	-55.98%
Interfund Activity	9,538,474	7,639,682	9,542,884	5,851,998	-23.40%	-38.68%
Total Sources of Funds	\$ 81,965,319	\$ 37,307,727	\$ 164,289,630	\$ 60,914,966	63.28%	-62.92%
Expenditures	\$ 28,490,419	\$ 23,451,173	\$ 130,346,630	\$ 43,298,704	84.63%	-66.78%
Interfund Activity	7,475,062	5,844,654	5,597,154	7,602,566	30.08%	35.83%
Transfer to Reserves	3,388,229	5,746,193	22,646,193	7,877,265	37.09%	-65.22%
Total Uses of Funds	\$ 39,353,710	\$ 35,042,020	\$ 158,589,977	\$ 58,778,535	67.74%	-62.94%
Ending Balance	\$ 42,611,609	\$ 2,265,707	\$ 5,699,653	\$ 2,136,431	-5.71%	-62.52%

The Sales and Use Tax Fund also accumulates funds each year to be used to finance large projects. Funds are allocated for facilities improvements, asset protection, transportation projects, and IT software replacement projects. 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. In 2018, funds are being used for the new Service Center building.

Sales and Use Tax Capital Improvements Reserves						
(Allocation for Asset Protection, Facilities Improvements, Transportation Projects, and Telecom Systems)						
	Actual 2016	Original Budget 2017	Revised Estimate 2017	Budget 2018	% Change 17 Original 2018	% Change 17 Revised 2018
Beginning Balance	\$ 13,364,655	\$ 9,890,136	\$ 12,429,875	\$ 14,380,344	45.40%	15.69%
Additions	3,388,229	5,746,193	5,646,193	7,877,265	37.09%	39.51%
Uses	4,323,009	1,900,000	3,695,724	16,250,000	755.26%	339.70%
Ending Balance	\$ 12,429,875	\$ 13,736,329	\$ 14,380,344	\$ 6,007,609	-56.26%	-58.22%

The Conservation Trust Fund

This 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						
Sources and Uses of Funds						
	Actual 2016	Original Budget 2017	Revised Estimate 2017	Budget 2018	% Change 17 Original 2018	% Change 17 Revised 2018
Beginning Balance	\$ 1,085,217	\$ 744,166	\$ 1,227,304	\$ 565,226	-24.05%	-53.95%
Revenues	701,691	610,900	612,500	612,500	0.26%	NA
Total Sources of Funds	\$ 1,786,908	\$ 1,355,066	\$ 1,839,804	\$ 1,177,726	-13.09%	-35.99%
Expenditures	\$ 559,604	\$ 850,250	\$ 1,274,578	\$ 703,680	-17.24%	-44.79%
Total Uses of Funds	\$ 559,604	\$ 850,250	\$ 1,274,578	\$ 703,680	-17.24%	-44.79%
Ending Balance	\$ 1,227,304	\$ 504,816	\$ 565,226	\$ 474,046	-6.10%	-16.13%

The Open Space and Park Land Fund

This fund was established to account for sales and use tax revenues earmarked for capital improvements related to open space and park land. In 2018, Open Space and Park Land Fund sales and use tax revenues are estimated at \$4,327,920 based on a sales tax rate of 0.25%, 80% of which is designated for open space projects, with the remaining 20% designated for park land and recreation facility projects.

Open Space and Park Land Fund						
Sources and Uses of Funds						
	Actual 2016	Original Budget 2017	Revised Estimate 2017	Budget 2018	% Change 17 Original 2018	% Change 17 Revised 2018
Beginning Balance	\$ 2,111,580	\$ 693,067	\$ 4,038,276	\$ 2,553,970	268.50%	-36.76%
Revenues	4,294,000	4,090,232	5,911,577	4,415,443	7.95%	-25.31%
Interfund Activity	1,871,495	247,500	-	-	-100.00%	NA
Intra-Fund Activity	-	-	-	(45,023)	100.00%	100.00%
Total Sources of Funds	\$ 8,277,075	\$ 5,030,799	\$ 9,949,853	\$ 6,924,390	37.64%	-30.41%
Expenditures	\$ 3,986,112	\$ 1,840,774	\$ 6,053,699	\$ 1,895,528	2.97%	-68.69%
Interfund Activity	249,066	1,333,777	1,338,084	4,094,225	206.96%	205.98%
Transfer to Reserves	3,621	4,321	4,100	4,180	-3.26%	1.95%
Total Uses of Funds	\$ 4,238,799	\$ 3,178,872	\$ 7,395,883	\$ 5,993,933	88.56%	-18.96%
Ending Balance	\$ 4,038,276	\$ 1,851,927	\$ 2,553,970	\$ 930,457	-49.76%	-63.57%

The Services Expansion Fee (SEF) Fund

This fund was established to account for the deposit of SEF revenues collected by the City. As enacted by City Council 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						
Sources and Uses of Funds						
	Actual 2016	Original Budget 2017	Revised Estimate 2017	Budget 2018	% Change 17 Original 2018	% Change 17 Revised 2018
Beginning Balance	\$ 7,630,552	\$ 8,498,530	\$ 8,637,737	\$ 7,492,676	-11.84%	-13.26%
Revenues	1,718,974	2,034,200	2,570,100	1,430,900	-29.66%	-44.33%
Total Sources of Funds	\$ 9,349,526	\$ 10,532,730	\$ 11,207,837	\$ 8,923,576	-15.28%	-20.38%
Expenditures	\$ 38,298	\$ 1,022,000	\$ 3,455,911	\$ 87,000	-91.49%	-97.48%
Interfund Activity	673,491	356,900	259,250	291,050	-18.45%	12.27%
Total Uses of Funds	\$ 711,789	\$ 1,378,900	\$ 3,715,161	\$ 378,050	-72.58%	-89.82%
Ending Balance	\$ 8,637,737	\$ 9,153,830	\$ 7,492,676	\$ 8,545,526	-6.65%	14.05%

The Development Agreement Capital Improvements Fund

The City is involved in several development agreements within the City. All of these agreements are structured so that future revenues are committed to meet development obligations, but only as the revenues are earned. 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 Agreements Fund was established to account for these contractual obligations. A development agreement is an agreement entered into between the City and a developer. Such agreements are 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 chart below.

Outstanding Development Obligations	
	Actual 2016
Total Estimated Obligation	\$ 374,392,885
Cumulative Payments as of 2016	134,623,603
Preliminary Actual Payment in 2017	9,705,599
Estimated Payment in 2018	9,906,405
Total Estimated Obligation as of 12/31/2018	\$ 220,157,278

Expenditures by Category

The CIP expenditures by category are summarized in the following chart. As can be seen, substantial projects have been completed in the last five years.

In 2018, the Facilities budget includes \$16.2 million for the new Service Center.

Information Technology projects for 2017 include funding for HR/Payroll software and Recreation Services software. The 2018 budget includes funding for Asset Maintenance Management software.

In 2017, bonds will be issued to fund a \$40,000,000 reconstruction project for the Broomfield Community Center.

In 2017, bonds will be also issued to fund a \$40,000,000 Transportation improvement project for Dillon Road. Additional Transportation projects include the Lowell Boulevard North widening project with a budget of \$7.0 million and the continuation of the Wadsworth Boulevard and 120th Avenue Connection project with a combined 2017 and 2018 budget of \$8.2 million.

The Utility Funds have budgets to continue to build infrastructure in north Broomfield as development in that area picks up. The projects include water line extensions, purchase of raw water, and sewer lift stations. Beginning in 2016, non-recurring stormwater and drainage projects were consolidated in the Sewer Fund. In addition, funding is continued for the Windy Gap Reservoir in the Water Fund and environmental standard regulations in the Sewer Fund. In 2017, \$3.7 million is budgeted for raw water purchases. To meet future growth in the northern area of Broomfield, \$16.8 million in sewer projects is budgeted in 2018 for this area.

**CITY AND COUNTY OF BROOMFIELD
5 YEAR - CAPITAL PROJECT EXPENDITURES**

	1	2	3	4	5		
Capital Improvement Projects	2014 Actual	2015 Actual	2016 Actual	2017 Revised Budget	2018 Budget	2014 to 2018 Total	% of Total
Building & Facilities	2,280,640	11,602,802	4,502,616	6,512,985	17,550,850	42,449,893	9.66%
Drainage & Storm Water	242,295	158,588	62,214	112,400	165,000	740,497	0.17%
Information Technology	1,214,734	1,742,904	1,950,907	4,431,945	4,128,100	13,468,590	3.06%
Landscaping	686,099	493,256	664,963	530,000	827,975	3,202,293	0.73%
Open Space and Trails	795,203	4,051,784	3,280,579	5,958,615	1,236,228	15,322,409	3.49%
Parks and Recreation	4,911,821	2,187,977	6,567,177	47,621,911	3,185,000	64,473,886	14.67%
Transportation System	5,746,247	11,797,263	9,414,506	68,287,474	12,485,895	107,731,385	24.51%
Vehicle & Other Equipment	2,267,144	2,959,743	2,187,988	2,205,178	1,835,378	11,455,431	2.61%
Development Agreements	7,701,532	7,948,728	8,240,545	7,676,892	7,906,428	39,474,125	8.98%
Planning, Admin & Other	316,842	4,111,317	644,094	1,388,911	585,000	7,046,164	1.60%
Public Art & Cultural - 1% Allocation	50,515	124,895	101,394	336,049	245,579	858,432	0.20%
Water Fund	1,942,202	5,488,968	25,697,525	16,583,402	27,012,326	76,724,423	17.46%
Sewer Fund	2,068,270	2,137,262	2,024,522	17,339,226	30,847,865	54,417,145	12.38%
Water Reclamation Fund	110,953	119,334	242,017	1,424,093	260,540	2,156,937	0.49%
TOTAL	30,334,497	54,924,821	65,581,047	180,409,081	108,272,164	439,521,610	100.00%

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 2016	Revised Budget 2017	Estimate 2018
Building & Facility Projects			
Capital Improvements Fund			
Parking Lot Repair/Replacement - Citywide	\$ -	\$ 391,950	\$ -
Asset Replacement & Refurbishment Fund			
Building Repairs - Citywide	57,424	203,579	116,200
Floor Covering Replacement - Citywide	116,250	264,037	220,000
HVAC Systems Rehabilitation - Citywide	41,355	228,533	100,000
Total Building & Facility Projects	\$ 215,029	\$ 1,088,099	\$ 436,200
Drainage & Storm Water Projects			
Capital Improvements Fund			
Culvert and Small Bridge Inspections - Citywide	\$ -	\$ -	\$ 52,500
Erosion Control Maintenance - Citywide	-	10,500	10,500
FEMA - Letters of Map Revision	17,705	16,900	17,000
Park Drainage Improvements - Citywide	24,948	25,000	25,000
Residential Street Drainage Improvements - Citywide	630	60,000	60,000
Total Drainage & Storm Water Projects	\$ 43,283	\$ 112,400	\$ 165,000
Information Technology Projects			
Asset Replacement & Refurbishment Fund			
IT - Network Hardware Replacement	\$ 78,619	\$ -	\$ -
IT - Network Hardware/Telecom Replacement - Citywide	-	110,000	90,000
IT - PC Equipment Tech Refresh	377,377	375,000	375,000
Total Information Technology Projects	\$ 455,996	\$ 485,000	\$ 465,000
Landscaping Projects			
Open Space & Parks Fund			
Irrigation Replacements - Citywide	\$ 148,602	\$ 200,000	\$ 200,000
Park Landscape Improvements - Citywide	46,717	100,000	100,000
Shrub Replacement - Citywide	39,997	40,000	40,000
Tree Replacement - Citywide	101,624	105,000	105,000
Total Landscaping Projects	\$ 336,940	\$ 445,000	\$ 445,000
Open Space Projects			
Open Space & Parks Fund			
Metzger Open Space - Administration and Maintenance	\$ 30,000	\$ 35,000	\$ 55,000
Mitchem Property - Environmental Insurance Payment	10,125	10,125	10,125
Nordstrom Open Space - Interest Payment to Water Fund	6,007	-	-
Open Space - Due Diligence Services	5,838	35,000	80,000
Open Space and Trails Misc. Improvements - Citywide	11,911	32,500	25,000
Open Space and Trails Signage & Kiosks - Citywide	-	55,892	100,000
Total Open Space Projects	\$ 63,881	\$ 168,517	\$ 270,125
Planning and Administration			
Prairie Dog Management	\$ 1,342	\$ 24,640	\$ -
Total Planning and Administration	\$ 1,342	\$ 24,640	\$ -
Parks & Recreation Facility Projects			
Capital Improvements Fund			
Parks - Water Reclamation Tap Payments	\$ -	\$ 336,780	\$ 785,820
Conservation Trust Fund			
Pool Accessory Equipment Replacement - All City Pools	-	28,000	14,000
Open Space & Parks Fund			
Ballfield Fence Fabric Replacement - Citywide	9,800	-	-
Playground Improvements - Citywide	206,568	437,178	230,000
Total Parks & Recreation Facility Projects	\$ 216,368	\$ 801,958	\$ 1,029,820

Capital Improvement Projects	Actual 2016	Revised Budget 2017	Estimate 2018
Transportation System Projects			
Capital Improvements Fund			
Sidewalk Connections - Citywide	\$ -	\$ 9,037	\$ 100,000
Street Light Installation - Citywide	90	20,000	26,000
Traffic Mitigation - Citywide	28,947	156,870	160,000
Traffic Signal Upgrades - Citywide	97,604	105,000	127,000
Transportation Studies - Citywide	26,454	138,438	100,000
Asset Replacement & Refurbishment Fund			
Bridge Inspections and Repairs - Citywide	46,965	50,000	50,000
City-Owned Concrete Replacement	-	323,000	323,000
Concrete Curb Ramp Replacement - Citywide	49,483	50,000	50,000
Concrete Replacement (Residential 25%/75%) - Citywide	209,953	70,000	70,000
Pavement Management/Street Sealing Program - Citywide	3,282,223	3,800,000	3,800,000
Traffic Signal & Light Pole Replacement - Citywide	16,007	80,000	300,000
Services Expansion Fee Fund			
School Safety Program	21,360	22,000	22,000
Total Transportation System Projects	\$ 3,779,086	\$ 4,824,345	\$ 5,128,000
Vehicles, Other Equipment and Furniture			
Asset Replacement & Refurbishment Fund			
Facilities - Office Furniture and Equipment Replacement	\$ 39,704	\$ 112,296	\$ 60,000
Non-Mobile Equipment Replacement- Citywide	149,130	148,000	256,605
Recreation & Auditorium - Electronic Audio/Video Equipment Replacement	7,509	17,818	30,778
Recreation & Police - Fitness Equipment Replacement	138,438	86,341	156,800
Vehicle and Mobile Equipment Replacement -Citywide	1,440,636	1,840,723	1,331,195
Total Vehicles, Other Equipment and Furniture	\$ 1,775,417	\$ 2,205,178	\$ 1,835,378
Community Development Projects			
Development Agreements Fund			
<i>Anthem</i>			
Infrastructure Public Improvements	\$ 1,261,963	\$ 657,190	\$ 771,246
<i>Arista</i>			
Infrastructure Public Improvements	216,504	319,696	334,780
<i>Broadlands</i>			
Street Improvements	14,902	4,500	16,430
<i>Flatrons Market Place</i>			
Repayment to Metro District	343,792	310,402	293,888
<i>Lambertson Farm</i>			
Reimbursement for Public Infrastructure	1,331,949	1,239,155	1,236,882
<i>Macerich</i>			
Infrastructure Public Improvements	165,841	169,110	170,801
<i>MidCities (Main Street)</i>			
Payment to Metro District	2,194,277	2,090,745	2,440,122
<i>Parkway Circle</i>			
Reimbursement Developer for Improvements	252,809	324,961	334,352
<i>General Development Reimbursements</i>	267,581	243,921	225,207
<i>Revenue Allocation to BURA</i>			
Allocation to BURA	2,190,926	2,317,212	2,082,720
Total Community Development Projects	\$ 8,240,544	\$ 7,676,892	\$ 7,906,428
Water Utility Projects			
Raw Water - Purchases, Transmission, & Reservoirs			
Water Fund - Raw Water Purchase	\$ 19,273,438	\$ 3,771,075	\$ -
Windy Gap - Payment Of Broomfield's Share of Water Lease	275,918	276,270	-
Total Raw Water Projects	\$ 19,549,356	\$ 4,047,345	\$ -
Planning and Administration			
Anthem Infrastructure Reimbursement	\$ 440,324	\$ 299,088	\$ 803,799
Master Plan Updates/ Hydraulic Model	1,266	50,000	25,000
Total Planning and Administration	\$ 441,590	\$ 349,088	\$ 828,799
Total Water Utility Capital Improvements	\$ 19,990,946	\$ 4,396,433	\$ 828,799
Sewer Utility Projects			
Planning and Administration			
Developer Reimbursement - Anthem Infrastructure License Fee Credits	\$ 229,950	\$ 157,680	\$ 620,865
Developer Reimbursement - South Outfall Phase 3	-	181,000	-
Total Planning and Administration	\$ 229,950	\$ 338,680	\$ 620,865
Total Sewer Utility Capital Improvements	\$ 229,950	\$ 338,680	\$ 620,865

Capital Improvement Projects	Actual 2016	Revised Budget 2017	Estimate 2018
Water Reclamation Utility Projects			
Reuse Water Distribution System - Lines & Facilities			
Public Works - Engineering and Legal Services	\$ 80,421	\$ 135,000	\$ 176,000
Total Distribution System Projects	\$ 80,421	\$ 135,000	\$ 260,540
Planning and Administration			
Reuse Water System Master Plan - Citywide	134,598	119,907	-
Total Planning and Administration	\$ 134,598	\$ 119,907	\$ -
Total Water Reclamation Utility Capital Improvements	\$ 215,019	\$ 254,907	\$ 260,540
Planning, Administration & Other Expenditures			
Capital Improvements Fund			
Asset Protection Fund Projects- Citywide	\$ 124,000	\$ 50,000	\$ 50,000
Broomfield Days	112	-	-
Citizen/Council Priority Projects - Citywide	-	25,000	25,000
Enhance Broomfield Program	133,927	167,503	100,000
Jefferson Parkway Participation	200,000	400,000	400,000
Neighborhood Grant Program - Citywide	-	10,000	10,000
Total Planning, Administration & Other Expenditures	\$ 458,039	\$ 652,503	\$ 585,000
Public Art & Cultural Projects			
Capital Improvements Fund			
Public Art - 1% Funding	\$ 101,394	\$ 336,049	\$ 245,579
Total Public Art & Cultural Projects	\$ 101,394	\$ 336,049	\$ 245,579
Total Capital Improvement Projects	\$ 36,123,234	\$ 23,810,601	\$ 20,221,734

Major Non-recurring Projects

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 1) the project would require an increase in the tax rate, or 2) would result in a large financial operating cost in future years, or 3) would require additional 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 - this is a unique identifier. The first two digits represent the year the project was first funded. The next item is a letter, which 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. For example, project code 09A0071 Broomfield Recycle Center - Building and Site Improvements was funded in 2009, was added to the CIP list in 2007, and was the 71st project added in 2007. The chart below indicates the meaning of the letter codes:

<i>Year first appeared on CIP plan</i>	
OA = On-Going Project	
Z= 2006 and older years	
A = 2007	G = 2013
B = 2008	H = 2014
C = 2009	J = 2015
D = 2010	K = 2016
E = 2011	L = 2017
F = 2012	M = 2018

Project Description - brief description of each project.

Photo/Map - if available, a photo or map has been included.

Background and Justification - this section describes the conditions leading to the necessity of the request and how it fits in with Broomfield’s master planning and/or Council goals.

Problem to be Solved and/or Benefit to Citizens - this section 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 - this section describes any alternative that may have been considered, and if there will be consequences if the request is not funded.

Project Association - this section has general information about the project and its impact on other capital projects.

Operating Budget Impact - this section estimates the impact this project will have on the Operating Budget. We are continuing to develop standard operating costing for each type of project. For example, a standard trail maintenance cost per foot of trail will be developed. That standard cost can then be applied to new trails added by the project.

Timeline - this section estimates the project timeline for each phase of the project, including the percentage of the total project the phase represents.

Funding Source/Project Budget by Year - this section indicates the fund the project will be paid from, the prior year actual cost, current budget, and future estimated cost to complete the project.

2017-2022 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Building and Facilities # 70010														
Projects Currently in 5-Year Plan														
Annual Programs & Citywide Projects														
1	0AZ0033	AR	Building Repairs - Citywide	Annual Program		57,424	200,000	203,579	116,200	200,000	200,000	200,000	500,000	8,000,000
2	08A0066	AR	Building Energy Assessment Implementation - Citywide	281,282	281,282	0	315,000	0	0	0	0	0	0	0
3	16K0018	AR	Emergency Generator Upgrades - Citywide	150,000	0	27,354	0	122,646	0	0	0	0	0	0
4	K0020	AR	Facility UPS Battery Replacement - Citywide	235,200	0	0	0	0	0	39,200	0	0	0	196,000
5	0AZ0066	AR	Floor Covering Replacement - Citywide	Annual Program		116,250	220,275	264,037	220,000	75,000	75,000	75,000	75,000	1,500,000
6	0AZ0075	AR	HVAC Systems Rehabilitation - Citywide	Annual Program		41,355	145,800	228,533	100,000	432,000	75,000	75,000	75,000	1,500,000
7	18M0052	CIP	IT Network Closet Badge Readers - Citywide	51,700	0	0	0	0	51,700	0	0	0	0	0
8	16K0019	CIP	Surge Protection - Citywide	94,010	0	7,896	0	86,114	0	0	0	0	0	0
9	Auditorium & Library Facility Projects													
10	17M0055	CIP	Library/Auditorium - 6 Garden Center Improvements	148,150	0	0	0	148,150	0	0	0	0	0	0
11	13Z0096	CIP	Library/Auditorium - Auditorium Backstage and Loading Dock Expansion & Storage	1,470,638	24,638	0	0	0	0	110,000	1,336,000	0	0	0
12	07Z0001	CIP	Library/Auditorium - Auditorium Vestibule Construction	200,170	5,170	0	0	0	0	20,000	175,000	0	0	0
13	H0029	CIP	Library/Auditorium - Children's Library Extension	864,500	0	0	0	0	0	0	87,000	777,500	0	0
14	11C0088	CIP	Library/Auditorium - Entry Canopy	30,000	0	0	0	0	0	5,000	25,000	0	0	0
15	08B0002	CIP	Library/Auditorium - Entry Plaza Improvements	203,662	13,662	0	0	0	0	15,000	175,000	0	0	0
16	L0001	AR	Library/Auditorium - Library 2nd Floor Renovation	58,600	0	0	0	0	0	58,600	0	0	0	0
17	17L0028	AR	Library/Auditorium - Lighting Upgrade	25,000	0	0	25,000	25,000	0	0	0	0	0	0
18	18M0054	CIP	Library/Auditorium - Master Plan	175,000	0	0	0	0	175,000	0	0	0	0	0
19	17K0028	AR	Library/Auditorium - Parking Lot Lighting	298,900	0	0	298,900	298,900	0	0	0	0	0	0
20	Cemeteries													
21	15G0020	CIP	Lakeview Cemetery - Columbarium	20,000	0	0	35,000	20,000	0	0	0	0	0	0
22	City and County Building													
23	15K0008	AR	City and County Building - 1st Floor Reconfigure (Clerk/Elections/Motor Vehicle)	183,443	12,000	171,443	0	0	0	0	0	0	0	0
24	13G0035	AR	City and County Building - City Attorney's Office Remodel	24,359	22,359	237	0	1,763	0	0	0	0	0	0
25	18M0053	AR	City and County Building - Community Development Space Analysis and Reconfiguration	150,000	0	0	0	0	150,000	0	0	0	0	0
26	16K0014	AR	City and County Building - IT Room Cooling Replacement	85,000	0	0	0	85,000	0	0	0	0	0	0
27	18M0059	AR	City and County Building - Lighting Upgrade	72,000	0	0	0	0	72,000	0	0	0	0	0
28	14H0034	AR	City and County Building - Mechanical Equipment Replacement (2010 Building Assessment)	43,800	0	0	43,800	43,800	0	0	0	0	0	0
29	16F0012	AR	City and County Building - Replace 8 roof top units (2010 Building Assessment)	999,000	0	0	684,000	999,000	0	0	0	0	0	0

2017-2022 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
30			Other											
31	16K0056	SEF	Anthem Highlands K-8 Playground and Parking Lot	2,000,000	0	0	0	2,000,000	0	0	0	0	0	0
32	M0057	CIP	Broomfield Depot Museum - Outbuilding Rehabilitation	195,000	0	0	0	0	0	195,000	0	0	0	0
33	16K0010	AR	Broomfield Depot Museum - Roof Stabilization and Replacement	79,800	0	75,930	0	3,870	0	0	0	0	0	0
34	16L0056	CIP	Brunner Farmhouse Paving	54,800	0	0	0	54,800	0	0	0	0	0	0
35	13Z0060	CIP	HHS - New Facility Design/Construct	15,432,335	12,214,923	3,217,412	0	0	0	0	0	0	0	0
36	0AZ0085	CIP	Parking Lot Repair/Replacement - Citywide	Annual Program		0	0	391,950	0	0	0	0	517,000	547,300
37	M0058	AR	Service Center - HVAC Replacements - 60% of Total Cost	198,000	0	0	0	0	0	198,000	0	0	0	0
38	M0060	CIP	Service Center - Lighting Upgrades - 60% of Cost	21,000	0	0	0	0	0	21,000	0	0	0	0
39	03Z0316	CIP	Service Center - Phase I New Building / Remodel of Existing Building - 60% of Total Cost (Project Total \$30M)	18,002,000	2,000	0	1,800,000	1,800,000	16,200,000	0	0	0	0	0
40	12F0013	AR	West Storage Site - Sprung Structure Repairs	598,501	3,500	249,158	0	95,843	250,000	0	0	0	0	0
41			Police & Courts Facility											
42	16K0015	AR	Police/Courts - IT Room Cooling Upgrade	35,000	0	0	0	35,000	0	0	0	0	0	0
43	18M0050	AR	Police/Courts - Lighting Upgrade	85,000	0	0	0	0	85,000	0	0	0	0	0
44	09C0005	CIP	Police/Courts - Police Vehicle Lot Security Fencing	300,000	0	0	0	0	0	300,000	0	0	0	0
45	18M0048	AR	Police/Courts - Rooftop Unit 3 Replacement	75,000	0	0	0	0	75,000	0	0	0	0	0
46	14H0006	AR	Police/Courts - Security System Replacement	457,675	45,925	411,750	0	0	0	0	0	0	0	0
47	16K0017	AR	Police/Detention Center - AV Room Cooling Upgrade	86,000	0	0	0	86,000	0	0	0	0	0	0
48	17L0021	CIP	Police/Detention Center - Access Walkway Between ASU Parking Area to Detention Center Upper Parking Lot	21,000	0	0	21,000	21,000	0	0	0	0	0	0
49	16K0016	AR	Police/Detention Center - Driveway Repair	197,000	0	0	0	197,000	0	0	0	0	0	0
50	16L0026	CIP	Police/Detention Center - HVAC Equipment Expansion	1,177,576	0	77,576	0	1,100,000	0	0	0	0	0	0
51	18M0049	AR	Police/Detention Center - Overhead Door Replacement	25,800	0	0	0	0	25,800	0	0	0	0	0
52	17L0025	CIP	Police/Detention Center - Security Enhancement-Bullet Resistent Glass	40,000	0	0	84,400	40,000	0	0	0	0	0	0
53	18M0047	CIP	Police/Detention Center - Security Gates	30,150	0	0	0	0	30,150	0	0	0	0	0
54	17L0022	CIP	Police/Range - Firearms Range Safety Improvements	161,000	0	0	161,000	161,000	0	0	0	0	0	0
55	15K0013	AR	Police/Range - Lead Maintenance and Reclamation	48,832	0	48,832	0	0	0	0	0	0	0	0
56			Projects Beyond Current Plan											
57			Auditorium & Library Facility Projects											
58	Z0106		Library - New Branch Facility	13,900,000	0	0	0	0	0	0	0	0	0	13,900,000
59	Z0105		Library/Auditorium - Building Expansion	10,600,000	0	0	0	0	0	0	0	0	0	10,600,000
60			Cemeteries											
61	05Z0350		Broomfield County Commons - Cemetery Maintenance Facility Construction	900,000	0	0	0	0	0	0	0	0	0	900,000
62			Municipal Center											
63	Z0102		City and County Building - Accessory Storage Building	0	0	0	0	0	0	0	0	0	0	0

2017-2022 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
64			Other											
65	Z0401		Animal Shelter - New Facility	5,000,000	0	0	0	0	0	0	0	0	0	5,000,000
66	07A0049		Broomfield County Commons - Parks Maintenance Facility Construction	80,000	0	0	0	0	0	0	0	0	0	80,000
67	D0003		Electric Car Parking Lot Outlets - Citywide	100,000	0	0	0	0	0	0	0	0	0	100,000
68	C0051		Police/Courts - Court Building Expansion	9,500,800	0	0	0	0	0	0	0	0	0	9,500,800
69			Police/Courts - Police Building Expansion	6,000,000	0	0	0	0	0	0	0	0	0	6,000,000
70	Z0104		Public Works - Great Western Reservoir Area - Satellite Facility	0	0	0	0	0	0	0	0	0	0	0
71	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
72	Z0052		Utility Vent Replacement - Citywide	500,000	0	0	0	0	0	0	0	0	0	500,000
			Facility Projects Sub-Total	94,166,683	12,625,459	4,502,617	4,034,175	8,512,985	17,550,850	1,668,800	2,148,000	1,127,500	1,167,000	60,724,100

2017-2022 CIP PLAN - Information Technology Projects

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Information Technology Projects # 70030														
Currently in 5-Year Plan														
1	15J0049	CIP	Cemetery Management System Software Replacement	40,000	0	0	0	40,000	0	0	0	0	0	0
2	14H0047	CIP	Communications - CRM Software	275,532	16,332	0	0	0	0	259,200	0	0	0	0
3	15J0053	AR	Council Chambers and Conference Room A/V Equipment Upgrade	491,830	143,282	33,048	125,000	135,500	75,000	30,000	75,000	0	0	0
4	15J0009	CIP	Finance/ HR - HRIS/Payroll Integrated System	2,520,822	27,675	955,687	0	1,537,460	0	0	0	0	0	0
5	17M0003	CIP	IT - Communications Conduit Installation Reserve	750,000	0	0	0	50,000	100,000	150,000	150,000	150,000	150,000	0
6	17L0003	CIP	IT - Data Center Migration	500,000	0	0	200,000	200,000	200,000	100,000	0	0	0	0
7	17L0014	CIP	IT - Document Management	525,000	0	0	75,000	135,000	390,000	0	0	0	0	0
8	17M0001	AR	IT - Fiber Infrastructure Transition/Replacement	1,124,500	0	0	0	140,500	984,000	0	0	0	0	0
9	18L0016	CIP	IT - Google Management Tools	50,000	0	0	0	0	50,000	0	0	0	0	0
10	17L0013	CIP	IT - Infrastructure Automation	50,000	0	0	50,000	50,000	0	0	0	0	0	0
11	17L0015	CIP	IT - Mobile Device Management/Enterprise Mobility Management	0	0	0	90,000	0	0	0	0	0	0	0
12	L0017	CIP	IT - Mobile Imaging for Rapid Asset Data Collection	110,000	0	0	0	0	0	110,000	0	0	0	0
13	08B0008	AR	IT - Network Hardware Replacement	Annual Program		78,619	0	0	0	0	0	0	0	0
14	0AZ0089	AR	IT - Network Hardware/Telecom Replacement - Citywide	Annual Program		0	110,000	110,000	90,000	90,000	90,000	90,000	90,000	1,440,000
15	09C0090	AR	IT - Office Production Software Upgrade	728,997	380,697	303,300	0	45,000	0	0	0	0	0	0
16	16L0009	AR	IT - Payment Processing Consolidation	40,000	0	0	0	40,000	0	0	0	0	0	0
17	0AZ0015	AR	IT - PC Equipment Tech Refresh	Annual Program		377,377	375,000	375,000	375,000	375,000	375,000	375,000	375,000	6,000,000
18	M0005	CIP	IT - Smart City Project	5,000,000	0	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
19	10D0069	AR	IT - Telecom System Replacement and Upgrades	1,029,122	882,018	88,505	0	58,599	0	0	0	0	0	0
20	18M0002	AR	IT - Telephone System Software Upgrade	34,100	0	0	0	0	34,100	0	0	0	0	0
21	18M0004	CIP	IT - Voicemail Server Redundancy	33,000	0	0	0	0	33,000	0	0	0	0	0
22	11C0092	CIP	Police - Data Records Management Systems Replacement	3,651,214	2,872,150	114,178	0	664,886	0	0	0	0	0	0
23	11D0037	AR	Police - Vehicle Laptop Computer Replacements (includes installation)	1,722,708	172,708	0	240,000	350,000	0	0	0	240,000	0	960,000
24	E0011	CIP	Police/Courts - Police Dispatch & Communication Center Back-up	200,000	0	0	0	0	0	0	0	0	0	200,000
25	18F0044	CIP	Public Works - Computerized Asset Maintenance Management System	1,500,000	0	0	0	0	1,500,000	0	0	0	0	0
26	08B0010	AR	Public Works & Community Development - Toughbook Laptop Replacements	480,033	183,033	0	0	0	297,000	0	0	0	0	0
27	15J0050	AR	Recreation Management System Software Replacement	500,193	0	193	604,700	500,000	0	0	0	0	0	0
Total Information Technology Projects				21,357,051	4,677,895	1,950,907	1,869,700	4,431,945	4,128,100	2,114,200	1,690,000	1,855,000	1,615,000	9,600,000

2017-2022 CIP PLAN - LANDSCAPE PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Landscaping Projects #70040														
Projects Currently in 5-Year Plan														
1	15F0034	CIP	120th Avenue Connection Landscaping	0	0	0	20,000	0	0	0	0	0	0	0
2	F0024	CIP	136th Avenue Landscaping and Street Lights - Lowell to Westlake Drive	384,000	0	0	0	0	0	384,000	0	0	0	0
3	15J0017	PK	Ash Tree Replacement - Citywide	588,695	0	78,695	85,000	85,000	85,000	85,000	85,000	85,000	85,000	0
4	F0017	PK	Civic Center - Community Park Hill Landscape Improvements	231,750	0	0	0	0	0	0	231,750	0	0	0
5	13E0021	PK	Community Garden - Brunner Farm House	0	0	0	45,000	0	0	0	0	0	0	0
6	06Z0052	CIP	Entry Monument Improvements - Citywide	363,629	143,629	0	0	0	0	0	0	0	110,000	110,000
7	18M0064	AR	Irrigation Control Replacements - Citywide	890,490	0	0	0	0	297,975	298,240	294,275	0	0	0
8	0AZ0017	PK	Irrigation Replacements - Citywide	Annual Program		148,602	200,000	200,000	200,000	200,000	200,000	200,000	225,000	3,825,000
9	12D0045	CIP	Lamar Street - Island Improvements	125,000	0	0	0	0	0	125,000	0	0	0	0
10	M0007	CIP	Library - Solar Panel Landscape Upgrade	69,900	0	0	0	0	0	69,900	0	0	0	0
11	0AZ0046	PK	Park Landscape Improvements - Citywide	Annual Program		46,717	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,600,000
12	F0018	CIP	Sheridan Blvd Median Landscaping Enhancements - Wildgrass to Lowell	2,800,000	0	0	0	0	0	0	280,000	2,520,000	0	0
13	0AZ0087	PK	Shrub Replacement - Citywide	Annual Program		39,997	40,000	40,000	40,000	40,000	0	0	0	0
14	0AZ0018	PK	Tree Replacement - Citywide	Annual Program		101,624	105,000	105,000	105,000	105,000	105,000	105,000	105,000	1,680,000
15	14H0017	CIP	Uptown Avenue - Landscaping	395,830	301,711	94,119	0	0	0	0	0	0	0	0
16	M0008	CIP	US 287/Midway - Island Landscape Improvement	1,527,915	0	0	0	0	0	0	1,527,915	0	0	0
17	15J0030	CIP	Westlake Subdivision - Greenbelt Enhancement	16,967	12,383	4,584	0	0	0	0	0	0	0	0
18	Z0115	CIP	Zuni Street - E. Midway to W. 136th Ave. Power Burial/Landscaping	3,250,000	0	0	0	0	0	0	0	0	1,750,000	1,500,000
19	13G0011	CIP	Zuni Street Median Landscaping- North of 136th Ave.(Pedestrian Plan)	158,485	7,860	150,625	0	0	0	0	0	0	0	0
20	Projects Beyond Current Plan													
21	G0034		136th Avenue Landscaping South Side - Sheridan to Cottonwood Street	156,000	0	0	0	0	0	0	0	0	0	78,000
Landscaping Sub-Total				10,958,661	465,583	664,963	595,000	530,000	827,975	1,407,140	2,823,940	3,010,000	2,375,000	8,793,000

2017-2022 CIP PLAN - OPEN SPACE AND TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Open Space Projects #70060														
Projects Currently in 5-Year Plan														
1	Z0417	OS	Davis/Nordstrom OS Management Plan	30,000	0	0	0	0	0	0	0	30,000	0	0
2	15J0054	OS	Harmer-Galasso Open Space Acquisition	5,046,476	2,548,397	2,498,079	0	0	0	0	0	0	0	0
3	L0020	OS	Harmer-Galasso Open Space Management Plan	100,000	0	0	0	0	0	100,000	0	0	0	0
4	09C0021	OS	Markel Open Space - Management Plan Development	51,366	1,366	0	0	0	50,000	0	0	0	0	0
5	16K0012	OS	Metzger Farm Building Stabilization	250,000	0	250,000	0	0	0	0	0	0	0	0
6	09C0038	OS	Metzger Open Space - Administration and Maintenance	Annual Program		30,000	35,000	35,000	55,000	35,000	35,000	35,000	35,000	560,000
7	14H0056	OS	Metzger Open Space - Acquisition Payments to Foundation	6,190,041	3,378,347	345,212	347,049	274,842	272,203	274,078	275,502	271,508	277,221	821,128
8	06Z0050	OS	Mitchem Property - Environmental Insurance Payment	Annual Program		10,125	10,125	10,125	10,125	10,125	10,125	10,125	10,125	162,000
9	01Z0309	OS	Nordstrom Open Space - Interest Payment to Water Fund	13,594	7,587	6,007	0	0	0	0	0	0	0	0
10	06Z0092	OS	Open Space - Due Diligence Services	Annual Program		5,838	35,000	35,000	80,000	35,000	35,000	35,000	35,000	560,000
11	18M0061	OS	Open Space - Grassland Restoration	210,000	0	0	0	0	210,000	0	0	0	0	0
12	17K0051	OS	Open Space - Master Plan Update	175,000	0	0	175,000	175,000	0	0	0	0	0	0
13	0AZ0024	OS	Open Space and Trails Misc. Improvements - Citywide	Annual Program		11,911	25,000	32,500	25,000	25,000	25,000	25,000	25,000	400,000
14	0AZ0036	OS	Open Space and Trails Signage & Kiosks - Citywide	Annual Program		0	35,600	55,892	100,000	30,000	30,000	30,000	30,000	480,000
15	06Z0083	OS	Prairie Dog Management (from Endowment Fund)	25,982	0	1,342	0	24,640	0	0	0	0	0	0
16	Projects Beyond Current Plan													
17	Z0415	OS	BCC Open Space - Grassland Restoration & Overlook	485,000	0	0	0	0	0	0	0	0	0	485,000
18	Z0416	OS	BCC Open Space - Grassland Restoration Phase II	783,000	0	0	0	0	0	0	0	0	0	783,000
19	Open Space Projects Sub-Total			13,360,459	5,935,697	3,158,514	662,774	642,999	802,328	509,203	410,627	436,633	412,346	4,251,128
20	Trail System Projects #70070													
21	Projects Currently in 5-Year Plan													
22	11C0096	SCTF	County Commons Open Space - Tom Frost Reservoir Amenities and Landscape Improvements	250,000	3,756	20,299	0	225,945	0	0	0	0	0	0
23	17L0035	PK	County Commons Open Space - Trail Raising	44,000	0	0	44,000	44,000	0	0	0	0	0	0
24	18M0062	OS	Frank Varra Park - Multi-Use Trail Repairs	83,700	0	0	0	0	83,700	0	0	0	0	0
25	L0019	OS	Great Western Loop Trail	335,000	0	0	0	0	0	335,000	0	0	0	0
26	17K0002	CIP	Industrial Lane Bike Lane and Sidewalk	2,035,000	0	0	635,000	2,035,000	0	0	0	0	0	0
27	18M0063	CIP	Interpark - Broomfield Industrial Park Pedestrian Bridge	100,700	0	0	0	0	100,700	0	0	0	0	0
28	Broomfield Trail System - 5-year Plan													

2017-2022 CIP PLAN - OPEN SPACE AND TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
29	18Z0133	OS	Broomfield Trail - Aspen to Sheridan (BT5)	725,000	0	0	0	0	50,000	0	0	0	675,000	0
30	Z0143	OS	Broomfield Trail - Aspen through Markel Property (BT4)	300,000	0	0	0	0	0	0	300,000	0	0	0
31	12F0002	OS	Broomfield Trail - Lowell to Spruce Meadows - (BT6 phase 3)	736,850	11,850	0	0	0	0	100,000	0	625,000	0	0
32	14Z0433	OS	Broomfield Trail - RR bridge to Industrial Lane to Midway (BT2)	2,554,776	23,277	18,328	279,000	2,513,171	0	0	0	0	0	0
33	14Z0433	CIP	Broomfield Trail - RR bridge to Industrial Lane to Midway (BT2)	247,500	0	0	0	247,500	0	0	0	0	0	0
34	F0006	OS	Broomfield-Trail - RR Underpass at Airport Creek	1,350,000	0	0	0	0	0	0	350,000	0	0	1,000,000
35			Neighborhood Connections 5-year Plan											
36	15Z0154	OS	Neighborhood Connection - Greenway Park to 120th Ave (NC25)	44,712	40,526	4,186	0	0	0	0	0	0	0	0
37	Z0155	OS	Neighborhood Connection - Hwy 287 to Midway Boulevard (NC5) - Blue Star Park	127,000	0	0	0	0	0	127,000	0	0	0	0
38	11D0019	OS	Neighborhood Connection - Iris Street to the Lake Link Trail	100,000	0	0	0	0	0	0	100,000	0	0	0
39	13F0003	OS	Neighborhood Connection - Rock Creek to Brainard Drive Underpass and Trail	3,356,000	6,000	0	0	0	0	0	350,000	0	0	3,000,000
40	Z0139	OS	Neighborhood Connection - Wildgrass at NW Parkway to Rock Creek Trail (NC22)	375,000	0	0	0	0	0	0	0	0	375,000	0
41	18Z0134	OS	Trail Connection - Brandywine Park to Mountain View Elementary School (NC-15)	199,500	0	0	0	0	199,500	0	0	0	0	0
42			North Community Link Trail System - 5-year Plan											
43	14Z0421	OS	North Community Trail - Lowell Blvd - 144th to Sheridan	366,663	287,411	79,252	0	0	0	0	0	0	0	0
44			Regional Trail System - 5-year Plan											
45	07Z0017	OS	Regional Trail - Flatiron Crossing to Storage Tek Drive Trail (RT-1)	340,000	0	0	0	0	0	0	340,000	0	0	0
46	13Z0422	OS	Regional Trail - Storage Tek Dr. - Underpass Improvements	250,000	0	0	100,000	250,000	0	0	0	0	0	0
47			Projects Beyond Current Plan											
48			Broomfield Trail System - Long Range Plan											
49	Z0131		Broomfield Trail - 144th Avenue Bridge Crossing (BT5)	2,860,000	0	0	0	0	0	0	0	0	0	2,860,000
50	Z0138		Broomfield Trail - Detention Center to Highway 128 (BT1)	282,500	0	0	0	0	0	0	0	0	0	282,500
51	Z0420		Broomfield Trail - Kohl St. Intersection Improvement (#14)	32,000	0	0	0	0	0	0	0	0	0	32,000
52	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
53	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
54	Z0426		Intersection Improvement #7 - 10th Ave to Zang Spur	35,200	0	0	0	0	0	0	0	0	0	35,200
55			Neighborhood Connections Long Range Plan											
56	Z0141		Neighborhood Connection - 136th Ave to Trails at Westlake (NC21)	350,000	0	0	0	0	0	0	0	0	0	350,000
57	07Z0015		Neighborhood Connection - Broomfield County Commons to Westlake Trails (NC20)	232,000	0	0	0	0	0	0	0	0	0	232,000
58	Z0150		Neighborhood Connection - Cottonwood Park to SECL trail (NC18)	255,300	0	0	0	0	0	0	0	0	0	255,300
59	Z0135		Neighborhood Connection - Highland Park to E Midway (NC10) Including Midway Crossing (#19)	273,200	0	0	0	0	0	0	0	0	0	273,200

2017-2022 CIP PLAN - OPEN SPACE AND TRAILS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
60	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
61	07Z0018		Neighborhood Connection - Steele Park to Lake Link Trail (NC2)	200,000	0	0	0	0	0	0	0	0	0	200,000
62	Z0140		Trail Connection - 10th Ave to Lac Amora - crusher fine (NC3)	0	0	0	0	0	0	0	0	0	0	0
63	Z0144		Trail Connection - Brandywine to Lowell (NC17)	165,000	0	0	0	0	0	0	0	0	0	165,000
64	Z0147		Trail Connection - Commercial area at Sheridan & 120th (NC27)	0	0	0	0	0	0	0	0	0	0	0
65	Z0148		Trail Connection - Commons & the Field to Birch Elementary (NC12)	193,000	0	0	0	0	0	0	0	0	0	193,000
66	Z0156		Trail Connection - Lac Amora to N Oak Circle (NC4)	107,200	0	0	0	0	0	0	0	0	0	107,200
67	15J0011	OS	Trail Connection - Legends to Crofton Park and Columbine Meadows	49,700	0	0	0	0	0	0	0	0	0	49,700
68	16J0018	OS	Trail Connection - Lowell Blvd. Metzger Underpass towards Perry Street (SECL6 west)	45,000	0	0	0	0	0	0	0	0	0	45,000
69	Z0157		Trail Connection - McKay Landing to 144th Ave (NC23)	0	0	0	0	0	0	0	0	0	0	0
70			North Community Link Trail System - Long Range Plan											
71	Z0428		Intersection Improvement #36 - Sheridan and Lowell/S. of NW Pkwy	23,300	0	0	0	0	0	0	0	0	0	23,300
72			Regional Trail System - Long Range Plan											
73	Z0423		Broomfield Trail - Underpass at SH7 (#38)	1,276,000	0	0	0	0	0	0	0	0	0	1,276,000
74	Z0429		Intersection Improvement #44 - Underpass at Indiana	1,629,000	0	0	0	0	0	0	0	0	0	1,629,000
75	Z0145		Trail Connection - Broomfield Trail to Thornton and Adams County (RT5)	296,200	0	0	0	0	0	0	0	0	0	296,200
76	Z0153		Trail Connection - Great Western to Rocky Flats (RT2)	353,000	0	0	0	0	0	0	0	0	0	353,000
77	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
78			South East Community Loop Trail System - Long Range Plan											
79	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
80	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
81	Z0161		Southeast Community Loop Trail - Through South Midway Park (SECL3)	118,700	0	0	0	0	0	0	0	0	0	118,700
82	Z0431		Intersection Improvement #21 at Perry St.	37,000	0	0	0	0	0	0	0	0	0	37,000
83	Z0151		Trail Connection - Country Vista to Lowell Underpass (SECL6 east)	355,000	0	0	0	0	0	0	0	0	0	355,000
84	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
85			Equestrian Trails - Long Range Plan											
86	12Z0152		Broomfield Trail - Equestrian Loop through Hoopes	93,600	0	0	0	0	0	0	0	0	0	93,600
87			Trail System Projects Sub-Total	29,041,208	372,820	122,065	1,058,000	5,315,616	433,900	562,000	1,440,000	625,000	1,050,000	19,119,807
88			Total Trails and Open Space Projects	42,401,667	6,308,517	3,280,579	1,720,774	5,958,615	1,236,228	1,071,203	1,850,627	1,061,633	1,462,346	23,370,935

2017-2022 CIP PLAN - RECREATION AND PARKS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Recreation and Parks Facility Projects # 70080														
Projects Currently in 5-Year Plan														
1	09C0015	CIP	124th Avenue - Tree Branch Recycling Center Relocation	536,000	0	0	286,000	536,000	0	0	0	0	0	0
2	B0074	CIP	Anthem Community Park Improvements	4,990,000	0	0	0	0	0	500,000	4,490,000	0	0	0
3	05Z0342	PK	Ballfield Fence Fabric Replacement - Citywide	Annual Program		9,800	0	0	0	0	0	0	0	0
4	18F0048	CIP	Bay - Renovation Phase - Parking Lot	690,000	0	0	0	0	50,000	640,000	0	0	0	0
5	14F0046	CIP	Bay - Renovation Phase III - Locker Room/Concessions	3,152,000	130,676	1,152,748	0	1,868,576	0	0	0	0	0	0
6	F0047	CIP	Bay - Renovation Phase IV- Repair pool/ADA Compliant	2,500,000	0	0	0	0	0	250,000	2,250,000	0	0	0
7	17L0046	SCTF	Bay - Tower Body Slide Refurbish	7,000	0	0	12,000	7,000	0	0	0	0	0	0
8	17L0027	SCTF	Bay - Tube Slide Catch Pool Re-plaster	22,000	0	0	22,000	22,000	0	0	0	0	0	0
9	M0013	CIP	Blue Star Park - Upgrade	435,360	0	0	0	0	0	435,360	0	0	0	0
10	16K0039	SCTF	Brandywine Park - Upgrade & Renovation of Park and Baseball Diamond	194,500	0	0	175,000	194,500	0	0	0	0	0	0
11	16K0040	SCTF	Brandywine Soccer Fields - Upgrade & Renovation	295,000	0	0	280,000	295,000	0	0	0	0	0	0
12	K0022	SCTF	Bronco Park - Restroom Building Replacement	344,400	0	0	0	0	0	0	0	344,400	0	0
13	17K0011	CIP	Broomfield Community Center - Kitchen Expansion/Senior Services Office Relocation	0	0	0	1,352,000	0	0	0	0	0	0	0
14	17J0022	CIP	Broomfield Community Center - Pool Liner \Gutter Replacement and Upgrades	0	0	0	904,650	0	0	0	0	0	0	0
15	15K0053	CIP	Broomfield Community Center - Renovation	475,385	83,956	385,129	0	6,300	0	0	0	0	0	0
16	17M0021	TBONDS	Broomfield Community Center - Reconstruction (Bond Funding)	40,000,000	0	0	0	40,000,000	0	0	0	0	0	0
17	14H0038	SCTF	Broomfield County Commons - Blue Pod Handicap Access	22,500	2,250	20,250	0	0	0	0	0	0	0	0
18	15J0001	CIP	Broomfield County Commons - Cemetery Phase II	1,695,023	3,106	25,560	500,000	1,666,357	0	0	0	0	0	0
19	15G0010	SCTF	Broomfield County Commons - Championship Field Turf Replacement	401,573	48,083	353,490	0	0	0	0	0	0	0	0
20	15Z0175	CIP	Broomfield County Commons - Expansion - Yellow Pod	5,421,994	1,321,273	4,019,285	0	81,436	0	0	0	0	0	0
21	L0030	CIP	Broomfield County Commons - Maintenance Facility	316,500	0	0	0	0	0	31,650	284,850	0	0	0
22	M0014	CIP	Community Ballfields - Playground Shade Structure	31,050	0	0	0	0	0	31,050	0	0	0	0
23	Z0177	SCTF	Community Park Additional Tennis Courts (2)	300,000	0	0	0	0	0	0	0	300,000	0	0
24	18K0024	SCTF	Community Park Ball Field Complex - Signage	48,000	0	0	0	0	48,000	0	0	0	0	0
25	17L0031	SCTF	Community Park Ball Fields Scoreboard Electrical Service Replacement	15,000	0	0	15,000	15,000	0	0	0	0	0	0
26	08B0025	SCTF	Community Park - Restroom Building Improvements	283,500	0	0	0	0	0	283,500	0	0	0	0
27	M0015	CIP	Community Park - Workout Equipment	145,130	0	0	0	0	0	0	145,130	0	0	0

2017-2022 CIP PLAN - RECREATION AND PARKS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Recreation and Parks Facility Projects # 70080														
28	16K0041	SCTF	Conoco Park - Inline Hockey Rink Repurposing	115,000	0	0	115,000	115,000	0	0	0	0	0	0
29	17K0025	SCTF	Crofton Park - Pedestrian Lighting Improvements	31,500	0	0	31,500	31,500	0	0	0	0	0	0
30	09C0012	PK	Dumpster/Recycling Enclosures - Citywide	54,023	40,023	14,000	0	0	0	0	0	0	0	0
31	15Z0171	SEF	Emerald Park - Ballfield and Park Improvements	765,000	0	0	0	0	65,000	700,000	0	0	0	0
32	16K0042	SCTF	Founders Memorial Park and Trail Design	20,000	0	0	0	0	0	0	20,000	0	0	0
33	Z0181	CIP	Highland Park Soccer Field Improvements & Irrigation Replace	1,378,800	0	0	0	0	0	0	138,800	1,240,000	0	0
34	14H0004	SCTF	Hockey Rink Dasher Board Replacement-Citywide	394,450	154,450	0	0	0	0	0	0	0	0	240,000
35	18L0033	SCTF	Interlocken East Park Playground	145,130	0	0	0	0	145,130	0	0	0	0	0
36	M0016	CIP	Interlocken East Park Playground - Restroom and Shelter Replacement	573,550	0	0	0	0	0	0	0	573,550	0	0
37	14H0033	SCTF	LacAmora Park - Master Plan	570,000	6,900	0	0	0	13,100	0	50,000	500,000	0	0
38	09C0013	PK	McKay Lake Regional Park - Park Design/Construction	1,768,568	52,388	79,829	0	1,636,351	0	0	0	0	0	0
39	17L0058	CIP	North Broomfield Park - Land Acquisition	4,004,300	0	0	0	4,300	1,000,000	1,000,000	1,000,000	1,000,000	0	0
40	18M0018	AR	Parks - Picnic Shelter Concrete Replacement	120,500	0	0	0	0	120,500	0	0	0	0	0
41	18M0017	SCTF	Parks - Portalet Enclosures	224,700	0	0	0	0	224,700	0	0	0	0	0
42	12F0016	SCTF	Parks - Shade Structures - Citywide	172,384	11,460	131,541	0	29,383	0	0	0	0	0	0
43	18M0012	CIP	Parks - Structures Condition Assessments	250,000	0	0	0	0	50,000	0	0	0	0	200,000
44	06Z0055	CIP	Parks - Water Reclamation Tap Payments	16,361,811	11,956,147	0	336,780	336,780	785,820	729,915	785,820	785,820	981,509	0
45	18M0056	CIP	Paul Derda Center - Boiler Upgrade	80,000	0	0	0	0	80,000	0	0	0	0	0
46	18M0010	CIP	Paul Derda Recreation Center - Downstairs Lobby Repurposing	87,600	0	0	0	0	87,600	0	0	0	0	0
47	15J0034	CIP	Paul Derda Recreation Center - Entryway Security	44,131	28,301	15,830	0	0	0	0	0	0	0	0
48	Z0084	SCTF	Paul Derda Recreation Center- Outdoor Playground	513,000	0	0	0	0	0	0	0	0	513,000	0
49	17J0024	SCTF	Paul Derda Recreation Center - Plaster Recoating on Main Pool and Hot Tubs	95,000	0	0	40,000	95,000	0	0	0	0	0	0
50	16K0026	CIP	Paul Derda Recreation Center - Pool Garage Door Replacement	75,695	0	75,695	0	0	0	0	0	0	0	0
51	K0045	SCTF	Paul Derda Recreation Center - Pool Grate and Gutter Repair	50,000	0	0	0	0	0	50,000	0	0	0	0
52	M0011	CIP	Paul Derda Recreation Center - Pool Slide Area Concrete Replacement	40,000	0	0	0	0	0	40,000	0	0	0	0
53	11D0036	CIP	Paul Derda Recreation Center - Power Generator Installation	94,209	50,781	43,428	0	0	0	0	0	0	0	0
54	16H0013	SCTF	Paul Derda Recreation Center - Replace/Upgrade Florescent Lighting	450,000	0	0	60,000	110,000	0	85,000	0	0	0	255,000
55	14G0016	SCTF	Paul Derda Recreation Center - Restaining Artificial Rock	29,025	0	29,025	0	0	0	0	0	0	0	0

2017-2022 CIP PLAN - RECREATION AND PARKS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Recreation and Parks Facility Projects # 70080														
56	16K0046	SCTF	Paul Derda Recreation Center - SCS Spray Feature-Repair & Repaint	5,000	0	5,000	0	0	0	0	0	0	0	0
57	18M0009	CIP	Paul Derda Recreation Center - Security Camera Expansion	37,400	0	0	0	0	37,400	0	0	0	0	0
58	13G0022	CIP	Paul Derda Recreation Center - Space Assessment	15,000	0	0	0	0	0	0	0	15,000	0	0
59	0AZ0038	PK	Playground Improvements - Citywide	Annual Program		206,568	180,000	437,178	230,000	230,000	230,000	230,000	230,000	3,680,000
60	0AZ0078	SCTF	Pool Accessory Equipment Replacement - All City Pools	Annual Program		0	14,000	28,000	14,000	14,000	14,000	14,000	14,000	224,000
61	16K0044	SCTF	Pool Drain Cover Replacement	20,500	0	0	0	20,500	0	0	0	0	0	0
62	17L0029	SCTF	Public Parks Restroom Automated Lock System - Citywide	42,000	0	0	42,000	42,000	0	0	0	0	0	0
63	L0034	SCTF	Quail Creek Park Restroom Rebuild	356,600	0	0	0	0	0	0	356,600	0	0	0
64	18K0038	SCTF	Siena/Anthem Community Park Playground	258,750	0	0	0	0	258,750	0	0	0	0	0
65	M0019	CIP	Siena Reservoir - Dock Replacement	84,360	0	0	0	0	0	0	0	84,360	0	0
66	17L0036	SCTF	West Park Concrete Replacement	43,750	0	0	43,750	43,750	0	0	0	0	0	0
67	14H0027	CIP	Wildgrass Underpass Water Sealing Design	40,000	0	0	0	0	40,000	0	0	0	0	0
68	K0047	SCTF	Youth Recreational Baseball/Softball Complex - Study	40,000	0	0	0	0	0	40,000	0	0	0	0
69			Projects Beyond Current Plan											
70	F0049		Bay - Renovation Phase V - Lazy River/Waterwalk/Additional Slides	4,488,000	0	0	0	0	0	0	0	0	0	4,039,200
71	Z0166		Bronco Park Irrigation Replacement	0	0	0	0	0	0	0	0	0	0	0
72	Z0103		Broomfield County Commons Cemetery - Phase III Expansion	1,200,000	0	0	0	0	0	0	0	0	0	1,200,000
73	G0019		Broomfield Field House	20,000,000	0	0	0	0	0	0	0	0	0	20,000,000
74	C0075		Broomfield Reservoir - Recreational Improvements	3,800,000	0	0	0	0	0	0	0	0	0	3,500,000
75	04Z0309		Brunner Reservoir - Reservoir Improvements and Trail Construction	2,233,417	33,417	0	0	0	0	0	0	0	0	1,450,000
76	Z0045		Civic Center - Landscape electrical upgrades	0	0	0	0	0	0	0	0	0	0	0
77	Z0099		Community Event Signage/Notification Citywide	0	0	0	0	0	0	0	0	0	0	0
78	Z0178		Community Park Redevelopment (is this Civic Center?)	0	0	0	0	0	0	0	0	0	0	0
79	Z0407		Dirt Bike Trails	0	0	0	0	0	0	0	0	0	0	0
80	Z0081		Discovery Park Playground Expansion	201,000	0	0	0	0	0	0	0	0	0	201,000
81	Z0170		136th & Sheridan Park Development	5,150,000	0	0	0	0	0	0	0	0	0	5,150,000
82	C0053		Easy Ride Parking Area	0	0	0	0	0	0	0	0	0	0	0
83	Z0409		Indoor Tennis Facility (design only)	0	0	0	0	0	0	0	0	0	0	0

2017-2022 CIP PLAN - RECREATION AND PARKS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Recreation and Parks Facility Projects # 70080														
84	Z0172		Lac Amora Greenbelts Irrigation Replacement	0	0	0	0	0	0	0	0	0	0	0
85	Z0128		Lamar Island Improvements	0	0	0	0	0	0	0	0	0	0	0
86	Z0112		Landscaping around Utility Stations/Switch Cabinets, etc	0	0	0	0	0	0	0	0	0	0	0
87	Z0113		Landscaping Improvements - E. 7th/Dexter (Northmoor)	0	0	0	0	0	0	0	0	0	0	0
88	Z0120		Main Street ROW Landscaping west of Eagle Trace Entry	0	0	0	0	0	0	0	0	0	0	0
89	Z0410		Monitored Internet Café for Students (Teen Center - Civic Center)	0	0	0	0	0	0	0	0	0	0	0
90	Z0182		Outdoor Lap & Diving Pool	0	0	0	0	0	0	0	0	0	0	0
91	Z0412		Outdoor Theater - Civic Center	0	0	0	0	0	0	0	0	0	0	0
92	B0065		Park Lighting - McKay Landing Filing No. 3	0	0	0	0	0	0	0	0	0	0	0
93	Z0168		Paul Derda Recreation Center - Wind Break on West Side	0	0	0	0	0	0	0	0	0	0	0
94	Z0183		Pool - Indoor Competitive 50 x 25	0	0	0	0	0	0	0	0	0	0	0
95	B0073		Towncenter Lighting replacement	0	0	0	0	0	0	0	0	0	0	0
96	Z0092		W. 136th & Lowell Park Development	0	0	0	0	0	0	0	0	0	0	0
Recreation Facilities Sub-Total				128,846,068	13,923,211	6,567,178	4,409,680	47,621,911	3,250,000	5,060,475	9,765,200	5,087,130	1,738,509	40,139,200

2017-2022 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Transportation Projects #70090														
Projects Currently in 5-Year Plan														
1	11C0094	CIP	112th Ave. from Old Wadsworth Over Railroad/Uptown Ave Bridge Aesthetics (Portion over US 36 is CDOT)	659,950	531,550	128,400	0	0	0	0	0	0	0	0
2	15H0044	CIP	120th Avenue Connection - Illuminated Street Name Signs	25,000	0	0	0	25,000	0	0	0	0	0	0
3	16K0027	CIP	Arista Street Lighting Upgrade	2,600,000	0	0	0	100,000	500,000	500,000	500,000	500,000	500,000	0
4	17L0048	CIP	Bicycle and Pedestrian Wayfinding Signs - Citywide	30,000	0	0	30,000	30,000	0	0	0	0	0	0
5	16K0006	CIP	Bike and Ride Shelters - Citywide	81,000	0	0	81,000	81,000	0	0	0	0	0	0
6	16L0055	CIP	Bike Share Program - Citywide	35,993	0	0	0	35,993	0	0	0	0	0	0
7	12F0060	CIP	Brainard Drive - Relocation	1,513,239	1,510,212	3,027	0	0	0	0	0	0	0	0
8	09C0016	AR	Bridge Inspections and Repairs - Citywide	Annual Program		46,965	50,000	50,000	50,000	50,000	50,000	50,000	50,000	800,000
9	14H0015	CIP	Broomfield Lane - Extension	226,693	130,854	23,839	0	72,000	0	0	0	0	0	0
10	0AZ0090	AR	City-Owned Concrete Replacement	Annual Program		0	323,000	323,000	323,000	323,000	323,000	323,000	323,000	5,168,000
11	14H0041	CIP	Civic Center - Pedestrian Improvements	62,000	0	3,271	0	58,729	0	0	0	0	0	0
12	0AZ0062	AR	Concrete Curb Ramp Replacement - Citywide	Annual Program		49,483	50,000	50,000	50,000	50,000	50,000	50,000	50,000	800,000
13	0AZ0011	AR	Concrete Replacement (Residential 25%/75%) - Citywide	Annual Program		209,953	70,000	70,000	70,000	70,000	70,000	70,000	70,000	1,120,000
14	M0032	CIP	County Commons - Roundabout	225,000	0	0	0	0	0	0	225,000	0	0	0
15	14Z0199	CIP	Dillon Road/W 144th Ave - Improvements	298,714	130,626	88,919	0	79,169	0	0	0	0	0	0
16	17M0020	TBONDS	Dillon Road/W 144th Ave - Improvements (Bond Funding)	40,000,000	0	0	0	40,000,000	0	0	0	0	0	0
17	16K0048	CIP	Durango Ave. - Construct Sidewalk and Crosswalk	26,000	0	1,413	0	24,587	0	0	0	0	0	0
18	18M0031	AR	East 1st Ave - Street Light Replacement	250,000	0	0	0	0	250,000	0	0	0	0	0
19	10D0049	CIP	East 1st Ave and Sheridan Boulevard - Intersection Improvements -Turn Lane	975,215	25,215	0	950,000	950,000	0	0	0	0	0	0
20	K0031	CIP	East 3rd Ave. - Main Street to Spader Way Reconstruction	491,300	0	0	0	0	0	491,300	0	0	0	0
21	18K0033	CIP	East Flatiron Crossing Drive - Flatiron Marketplace Dr. Intersection Reconstruction	230,300	0	0	0	0	230,300	0	0	0	0	0
22	K0032	CIP	East Flatiron Crossing Drive - US 36 to Brainard Drive - Reconstruction	714,600	0	0	0	0	0	714,600	0	0	0	0
23	18D0031	CIP	Eldorado Blvd - Eastbound Double Left to Northbound Interlocken	380,000	0	0	0	0	380,000	0	0	0	0	0
24	M0028	CIP	Elmwood St - East 14th Ave to East 18th Ave Reconstruct	576,250	0	0	0	0	0	576,250	0	0	0	0
25	18M0023	CIP	Flatiron Crossing Drive - Zip Bridge Repairs	500,000	0	0	0	0	500,000	0	0	0	0	0
26	L0002	CIP	Huron and 160th Ave Turn lanes	449,500	0	0	0	0	0	449,500	0	0	0	0
27	18M0029	CIP	Interlocken/Flatiron Crossing - Directional Monuments	44,730	0	0	0	0	44,730	0	0	0	0	0
28	07Z0040	CIP	Lowell Blvd. - E. Midway to W. 136th Ave. - Widening and Landscape Improvements	7,413,482	359,913	28,245	0	7,025,324	0	0	0	0	0	0
29	07Z0039	CIP	Lowell Blvd. - 120th Ave. to E Midway Ave - Widening and Landscape Improvements	8,270,644	5,281,191	2,183,576	0	805,877	0	0	0	0	0	0

2017-2022 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Transportation Projects #70090														
30	17L0005	CIP	Lowell Blvd. - Sound Walls along Trails at Westlake	400,000	0	0	400,000	400,000	0	0	0	0	0	0
31	18L0006	CIP	Midway Boulevard - Street Lights	123,500	0	0	0	0	123,500	0	0	0	0	0
32	17L0007	CIP	Nickel Street - Improvements	0	0	0	166,900	0	0	0	0	0	0	0
33	M0030	CIP	Nickel Street and Industrial Ln - Intersection Improvements	340,000	0	0	0	0	0	340,000	0	0	0	0
34	J0038	CIP	Original Broomfield - Emerald Lane Paving	175,000	0	0	0	0	0	0	175,000	0	0	0
35	0AZ0020	AR	Pavement Management/Street Sealing Program - Citywide	Annual Program		3,282,224	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000	60,800,000
36	18M0006	CIP	Pedestrian Bridge and Underpass Repairs	58,000	0	0	0	0	58,000	0	0	0	0	0
37	09C0018	CIP	Railroad Crossings - Quiet Zone Improvements	1,208,700	23,618	2,788	250,000	1,182,294	0	0	0	0	0	0
38	16L0054	CIP	SH 7 and I-25 Interchange Design (Broomfield's Share)	83,000	0	0	0	83,000	0	0	0	0	0	0
39	M0022	CIP	SH 128 and US 36 - Bikeway Connection	350,000	0	0	0	0	0	350,000	0	0	0	0
40	0AZ0019	SEF	School Safety Improvements - Citywide	Annual Program		21,360	22,000	22,000	22,000	22,000	22,000	22,000	22,000	352,000
41	18L0008	CIP	Sheridan Blvd/Lowell Intersection Turn Lanes	527,000	0	0	0	0	527,000	0	0	0	0	0
42	18H0024	CIP	Sheridan Blvd/Midway Intersection Improvements	683,000	0	0	0	0	683,000	0	0	0	0	0
43	17G0025	CIP	Sidewalk - 120th Avenue - Main to Teller (South side of street)	350,000	0	0	100,000	100,000	250,000	0	0	0	0	0
44	18M0027	CIP	Sidewalk - 120th Avenue (Local) - Pedestrian and Roadway Improvements	1,334,400	0	0	0	0	133,440	1,200,960	0	0	0	0
45	16K0007	CIP	Sidewalk - Evergreen Street - Greenway Drive North to Ponderosa	34,319	0	34,319	0	0	0	0	0	0	0	0
46	17E0024	CIP	Sidewalk - Sheridan Parkway - Wildgrass to Lowell	210,000	0	0	210,000	210,000	0	0	0	0	0	0
47	0AZ0091	CIP	Sidewalk Connections - Citywide	Annual Program		0	0	9,037	100,000	100,000	100,000	100,000	100,000	1,600,000
48	0AZ0009	CIP	Street Light Installation - Citywide	Annual Program		90	20,000	20,000	26,000	20,000	20,000	22,500	22,500	382,500
49	0AZ0044	CIP	Traffic Mitigation - Citywide	Annual Program		28,947	110,000	156,870	160,000	160,000	160,000	160,000	160,000	2,560,000
50	0AZ0012	AR	Traffic Signal & Light Pole Replacement - Citywide	Annual Program		16,007	80,000	80,000	300,000	80,000	80,000	80,000	80,000	1,280,000
51	17L0051	CIP	Traffic Signal - 108th Ave and Simms St	150,000	0	0	250,000	150,000	0	0	0	0	0	0
52	15J0010	CIP	Traffic Signal - SH 128 and Ridge Parkway (Broomfield's Share 10%)	25,000	0	0	0	25,000	0	0	0	0	0	0
53	16K0005	CIP	Traffic Signal - W. 160th Ave. and Huron Street	225,664	0	74,155	0	151,509	0	0	0	0	0	0
54	0AZ0045	CIP	Traffic Signal Upgrades - Citywide	Annual Program		97,604	105,000	105,000	127,000	105,000	105,000	110,250	110,250	1,806,750
55	0AZ0007	CIP	Transportation Studies - Citywide	Annual Program		26,454	100,000	138,438	100,000	100,000	100,000	100,000	100,000	1,600,000
56	18M0033	CIP	Upham Street - Local Roadway and Sidewalk Improvements	607,000	0	0	0	0	607,000	0	0	0	0	0
57	15J0032	CIP	US 36 - Bikeway Connections	216,900	0	2,676	0	214,224	0	0	0	0	0	0
58	15J0033	CIP	US 36 - Bikeway Signage	20,000	4,015	0	0	15,985	0	0	0	0	0	0

2017-2022 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Transportation Projects #70090														
59	08B0060	TBONDS	Wadsworth Blvd. Interchange /120th Ave Connection Participation (Broomfield's share =20%)	11,700,000	10,843,355	856,645	0	0	0	0	0	0	0	0
60	08B0060	CIP	Wadsworth Blvd. Interchange /120th Ave Connection Participation (Broomfield's share =20%)	10,195,919	0	1,974,318	0	6,471,601	1,750,000	0	0	0	0	0
61	12F0022	CIP	Wadsworth Bridge Aesthetics	667,950	537,950	130,000	0	0	0	0	0	0	0	0
62	18F0007	CIP	Wadsworth Sidewalk to 116th Circle (RT12) Repair and Construction (Phase 2) - Design Amount Only	15,000	0	0	0	0	15,000	0	0	0	0	0
63	18L0040	AR	W. 12th Ave Reconstruction	424,000	0	0	0	0	424,000	0	0	0	0	0
64	18Z0088	CIP	W. 120th at Main St - Improvements	612,000	0	0	0	0	42,000	570,000	0	0	0	0
65	10C0048	SEF	W. 136th Ave. - Eastbound Left Turn at Legacy HS	171,503	154,565	16,938	0	0	0	0	0	0	0	0
66	10C0049	SEF	W. 136th Ave. - Westbound Right Turn at Legacy HS	1,433,911	0	0	1,000,000	1,433,911	0	0	0	0	0	0
67	17J0003	CIP	W. 136th Avenue - Westbound at Zuni Street Lane Safety Project	0	0	0	67,000	0	0	0	0	0	0	0
68	16K0034	CIP	W. 160th Ave - Sheridan Parkway to Lowell Blvd. Reconstruction	58,742	0	58,742	0	0	0	0	0	0	0	0
69	15J0008	CIP	W. 1st Avenue and Spader Way - Intersection Improvements	433,000	0	0	0	0	0	0	433,000	0	0	0
70	17D0048	CIP	W. Midway Blvd - Bridge over Railroad	950,000	0	0	0	950,000	0	0	0	0	0	0
71	D0001	CIP	W. Midway Blvd. - Right Turn Lane at Nativity School	177,000	0	0	0	0	0	0	177,000	0	0	0
72	08B0047	CIP	W. Midway Blvd. and Kohl Street - Intersection Improvements	260,000	0	0	0	0	0	25,000	235,000	0	0	0
73	16J0039	CIP	Wilcox Subdivision - Cul-De-Sac Paving	1,450,000	0	24,149	200,000	712,926	712,925	0	0	0	0	0
74	18K0003	CIP	Zuni Street and Quail Creek Drive Roundabout	415,000	0	0	0	0	62,000	353,000	0	0	0	0
75	17L0057	CIP	Zuni Street Pedestrian Crossing Improvements	75,000	0	0	0	75,000	0	0	0	0	0	0
76			Projects Beyond Current Plan											
77	H0025		112th Ave. between Parkland and Main	3,313,000	0	0	0	0	0	0	0	0	0	3,313,000
78	C0095		1st Ave/Community Park Ball field Access Road - In Civic Center	0	0	0	0	0	0	0	0	0	0	0
79	Z0187		Alter Street connection to US 287	400,000	0	0	0	0	0	0	0	0	0	400,000
80	C0072		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
81	07A0035	CIP	Aspen St. - Sidewalk Construction East of Nissen Reservoir	50,000	0	0	0	0	0	0	0	0	0	50,000
82	C0073		Baseline Rd: WCR 11 to York Street Widening	0	0	0	0	0	0	0	0	0	0	0
83	C0054		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
84	Z0188		Lowell Blvd. Improvements - 144th to 152nd	1,930,000	0	0	0	0	0	0	0	0	0	1,930,000
85	Z0189		Lowell Blvd. Underpass Between 144th & 152nd	1,500,000	0	0	0	0	0	0	0	0	0	1,500,000
86	Z0190		Main Street Improvements, south of 116th w/ Land	1,933,750	0	0	0	0	0	0	0	0	0	1,933,750
87	Z0184		Miramonte Blvd. and Kohl Street Intersection - Roundabout or Signal Installation	380,000	0	0	0	0	0	0	0	0	0	380,000
88	Z0191		Original Broomfield Street Reconstruction	1,947,611	0	0	0	0	0	0	0	0	0	1,947,611

2017-2022 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Transportation Projects #70090														
89	C0060		S. Boulder Rd/160th Ave: Broomfield Co. line to Lowell - New Road	0	0	0	0	0	0	0	0	0	0	0
90	C0061		S. Boulder Rd/160th Ave: Lowell to Sheridan Pkwy Widening	0	0	0	0	0	0	0	0	0	0	0
91	Z0192		SH 128 Improvements - Indiana Street to SH 121	7,265,000	0	0	0	0	0	0	0	0	0	7,265,000
92	C0057		SH 128: SH-121 to Eldorado Blvd. Widening	0	0	0	0	0	0	0	0	0	0	0
93	Z0193		SH 7 - I-25 Interchange Improvements	58,000,000	0	0	0	0	0	0	0	0	0	58,000,000
94	Z0194		SH 7 - Sheridan to WCR 11	2,805,330	0	0	0	0	0	0	0	0	0	2,805,330
95	C0056		SH 7: Boulder County Line to Sheridan Parkway Widening	5,200,000	0	0	0	0	0	0	0	0	0	5,200,000
96	C0058		Sheridan Blvd. - Lowell to Northwest Pkwy - 2 lanes only	2,917,215	0	0	0	0	0	0	0	0	0	2,917,215
97	Z0195		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
98	Z0196		Sheridan Blvd. Interchange at I-25 (Broomfield's Share)	44,000,000	0	0	0	0	0	0	0	0	0	22,000,000
99	E0026		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
100	D0005		State Highway Access Control Plan for 120th Avenue -Sheridan to Lowell	15,000	0	0	0	0	0	0	0	0	0	15,000
101	E0022		Teller Street Improvements Adjacent to Vista Pointe	200,000	0	0	0	0	0	0	0	0	0	200,000
102	Z0185		Traffic Signal - NB Wadsworth left to US 287/120th Ave	232,000	0	0	0	0	0	0	0	0	0	232,000
103	Z0201		Undergrounding Utility Poles Citywide	0	0	0	0	0	0	0	0	0	0	0
104	H0018		Uptown Avenue - South Half Construction	669,000	0	0	0	0	0	0	0	0	0	669,000
105	Z0089		US 287 & 6th Ave - Intersection Improvements	288,250	0	0	0	0	0	0	0	0	0	288,250
106	Z0186		US 287 left turn lane into Broomfield Market Place south of Miramonte	0	0	0	0	0	0	0	0	0	0	0
107	M0024	CIP	Weld County Road 4 - Rehabilitation	689,000	0	0	0	0	0	0	0	0	0	689,000
108	Z0198		W. 119th Ave. Paving in Original Broomfield	0	0	0	0	0	0	0	0	0	0	0
109	09C0020		W. 120th Ave - Main St to US 287 - Access Plan	0	0	0	0	0	0	0	0	0	0	0
110	Z0116		W. 120th Ave Median Improvements - Main to Sheridan (net of developer)	0	0	0	0	0	0	0	0	0	0	0
111	D0009		W. 132nd Ave Bus Shelter - Westlake	12,500	0	0	0	0	0	0	0	0	0	12,500
112	C0070		W. 136th Avenue: Zuni Street to Huron Street Widening	0	0	0	0	0	0	0	0	0	0	0
Transportation Projects Sub-Total				276,963,449	19,533,064	9,414,507	8,434,900	66,287,474	12,420,895	10,450,610	6,625,000	5,387,750	5,387,750	230,992,581

2017-2022 CIP PLAN - EQUIPMENT REPLACEMENT PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Equipment Replacement Projects #70110														
Projects Currently in 5-Year Plan														
1	16K0009	AR	Elections - Ballot Tabulation System	194,247	0	194,247	0	0	0	0	0	0	0	0
2	0AZ0047	AR	Facilities - Office Furniture and Equipment Replacement	Annual Program		39,704	50,000	112,296	60,000	30,000	30,000	30,000	30,000	480,000
3	0AZ0079	AR	Non-Mobile Equipment Replacement- Citywide	Annual Program		149,130	135,200	148,000	256,605	928,730	975,170	1,023,930	1,075,130	26,706,600
4	15J0036	CIP	Police - Radio System Upgrade	2,265,432	2,074,894	190,538	0	0	0	0	0	0	0	0
5	15J0037	AR	Police - Target System for Firearms Range	156,229	128,443	27,786	0	0	0	0	0	0	0	0
6	0AZ0092	AR	Recreation - Indoor Playground Equipment Replacement	Annual Program		0	0	0	0	0	166,065	0	0	722,617
7	0AZ0076	AR	Recreation & Auditorium - Electronic Audio/Video Equipment Replacement	Annual Program		7,509	16,418	17,818	30,778	67,253	22,989	43,133	11,854	454,274
8	0AZ0060	AR	Recreation & Police - Fitness Equipment Replacement	Annual Program		138,438	86,341	86,341	156,800	112,674	149,734	206,077	142,352	3,598,950
9	0AZ0022	AR	Vehicle and Mobile Equipment Replacement -Citywide	Annual Program		1,440,636	1,443,020	1,840,723	1,331,195	1,613,420	1,710,225	1,812,839	1,921,609	52,292,516
Total Equipment Replacement Projects				2,615,908	2,203,337	2,187,988	1,730,979	2,205,178	1,835,378	2,752,077	3,054,183	3,115,979	3,180,945	84,254,957

2017-2022 CIP PLAN - PLANNING, ADMINISTRATIVE AND MISCELLANEOUS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Planning, Administrative & Miscellaneous Projects #70130														
Projects Currently in 5-Year Plan														
1	07A0048	CIP	Asset Protection Fund Projects- Citywide	Annual Program		124,000	100,000	50,000	50,000	50,000	50,000	50,000	50,000	800,000
2	17M0065	CIP	Butterfly Pavilion	75,000	0	0	0	75,000	0	0	0	0	0	0
3	0AZ0035	CIP	Citizen/Council Priority Projects - Citywide	Annual Program		0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	400,000
4	06Z0079	CIP	Civic Center - Vision Development	68,408	0	0	0	68,408	0	0	0	0	0	0
5	15J0040	CIP	Comprehensive Plan Update and Transportation - Master Plan Update	534,761	78,706	156,055	0	300,000	0	0	0	0	0	0
6	16L0049	CIP	Eagle Trace Golf Club - Access Easement	35,000	0	0	0	35,000	0	0	0	0	0	0
7	0AZ0088	CIP	Enhance Broomfield Program	Annual Program		133,927	100,000	167,503	100,000	100,000	100,000	100,000	100,000	1,600,000
8	09C0028	CIP	Jefferson Parkway Participation	2,525,000	1,525,000	200,000	200,000	400,000	400,000	0	0	0	0	0
9	0AZ0032	CIP	Neighborhood Grant Program - Citywide	Annual Program		0	10,000	10,000	10,000	10,000	10,000	10,000	10,000	160,000
10	0AZ0005	CIP	Public Art - 1% Funding	Annual Program		101,394	76,239	336,049	245,579	75,000	50,000	50,000	50,000	800,000
11	15J0055	CIP	Ralston House - Broomfield's Share	288,000	0	30,000	0	258,000	0	0	0	0	0	0
Planning, Administrative & Misc Sub-Total				3,238,169		745,376	511,239	1,724,960	830,579	260,000	235,000	235,000	235,000	3,759,999
Capital Project Reserves				Goal										
12	0AZ0014	CIP	Asset Protection - Transfer to Allocation	10,000,000		100,000	300,000	300,000	400,000	400,000	400,000	400,000	400,000	6,400,000
13	0AZ0065	CIP	Facilities Improvements Allocation	Annual Program		3,288,229	5,446,193	5,346,193	7,577,265	2,033,937	2,103,120	2,164,963	2,212,604	78,032,237
Allocation to Reserves Sub-Total				10,000,000		3,388,229	5,746,193	5,646,193	7,977,265	2,433,937	2,503,120	2,564,963	2,612,604	84,432,237
Total Planning, Admin, Misc, and Reserves				13,238,169		4,133,605	6,257,432	7,371,153	8,807,844	2,693,937	2,738,120	2,799,963	2,847,604	88,192,236

2017-2022 CIP PLAN -BURA

Line	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est)	Prior Year cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
BURA PROJECTS														
Projects Currently in 5-Year Plan														
1			Broomfield Plaza/Civic Center											
2	06Z0079	BURA	Civic Center - Vision Development	57,600	57,600	0	0	0	0	0	0	0	0	0
3			General Projects											
4	0AZ0008	BURA	General - Misc. BURA Improvements	Annual Program		0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	400,000
5			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
12			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	17,342,992
Total BURA Projects				17,600,592	57,600	0	25,000	17,942,992						

2017-2022 CIP PLAN - STORMWATER AND DRAINAGE PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 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	426,126	34,521	17,705	16,900	16,900	17,000	17,000	17,000	17,000	17,000	272,000
2	08B0006	CIP	Culvert and Small Bridge Inspections - Citywide	Annual Program		0	0	0	52,500	0	30,000	0	23,500	198,500
3	0AZ0058	CIP	Erosion Control Maintenance - Citywide	Annual Program		0	10,500	10,500	10,500	10,500	10,500	11,000	11,000	215,000
4	0AZ0016	CIP	Park Drainage Improvements - Citywide	Annual Program		24,948	25,000	25,000	25,000	26,000	26,000	26,000	26,000	437,000
5	0AZ0083	CIP	Residential Street Drainage Improvements - Citywide	Annual Program		630	60,000	60,000	60,000	60,000	60,000	60,000	60,000	960,000
6	14H0028	CIP	Original Broomfield - Roadway and Drainage Improvement Plan Design	18,931	0	18,931	0	0	0	0	0	0	0	0
7	Projects Beyond Current Plan													
8	City Park Basin													
9	Z0384		W. 120th Avenue - Storm Drainage Capacity Improvements - Main St to Sheridan Blvd	4,221,300	0	0	0	0	0	0	0	0	0	4,221,300
10	Z0394		Midway Ponds	250,000	0	0	0	0	0	0	0	0	0	250,000
11	3207 Basin													
12	Z0379		Tom Frost Reservoir - Pond Dredging and Trail Improvements	0	0	0	0	0	0	0	0	0	0	0
13	Quail Creek Basin													
14	Z0385		Highland Park - Channel Improvements	3,236,000	0	0	0	0	0	0	0	0	0	3,236,000
15	Z0386		Lowell Boulevard and W. 144th Avenue - Channel and Storm Sewer Improvements	1,010,000	0	0	0	0	0	0	0	0	0	1,010,000
16	Rock Creek Basin													
17	Z0398		Frank Varra	250,000	0	0	0	0	0	0	0	0	0	250,000
18	Z0399		Josh's Pond	406,500	0	0	0	0	0	0	0	0	0	406,500
Total Drainage and Storm Water Projects				9,818,857	34,521	62,214	112,400	112,400	165,000	113,500	143,500	114,000	137,500	11,456,300

2017-2022 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years +	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Water Fund Projects														
RAW WATER PURCHASES & RESERVOIRS #70510, #70511														
1	03Z0303	G	Broomfield Reservoir - Raw Water Storage Reservoir Construction	45,126,106	26,676,106	0	0	0	0	0	0	0	0	18,450,000
2	10Z0123	G	Carter Lake Pipeline - In-Line Pump Station Share	313,620	0	0	0	0	33,080	280,540	0	0	0	0
3	15G0036	G	Sienna Reservoir/Pump Station/Pipeline	7,500,000	3,839,303	0	0	0	3,660,697	0	0	0	0	0
4	0AZ0070	G	Water Fund - Raw Water Purchase	54,679,828	31,635,315	19,273,438	0	3,771,075	0	0	0	0	0	0
5	13G0004	O	Water Treatment Facility - Zuni Chlorine Station Remodel	2,377,181	1,827,933	228,753	0	320,495	0	0	0	0	0	0
6	03Z0121	G	Windy Gap - Payment Of Broomfield's Share of Water Lease	4,315,791	3,763,603	275,918	276,270	276,270	0	0	0	0	0	0
7	00Z0267	G	Windy Gap- Storage Reservoir Design And Construction	121,391,257	4,722,656	4,037,126	5,000,000	6,631,475	6,000,000	100,000,000	0	0	0	0
POTABLE WATER AQU. TREATMENT & STORAGE #70520, #70521														
9	08B0053	O	Great Western Reservoir Water Treatment Plant - Demolition	346,750	0	81,831	0	264,919	0	0	0	0	0	0
10	16L0052	O	Interlocken Water Tank - Relocation of Road	100,001	0	8,535	0	91,466	0	0	0	0	0	0
11	02Z0291	G	North Area Water System Master Plan Improvements - Pipe Capacity and Connections	8,560,105	1,644,962	1,182,948	1,500,000	2,832,195	1,000,000	200,000	1,700,000	0	0	0
12	02Z0291	G	North Area Water System Improvements - Tank	10,000,000	0	0	0	0	0	0	0	1,000,000	9,000,000	0
13	02Z0112	O	Meter Conversion/Replacement - Citywide	Annual Program		99,998	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,600,000
14	18M0046	O	Residential Meter Replacement/Conversion (Itron to Orion Reading System) - Citywide	3,022,900	0	0	0	0	3,022,900	0	0	0	0	0
15	18M0045	O	Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting	180,000	0	0	0	0	180,000	0	0	0	0	0
POTABLE WATER TRANSMISSION LINES & FACILITIES #70530, #70531														
17	16L0053	O	Environmental Lab Utilities Upgrade	35,634	0	35,634	0	0	0	0	0	0	0	0
18	17L0044	O	Hwy 287 and Midway Blvd - Pressure Regulating Valve Replacement	105,000	0	0	105,000	105,000	0	0	0	0	0	0
19	07Z0039	G	Lowell Blvd. - 120th Ave. to E Midway Ave	289,669	289,669	0	0	0	0	0	0	0	0	0
20	18M0044	G	Mesa Zone - Booster Station	2,880,000	0	0	0	0	2,880,000	0	0	0	0	0
21	17L0045	G	Northwest Parkway/Anthem Ranch - New Pressure Regulating Valve Facility	122,000	0	0	122,000	122,000	0	0	0	0	0	0
22	18M0043	O	Potable Water Sampling Stations - Citywide	215,000	0	0	0	0	43,000	43,000	43,000	43,000	43,000	0
23	M0058	O	Service Center - HVAC Replacements - 20% of Total Cost	66,000	0	0	0	0	0	66,000	0	0	0	0
24	M0060	O	Service Center - Lighting Upgrades - 20% of Cost	7,000	0	0	0	0	0	7,000	0	0	0	0
25	03Z0316	G	Service Center - Phase I New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$30M)	6,001,500	1,500	0	600,000	600,000	5,400,000	0	0	0	0	0
26	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
27	15J0043	O	Sunny Slope Subdivision - Pumphouse / Underground Wet Well Demolition	14,415	0	14,415	0	0	0	0	0	0	0	0
28	11E0033	G	Utility Relocation - CDOT Project, 120th Ave. Construction	1,746,544	1,258,740	486,505	0	1,299	0	0	0	0	0	0
29	0AZ0051	O	Utilities - Street Reconstruction	Annual Program		26,104	20,000	20,000	20,000	20,000	20,000	20,000	20,000	320,000

2017-2022 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years +	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Water Fund Projects														
30	0AZ0001	O	Water Line Replacements And Extensions - Citywide	Annual Program		701,224	410,000	125,000	830,000	0	900,000	0	900,000	7,200,000
31	15J0052	O	Water Treatment Facility - Arc Flash Study/Testing	26,635	11,385	15,250	0	0	0	0	0	0	0	0
32	14H0048	G	Water Treatment Facility - Expansion	24,384,463	174,713	0	0	2,000,000	7,209,750	0	0	0	0	15,000,000
33			UTILITIES PLANNING & ADMINISTRATION #70590, #70591											
34	0AZ0041	G	Developer Reimbursement - Anthem Infrastructure License Fee Credits	Reimb. Amt		440,324	299,088	299,088	803,799	529,635	766,413	521,327	558,713	2,455,014
35	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		492,884	164,600	184,600	23,400	100,000	100,000	100,000	50,000	800,000
36	15K0035	O	SCADA Programmable Logic Controls	1,655,000	0	0	0	75,000	1,580,000	0	0	0	0	0
37	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		55,028	376,600	489,935	0	38,000	130,000	200,000	200,000	1,400,000
38	0AZ0003	O	Water Fund - Engineering And Legal Services	Annual Program		70,034	118,796	130,524	122,360	138,475	142,630	143,525	147,830	3,069,186
39	06Z0003	G	Water Fund - Master Plan Updates/ Hydraulic Model	765,021	203,667	1,266	25,000	50,000	25,000	25,000	25,000	25,000	25,000	400,000
			TOTAL	297,027,420	76,049,552	27,527,215	9,117,354	18,490,341	32,933,986	101,547,650	3,927,043	2,152,852	11,044,543	51,494,200
		G	PROJECT TOTALS -GROWTH	288,875,904	74,210,234	25,697,525	7,822,358	16,583,402	27,012,326	101,035,175	2,491,413	1,546,327	9,583,713	37,105,014
		O	PROJECT TOTALS - NON-GROWTH	8,151,516	1,839,318	1,829,690	1,294,996	1,906,939	5,921,660	512,475	1,435,630	606,525	1,460,830	14,389,186

2017-2022 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Sewer Fund Projects														
STORMWATER														
1	17L0038	O	136th Ave/Community Ditch - Remove and Replace Culvert Pipe Crossing	520,000	0	0	520,000	520,000	0	0	0	0	0	0
2	17L0037	O	6th Ave - Remove and Replace Concrete Drainage Pan	100,000	0	0	35,000	100,000	0	0	0	0	0	0
3	12F0057	G	Alter Street and Industrial Lane - Storm Drainage Improvements	80,000	0	0	80,000	80,000	0	0	0	0	0	0
4	17L0039	O	Aspen St/Community Ditch - Remove and Replace Culvert Pipe Crossing	90,000	0	0	70,000	90,000	0	0	0	0	0	0
5	18M0036	G	City Park Channel - Invert Along 120th Ave from Chase St to Sheridan Blvd	75,000	0	0	0	0	75,000	0	0	0	0	0
6	15J0044	G	City Park Channel – Lowell to Big Dry Creek (Broomfield Match)	500,000	150,000	150,000	0	200,000	0	0	0	0	0	0
7	15H0026	G	City Park Channel - Overflow Connection to Nissen Channel	990,000	0	0	0	990,000	0	0	0	0	0	0
8	18M0040	O	Commerce St - 118th Trickle Channel	50,000	0	0	0	0	50,000	0	0	0	0	0
9	M0038	O	Community Ditch - 16th Ave. Culvert Replacement	76,000	0	0	0	0	0	0	0	0	76,000	0
10	M0041	O	Community Ditch - St. Andrews Pipe Replacement	78,000	0	0	0	0	0	0	0	0	0	78,000
11	18M0035	O	Community Pond - Bank Stabilization	219,200	0	0	0	0	21,920	197,280	0	0	0	0
12	15Z0175	G	County Commons - Yellow Pod Drainage	250,000	0	250,000	0	0	0	0	0	0	0	0
13	15J0020	O	DesCombes Drive and Spader Way - Drainage Improvement	108,000	0	5,841	0	102,159	0	0	0	0	0	0
14	18M0062	O	Frank Varra Park - Multi-Use Trail Repairs	474,300	0	0	0	0	474,300	0	0	0	0	0
15	07Z0040	G	Lowell Blvd. - E. Midway to W. 136th Ave. - Widening and Landscape Improvements	519,139	0	0	0	519,139	0	0	0	0	0	0
16	J0019	O	Main Street and Miramonte Blvd - Drainage Improvement	150,000	0	0	0	0	0	150,000	0	0	0	0
17	18M0042	O	Midway Park - Concrete Channel Replacement	85,000	0	0	0	0	85,000	0	0	0	0	0
18	16H0050	G	Nissen Channel - Drainage Improvements Country Vista to Big Dry Creek (Broomfield Match 50%)	1,040,000	0	260,000	260,000	260,000	260,000	260,000	0	0	0	0
19	16K0052	G	North Midway Channel at Midway Boulevard	520,000	0	0	0	0	52,000	468,000	0	0	0	0
20	Z0380	O	Plaster Reservoir Dredging and Habitat Improvements	250,000	0	0	0	0	0	0	250,000	0	0	0
21	16K0050	G	Quail Creek Channel Improvements at Broadlands	250,000	0	0	0	250,000	0	0	0	0	0	0
22	J0031	O	Rock Creek Basin B Outfall - Erosion Control	75,000	0	0	0	0	0	75,000	0	0	0	0
23	0AZ0084	O	Stormwater Rehabilitation -Citywide	Annual Program		46,210	150,000	190,969	150,000	150,000	150,000	150,000	150,000	2,400,000
24	09Z0111	O	Sunnyslope Subdivision - Drainage Improvements	550,000	0	0	0	0	0	50,000	500,000	0	0	0
25	16J0041	G	Wilcox Subdivision - McKay Lake Lateral Drainage Improvements	2,999,647	0	16,647	1,300,000	483,000	2,500,000	0	0	0	0	0
26	TREATMENT FACILITIES													
27	07Z0039	G	Lowell Blvd. - 120th Ave. to E Midway Ave	1,434,371	921,478	443,355	0	69,538	0	0	0	0	0	0
28	06Z0091	O	Service Center Land/ Environment /Site IMP (RV Waste Disposal)	450,000	0	0	0	450,000	0	0	0	0	0	0
29	15J0021	G	Wastewater Treatment Facility - Administration Building Expansion	5,942,509	82,321	668,095	0	5,192,093	0	0	0	0	0	0

2017-2022 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Sewer Fund Projects														
30	16K0036	O	Wastewater Treatment Facility - Arc Flash Study/Testing	93,000	0	15,110	0	77,890	0	0	0	0	0	0
31	05Z0327	O	Wastewater Treatment Facility - Bldg Repairs	Annual Program		23,695	50,000	50,000	50,000	50,000	50,000	50,000	50,000	800,000
32	18M0034	O	Wastewater Treatment Facility - Centrifuge Backdrive Controls Upgrade	170,000	0	0	0	0	170,000	0	0	0	0	0
33	14H0040	O	Wastewater Treatment Facility - Digester Methane Gas Control	212,306	3,306	0	0	149,000	0	0	0	0	0	60,000
34	16K0021	O	Wastewater Treatment Facility - Exterior Lighting Replacement	28,960	0	22,800	0	6,160	0	0	0	0	0	0
35	17Z0205	G	Wastewater Treatment Facility - Improvements -New Clean Water STDS - Temperature (Growth)	9,685,000	0	0	1,820,000	0	1,820,000	3,380,000	4,485,000	0	0	0
36	17Z0205	O	Wastewater Treatment Facility - Improvements -New Clean Water STDS - Temperature (Operating)	5,215,000	0	0	980,000	0	980,000	1,820,000	2,415,000	0	0	0
37	14F0042	G	Wastewater Treatment Facility - Improvements -New Clean Water STDS - Nutrients (Growth)	15,652,532	52,532	0	0	0	0	0	0	0	0	15,600,000
38	14F0042	O	Wastewater Treatment Facility - Improvements -New Clean Water STDS - Nutrients (Operating)	12,919,503	4,135,366	235,486	0	148,651	0	0	0	0	0	8,400,000
39	11E0005	G	Wastewater Treatment Facility - Odor Control Monitoring and Improvements	4,250,000	0	0	0	0	0	0	4,250,000	0	0	0
40	11E0003	G	Wastewater Treatment Facility - Process Covers and Equipment Replacements	3,401,264	31,224	6,475	0	3,363,565	0	0	0	0	0	0
41	13Z0203	O	Wastewater Treatment Facility - Solids Dewatering	2,500,000	0	0	0	0	0	0	0	2,500,000	0	0
42	98Z0235	O	Sewage Farm- Maintenance and Equipment Repair	Annual Program		111,574	64,000	120,300	64,000	64,000	64,000	64,000	64,000	1,024,000
43	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
44			COLLECTION LINES & FACILITIES											
45	07Z0050	G	257 Property Lift Station and Forced Main – East of I-25	6,000,000	0	0	600,000	0	600,000	5,400,000	0	0	0	0
46	13G0029	G	Beyers Lift Station and Force Main	3,000,001	17,152	0	0	2,982,849	0	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	5,500,000	0	0	0	0
48	08B0057	G	North Area - Construct Lift Station and Sewer Lines (Subbasin 2A & 2B)	12,583,247	10,083,247	0	0	0	0	0	0	0	2,500,000	0
49	13Z0208	G	North Area Force Main (Subbasin 2 to WWTP)	13,804,121	804,121	0	1,300,000	1,300,000	11,700,000	0	0	0	0	0
50	14H0014	G	North Park Gravity Sewer Lines	2,120,000	0	0	2,120,000	0	2,120,000	0	0	0	0	0
51	16J0042	G	Sac Creek Basin - North Park Lift Station	3,000,000	0	0	3,000,000	0	3,000,000	0	0	0	0	0
52	M0058	O	Service Center - HVAC Replacements - 20% of Total Cost	66,000	0	0	0	0	0	66,000	0	0	0	0
53	M0060	O	Service Center - Lighting Upgrades - 20% of Cost	7,000	0	0	0	0	0	7,000	0	0	0	0
54	03Z0316	G	Service Center - Phase I New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$30M)	6,001,500	1,500	0	600,000	600,000	5,400,000	0	0	0	0	0
55	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
56	16K0049	O	Sewer Lift Station Assessment/Study (CDPHE)	30,000	0	0	0	30,000	0	0	0	0	0	0
57	12F0008	O	Sewer Lift Station Backup Generator Replacement	84,456	45,856	0	0	38,600	0	0	0	0	0	0
58	0AZ0004	O	Sewer Line Replacement and Rehab- Citywide	Annual Program		17,100	390,000	1,066,024	413,500	438,500	306,500	315,500	315,500	5,048,000
59	15G0009	G	South Preble Creek Lift Station	3,000,000	0	0	3,000,000	300,000	2,700,000	0	0	0	0	0

2017-2022 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Sewer Fund Projects														
60	14H0007	G	Super Oxygenation System for Rock Creek Lift Station and Force Main Odor Control	424,025	13,663	0	0	410,362	0	0	0	0	0	0
61	11E0033	G	Utility Relocation - CDOT Project, 120th Ave. Construction	1,413,039	1,413,039	0	0	0	0	0	0	0	0	0
62	0AZ0051	O	Utilities - Street Reconstruction	Annual Program		0	10,000	10,000	10,000	10,000	10,000	10,000	10,000	160,000
63			PLANNING AND ADMINISTRATION											
64	0AZ0041	G	Developer Reimbursement - Anthem Infrastructure License Fee Credits	Reimb. Amt		229,950	157,680	157,680	620,865	279,225	601,155	274,845	491,655	2,279,790
65	08B0063	G	Developer Reimbursement - South Sewer Outfall (Arista area) Old Wadsworth Blvd. to State HWY 121	339,380	158,380	0	0	181,000	0	0	0	0	0	0
66	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		415,460	360,000	1,276,000	34,000	75,000	75,000	75,000	75,000	1,200,000
67	15K0035	O	SCADA Programmable Logic Controls	1,655,000	0	0	0	75,000	1,580,000	0	0	0	0	0
68	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	57,300	57,300	0	205,000	185,000	0	100,000	700,000
			TOTAL	151,782,214	17,763,185	2,917,798	16,923,980	21,897,279	34,930,585	18,645,005	13,341,655	3,439,345	3,832,155	66,071,790
		G	PROJECT TOTALS -GROWTH	128,350,989	13,578,657	2,024,522	14,237,680	17,339,226	30,847,865	15,287,225	9,336,155	274,845	2,991,655	48,679,790
		O	PROJECT TOTALS - NON-GROWTH	23,431,225	4,184,528	893,276	2,686,300	4,558,053	4,082,720	3,357,780	4,005,500	3,164,500	840,500	17,392,000

2017-2022 CIP PLAN - REUSE WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2016 Actual	2017 Original	2017 Revised	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	Beyond the Current Plan
Reuse Water Fund Projects														
Acquisition & Storage														
1	09C0031	G	3.2MG Reuse Water Tank (Lowell & Sheridan)	4,836,318	2,336,318	0	0	0	0	2,500,000	0	0	0	0
2	06Z0008	O	Great Western Reservoir - Dam Maintenance	995,038	312,014	23,024	30,000	30,000	30,000	30,000	30,000	30,000	30,000	480,000
3	07A0053	G	Heit Pit - CCWCD Lease Payment	Annual Program		0	44,460	0	0	0	0	0	0	0
4	09C0083	G	Heit Pit - Outlet Facility	797,790	217,676	26,998	0	553,116	0	0	0	0	0	0
5	10C0084	G	Heit Pit - Pump Station/Inlet Improvements	2,464,280	0	0	616,070	616,070	0	1,848,210	0	0	0	0
6	10C0085	G	Heit Pit - Well Field	1,826,236	169,723	0	0	0	0	506,513	1,150,000	0	0	0
7	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	7,000,000	17,330,000
8	06Z0007	O	Raw Water Purchases - Marshall Shares	Annual Program		0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	800,000
9	18M0045	O	Rocky Mountain Airport - Distribution and Reuse Tank Exterior P	225,000	0	0	0	0	225,000	0	0	0	0	0
Distribution - Lines & Facilities														
11	17L0041	O	Augmentation Station at Slate Ditch	49,000	0	0	49,000	0	49,000	0	0	0	0	0
12	16D0035	G	Meadow Island Diversion Structure	422,700	0	0	84,540	0	84,540	338,160	0	0	0	0
13	09C0032	G	North Broomfield Expansion (24: fm PS to Highway 7)	2,186,982	0	0	0	0	0	0	0	0	0	2,186,982
14	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
15	0AZ0040	G	Public Works - Engineering and Legal Services - Projects	4,651,052	4,019,631	80,421	175,000	135,000	176,000	120,000	120,000	0	0	0
16	01Z0272	G	Pump Station - Construction (Wastewater Treatment Facility)	2,345,953	1,620,953	0	0	0	0	0	0	0	0	725,000
17	16K0037	O	Walnut Creek Water Measurement Flume at Indiana	35,090	0	0	0	35,090	0	0	0	0	0	0
Reuse Water Treatment Facilities														
19	D0002	G	Filtration Building Expansion (2 MGD @ Wastewater Treatment Facility)	4,500,000	0	0	0	0	0	0	0	0	0	4,500,000
Utilities Planning & Administration														
21	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		0	164,600	265,870	13,900	0	0	0	0	0
22	0AZ0040	O	Public Works - Engineering and Legal Services - General	Annual Program		31,151	53,000	93,000	40,000	38,000	38,000	38,000	38,000	608,000
23	09C0089	G	Reuse Water System Master Plan - Citywide	300,000	45,495	134,598	0	119,907	0	0	0	0	0	0
24	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	0	0	0	0	0	0	0	0
TOTAL				63,551,284	19,157,655	296,192	1,266,670	1,898,053	668,440	5,430,883	1,388,000	118,000	7,118,000	29,779,982
G PROJECT TOTALS-GROWTH				62,247,156	18,845,641	242,017	920,070	1,424,093	260,540	5,312,883	1,270,000	0	7,000,000	27,891,982
O PROJECT TOTALS- NON-GROWTH				1,304,128	312,014	54,175	346,600	473,960	407,900	118,000	118,000	118,000	118,000	1,888,000

5-YEAR CAPITAL IMPROVEMENT PLAN
PROJECT DETAILS



City and County of Broomfield 2018 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, at this time, will prepare the existing emergency generators from a catastrophic event, response time will be most effective, downtime will be decreased but most importantly safety will not be compromised.

Alternatives/Consequences if not Funded:

In the event that the main emergency generator would fail, response time will escalate as well as downtime.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Hire/Testing	2017	100

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	27,354	122,646	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	150,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **Facility UPS Battery Replacement**

Project #: K0020

Project Description:

Total Project Cost: \$235,200

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain quotes and replace batteries.	2019	100

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	39,200	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	196,000		235,200



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

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

Project #: 18M0052

Project Description:

Total Project Cost: \$51,700

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. This is especially true in the event that access needs to be removed due to a disgruntled employee event, or to allow temporary access to vendors performing work.

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bids	2017	5
Installation	2018	90

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	51,700	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		51,700



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **Surge Protection - Citywide**

Project #: 16K0019

Project Description:

Total Project Cost: \$94,010

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 considerable and significant price. Data center/IT infrastructures, including desktops, printers, etc., are susceptible to sever damage.

Alternatives/Consequences if not Funded:

Surges could continue accumulating having many effects on equipment ranging from no detectable effect to complete destruction; electrical damages can have their operation upset before failure occurs. The semiconductor junctions of electronic devices are particularly susceptible to progressive deterioration.



Project Association:

None

Operating Budget Impact:

None

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2016	10
Purchase & Install	2017	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	Total Project Cost
0	7,896	86,114	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		
0	0	0	0	94,010	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - 6 Garden Center**

Project #: 17M0055

Project Description:

Total Project Cost: \$148,150

Improve the space at 6 Garden Center designated for the expansion of services and programs for the Library, Cultural Affairs and Museum.

Background and Justification:

FISH is currently remodeling their designated spaces. Upon evaluation of the Library/Cultural Affairs space, city staff from IT, Facilities and Library department identified the need to address the following deficits to maximize services provided, as well as enhance the user experience. Deficits include:

Reconfiguration of current electrical setup.

Flooring - current carpet in all three spaces is worn and unattractive.

Reconfiguration of the Makerspace (removal of one non-load bearing wall, ventilation, etc.).

Reconfiguration of data wiring for both phone, network workstations and WiFi access.

Problem to be Solved and/or Benefit to Citizens:

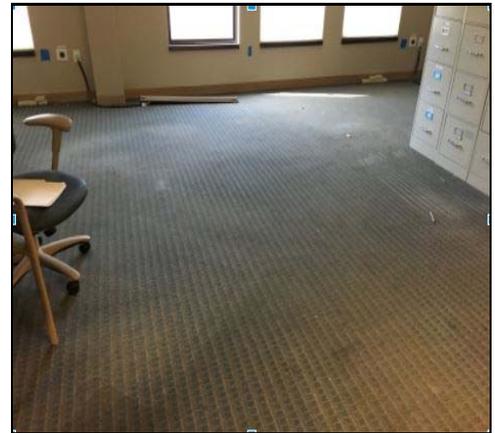
Provides additional community engagement programs and services to be presented by the Library, Cultural Affairs and the Museum. This project also addresses a need for additional space for office and collection space for the Museum, a community Maker Space, and increased opportunities for collaborative efforts.

Alternatives/Consequences if not Funded:

None of the spaces are usable without electrical and IT improvements.

Without the reconfiguration of the Makerspace, programs and services are substantially limited.

Without improvements to the flooring, the facility will fall below the standard being set by the FISH remodel.



Project Association:

None

Operating Budget Impact:

Additional staff hours to utilize the space, ongoing maintenance/cleaning/repairs and

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Facilities improvements	2017	100

Funding Source: CIP

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	148,150	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	148,150



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Auditorium Backstage and Loading Dock Expansion & Storage**

Project #: 13Z0096

Project Description:

Total Project Cost: \$1,470,638

The Broomfield Auditorium Backstage and Loading Dock Expansion was originally requested in 2004. This request was made because the size of the current backstage area cannot accommodate the storage of the piano, audio and lighting equipment.

Background and Justification:

Only about 50% of the backstage area is available to our renters to use for a dressing area and green room during performances. Some of our groups include a large number of participants who need to apply make-up, change costumes, etc. Many times, these performers also have musical instruments that they may need to take on and off the stage during the show.

Problem to be Solved and/or Benefit to Citizens:

The loading dock area is built on a downslope so water leaks into the building through the bottom of the door. The loading dock area is not covered so it is dangerous for organizations to unload equipment in inclement weather. The loading dock doors are not big enough to allow for theater sets which limits our ability to rent the Audi for dramatic performances.

Alternatives/Consequences if not Funded:

Alternatives include not expanding the Auditorium, delaying the expansion, or adding the storage area as a first phase and the backstage/loading dock area as a second phase.

Project Association:

None

Operating Budget Impact:

Additional space will require maintenance from Facilities Services staff.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2019	25
Construction	2020	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
24,638	0	0	0	110,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
1,336,000	0	0	0	1,470,638	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Auditorium Vestibule Construction** Project #: 07Z0001

Total Project Cost: \$200,170

Project Description:

Currently, the main entry to the auditorium has one set of doors. A vestibule will be added to the main entrance of the Auditorium to prevent the weather from disrupting the interior lobby climate and provide greater comfort and security for patrons.

Background and Justification:

This project would reduce energy costs. Design costs were incurred in 2007 and 2008.

Problem to be Solved and/or Benefit to Citizens:

The vestibule will help to prevent the weather from disrupting the lobby climate.

Alternatives/Consequences if not Funded:

1) Several vestibule and revolving door options have been conceptually designed and estimated. This budget estimate is conservative to allow for the most expensive design. 2) Keep the building as is and continue to run the portable heaters at the doorway.

Project Association:

This project could be combined with the other proposed Library improvement projects.

Operating Budget Impact:

It is estimated this project will reduce heat costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Development of construction plans	2019	25
Bid construction	2019	20
Award and construct project	2020	55

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
5,170	0	0	0	20,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
175,000	0	0	0	200,170



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Children's Library Extension**

Project #: H0029

Project Description:

Total Project Cost: \$864,500

This request is to fund design and cost estimates with the intent of constructing an extension of the children's library. The space will be designed specifically for newborns through five years old.

Background and Justification:

Emergent literacy is an important topic nationally and locally with the recognition of the critical value of early literacy skill attainment and reading proficiency by third grade for the future success of children and youth. Libraries are playing a larger role in guiding parents and caregivers to understand their role as their children's first teachers.

Problem to be Solved and/or Benefit to Citizens:

This project will alleviate the over-crowding in the children's library and allow for expansion of services to our youngest patrons and their families. Many young families in the community seek companionship, support, and opportunities for their young children to socialize. They need information on child rearing, child development, and early education. This project will assist in the effort to raise school reading test scores as a result of training parents on best practices for early and emergent literacy and young children being better prepared when they enter school.

Alternatives/Consequences if not Funded:

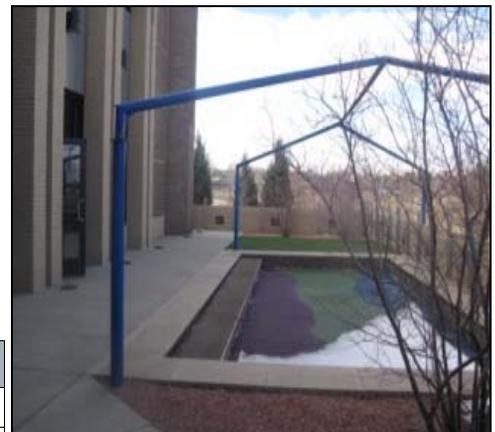
An alternative would be to rearrange the current children's library, designating the back area for younger children and bringing tables and materials for older children to the front of the library.

Project Association:

The project could be combined with other Library improvements.

Operating Budget Impact:

This project would increase maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development/bid	2020	10
Construct Project	2021	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
87,000	777,500	0	0	864,500



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Entry Canopy**

Project #: 11C0088

Project Description:

Total Project Cost: \$30,000

Install a canopy over the main entry doors to the library. The design and color will match/complement canopies used throughout new Civic Center development.

Background and Justification:

The project would highlight the library entry and give it a more welcoming appearance.

Problem to be Solved and/or Benefit to Citizens:

An entry canopy would tie the library visually into the overall Civic Center design and encourage the use of the library as a social gathering place. It would provide some protection from the weather for early morning patrons waiting for the library to open.

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project.

Project Association:

This project could be combined with the other proposed Library improvement projects.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Develop/Bid	2019	10
Construct Project	2020	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	5,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
25,000	0	0	0	30,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Entry Plaza Improvements**

Project #: 08B0002

Project Description:

Total Project Cost: \$203,662

This project would improve the library entry plaza. It includes a redesigned fountain/water feature, and would enlarge the plaza area by removing the current raised grass planter and adding seating and new plantings.

Background and Justification:

This project should reduce Park Maintenance costs by removing the raised grass planter. The savings will be determined before the project is started.

Problem to be Solved and/or Benefit to Citizens:

This project will remove the raised grass planter and enlarge the plaza, creating a more welcoming entry for the public.

Alternatives/Consequences if not Funded:

Continue to defer the project or keep the plaza area as is.

Project Association:

This project could be combined with the other proposed Library improvement projects.

Operating Budget Impact:

This project should reduce Park Maintenance cost by removing the raised grass planter.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Develop/Bid	2019	10
Construct	2020	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
13,662	0	0	0	15,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
175,000	0	0	0	203,662



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Library 2nd Floor Renovation**

Project #: L0001

Project Description:

Total Project Cost: \$58,600

Renovate the library's second floor to better serve changing public use through re-arrangement of spaces, reduction of shelving and replacement or addition of furnishings.

Background and Justification:

Library services have expanded to include more public programs, both for youth and adults, for a population that has nearly doubled. The traditional library reference desk no longer provides the best modern public library service model as users have access to information via the Internet on their own computers or smart phones.

Problem to be Solved and/or Benefit to Citizens:

There are three main issues that will be addressed by this project: 1) reduce the number of service points on the library's 2nd floor in order to free staff for other public service and program needs, 2) increase the amount of seating available to the public to meet the growing population served, and 3) replace old outdated furnishings.

Alternatives/Consequences if not Funded:

Receive increasing patron complaints; become more over crowded; provide inadequate service.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Reconfigure shelving	2019	50
Order furniture	2019	25
Placement of furnishings	2019	25

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	58,600	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	58,600	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Lighting Upgrade**

Project #: 17L0028

Project Description:

Total Project Cost: \$25,000

Upgrade/retrofit ninety (90) pendant lights at the Mamie Doud Eisenhower Library.

Background and Justification:

Integrate an energy star-rated LED retrofits for 90 lights, which will cut energy usage by 90%. We will also receive an energy rebate after installation from XCEL Energy, decreasing the total cost of the retrofits (estimated between \$2,000 to \$5,000). The LED lamps have an average life expectancy of 100K hours, equaling an estimated 20 year life expectancy.

Problem to be Solved and/or Benefit to Citizens:

Each of the current pendants consists of three F40-2G11 lamps and ballast – three times the material cost of one LED lamp. Flickering of lamps, buzzing and overheating of ballasts creates a continuous maintenance effort.

Alternatives/Consequences if not Funded:

Continue to pay higher maintenance, bulb/ballast replacement, and energy costs.

Project Association:

None

Operating Budget Impact:

Operating cost decrease.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase Equipment	2017	10
Install Equipment	2017	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	25,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	25,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

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 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 its population in regards to space. In 2007, the Broomfield population was 52,745 and 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 for 2018. Broomfield continues to fall vastly below the essential space standard for a community of its size (and growing).

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 a additional library building.

Alternatives/Consequences if not Funded:

Community priorities will not be identified.

Space will continue to be a struggle for the current facility

Current service levels would diminish and as a result discourage residents and/or renters from using the Library and Auditorium.

Residents in the northern part of Broomfield will remain underserved.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Community Needs Assessment and Facilities Analy	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	175,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	175,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Parking Lot Lighting**

Project #: 17K0028

Project Description:

Total Project Cost: \$298,900

This is a request to upgrade the existing library/auditorium parking lot lighting.

Background and Justification:

The project request is to improve the existing Library HPS parking lot lights with LED lighting. Remove and replace approximately 7,000 feet of underground wiring and the installation of three electrical above ground junction boxes.

Problem to be Solved and/or Benefit to Citizens:

The Library parking lot regularly experiences insufficient lighting conditions as a result of power outages in the library parking lots. Generally these outages have been due to the underground wiring and pull boxes not meeting the requirement of ground water saturation in the area resulting in electrical breakers tripping.

Alternatives/Consequences if not Funded:

We will continue to get complaints about the lights not being on and resident complaints about an unsafe area at night. There are also some unsafe electrical pull boxes that are generally always damp or in ground water that could result in an injury to someone.



Project Association:

None

Operating Budget Impact:

This should decrease staff time responding to maintenance issues in this area.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Award/Complete Project	2017	100

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	298,900	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	298,900	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **Lakeview Cemetery - Columbarium**

Project #: 15G0020

Project Description:

Total Project Cost: \$20,000

The purchase and installation of a 64 unit, granite upright columbarium to match the unit on site. All foundation work has been completed.

Background and Justification:

Since the installation of the columbarium at the Lakeview Cemetery in January of 2012, seven spaces have been sold and Recreation Services receives approximately three to five inquiries each month. The addition of the second upright columbarium could provide enough space for the next 10 years. Adding the second columbarium would provide a more attractive finished look for the cemetery.

Problem to be Solved and/or Benefit to Citizens:

This project will add additional burial space for the citizens of Broomfield.

Alternatives/Consequences if not Funded:

An alternative solution would be to direct potential customers to the Broomfield County Commons Cemetery for their burial needs.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Complete Work	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	20,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	20,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: City and County Building - 1st Floor Reconfigure
(Clerk/Elections/Motor Vehicle)

Project #: 15K0008

Project Description:

Total Project Cost: \$183,443

Construct and reconfigure modular office space on First Floor of the City and County Building to improve customer service.

Background and Justification:

Reconfigure modular furniture and potentially create one hard-wall office to achieve better service for Motor Vehicle customers and co-location of department staff within the City and County Clerk’s Office, Assessor Department, and the Revenue Division of the Finance Department.

Problem to be Solved and/or Benefit to Citizens:

Increasing service levels, staffing level changes, and changes in service locations have cumulatively proved the need for significant office space reconfiguration for the departments involved.

Alternatives/Consequences if not Funded:

Other options were considered and can be revisited as needed.

Project Association:

This project would be optimized if managed in close conjunction with the replacement of carpet in the affected areas, which is currently planned for 2016.

Operating Budget Impact:

There will be minimal operating cost impacts.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project	2015	15
Award contract	2016	10
Construct project	2016	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
12,000	171,443	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	183,443



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **City and County Building - City Attorney's Office Remodel**

Project #: 13G0035

Project Description:

Total Project Cost: \$24,359

Expansion of the City Attorney's office area and remodel of the reception desk.

Background and Justification:

Currently there are five attorneys and four offices. One attorney's office is in the Community Resources area in a different area of the building. Additionally, there is no formal reception desk to receive visitors and employees with scheduled meetings with the attorneys.

Problem to be Solved and/or Benefit to Citizens:

This project will create more usable space and allow all the attorneys to work in the same area.

Alternatives/Consequences if not Funded:

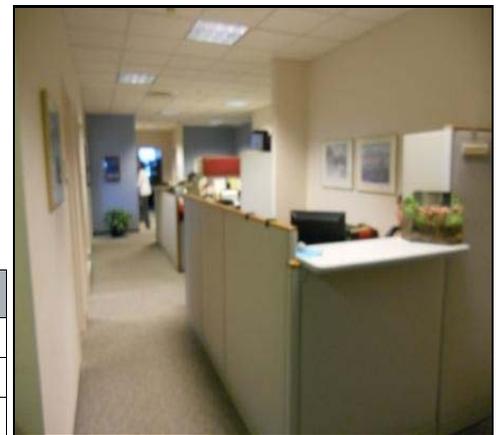
Do not remodel the area.

Project Association:

None

Operating Budget Impact:

There will be minimal operating cost impact.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Development of construction plans	2016	25
Bid and award construction	2017	30
Construct project	2017	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
22,359	237	1,763	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	24,359	



City and County of Broomfield 2018 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: \$150,000

This request is for the analysis of the Community Development Department’s office space configuration in 2018, followed by procurement of furniture in late 2018 for installation/construction in 2019.

Background and Justification:

Areas for analysis include the front desk, shared work spaces, cubicles, conference rooms, offices, and the file room. Installation / construction only includes cubicle areas with work being done during business hours. Based on the analysis, an additional phase may be needed to include the front desk, conference rooms, file rooms and offices.

Problem to be Solved and/or Benefit to Citizens:

There is 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:

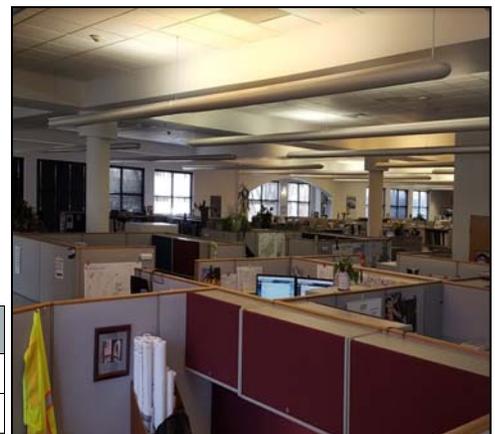
Staff will not be able to be near others in their workgroups, have needed space to work and effectiveness and efficiency will decrease.

Project Association:

None

Operating Budget Impact:

There will be minimal impact to operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Analysis/Design/Procurement	2018	40
Construction/Installation	2019	60

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	150,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **City and County Building - IT Room Cooling Replacement**

Project #: 16K0014

Project Description:

Total Project Cost: \$85,000

This request will replace the current George Di Ciero City and County Building IT/Server room cooling with two 7.5 ton air conditioning cabinets.

Background and Justification:

This would create a redundant cooling system in the event of mechanical equipment failure. The current IT cooling units are original units installed in 1994 and are inefficient due to age. The additional units will be sized to accommodate future cooling needs for additional IT equipment.

Problem to be Solved and/or Benefit to Citizens:

The current IT cooling system is at its full life cycle and cooling capacity with no cooling back up. It is critical that the IT equipment stays cool and does not overheat. Without proper cooling, the equipment could be lost or damaged resulting in server downtime or costly repairs. Increase in energy efficiency and productivity from server room.

Alternatives/Consequences if not Funded:

Continue with inefficient operation from a cooling system that was built in 1993.

Project Association:

None

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire design consultant	2017	10
Bid and award project	2017	20
Complete project	2017	70

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	85,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	85,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **City and County Building - Lighting Upgrade**

Project #: 18M0059

Project Description:

Total Project Cost: \$72,000

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

Background and Justification:

Existing lighting is energy inefficient and potentially harmful to the environment. While it is claimed that these lights will last about 10,000 hours, their life will be reduced significantly if they are turned on and off too frequently. This means that you should not use them in places where you would turn them on only briefly, but in areas where they will be left on for a while. Because the lamps contain mercury it is most probable and this is the most alarming drawback of fluorescent lamps, especially among environmentally conscious users. 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%. Additional savings by 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 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 ballast and lamps.

Project Association:

PD Lighting Upgrade

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Purchase/Install	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	72,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	72,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **City and County Building – Mechanical Equipment Replacement (2010 Building Assessment)**

Project #: 14H0034

Project Description:

Total Project Cost: \$43,800

The 2011 Eaton/EMC Building Assessment report indicated equipment condition, life expectancy, and recommended replacement plan. Facility Services is evaluating the recommendation and including CIP requests on a yearly basis.

Background and Justification:

This request includes the following equipment replacement:

- Replace boiler pumps for boiler circulation (BCP1, BCP2, BCP3). These were installed in 1994 and the nominal life expectancy is 15 years. The recommendation is to replace immediately.
- Replace heating water pumps for hot water circulation (P1, P2).). These were installed in 1994 and the nominal life expectancy is 15 years. The recommendation is to replace immediately.
- Replace bladder for hydronic expansion tank for hot water system. The nominal life expectancy is 20 years. It is recommended for replacement in 2014.

Problem to be Solved and/or Benefit to Citizens:

This work is necessary facility maintenance.

Alternatives/Consequences if not Funded:

The risk of not replacing this equipment is higher repair costs and eventually equipment failure.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2017	25
Hire contractor and complete project	2017	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	43,800	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	43,800



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

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

Project Description:

Total Project Cost: \$999,000

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 efficiency. (Project combined with annual HVAC Rehab project - 0az0075 - in 2016.)

Background and Justification:

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

Problem to be Solved and/or Benefit to Citizens:

Replace older inefficient equipment with new equipment to save energy costs and avoid repair costs.

Alternatives/Consequences if not Funded:

Continue to make repairs and risk equipment failure.

Project Association:

None

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2017	25
Hire contractor/complete work	2017	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	999,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	999,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

Project Name: Adams County Schools - Anthem P-8 Playground and North 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
IGA	2017	100

Funding Source: SEF

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	2,000,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	2,000,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

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

Project Description:

Total Project Cost: \$195,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Construction	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	195,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	195,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

Project Name: **Broomfield Depot Museum Roof Stabilization and Replacement**

Project #: 16K0010

Project Description:

Total Project Cost: \$79,800

The Broomfield Depot was constructed in 1909. The current roof was installed in 1980 and is estimated to be 5 to 10 years past the normal life expectancy of an asphalt shingle.

Background and Justification:

In 2012 the State Historic Fund (SHF) awarded the City funds to have a Historic Structure Assessment and Preservation Plan (HSA) completed on the Depot. In April 2013, Slaterpaul Architects completed the HSA. The City has successfully completed the first two phases recommended by the HSA: Phase 1-Foundation Rehabilitation and Phase 2 – Exterior Rehabilitation (windows, doors, siding, and trim). A new roof is the next step in preserving the Depot Museum.

Problem to be Solved and/or Benefit to Citizens:

The HSA identifies the scope of work listed above as Critical or Serious Deficiencies requiring immediate action. Critical Deficiencies are categorized as repairs that need to be made immediately to avoid “serious additional damage to the building or potential injury to the building’s occupants or passersby.” Replacing the roof would prevent significant and rapid additional deterioration of the building components and systems.

Alternatives/Consequences if not Funded:

There are no alternatives. If the request is not approved, the roof may start leaking in the near future and cause damage to the interior finishes and artifacts.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project	2016	20
Award contract and complete construction	2016	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	75,930	3,870	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	79,800	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

Project Name: **Brunner Farmhouse Paving**

Project #: 16L0056

Project Description:

Total Project Cost: \$54,800

Replace the gravel driveway with a paved (asphalt) driveway.

Background and Justification:

Broomfield receives complaints about the mud from the Brunner House users and the Brunner House committee.

Problem to be Solved and/or Benefit to Citizens:

The asphalt surface would reduce maintenance for Public Works.

Alternatives/Consequences if not Funded:

The driveway/parking area would remain gravel.

Project Association:

None

Operating Budget Impact:

The asphalt surface would eliminate the need to add gravel and regrade the driveway periodically.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Pave Driveway	2017	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	54,800	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		54,800



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

Project Name: **HHS - New Facility Design/Construct**

Project #: 13Z0060

Project Description:

Total Project Cost: \$15,432,335

The project is constructing a new HHS building on Broomfield-owned property in the Civic Center area. The building is anticipated to be approximately 45,000 square feet.

Background and Justification:

Currently, 6 Garden Center does not contain sufficient space for the HHS functions and does not have medical clinic space. Medical services are provided to residents in areas designed for office use. The current layout does not provide functional space for family visitations. These must occur either in the Family and Children’s Division office area or on the public grounds surrounding the building. The Workforce Center is currently located in leased space in the Greenway Plaza shopping center west of Pacific Ocean Marketplace. Ideally, the Workforce Center would be located within, or proximate to other HHS facilities, so clients needing multiple services could be fully and efficiently served. Broomfield currently pays \$90,133 per year to rent the facilities for the Workforce Center.

Problem to be Solved and/or Benefit to Citizens:

A new building will provide better, centrally located service for the citizens and more efficient space for HHS and Work Force employees.

Alternatives/Consequences if not Funded:

1) Broomfield constructs and owns the facility, 2) A private entity constructs the building and leases it to Broomfield, and 3) Broomfield hires a private company to construct the facility on our behalf.

Project Association:

None

Operating Budget Impact:

This Building will require maintenance from Facilities. The grounds will require maintenance from Park Services for landscaping and Streets Services for parking lot maintenance and snow removal.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Site Selection/Property purchase	2013	30
Award Design Agreement/Design Building/Constru	2013	20
Bid Project/Award Construction	2014	15
Construct Building	2014	25

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
12,214,923	3,217,412	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	15,432,335	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

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 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, on a rooftop and outdoor space. Exposure shortens equipment life, so 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 with new energy efficient equipment and reduce 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Install	2019	100

Funding Source: Sales and Use Tax and Utility Fees

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	330,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	330,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

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

Project #: M0060

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.

While it is claimed that these lights will last about 10,000 hours, their life will be reduced significantly if they are turned on and off too frequently. This means that you should not use them in places where you would turn them on only briefly, but in areas where they will be left on for a while.

Because the lamps contain mercury it is most probable and this is the most alarming drawback of fluorescent lamps, especially among environmentally conscious users. 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%. Additional savings by 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 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 ballast and lamps.

Project Association:

GDC Lighting Upgrade

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Purchase/Install	2019	100

Funding Source: Sales and Use Tax and Utility Fees

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	35,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	35,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

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

Project #: 03Z0316

Project Description:

Total Project Cost: \$30,005,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Complete Building Expansion Study	2014	20
Design	2017	20
Construct	2018	60

Funding Source: Sales and Use Tax Fund/Utility License Fees

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
5,000	0	3,000,000	27,000,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	30,005,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility

Project Name: **West Storage Site - Sprung Structure Repairs**

Project #: 12F0013

Project Description:

Total Project Cost: \$598,501

The Sprung Structure tent at the west storage site has damaged membrane panels from UV rays, wind and weather.

Background and Justification:

Structures are an investment and need to be maintained for their longest potential life.

Problem to be Solved and/or Benefit to Citizens:

These repairs will allow for the continued use of the storage site for Parks/Fleet/Streets equipment and salt/sand for snow and ice control.

Alternatives/Consequences if not Funded:

If panels continue to deteriorate, we will need to purchase an alternative storage structure.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Determine solution and bid project	2017	40
Hire contractor/complete repairs	2018	60

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
3,500	249,158	95,843	250,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	598,501	



City and County of Broomfield 2018 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 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.

Alternatives/Consequences if not Funded:

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire design consultant	2017	10
Bid and award project	2017	20
Complete project	2017	70

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	35,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	35,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Courts - Lighting Upgrade

Project #: 18M0050

Project Description:

Total Project Cost: \$85,000

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. While it is claimed that these lights will last about 10,000 hours, their life will be reduced significantly if they are turned on and off too frequently. This means that you should not use them in places where you would turn them on only briefly, but in areas where they will be left on for a while. Because the lamps contain mercury it is most probable and this is the most alarming drawback of fluorescent lamps, especially among environmentally conscious users. 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%. Additional savings by 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 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 ballast and lamps.

Project Association:

Service Center Lighting Upgrade

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Purchase/Install	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	85,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	85,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

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

Project #: 09C0005

Project Description:

Total Project Cost: \$300,000

This project will install a perimeter fence and an electronic security gate around the west parking area of the Police Department Facility where the police vehicles are parked.

Background and Justification:

The purpose of the project is to enhance security around the Police Department vehicle lot. There have been incidents where privately owned vehicles have been damaged and citizens have been found loitering in the parking lot.

Problem to be Solved and/or Benefit to Citizens:

Increase security and reduce vandalism and loitering.

Alternatives/Consequences if not Funded:

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

Project Association:

None

Operating Budget Impact:

Reduces operating costs by eliminating vandalism repairs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project	2019	40
Hire contractor and install security fencing	2019	60

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	300,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	300,000	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Courts - Rooftop Unit 3 Replacement

Project #: 18M0048

Project Description:

Total Project Cost: \$75,000

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

Background and Justification:

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 occupation and the equipment in the area has increased load capacity 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Install	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	75,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	75,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Courts - Security System Replacement**

Project #: 14H0006

Project Description:

Total Project Cost: \$457,675

This project would replace the existing security system for the Police and Combined Courts building. The current system has camera, software, and access concerns which leave the building vulnerable and unsecure.

Background and Justification:

The new system will include 10 monitors, 54 card readers, 60 cameras (10 pan tilt zoom and 50 still), total rewire (due to multiple splices), software, and new servers.

Problem to be Solved and/or Benefit to Citizens:

With the existing proprietary equipment, the only vendor that can work on the equipment is non-responsive, high-priced, and performs below-standard work.

Alternatives/Consequences if not Funded:

Continue to use existing equipment and work with non-responsive vendor.

Project Association:

None

Operating Budget Impact:

Operating costs are expected to be reduced by repair and maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFQ	2014	25
Interview/Select contractor	2014	20
Hire contractor and complete project	2014	55

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
45,925	411,750	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	457,675	



City and County of Broomfield 2018 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 the past approximate 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%.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Installation	2017	100

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	86,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	86,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Detention Center - Access Walkway Between ASU Parking Area to Detention Center Upper Parking Lot

Project #: 17L0021

Project Description:

Total Project Cost: \$21,000

The need exists to connect the Alternative Sentencing Unit sidewalk and parking area to the upper parking lot of the Detention Center to accommodate professional visitors, inmates, kitchen support staff, and maintenance workers.

Background and Justification:

The existing ASU parking lot consists of 11 parking spaces to include one handicap accessible space. The existing upper lot of the Detention Center consists of 72 staff/visitor parking spaces to include four handicap accessible spaces. Currently, visitors and staff are required to walk up an unimproved dirt pathway.

Problem to be Solved and/or Benefit to Citizens:

This project fulfills Broomfield’s Strategic Outcome of Facilities and Transportation Infrastructure by creating a safe and accessible walkway for all staff, visitors, contractors, and inmates who conduct business at the Detention Center.

Alternatives/Consequences if not Funded:

There are no alternative routes to reach these two areas without entering the secure portion of the Detention Center.

Project Association:

None

Operating Budget Impact:

The current sidewalks and walkways are serviced by the city and county in addition to contract workers.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Finalize Project Scope Requirements	2017	10
Secure Project Approval From CMO	2017	15
Solicit and Review Quotes	2017	10
Secure and Award Contract	2017	10

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	21,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	21,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Detention Center - Driveway Repair**

Project #: 16K0016

Project Description:

Total Project Cost: \$197,000

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 exist in the project area are contributing to the heaving pavement, which would eliminate 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 along with imported fill to help stabilize the subgrade material and replace 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 cause additional damage.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Engineering Svcs/Construction	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	197,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	197,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

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

Project Description:

Total Project Cost: \$1,177,576

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Phase 1 and Phase 2	2016	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	77,576	1,100,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,177,576	



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: **Police/Detention Center - Overhead Door Replacement** Project #: 18M0049

Project Description:

Total Project Cost: \$25,800

The Detention Center is requesting funding to replace the four current overhead security doors that control access to/from the facility's sally port.

Background and Justification:

The current doors are 16 years old and are very difficult to repair and locate parts for. Staff has consulted with the current vendor for door servicing and has determined that the doors have reached their service life. Additionally, the individual metal slats that comprise the door are difficult to locate on the open market and have become increasingly expensive.

Problem to be Solved and/or Benefit to Citizens:

This project would replace the current sally port overhead doors with newer steel doors that can be serviced and have parts readily available. The sally port doors are a critical component of the facility's overall safety with respect to inmate security and overall movement. The sally port is used to safely load and unload arrestees and inmates in a secure environment. The proposal would replace all four doors with newer specified doors that can be serviced much easier than the current ones. The sally port additionally serves as one of two primary evacuation points for the facility in the event of an emergency. This is a critical component of the overall safety plan for the facility to include the facility's "shelter in place" emergency operation plan

Alternatives/Consequences if not Funded:

If not approved, continued servicing and locating of parts will become more difficult. This will result in longer down times while conducting repairs or waiting for parts, more costly repairs, and this creates additional security concerns and risks to the staff and inmates in the facility because loading and unloading of arrestees and inmates will have to occur outside the secured perimeter while the doors are being repaired.



Project Association:

None

Operating Budget Impact:

There are no increases to staff time for the maintenance of the proposed overhead doors.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Install	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	25,800	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	25,800



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Detention Center - Security Enhancement - Bullet Resistant Glass

Project #: 17L0025

Project Description:

Total Project Cost: \$40,000

Broomfield Police Department Detention Center addition of bullet-resistant glass and Kevlar inner walls to be installed on the staff lobby wall as a security enhancement for administrative non-sworn staff working in the reception area.

Background and Justification:

Administrative staff currently has approximately five seconds to identify and react to a threat that presents itself through the lobby doors. The current design of the front counter has several open areas of glass that allow guests to reach through and remove items from the staff's workspace.

Problem to be Solved and/or Benefit to Citizens:

This project meets two of Broomfield's Strategic Outcomes: Safe Community and Facilities and Transportation Infrastructure, the goals of which are to provide and maintain an environment in which staff can feel safe as they work.

Alternatives/Consequences if not Funded:

The alternative to this plan is to continue relying upon the tempered glass to physically deter most low-level threats.

Project Association:

None

Operating Budget Impact:

No changes to current operating budget.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Finalize Project Scope and Requirements	2017	10
Secure Project Approval From CMO-Assign Lead	2017	10
Solicit and Review Quotes	2017	35
Secure and Award Contract	2017	5

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	40,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Detention Center - Security Gates

Project #: 18M0047

Project Description:

Total Project Cost: \$30,150

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 foot 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:

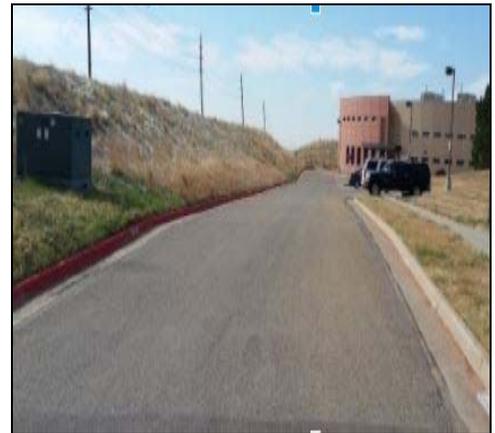
If not approved, staff and inmates will continue to be at risk as the facility currently has no manner in which it can limit vehicular and pedestrian traffic from unauthorized access to the property. Risks to staff and inmates in the facility will continue to be an issue.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Oder/Installation	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	30,150	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	30,150



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Range - Firearms Range Safety Improvement

Project #: 17L0022

Project Description:

Total Project Cost: \$161,000

Expand the rifle range to the same width (80 ft) as the pistol range, raise the berm between the rifle and pistol ranges 3 to 4 feet, raise the height of the ricochet fence, and pour three cement lane lines at the 25, 50, and 100 yard lines.

Background and Justification:

Due to the smaller width of the rifle range, the training is mostly single lane firing, with limited movement. Dynamic training is not possible due to the size of the range. With a wider range, scenarios could be developed for the course of fire making the training more dynamic.

Problem to be Solved and/or Benefit to Citizens:

Deadly force is one of the highest liability actions that can be taken. The range needs to afford the ability to train in a realistic manner with varying factors, not just static training on a firing line.

Alternatives/Consequences if not Funded:

Train as we do now, which takes longer with smaller groups, and is less dynamic.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Finalize project scope and requirements	2017	10
Secure project approval from CMO	2017	10
Solicit and review quotes	2017	10
Secure and award contract	2017	10

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	161,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	161,000



City and County of Broomfield 2018 Capital Improvement Projects

Building and Facility Projects

Project Name: Police/Range - Lead Maintenance and Reclamation

Project #: 15K0013

Project Description:

Total Project Cost: \$48,832

The Police Department is requesting implementation of a Lead Maintenance and Reclamation program for the outdoor firearms range.

Background and Justification:

The Police Department requests contracting with an approved vendor that will provide services to mitigate and reclaim the lead contained in the backstop berms and apron areas located at the Police Department range. Currently, it is estimated that the amount of lead contained in the berms ranges from 5% in and along the rifle berms and apron areas to 30% in and along the handgun berms and apron areas. Estimated costs for this project are \$28,700 - \$43,700, depending on the various options outlined in section 8. In addition, there is a potential credit to Broomfield of between \$5,000 - \$10,000 for lead removed and recycled. It is recommended that lead maintenance and reclamation be conducted every five years given the amount of lead currently estimated in the berms and aprons.

Problem to be Solved and/or Benefit to Citizens:

Lead shot, at the time it is fired from a gun, is not considered hazardous waste. However, spent lead left in the environment has been classified as hazardous solid waste by Congress under the Resource Conservation and Recovery Act (RCRA), sections 7002 and 7003.

Alternatives/Consequences if not Funded:

Possible litigation or government action if proper range management is not implemented. Citizen groups have taken legal action against outdoor ranges, citing the EPA's two most comprehensive environmental laws.

Project Association:

None

Operating Budget Impact:

This project will increase the operating budget for the Training Unit to perform a regular lead management program as outlined by the EPA BMP for outdoor ranges. The cost of this would be determined as part of the ESP.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFP and Select vendor	2016	25
Award contract	2016	25
Complete project	2016	50

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	48,832	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	48,832	



City and County of Broomfield 2018 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 including tents, chairs and vaults, produce legal and business documents, manage the administration for all spaces based on who owns and who occupies individual spaces, as well as 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 providing 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFQ	2017	25
Select vendor	2017	25
Purchase and implementation	2017	50

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	40,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **Communications – CRM Software**

Project #: 14H0047

Project Description:

Total Project Cost: \$275,532

The purpose of this request is to seek funding to purchase Customer Relationship Management (CRM) software for phase 1 of a City and County wide CRM software initiative. Future phases of this project will require additional funding in subsequent years.

Background and Justification:

CRM can help reduce costs and increase profitability by organizing and automating business processes that nurture customer satisfaction and loyalty in customer service.

Problem to be Solved and/or Benefit to Citizens:

The City and County of Broomfield uses a variety of methods to request, track, respond to, and report on citizen inquiries or requests for various services. These come in the forms of phone calls, email directly to staff, email to department group inboxes, web forms and inquiries, U.S. mail, fax, and social media, among others. These inquiries are handled in a different manner, and each department handles its own inquiries in its own way.

Alternatives/Consequences if not Funded:

Continue business as usual.

Project Association:

None

Operating Budget Impact:

Software maintenance will impact future IT operating budgets.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Project implementation	2019	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
16,332	0	0	0	259,200
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	275,532



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

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

Project #: 15J0053

Project Description:

Total Project Cost: \$491,830

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. This 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 customer with IT related issues and projects. The equipment is old and 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 place additional strain on the availability of the few conference rooms that have been equipped with the collaboration technology.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Scheduled Rooms Updated	2017	25
Scheduled Rooms Updated	2018	25
Scheduled Rooms Updated	2019	25
Scheduled Rooms Updated	2020	25

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	Total Project Cost
143,282	33,048	135,500	75,000	30,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		
75,000	0	0	0	491,830	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: Finance/HR - HRIS/Payroll Integrated System

Project #: 15J0009

Project Description:

Total Project Cost: \$2,520,822

This is a request to procure and implement a Human Resources Information System (HRIS) system. The system will modernize the City’s payroll and timekeeping system, which currently relies on duplicate hand-entry and hard-copy timekeeping and recording.

Background and Justification:

The current payroll system is outdated and is the only remaining H.T.E. component, since the new police system implementation. The existing payroll system has very limited Human Resources capabilities.

Problem to be Solved and/or Benefit to Citizens:

Broomfield does not have an integrated HRIS/Payroll System. Staff and the BIT are in the process of preparing the current state mapping of the payroll and human resource functions. The current system and practices are not integrated, are labor intensive and redundant, and are not in line with current technology. For example, currently employee time must be entered multiple times in the course of producing a paycheck, wasting time and creating opportunities for error at every step. With regard to payroll, the new HRIS system will allow for single-entry of time and automated approval workflow. Similar to timekeeping, staff currently maintains individual databases and/or spreadsheets for many systems ranging from training and benefits to payroll and personnel budgeting. All of these systems could be integrated, thereby saving data entry time and increasing the convenience of information access for the employee and related administrative staff.

Alternatives/Consequences if not Funded:

As part of the process described in the project description, staff will be developing a scope for the new system. The options available range from the multiple, integrated software systems (a “best of breed” approach”), to the purchase of a single software suite with modules for all desired systems. If this project is not funded the city will have to continue with the current H.T.E. payroll system and a labor intensive and inefficient HR process.

Project Association:

None

Operating Budget Impact:

In years subsequent to going live with a new HRIS system there will be an ongoing annual maintenance fee.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Project Development	2014	25
RFP Development and Issuance	2016	25
System configuration, data conversion, testing, train	2017	50



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
27,675	955,687	1,537,460	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,520,822	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Communications Conduit Installation Reserve Fund** Project #: 17M0003

Project Description:

Total Project Cost: \$750,000

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, requesting 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. Although several individuals have been added to the permit review process, there are no programmed funds to support sharing costs with the developers. This truly is a win-win situation where the developers can reduce their overhead costs and the City and County can save significant amounts in future projects.

Alternatives/Consequences if not Funded:

Should this reserve fund not be developed, the City and County will 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Conduit Installation and Capping	2017	100



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	50,000	100,000	150,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
150,000	150,000	150,000	0	750,000	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

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

Project #: 17L0003

Project Description:

Total Project Cost: \$500,000

Update to 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 care and feeding 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 appropriate backup and recovery protocols are enforced.

Problem to be Solved and/or Benefit to Citizens:

Migrate the majority of the City and County in-house IT hardware and software systems and/or infrastructure to a hosted facility utilizing this partner to host hardware, software, servers, storage and other infrastructure components. 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:

If this project is not funded, the IT Department will need to make major hardware, software, and firmware upgrades to the existing system in the next three years. Additionally, significant engineering and expenses will be required to develop a reliable disaster recovery and continuity of operations capabilities.

Remaining status quo will increase frequency of outages for CCOB services dependent on these systems and not address the risk that a minor water or fire accident in the basement could shut down all services for an extended period of time

Project Association:

None

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
RFP/Vendor Selection	2017	20
Migrations from Broomfield Facilities	2018	70
Migrations from Police	2019	10



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	200,000	200,000	100,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	500,000	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Document Management**

Project #: 17L0014

Project Description:

Total Project Cost: \$525,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Update current document management requiremen	2017	10
Develop tests and determine if Google is a viable alt	2018	25
Perform acquisition of services/solution	2018	65

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	135,000	390,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	525,000	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: IT - Fiber Infrastructure Transition/Replacement

Project #: 17M0001

Project Description:

Total Project Cost: \$1,124,500

Implement 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
- Detention Center
- Paul Derda Recreation Center
- Carbon Road Towers (136th and Kohl)
- 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:

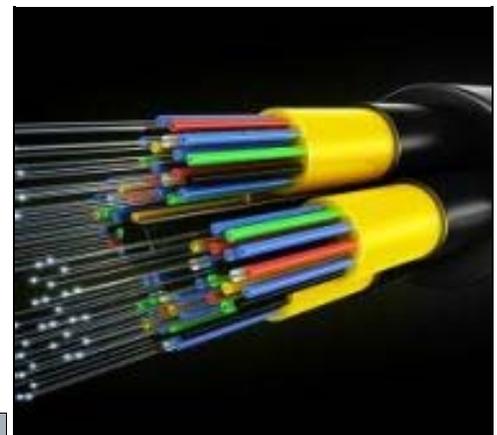
Given that a complete replacement of the iNet fiber would require construction across the City and County and at significant cost over a period of 12-18 months, the only option is to enter into another lease agreement for the services.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Identify Provider, Establish Agreement	2017	10
Connect, Test, Verify	2018	45
Cutover to New Services	2018	45



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	140,500	984,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,124,500	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Google Management Tools**

Project #: 18L0016

Project Description:

Total Project Cost: \$50,000

The IT Department needs additional management and administration tools that complement the Broomfield Google implementation.

Background and Justification:

As the City and County of Broomfield moves to Google there are new system administration requirements for the IT Department to ensure that the system is stable, consistent and less time consuming for repeated tasks.

Problem to be Solved and/or Benefit to Citizens:

The IT Department has to manually create and manage adds/changes/and moves of content, applications, and content which are highly time consuming. There are tools in the market that automate repetitive tasks which will allow IT staff to quickly respond to requests and ensure consistency in delivery of those services.

Alternatives/Consequences if not Funded:

If this is not funded, the IT Department will have to continue providing services that take significant time to deliver for a growing customer base.

Project Association:

None

Operating Budget Impact:

There will be additional licensing and maintenance support costs that will have to be added to the annual operating budget for IT.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Conduct market research and procure services	2018	10
Implement services	2018	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	50,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	50,000	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Infrastructure Automation**

Project #: 17L0013

Project Description:

Total Project Cost: \$50,000

Establish a new CIP program for Infrastructure Automation expenditures to establish and maintain an Infrastructure Automation system to ensure the consistency of City and County of Broomfield systems throughout the system lifecycle.

Background and Justification:

Infrastructure automation is the process of scripting environments, from installing an operating system, to installing and configuring servers, to configuring how the servers and software communicate with one another, and much more. By scripting environments, you can apply the same configuration to a single server or hundreds.

Problem to be Solved and/or Benefit to Citizens:

The City and County will have a robust system recovery capability allowing IT staff to restore services quickly and efficiently regardless of circumstance. Lastly, this program will allow the IT Department to expand technical services easily without an associate expansion in FTE requirements.

Alternatives/Consequences if not Funded:

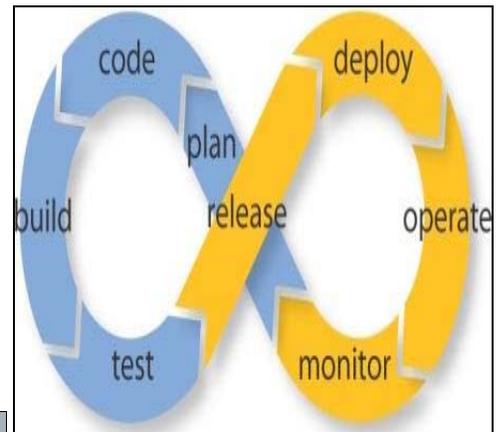
Rely on IT staff to take the time to manually set up, configure, and test servers, even when they're under pressure. Without visibility and openness of configuration changes, we end up locked into the limited toolset of a single vendor.

Project Association:

None

Operating Budget Impact:

Additional licensing and maintenance support will have to be added to the IT Operating budget.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Evaluate and implement an Infrastructure Automati	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	50,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	50,000	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: IT - Mobile Imaging for Rapid Asset Data Collection

Project #: L0017

Project Description:

Total Project Cost: \$110,000

Mobile Imaging System (Trimble MX7) and accompanying Trimble Trident software. The equipment streamlines comprehensive mobile data collection through high-accuracy collection of geo-referenced images.

Background and Justification:

Broomfield must find cost effective and efficient ways to manage assets such as roads, bridges, buildings, signs, and utility infrastructure. The technology of GPS systems is rapidly evolving, and taking advantage of these new technologies will position Broomfield to know exactly what and where assets are located, scheduled maintenance more effectively, and save on the costs of manpower and deferred maintenance over time. The collection of asset data using current handheld GPS technologies is labor intensive and expensive. Employees must spend hours out in the field collecting each asset individually, or rely on desktop software and expensive aerial imagery to digitize the locations of assets, which is also time and labor intensive as well as potentially inaccurate.

Problem to be Solved and/or Benefit to Citizens:

The value of owning this equipment is that assets always change over time, through construction and growth, maintenance and repairs, and hazards such as flooding and fire. Knowing what the city has, where the assets are located, and their condition is of extreme value to the citizens and will generate tremendous savings over time in the form of reduced labor costs, and more accurate estimating and scheduling of repairs and maintenance.

The Trimble MX7 Mobile Imaging System will empower staff to collect data quicker, deliver visual documentation, and save a considerable amount of manpower and money in the process.

Alternatives/Consequences if not Funded:

Hire a private contractor to drive all of the streets in Broomfield and collect the data for us, for about 60% of the cost of purchasing the equipment. This will not, however, allow us to capture new development and other changes in the future. An alternative is to purchase the software for feature data extraction and rent the hardware for an area of collection.



Project Association:

None

Operating Budget Impact:

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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase Equipment implement data collection	2019	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	110,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	110,000



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Office Production Software Upgrade**

Project #: 09C0090

Project Description:

Total Project Cost: \$728,997

This project is to determine the best option to address the need to standardize and provide a plan to better manage the City and County’s office productivity software.

Background and Justification:

There are multiple versions of MS Office currently in use across the City and County which creates significant challenges due to incompatibilities between the versions. The email system (MS Exchange) is also at end of life and will need to be replaced with a modern system/solution. There has already been work to maintain the existing system, however, due to security concerns and the lack of support from Microsoft, a decision has to be made to move forward.

Problem to be Solved and/or Benefit to Citizens:

This project will standardize the software utilized for all City and County Staff, align product/solution selection with to support the current and future needs of the organization, while taking into account the total cost of ownership that will include IT security compliance requirements, licensing, training, support, and consulting partnerships. By taking a holistic approach to determine the best path forward, this project will not only address the urgent end of life demands, but it will also place the City and County in a position to leverage the new technologies needed to continue serving the Broomfield community well into the future.

Alternatives/Consequences if not Funded:

The City and County will continue to operate at significant risk of losing their ability to communicate via electronic mail and struggle to collaborate on files that are created, edited, produced, and distributed with multiple versions of MS Office

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Analysis of Needs/Avail. Technologies	2014	20
Purchase/Plan New Technology	2015-2016	20
Implement Technology	2016-2017	40
Training/Normalization	2016-2017	20

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
380,697	303,300	45,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	728,997	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

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

Project #: 16L0009

Project Description:

Total Project Cost: \$40,000

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 in to business applications across the City and County. Each system has individual fee agreements related to credit card processing often times 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.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Install basic payment system	2017	10
Install enhanced payment services	2017	40
Coordinate integration with existing services	2017	50

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	40,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: IT - Smart City Project

Project #: M0005

Project Description:

Total Project Cost: \$5,000,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Master Developer Plan	2019	20
Infrastructure Construction	2019-2022	80



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	1,000,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
1,000,000	1,000,000	1,000,000	1,000,000		5,000,000



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Telecom System Replacement and Upgrades**

Project #: 10D0069

Project Description:

Total Project Cost: \$1,029,122

This project replaces city-wide telecommunication system components.

Background and Justification:

This project replaces older telephones with new voice over internet (VoIP) based technology, upgrades voice messaging software, and replaces and upgrades old software.

Problem to be Solved and/or Benefit to Citizens:

This project increases the ease of communication by providing updated voice messaging services to our citizens.

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project.

Project Association:

None

Operating Budget Impact:

This project does not affect operating costs



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
N/A		

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
882,018	88,505	58,599	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,029,122	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Telephone System Software Upgrade**

Project #: 18M0002

Project Description:

Total Project Cost: \$34,100

This project is to upgrade the software on the phone system and virtualize the main processor servers. We currently have one main phone (PBX) system, one backup (ESS) system and five gateway servers that will be upgraded.

Background and Justification:

Periodically it is necessary to upgrade software and hardware in our telephone system to keep it up to date and working at an optimum level. Our telephone system maintenance provider requires us to keep the system within two software revisions in order to continue with support and we are currently two revisions behind with the third version expected to be released in 2018.

Problem to be Solved and/or Benefit to Citizens:

It is mission critical that our communication system run at the highest level of reliability since all City and County facilities depend on it to perform their daily functions. With the exception of 911 calls, the Police Department relies on our telephone system 24/7 to communicate with the public in non-emergency situations. Our main telephone system and backup system servers were installed in 2009 and are due for replacement. As part of this upgrade, these servers will be virtualized to maintain current and add much needed resilience in the system architecture.

Alternatives/Consequences if not Funded:

If this project is not funded it is possible that our vendor could void our maintenance agreement since we are not within the revision level specified in our contract. The Information Technology department could also consider migrating our telephone services to a cloud provider which will require a significant amount of funding beyond this request.



Project Association:

None

Operating Budget Impact:

No change anticipated.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Procure and implement	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	34,100	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	34,100	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: **IT - Voicemail Server Redundancy**

Project #: 18M0004

Project Description:

Total Project Cost: \$33,000

Purchase of additional software and add virtual servers that will provide redundancy to support mission critical communications and avoid downtime with all applications inside the voicemail system.

Background and Justification:

In 2015, the Information Technology Department implemented a new voicemail system that included voice mailboxes for staff as well as call processors to answer all main department telephone numbers for the City & County of Broomfield.

This project will add additional voicemail infrastructure to allow the system to predict issues and correct them before they have impacted the City and County’s voicemail capabilities. There is a heavy reliance on the voicemail system to answer and route incoming calls from our citizens.

Problem to be Solved and/or Benefit to Citizens:

This project will provide a redundant automatic failover imperative to keeping communications running without interruption and protect our mission critical communication system capabilities 24/7.

Alternatives/Consequences if not Funded:

If this project is not funded and we continue with the current configuration we run the risk of considerable downtime should a component fail and require manual restoration. This will impact our users and our citizens who will not be able to contact many of our departments and facilities. Examples of this would include our main City & County phone number, Library, HHS, Paul Derda Recreation Center, Broomfield Community Center, Courts, and Motor Vehicle.



Project Association:

None

Operating Budget Impact:

Additional operating funds will need to be added to the IT Department.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase and Installation	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	33,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	33,000



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: Police - Data Records Management Systems Replacement

Project #: 11C0092

Project Description:

Total Project Cost: \$3,651,214

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 to include fire service dispatch and the management of a detention facility.

Alternatives/Consequences if not Funded:

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire consultant	2013	
Complete assessment	2017	

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
2,872,150	114,178	664,886	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	3,651,214	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

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

Project #: 11D0037

Project Description:

Total Project Cost: \$1,722,708

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:

Computers needing replaced are more than five years old in the vehicles. They are a necessary tool for the Police Department to do its job and 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:

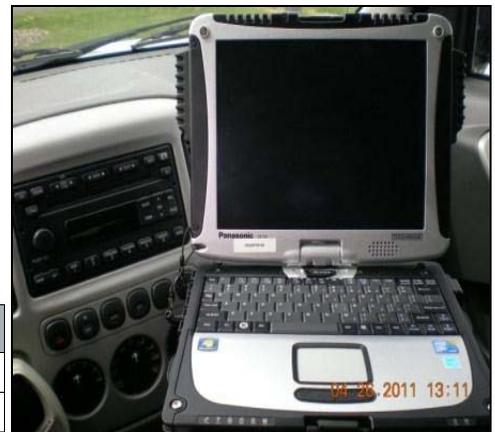
No alternatives were reviewed for this project due to the functionality that police vehicle computers provide to the Police Department.

Project Association:

None

Operating Budget Impact:

This project does not affect operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Replacement	2017	60
Replacement	2021	40

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
172,708	0	350,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	240,000	0	960,000	1,722,708	



City and County of Broomfield 2018 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

This project is for future funding to replace the current work order software used by Public Works. The software is used to schedule street and utilities repair and maintenance work.

Background and Justification:

This project will include consultant fees and software purchases to replace existing obsolete software.

Problem to be Solved and/or Benefit to Citizens:

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

Alternatives/Consequences if not Funded:

Continue to use the current, outdated software until it fails.

Project Association:

None

Operating Budget Impact:

Operating costs will be determined once software design is complete.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFQ for consultant	2018	25
Hire consultant and determine best option	2018	40
Purchase and implement software system	2019	35

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	1,500,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,500,000	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

Project Name: Public Works & Community Development - Vehicle Laptop Replacements

Project #: 08B0010

Project Description:

Total Project Cost: \$480,033

This project will update up to 30 vehicles with computer and network technologies to support public works and community development field operations.

Background and Justification:

The primary goal of the technology update is to enhance the access, mobility and use of having networked computing capabilities to increase the efficiency of field inspectors, decrease the burden on office staff, and provide greater opportunity for citizens and contractors to access field inspection information.

Problem to be Solved and/or Benefit to Citizens:

Support public works and community development field operations.

Alternatives/Consequences if not Funded:

Maintain status quo with Public Works and Community Development staff having limited connectivity and mobility options in the field.

Project Association:

None

Operating Budget Impact:

This project does not affect operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Establish needs and solution then deploy	2018	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
183,033	0	0	297,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	480,033	



City and County of Broomfield 2018 Capital Improvement Projects

Information Technology Projects

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

Project Description:

Total Project Cost: \$500,193

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

Background and Justification:

Request a 2015 Mid-year CIP request and 2016/2017 request for Consultant and Project Management needs to conduct a needs assessment, develop an RFP, vendor evaluation and selection, contract negotiations, project manager, product purchase, implementation, data conversion, training and support services, equipment and credit card transaction fees for a new Recreation 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 not approved that 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 for major system failure and significant operations and revenue impacts.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Consultant - evaluate market	2015	5
Needs Assessment	2016	10
RFP and vendor selection	2016	15
Implementation	2017	70

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	193	500,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	500,193	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: **136th Avenue - Landscaping and Street Lights - Lowell to Westlake Drive** Project #: F0024

Project Description:

Total Project Cost: \$384,000

The project would replace the wood pole-mounted street lights and aerial power line feed with new light standards along West 136th Avenue from Lowell Boulevard to Westlake Drive, and would add landscaping along the south side of the roadway.

Background and Justification:

The project would enhance the streetscape of this arterial roadway and would remove the pole and concrete barricades that are located in the future right-turn lane into the Shepard of Love property. This project is prioritized in the Westlake Sub-Area Plan.

Problem to be Solved and/or Benefit to Citizens:

This project will improve the streetscape for this neighborhood and remove the power lines.

Alternatives/Consequences if not Funded:

Do not do the project.

Project Association:

None

Operating Budget Impact:

If approved, the new landscaped areas would slightly increase operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/development of construction plans	2019	25
Bid construction	2019	20
Award agreement and construct project	2019	55

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	384,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	384,000



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Ash Tree Replacement - Citywide

Project #: 15J0017

Project Description:

Total Project Cost: \$588,695

The Emerald Ash Borer (EAB) an evasive insect that attacks and kills Ash trees (Fraxinus species) has been detected in Boulder. 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. Replanting the estimated 2,500 to 3,000 Ash trees that will be lost to EAB; 250 trees will be removed each year; replanting 200 trees annually. Prior to the detection of EAB in Broomfield large populations Ash trees located in parks greenbelts and street rights-of-way would be strategically selected. The trees removed would be less than 8 inches in diameter or in poor health. These trees would be removed by a contractor or Forestry Staff and replanted within the same growing season. 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 tree will give the opportunity to replace these trees and the benefits they provide and create an urban forest that has both tree species and age diversify. This diversity will lessen the impact of future disease and insect infestation 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Remove 200 Ash trees in selected locations	2016	
Replant trees	2017-2022	80



City and County of Broomfield

2018 Capital Improvement Projects

Landscaping Projects

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	78,695	85,000	85,000	85,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
85,000	85,000	85,000	0	588,695	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Civic Center - Community Park Hill Landscaping Improvements

Project #: F0017

Project Description:

Total Project Cost: \$231,750

This project includes construction of a series of retaining walls to reduce the slope of the hill. Plant material installed should be xeric in nature and provide color and interest from both the roadway above and the sidewalk at the lower level.

Background and Justification:

The area that needs repair is located near or within the area of the civic plan. It was difficult to determine exactly how much of the hill was part of the new plan. In addition to repairing a problem area, creating new beds will benefit the area by enhancing a rather dull landscape with a bit more color from the street and the walk below.

Problem to be Solved and/or Benefit to Citizens:

The extreme slope of the hill has made maintenance operations difficult and in some circumstances very dangerous. In an effort to provide regular maintenance (mowing, aeration, and fertilization) damage to the turf has resulted. The slope is south facing and therefore requires additional water to keep the plant material and turf from being desiccated. In addition to the extreme exposure, the grade of the hill makes it necessary to irrigate for shorter periods and more frequently to try to reduce runoff and wasted water. Lastly, the grade is so steep that the plant material, turf, soil and mulch are all sliding down the hill. There are areas where a void has been created under the sidewalk and where joints in the concrete pads are separating. Eventually the concrete is going to fail and the cracks will create a hazard for pedestrians.

Alternatives/Consequences if not Funded:

The slope and grade will have to be corrected. In previous years soil and mulch have been used to prevent a serious hazard. The hillside is divided into three sections by stairs or landscape.

Project Association:

This project could be coordinated with the Civic Center Improvement project.

Operating Budget Impact:

The total amount of water needed for irrigation for the area would be reduced by 30% or more. The area of turf maintenance would be reduced from 22,251 square feet to approximately 12,195 square feet.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/development of construction plans	2020	25
Bid construction	2020	20
Award agreement/construct project	2020	55

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
231,750	0	0	0	231,750	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: **Entry Monument Improvements - Citywide**

Project #: 06Z0052

Project Description:

Total Project Cost: \$363,629

Funding will be used to continue constructing City entry signs according to the plan developed in 2005. Three more signs are scheduled to be constructed.

Background and Justification:

This project meets Broomfield’s goal of enhancing key gateway entries into the City and County of Broomfield.

Problem to be Solved and/or Benefit to Citizens:

This program establishes signage at the City and County entryways.

Alternatives/Consequences if not Funded:

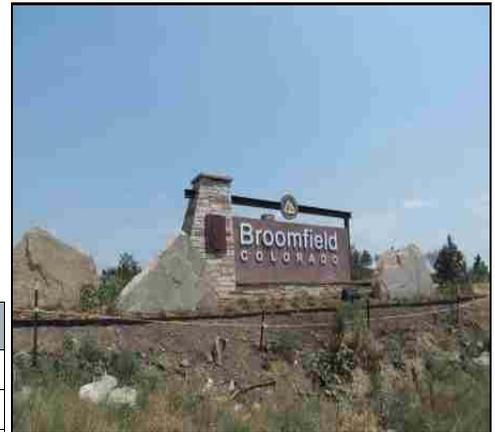
Continue to defer the project.

Project Association:

None

Operating Budget Impact:

As signs are added, operating costs increase due to the landscaped areas adjacent to the signs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project, as locations are identified	TBD	35
Hire contractor/construct project		65

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
143,629	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	110,000	110,000	363,629	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Irrigation Control Replacements - Citywide

Project #: 18M0064

Project Description:

Total Project Cost: \$890,490

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

Background and Justification:

Park Services utilizes the Toro Sentinel central control system to schedule and monitor irrigation operations for one thousand acres of planted area. A previous system, Version 2, had been in use since 2000 and provided staff with an indispensable tool used to maximize water conservation efforts. 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 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 on-line 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:

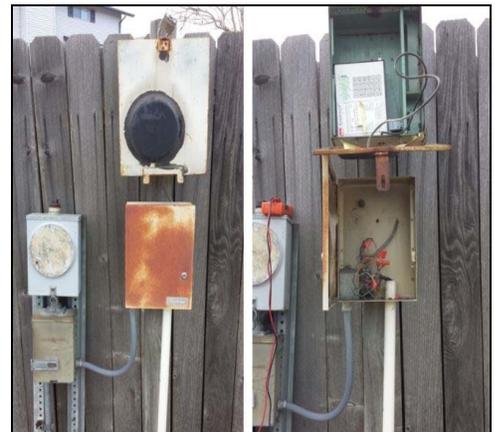
If additional funding is not supplied, the refresh will be delayed by up to 10 years. A cheaper and non-compatible replacement sacrifices the current \$3 million invested in the Sentinel network to date and will not provide the management tools needed to provide higher services with fewer staffing inputs. In 2016 staff logged over twelve hundred hours for controller repairs, 70% of which was dedicated to outdated hardware. This number will continue to rise as components reach the end of their useful life.

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. There will not be an increase of assets to inspect as the current inventory already accounts for each of these.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Phase 1 - Replace 34 controllers Flatiron/Interlocken	2018	33.33
Phase 2 - Replace 29 controllers Broomfield West	2019	33.33
Phase 3 - Replace 29 controllers Broomfield East	2020	33.33



City and County of Broomfield

2018 Capital Improvement Projects

Landscaping Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	297,975	298,240	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
294,275	0	0	0		890,490



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: **Lamar Street - Island Improvements**

Project #: 12D0045

Project Description:

Total Project Cost: \$125,000

This project would re-landscape the islands along Lamar Street from 120th Avenue to East 1st Avenue. It would include reconstruction of the colored concrete edge, installation of subsurface irrigation, and more drought-tolerant plant material.

Background and Justification:

The road segment is the major entry to the Civic Center and 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 an entryway to the Civic Center.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Develop construction drawings and bid project	2019	30
Award agreement and construct project	2019	70

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	125,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		125,000



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: **Library - Solar Panel Landscape Upgrade**

Project #: M0007

Project Description:

Total Project Cost: \$69,900

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 / Auditorium facility. Residents have to pass by this area to use these facilities, the amphitheater for concerts and events, and for 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 with 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:

Environmental Stewardship: A regional leader in environmental stewardship, open space preservation, water, and other natural resource management

Facilities and Transportation Infrastructure: Safe, well-maintained, efficient and attractive facilities, streets, parks, trails, open space and utilities

Engaged and Fiscally Responsible: Innovative, responsive, efficient, and fiscally responsible government with an engaged community and workforce.

Alternatives/Consequences if not Funded:

The overall appeal of the site will continue to decline.

Project Association:

None

Operating Budget Impact:

None anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Project Completion	2019	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	69,900	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	69,900	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Sheridan Boulevard - Median Landscaping Enhancements - Wildgrass to Lowell

Project #: F0018

Project Description:

Total Project Cost: \$2,800,000

This project would construct median and right-of-way landscaping and street lighting along Sheridan Parkway from the Wildgrass subdivision to the intersection of Sheridan and Lowell Boulevard.

Background and Justification:

This project improves safety by adding the street lighting and works toward the Sheridan Vision Plan.

Problem to be Solved and/or Benefit to Citizens:

This segment of Sheridan was constructed by the Anthem developer to provide a continuous Sheridan Parkway through Broomfield. The developer was not required to complete the landscaping, street lighting, or sidewalk improvements, although they did provide a design for those improvements. The project would complete the Sheridan Vision through this segment of Sheridan Boulevard.

Alternatives/Consequences if not Funded:

Keep the landscaping native and only install median-mounted street lighting.

Project Association:

None

Operating Budget Impact:

If approved, this project will affect operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and develop construction plans	2020	40
Bid and construct project	2021	60

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
280,000	2,520,000	0	0	2,800,000	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Uptown Avenue - Landscaping

Project #: 14H0017

Project Description:

Total Project Cost: \$395,830

This project would construct landscaping along Uptown Avenue across the frontage of the Dry Creek Valley Business Center subdivision. In accordance with the approved Development Agreement, Broomfield is responsible to construct this landscaping.

Background and Justification:

The project was estimated assuming construction of approximately a 14-foot wide strip of landscaping for the 1,200-foot frontage, along with removal of the existing temporary parking lot. The landscaping can be “basic” using low water consumption plants or could represent the final landscaping associated with the expanded Uptown Avenue.

Problem to be Solved and/or Benefit to Citizens:

The negotiated Dry Creek Valley Business Center development agreement allowed Broomfield to construct a parking lot south of Uptown Avenue to meet the parking requirements for the 1stBank Center. One of Broomfield’s commitments is to construct the landscaping along Uptown Avenue.

Alternatives/Consequences if not Funded:

If the request is not funded, Broomfield may be in violation of the Development Agreement.

Project Association:

The project is associated with the Uptown Avenue (south half) project, the Dry Creek Valley Business Center Sanitary and Storm Sewer, and the Uptown Avenue temporary landscaping.

Operating Budget Impact:

This project will slightly increase operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2014	30
Bid project and award construction agreement	2014	25
Construct project	2016	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
301,711	94,119	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	395,830	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: US 287/Midway - Island Landscape Improvement

Project #: M0008

Project Description:

Total Project Cost: \$1,527,915

This project involves refurbishing the Center Islands on US 287 from Midway Boulevard to Miramonte Boulevard.

Background and Justification:

This project addresses one of the main gateways through the City and County of Broomfield. Traffic data shows that 47,979 cars pass through this area daily. These islands are in poor condition and are not aesthetically pleasing. Irrigation is not efficient for current standards and electrical lines and outlets have been destroyed or have shrubbery growing into the electrical boxes. Numerous trees have been cut down due to dying or have outgrown the landscape area. Large sections of the islands are completely barren. These barren areas are due to poor irrigation and highly contaminated soils. These soils have above acceptable ranges of salinity concentration. If the salinity concentration in the soil is high enough, the plant will wilt and die, regardless of the amount of water applied. Old soil must be removed and replaced with new Engineered Soil. Designed topsoil can be used with subtle amendments of sand and compost to provide adequate infiltration rates and organic matter to support plants. Mulch would be replaced with an aggregate type material preventing the wind from blowing material off the landscaped areas..

New permanent LED landscape lighting is also being proposed for these areas. Outdoor landscape lighting can be used to highlight and illuminate specific areas and landscapes. During the Holiday season or special events these light caps can be exchanged with various optical lens covers to display a prismatic array of color. Currently Parks staff spends 155 hours to hang Holiday Lighting on these islands and it has become extremely hazardous for employees. A high volume of traffic makes it very difficult and dangerous to string Holiday Lights around the existing trees. We could reduce man-power by 70%, and staff would only need to exchange the optical lens covers instead of hanging and removing strings of lights.

Problem to be Solved and/or Benefit to Citizens:

Phase I of the project would be Nickel Street Island, Atlas Islands and Midway Blvd. to 10th Ave. Phase II would consist of 10th Ave to Miramonte Blvd. Included in this project are; installation of new electrical lines, new irrigation, new trees, new shrubbery, new aggregate mulch, new amended soils and installation of adjustable lighting. This project will be designed using Colorado drought tolerant native trees and shrubbery. Colorado native shrubs are naturally adapted to their specific Colorado climate and reduced external inputs such as watering, fertilizing, and pruning. All plant materials will be of a salt tolerant variety to help with winter time sanding operations.

Alternatives/Consequences if not Funded:

The infrastructure of this area is going to continue to fail and more plant materials and trees will die. Holiday Lighting setup for staff will continue to be a safety issue and the ability to hang lighting will be limited.

Project Association:

None

Operating Budget Impact:

None anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design / Engineering / Survey for Phase I & Phase II	2020	10
Phase I - Nickel St. / Atlas Islands / Midway to 10th	2020	45
Phase II - 10th Ave. to Miramonte Blvd - Miramonte	2020	45



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
1,527,915	0	0	0		1,527,915



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Westlake Subdivision - Greenbelt Enhancement

Project #: 15J0030

Project Description:

Total Project Cost: \$16,967

Provide landscape enhancements, including shrub and tree plantings, to a portion of the Southeast Community Loop Trail (Bryant Park Segment) in the Westlake Neighborhood.

Background and Justification:

Provide various tree and shrub plantings within a portion of the Southeast Community Loop Trail immediately south of West 132nd Avenue within the Westlake neighborhood. The plantings would assist in delineating the existing trail corridor as a public and neighborhood amenity. The landscaping would also provide visual relief to this area from the abutting private fences of nearby residential properties.

Problem to be Solved and/or Benefit to Citizens:

The proposed improvements are a part of the approved Westlake Neighborhood Plan adopted by the City Council in May 2009. The Westlake Neighborhood Plan is the result of a collaborative effort by the Westlake residents and the City and County of Broomfield. The goals of the plan are to preserve and enhance property values and neighborhood quality of life in one of Broomfield’s older residential areas. The planning process included an extensive public outreach effort to engage the community to identify local concerns and needs, propose specific solutions, and establish priority recommendations for further consideration.

Alternatives/Consequences if not Funded:

This funding request reflects a small piece or stage of a larger identified improvement project south of West 132nd Avenue within the Westlake Neighborhood Plan.

Project Association:

This is not associated with any other proposed CIP project but could be combined with one or more similar landscaping and irrigation projects or bid with the Citywide Irrigation Improvements.

Operating Budget Impact:

There would be a slight increase in maintenance due to expansion of the irrigation system approximately 1,000 square feet of new plant material (trees and shrubs).



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid construction	2015	10
Award construction agreement	2015	10
Construct project	2015	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
12,383	4,584	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	16,967



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Zuni Street Landscaping and Power Burial - East Midway to West 136th Avenue

Project #: Z0115

Project Description:

Total Project Cost: \$3,250,000

This project includes burial of the overhead utilities and right-of-way landscaping along the west side of Zuni Street from East Midway Boulevard to West 136th Avenue.

Background and Justification:

The project promotes economic vitality and goal CF-A: Community Identity from the Comprehensive Plan.

Problem to be Solved and/or Benefit to Citizens:

Alternatives/Consequences if not Funded:

The project could include either power burial without landscaping, landscaping without power burial, or neither.

Project Association:

None

Operating Budget Impact:

This project would increase water and landscape maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Burial	2022	60
Landscaping	2023	40

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	1,750,000	1,500,000	3,250,000	



City and County of Broomfield 2018 Capital Improvement Projects

Landscaping Projects

Project Name: Zuni Street Median Landscaping - North of 136th Avenue (Pedestrian Plan)

Project #: 13G0011

Project Description:

Total Project Cost: \$158,485

This project will complete the landscaping in the three medians on Zuni Street north of the West 136th Avenue intersection. Currently, there is no existing landscaping or stamped concrete, just dirt and weeds.

Background and Justification:

The purpose of the project is to improve the visual attributes of the islands. This project will add landscaping and stamped concrete to the medians.

Problem to be Solved and/or Benefit to Citizens:

This is at the Quail Creek shopping area and is not aesthetically pleasing to the customers who shop at King Soopers and the area shops. This is a high-traffic intersection that is seen by thousands of people a day.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

Once completed, this project will slightly affect operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and develop construction plans	2014	25
Bid and award project	2015	30
Construct project	2016	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
7,860	150,625	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	158,485	



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: **Davis/Nordstrom Open Space Management Plan**

Project #: Z0417

Project Description:

Total Project Cost: \$30,000

This will include the management plan for the open space areas located at the southwest corner of 160th and Huron.

Background and Justification:

Comprehensive Plan goals of providing 40% open lands within the community.

Problem to be Solved and/or Benefit to Citizens:

This project will create new trails and trail connectiong for the public.

Alternatives/Consequences if not Funded:

Alternatives will be discussed as the plan is established.

Project Association:

None

Operating Budget Impact:

Once the improvements are constructed, the project will slightly increase operations and maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFP	2021	25
Award agreement and complete plan.	2021	75

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	30,000	0	0	30,000	



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: **Harmer-Galasso Open Space Acquisition**

Project #: 15J0054

Project Description:

Total Project Cost: \$5,046,476

The request is to purchase the Harmer-Galasso property (132 acres approximately) located west of I-25, north of State Highway 7 and east of County Road 7. The property is proposed to be used for open space.

Background and Justification:

If the purchase agreement is approved by City Council, the Harmer-Galasso property will be purchased with Open Space Funds over a two-year period in 2015 and 2016. The first payment of \$2,508,000 is proposed to occur no later than December 15, 2015. The second payment of \$2,508,000 plus interest at 2.75% will occur in 2016. The interest calculation is based on the time between the first payment and second payment. The intent is to make the second payment as soon as is feasible in 2016 but no later than April 11, 2016.

Problem to be Solved and/or Benefit to Citizens:

This project is cited in the Open Space, Parks, Recreation, and Trails Master Plan as a potential acquisition site. The Open Space and Trails Advisory Committee reviewed the request and recommended the property be purchased to City Council.

Alternatives/Consequences if not Funded:

If not funded, the project site will eventually be developed.

Project Association:

None

Operating Budget Impact:

There will be maintenance costs for the property such as weed management. If open space trails are built in the future, there will be maintenance costs for these improvements.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Council Approval	2015	50
Purchase property	2016	50

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
2,548,397	2,498,079	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	5,046,476



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: Harmer-Galasso Open Space Management Plan

Project #: L0020

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire Consultant	2019	5
Site Analysis	2019	30
Development of Concepts	2020	30
Final Concept, Phasing, Cost Analysis Plan, Prepara	2020	30

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	100,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	100,000	



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: **Markel Open Space - Management Plan Development** Project #: 09C0021

Project Description:

Total Project Cost: \$51,366

This funding is for the development of a master plan for the Markel Open Space located at the northeast corner of Aspen Street and 136th Street.

Background and Justification:

This property was purchased in June 2008. Since this time, citizens have contacted the Open Space and Trails department over the years asking when access to the site will be provided. Residents are interested in using the pond and seeing several trail connections provided to the school and along Community Ditch.

Problem to be Solved and/or Benefit to Citizens:

Broomfield has owned this site for approximately eight years and completing the master plan is the first step that is necessary to allow for public access. The plan will address trails, pond improvements, habitat enhancement, site amenities, cost estimates and phasing.

Alternatives/Consequences if not Funded:

The site will continue to be closed to the public and the implementation of improvements will be delayed.

Project Association:

None

Operating Budget Impact:

The master planning effort will not affect operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire Consultant/Public Outreach/Develop Plan/Final	2018	100

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
1,366	0	0	50,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	51,366	



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: **Metzger Farm Building Stabilization**

Project #: 16K0012

Project Description:

Total Project Cost: \$250,000

The proposed 2016 farm building project includes reroofing, structural stabilization, and safety improvements for nine buildings and the site.

Background and Justification:

The intent is to obtain a State Historical Fund Grant in 2016. CIP staff has prepared a draft budget for the grant. Westminster and Broomfield would contribute \$225,000 each to the project and the maximum grant amount of \$200,000 would also be requested. An additional \$100,000 is also necessary from each partner to provide the money for the \$200,000 grant. Once the work is completed, the State Historical Fund would reimburse the Foundation for the \$200,000 that was provided upfront. The total estimated project cost is approximately \$645,000 including the grant and cash match amounts from each community.

Problem to be Solved and/or Benefit to Citizens:

The buildings need to be repaired to address structural and safety issues. At this time, the farmstead is closed to the public but can still be viewed from nearby trails. The longer the buildings sit without repairs, the worse and more expensive the future repairs will be. Once the farmstead is stabilized, citizens will be able to more fully enjoy the history of the site by attending community events and other educational activities that incorporate the farmstead into the activities.

Alternatives/Consequences if not Funded:

Staff looked at breaking down the project into three smaller phases. This is possible but the phased approach ends up taking more time and most likely more money as costs typically increase over time.

Project Association:

None

Operating Budget Impact:

Operating expenses are currently \$30,000 per government. The improvements should not significantly increase maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Prepare construction documents	2016	20
Apply for SHF Grant	2016	25
Bid project/Hire contractor	2016	25
Oversee project	2016	30

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	250,000	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	250,000	



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

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

Project #: 14H0056

Project Description:

Total Project Cost: \$6,190,041

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

Background and Justification:

Open Space property purchases contribute to the Comprehensive Plan goals of providing 40% open lands 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
3,378,347	345,212	274,842	272,203	274,078	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
275,502	271,508	277,221	821,128	6,190,041	



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: **Nordstrom Open Space - Interest Payment to Water Fund**

Project #: 01Z0309

Project Description:

Total Project Cost: \$13,594

This payment was for the acquisition of 9.4 acres of open space located at the southwest corner of 160th and Huron.

Background and Justification:

Problem to be Solved and/or Benefit to Citizens:

Alternatives/Consequences if not Funded:

Alternatives were discussed at the time the property was purchased.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
7,587	6,007	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		13,594



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

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

Project #: 18M0061

Project Description:

Total Project Cost: \$210,000

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 could 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Select Site, Testing and Consulting, Seeding of Site	2018	100

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	210,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	210,000



City and County of Broomfield 2018 Capital Improvement Projects

Open Space Projects

Project Name: **Open Space - Master Plan Update**

Project #: 17K0051

Project Description:

Total Project Cost: \$175,000

The Open Space, Parks, Recreation and Trails Master Plan (Plan) was approved in 2005. By the beginning of 2017, the Plan will be 12 years old and will be in need of updating.

Background and Justification:

The project scope will include: 1) community survey; 2) review of the Plan’s policies, goals, and design guidelines, and standards and specifications; 3) incorporation of direction from the Comprehensive Plan Update; 4) community comment opportunities via Open Space and Trails Advisory Committee, Parks and Recreation Advisory Committee, public meetings, and social media outreach. The end product will be an updated written document that will include updated maps and other graphics.

Problem to be Solved and/or Benefit to Citizens:

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.

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire consultant	2016	10
Review current process	2017	40
Write report/public process	2017	30
Finalize report	2017	20

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	175,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	175,000



City and County of Broomfield 2018 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: \$250,000

Proposed improvements include adding a picnic shelter that also serves as an environmental education center, with a presentation table and a sanolet with screening and the addition of native trees.

Background and Justification:

This project will provide 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 sanolet and some tree maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Educational pavilion constructed		25
Design and development of construction plans	2016	25
Bid and award construction	2017	20
Construct project	2017	30

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
3,756	20,299	225,945	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	250,000



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **County Commons Open Space Trail - Trail Raising**

Project #: 17L0035

Project Description:

Total Project Cost: \$44,000

This request is to determine if raising the elevation of a portion of the trail system at Commons Open Space is a viable option.

Background and Justification:

Open Space Maintenance staff spends time adding new trail materials to this area after each rain event.

Problem to be Solved and/or Benefit to Citizens:

Establish if the current flood plane and trail area can be modified to reduce staff hours spent to maintain this portion of trail.

Alternatives/Consequences if not Funded:

Continue to use resources for materials, equipment and personnel to repair this area.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Flood Plane/Drainage Study	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	44,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	44,000



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **Frank Varra Park - Multi-Use Trail Repairs**

Project #: 18M0062

Project Description:

Total Project Cost: \$558,000

Rebuild 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 from the 2013 flooding of Rock Creek.

Background and Justification:

This segment of trail is used as a local trail for runners and pedestrians and is incorporated as part of the regional US 36 bikeway which has significantly increased the year round use of the trail.

There are a number of issues with this section of the multi-use trail that cause safety issues year round.

- 1) 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 this 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, but a more permanent repair needs to occur soon as the hillside continues to erode and the pathway continues to be undermined and there is potential for significant failure to occur as additional moisture is added.
- 2) 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 and creating slick conditions on the trail surface.
- 3) Due to shading, 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.
- 4) 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.

Problem to be Solved and/or Benefit to Citizens:

This project includes: construction of retaining walls for downhill slope stability; drainage improvements to capture uphill water and prevent future undermining of the trail; relocation of the irrigation main; addition of a railing along the northern edge (downhill); and widening of the trail to make it safer for pedestrians and bicycles year round.

Alternatives/Consequences if not Funded:

There are really no alternatives currently available. The consequences if not funded are a likely increase in complaints and potential claims from users. This is especially important since this path has been included as a regular part of the US 36 bikeway and is heavily used for this purpose year round. The potential failure of this section could result in a long term closure with no practical alternative safe route as a detour.

Project Association:

None

Operating Budget Impact:

None





City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design & Construction	2018	100

Funding Source: Sales and Use Tax and Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	558,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		558,000



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: Great Western Loop Trail

Project #: L0019

Project Description:

Total Project Cost: \$335,000

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:

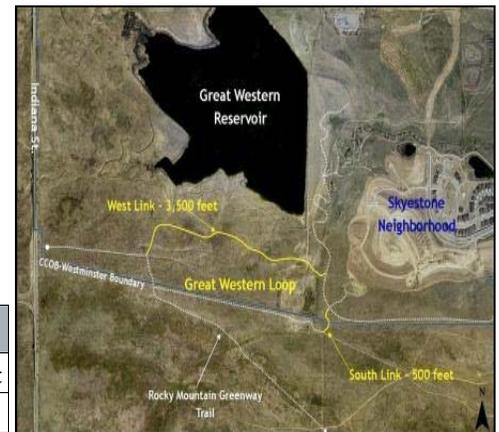
Social trails will develop in the area as there will likely be trail access pressure to reach the Rocky Mountain Greenway.

Project Association:

None

Operating Budget Impact:

This trail will require standard trail maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2019	30
Construction	2019	70

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	335,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	335,000	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: Industrial Lane Bike Lane and Sidewalk

Project #: 17K0002

Project Description:

Total Project Cost: \$2,035,000

A bike lane is proposed along both sides of Industrial Lane from the intersection of Midway Boulevard/E. Flatiron Crossing Drive to the trail access to the East Park Underpass at US 36.

Background and Justification:

The project involves painting bike lanes on the existing asphalt on 1700 LF of Industrial Lane and widening the asphalt shoulders to accommodate the bike lanes on 4000 LF of Industrial Lane. The length of the 10-foot concrete sidewalk/multi-use trail is approximately 6000 LF. A crosswalk is proposed to be constructed where the bike lanes merge into the proposed 10-foot sidewalk/multi-use trail, if this improvement is not included in the Pedestrian Bridge project. This project could be constructed in phases.

Problem to be Solved and/or Benefit to Citizens:

The intent of the project is three-fold: 1) Create safe bike and pedestrian access along Industrial Lane; 2) Increase accessibility for all pedestrians and bikers to the US 36 Bikeway and Pedestrian Bridge; and 3) Provide safe and direct access from the developing 96th Street neighborhood to existing neighborhoods and commercial areas in Broomfield.

Alternatives/Consequences if not Funded:

Other alternatives were reviewed but the limited right-of-way available for improvements because of the close proximity of the railroad to Industrial Lane and the numerous driveway cuts along Industrial Lane made them expensive and unsafe.

Project Association:

This project is associated with the future Pedestrian Bridge that extends from Midway Boulevard over the BNSF railroad tracks to the East Park/US 36 Underpass.

Operating Budget Impact:

Additional asphalt and concrete would increase maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and ROW Acquisition	2017	15
Bid project and award contract	2017	20
Construct project	2017	65

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	2,035,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	2,035,000



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

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

Project Description:

Total Project Cost: \$100,700

This request is for a pedestrian/bike bridge across Airport Creek and a small amount 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 the Public Works’ Streets Division as it will require inspection and maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Construction	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	100,700	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	100,700	



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	25
Bid project and award construction agreement	2022	30
Construct project	2022	45

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	50,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	675,000	0	725,000



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

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

Project #: Z0143

Project Description:

Total Project Cost: \$300,000

This segment would include a signed bicycle route on East 14th Ave and a 10-foot concrete pathway plus a jogging strip on the ditch corridor. Appropriate way-finding, regulatory signage, from Main Street along Community Ditch and across West 136th Ave.

Background and Justification:

Problem to be Solved and/or Benefit to Citizens:

Alternatives/Consequences if not Funded:

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

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construct	2020	100

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
300,000	0	0	0	300,000



City and County of Broomfield 2018 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, and the Spruce Meadows, Anthem, and North Park neighborhoods to the north, and beyond.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2014	25
Bid project and award agreement	2019	30
Construct project	2021	

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
11,850	0	0	0	100,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	625,000	0	0	736,850	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2)** Project #: 14Z0433

Project Description:

Total Project Cost: \$2,802,276

This project is for a 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:

This trail connection will allow users coming from the north side of the 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. A conceptual design has been completed that included considering alternative locations and coordination with the future W. Midway Blvd road bridge over the train tracks

Problem to be Solved and/or Benefit to Citizens:

The project will remove a community barrier to commuters to Interlocken and trail access by providing a safe crossing of the BNSF tracks and integrating the new crossing with surrounding trails.

Alternatives/Consequences if not Funded:

If the project is not built, citizens will continue to cross the BNSF tracks by carrying their bikes over the crossing.

Project Association:

(See alternatives)

Operating Budget Impact:

The additional trail lineal footage and overpass will require maintenance which will increase maintenance costs for the trail maintenance staff.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Complete feasibility study	2015	10
Design and Construction Documents	2016	20
Bid project and award construction agreement	2017	10
Construction	2017	60

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

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
23,277	18,328	2,760,671	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	2,802,276



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **Broomfield Trail - Railroad Underpass at Airport Creek** Project #: F0006

Total Project Cost: \$1,350,000

Project Description:

The project would include the design and construction of an underpass that would convey drainage and allow trail access beneath the railroad tracks along the west side of the Broomfield Industrial Park (BIP) Ballfields.

Background and Justification:

The underpass is identified in the Comprehensive Plan, Open Space, Parks, Recreation, and Trails Master Plan and Original Broomfield Neighborhood Plan. The project will increase livability by making it easier for citizens to reach other parts of the community. The underpass will also connect residents to the 1STBANK Center.

Problem to be Solved and/or Benefit to Citizens:

The proposed underpass will connect several neighborhoods in Broomfield and also allow for drainage.

Alternatives/Consequences if not Funded:

None

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2020	30
Bid project and award construction agreement	2020	70

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
350,000	0	0	1,000,000	1,350,000	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **Neighborhood Connection - Greenway Park to 120th Ave (NC25)**

Project #: 15Z0154

Project Description:

Total Project Cost: \$44,712

The Open Space, Parks, Recreation and Trails Master Plan calls for widening the existing sidewalk to 8-feet, along the north side of Greenway Park North Drive to West 120th Avenue, and a new sidewalk along the east side of Greenway Drive North.

Background and Justification:

The project adds 390 feet of 4½-foot wide sidewalk in the right-of-way on the east side of Greenway Drive North from Evergreen Street to West 120th Avenue. It also adds 95 feet of 8-foot wide sidewalk in the CDOT right-of-way along the south side of West 120th Avenue, east from Greenway Drive North to the RTD bus stop (if allowed by CDOT).

Problem to be Solved and/or Benefit to Citizens:

There is no sidewalk in this area so residents must walk in the street to head north to West 120th Avenue. This is a public safety problem. The new sidewalk will benefit citizens by providing pedestrian access to West 120th Avenue and the amenities and businesses to the north.

Alternatives/Consequences if not Funded:

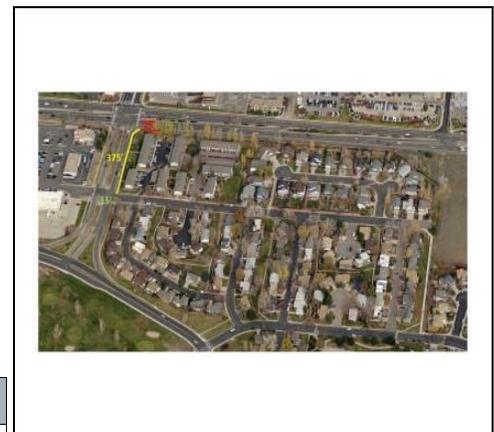
If this sidewalk is not funded, residents will continue to walk in the street or on the uneven edge of the curb.

Project Association:

This project is not associated with any other project; however, it could be combined with similar sidewalk construction and/or landscaping projects.

Operating Budget Impact:

Standard sidewalk maintenance will be required. Any median landscaping improvements would be maintained by the Greenway Park HOA.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and development of construction pla	2015	25
Bid project and award construction agreement	2015	30
Construct project	2015	45

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	Total Project Cost
40,526	4,186	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		
0	0	0	0	44,712	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

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

Project #: Z0155

Project Description:

Total Project Cost: \$127,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and develop construction documents	2019	25
Bid project and award construction agreement	2019	25
Construct sidewalk	2019	50

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	127,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	127,000	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

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

Total Project Cost: \$100,000

Project Description:

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 re-vegetate the eroded scar.

Alternatives/Consequences if not Funded:

Re-vegetate the area and post signs prohibiting access, but it is presumed that it will 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.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2020	25
Bid project and award construction agreement	2020	30
Construct project	2020	45

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
100,000	0	0	0	100,000	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

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

Project #: 13F0003

Project Description:

Total Project Cost: \$3,356,000

This project will construct a culvert beneath Midway Boulevard and the BNSF railroad tracks in the vicinity of Rock Creek.

Background and Justification:

The project includes 2,900 LF of 8-foot concrete trail. The underpass is approximately 200 LF. The Terracina cash-in-lieu payment is proposed to be used to pay for a portion of the project as the overpass 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:

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:

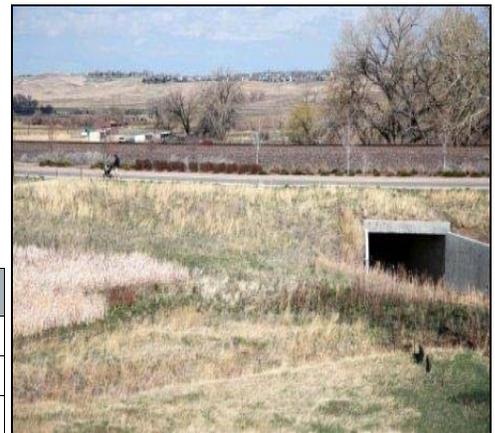
Defer the trail construction to another year or phase the construction.

Project Association:

None

Operating Budget Impact:

Once completed, this project will require standard maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2020	10
Bid & Construct		90

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
6,000	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
350,000	0	0	3,000,000	3,356,000



City and County of Broomfield 2018 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 with communication to 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and public meetings	2022	40
Bid project and award construction agreement	2022	25
Construct project	2022	35

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	375,000	0	375,000	



City and County of Broomfield 2018 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: \$199,500**

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and develop bid documents	2018	25
Bid project and award agreement	2018	25
Construct project	2018	50

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	199,500	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	199,500	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **North Community Trail - Lowell Blvd - 144th to Sheridan** Project #: 14Z0421

Project Description:

Total Project Cost: \$366,663

This trail extends from Lowell Boulevard through the future Anthem open space to Sheridan Boulevard and Community Ditch. The portion of the trail from West 144th Avenue north to the Community Ditch can be built at any time.

Background and Justification:

The trail will be constructed of 8-foot crusher fines and crosses a large parcel of open space that is proposed to be dedicated to Broomfield.

Problem to be Solved and/or Benefit to Citizens:

This trail provides a connection from Lowell to Sheridan that can be used by residents to connect to Siena Reservoir, the Broomfield Trail and the Anthem Community Park.

Alternatives/Consequences if not Funded:

Defer the trail project.

Project Association:

None

Operating Budget Impact:

Once complete, this project will require standard trail maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction plans	2015	25
Bid project and award construction agreement	2015	30
Construct project	2016	45

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
287,411	79,252	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	366,663	



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: Regional Trail System - Flatiron Crossing to Storage Tek Drive Trail (RT-1)

Project #: 07Z0017

Project Description:

Total Project Cost: \$340,000

This project will develop a connection from the existing underpass at West Flatiron Circle to the box culvert underpass at Storage Tek Drive/96th Street using the open lands southwest of the Conoco Phillips site and northeast of US Highway 36.

Background and Justification:

One drainage crossing may be required on this project. The project is being coordinated with plans for the Conoco Phillips site. This trail is approximately 3,000 LF.

Problem to be Solved and/or Benefit to Citizens:

This project will connect the West Flatiron Circle underpass to the box culvert underpass at Storage Tek Drive/96th Street.

Alternatives/Consequences if not Funded:

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

Project Association:

None

Operating Budget Impact:

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2020	30
Bid project and award construction agreement	2020	25
Construct project	2020	45

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
340,000	0	0	0	340,000



City and County of Broomfield 2018 Capital Improvement Projects

Trail System Projects

Project Name: **Regional Trail System - Storage Tek Drive - Underpass Improvements** Project #: 13Z0422

Project Description:

Total Project Cost: \$250,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2017	25
Bid project and award construction agreement	2017	10
Construct project	2017	65

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	250,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	250,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

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

Project #: 09C0015

Project Description:

Total Project Cost: \$536,000

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 request mentioned a possible Recycling Resource grant for \$210,000. The CIP request was prematurely reduced to \$286,000. The grant application was submitted, but funds were not granted, which raised the city’s cost back to the original request of \$496,000. The fact that the grant was not received was not accounted for in subsequent years in the CIP budget. The original \$496,000 amount was based upon a construction estimate at that time and did not account for design costs associated with a Official Development Plan process with the City of Westminster, nor did it account for 9 years of construction inflation or the additional landscaping and screening requirements that are required by the City of Westminster. This years CIP request is to add an additional \$250,000 funding to the project to address the additional funding needed to complete the project.

Problem to be Solved and/or Benefit to Citizens:

The relocation of the tree branch drop-off site, expansion of the Tree Branch Recycle Program to include grass, yard waste and other organic waste will divert approximately 51,700 cubic yards of waste per year. 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 now and for future generations.

Alternatives/Consequences if not Funded:

If the additional funding associated with this CIP request as well as the additional funding associated with the RV Dump Station CIP request for additional funding 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid	2017	10
Construction	2018	80



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	536,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	536,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Anthem Community Park Improvements**

Project #: B0074

Project Description:

Total Project Cost: \$4,990,000

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

Background and Justification:

This project is required as part of the approved site development plan.

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:

None

Operating Budget Impact:

This project will increase operating costs once constructed.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire consultant and design project	2019	25
Bid project and award construction agreement	2019	30
Construct project	2020	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	500,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
4,490,000	0	0	0	4,990,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Bay - Renovation Phase - Parking Lot**

Project #: 18F0048

Project Description:

Total Project Cost: \$690,000

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:

This phase will include improvements to the parking lot, and landscaping.

Problem to be Solved and/or Benefit to Citizens:

The parking lot will be reconfigured to allow for more parking and a better drop off/pick up area.

Alternatives/Consequences if not Funded:

Defer funding for a year.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	10
Bid/award/construct	2019	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	50,000	640,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		690,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Bay - Renovation Phase III - Locker Room/Concessions** Project #: 14F0046

Project Description:

Total Project Cost: \$3,152,000

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 III includes improvements to the locker rooms, restrooms, office areas and concession buildings.

Problem to be Solved and/or Benefit to Citizens:

The current entrance and staff office are currently in the same area. This causes bottlenecks and frustration to the public and staff. The locker-rooms are undersized and do not accommodate ADA guests.

Alternatives/Consequences if not Funded:

Continue to repair older equipment as necessary to keep 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2015	25
Bid project and award agreement	2016	30
Construct project	2017	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
130,676	1,152,748	1,868,576	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		3,152,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

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

Total Project Cost: \$2,500,000

Project Description:

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, 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 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2019	25
Bid project and award construction agreement	2020	30
Construct project	2020	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	250,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
2,250,000	0	0	0	2,500,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

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

Project #: 17L0046

Project Description:

Total Project Cost: \$7,000

Both fiberglass slides at the Bay Aquatic Park are starting to show wear and tear including pitting, cracking, and bubbling.

Background and Justification:

The current slide structures are very popular and are heavily used on a daily basis. The slides were originally budgeted to be replaced in 2006 and replacement was postponed pending future renovation plans. The slides were built in 1991 and were repaired every year, resurfaced in 2001, and then refurbished in 2010.

Problem to be Solved and/or Benefit to Citizens:

As these imperfections grow, repairs must be made to reduce the risk of scrapes and cuts to patrons. Increased repairs to the slides, increases the down time of the slides for users.

Alternatives/Consequences if not Funded:

Increased cost and down time to slides. Revenue loss.

Project Association:

Future main pool renovations are planned for 2018/2019.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Refurbish Body Slides	2017	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	7,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	7,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Bay - Tube Slide Catch Pool Re-plaster**

Project #: 17L0027

Project Description:

Total Project Cost: \$22,000

The Bay Aquatic Park Tube Slide Catch Pool is in need of a new plaster coating to be applied to the current surface in order to protect the infrastructure of the current pool system.

Background and Justification:

The current pool plaster is twelve years old, has met its eight year life expectancy, and is in need of being resurfaced.

Problem to be Solved and/or Benefit to Citizens:

The current plaster is spider cracked, pitted, chipped and extremely rough to the touch. Overly worn plaster can cause leaks, affecting chemical balance and water loss, which in turn impacts operating costs.

Alternatives/Consequences if not Funded:

If not funded the plaster will continue to deteriorate and will eventually fail.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Removal of current worn out plaster	2017	45
Application of new plaster	2017	45
Fill with Fresh water	2017	10

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	22,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	22,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Blue Star Park Upgrade**

Project #: M0013

Project Description:

Total Project Cost: \$435,360

This project is requesting a complete upgrade to Blue Star Park (Midway 1).

Background and Justification:

The Blue Star Memorial highway was developed in 1945 to pay tribute to the Armed Forces in many states. In the summer of 1964, the City dedicated only its 3rd park at the time as Blue Star Memorial Park. Soon after the park continued to develop, some of these developments included: a shelter with picnic tables, shrub beds, and irrigated turf. This park is a symbol to the City, it not only represents the 1st park to the chain of parks at Midway, but it also represents the entrance to the City and County of Broomfield as a whole. Throughout the years, there have been minor updates with installations of amenities, irrigation systems, roadways, and more recently upgrades to the horticulture beds. The outdated amenities, degrading roadways and concrete, pedestrian travel paths through the turf accessing the apartments to the south present a number of growing concerns as to why this park should be considered for a complete upgrade. This shelter and park are rarely considered for recreational rentals and hardly frequented by park patrons as more than a pass through.

Problem to be Solved and/or Benefit to Citizens:

Proposed Blue Star Park Upgrades include .95 acres, Updates to irrigation systems, Updates to horticulture beds, Addition of 300lf. Of Sidewalk, Update to roadway and parking lot (ADA Compliant), Update to Drainages, Update to Amenities, Shelter, Grills, Picnic Tables, Bike Rack, Park Signage, Trash Receptacles and Disc Golf Kiosk.

Alternatives/Consequences if not Funded:

If this park is not considered for an upgrade, the continuation of degradation to all the amenities, roads, irrigation, etc. will steadily increase. This park will continue to be neglected by park patrons, where there is the possibility to making this another great park for the City and County of Broomfield.



Project Association:

None

Operating Budget Impact:

None anticipated

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2018	20
Construction	2019	80

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	435,360
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	435,360



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Brandywine Park - Upgrade and Renovation of Park and Baseball Diamond** Project #: 16K0039

Project Description:

Total Project Cost: \$194,500

Staff is requesting funding to upgrade and renovate the existing Brandywine Park.

Background and Justification:

This project would renovate the existing baseball field and provide additional much needed amenities for the park including bleachers, dugouts, port-a-potty enclosure, parking lot expansion or upgrades, landscape improvements, shade structure and picnic tables.

Problem to be Solved and/or Benefit to Citizens:

Brandywine Park has limited use due to its condition and layout. The baseball field can only be used as a practice field due to its lack of bleachers, dugouts and appropriate fencing. The field is currently in poor condition. This field requires a number of upgrades and infield and outfield renovations to bring it up to acceptable practice/game field conditions found in other Broomfield parks. Field renovation would include leveling of infield and addition of infield mix, outfield turf rehabilitation, irrigation modifications, replacement of the backstop, adding covered dugouts, spectator/bleacher seating. Other park upgrades would include the addition of a port-a-potty enclosure, upgrade or renovate the existing parking lot, adding a shelter, picnic tables and benches.

Alternatives/Consequences if not Funded:

If this project is not funded, recreation services programs and the baseball/softball organizations will continue to struggle to find adequate field space during the peak season, mid-May through early July.

Project Association:

Staff has submitted a request to renovate the existing Brandywine (soccer) fields as a separate project. These two projects could be combined for efficiency and coordination and to reduce the overall scheduling impacts to the users.

Operating Budget Impact:

Once completed, maintenance of the park would be increased to include maintenance of the shelter, dugouts, bleachers and any other hardscape improvements.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire consultant	2016	20
Complete construction documents, bid project	2017	25
Award contract and complete project	2017	55

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	194,500	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	194,500



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

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

Project Description:

Total Project Cost: \$295,000

Funding is being requested to upgrade and renovate the existing Brandywine East and West (soccer) fields. This renovation would provide two additional (soccer) fields for practice and possible games for youth soccer, football and lacrosse programs.

Background and Justification:

The Brandywine East and West (soccer) fields have limited use due to their condition. The current irrigation system causes a hazardous playing condition with the mainline valve boxes bisecting the length of the field. These fields require irrigation changes throughout both fields to improve the safety of the fields and bring them up to acceptable practice/game field condition. Field renovation would include relocation of the existing mainline and valve boxes, reconfiguration of the irrigation laterals and trench line restoration/rehabilitation.

Problem to be Solved and/or Benefit to Citizens:

An athletic field use and demand analysis was conducted in 2014 resulting in a recommendation to improve existing athletic fields, complete development of currently planned athletic complexes and construction of new fields. One specific recommendation is to improve the existing Brandywine (soccer) fields.

Alternatives/Consequences if not Funded:

If this request is not funded, the rectangle sports will continue to struggle to find adequate field space during the peak season, March through June and mid-August through early November.

Project Association:

Staff is proposing another project to renovate the existing Brandywine baseball field and provide additional upgrades to the existing park. These projects could be combined as a renovation of the whole Brandywine Park.

Operating Budget Impact:

Minimal increase for field lining/game prep, minimal decrease due to reduced irrigation maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and construction documents	2016	25
Bid project and award contract	2017	25
Construct upgrades	2017	50

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	295,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	295,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Bronco Park - Restroom Building Replacement**

Project #: K0022

Project Description:

Total Project Cost: \$344,400

Staff is requesting the funding for replacement of 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, due to the current equipment 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 accommodate and maintain to a higher 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 prevent single users from locking the doors to other patrons and participating in illegal activities. The larger facility would also accommodate the growing number of users in the park due to 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Construct	2021	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	344,400	0	0	344,400



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield Community Center - Renovation**

Project #: 15K0053

Project Description:

Total Project Cost: \$475,385

This project will make needed improvements, renovations and repairs to the elevator, locker rooms, HVAC systems, parking lot and roofing.

Background and Justification:

The Community Center was built in 1974 and was renovated in 1990. Repairs and renovations are now needed in order to keep the building safe and functional.

Problem to be Solved and/or Benefit to Citizens:

The renovations and repairs are necessary due to the high use of the facility and to meet the ADA codes and requirements.

Alternatives/Consequences if not Funded:

If repairs are not completed, the building was continue to deteriorate.

Project Association:

None

Operating Budget Impact:

Once completed, this project should reduce some maintenance needs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project	2015	30
Bid project	2015	25
Hire contractor and complete project	2016	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
83,956	385,129	6,300	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	475,385	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

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

Project Description:

Total Project Cost: \$40,000,000

Broomfield Community Center Reconstruction

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 \$80 million in debt financing required to build the new Community Center and the Dillon Road Improvements projects.

Problem to be Solved and/or Benefit to Citizens:

The Broomfield Community Center Reconstruction project will most cost effectively address the numerous deficiencies associated with the existing building as well as meeting the growing needs of the community.

Alternatives/Consequences if not Funded:

Many alternatives have been previously considered. Council has approved the pursuit of \$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, will project require ongoing maintenance/operating expenses



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2017-2020	20
Construction	2018-2020	80



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Sales & Use Tax Bonds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	40,000,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Blue Pod Handicap Access**

Project #: 14H0038

Project Description:

Total Project Cost: \$22,500

This request would improve handicap access at the Broomfield County Commons Park Blue Pod by modifying access from the existing handicap parking spaces to the playing surface.

Background and Justification:

This project involves modifying the access points available along the south curb in the parking area for the Commons Blue Pod. Installation of a concrete trail is needed to improve handicap access at this location.

Problem to be Solved and/or Benefit to Citizens:

Improvements are needed in the access points to the playing surface from the current location of the handicap parking spaces. This problem can be solved with the installation of an appropriately designed hard surface trail from the parking lot to the playing surface. This will make access much easier for wheel chair and physically challenged users.

Alternatives/Consequences if not Funded:

If not funded, the problem of inadequate handicap access to the Commons Blue Pod playing surface will continue. Users will continue to travel the long distance necessary to safely access the pod.

Project Association:

None

Operating Budget Impact:

The completion of this project would slightly increase the maintained concrete trails and associated elements currently managed by Public Works Staff.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain quotes	2015	25
Hire contractor and complete project	2016	75

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
2,250	20,250	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	22,500	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Broomfield County Commons - Cemetery Phase II

Project #: 15J0001

Project Description:

Total Project Cost: \$1,695,023

This request will review and update the Broomfield County Commons Cemetery (BCCC) master plan and design conceptual site plan; Construction document design; and Construction of Phase II of the cemetery master plan.

Background and Justification:

Review and update of the BCCC master plan and design a conceptual site plan for Phase II of the cemetery. Phase II plans would include approximately 2.5 acres of the remaining undeveloped 6.53 acres for construction of an access road, burial spaces, landscaping, a cemetery office and maintenance facility, and review of existing site signage. The master plan review, update and conceptual site plan would address placement and costs for the office/maintenance facility, layout of grave spaces, road access location to the new burial area and landscaping for the 2.5 acres. Staff will be consulted about lessons learned in the past 10 years concerning the operation and layout of full burial spaces, size of the spaces, number of upright and flush monument spaces, landscaping around burial spaces, access to each space and monument placement and spacing. Review the 2005 cemetery sales office and maintenance facility plans to determine placement on the property, size, infrastructure (utilities) and estimated construction costs.

Problem to be Solved and/or Benefit to Citizens:

The BCCC opened in November 2004 with 3.27 acres of the 9.9 acres site developed. BCCC is a full service cemetery offering interment options for full casket burial, in-ground cremation burial, and above ground niche spaces for cremations. In 10+ years, the cemetery has averaged 51.7 sales per year, 72% full burial and 28% cremation.

Alternatives/Consequences if not Funded:

If not funded, BCCC is expected to exhaust all of full burial spaces by 2017. The citizens of Broomfield will be forced to choose another full service cemetery for their full casket burial. The BCCC would still be available.

Project Association:

None

Operating Budget Impact:

The operating budget for the cemetery would increase due to the increased acreage and is listed below.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Master plan design development	2015	15
Construction Documents	2016	15
Construction	2017	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
3,106	25,560	1,666,357	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	1,695,023



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Championship Field Turf Replacement** Project #: 15G0010

Project Description:

Total Project Cost: \$401,573

The Championship Field (synthetic soccer/football field) was installed in 2004 when the Broomfield County Commons Park was built. The field came with an eight-year warranty and a life expectancy of 10-12 years.

Background and Justification:

This project will keep the busiest playing surface for football, soccer and other activities in Broomfield safe.

Problem to be Solved and/or Benefit to Citizens:

An independent assesment was done in 2011 by a consultant confirming that the turf has experienced significant wear and needs to be replaced within the next two years. The seams are beginning to fail which is a significant trip hazard. Replacing the existing surface with the newest state-of-the-art synthetic turf, Broomfield would get a turf superior to the original installed in 2004, with greater resistance to UV rays and life expectancy of 10-12 years.

Alternatives/Consequences if not Funded:

Do not replace and plan at some point to close the field to use due to safety.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2015	25
Hire contractor/complete project	2016	75

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
48,083	353,490	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	401,573	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Expansion - Yellow Pod** Project #: 15Z0175

Project Description:

Total Project Cost: \$5,671,994

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, construction plans, and construct the yellow pod with a synthetic turf field. The pod would need to be excavated, a sub base and drainage system constructed and then synthetic turf installed over the 13 acres. There is no field lighting within the Commons Park.

Problem to be Solved and/or Benefit to Citizens:

As the number of residents in Broomfield has increased, the need and request for additional field space has increased as well. This field would be used as a practice field. 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction plans	2015	25
Bid project and award agreement	2016	25
Complete project	2016	50

Funding Source: Sales and Use Tax Fund, Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
1,321,273	4,269,285	81,436	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	5,671,994



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Maintenance Facility**

Project #: L0030

Project Description:

Total Project Cost: \$316,500

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 on this site. New equipment and maintenance material purchases were necessary to maintain such a large piece of artificial turf.

Alternatives/Consequences if not Funded:

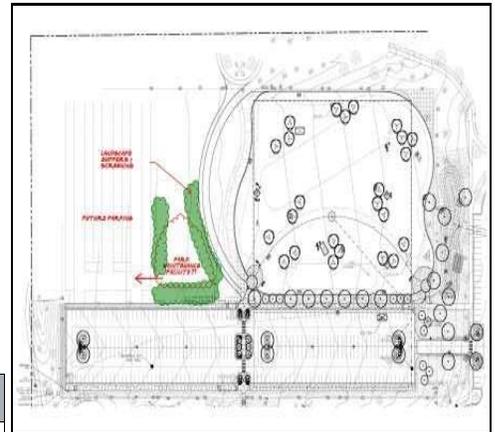
Use vehicle and personnel resources to transport materials and equipment daily to and from the County Commons Park, which is not currently being done.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Engineering/Survey	2019	25
Construction of Facility	2020	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	31,650	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
284,850	0	0	0	316,500	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Community Ballfields - Playground Shade Structure**

Project #: M0014

Project Description:

Total Project Cost: \$31,050

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Purchase/Installation/Construction	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	31,050	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	31,050	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Community Park - Additional Tennis Courts (2)**

Project #: Z0177

Project Description:

Total Project Cost: \$300,000

Additon of two lighted tennis courts at the Broomfield Community Park complex.

Background and Justification:

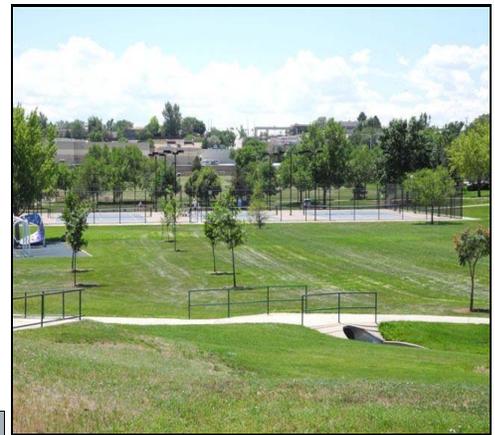
This would provide a quality complex where programs and tournaments could be held in a more efficient and effective way. The added space improves the experience of the program participant.

Problem to be Solved and/or Benefit to Citizens:

This complex was originally designed with six tennis courts. The Broomfield Recreation Department would benefit from the added courts by providing additional space for the youth tennis programs. This could allow for lessons and the CARA Tennis program.

Alternatives/Consequences if not Funded:

The alternative is to continue providing programs and tournaments at the existing tennis courts. Currently tournaments must transport competitors to courts scattered throughout the city. This increases costs for transportation, staffing.



Project Association:

None

Operating Budget Impact:

Once constructed, the additional courts would require standard maintenance.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2021	25
Bid project and award construction agreement	2021	30
Construct project	2021	45

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	300,000	0	0	300,000



City and County of Broomfield 2018 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 Community Park Ball Field Complex.

Background and Justification:

This project would include the installation of the following needed signage: Monument Sign on Spader Way at entrance to the complex, "You Are Here" sign along roadway, and field name signs placed at appropriate locations for each of the four fields. 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 as to field location within the complex. The strengthened image of the site will also continue to fade without new additions and renovations.

Project Association:

This project could be combined with the Community Park Shade Structure Request for this budget season.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design signage	2018	20
Order materials	2018	40
Install signage	2018	50

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	48,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	48,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Community Park - Ball Field Scoreboard Electrical Service Replacement

Project #: 17L0031

Project Description:

Total Project Cost: \$15,000

Improve/replace current electrical service for ball field scoreboards at Community Park Complex, to include surge protection, replacing underground electrical lines (750LF), including trenching, conduit installation, and concrete encasement where needed.

Background and Justification:

Current electrical lines are direct bury and have been faulty during use. New scoreboards were installed in 2015, and during this installation electrical faults were found along several different locations.

Problem to be Solved and/or Benefit to Citizens:

These lines have subpar and unsafe connections, and some even reside in boxes where water has been observed. All of these factors combined have created unsafe conditions for park users.

Alternatives/Consequences if not Funded:

Continue the interrupted service and unsafe conditions.

Project Association:

None

Operating Budget Impact:

Project will reduce the need for repairs and <10 man hours will be saved annually.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Installation/Construction	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	15,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	15,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Community Park - Restroom Building Improvements**

Project #: 08B0025

Project Description:

Total Project Cost: \$283,500

Replacement of the existing restroom building adjacent to the tennis courts with a modern facility much like the new restrooms in Midway Park at the Girl Scout Shelter.

Background and Justification:

The restrooms at Community Park (Tennis Courts) are old, outdated, inefficient, not ADA-compliant and need to be replaced.

Problem to be Solved and/or Benefit to Citizens:

The existing building needs to be torn down and replaced with a modern facility much like the new restrooms in Midway Park at the Girl Scout Shelter.

Alternatives/Consequences if not Funded:

Defer the project. Consider various alternatives, materials, and building designs during the design phase of the project.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2019	25
Bid project and award construction agreement	2019	30
Construct project	2019	45

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	283,500
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	283,500



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Community Park - Workout Equipment

Project #: M0015

Project Description:

Total Project Cost: \$145,130

This request is for the addition of workout equipment to Community Park

Background and Justification:

A common theme throughout the U.S. and entire world, is a need for recreation. In more recent years, there has also been an increase in healthy lifestyles and providing healthy options in the parks and recreation industry. This request is to add a centralized workout area in Community Park. The surrounding area is known as Civic Center will soon be in development, offering more housing and recreational opportunities.

Problem to be Solved and/or Benefit to Citizens:

This would benefit the local citizens, giving them an opportunity to workout in a common area, while offering other amenities that currently exist: 2-5 playground, 5-12 playground, tennis courts, restroom facilities, amphitheatre, pavilion, and much more . Over the past couple of years, there has been an increase in shelter usages for activity related groups, such as the "Fit for Moms". We would like to provide a central safe location that benefits the community as an area to promote good health for not only the citizens of Broomfield, but the Employees who frequent the area as well. This project would include:

- An area of 2,400 sq/ft
- Proper signage (Indicating that it is not meant for children, and implying what risks are involved)
- Safe surfacing (Poured in Place, Crusher Fines, Etc.)
- Proper drainage for site (This area has a number of flood areas)
- Outdoor workout equipment (A vast variety for all individuals to use)
- This workout station would include multiple types of equipment, ranging from cross, bootcamp, and circuit training. With the purpose to draw in all types and ages of fitness fanatics.

Alternatives/Consequences if not Funded:

There will be a continuation of user groups to use other amenities located throughout the park, creating extra degradation of materials, such as the groups using the playground area, and creating unwanted wear and tear to the poured in place surfacing materials.

Project Association:

None

Operating Budget Impact:

The annual maintenance would be included into this line item, and the workout equipment could be added to the annual asset replacement lists for playgrounds, or looked at for replacement by suggested useful life of equipment.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Purchase/Installation	2020	100



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
145,130	0	0	0		145,130



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Conoco Park - Inline Hockey Rink Repurposing**

Project #: 16K0041

Project Description:

Total Project Cost: \$115,000

Request to repurpose the Conoco Park inline skate rink to a pumptrack for the enjoyment of both kids and adults. This new use will revitalize a highly underutilized facility.

Background and Justification:

This request is to repurpose the Conoco Park site by adding an amenity that is currently very popular. The addition of a modular pump track on this site would provide a new and exciting amenity for both kids and adult. Pumptracks are suitable for bikes of all sizes, skateboards, rollerblades and scooters. Pumptracks are a perfect structure for practicing balance, learning skills and improving confidence. They are safe and fun to ride for all ages and skill levels. They create a community environment by bridging the generation gap between parents, small children and adolescents.

Problem to be Solved and/or Benefit to Citizens:

The Conoco Park inline skate rink has significant deterioration to the dasher boards and skate surface making it undesirable and unsafe. Currently there is little to no use of the inline skate rink due to the significant decline in the popularity of inline hockey and the condition of the rink.

Alternatives/Consequences if not Funded:

The dasher boards at Conoco Park will need to be removed due to safety concerns. CIRSA has sighted this facility several times for its poor condition.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase equipment	2017	40
Resurfacing and equipment installation	2017	60

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	115,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	115,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Crofton Park - Pedestrian Lighting Improvements**

Project #: 17K0025

Project Description:

Total Project Cost: \$31,500

Staff is requesting funding to replace the park pedestrian lighting system at Crofton Park.

Background and Justification:

The existing park pedestrian lighting system is quickly deteriorating and is in need of replacement. The ground anchors are of poor design and have sagged near failure during wind and precipitation events. The system consists of seven wood poles mounted on simple steel brackets. This request is to replace the seven poles, light fixtures, ground mounts, and wiring runs. The new equipment would include lightweight steel poles, LED efficient fixtures, concrete footer mounts, and conduit encased ground wire.

Problem to be Solved and/or Benefit to Citizens:

Crofton Park Pedestrian Lighting has experienced high volumes of failure due to inappropriate ground anchors. On several occasions Parks staff has repaired or reset the ground anchors when poles have sagged or began to fail. This request will provide improved safety and efficiency for the system overall. The existing seven light poles are in poor condition and general replacement is needed at this time.

Alternatives/Consequences if not Funded:

The condition of existing equipment is very poor and in eroding condition. If this request is not funded individual poles will fail and need to be replaced through Parks base budget.

Project Association:

None

Operating Budget Impact:

This project will decrease maintenance issues.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase equipment	2017	25
Install new lighting	2017	75

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	31,500	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	31,500



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Dumpster/Recycling Enclosures - Citywide

Project #: 09C0012

Project Description:

Total Project Cost: \$54,023

This project added recycling dumpsters and dumpster enclosures to four major parks now that recycling canisters have been added.

Background and Justification:

Enclosures have been constructed at the Broomfield Industrial Park, Brunner House, Northmoor Park and East Park. Enclosures for the Broomfield County Commons dumpsters are scheduled to be constructed in 2014.

Problem to be Solved and/or Benefit to Citizens:

The enclosures screen the dumpster areas, creating a more pleasing environment for the public.

Alternatives/Consequences if not Funded:

Defer the project or continue with current operations.

Project Association:

None

Operating Budget Impact:

This project reduces operating costs by eliminating the need to transport recyclables to other facilities.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Award/Complete	2016	100

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
40,023	14,000	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	54,023	



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Award	2018	25
Construct	2019	75

Funding Source: Service Expansion Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	65,000	700,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	765,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Founders Memorial Park and Trail Design

Project #: 16K0042

Project Description:

Total Project Cost: \$20,000

Design process for a Founders Memorial Park and Trail within the City and County of Broomfield Civic Center master plan. The memorial would be a Celebration of Broomfield’s past, present and future.

Background and Justification:

Founders Memorial Park and Trail at the Broomfield Civic Center would include a historic timeline depicted through interpretive memorial walls; art and sculptures; and other imaginative and interactive features that tell the story of Broomfield through remembrance of the people who contributed to the founding and development of our community. Other memorial features can be incorporated along the trail to include individual memorials such as benches, flowers, trees, planters, pavers, tiles, and interactive themed play.

Problem to be Solved and/or Benefit to Citizens:

Recognizing the important role the veterans of this community played in the development of Broomfield, the inclusion of a Veteran’s Wall would be fitting. In addition this would be a perfect place to include and commemorate the four county annexations in the creation of the City and County of Broomfield, a very significant historic event. The inclusion of this trail would enhance Community Park (Civic Center), incorporating the 911 Memorial, Banschbaw Memorial Garden, Indianapolis Memorial, Art for Awhile and Art Benches that currently reside in this complex. Current technology (QR codes today) should be incorporated into the memorials and signage allowing access to more detailed information about each person and each historic moment via a cell phone, tablet or other electronic device. The design should allow for continued development and additional memorials into the future.

Alternatives/Consequences if not Funded:

PRAC will continue to receive naming nominations for park assets, review and make recommendations to Council. As the available assets dwindle PRAC may need to be more discerning about who and how many recommendations can be approved.

Project Association:

Civic Center Master Plan

Operating Budget Impact:

Operating budget impacts would be determined prior to construction.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2020	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
20,000	0	0	0	20,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Highland Park - Soccer Field Improvements & Irrigation** Project #: Z0181
Replace

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, improving site drainage, irrigation system repairs, and improved amenities including parking availability. The proposed re-leveling of the sports turf will remove the drain swales (pictured) currently between fields which will allow for field rotation. This rotation ability will improve the overall health and durability of the fields themselves by moving the wear 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:

One of the issues this request will solve is the leveling of the playing surfaces so the athletic fields can be rotated and turned. Highland Park Soccer Fields are some of the highest maintenance fields within Broomfield due to the extreme wear areas that result 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 which creates issues while mowing or performing other routine maintenance. Currently the turf areas are crowned or domed in the center which pushes 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 no action, or installing alternative sports field surfaces. If this request is not funded, Highland Park soccer fields will continue to grow in use and decline in quality.

Project Association:

None

Operating Budget Impact:

Once completed, there will be a small increase in sidewalk and parking lot maintenance



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire design consultant	2020	10
Bid/Construct	2020	90

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
138,800	1,240,000	0	0	1,378,800



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Hockey Rink Dasher Board Replacement - Citywide**

Project #: 14H0004

Project Description:

Total Project Cost: \$394,450

This request involves replacing the old polyethylene hockey rink dasher boards with a new fiberglass-based product that will last longer and be stronger than the old material. Staff is requesting a phased program to replace one rink per year.

Background and Justification:

The project involves removing the old polyethylene material, repairing/replacing the framework, installing new dasher board panels, hardware, a six-inch UV stabilized kick plate at the bottom of the boards and a ¼-inch rubber safety cap on top of the new boards. The cost estimate includes professional installation by a licensed contractor. The materials used for dasher board construction are specialized and available only from a few vendors who manufacture and install such products.

Problem to be Solved and/or Benefit to Citizens:

The problem solved would be removing the safety hazard that these boards present in their present condition. We would also satisfy CIRSA’s concerns, which would help to keep our insurance rates at a minimum. Citizens/rink users would have a safe place to play on new boards that would allow the puck to play correctly.

Alternatives/Consequences if not Funded:

CIRSA will again write this up on the 2013 Audit, users will not have a safe rink on which to play and the boards will degrade further as time goes on.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain quotes for rink	2014	40
Hire contractor and complete project	2014	60

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
154,450	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	240,000	394,450



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Interlocken East Park Playground**

Project #: 18L0033

Project Description:

Total Project Cost: \$145,130

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 been growing in development over the past couple of years. Between Interlocken East and West Parks, there has been an increase in patron usages 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, it has been observed, that children are 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and Construction	2018	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	145,130	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	145,130



City and County of Broomfield 2018 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 that are currently located here are reaching facility specification lifespan. More specifically, the two shelters lumber on the interior of the roofs have began to decay and rot over time, which has created an unsafe situation and the need to spend high dollar amounts to replace/reconstruct the soffit area of the lower shelter and hundreds of man hours to do these repairs. With vandalism in the restrooms and shelters, we have needed to upgrade areas that have burned, paint areas that have been tagged, and replace materials such as the partitions that have been damaged. The plumbing on the interior of the restrooms have a constant need for repairs and attention. This building when previously designed was approved with many inadequacies, and given to the City without any concerns. One of the major defaults of the plumbing in this building, is the access to the interior plumbing were completely closed off, making all plumbing repairs on the interior walls necessary through a 12"x12" access panel, which has proven to be impossible without eventually needing to deconstruct the interior walls of this building. We have currently been able to maintain all issues that have occurred to the plumbing at this facility, but it is only a matter of time before there is a major incident, requiring a number of resources to maintain.

Problem to be Solved and/or Benefit to Citizens:

If the facilities were replaced with the proposed structures we would be able to accommodate and maintain to a higher standard that is expected by Broomfield residents, and we would be able to maintain the facilities in a more adequate manner. 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. An updated design to this restroom facility would provide better access to plumbing located throughout the facilities, making it easier to identify, record and fix issues. The replacement of the facility and shelters would offer a more updated and user friendly facility, that is growing substantially with 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 for a high patron use area.

Project Association:

None

Operating Budget Impact:

None anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design & Construction	2021	100



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	573,550	0	0		573,550



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: LacAmora Park - Master Plan

Project #: 14H0033

Project Description:

Total Project Cost: \$570,000

A resident of the Lac Amora subdivision requested the addition of off-street parking at Lac Amora Park and removal of all parking along the southeast side of Miramonte Boulevard. The resident also requested only allowing a few trailhead parking spaces.

Background and Justification:

This request will fund a conceptual master plan for the completion of 3.27 acres of undeveloped park land at Lac Amora Park including off-street parking. This project would include traffic and parking studies.

Problem to be Solved and/or Benefit to Citizens:

The project will benefit residents in the immediate vicinity of Lac Amora Park and ensure that the park will continue to be used by the recreation department and local youth sports organizations for softball, baseball, football and soccer practice and games as well as general public usage. The project will improve quality of life and livability as a fully completed park and address the safety concerns of the neighborhood. The plan will provide opportunities for passive and active recreation which enhance public health.

Alternatives/Consequences if not Funded:

Continued safety and parking concerns; delay planning of the park.

Project Association:

None

Operating Budget Impact:

Operating budgets will be impacted if/when the park is developed.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Study	2018	10
Finalize Study	2020	10
Master Plan	2021	80

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
6,900	0	0	13,100	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
50,000	500,000	0	0	570,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **McKay Lake Regional Park - Park Design/Construction** Project #: 09C0013

Project Description:

Total Project Cost: \$1,768,568

This funding is for the design and construction of proposed park and open space improvements adjacent to McKay Lake, east of Zuni Street and north of West 138th Avenue.

Background and Justification:

The development may be co-funded with the City of Westminster. Construction will be phased. The first phase will be funded by a developer contribution in the amount of \$1,381,000. It may include amenities such as trails, a picnic/shade shelter, an adventure playground and nature fitness course, adaptive sports, a bicycle pump track, a basketball/pickleball court, habitat enhancement, landscaping, median enhancements for pedestrian crossing, and parking. The remainder of the improvements will be programmed into the Capital Improvement Program at Council's discretion.

Problem to be Solved and/or Benefit to Citizens:

This park and open space will add additional recreation opportunity for the citizens of Broomfield.

Alternatives/Consequences if not Funded:

The design team will work with Council, PRAC, OSTAC, and the community to identify alternatives.

Project Association:

None

Operating Budget Impact:

Once completed this project will increase operations and maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
RFP/Consultant hired/Open House/public comment	2015	10
Desing	2016	25
Bid/Award/Construct	2017	65

Funding Source: Open Space and Parks Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
52,388	79,829	1,636,351	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	1,768,568



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: North Broomfield Park - Land Acquisition

Project #: 17L0058

Project Description:

Total Project Cost: \$4,004,300

The review and acquire 75 - 100 acre property in Northern Broomfield for a regional Parks and Recreation complex.

Background and Justification:

Prepared for future growth and demand on Parks and Recreation facilities. This additional parks inventory will assist in the growing demand for multi use playing fields.

Problem to be Solved and/or Benefit to Citizens:

As the Broomfield population increases it will also be necessary to provide recreation and library services to the residents in this geographic location.

Alternatives/Consequences if not Funded:

Not explore possible sites for a future regional park and facility.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Property Appraisal	2017	10
Property Acquisition	2018	20
Property Development	2018-2021	80

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	4,300	1,000,000	1,000,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
1,000,000	1,000,000	0	0	4,004,300	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Parks - Picnic Shelter Concrete Replacement**

Project #: 18M0018

Project Description:

Total Project Cost: \$120,500

Replace/stabilize/seal the concrete surfaces in several shelters citywide.

Background and Justification:

The concrete in and around several shelters over time has shifted, cracked, deteriorated, heaved or settled significantly and is creating unsafe and unsightly conditions for patrons when they are in use. 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 1/2" tall. Other shelters have some minor settling and cracking issues and just need the concrete to be stabilized with foam injection, edges ground down to smooth, and caulked/sealed to prevent further, more costly deterioration.

Problem to be Solved and/or Benefit to Citizens:

The benefit to the citizens are improved citizen safety, better aesthetics and the ability to prevent more costly repairs or potential injury claims at these facilities.

Concrete replacement is needed at the following facilities:

- East Park
- Commons North Shelter
- Richard Steele
- 4th and Garnet

Alternatives/Consequences if not Funded:

The consequences if not funded 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid & Construction	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	120,500	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	120,500



City and County of Broomfield 2018 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 that are in park areas where there are not 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 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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid & Construction	2018	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	224,700	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	224,700



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Parks - Shade Structures - Citywide**

Project #: 12F0016

Project Description:

Total Project Cost: \$172,384

This project would add shade structures over the bleacher seating for spectators at the Broomfield Industrial Park ball field and shade structures over the bleacher seating for spectators at the Bronco Park ball field.

Background and Justification:

This project improves services by providing a valuable commodity to spectators. It impacts the citizens who watch baseball games at BIP and Bronco Park.

Problem to be Solved and/or Benefit to Citizens:

In extreme heat, shade can provide enough cooling to prevent heat-related illnesses such as heat stroke. Shade structures improve the livability for spectators.

Alternatives/Consequences if not Funded:

There are really no alternatives to installing these shade structures. Planting large trees would be an alternative but this is not practical with all of the concrete in the spectator seating areas.

Project Association:

None

Operating Budget Impact:

These structures will minimally increase operating costs as the covers need to be removed and stored through the winter, then installed in the spring.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids		25
Hire contractor and complete project	2016	75

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
11,460	131,541	29,383	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	172,384



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Parks - Structure Condition Assessments**

Project #: 18M0012

Project Description:

Total Project Cost: \$250,000

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 will require inspections and condition assessments. Broomfield residents expect the facilities in the parks to be safe, functional and pleasant. Currently staff deals with issues as they arise in a reactive piecemeal fashion. A full assessment of all the 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 are in need of updating and repairs to meet current and future 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 documentation of the structures so will encompass 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 look at 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 updating and improvements, they will continue to degrade and could possibly become a financial or safety liability. Increased public demand will continue to stress aging structures, and Parks and Facilities staff will continue to maintain their assets in a reactionary mode rather than proactively.



Project Association:

None

Operating Budget Impact:

None anticipated

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Assessment	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	50,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	200,000	250,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Boiler Upgrade**

Project #: 18M0056

Project Description:

Total Project Cost: \$80,000

Domestic hot water boiler replacement for a redundant boiler style system. Existing boiler provides all of the 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 to exist and system failure will cause closure of the facility from 6 to 12 weeks due to the lead time on equipment. The energy efficiency of a new unit would cut the 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Installation	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	80,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	80,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Downstairs Lobby Repurposing**

Project #: 18M0010

Project Description:

Total Project Cost: \$87,600

The downstairs lobby at the Paul Derda Recreation Center (PDRC) receives minimal use and staff would like to repurpose the area to be a more useful space for functional training, personal training and small group training opportunities.

Background and Justification:

The PDRC has seen a consistent increase in facility usage and fitness program participation in recent years highlighting a need for additional space and equipment. The downstairs lobby area is regularly used by PDRC customers as additional stretching and/or workout area as well as fitness program participants because there is not enough space in the fitness studios or other general use areas in the building to accommodate everyone. Currently, corners of the gymnasium and the Spruce and Ponderosa rooms are used as alternative space locations to accommodate our small group fitness and personal training participants. These are not ideal locations as they tend to coincide or offset other groups and programs that are occurring.

Problem to be Solved and/or Benefit to Citizens:

Repurposing the downstairs lobby area and adding more equipment will allow the Recreation department to offer our fitness programs and personal training participants more opportunities and increase the type of exercises that can be performed. When not used by programs or group/personal training participants, we plan to allow customers the opportunity to use the area and equipment.

Alternatives/Consequences if not Funded:

Limit the number of customers that could be served or programs that could be offered and could potentially see a greater impact on services.

Project Association:

Annual Fitness Equipment Replacement

Operating Budget Impact:

Possible Increased Revenue



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Remodel/Install New Equipment	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	87,600	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	87,600



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Entryway Security**

Project #: 15J0034

Project Description:

Total Project Cost: \$44,131

This request will replace the existing revolving door at the entrance of the Paul Derda Recreation Center with a vestibule.

Background and Justification:

A design team would be retained to review layout alternatives with staff that would allow for safe operation for all patrons, reduce heat loss, allow the building to be “locked down” during an emergency situation and determine a cost effective solution.

Problem to be Solved and/or Benefit to Citizens:

The existing door has had costly repairs. Since December 2013, Facility Services has spent \$3,794 in contractor fees due to operational problems. The revolving door has had to be “closed” and patrons have had to use the two single doors on the sides of the revolving door on several occasions for several days at a time until the door could be repaired. In addition, safety has been a concern. Patrons (young and old) have become caught or trapped within the door. There have been many written incident reports and many incidents that have not warranted a written report.

Alternatives/Consequences if not Funded:

Continue to try and locate costly repair parts or install manual controls with the loss of dimming and programming capabilities. Continue to be unable to secure (lock out) the building.

Project Association:

None

Operating Budget Impact:

This could reduce maintenance costs due to lower repair costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction documents	2016	25
Bid project and award construction agreement	2016	20
Construct improvements	2016	55

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
28,301	15,830	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	44,131



City and County of Broomfield 2018 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. A large majority of these patrons are 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 a Playful City USA recipient, there is always room for another playground. 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 over-flow 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid project	2022	25
Award design build agreement	2022	20
Construct project	2022	55



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	513,000	0		513,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Plaster Recoating on Main Pool and Hot Tubs** Project #: 17J0024

Project Description:

Total Project Cost: \$95,000

At the Paul Derda Recreation Center (PDRC), the adult hot tub, family hot tub and main pool need a new coating of plaster applied to each of the surfaces. The current plaster has spider cracking, chipping, and is has become rough in some areas.

Background and Justification:

After obtaining additional quotes from vendors, price increases require additional funding to be allocated to complete the project successfully. It was also determined during obtaining quotes that pool will need to be shut down a minimum of two weeks to complete the project. Adequate time to prepare for closure is necessary for proper public notification and planning.

The hot tubs and main pool would be drained and prepped including acid wash surfaces; make repairs to plaster, tile, depth markers, gutters, and handrails as necessary and then apply new plaster.

Problem to be Solved and/or Benefit to Citizens:

The current plaster is 12 years old. Life expectancy is 10 years for a commercial swimming pool. The plaster is the structural shell of the pool and needs to be maintained for safety as well as overall operations and preventative maintenance. Overly worn plaster can cause leaks, affecting overall chemical balance and water loss impacting costs. Worn plaster also affects the overall look and appearance of the pool including discoloring, sharp or abrasive areas, or areas that may not be comfortable or safe to walk or play on.

The swimming pool at PDRC is one of the most popular amenities in the facility. The pool needs to be properly maintained and kept looking clean and safe for use for all of our citizen needs. The swimming pool is open and used from 5am-10pm during the week and 8am-6pm on the weekends. That is approximately 100 hours a week, 52 weeks of the year. We have approximately 500 users per day in the off season and 1000 users per day during the summer months.

Alternatives/Consequences if not Funded:

If not funded the plaster will continue to weaken and may fail in areas. We would need to close the hot tubs or pool until the repairs/work could be completed. Continued closures of our amenities affect customer satisfaction ratings and overall revenues.

Project Association:

Currently scheduled to be completed when replacing the drain covers on the bottom of the pool per VGB act replacement plan. Projects should be completed together. Could also be combined with deck drain replacement and concrete replacement.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain Proposals/Complete Project	2017	100



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	95,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		95,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Paul Derda Recreation Center - Pool Garage Door Replacement

Project #: 16K0026

Project Description:

Total Project Cost: \$75,695

This project will replace the current three bi-fold doors at the Paul Derda Recreation Center pool area with sectional doors, with safety devices. The doors will be replaced at the same time as a concrete repair.

Background and Justification:

The current three bi-fold doors at the Paul Derda Recreation Center pool area were installed in 2003, when the facility was constructed, to allow passage from the indoor pool to the outdoor patio during the warmer weather months. The motor has failed on two of the doors and are inoperable. During inspection, it was noted that there is no safety devices attached to these doors that would prevent them from free-falling from the open position to the ground in the event of failure. Additionally, the extreme weight of these doors is causing deterioration of the concrete floor.

Problem to be Solved and/or Benefit to Citizens:

Ability to open all three doors, ensure public safety, and for users to access the patio and outdoor water feature from the indoor pool area.

Alternatives/Consequences if not Funded:

Leave doors closed at all times.

Project Association:

None

Operating Budget Impact:

No changes to current operating budget.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2016	25
Removal and Installation	2016	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	75,695	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	75,695



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Pool Grate and Gutter Repair** Project #: K0045

Project Description:

Total Project Cost: \$50,000

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:

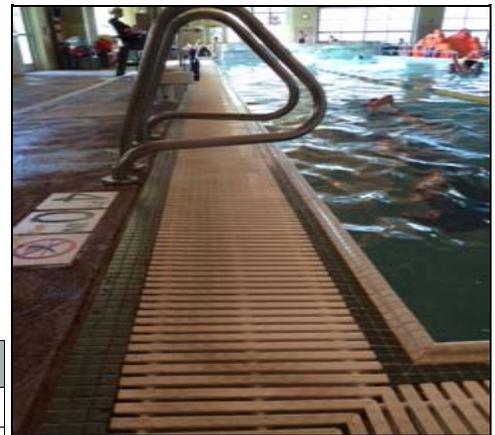
Will continue to use current system in place, replacing and repairing sections of the deck and pool grate and gutter system as they become chipped, cracked, or to slippery for use.

Project Association:

This project will be completed during scheduled facility closure.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Select contractor	2019	20
Complete project	2019	80

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	50,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	50,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Pool Slide Area
Concrete Replacement**

Project #: M0011

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:

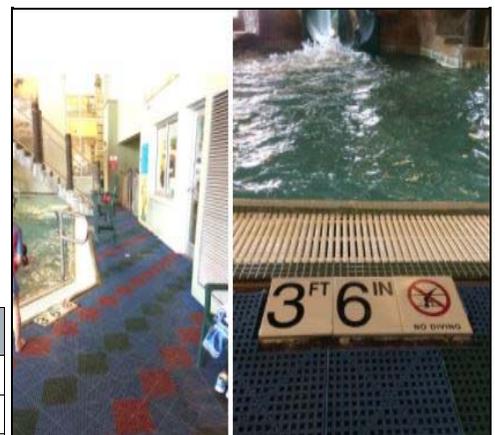
Mats will need to continue to be replaced every 2 years, averaging a total cost of \$4,000 every other year that will need to be budgeted.

Project Association:

None

Operating Budget Impact:

None anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Installation	2019	100



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	40,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		40,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Power Generator Installation**

Project #: 11D0036

Project Description:

Total Project Cost: \$94,209

Install previously purchased (new and unused) 200 kw generator and associated equipment at the PDRC. This generator was previously purchased for the Health and Human Services Building, but it was never installed.

Background and Justification:

Facilities Master Electrician will perform a majority of the electrical work, including automatic transfer switch, sub panel, and generator wiring. Contractor needs include concrete pad, generator start-up, and engineering for building loads.

Problem to be Solved and/or Benefit to Citizens:

When power outages or drops in voltage occur, the equipment, lighting, and elevator are not operational. In the past we have lost heat exchangers due to the boilers not operating during this occurrence. This would also assist patrons in exiting the building safely.

Alternatives/Consequences if not Funded:

Do not install and continue to incur costs.

Project Association:

None

Operating Budget Impact:

Once installed, servicing the generator and ATS (running and testing the new equipment) monthly with contractor will increase annual cost approximately \$4,000.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Engineer project	2014	20
Bid work and Install generator	2016	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
50,781	43,428	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	94,209	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Paul Derda Recreation Center - Replace/Upgrade Fluorescent Lighting

Project #: 16H0013

Project Description:

Total Project Cost: \$450,000

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 a 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 staff time in repairs and replacement, energy savings with LED technology, and budgetary savings in electricity costs.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Fixture design	2017	30
Order and install new fixtures and lighting	2017	70

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	110,000	0	85,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	255,000	450,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Restaining Artificial Rock**

Project #: 14G0016

Project Description:

Total Project Cost: \$29,025

This is a request to clean, sand blast and restain/repaint all of the artificial rock structures at PDRC and the Bay.

Background and Justification:

These structures have undergone a lot of weathering over the years due to water, calcium build-up, chemicals, sun, and general use. Due to age and wear, some of the areas have faded dramatically, or are covered in calcium that can no longer be removed without impacting the integrity of the rock.

Problem to be Solved and/or Benefit to Citizens:

Significant scale build up on the rock structures has occurred turning them white and creating large deposits of calcium. These deposited materials cannot be removed without sand blasting. The appearance of the rocks creates a false perception that the facility is not clean and/or is poorly maintained. The deposits are the first signs of age that could start to break down the longevity of the concrete rock structures.

Alternatives/Consequences if not Funded:

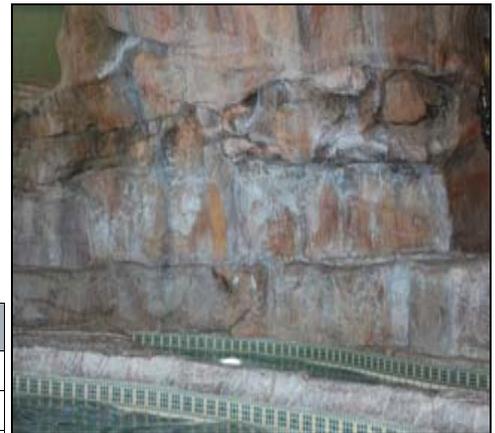
If the deposit and scale is not treated properly, we could see the build-up deteriorate the concrete structures more rapidly.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2016	25
Hire contractor and complete work	2016	75

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	29,025	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	29,025	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - SCS Spray Feature - Repair and Repaint**

Project #: 16K0046

Project Description:

Total Project Cost: \$5,000

Clean, repaint, and repair the SCS water spray structure in the leisure pool at PDRC. The SCS structure has calcium build up from the turbidity of the constant running water on the unit, as well as rusting, faded paint and chipping paint.

Background and Justification:

Project will take place during our annual maintenance shut down in August 2016 to save time, money and reduce the impact on daily operations. A contractor will complete the required work including repairs, cleaning, remove and repair chipping, remove calcium building up, prime and re-paint with an industrial paint. Project will take place in the shallow end of the pool area.

Problem to be Solved and/or Benefit to Citizens:

The interactive water dump bucket feature no longer works properly and is need of additional contractual repairs, parts, and attention to restore operations.

Alternatives/Consequences if not Funded:

One alternative would be to buy the equipment and paint and pay internal staff to make necessary updates. Costs to purchase paint and staffing would be \$4,000; however, the feature would need to be re-painted every year. Contracting a professional would extend the paint life to 5 years.

Project Association:

None, however project will be completed during facility closure.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain quotes	2016	25
Award project and complete work	2016	75

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	5,000	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	5,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Paul Derda Recreation Center - Security Camera Expansion

Project #: 18M0009

Project Description:

Total Project Cost: \$37,400

Expand the security camera coverage at the Paul Derda Recreation Center. Currently the system has 16 cameras that view high traffic areas.

Background and Justification:

The PDRC is a very high traffic facility that sees upwards of 400,000 paid visits per year. This number does not include individuals who are coming in for classes or programs. Over the years we have had numerous thefts from within various areas of the facility. While our current camera system has been serviceable in assisting PD with investigations, it has become apparent that there are four major issues with the current camera system: The current camera system does not cover all areas of the facility. If someone walks in there are blind spots throughout the building that make it challenging to track someone through the facility and leave our customers exposed if there is an incident. The current cameras have a lower quality of camera which makes facial identification difficult when we need to identify customers or when PD needs the footage. The current computer system that records the footage is capped at 16 cameras and cannot be expanded. Additionally, the current computer system only keeps footage for approximately 5 days before it is deleted. The only location to review the video footage is at the front desk which draws attention from customers and is not a very secure or private vantage point to review sensitive footage from.

Problem to be Solved and/or Benefit to Citizens:

Increased safety of patrons.

Alternatives/Consequences if not Funded:

Continue the existing security camera operations.

Project Association:

None

Operating Budget Impact:

There should be no additional annual operational costs, except for the website hosting if that is the selected option.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase/Installation	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	37,400	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	37,400



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Space Assessment**

Project #: 13G0022

Project Description:

Total Project Cost: \$15,000

Conduct a study to review the capacity and needs of the Paul Derda Recreation Center.

Background and Justification:

The Paul Derda Recreation Center (PDRC) opened in 2003 and has been a center for community activities ever since. The PDRC has over 375,000 scanned passes or drop-in fees paid per year.

Problem to be Solved and/or Benefit to Citizens:

This study will review the options of either expanding the PDRC, leaving the PDRC as is (do nothing) or finding another location for these activities. The additional information will allow Council to make informed decisions regarding services provided by

Alternatives/Consequences if not Funded:

Not do a space assessment.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construct	2021	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	15,000	0	0	15,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Pool Drain Cover Replacement**

Project #: 16K0044

Project Description:

Total Project Cost: \$20,500

Replacement of the pool drain covers at all three Broomfield Recreation Aquatics Centers as required by the Virginia Graeme Baker Pool & Spa Safety Act.

Background and Justification:

Current drain covers have reached their life expectancy and must be replaced to remain compliant with the federal regulations. The replacement of the pool drain covers would be scheduled during the closures of each facility so as not to impact the public, programs, and activities. The Broomfield Bay would be scheduled for the spring 2016, prior to the season opening. The Paul Derda Recreation Center and the Broomfield Community Center would be scheduled for replacement during their annual closure in August and September 2016.

Problem to be Solved and/or Benefit to Citizens:

Due to the Virginia Graeme Baker Swimming Pool Act our pool drain covers are due for replacement to be in compliance and for the safety of the public using our facilities.

Alternatives/Consequences if not Funded:

We would be out of compliance with the law if the project is not funded and potentially shut down until the grates and drain covers could be replaced. This would result in revenue loss.

Project Association:

Project would be completed during facility closures. No other potential project associations.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Order equipment	2017	20
Replace drains during closures	2017	80

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	20,500	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	20,500



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Public Restroom Automated Lock Systems - Citywide** Project #: 17L0029

Project Description:

Total Project Cost: \$42,000

Installation of public restroom automated locking systems throughout the City and County of Broomfield.

Background and Justification:

Over the past several years there have been a growing number of vandalism incidents throughout the public restroom locations in the City and County. There has also been an increase in complaints dealing with individuals camping out in the facilities.

Problem to be Solved and/or Benefit to Citizens:

With the growing number of issues at the facilities, the park patrons have been deterred from using the restrooms during regular times of usage. This addition would enhance user safety in the park and provide more resistance to vandalism.

Alternatives/Consequences if not Funded:

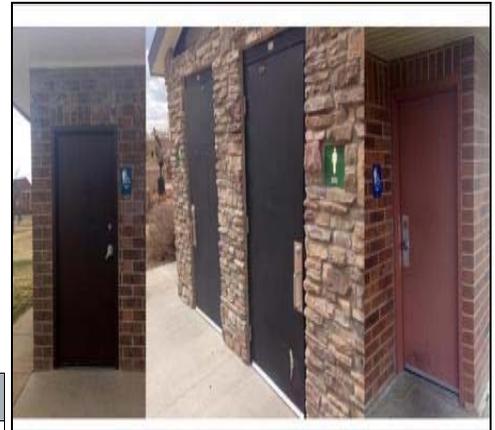
Continuation of (and potentially increase) vandalism, individuals taking refuge in the facilities, patron complaints, and money used to repair facilities.

Project Association:

This project may be able to be tied into Restroom upgrades at Community and Bronco Park.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Installation of new equipment	2017	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	42,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	42,000



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Quail Creek Park Restroom Rebuild**

Project #: L0034

Project Description:

Total Project Cost: \$356,600

Rebuild and upgrade the Quail Creek Park Restroom facilities.

Background and Justification:

When the facilities were originally constructed, it was with limited resources including funding and lack of water 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 will also possibly 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and Construction	2020	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
356,600	0	0	0	356,600



City and County of Broomfield 2018 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 that is 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 the younger aged children while at the park during picnic rentals, athletic games and practices, track meets and other special activities.

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 thru 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design & Installation	2018	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	258,750	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		258,750



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: Siena Reservoir - Dock Replacement

Project #: M0019

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 current conditions of the dock at Siena Reservoir are reaching the duration of its normal safe life span. This dock has been subject to vandalism on numerous occasions. These vandalism cases have been directly related to the framing, railing system, and other facets hindering the safety of this amenity. The vandalism cases have mainly been remedied in house, but still present an overall impact on the integrity of the structure. While vandalism has decreased the integrity of this amenity, it has also been subject to normal wear and tear. The elements have created a number of growing issues. Conditions such as high winds, hydraulic forces within the reservoir, fluctuating warm/cool temperatures, shifting soils, and other environmental factors have created concerning situations with the dock shifting off the concrete bases that hold the entire structure in place. As you can see in the photo's above and staff observations over the last couple of years, we have noted that the dock has moved significantly from the center of the support pillars, to near unsafe positions. The dock has been brought up during a number of inspections performed by CIRSA, siting issues with safety railings, reflectors, rail caps, and more.

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 need minimal maintenance, that would include defective floats from time to time. We would like a dock that is easy to maintain and would potentially be accessible and ADA compliant.

Alternatives/Consequences if not Funded:

If this issue is not alleviated soon, there is potential for the dock to shift off of the concrete pillars that are supporting it, resulting in park patron injury or death. With the vandalism to the safety railings, when they are not present, there is potential for park patron injury or death.



Project Association:

None

Operating Budget Impact:

None anticipated

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construction	2021	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	84,360	0	0	84,360



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **West Park Concrete Replacement**

Project #: 17L0036

Project Description:

Total Project Cost: \$43,750

CCOB's share of costs for repairs to hazardous concrete surfaces and sidewalks at West Park pavilion.

Background and Justification:

In accordance to Resolution No. 2007-243, Joint Use Agreement between the Interlocken Owners Association and the City and County of Broomfield, Broomfield is responsible for payment of 50% of the annual maintenance and capital costs of the tennis courts, two ball fields and other facilities at West Park.

Problem to be Solved and/or Benefit to Citizens:

The concrete walks surrounding the pavilion have heaved and moved, creating deep cracks and lips that are trip hazards for citizens taking part in any activities at Westpark. Replacing the walks and slabs around the pavilion will create a safe and enjoyable area for citizens and sports participants attending activities in the area.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Concrete Repair and Replacement to be reimbursed	2017	100

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	43,750	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	43,750



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Wildgrass Underpass Water Sealing**

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 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 an algae like slime that gets very slippery.

Problem to be Solved and/or Benefit to Citizens:

This project, if completed would improve the conditions and 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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2018	25
Hire contractor and complete project	2018	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	40,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	40,000	



City and County of Broomfield 2018 Capital Improvement Projects

Parks & Recreation Facility Projects

Project Name: **Youth Recreational Baseball/Softball Complex - Study** Project #: K0047

Project Description:

Total Project Cost: \$40,000

A citizen requested Broomfield construct a four field youth recreational baseball/softball complex. This complex would be designed for the younger aged baseball and softball player.

Background and Justification:

This project is for a study to determine the best location for the complex. The four field complex would include construction of fields (250 - 300ft outfield min.), backstops, covered dugouts, fencing, score boards, covered spectator areas, bleachers, restrooms/concessions and parking. Other possible amenities may include covered shelters and field lighting.

Problem to be Solved and/or Benefit to Citizens:

An athletic field use and demand analysis was conducted in 2014 resulting in a recommendation to improve existing athletic fields, complete development of currently planned athletic complexes and construction of new fields. One such recommendation is to construct a 4 field youth T-ball/machine pitch baseball/softball complex.

Alternatives/Consequences if not Funded:

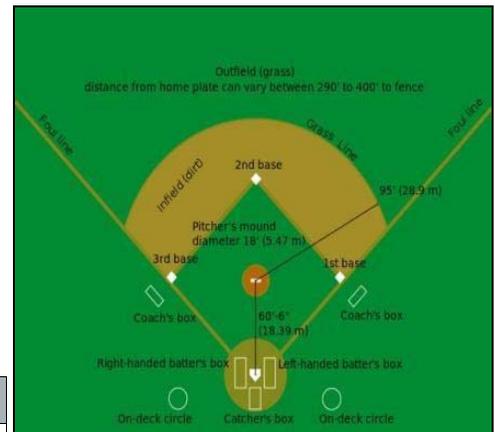
If this request is not funded, recreation services programs and the baseball/softball organizations will continue to struggle to find adequate field space during the peak season, mid-May through early July.

Project Association:

None

Operating Budget Impact:

If approved for construction, operating costs would increase to include maintenance of the new complex.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Retain consultant	2019	25
Review locations and design options	2019	40
Complete design	2019	35

Funding Source: Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	40,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: 112th Avenue from Old Wadsworth Over Railroad/Uptown Ave Bridge Aesthetics (Portion over US 36 is CDOT)

Project #: 11C0094

Project Description:

Total Project Cost: \$659,950

As part of the US 36 Managed Lanes Project, the Old Wadsworth/112th Avenue Bridge was demolished and replaced with a new bridge. CDOT's replacement bridge was "in-kind," so without this funding it would not have any aesthetic elements.

Background and Justification:

This project will help to create branded gateways adjacent to Broomfield.

Problem to be Solved and/or Benefit to Citizens:

Improve the aesthetics of the replacement bridge so that it is similar to the quality of the 120th Avenue Connection and Interlocken bridges over US 36.

Alternatives/Consequences if not Funded:

Make no improvements.

Project Association:

This project will be completed by CDOT as part of the US36 Managed Lanes Project.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Reimbursement of work completed by CDOT	2012	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
531,550	128,400	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	659,950



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **120th Avenue Connection - Illuminated Street Name Signs**

Project #: 15H0044

Project Description:

Total Project Cost: \$25,000

The Colorado Department of Transportation (CDOT) is providing improvements to the last phase of the 120th Connection Project. Since we are using Broomfield standard street name signs we are responsible for the signs.

Background and Justification:

New illuminated street name signs will be placed at the newly constructed signalized intersections of Upham Street and West 120th Avenue and Wadsworth Boulevard and West 120th Avenue. A total of seven signs are needed.

Problem to be Solved and/or Benefit to Citizens:

Street name signs in accordance with Broomfield Standards.

Alternatives/Consequences if not Funded:

Use CDOT standard signs.

Project Association:

None

Operating Budget Impact:

Minimal impact on operating budget.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain quotes	2017	25
Hire contractor and install signage	2017	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	25,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	25,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Arista Street Lighting Upgrade**

Project #: 16K0027

Project Description:

Total Project Cost: \$2,600,000

The project request is to bring up the Arista Development to Xcel Energy standards and specifications for street lighting, and retrofit existing Induction Street lighting to an LED full function system

Background and Justification:

Staff proposes to hire a consultant firm to study and evaluate the project to complete the following at the Arista Subdivision so it meets Xcel street standards and Xcel’s IGA for maintenance.

Problem to be Solved and/or Benefit to Citizens:

The street lighting throughout the Arista development is failing on a large scale and is not maintainable in it's current configuration. The lighting was not installed to Xcel standards, but were installed to meet private parking lot criteria and included the use of direct bury aluminum run 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’s electrical power needs with a single meter to run everyone’s electrical requirements. This means that the city is most likely paying for electricity being used for private use in the area.

Alternatives/Consequences if not Funded:

Mobile light towers can be used to provide street lighting and to power traffic signals if necessary, however there will be considerable overtime and fuel costs to keep the lights up and running.

Project Association:

None

Operating Budget Impact:

Once completed, this project is anticipated to save staff time, due to decreased maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire consultant to design and phase project	2017	
Phased Funding	2018-2022	

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	100,000	500,000	500,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
500,000	500,000	500,000	0	2,600,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Bicycle and Pedestrian Wayfinding Signs - Citywide**

Project #: 17L0048

Project Description:

Total Project Cost: \$30,000

A Bicycle and Pedestrian Wayfinding Project will implement recommendations of the Comprehensive Plan and Transportation Plan Update to support safe and easy ways to bike and walk in our community.

Background and Justification:

The study will utilize information about Broomfield’s existing sidewalk, bike and trail system to identify where signs are needed to support safe and continuous travel. Community activity centers, parks and trails, and connections to the transit system will be a focus for the wayfinding system.

Problem to be Solved and/or Benefit to Citizens:

A wayfinding system will identify the best routes to destinations and familiarize users with the bicycle network, overcome barriers to active transportation, and passively market the existing bike and pedestrian infrastructure by providing consistent imagery throughout Broomfield.

Alternatives/Consequences if not Funded:

Citizen confidence in using active modes of transportation will not be enhanced.

Project Association:

None

Operating Budget Impact:

Public works will need operating budget to maintain signs and pavement markings after they are installed.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Advertise , Select, Execute Consultant Contract	2017	10
Identify and Prioritize Sign Locations	2017	70
Design and Fabricate Signs	2017	15
Install Signs	2017	5

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	30,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Bike and Ride Shelters - Citywide**

Project #: 16K0006

Project Description:

Total Project Cost: \$81,000

This project would provide the local match to a DRCOG grant to construct two Bike-n-Ride Shelters. Bike-n-Ride Shelters provide secure and weather proof bike parking.

Background and Justification:

The total cost to construct two Bike-n-Ride Shelters and operate them for one year is \$250,000. This CIP request is for \$50,000 to provide a 20% local match to a DRCOG grant. One shelter is proposed to be located at the Broomfield Bus Rapid Transit (BRT) Station (adjacent to the 1STBANK Center) and one at the Flatiron Station (adjacent to Flatiron Crossing). The Bike-n-Ride Shelters will support the success of US 36 Bus Rapid Transit (BRT) by providing a First and Final Mile solution for transit riders who bicycle to BRT stations

Problem to be Solved and/or Benefit to Citizens:

Bike-n-Ride Shelters provide a key infrastructure component to multi-modal transit/bicycling travel. City Council's 2015 Priorities include accelerating the provision of critical road and other multi-modal capacity, and specifically calls out implementing bicycle and pedestrian improvements.

Alternatives/Consequences if not Funded:

Bike-n-Ride Shelters will not be constructed.

Project Association:

None

Operating Budget Impact:

Annual maintenance for each Bike-n-Ride Shelter is estimated to be \$5,420 per year, or \$10,840 for two shelters.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Apply for grant	2017	5
Execute IGA	2017	25
Order Shelters	2017	35
Install Shelters	2017	35

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	81,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	81,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Bike Share Program - Citywide**

Project #: 16L0055

Project Description:

Total Project Cost: \$35,993

This project would contract for 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 works towards Broomfield’s multi-modal transportation and recreation goals.

Alternatives/Consequences if not Funded:

There would be no change from existing. 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Establish Procurement Process, Advertise for Bids,	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	35,993	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	35,993



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Brainard Drive Relocation

Project #: 12F0060

Project Description:

Total Project Cost: \$1,513,239

This project will move the location where Brainard Drive connects to Industrial Lane to a point approximately 0.4 miles northwest near the intersection with East Flatiron Circle.

Background and Justification:

In 2011, CDOT and Broomfield participated in a value engineering process to identify possible cost-saving opportunities with the 120th Avenue Connection – Phase 2 project. Much of the focus was evaluating ways to reduce the size of the BNSF railroad bridge necessary for the new roadway to pass under the existing railroad. One idea was to eliminate one of the three railroad tracks to reduce the width of the bridge. This could be done by shifting the existing railroad siding north and west of its current location. This project has been funded and will be reimbursed by CDOT with Section 130, Railroad Safety funds.

Problem to be Solved and/or Benefit to Citizens:

Relocating the railroad siding has additional benefits to Broomfield and BNSF. One benefit will be reduced wait times (including emergency response times) and backups at the 120th Avenue and Nickel Street railroad crossings.

Alternatives/Consequences if not Funded:

Project is underway.

Project Association:

This project is associated with the 120th Connection Phase 2 project.

Operating Budget Impact:

This project will slightly increase maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Work with BNSF and CDOT to design project	2013	40
Develop construction plans and bid project	2014	20
Award agreement and construct project	2016	40

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
1,510,212	3,027	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,513,239	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Broomfield Lane - Extension**

Project #: 14H0015

Project Description:

Total Project Cost: \$226,693

This project would construct a 300 foot extension of Broomfield Lane south of Uptown Avenue in the Dry Creek Valley Business Center subdivision.

Background and Justification:

In accordance with the approved Development Agreement, Broomfield is responsible to construct this roadway within 120 days of conveyance of parcel LA 01, which was previously used as 1stBANK Center parking. The project is associated with the Uptown Avenue (south half) project, the Dry Creek Valley Business Center Sanitary and Storm Sewer, and the Uptown Avenue temporary landscaping. Uptown Avenue will be constructed at a future date when warranted, however the Broomfield Lane work, can, and should, be coordinated with the Uptown Avenue Sanitary and Storm Sewer project. The landscaping portion of the project can be coordinated with the Uptown Avenue Temporary Landscaping project.

Problem to be Solved and/or Benefit to Citizens:

Broomfield Urban Renewal Authority (BURA) is required by the Management and Operation Agreement with Peak Entertainment LLC, to provide a minimum of 2,700 parking spaces within 3,500 feet of the 1stBank Center’s main entrance.

Alternatives/Consequences if not Funded:

If the request is not funded, Broomfield may be in violation of the Development Agreement.

Project Association:

See Background and Justification.

Operating Budget Impact:

Minimal increase in maintenance costs for the additional 300 feet of pavement.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2013	10
Bid project and award construction	2014	10
Construct project	2016-2017	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
130,854	23,839	72,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	226,693	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Civic Center - Pedestrian Improvements**

Project #: 14H0041

Project Description:

Total Project Cost: \$62,000

This project improves pedestrian connectivity in the Civic Center by providing a connection from the George DiCiero City and County Building to the Library.

Background and Justification:

Currently, pedestrians have to walk along the main City and County Building entrance drive to walk south to the Library. There are pedestrian conflicts with turning vehicles. Along Spader Way, pedestrians have to walk through the ball field parking lot. There are conflicts with cars in this area, particularly when the ball fields are in use.

Problem to be Solved and/or Benefit to Citizens:

This project improves pedestrian safety in the Civic Center area.

Alternatives/Consequences if not Funded:

The pedestrian condition will remain as is.

Project Association:

This project is adjacent to the Community Park Hill Landscape project. There could be cost savings with the landscape and irrigation modifications if done concurrently.

Operating Budget Impact:

This will increase operating costs for the maintenance of the additional sidewalk areas.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and develop construction plans	2016	25
Bid project and award construction agreement	2017	30
Complete project	2017	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	3,271	58,729	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	62,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: County Commons - Roundabout

Project #: M0032

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 damaging the irrigation. Broomfield snow control operations and maintenance vehicles have impacted and broken the delineation islands. Annual maintenance funds have been used to correct 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construct	2020	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
225,000	0	0	0	225,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Dillon Road/West 144th Avenue - Improvements

Project #: 14Z0199

Project Description:

Total Project Cost: \$298,714

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.

Background and Justification:

The project has been proposed in phases. By constructing the intersection improvements first, and then adding through lanes at a later time, there are inefficiencies with duplication of some of the work items such as contractor mobilization, traffic control, erosion control, etc. However, this will allow staff to evaluate concerns about congestion after each phase is completed and before the next phase is initiated.

Problem to be Solved and/or Benefit to Citizens:

The posted speed limit is 40 mph in the west end of the corridor and 45 mph in the east end. Traffic congestion is heaviest westbound during the morning peak hour, and eastbound during the afternoon peak.

- During the morning peak, the less congested eastbound trip took approximately 7 minutes at an average speed of 30 mph. While the very congested westbound trip took 17 minutes at an average speed of 12 mph. During the afternoon peak, the less congested westbound trip took approximately 6 minutes at an average speed of 35 mph.
- There was a rolling “stop and go” westbound vehicle queue extending east from Aspen Street nearly to Lowell Boulevard. At times traffic would sit at a green traffic signal with no room to move forward.
- There was a long queue (20 plus vehicles) of northbound traffic on Aspen Street waiting to turn left onto 144th Ave during each signal cycle. It appeared some motorists were using 136th Avenue and Aspen Street to bypass the congestion on 144th Avenue.

Alternatives/Consequences if not Funded:

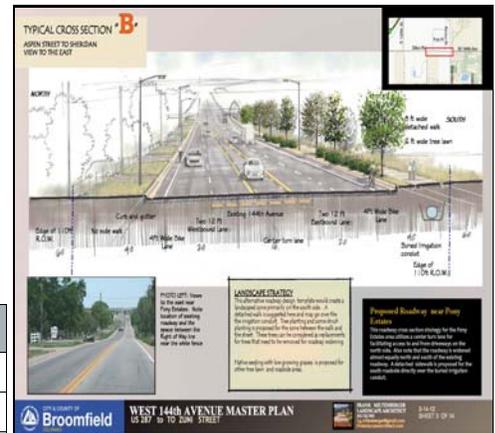
Continue to monitor congestion and deal with negative feedback from drivers.

Project Association:

None

Operating Budget Impact:

The additional roadway will increase maintenance costs.



Steps to be completed	Start Date	% of Project
Issue RFP for phase 1	2014	30
Design project and develop construction plans	2014	30
Bid project and award construction agreement	2016	20
Construct phase 1	2017	20

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
130,626	88,919	79,169	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	298,714	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Dillon Road/West 144th Avenue Improvements - Bond Funded** Project #: 17M0020

Project Description:

Total Project Cost: \$40,000,000

Add the US 287 to South 120th and Sheridan Boulevard to Zuni Street segments to complete the ultimate widening of Dillon Rd/W 144th Ave.

Background and Justification:

This updated project scope will add the US 287 to South 120th and Sheridan Boulevard to Zuni Street segments to complete the ultimate widening of the entire roadway through Broomfield in general conformance with the Dillon Road/West 144th Avenue master plan. 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. The posted speed limit is 40 mph in the west end of the corridor and 45 mph in the east end of the corridor. 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2017-2020	20
Construction	2018-2020	80



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Funding Source: Sales & Use Tax Bonds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	40,000,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Durango Ave. - Construct Sidewalk and Crosswalk**

Project #: 16K0048

Project Description:

Total Project Cost: \$26,000

This project will construct a segment of sidewalk and install a crosswalk with ADA ramps on Durango Avenue west of Aspen Street and just east of Rifle Way.

Background and Justification:

This project request was submitted by a resident of Country Estates to improve pedestrian circulation in the neighborhood. The developer generally constructed sidewalks on one side of each street only.

Problem to be Solved and/or Benefit to Citizens:

There is not an easy way to get to the south side of Durango with a stroller or wheelchair. This request would provide a crosswalk with ADA ramps.

Alternatives/Consequences if not Funded:

Several routes were evaluated. Adding a crosswalk between Aspen Street and Rifle Way is the most direct and cost effective route.

Project Association:

None

Operating Budget Impact:

Minimal increase in maintenance costs for the additional sidewalk.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid design/build project	2016	30
Award contracto	2016	20
Construct project	2017	50

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	1,413	24,587	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	26,000	



City and County of Broomfield 2018 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, therefore, CCOB is 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 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 maintenance responsibility of the street lights would transfer to Xcel Energy.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Xcel Energy Work Request/Installation	2018	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	250,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	250,000



City and County of Broomfield 2018 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: \$975,215

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Preliminary design complete	2013	20
Finalize Project	2017	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
25,215	0	950,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	975,215	



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project	2019	25
Select contractor and award project	2019	25
Construct project	2019	50

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	491,300	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	491,300	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **East Flatiron Crossing Drive - Flatiron Marketplace Dr. Intersection Reconstruction** Project #: 18K0033

Project Description:

Total Project Cost: \$230,300

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 and include the 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 traveling westbound on East Flatiron Crossing Drive, turning south onto Flatiron Marketplace Drive. Due to the dip, the water is not able to 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 as best as possible with asphalt patching.

Project Association:

None

Operating Budget Impact:

Reduced maintenance for this area.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project	2018	25
Select contractor and award project	2018	25
Construct project	2018	50

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	230,300	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	230,300



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **East Flatiron Crossing Drive, US 36 to Brainard Drive - Reconstruction** Project #: K0032

Project Description:

Total Project Cost: \$714,600

This is a request to reconstruct East Flatiron Crossing Drive from Brainard Drive to US 36.

Background and Justification:

This project will reconstruct East Flatiron Crossing Drive eastbound from the US 36 bridge to the new Brainard Drive intersection. There is a significant drainage issue with about 400 linear feet of curb and gutter on the south side of East Flatiron Crossing Drive.

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 and providing more funds to be applied to preservation for streets and parking lots already in good condition.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project	2019	25
Select contractor and award project	2019	25
Construct project	2019	50

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	714,600
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	714,600



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Eldorado Boulevard - Eastbound Double Left to Northbound Interlocken

Project #: 18D0031

Project Description:

Total Project Cost: \$380,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	25
Bid project and award construction agreement	2018	30
Construct project	2018	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	380,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	380,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Elmwood St - East 14th Ave to East 18th Ave
Reconstruct**

Project #: M0028

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 and not draining 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. Streets 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:

Residence 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, combined with an appropriate preservation strategy, we should get at least 40 years of service life from the pavement surface.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construct	2019	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	576,250	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	576,250	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Flatiron Crossing Drive - Zip Bridge Repairs

Project #: 18M0023

Project Description:

Total Project Cost: \$500,000

Repair of the two ZIP bridges that cross over Flatiron Crossing Drive.

Background and Justification:

Soils underneath the abutments for both bridges are saturated with groundwater and have shifted.

Problem to be Solved and/or Benefit to Citizens:

This movement has caused the approach sidewalk to crack significantly and has sheared the bolts connecting the bridge to the abutments compromising the safety and longevity of the bridges.

Alternatives/Consequences if not Funded:

Several alternatives have been considered to address the structural issues associated with both bridges. One solution would be to install a drainage system to remove groundwater from beneath the abutments then repairing each bridge in place. A second alternative would be to repair the western bridge in place, but for the eastern bridge build new abutments slightly further east along Flatiron Crossing Drive and moving the bridge to be in better alignment with the US 36 bike trail. Another alternative would be to remove the western bridge (requiring pedestrians and bikes to cross Flatiron Crossing Drive at intersections with Summit Boulevard or Zang Street) and either repairing the eastern bridge in place or moving it to be more aligned with the US 36 bike trail. If this project is not funded, the bridges will continue to experience damage due to the soils heaving underneath them.



Project Association:

None

Operating Budget Impact:

This project is expected reduce maintenance frequency on the bridges and associated bike trails.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Construct	2018	100

Funding Source: Sales and use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	500,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	500,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Huron and 160th Avenue Turn Lanes

Project #: L0002

Project Description:

Total Project Cost: \$449,500

Installation of separate north bound left and right turn lanes on Huron. Separate west bound right turn lane, separate east bound right turn lane on 160th. Separate south bound left turn lane on Huron.

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 till such time that 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2019	10
Construction	2019	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	449,500	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	449,500	



City and County of Broomfield 2018 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 no other standard and specification used anywhere else in the city.

Background and Justification:

The signs were last reconditioned in 2007 and currently are showing indication 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:

In time, the signs will get worse we will receive complaints because of their illegible message information.

Project Association:

None

Operating Budget Impact:

None Anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Recondition signs	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	44,730	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	44,730	



City and County of Broomfield 2018 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: \$7,932,621

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, which has been a City Council Priority.

Problem to be Solved and/or Benefit to Citizens:

This project will create a more consistent roadway, adding curb and gutter, sidewalks, street lights, burying the overhead utility lines and adding landscaped medians and landscaping along the sides of the street.

Alternatives/Consequences if not Funded:

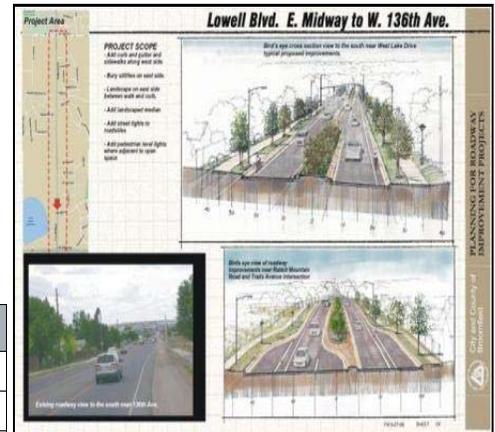
City Council looked at alternatives for the level of improvements in 2006 and agreed on the proposed plan.

Project Association:

None

Operating Budget Impact:

Once constructed, the additional lanes will increase maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2013	10
Bid project and award construction agreement	2016	5
Construct project	2017	85

Funding Source: Sales and Use Tax Fund and Utility License Fees

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
359,913	28,245	7,544,463	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	7,932,621	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Lowell Boulevard - 120th Avenue to East Midway Avenue - Widening and Landscape Improvements

Project #: 07Z0039

Project Description:

Total Project Cost: \$9,994,684

This funding will be used to design and construct improvements to Lowell Boulevard from 120th Avenue to East Midway Boulevard.

Background and Justification:

Cost participation is anticipated from the Urban Drainage and Flood Control District (UDFCD), Westminster, and the Colorado Department of Transportation.

Problem to be Solved and/or Benefit to Citizens:

This project will create a more consistent roadway by adding curb and gutter, sidewalks, street lights, burying the overhead utility lines and adding landscaped medians and landscaping 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 completed, the additional lanes will increase maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and coordination with UDFCD, Westminster	2013	10
Bid project and award construction agreement	2016	5
Construct project	2016-2017	85

Funding Source: Sales and Use Tax Fund and Utility License Fees

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
6,492,338	2,626,931	875,415	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	9,994,684



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Lowell Blvd - Sound Wall Along Trails at Westlake

Project #: 17L0005

Project Description:

Total Project Cost: \$400,000

Construct a pre-cast concrete sound wall, 932 feet long and 8 feet high, along the east side of Lowell Blvd. in front of the Trails at Westlake Subdivision in accordance with the terms of the Sound Wall Policy adopted in November 2008.

Background and Justification:

The project was originally submitted in 2009, however the neighborhood did not have 100% participation as required by City Council. Several steps are required to proceed with a Sound Wall Assessment District, including drafting and approval a sound wall assessment district/special improvement district ordinance, and creation of a legally binding petition form.

Problem to be Solved and/or Benefit to Citizens:

The sound wall would reduce noise and provide a barrier.

Alternatives/Consequences if not Funded:

The Lowell Boulevard North improvements will include a landscaped median and additional tree planting along the east side of Lowell. The raised median and landscaping will provide some level of barrier and sound mitigation in lieu of a wall. Residents may replace their fences at their own cost.



Project Association:

Lowell Boulevard North improvements .

Operating Budget Impact:

Per the sound wall policy, the maintenance of the wall would become Broomfield’s responsibility, adding to operating and maintenance costs of approximately \$10,000 per year to account for re-staining and repair.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Ordinance adoption and petition form	2017	0
Update Design documents and cost estimate	2017	10
Bid and award	2017	0
Construction	2017	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	400,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	400,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Midway Boulevard - Street Lights**

Project #: 18L0006

Project Description:

Total Project Cost: \$123,500

Provide the installation of 19 overhead street lights on both sides of Midway Boulevard in the vicinity south of Via Varra to Flatiron Crossing Drive.

Background and Justification:

These are streets lights that are non-development installed that fill in the missing link. These lights are not the responsibility of developers.

Problem to be Solved and/or Benefit to Citizens:

Concern has been received regarding the lack of street light for residents living on Via Varra and traversing to the RTD Park-n-ride facility near Flatiron Crossing Drive. Provide additional safety for these pedestrians and bicyclists.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

Increase in existing maintenance budget for street lights



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Work request to xcel energy	2018	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	123,500	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	123,500	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Nickel Street and Industrial Ln - Intersection Improvements**

Project #: M0030

Project Description:

Total Project Cost: \$340,000

This request is for the installation of a 3-way traffic signal and intersection improvements at Nickel Street and Industrial Lane.

Background and Justification:

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 at this intersection as well as bicycles that will use the future bike lane along Industrial Lane.

Alternatives/Consequences if not Funded:

If a signal is not installed at this location, motorists will continue to experience a higher risk of collision at this intersection.

Project Association:

This project could it be combined with the Nickel Street Improvements Project

Operating Budget Impact:

Require dperiodic inspection and maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid/Construct	2019	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	340,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	340,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Original Broomfield - Emerald Lane Paving**

Project #: J0038

Project Description:

Total Project Cost: \$175,000

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 received in 2013 to pave the gravel section of Emerald Lane in the Elliot subdivision. In 2013, a neighborhood survey was sent to residents along Emerald Lane to gauge the interest for the project. The majority of the surveys that were returned supported paving the street. Public Works Streets Maintenance also supports the project and feels it may reduce maintenance costs. A key factor with the project will be improving drainage and providing stormwater detention and water quality as is required. Currently the neighborhood has poor or undeveloped drainage systems and acquiring property for drainage conveyance and stormwater detention may be necessary.

Problem to be Solved and/or Benefit to Citizens:

Asphalt pavement would eliminate dust, rutting and mud on this roadway.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Survey and drainage evaluation	2020	10
Property acquisition	2020	10
Design and construction	2020	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
175,000	0	0	0	175,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Pedestrian Bridge and Underpass Repairs**

Project #: 18M0006

Project Description:

Total Project Cost: \$58,000

Perform necessary maintenance and general upkeep of the pedestrian bridges and underpasses based on the recommendations found in the 2016 Minor Structure Inspection Report.

Background and Justification:

Every two years, Ayres Associates performs physical inspections of all Broomfield’s maintained bridges and underpasses. During these inspections, recommendations for repairs are documented. The scope of repairs varies from simple crack filling to replacing entire timber bridge decks and concrete sections. Currently, 2,280 sq ft of timber decking and up to 1,500 sq ft of concrete are recommended for repairs. There is currently a line item for Bridge Repairs in the Parks Structures Budget for \$4,900. This amount barely covers the amount of wood decking that is currently recommended to be replaced and does not address concrete damage or contractual services to perform the work.

Problem to be Solved and/or Benefit to Citizens:

Performing these repairs is vital to maintain the safety of pedestrian traffic that uses these bridges and underpasses in Broomfield’s Parks and Open Spaces.

Alternatives/Consequences if not Funded:

Necessary repairs will not be completed in a timely manner, which would put pedestrians who use these bridges and underpasses at risk of injury.

Project Association:

None

Operating Budget Impact:

None Anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Construction	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	58,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	58,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Railroad Crossings - Quiet Zone Improvements**

Project #: 09C0018

Project Description:

Total Project Cost: \$1,208,700

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Work with railroad to design crossing changes	2014	10
Complete project	2017	90

Funding Source: Sales and Use Tax Fund and Grant Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
23,618	2,788	1,182,294	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,208,700	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **SH 7 and I-25 Interchange Design (Broomfield's Share)** Project #: 16L0054

Total Project Cost: \$83,000

Project Description:

This project will provide funding for Broomfield’s share of the design for the SH 7 and I-25 interchange. The other agencies participating are Adams County and Thornton.

Background and Justification:

This project will provide Broomfield’s financial match toward the design of the SH 7 and I-25 diverging diamond interchange. The other agencies participating are Adams County and Thornton.

Problem to be Solved and/or Benefit to Citizens:

The interchange is included in Broomfield’s Transportation Plan and DRCOG’s Transportation Improvement Plan. The interchange will support and attract commercial development to the north east area of Broomfield. Three of the four quadrants of the interchange are located within Broomfield.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

It is anticipated that the interchange would be maintained by CDOT.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Engineering	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	83,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	83,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: SH 128 and US 36 - Bikeway Connection

Project #: M0022

Project Description:

Total Project Cost: \$350,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construction	2019	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	350,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Sheridan Blvd/Lowell Intersection Turn Lanes

Project #: 18L0008

Project Description:

Total Project Cost: \$527,000

The intersection meets Broomfield Standards and Specifications for the installation of north and south bound separate right and left turn lanes and separate Lowell Boulevard north and south double receiving lanes from left turns on Sheridan Boulevard.

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.

Problem to be Solved and/or Benefit to Citizens:

The intersection currently experiences traffic congestion, especially during the peak hours.

Alternatives/Consequences if not Funded:

Continued congestion at the intersection during the peak traffic hours.

Project Association:

Anthem is installing a traffic signal (2016) at the intersection and has provided room for the future lane expansion.

Operating Budget Impact:

Increased maintenance with the additional asphalt and curb and gutter installation.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Construction	2018	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	527,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	527,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Sheridan Blvd/Midway Intersection Improvements**

Project #: 18H0024

Project Description:

Total Project Cost: \$683,000

This project involves several improvements to southbound, eastbound and westbound lanes of this intersection.

Background and Justification:

This project proposes the following changes: 1) The addition of a southbound right turn lane on Sheridan to Midway; 2) Conversion of the westbound right turn lane into a combination right turn lane/through lane then the extension of the through lane west to the residential area; 3) Modifications to 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	30
Bid project and award construction agreement	2018	25
Construct project	2018	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	683,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	683,000



City and County of Broomfield 2018 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction plans	2017	25
Bid project and award construction agreement	2018	30
Construct project	2018	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	Total Project Cost
0	0	100,000	250,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		
0	0	0	0	350,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Sidewalk - 120th Avenue (local) - Pedestrian and Roadway Improvements

Project #: 18M0027

Project Description:

Total Project Cost: \$1,334,400

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2018	10
Construct	2019	90

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	133,440	1,200,960
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	1,334,400



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Sidewalk - Evergreen Street - Greenway Drive North to Ponderosa** Project #: 16K0007

Project Description:

Total Project Cost: \$34,319

The sidewalks on Evergreen Street, from Ponderosa Street to Greenway Drive North, the sidewalks are discontinuous and missing ADA ramp provisions.

Background and Justification:

Sidewalks should be added to bring Evergreen Street pedestrian access up to the same standard as the rest of the neighborhood.

Problem to be Solved and/or Benefit to Citizens:

This project encourages the use of multi-modal transportation and provides increased mobility opportunities for the community's youth, senior citizens, and special needs populations.

Alternatives/Consequences if not Funded:

If not funded, Evergreen Street would continue to have poor navigation and ADA provisions for pedestrians and would remain inconsistent with the rest of the neighborhood.

Project Association:

None

Operating Budget Impact:

Operating costs will increase for maintenance of the additional sidewalk.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid and award contract	2016	20
Construct project	2016	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	34,319	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	34,319



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Sidewalk - Sheridan Parkway - Wildgrass to Lowell**

Project #: 17E0024

Project Description:

Total Project Cost: \$210,000

This project would construct a sidewalk along the northwest side of Sheridan Boulevard from the Wildgrass subdivision to the existing sidewalk west of Lowell Boulevard.

Background and Justification:

Broomfield is responsible to finish the Sheridan Boulevard improvements between the Wildgrass and Anthem subdivisions. The work will include construction of sidewalks, median and right-of-way landscaping, and street lighting.

Problem to be Solved and/or Benefit to Citizens:

There is no sidewalk in this area. Pedestrians use a social trail or the bike lane on Sheridan Parkway.

Alternatives/Consequences if not Funded:

Delay construction of the sidewalk until such time that the other roadway improvements are constructed. This is anticipated to be concurrent with the Broomfield Reservoir.

Project Association:

None

Operating Budget Impact:

Once completed, this project will increase operating and maintenance costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction plans	2017	25
Bid project and award construction agreement	2017	30
Construct project	2017	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	210,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	210,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Traffic Signal - 108th Ave and Simms St**

Project #: 17L0051

Project Description:

Total Project Cost: \$150,000

Installation of a mast arm traffic signal at the intersection of 108th Avenue and Simms Street.

Background and Justification:

A traffic signal is warranted at the intersection of 108th Avenue and Simms Street. This is a joint project with the City of Westminster and there is cost sharing. Broomfields portion is provided by the developer in an agreement.

Problem to be Solved and/or Benefit to Citizens:

Will reduce number of accidents occurring at the intersection and reduce the amount of delay for drivers on Skystone parkway and 108th Ave. during peak traffic hours.

Alternatives/Consequences if not Funded:

Continue with congestion and higher rate of accidents.

Project Association:

None

Operating Budget Impact:

City and County of Broomfield will maintain the signal.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design by City of Westminster	2016	20
Project Bid	2017	10
Project Construction	2017	70

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	150,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	150,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

**Project Name: Traffic Signal - SH 128 and Ridge Parkway
(Broomfield's Share 10%)**

Project #: 15J0010

Project Description:

Total Project Cost: \$25,000

This project will fund the 10% participation in a traffic signal at State Highway 128 and Ridge Parkway.

Background and Justification:

The City and County entered into a joint maintenance agreement with The Ridge at Broomfield subdivision. This agreement requires Broomfield to participate in funding of a traffic signal.

Problem to be Solved and/or Benefit to Citizens:

None

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

Funding participation only.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Funding participation only	2017	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	25,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		25,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Traffic Signal - West 160th Avenue and Huron Street**

Project #: 16K0005

Project Description:

Total Project Cost: \$225,664

Funding for the installation of traffic signal at the intersection of Huron Street and 160th Avenue. Traffic signal meets warrants in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

Background and Justification:

A new traffic signal at the intersection will reduce the number of accidents occurring. Currently, there are two way stop signs on West 160th Avenue

Problem to be Solved and/or Benefit to Citizens:

This intersection has been on the top of our accident rate for all intersections in Broomfield over the last few years.

Alternatives/Consequences if not Funded:

We previously installed flashing stop signs on West 160th Avenue and advance flashing intersection warning signs on Huron in the past. This has not significantly reduced the number of accidents. High speeds, increased traffic volumes have contributed to the



Project Association:

None

Operating Budget Impact:

Operating costs would increase for the additional traffic signal

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid project	2016	25
Award contract	2017	15
Complete installation	2017	60

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	74,155	151,509	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	225,664	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Upham Street - Local Roadway and Sidewalk Improvements**

Project #: 18M0033

Project Description:

Total Project Cost: \$607,000

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Construct	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	607,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	607,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: US 36 - Bikeway Connections

Project #: 15J0032

Project Description:

Total Project Cost: \$216,900

The US 36 project includes a 12-foot wide concrete trail parallel to US 36 throughout Broomfield. There are local connections that are not included in the CDOT project that would be beneficial to connect to Broomfield's existing trails and streets.

Background and Justification:

The US 36 bikeway construction is anticipated to be completed in 2015. The CDOT project includes the 12-foot concrete bikeway parallel to US 36. This request would construct connections to the bikeway in three locations: SH 128; Interlocken Filing 24, Lot 2; and Edgeview Drive.

Problem to be Solved and/or Benefit to Citizens:

The more connections there are to the bikeway, the more the bikeway will be used. The CDOT project only included some connections that were identified in the original concepts for the project. Since then, additional areas have been developed leading to more connections needed.

Alternatives/Consequences if not Funded:

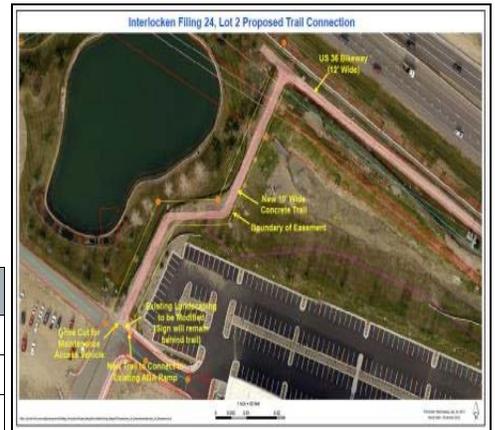
Do not construct connections and allow social trails to develop.

Project Association:

None

Operating Budget Impact:

There will be an increase in maintenance for these trails, including plowing.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid project and award agreement	2016	20
Construct project	2017	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	2,676	214,224	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	216,900



City and County of Broomfield 2018 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) guides signage 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Mile marker design	2014	5
Directional/Informational signage design	2017	15
Sign fabrication and installation	2017	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
4,015	0	15,985	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	20,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Wadsworth Blvd. Interchange/120th Avenue Connection Participation (Broomfield's Share 20%)

Project #: 08B0060

Project Description:

Total Project Cost: \$21,895,919

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Reimbursement of work completed by CDOT	2015-2018	100

Funding Source: Treasury Bonds/Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
10,843,355	2,830,963	6,471,601	1,750,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	21,895,919	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Wadsworth Bridge Aesthetics**

Project #: 12F0022

Project Description:

Total Project Cost: \$667,950

CDOT has new funding to replace unsafe bridges. The Wadsworth Bridge had a very low sufficiency rating and qualified for replacement as part of the US 36 Managed Lanes project.

Background and Justification:

The bridge proposed by CDOT has no aesthetic improvements and would have been a plain metal span with concrete barriers on the deck side with chain link railings. This project will add funding to the bridge to make it a desirable capital improvement.

Problem to be Solved and/or Benefit to Citizens:

Replacement of the Wadsworth Bridge and reconstruction of the Wadsworth Interchange have been identified as a critical need since the mid 1990's.

Alternatives/Consequences if not Funded:

Provide no funding for the project.

Project Association:

None

Operating Budget Impact:

Operating costs should not be affected by this project.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Reimbursement of work completed by CDOT	2012-2016	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
537,950	130,000	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	667,950	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **Wadsworth Sidewalk 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project	2018	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	15,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	15,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **W. 12th Avenue Reconstruction**

Project #: 18L0040

Project Description:

Total Project Cost: \$424,000

Reconstruct West 12th Ave from Kohl St to West 13th Ave.

Background and Justification:

Street services have started to take multiple complaints from the residence on West 12th Ave. and the mitigation only addresses the asphalt road surface. This requires a partial or complete redesign. This is beyond streets services skill set.

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

Alternatives/Consequences if not Funded:

Continue mitigation at a cost of \$14,000 per year.

Project Association:

None

Operating Budget Impact:

Reduced cost for maintenance and mitigation.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2018	10
Construction	2018	90

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	424,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	424,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **W 120th at Main Street - Improvements**

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction plans	2018	25
Bid project and award construction plans	2019	30
Construct project	2019	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	42,000	570,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	612,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **W. 136th Avenue - Eastbound Left Turn at Legacy High School** Project #: 10C0048

Project Description:

Total Project Cost: \$171,503

Extend eastbound left turn lane on West 136th Avenue, at the main entrance to the Legacy High School parking lot. This would extend the existing lane an additional 200 feet plus storage.

Background and Justification:

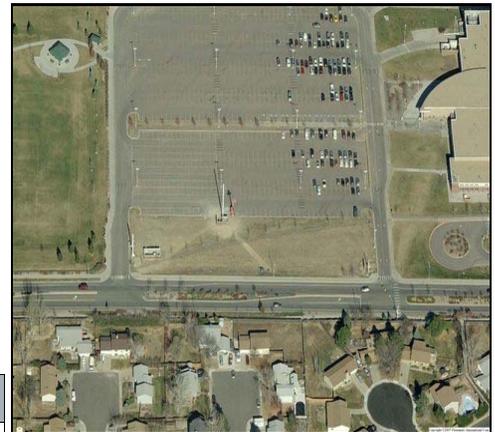
This improvement will remove the turning traffic from the through lane to improve capacity.

Problem to be Solved and/or Benefit to Citizens:

Traffic congestion at Legacy High School in the morning results in backups into the West 136th Avenue through lanes.

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:

None

Operating Budget Impact:

This project is funded in 2015 dependent upon the school district agreeing to the use of SEF funds.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2014	25
Bid project and award construction agreement	2015	30
Construct project	2016	45

Funding Source: Service Expansion Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
154,565	16,938	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	171,503	



City and County of Broomfield 2018 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:

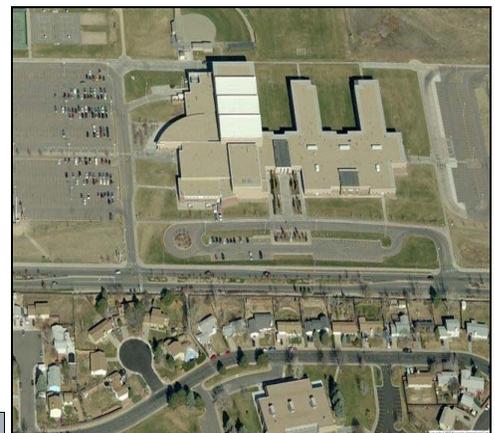
Staff discussed an option for the school to construct an access across their property on the north side of the High School, which would allow students to access the parking lots off of Zuni. They have not agreed to this.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2017	25
Bid project and award construction agreement	2017	30
Construct project	2017	40

Funding Source: Service Expansion Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	1,433,911	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	1,433,911



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: W. 160th Avenue - Sheridan Parkway to Lowell Boulevard - Reconstruction

Project #: 16K0034

Project Description:

Total Project Cost: \$58,742

This is a request to reconstruct a section of West 160th Avenue that runs between Sheridan Pkwy and Lowell Boulevard.

Background and Justification:

This project will include replacing a 700 linear feet section of West 160th Avenue (just West of Sheridan Parkway) that is failing to such a point that it needs to be reconstructed as soon as possible.

Problem to be Solved and/or Benefit to Citizens:

Street Services could continue to patch the section, however some areas have failed to such a point that vehicles are driving on the road base. Patching the failed section would take about 12% of the 2015 asphalt patching budget (\$24,900). Considering how the sub-base/asphalt is failing, and the heavy truck traffic that it is receiving, staff estimates the patching would last for a couple of months at best.

Alternatives/Consequences if not Funded:

Another option would be to consider closing the road to truck traffic or possibly turn the road section back to gravel.

Project Association:

None

Operating Budget Impact:

Once completed, this project would reduce maintenance to this area.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid project	2016	20
Select contractor and award project	2016	25
Construct project	2016	55

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	58,742	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	58,742	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: W. 1st Avenue and Spader Way - Intersection Improvements

Project #: 15J0008

Project Description:

Total Project Cost: \$433,000

The project would design and construct the traffic roundabout at East 1st Avenue and Spader Way as proposed in the Civic Center Plan, concurrent with the new Health and Human Services Facility at the northeast corner of East 1st Avenue and Spader Way.

Background and Justification:

The project would design and construct the traffic roundabout at East 1st Avenue and Spader Way as proposed in the Civic Center Plan, concurrent with the new Health and Human Services Facility at the northeast corner of East 1st Avenue and Spader Way. Additional right-of-way may be needed for the roundabout, which would be determined during the design phase.

Problem to be Solved and/or Benefit to Citizens:

The HHS facility will be constructed at the northeast corner of East 1st Avenue and Spader Way in 2015. The Civic Center Master Plan calls for a traffic roundabout at this intersection. At a minimum, the traffic roundabout should be analyzed and designed to the schematic design level to identify right-of-way needs concurrent with the HHS facility site development plan. If Council desires the roundabout, and it is shown to improve traffic flow, it may be beneficial to construct it concurrent with the HHS Facility.

Alternatives/Consequences if not Funded:

The intersection would remain a four-way stop.

Project Association:

Construction of the HHS Facility.

Operating Budget Impact:

This would increase operating costs if the roundabout is landscaped.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
RFP and Design	2020	10
Council Preproject Review	2020	5
Bid and Award	2020	20
Construction	2020	65

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
433,000	0	0	0	433,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **W. Midway Blvd - Bridge over Railroad**

Project #: 17D0048

Project Description:

Total Project Cost: \$950,000

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 on near-term development, which would make future right-of-way acquisition very difficult and expensive. It is preferred 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 a requirement 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:

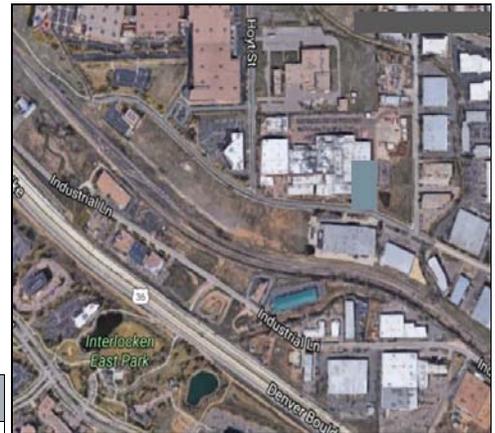
The property will likely be developed, which could result in redesign and realignment of Broomfield's vehicular bridge or higher property costs due to purchasing an improved site.

Project Association:

The project request is for property acquisition only at this stage, so project coordination is not applicable.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Right of Way Acquisition	2017	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	950,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	950,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **W. Midway Boulevard - Right Turn Lane at Nativity School**

Project #: D0001

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2020	25
Bid project and award construction agreement	2020	30
Construct project	2020	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
177,000	0	0	0	177,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: **W. Midway Boulevard and Kohl Street - Intersection Improvements**

Project #: 08B0047

Project Description:

Total Project Cost: \$260,000

This project would add a separate southbound, right-turn lane between Kohl Street and Midway Boulevard. The project would also include modifications to the turning radius and upgrade the signal detection equipment.

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.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and develop construction plans	2019	25
Bid project and award construction agreement	2020	30
Construct project	2020	45

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	25,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
235,000	0	0	0		260,000



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Wilcox Subdivision - Cul-De-Sac Paving

Project #: 16J0039

Project Description:

Total Project Cost: \$1,450,000

This request will pave the Wilcox annexation area cul-de-sacs that are currently gravel roadways.

Background and Justification:

A Citizen’s CIP Request was received in 2012 to pave West 148th Court and other cul-de-sacs in the Wilcox annexation area. In 2013, a survey was sent to residents in the area to gauge the interest for the project. The majority of the surveys returned supported paving the cul-de-sacs. Public Works Streets Maintenance also supports the project and feels it would reduce maintenance costs. A key factor with the project will be improving drainage and providing stormwater detention and water quality as is required. The neighborhood has poor or undeveloped drainage systems and acquiring property for drainage conveyance and stormwater detention will be necessary.

Problem to be Solved and/or Benefit to Citizens:

The requestors complained of dust, mud and rutting associated with the gravel cul-de-sacs. Asphalt pavement would eliminate these issues.

Alternatives/Consequences if not Funded:

The cul-de-sacs would remain gravel. No change would be anticipated and no other alternatives were reviewed.

Project Association:

This project is not associated with another near-term project.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Survey and drainage evaluation	2016	10
Property acquisition	2016	10
Design and construction	2017-2018	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	Total Project Cost
0	24,149	712,926	712,925	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		
0	0	0	0	1,450,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Zuni Street and Quail Creek Drive Roundabout

Project #: 18K0003

Project Description:

Total Project Cost: \$415,000

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and ROW acquisition	2018	15
Bid project and award contract	2018	35
Construct project	2019	50

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	62,000	353,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	415,000	



City and County of Broomfield 2018 Capital Improvement Projects

Transportation System Projects

Project Name: Zuni Street Pedestrian Crossing Improvements

Project #: 17L0057

Project Description:

Total Project Cost: \$75,000

New crossings, ramps and sidewalk/trail connections that would utilize the Zuni Street median refuges and sidewalk being constructed as part of the McKay/Lambertson Open Lands project.

Background and Justification:

Over the past seven years, there have been numerous complaints from the McKay Landing neighborhood regarding unsafe conditions for pedestrians along Zuni Street between West 138th Avenue and West 144th Avenue due to limited site distance and high vehicular traffic speeds on the arterial roadway. The proposed pedestrian crossing improvements would improve site distance, meet national accessibility guidelines and facilitate safe pedestrian and bicycle access to the McKay/Lambertson Open Lands project scheduled for construction in 2017-2018. The number of residents crossing Zuni Street is expected to dramatically increase.

Problem to be Solved and/or Benefit to Citizens:

The McKay/Lambertson Open Lands project includes sidewalk along the east side of Zuni Street and median enhancements for pedestrian crossing. During design, it was determined the existing corner curb ramps at the intersections along Zuni Street do not meet national accessibility guidelines for mobility-impaired users. This is a problem because adaptive recreation features are a key element of the Phase 1 Plan, and the steep curb ramp grades can also be a hazard for able-bodied users. The project would address this issue and respond to ongoing site distance complaints from the McKay Landing neighborhood. It would alleviate public concerns by facilitating safe pedestrian and bicycle access to McKay/Lambertson Open Lands and increasing the number of park access points north of the main entrance.

Also in response to numerous neighborhood requests, enhanced crossings with pedestrian flashers and crosswalk signage and striping are proposed at Quail Creek Drive and Lake Vista Drive. The enhanced crossing at Quail Creek Drive would be located at the south leg of the future roundabout, near the park entrance. During the design phase for McKay/Lambertson Open Lands, it was determined that extension of the new sidewalk north of Lake Vista Drive to West 144th Avenue is unfeasible due to steep grades. As a critical regional trail link, an enhanced crossing at Lake Vista Drive would improve pedestrian and bicycle safety and access to West 144th Avenue.

Alternatives/Consequences if not Funded:

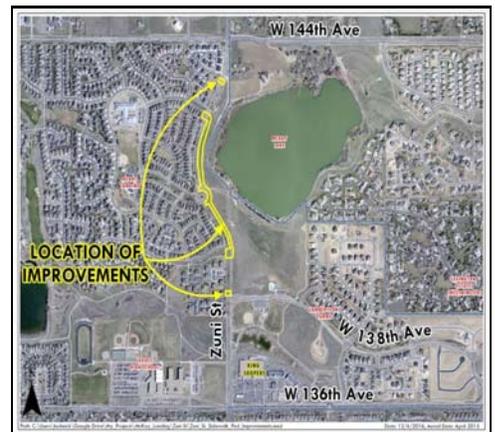
There will continue to be complaints from the McKay Landing neighborhood regarding unsafe site distance and pedestrian crossing conditions along Zuni Street. The number of complaints will likely increase once McKay/Lambertson park improvements are built in 2017-2018.

Project Association:

The design was completed as part of the McKay/Lambertson Open Lands project, and the pedestrian crossing improvements from both projects were combined for construction bid to receive better pricing.

Operating Budget Impact:

The improvements would be maintained by Broomfield Public Works through annual programs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Construction	2017	100



City and County of Broomfield

2018 Capital Improvement Projects

Transportation System Projects

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	75,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		75,000



City and County of Broomfield 2018 Capital Improvement Projects

Vehicles & Other Equipment

Project Name: **Elections - Ballot Tabulation System**

Project #: 16K0009

Project Description:

Total Project Cost: \$194,247

The Elections Division requests funds to purchase a new voting system in 2016. A voting system includes all hardware, software, annual licenses, service fees, and peripherals used to generate ballots, tabulate ballots, and report election results.

Background and Justification:

The use of voting systems is governed by Title 1, Colorado Revised Statutes, and also Secretary of State Election Rules. Systems may only be purchased from certified vendors that undergo a rigorous federal and state certification process. Once procured, Broomfield Elections must adhere to well-defined security and chain of custody standards.

Problem to be Solved and/or Benefit to Citizens:

Council's 2015 Priorities include election follow-up. This includes specifically reviewing the signature verification process and also the canvass board composition. Elections must be conducted in a manner that is fair, impartial, accurate, transparent, efficient, and convenient. While the current system meets these standards, new technologies provide enhanced accuracy, transparency, efficiency, and convenience to the voter.

Alternatives/Consequences if not Funded:

New parts are no longer being manufactured for the existing AccuVote optical scan units. Our vendor does have replacement parts in stock. However, with the phasing out of this technology, there will be decreased availability of replacement parts over time.



Project Association:

None

Operating Budget Impact:

None

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
State vendor selection	2015	20
State certification of vendor	2016	20
Deployment and training	2016	60

Funding Source: Sales and Use Tax Funds

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	194,247	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	194,247	



City and County of Broomfield 2018 Capital Improvement Projects

Vehicles & Other Equipment

Project Name: Police - Radio System Upgrade

Project #: 15J0036

Project Description:

Total Project Cost: \$2,265,432

Upgrade the Police Department’s current radio system by installing two 12-channel simulcast sites within the City and County of Broomfield and partner with Front Range Communications Consortium (FRCC).

Background and Justification:

One of the proposed sites would be installed at NMFRD Station #66, located at 1750 W. 160th Avenue in Broomfield, utilizing their existing tower for antennas and microwave links. The second site would be constructed, with permission from the Omni Resort, adjacent to the golf course near the south restrooms. The construction would consist of a 12' x 20' pre-built communications shelter and a 50' monopole tower for the antenna and microwave links. The shelter and propane tank, for a backup power generator, would be surrounded on three sides with screening walls to help blend the site into the current landscaping using materials that match existing Omni Golf Course structures.

Problem to be Solved and/or Benefit to Citizens:

Currently, the Broomfield Public Safety Communications Center operates on the Statewide Combined Communication Network of Colorado, Digitally Trunked Radio System. This system was designed for 90% on-street coverage for the major state highways. Since several counties partnered with the State for this system, on-street coverage has been expanded significantly. Since there are no simulcast sites for any 800 MHz system near Broomfield, in-building coverage in commercial and multi-family buildings is almost non-existent and requires the installation of Bi-Directional Antenna Systems (BDAS) to allow for radio communications within these buildings. In 2017, there will be a conversion of all public safety radio systems to the 700/800 MHz TDMA format. None of the current BDAS will be compatible with this conversion and will need to be replaced.

Alternatives/Consequences if not Funded:

Require commercial building owners to upgrade BDAS in 2017. This will create significant costs to building owners to retrofit the buildings with a BDAS.

Project Association:

None

Operating Budget Impact:

Warranty and maintenance fees would increase operating budgets.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Council approval of purchase	2015	25
Work with vendor on antenna sites and equipment i	2015	75

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
2,074,894	190,538	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	2,265,432



City and County of Broomfield 2018 Capital Improvement Projects

Vehicles & Other Equipment

Project Name: Police - Target System for Firearms Range

Project #: 15J0037

Project Description:

Total Project Cost: \$156,229

The Police Department is requesting replacement of its current range target system, which was installed in 2004 and not properly functioning.

Background and Justification:

This project includes the purchase of an advanced firearms target system, replacement and increase in the existing concrete surface area, repair of existing dirt berm, and extension of the wooden fence for Police Department's firing range.

Problem to be Solved and/or Benefit to Citizens:

Both the City and County of Broomfield and the Police Department follow their mission statement objectives and guiding values for protecting the quality of life for its citizens which results in a safe community. One of the PD's organizational values is professionalism, which is exemplified by having highly trained police officers. Firearms training is a critical component of police officer training. The current range system does not provide the best training available to the officers in one of the most critical and highest liability areas of their job. Officers must be skilled with many weapons under a variety of scenarios, which include moving threats, multiple suspects, reactive decision based shooting, threat recognition, and depth of field recognition. All of these disciplines are necessary for using a firearm in the line of duty. The current system is strictly a turning target system, limiting the capabilities for decision making and realistic based training, which have become critical in law enforcement firearms training.

Alternatives/Consequences if not Funded:

The current target system must be replaced in 2015 to ensure the continuation of firearms training for Broomfield officers.

Project Association:

None

Operating Budget Impact:

Action Target provides an option for extended maintenance on their products. The cost for the Line of Fire system would be \$4,500 per year with option for annual renewal.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Prior to purchase, obtain council approval if over \$5	2015	15
Hire electrical and concrete contractors	2015	15
Work with Public Works on site work	2015	10
Installation and integration	2015	60

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
128,443	27,786	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	156,229	



City and County of Broomfield 2018 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **Joint Effort with the Butterfly Pavilion**

Project #: 17M0065

Project Description:

Total Project Cost: \$75,000

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) and the Butterfly Pavilion center within North Park.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Agreement Funded	2017	100

Funding Source:

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	75,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	75,000



City and County of Broomfield 2018 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **Civic Center - Vision Development**

Project #: 06Z0079

Project Description:

Total Project Cost: \$68,408

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Vision Development	2017	100

Funding Source:

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	68,408	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	68,408



City and County of Broomfield 2018 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **Comprehensive Plan Update and Transportation Master Plan Update** Project #: 15J0040

Project Description:

Total Project Cost: \$534,761

This request will provide funding for consultant assistance in the preparation of the Comprehensive Plan and the Transportation Master Plan updates.

Background and Justification:

The Comprehensive Plan is a master planning document that provides a framework for making land use and other community related decisions. It is envisioned that the elements of the existing plan will be updated, and new elements added if needed, to ensure a comprehensive approach in planning for Broomfield’s future. The project will include reviewing and updating the various chapters that make up the Comprehensive Plan. These chapters include Growth, Population and Land Use, Transportation, Open Space, Parks, Recreation and Trails, Economic Development, Finance, Community Services, Housing and Utilities. The Transportation Master Plan supports the Transportation chapter of the Comprehensive Plan by providing a more detailed analysis of transportation needs (vehicular, transit, bicycle/pedestrian) based on recent growth, land use policies and projected growth in new areas.

Problem to be Solved and/or Benefit to Citizens:

The Comprehensive Plan update is a 2014 City Council priority. The identified objective by the City Council for 2014 is to establish a process and initiate actions for the Comprehensive Plan update to be completed in 2015. The Transportation Plan is a key chapter within the Comprehensive Plan that is in need of updating. The last Transportation Master Plan was prepared in 2005 in concert with the 2005 Comprehensive Plan update.

Alternatives/Consequences if not Funded:

Failure to budget for the Comprehensive Plan update will not allow the City Council to achieve identified priorities they have established.

Project Association:

This funding request is combining two plan updates (the Comprehensive Plan and Transportation Master Plan updates.)

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFP	2015	20
Complete Master Plan Updates	2016-2017	80

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
78,706	156,055	300,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	534,761



City and County of Broomfield 2018 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: **Eagle Trace Golf Club Access Easement**

Project #: 16L0049

Project Description:

Total Project Cost: \$35,000

Purchase and provide a 20 foot access easement through Eagle Trace Golf Club parking lot to connect Clubhouse Drive with East 12th Ave.

Background and Justification:

Residents and visitors in the neighborhoods surrounding the golf course cannot easily travel from east to west without taking a circuitous route around the golf course.

Problem to be Solved and/or Benefit to Citizens:

Purchase of this easement would allow for residents and visitors in the neighborhoods surrounding Eagle Trace Golf Club to travel from east to west much easier than they currently can.

Alternatives/Consequences if not Funded:

Not fund the project.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Draft Access Easement	2017	50
Obtain Signed Access Easement	2017	50

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	35,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	35,000	



City and County of Broomfield 2018 Capital Improvement Projects

Planning, Administration & Other Projects

Project Name: Ralston House - Broomfield's Share

Project #: 15J0055

Project Description:

Total Project Cost: \$288,000

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 that have been sexually and physically abused. The assistance is provided from their facilities in Arvada, Lakewood and Northglenn. Ralston House and the City of Northglenn are proposing to design and construct a new replacement facility in Northglenn, to serve the Adams and Broomfield County areas.

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. Ralston House and the cities and counties, provides that each community will provide \$30,000 for the design and an engineer's estimate of cost for a new facility in Northglenn.

Alternatives/Consequences if not Funded:

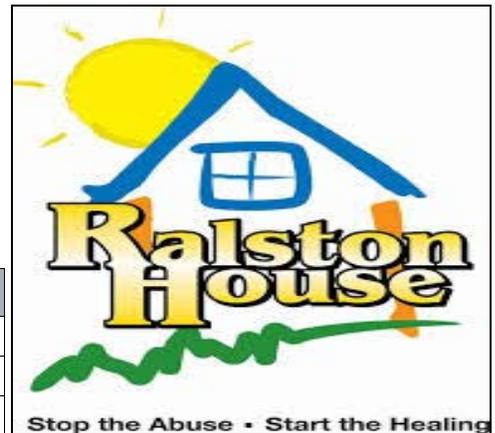
Not participate in the project.

Project Association:

None

Operating Budget Impact:

Initial contribution plus potential construction costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2016	15
Construction	2017	85

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	30,000	258,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	288,000



City and County of Broomfield 2018 Capital Improvement Projects

Drainage and Stormwater Projects

Project Name: FEMA - Letters of Map Revision - 3 Areas

Project #: 12F0035

Project Description:

Total Project Cost: \$426,126

Complete three Letters of Map Revision (LOMR) in Broomfield so the Federal Emergency Management Agency (FEMA) regulatory flood designation accurately reflects recent improvements.

Background and Justification:

Some floodplain areas are inaccurately reflected on FEMA's effective maps as a result of recent physical improvements. These discrepancies could limit future development. Once the floodplains are updated, future projects would submit a revision to the updated data.

Problem to be Solved and/or Benefit to Citizens:

This project will correct Broomfield's floodplain data.

Alternatives/Consequences if not Funded:

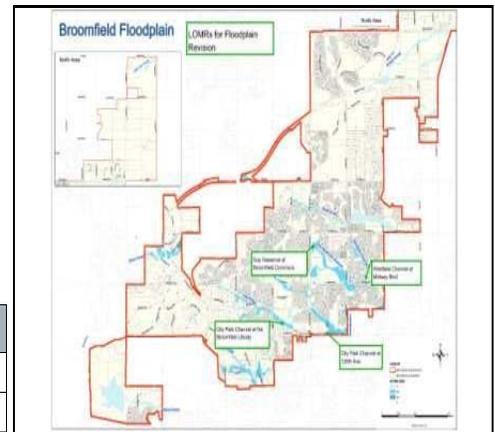
Leave floodplains as they are and address questions regarding development and inconsistency on a case-by-case basis.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFP		25
Award consulting agreement		25
Complete project	2016-2022	50

Funding Source: Sales and Use Tax Fund/Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
34,521	17,705	16,900	17,000	17,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
17,000	17,000	17,000	272,000		426,126



City and County of Broomfield 2018 Capital Improvement Projects

Drainage and Stormwater Projects

Project Name: Original Broomfield - Roadway and Drainage Improvements Plan Design

Project #: 14H0028

Project Description:

Total Project Cost: \$18,931

Property owners in the vicinity of the 120th Connection, Phase 2 project, have requested street improvements such as street lighting, power burial, storm drainage and curb, and gutter and sidewalk improvements in the area.

Background and Justification:

The project would be staff led, and would identify roadway improvement locations in the area bound by the BNSF Railroad tracks on the west, Main Street on the east, 120th Avenue on the north, and the City and County limit to the south. Roadway improvements would include: curb, gutter, and sidewalk; street lighting; power burial; roadway widening, and storm drainage improvements. Construction cost estimates would be developed as part of the plan.

Problem to be Solved and/or Benefit to Citizens:

The issues to be addressed with this project include poor drainage due to lack of storm sewers, minimal street lighting, overhead power, discontinuous sidewalks, narrow roadways, and poor asphalt.

Alternatives/Consequences if not Funded:

The area will remain as is.

Project Association:

None

Operating Budget Impact:

Upon project scope finalization, budget impacts will be determined.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and set up meetings with neighborho	2016	100

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	18,931	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	18,931



City and County of Broomfield 2018 Capital Improvement Projects

Water - Purchases and Reservoirs Projects

Project Name: **Carter Lake Pipe Line - In-line Pump Station Share**

Project #: 10Z0123

Project Description:

Total Project Cost: \$1,182,122

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design	2018	20
Construction	2019	80

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
868,502	0	0	33,080	280,540	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,182,122	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Purchases and Reservoirs Projects

Project Name: Siena Reservoir/Pump Station/Pipeline

Project #: 15G0036

Project Description:

Total Project Cost: \$7,500,000

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:

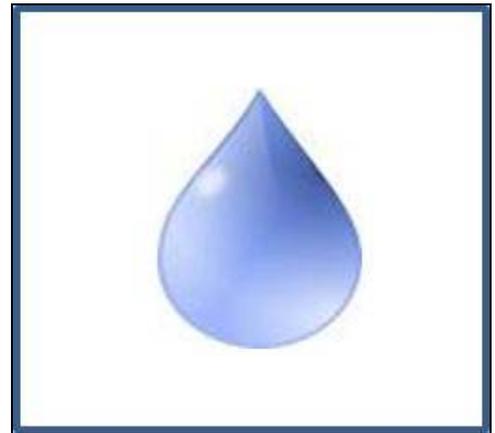
The scope of this project includes the design and construction of a new pump station with a capacity of 10 to 15 cfs, and 14,200 feet of pipeline. Broomfield Reservoir, with a 5,000 acre-feet capacity, was originally sized to (1) meet peak summer demands at build-out and (2) provide interim firming of 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.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Engineering design	2015	10
Project bidding	2015	15
Construction	2015	50
Final acceptance and start-up	2018	25



City and County of Broomfield *2018 Capital Improvement Projects*

Water - Purchases and Reservoirs Projects

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
3,839,303	0	0	3,660,697	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		7,500,000



City and County of Broomfield 2018 Capital Improvement Projects

Water - Purchases and Reservoirs Projects

Project Name: **Water Treatment Facility - Zuni Chlorine Station Remodel**

Project #: 13G0004

Project Description:

Total Project Cost: \$2,377,181

The purpose of this project is to construct a permanent 20' x 40' building to replace the current structure which is used to house chemical feed and storage equipment. This facility is used to re-chlorinate the Denver Water supply.

Background and Justification:

This structure was last remodeled in 1997 when the city switched from chlorine gas to a mixture of liquid sodium hypochlorite and ammonia for disinfection. This structure needs to be enlarged so that safety improvements can be made for operations staff and the general public. The chemical injection pipelines need to be replaced, improvements are needed to the drainage system - which captures on-site spills and eventually releases the spill to the sanitary sewer, the HVAC and lighting systems need to be improved, and many other safety improvements such as leak detection devices and cameras for viewing the unmanned facility.

Problem to be Solved and/or Benefit to Citizens:

This building is undersized for the amount of equipment that is housed inside. This creates safety issues for staff when repairs to the equipment are necessary. The Colorado Department of Public Health and Environment completed a sanitary survey of this site in 2010 and recommended improvements to prevent leaks and spills from discharging into the adjacent open channel. If there were a chemical leak in portions of the building, there could be serious health risks to the surrounding neighborhoods and ecology.

Alternatives/Consequences if not Funded:

No alternatives are available.

Project Association:

None

Operating Budget Impact:

There should be very little increased cost in operating the newer station.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans		25
Bid project and award construction agreement	2014	30
Construct project	2016	45

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
1,827,933	228,753	320,495	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,377,181	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Purchases and Reservoirs Projects

Project Name: **Windy Gap - Storage Reservoir Design and Construction** Project #: 00Z0267

Project Description:

Total Project Cost: \$121,391,257

Environmental permitting and design of a 90,000 acre-feet reservoir. (Chimney Hollow Reservoir)

Background and Justification:

Broomfield is jointly participating in a project with shareholders to construct a reservoir that will provide firm yield for the Windy Gap supplies.

Problem to be Solved and/or Benefit to Citizens:

The supplies associated with this project are needed to support Broomfield at ultimate development.

Alternatives/Consequences if not Funded:

No alternatives were reviewed.

Project Association:

None

Operating Budget Impact:

This project does not affect operating or maintenance budgets.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and permitting	2014	40
Construction	2016-2019	

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
4,722,656	4,037,126	6,631,475	6,000,000	100,000,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	121,391,257	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **Great Western Reservoir Water Treatment Plant - Demolition**

Project #: 08B0053

Project Description:

Total Project Cost: \$346,750

This project will fund the demolition of the water treatment plant at West 112th and Simms.

Background and Justification:

The facility has been out of service since July 1997, and there are no future plans to use the existing building.

Problem to be Solved and/or Benefit to Citizens:

This plant has been abandoned and incurs monthly expenses to heat and dewater basement sump pumps.

Alternatives/Consequences if not Funded:

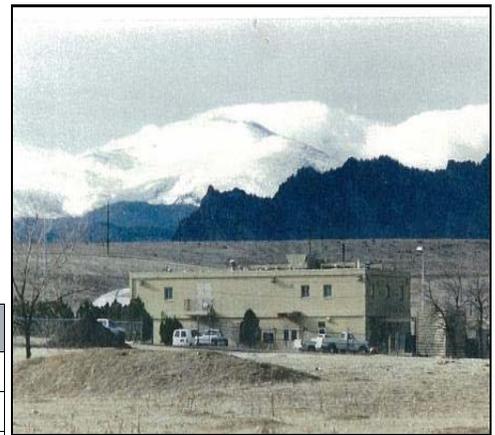
Continue to defer the project.

Project Association:

None

Operating Budget Impact:

Once the demolition is completed this project will reduce current operating expenditures.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2016	30
Hire contractor and complete project	2016	70

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	81,831	264,919	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		346,750



City and County of Broomfield 2018 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **Interlocken Tank - Relocation of Road**

Project #: 16L0052

Project Description:

Total Project Cost: \$100,001

Build access maintenance road to the Interlocken tank site in dedicated easement.

Background and Justification:

The Interlocken tank was built in 1998 and during the construction of the tank a road was built to access the tank. This road is utilized by the Utility Division on a daily basis to provide inspections and maintenance to the site. This past year a private party showed interest in the property that the access road was located in. It was brought to the Utility Division attention, stating that the road is not in the dedicated easement for the Interlocken tank site.

Problem to be Solved and/or Benefit to Citizens:

Utilities has been tasked with building an access road to the tank within six months of the purchase of this property. The access road to the Interlocken tank site needs to be built in the dedicated easement by November 2016.

Alternatives/Consequences if not Funded:

Complaints of future developer and property owner of City equipment utilizing the properties parking lot to access tank site and or damage to landscape.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Surveying, move irrigation, build road	2016	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	8,535	91,466	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	100,001	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **North Area Water System Master Plan Improvements - Pipe Capacity, Connections and Tank** Project #: 02Z0291

Project Description:

Total Project Cost: \$18,560,105

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	ongoing	40
Bid project, award construction and construct projec	ongoing	60

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
1,644,962	1,182,948	2,832,195	1,000,000	200,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
1,700,000	1,000,000	9,000,000	0	18,560,105	



City and County of Broomfield 2018 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: \$3,022,900

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 are needing replacement due to age (over 10 to 15 years old for style of meter) and each of these meters is equipped with a Itron transmitter reading system. The Itron reading system will be obsolete or no longer supported in 2019.

Since the 2006 Itron to Orion conversion there are still remaining 6400 residential inside meter sets, 1350 residential outside meter sets and 184 commercial/Apartment/irrigation meter sets with Itron equipment or reading systems. The 6400 residential inside meter sets were last replaced in 2002, and at that time they were installed with Itron equipment. In addition these inside meters are going on 15 years old, and the Industry standard for replacement for this style of meter is 10 to 15 years.

Problem to be Solved and/or Benefit to Citizens:

Included in this request will be the purchase of updated Badger/Orion technology moving from the residential Badger/Orion model 25 disc meter (10-15 year service life) to the residential Badger/Orion E series Ultrasonic meter (20 year service life). This CIP request will also include the support of Contractual replacement for the 6400 inside meters to be replaced. All other outside or meter pit replacements will be done in house by the Utility Division. Currently both Utilities Meter unit and Utility billing pay annual fees for software upgrades and support for both Itron and Orion. Annual costs are \$5970 for Itron and \$1680 for Orion. Research and historic use has shown that the expected service life for a typical ¾-Inch model 25 meter (which is used for a single family residence in Broomfield) is 10 to 15 years. Once a meter exceeds this timeframe, it will begin to underestimate the actual volume of water running through the meter. This condition is caused by the gradual wearing of the internal parts that are used to measure the water as it goes through the meter.

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase/Replacement of Meters	2018	100



City and County of Broomfield 2018 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Funding Source:

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	3,022,900	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		3,022,900



City and County of Broomfield 2018 Capital Improvement Projects

Water - Acquisition, Treatment, and Storage Projects

Project Name: **Rocky Mountain Airport - Distribution and Ruse Tank Exterior Painting** Project #: 18M0045

Project Description:

Total Project Cost: \$405,000

Exterior painting of 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 exterior of these three tanks were last painted in the year 2000. The service life of exterior paints is 10 to 20 years depending on type of exterior paint was 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 the exterior painting 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 cost to recoat the tanks will increase overtime.

Project Association:

None

Operating Budget Impact:

None anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Sandblasting/Painting	2018	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	405,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	405,000



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Environmental Lab Utilities Upgrade**

Project #: 16L0053

Project Description:

Total Project Cost: \$35,634

This upgrade provides added power and ventilation needed at the Water Treatment Facility, to operate a second gas chromatograph/mass spectrometer (GCMS) that will be dedicated to analysis of disinfection byproducts and other volatile organic compounds.

Background and Justification:

Due to problems with implementation of the disinfection byproducts method and accessories, we requested a refund from Shimadzu in June 2016. After several discussions with Shimadzu representatives, we were offered a second, independent GCMS system to perform the disinfection byproducts analysis at no cost, except for the facility upgrades to implement.

Problem to be Solved and/or Benefit to Citizens:

This request improves the Strategic Outcomes of Safe Community and Environmental Stewardship by providing the utilities (power and ventilation) to perform disinfection byproduct analyses in-house, eliminating the possibility of contract laboratory errors that could jeopardize Broomfield’s regulatory compliance status and cause unwarranted changes to our drinking water treatment processes.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

Contract services may be needed for improvements to the ventilation system.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid and install ventilation system and generator	2016	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	35,634	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	35,634



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Hwy 287 and Midway Blvd - Pressure Regulating Valve (PRV) Replacement** Project #: 17L0044

Project Description:

Total Project Cost: \$105,000

Replacement of the 12" PRV (pressure regulating valve) and vault located on Midway Boulevard, west of the intersection with Highway 287.

Background and Justification:

The existing 12" PRV failed in July, 2000 causing 26 water breaks in a two day time span. The 12" PRV was rebuilt and put back into service in the days after. During the July 2000 rebuild process, it was noted that the vault was undersized.

Problem to be Solved and/or Benefit to Citizens:

Replacement of the 287 & Midway 12" PRV and vault will provide safer working conditions for employees to perform maintenance, including adequate room to work and proper ventilation. When vault sizes are undersized it becomes unsafe for escape routes for technicians.

Alternatives/Consequences if not Funded:

Continue unsafe conditions, and to rebuild the existing 12" PRV until it fails and or is no longer operational.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid with annual 2017 water line replacement project	2017	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	105,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	105,000



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Mesa Zone - Booster Station

Project #: 18M0044

Project Description:

Total Project Cost: \$2,880,000

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 providing water pressure is the Airport Pump Station. In August of 2016 the Airport Pump Station experienced a failure resulting in the complete loss of pressure to its service area. Fortunately, there was enough residual pressure within the distribution system that minimal service was maintained during the outage. Extensive repairs were performed and normal operation resumed. However, this failure highlighted the vulnerability of the system. This, combined with the continued growth in the service area, emphasizes the need to provide redundancy to maintain the required level of service to the 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 the 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:

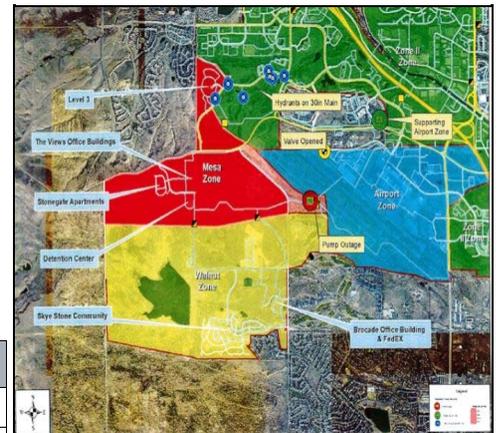
Any future failure at the Airport Pump Station will directly affect all customers located in the Mesa and Walnut Zones with unknown durations of water outages and Fire protection.

Project Association:

None

Operating Budget Impact:

Operating budget will be impacted for gas and electric.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Design	2018	30
Construction	2019	70

Funding Source:

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	2,880,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	2,880,000



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Northwest Parkway/Anthem Ranch - New Pressure Regulating Valve (PRV) Facility

Project #: 17L0045

Project Description:

Total Project Cost: \$122,000

New 8" main line extension located at the end of the 10" main serving the Northwest Parkway facility, north 600 feet tying into Anthem Filing 22, and the installation of an 8" PRV (pressure regulating valve)/vault.

Background and Justification:

There is not enough usage at the Northwest parkway facility to keep chlorine residual at a level that meets State regulations. As a result, the Utilities Division must flush out of the fire hydrant at the end of the main each month to bring residual chlorine levels up to standard.

Problem to be Solved and/or Benefit to Citizens:

These improvements will eliminate water quality problems at this location and bring residual chlorine levels up to the State standards.

Alternatives/Consequences if not Funded:

Continue to send staff to flush each month prior to lab staff water quality tests performed.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid with annual 2017 water line replacement project	2017	100

Funding Source: Utility License Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	122,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	122,000



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Potable Water Sampling Stations - Citywide

Project #: 18M0043

Project Description:

Total Project Cost: \$215,000

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 of using 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 experienced using existing water outlets are:

access (weather, time of day, day of week, nobody home)

control (other uses of the outlets can cause unpredictability)

reliability (the supplier is actually inadvertently testing the plumbing of the sampling site, not just the supplier's system).

sterilization techniques (usually "flaming" the outlet nozzle) are frequently not welcomed by private owners

increased susceptibility to advertent contamination from animals, insects, weather, etc.

Dedicated sampling stations are preferred 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 provide the installation of 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase and install 20 sampling stations	2018	20
Purchase and install 20 sampling stations	2019	20
Purchase and install 20 sampling stations	2020	20
Purchase and install 20 sampling stations	2021	20



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Funding Source:

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	43,000	43,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
43,000	43,000	43,000	0	215,000



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Sunnyslope Subdivision - Pumphouse / Underground Wet Well Demolition

Project #: 15J0043

Project Description:

Total Project Cost: \$14,415

The Sunnyslope Development was incorporated into the City and County of Broomfield in 2002. Prior to incorporation, it ran and maintained its own water system. The water system included a pump house and underground wet well.

Background and Justification:

The project would include the demolition of the above ground pump house and underground wet well. The dimensions of the pump house are 9' x 17' and the underground wet well are 35' x 42' x 8'D. The pump house structure is made of brick and will need to be torn down and hauled off. The underground wet well structure is made of concrete and would need to be demolished and hauled off, then select fill needs to be delivered to the site for backfill, grading, and reseeding.

Problem to be Solved and/or Benefit to Citizens:

The structures are old and deteriorating and pose a safety/liability problem. Since there is no security provided or fences around these structures they will continue to be vandalized. The Utility Division has neither the budget nor the personnel to secure the site from further vandalism.

Alternatives/Consequences if not Funded:

Alternatives would be to provide a security fence around both structures or continue to maintain the site as is.

Project Association:

None

Operating Budget Impact:

There would be a reduction in the Utility Division's operating budget because vandalism and graffiti occurrences would be eliminated.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Sunnyslope Pump House and Underground Wet W	2016	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	14,415	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	14,415	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: Utility Relocation - CDOT Project, 120th Avenue Connection

Project #: 11E0033

Project Description:

Total Project Cost: \$3,159,583

This project, which is being reimbursed by CDOT moves water and sewer lines as part of Phase 2 of the 120th /Wadsworth connection. It is broken into two phases; Westside – west of the railroad tracks, and Eastside – east of the railroad tracks.

Background and Justification:

The water and sewer utilities to be relocated are owned by the City and County of Broomfield and the changes to the utilities will affect Broomfield residents and businesses. For these reasons, it was determined to be in the best interest of Broomfield to manage the design of the relocation with participation from CDOT regarding timing of relocations. Broomfield will be reimbursed for 100 percent of the costs by CDOT in accordance with the Standard Utility Agreement (SUA) between Broomfield and CDOT.

Problem to be Solved and/or Benefit to Citizens:

The utility lines must be moved to complete Phase 2 of the 120th/Wadsworth Connection.

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Westside design and construction completed	2010	50
Eastside design and construction completed	2012-2017	50

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
2,671,779	486,505	1,299	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	3,159,583	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Arc Flash Study/Testing**

Project #: 15J0052

Project Description:

Total Project Cost: \$26,635

The purpose of this request is to provide a complete arc flash program to help protect individuals working at the Water Treatment Plant from electrical arc flash hazards.

Background and Justification:

The program shall bring the City and County of Broomfield Water Treatment Plant into compliance with the applicable standards for new installations (NEC) and for worker safety in operating facilities. In addition, the program will assist with improving the reliable operation of the electrical system.

Problem to be Solved and/or Benefit to Citizens:

To ensure compliance with recently adopted Arc Flash rules and procedures; to ensure a safe work environment and to aid in extending the life cycle of the electrical equipment.

Alternatives/Consequences if not Funded:

Staff does not have the level of training or expertise to complete this type of work requiring the contracting of a specialty firm.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Develop scope and issue RFP	2015	25
Select Contractor	2015	35
Complete Study	2016	40

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
11,385	15,250	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	26,635	



City and County of Broomfield 2018 Capital Improvement Projects

Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Expansion**

Project #: 14H0048

Project Description:

Total Project Cost: \$24,384,463

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2017	40
Bid project and award construction agreement	2017	30
Construct project	2018	30

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	Total Project Cost
174,713	0	2,000,000	7,209,750	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		
0	0	0	15,000,000	24,384,463	



City and County of Broomfield 2018 Capital Improvement Projects

Utilities Planning, Administration & Other Projects

Project Name: **SCADA Programmable Logic Controls**

Project #: 15K0035

Project Description:

Total Project Cost: \$3,310,000

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:

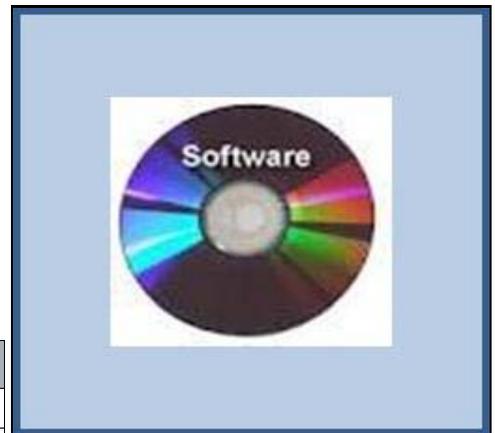
Alternatives include purchasing or leasing the replacement SCADA and PLC equipment and systems based on vendor reviews and formal bidding process; adding staff to monitor facilities 24/7 and operate in manual mode.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Develop Scope and issue RFP	2015	25
Select and hire consultant	2017	20
Complete Study/Final Report	2017-2018	55

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	150,000	3,160,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	3,310,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: 136th Ave/Community Ditch - Remove and Replace Culvert Pipe Crossing

Project #: 17L0038

Project Description:

Total Project Cost: \$520,000

Remove and replace the corrugated culvert pipe, which has been undermined by water. The deterioration of the pipe is allowing debris to build up and restrict water flow.

Background and Justification:

The metal culvert pipe has deteriorated on the lower half of the pipe, the rusted out surface causes a negative flow, which allows debris to compile inside the pipe, the wing wall isn't long enough on the south side, which is causing the soil to erode away and 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, plus debris won't host inside. The new pipe will fully support the roadway, preventing failure, and will prevent possible damage to phone lines.

Alternatives/Consequences if not Funded:

Ultimately, when the pipe rusts out, it will collapse and the road will fail at the same time.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Professional design	2017	25
Culvert, concrete and asphalt replacement	2017	75

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	520,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	520,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **6th Avenue - Remove and Replace Concrete Drainage Pan** Project #: 17L0037

Project Description:

Total Project Cost: \$100,000

Remove and replace the failing concrete at 6th Avenue.

Background and Justification:

The concrete pan on 6th Ave. has failed, due to ground water undermining the channel. Small scale channel repairs are generally handled by the operating budget. However, this repair exceeds the drainage accounts entire budget.

Problem to be Solved and/or Benefit to Citizens:

Eliminating the ground water under the concrete and then replacing the necessary concrete will prevent the noxious weeds and cattails from growing in the channel. This in turn will allow proper water flow and keep debris from building up in the channel.

Alternatives/Consequences if not Funded:

Concrete failure to the channel will continue and debris will continue to build up underneath the bridges.

Project Association:

None

Operating Budget Impact:

Reduces the physical labor necessary to maintain the channel.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Professional design	2017	25
Construction	2017	75

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	100,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	100,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Alter Street and Industrial Lane - Storm Drainage Improvements**

Project #: 12F0057

Project Description:

Total Project Cost: \$80,000

This project would add stormwater inlets along Alter Street between Midway Boulevard and West 6th Avenue to improve street flooding issues. It would also make localized drainage improvements to Industrial Lane west of Alter Street.

Background and Justification:

The Industrial Lane improvements would include a segment of curb and gutter and a crosspan.

Problem to be Solved and/or Benefit to Citizens:

The work would improve street drainage, which will help preserve pavement life, and will limit ice build up along the roadways.

Alternatives/Consequences if not Funded:

Keep the existing condition.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/development of construction plans		25
Bid project and award construction agreement	2017	30
Construct project	2017	45

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	80,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	80,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Aspen St/Community Ditch - Remove and Replace Culvert Pipe Crossing**

Project #: 17L0039

Project Description:

Total Project Cost: \$90,000

Remove and replace the corrugated culvert pipe crossing Aspen Street. Water has undermined the pipe and as a result, it is allowing debris to build up and restrict the 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 it will eventually collapse. The surface is rusted out, which causes a negative flow, allowing debris to compile inside the pipe.

Problem to be Solved and/or Benefit to Citizens:

Replacing the six foot oval corrugated pipe will allow better drainage flow, plus 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 from the drain, which in turn will cause the pipe to rust out sooner. Ultimately, when the pipe rusts out, it will collapse and the road will fail at the same time.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Remove and Replace	2017	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	90,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	90,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **City Park Channel - Invert Along 120th Ave from Chase St. to Sheridan Blvd** Project #: 18M0036

Project Description:

Total Project Cost: \$75,000

The channel invert has degraded and exposed a section of sanitary sewer mainline and needs to be re-established.

Background and Justification:

The work will be completed by UDFCD through Maintenance Funds with a contribution from Broomfield so that the work may be completed in 2018.

Problem to be Solved and/or Benefit to Citizens:

The Master Drainage Plan Outfall Systems Plan (OSP) calls for a 4.5' drop structure at Chase St. The design will consider adjusting the drop structure location to further protect the sanitary sewer.

Alternatives/Consequences if not Funded:

This project will re-establish the channel centerline elevation and cover over the Broomfield utility.

Project Association:

None

Operating Budget Impact:

None Anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Invert Re-establishment by UDFCD	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	75,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	75,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **City Park Channel - Lowell to Big Dry Creek (Broomfield Match)** Project #: 15J0044

Project Description:

Total Project Cost: \$500,000

This project is a continuation of a joint project between the Urban Drainage and Flood Control District (UDFCD), the City of Westminster and Broomfield to construct City Park Channel drainage improvements.

Background and Justification:

Broomfield and Westminster have an intergovernmental agreement that identifies drainage improvements along our city limits for the City Park Drainageway. The first phase of channel improvements, along the south side of 120th Avenue from Bradburn to just past Lowell Boulevard, were completed in 2008. The first phase was expedited in order to get a large culvert installed under Lowell Boulevard south of 120th Avenue. This second phase will complete the channel improvements to Big Dry Creek. Broomfield's match is approximately 25% of the total.

Problem to be Solved and/or Benefit to Citizens:

The project will eliminate the existing diversion of stormwater north of West 120th Avenue into the Nissen Channel by keeping it on the south side of West 120th Avenue. This will reduce the City Park floodplain in Broomfield and will allow more development north of 120th Avenue west of Lowell Boulevard.

Broomfield and Westminster have agreed by IGA to share the cost to complete this project. We have also agreed to request and use UDFCD funds for half of the project costs. UDFCD has budgeted \$300,000 in 2015 for their portion of design. Broomfield would need to match these funds with a \$150,000 contribution in 2015, and then a follow up contribution of \$150,000 in 2016 for construction.

Alternatives/Consequences if not Funded:

Development in Broomfield north of 120th Avenue, south of the Nissen Channel Drainageway would have to accommodate more stormwater flows if the City Park channel improvements are not made.

Project Association:

This is a continuation of a project that was completed in 2008. A recent IGA with Westminster reaffirmed the need and cost sharing for this project.

Operating Budget Impact:

None, the channel segment would be in the City of Westminster and would be eligible for UDFCD maintenance.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Funding match only	2015-2017	100

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
150,000	150,000	200,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	500,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **City Park Channel - Overflow Connection to Nissen Channel**

Project #: 15H0026

Project Description:

Total Project Cost: \$990,000

This project could be completed with possible reimbursement by a developer for drainage improvements to convey City Park Channel Overflow to the Nissen Reservoir Channel.

Background and Justification:

The City Park Channel Overflow consists of approximately 770 cubic feet per second (cfs) which flow along the north side of West 120th Avenue rather than being conveyed to the main City Park Channel on the south. 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 corners of Broomfield Corners to the open channel running north/south along the eastern side of Walmart.

Problem to be Solved and/or Benefit to Citizens:

Currently the City Park Channel Overflow is conveyed via sheet flow with a merging of the floodplains for the Nissen Reservoir Channel and City Park Channel Overflow. This results in numerous floodplain properties along the West 120th Avenue corridor, and impacts development opportunities.

The completed improvements would contain and direct the floodwaters to the Nissen Channel and reduce or eliminate flooding of 120th Avenue and the adjacent properties. This will increase public safety and increase developable acres in the 120th Avenue Corridor.

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Start dependent: Nissen/City Park H&H LOMR	2017	100

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	990,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	990,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: Commerce St - 118th Trickle Channel

Project #: 18M0040

Project Description:

Total Project Cost: \$50,000

Redirect surface water from US-36 west to east towards Commerce Street that has no channel or curb and gutter on the west side.

Background and Justification:

Inturn floods Commerce St. erodes the road shoulder and washes debris across the road . This pushes the landscape rock from the apartment complex towards their building then washes back putting landscape material (rock) onto the road surface. Design a trickle channel to the nearest catch basin which will stop the erosion from the west side of Commerce Street.

Problem to be Solved and/or Benefit to Citizens:

This will keep the road shoulder in tack and keep debris from both sides washing onto the street.

Alternatives/Consequences if not Funded:

Continued erosion to Commerce St. on the west side of the road damaging the asphalt. Continued flooding during rain/snow storms which causes ice build up. Damage to the apartment complex landscape.



Project Association:

None

Operating Budget Impact:

None Anticipated

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Implement Flow Line	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	50,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	50,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Community Ditch - 16th Ave. Culvert Replacement**

Project #: M0038

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:

By replacing the pipe this will Improve flow through the channel eliminate sediment buildup and eliminate erosion.

Alternatives/Consequences if not Funded:

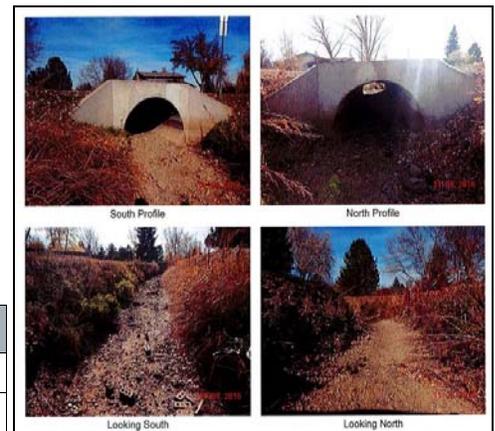
Continued erosion to the pipe will cause cavitation to the pipe which will allow the road surface to fail.

Project Association:

None

Operating Budget Impact:

None Anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Flush and Replace Pipe	2022	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	76,000	0	76,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Community Ditch - St. Andrews Pipe Replacement**

Project #: M0041

Project Description:

Total Project Cost: \$78,000

Replace the RCP pipe with CMP pipe plus seal the cracks in the headwall.

Background and Justification:

AYRES Associates comments: Heavy corrosion with section loss the entire length from the water line down. Missing brick on the bridge railing also vertical cracks 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:

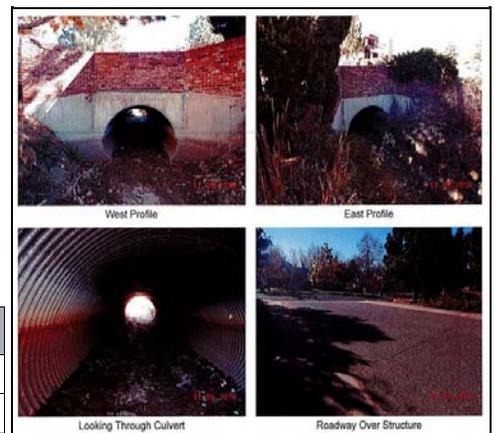
The galvanized pipe will continue to wrought which will collapse then the roadway will fail.

Project Association:

None

Operating Budget Impact:

None Anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Replace	2023	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	78,000	78,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Community Pond - Bank Stabilization**

Project #: 18M0035

Project Description:

Total Project Cost: \$219,200

Stabilization of banks for the entire perimeter of Community Pond.

Background and Justification:

Over the past 5-10 years Community pond has gone through transitions in its bank structure. Rain and snow events as well as the presence of muskrats in the pond have caused the erosion of the banks. The erosion is severe in some areas with as much as 3 feet of recession of turf shoreline. This is evidenced by the presence of existing irrigation out in the pond where it was previously on the shoreline. This has caused issues with the holding capacity of the lake as well as endangered some of the sidewalks and structures around the pond. The amphitheatre area in particular is in need of shore stabilization. If allowed to continue, this could become a major issue for facilities and structures around the pond particularly sidewalks.

Problem to be Solved and/or Benefit to Citizens:

Stabilization of banks for the entire perimeter of Community Pond.

Alternatives/Consequences if not Funded:

Erosion may continue and cause issues with various structures around the pond.

Project Association:

None

Operating Budget Impact:

None anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Bid	2018	10
Construct	2019	90

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	21,920	197,280
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	219,200



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **DesCombes Drive and Spader Way - Drainage Improvement**

Project #: 15J0020

Project Description:

Total Project Cost: \$108,000

Numerous complaints have been received concerning ponding water in the cross pan at the intersection of DesCombes Drive and Spader Way. This condition is being created by the lack of fall, due to the lack of elevation west to east along Spader Way.

Background and Justification:

Street services has removed and replaced the existing pan twice in an attempt to stop water from ponding in this corner, however the area is too flat. Street Services is recommending removal of the cross pan and addition of a storm inlet to the southwest corner of the intersection. This would eliminate ponding water and a hazard to pedestrians.

Problem to be Solved and/or Benefit to Citizens:

This project will reduce trip hazards due to standing water in a cross walk and less water forming around the intersection year-round. This will also aid pedestrian traffic and motorists in icy situations.

Alternatives/Consequences if not Funded:

Eliminate the cross walk at this location.

Project Association:

This project could be done in conjunction with the pedestrian improvement project for this area.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project and complete construction plans.	2015	25
Bid project and award construction agreement	2015	20
Construct project	2015	55

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	5,841	102,159	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	108,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: Main Street and Miramonte Blvd - Drainage Improvement

Project #: J0019

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Professional/design services	2019	10
Bid project and award construction agreement	2019	5
Construct improvements	2019	85

Funding Source: Sales and Use Tax Fund

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	150,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Midway Park - Concrete Channel Replacement**

Project #: 18M0042

Project Description:

Total Project Cost: \$85,000

Replace the culverts going under Midway Boulevard west of Kohl St. with two box culverts designed to convey the 100-year flood underneath the roadway.

Background and Justification:

The corrugated metal pipes going under Midway Boulevard have deteriorated on the lower half of the pipe, which compromises the safety of the roadway above. Furthermore, the current structures are not large enough to convey the 100-year storm underneath the roadway.

Problem to be Solved and/or Benefit to Citizens:

Because this crossing is within the 100-year floodplain, box culverts are being recommended for additional capacity and longevity.

Alternatives/Consequences if not Funded:

The culvert will continue to deteriorate, compromising the structural integrity of the roadway above.

Project Association:

None

Operating Budget Impact:

None Anticipated



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Replace	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	85,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	85,000



City and County of Broomfield 2018 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: \$1,040,000

This project is part of the Lowell Blvd.-South project that is being completed with CDOT. This will fund a large box-type culvert under Lowell Boulevard.

Background and Justification:

This project is part of multi-year project and is still in the planning stages. Total project cost is still to be determined.

Problem to be Solved and/or Benefit to Citizens:

The City Park Drainage Way and Nissen Channel converge on the west side of Lowell Boulevard, and currently discharge into an undersized culvert under Lowell. The undersized culvert creates a wide floodplain area west of Lowell Boulevard. This project will remove Lowell Boulevard from the flood plain.

Alternatives/Consequences if not Funded:

N/A

Project Association:

This project will be coordinated with the Lowell Boulevard – 120th Avenue to East Midway Widening project.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Funding match	2016-2019	100

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	260,000	260,000	260,000	260,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,040,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **North Midway Channel at Midway Boulevard**

Project #: 16K0052

Project Description:

Total Project Cost: \$520,000

This request is to slip line a failing span of corrugated metal culvert that allows drainage water to pass under Midway Boulevard near Kohl Street.

Background and Justification:

The inspector performing the inspections of "Off System Bridges" for Broomfield has determined that the condition of the culvert in this location needs to be scheduled for replacement.

Problem to be Solved and/or Benefit to Citizens:

If this improvement is prolonged it will start to affect the condition of Midway Boulevard and could lead to unsafe conditions for the traveling public.

Alternatives/Consequences if not Funded:

If the project is not funded the street will fail as a result of the water running around the culvert and washing away the subgrade.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and bid project	2018	10
Construction	2019	90

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	52,000	468,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	520,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Plaster Reservoir Dredging and Habitat Improvements** Project #: Z0380

Project Description:

Total Project Cost: \$250,000

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 additional tree and shrub plantings along the south shoreline and along the 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 along the 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids and present to Council	2020	60
Complete project	2020	40

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
250,000	0	0	0	250,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Quail Creek Channel Improvements at Broadlands**

Project #: 16K0050

Project Description:

Total Project Cost: \$250,000

Hydrologic and hydraulic Analysis, modifications to FIS and FIRM through FEMA as necessary, and preliminary design of channel improvements for Quail Creek Tributary D in the Broadlands Golf Course behind Sunny Slope Estates.

Background and Justification:

The proposed project would fund the hydrologic and hydraulic Analysis, modifications to FIS and FIRM through FEMA as necessary, and preliminary design of channel improvements for Quail Creek Tributary D in the Broadlands Golf Course north of Creek Drive. Once the study is completed, a request for construction of the improvements will be submitted.

Problem to be Solved and/or Benefit to Citizens:

Modifications to the FRICO irrigation ditch paralleling the Quail Creek drainage way and to the Broadlands Golf Course have altered the routing of Quail Creek Tributary D. Residents of Sunny Slope on Creek Drive are concerned that it is impacting their property. An engineering analysis design is necessary to correct the problem. The proposed funding is to do the study and preliminary design.

Alternatives/Consequences if not Funded:

Flooding and erosion damage to private property will worsen.

Project Association:

None

Operating Budget Impact:

This project, once completed, may reduce maintenance issues.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Hire consultant	2017	25
Complete study	2017	75

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	250,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	250,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Rock Creek Basin B Outfall - Erosion Control**

Project #: J0031

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Coordination of project with other jurisdictions	2019	3
Hire consultant for design	2019	15
Permitting with Army Corps	2019	2
Construction	2019	80

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	75,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	75,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: **Sunnyslope Subdivision - Drainage Improvements**

Project #: 09Z0111

Project Description:

Total Project Cost: \$550,000

This project would pay for the design and possible easement acquisition for roadway drainage improvements in the Sunnyslope subdivision, which relies on roadside swales for stormwater conveyance.

Background and Justification:

Based upon the improvements recommended and identified, this project may increase operating and maintenance costs.

Problem to be Solved and/or Benefit to Citizens:

This project will improve drainage in the Sunnyslope subdivision.

Alternatives/Consequences if not Funded:

Alternatives will be determined during the project scoping and design stages.

Project Association:

None

Operating Budget Impact:

Once design is complete, budget impacts will be determined.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project	2019	25
Construct Project	2020	75

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	0	50,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
500,000	0	0	0	550,000	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Project Name: Wilcox Subdivision - McKay Lake Lateral Drainage Improvements

Project #: 16J0041

Project Description:

Total Project Cost: \$2,999,647

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 (north area of the Wilcox area), the residential area drains to Community Ditch, which causes problems with the Farmers Reservoir and Irrigation Company (FRICO), and does not meet Broomfield specifications as stormwater is not allowed to 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 wouldn't significantly affect operating costs. There would be more channel to maintain, however, Streets is currently maintaining the undefined shoulders.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Project Scope, coordination and IGA with Westmins	2016	10
Survey and design	2016	10
Property Acquisition	2017	10
Construction	2018	70



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Stormwater

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	16,647	483,000	2,500,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,999,647	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: Service Center Land - Environmental and Site Improvement (RV Waste Disposal)

Project #: 06Z0091

Project Description:

Total Project Cost: \$450,000

This funding is to make improvements on the six acres next to the Public Works Service Center for environmental programs including tree limb recycling center and an RV wastewater disposal station.

Background and Justification:

This project was originally submitted as a request in 2006 in the amount of \$300,000. This amount was based upon a construction estimate at the time and did not account for design costs associated with an Official Development Plan process with the City of Westminster, nor did it account for 9 years of construction inflation or the additional landscaping, irrigation and screening requirements that are required by the City of Westminster. This year's CIP request is to add an additional \$150,000 funding to the project to address the additional funding needed to complete the project.

Problem to be Solved and/or Benefit to Citizens:

CIRSA has strongly recommended the relocation of the RV Waste Disposal Site to the 5.73 acres site adjacent to the Wastewater Treatment Facility. Relocating the RV Waste Disposal Site will provide:

A safe location where the users of the RV Waste Disposal Site are free of wastewater treatment processes

The RV Waste Disposal Site location will be expanded to two lanes/dump stations, improving safety and customer service to our users

The new site will be able to hold 15 users without causing traffic issues

The new site hours will be expanded to 7 days per week

Improve staff safety and access to treatment plant processes.

Alternatives/Consequences if not Funded:

No alternatives were reviewed for this project.

Project Association:

It is proposed that this project be coordinated with the relocation of the tree limb recycling area.

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Project design	2017	10
Bid/Construction	2017	90

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	450,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	450,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Administration Building Expansion**

Project #: 15J0021

Project Description:

Total Project Cost: \$5,942,509

This project will remodel the laboratory located at the Wastewater Reclamation Facility and expand the Administration Building by approximately 3,500 square feet.

Background and Justification:

The Wastewater Reclamation Administration Building was designed for WRF Administration, the Industrial Pretreatment Program and the Wastewater Laboratory. Since 1985, increased regulatory oversight has increased with the addition of the Stormwater Management Program and new laboratory analytical requirements for cyanide, oil and grease, metals, metals digestion, phenols, nutrients, and ammonia distillations. These additional regulatory testing requirements necessitated an increase in equipment and staffing without an increase in laboratory square footage.

This project includes remodeling the exiting laboratory space with new fume hoods, cabinets, counter tops and sinks plus adding 2,000 square foot of laboratory space to the north side of the exiting WRF Administrative Building to meet the regulatory requirements that have been added since 1985. The expansion would also include 1,500 square feet for additional office space, sample receiving and a restroom/locker area.

Problem to be Solved and/or Benefit to Citizens:

In addition to the new regulatory requirements, staffing has increased from 1986 staffing levels of 2 full-time and 2 part-time to 4 full-time and 1 part-time employee. Two workstations were also added. The plan includes 2,000 square feet of laboratory space and 1,500 square feet of admin space.

Alternatives/Consequences if not Funded:

Alternatives are to use contract laboratory services at a higher cost, and a longer turnaround time of typically 3 to 6 weeks for time-sensitive results.

Project Association:

Not currently associated with any other proposed CIP project, however, it could be combined with the Wastewater Treatment Facility Process Covers and Equipment Replacements.

Operating Budget Impact:

Building Maintenance-Operations to include Water, Sewer, HVAC, cleaning, etc. - \$28,000 per year.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Engineering selection and design award	2015	20
Design and project bidding	2016	20
Construction award and construction startup	2017	40
Start up	2017	20



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
82,321	668,095	5,192,093	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	5,942,509	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Arc Flash Study/Testing** Project #: 16K0036

Project Description:

Total Project Cost: \$93,000

The purpose of this request is to provide a complete arc flash program to help protect individuals working at the Wastewater Reclamation Facility from electrical arc flash hazards.

Background and Justification:

The program shall bring the City and County of Broomfield Wastewater Reclamation Facility into compliance with the applicable standards for new installations (NEC) and for worker safety in operating facilities. In addition, the program will assist with improving the reliable operation of the electrical system.

Problem to be Solved and/or Benefit to Citizens:

To ensure compliance with recently adopted Arc Flash rules and procedures; to ensure a safe work environment and to aid in extending the life cycle of the electrical equipment.

Alternatives/Consequences if not Funded:

Staff does not have the level of training or expertise to complete this type of work requiring the contracting of a specialty firm.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Develop scope and issue RFP	2015	25
Select contractor/Council approval	2016	30
Complete study/Final report	2017	55

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	15,110	77,890	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	93,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Centrifuge Backdrive Tonstrols Upgrade** Project #: 18M0034

Project Description:

Total Project Cost: \$170,000

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 the existing backdrive controls that are currently installed on our units in 2005 and replaced them with variable frequency drive (VFD) controls. The newer controls provide for 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 know as a "Eddy Brake". It has acceleration times of 3 to 4 minutes, drawing a tremendous amount of electrical current. This method has been replaced 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. They provide better process and speed control.

This request includes replacing the starter panels, installing the 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design/Purchase/Installation	2018	100

Funding Source: Sales and Use Tax

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	170,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	170,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Digester Methane Gas Control** Project #: 14H0040

Project Description:

Total Project Cost: \$212,306

Install level transducers on digesters #1 and #3 and associated electrical, alarms and mechanical modifications.

Background and Justification:

Digester gas is approximately 60% methane, which may be used in place of natural gas for the necessary energy source. The current design capacity of the anaerobic digesters is 56,000 cubic feet per day. In 2012, the natural gas cost to operate the digesters was \$58,790. By installing the level transducers and making the structure modifications, providing for a safe, effective and efficient use of the biogas, staff projects a reduction in natural gas with an annual cost saving of \$25,000.

Problem to be Solved and/or Benefit to Citizens:

Energy usage efficiencies to slow the rate of increased costs associated with wastewater treatment.

Alternatives/Consequences if not Funded:

The alternatives are to continuing flaring the methane gas generated, losing the potential savings, or to attempt to capacity the methane gas within the digesters without level sensors without knowing the pressures being built up.



Project Association:

None

Operating Budget Impact:

The operating budget impact is to achieve approximately 30% reduction in natural gas usage.

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Request for bids	2017	30
Hire contractor and complete project	2017	70

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
3,306	0	149,000	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	60,000		212,306



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Exterior Lighting Replacements**

Project #: 16K0021

Project Description:

Total Project Cost: \$28,960

Replace 75 existing high pressure sodium wall pack lighting fixtures with energy efficient LED light fixtures and integrate a more resourceful photo sensor.

Background and Justification:

Upgrade present lighting system to innovative LED energy star rated system. Preliminary inquiries to Xcel indicate a rebate ranging from \$125 to \$150 per fixture.

Problem to be Solved and/or Benefit to Citizens:

Improved lighting for personnel working night shifts, enhance building security and save money on parts and maintenance (man power).

Alternatives/Consequences if not Funded:

Continue using outdated wall pack fixtures that are using high energy consumption as well as expensive part replacement.

Project Association:

None

Operating Budget Impact:

Staff anticipates a reduction in energy costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase equipment	2016	25
Complete project	2016	75

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	22,800	6,160	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	28,960	



City and County of Broomfield 2018 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: \$14,900,000

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:

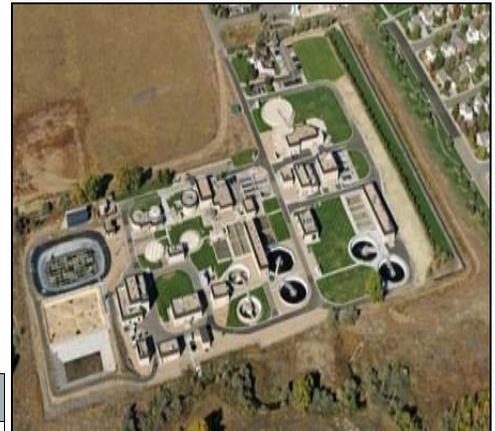
The discharge permit consists of limitations on specific pollutants. This project includes engineering design and construction of additional treatment processes to meet the temperature regulation and digester capacity.

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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development	2014-2017	100
Improvements	2018-2020	

Funding Source: Utility Service Charge/License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	2,800,000	5,200,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
6,900,000	0	0	0	14,900,000



City and County of Broomfield 2018 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: \$28,572,035

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 remove total phosphorus, and total 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of improvement plan	2014-2017	100

Funding Source: Utility Service Charge/License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
4,187,898	235,486	148,651	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	24,000,000	28,572,035



City and County of Broomfield 2018 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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2020	40
Hire contractor and complete work	2020	60

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
4,250,000	0	0	0	4,250,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Process Covers and Equipment Replacements**

Project #: 11E0003

Project Description:

Total Project Cost: \$3,401,264

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2014	30
Hire contractor and complete work	2014-2017	70

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
31,224	6,475	3,363,565	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	3,401,264	



City and County of Broomfield 2018 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 (0.43 probability of annual failure).

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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Preliminary Design & Evaluation	2021	10
Design	2021	8
Bidding	2021	2
Construction	2021	80

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	2,500,000	0	0	2,500,000



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	25
Bid project and award construction agreement	2018	30
Construct project	2018	45

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	600,000	5,400,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	6,000,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Beyers 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, and will not be able to be served by the North Area lift stations.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFQ for design/build team		20
Select design/build team, design and permitting	2017	30
Property acquisition, project construction and start-	2017	50

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
17,152	0	2,982,849	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	3,000,001	



City and County of Broomfield 2018 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 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 north and east 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:

Limit development in the area to development that can be supported by septic tanks.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Retain engineering firm and council approval	2019	30
Design and permitting	2019	20
Construction	2019-2020	50

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	0	5,500,000
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	5,500,000



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design-Build contract awarded		20
Construction amendment approved	2022	20
Construction completed	2022	60

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
10,083,247	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	2,500,000	0	12,583,247	



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2017	25
Bid project and award construction agreement	2018	30
Construct project	2018	45

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
804,121	0	1,300,000	11,700,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	13,804,121	



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **North Park - Gravity Sewer Lines**

Project #: 14H0014

Project Description:

Total Project Cost: \$2,120,000

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 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. 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	30
Bid project and award construction agreement	2018	25
Construct project	2018	45

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	0	2,120,000	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	2,120,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Sac Creek Basin - North Park 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:

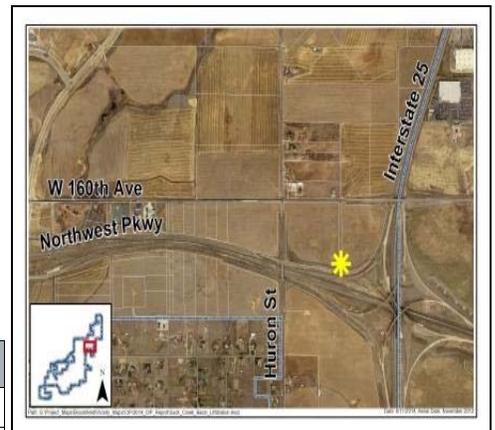
If not funded, Broomfield will not be able to provide sewer service to a portion of the North Park development area.

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Retain engineering firm and council approval	2018	20
Design and permitting	2018	30
Construction	2018	50

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	3,000,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		3,000,000



City and County of Broomfield 2018 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

Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Develop scope and issue RFP	2017	25
Hire consultant and complete study	2017	75

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
0	0	30,000	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **Sewer Lift Station Backup Generator Replacement**

Project #: 12F0008

Project Description:

Total Project Cost: \$84,456

Replacement of three existing/outdated backup generators at sewer lift stations. The Public Works Field Services Division maintains 12 sewer lift stations.

Background and Justification:

Lift stations are designed to pump city wastewater to gravity so it can then flow to the Wastewater Reclamation Facility. Backup power generators are required by the State of Colorado as a secondary source per the permitting of each lift station and are used for extended amounts of time when power outages occur. It is the backup power that provides the pumping of sewage in emergency operations and power outages. The Utility Division provides maintenance and inspections to assure that the backup generators are in working condition and available for stand-by/backup power.

Problem to be Solved and/or Benefit to Citizens:

Without backup power generators, the lift station no longer has the capability of pumping and moving the wastewater to gravity, ultimately resulting in backups into residential houses, overflows, or illicit sewer discharge until power is restored. Generator manufacturers recommend replacement after a 20- to 25-year life cycle.

Alternatives/Consequences if not Funded:

Increase the operating budget to maintain existing backup generators.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain bids	2017	40
Hire contractor and complete work	2017	60

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
45,856	0	38,600	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	84,456



City and County of Broomfield 2018 Capital Improvement Projects

Sewer - Collection System- Lines and Facilities Projects

Project Name: **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 if feasible design and construct 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 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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Retain engineering firm and council approval	2017	30
Design and permitting	2017	25
Construction	2018	45

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	300,000	2,700,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	0	0		3,000,000



City and County of Broomfield 2018 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: \$424,025

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 purchase and application of Bioxide currently being used at the Rock Creek lift station for odor control. ECO2 SuperOxygenation Technology prevents odor and corrosion that is a result of hydrogen sulfide (H2S) formation in pump stations and pipelines. ECO2 technology eliminates the problem by preventing hydrogen sulfide formation by providing enough pure oxygen in wastewater to maintain aerobic conditions. The ECO2 system can be added to existing facilities with no disruption to service.

Problem to be Solved and/or Benefit to Citizens:

- Lower long-term cost for odor control and infrastructure protection
- Odor control along the 3.5 mile of the Rock Creek force main
- Corrosion control or H2S damage to sewer manholes located along the gravity system in relation to the Rock Creek lift station and force main.
- 5-year payback on capital costs with an annual operating budget for electrical of \$21,100 versus 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:

If the ECO2 SuperOxygenation system is approved, a decrease of \$113,652 for chemicals in the Utility Division Operating budget, with an increase of \$21,100 to the Utility Division Electric Operating budget. Annual cost savings of \$92,552.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain quotes	2017	40
Hire contractor and complete project	2017	60

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
13,663	0	410,362	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	424,025



City and County of Broomfield 2018 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:

Problem to be Solved and/or Benefit to Citizens:

Alternatives/Consequences if not Funded:

- 1) Continue to use irrigation shares to be used for reuse (raw) water, however the supply is limited.

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Bid/Construct	2022	100

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
2,336,318	0	0	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	2,500,000	0	4,836,318



City and County of Broomfield 2018 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: **HEIT Pit - Outlet Facility**

Project #: 09C0083

Project Description:

Total Project Cost: \$797,790

This project will be the first of three major improvements at Broomfield’s Heit Pit. The scope of work for this phase includes the construction of a control structure and 42-inch diameter pipeline that will be used to release water to the South Platte.

Background and Justification:

The costs for the design and construction for this facility will be shared equally between Broomfield and Central Colorado Water Conservation District.

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:

Estimated completion will be in 2014 and the annual maintenance costs will be approximately \$1,000 to \$2,000 per year.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFP	2016	30
Award design agreement and complete design	2017	70

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding
217,676	26,998	553,116	0	0
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost
0	0	0	0	797,790



City and County of Broomfield 2018 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: **Heit Pit - Pump Station/Inlet Improvements**

Project #: 10C0084

Project Description:

Total Project Cost: \$2,464,280

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



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2017	40
Construction	2019	60

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	616,070	0	1,848,210	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,464,280	



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design and development of construction plans	2018	30
Bid project and award construction agreement	2018	30
Construct project	2019	40

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
169,723	0	0	506,513	1,150,000	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,826,236	



City and County of Broomfield 2018 Capital Improvement Projects

Reuse Water - Acquisitions and Storage Projects

Project Name: **North Broomfield/Highway 7 - Water Rights (1,816 AF total)** Project #: 07Z0052

Project Description:

Total Project Cost: \$34,764,540

Purchase of additional water rights (1,816 AF total) to support the anticipated expansion of the non-potable reuse system, particularly in northeast Broomfield.

Background and Justification:

Problem to be Solved and/or Benefit to Citizens:

Alternatives/Consequences if not Funded:

None

Project Association:

None

Operating Budget Impact:

None



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Purchase of Water Rights	2022	
Additional Funding	2023	

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
10,434,540	0	0	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs		Total Project Cost
0	0	7,000,000	17,330,000		34,764,540



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Obtain land easement	2018	10
Engineering Design/Surveying	2018	40
Construction	2018	50

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	49,000	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	49,000	



City and County of Broomfield 2018 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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Design project	2018	30
Remaining project schedule	2019	

Funding Source: Utility License Fee

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	0	84,540	338,160	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	422,700	



City and County of Broomfield 2018 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: \$35,090

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.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Develop scope/issue ITB	2017	25
Hire contractor/complete project	2017	75

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
0	0	35,090	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	35,090	



City and County of Broomfield 2018 Capital Improvement Projects

Utilities Planning, Administration & Other Projects

Project Name: **Reuse Water System - Master Plan - Citywide**

Project #: 09C0089

Project Description:

Total Project Cost: \$300,000

This project creates a guide for planning reuse water service to new areas of Broomfield.

Background and Justification:

Enables Broomfield to plan for the most efficient and effective reuse water system to serve future development.

Problem to be Solved and/or Benefit to Citizens:

N/A

Alternatives/Consequences if not Funded:

No alternatives are available.

Project Association:

None

Operating Budget Impact:

This project will not affect operating costs.



Estimated Project Time Table		
Steps to be completed	Start Date	% of Project
Issue RFP	2016	25
Award consulting agreement and complete Master	2017	75

Funding Source: Utility Service Charge

Prior Year Costs	2016 Actual	2017 Funding	2018 Funding	2019 Funding	
45,495	134,598	119,907	0	0	
2020 Funding	2021 Funding	2022 Funding	Future Needs	Total Project Cost	
0	0	0	0	300,000	



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