Capital Improvement Plan

The City of Duluth's Capital Budget and Plan addresses current and future improvements to the City's infrastructure, facilities, and properties by combining elements of both budgeting (current year needs) and planning (five-year plan). The purpose of the capital budget is two-fold: first, to prioritize and fund the most urgent needs in the coming year's budget; and secondly, to identify future capital needs with sufficient lead-time so decisions may be made to the City's best advantage.

The City's capital budget includes capital improvement projects to City infrastructure, such as facility enhancements and expansion, upgrades to parks and trails, and improvements to streets and utilities. Also included in the capital budget are capital equipment rolling stock, such as public safety and maintenance vehicles, and non-rolling stock such as technology and public safety equipment. This section presents a summary of the 2020 capital improvement budget and the 2020 through 2024 capital improvement plans.

2020 Proposed Improvements

The 2020 capital improvement program outlines total proposed projects in the amount of \$66,003,721 funded through various sources including bonding, the Parks fund, the ½ and ½ tax, state and federal grants, the Permanent Improvement fund, the Street System Maintenance levy, the local sales tax dedicated to streets (.5%) and utilities revenue. Included in the capital improvement budget are projects for facilities, parks and trails, streets and bridges, and the Water, Gas, Sewer, Stormwater and Street Lighting utilities. The following chart shows the breakdown of funding for the 2020 program.

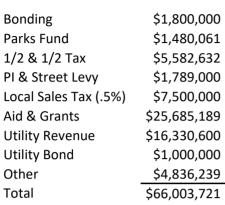
Capital improvements to city buildings and infrastructure will be funded by issuing a capital improvement bond in the amount of \$1,800,000.

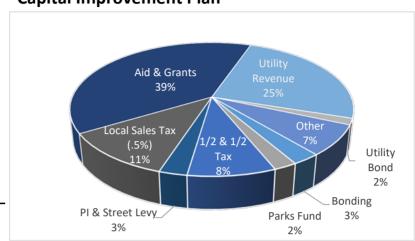
Parks and trails are to be funded by federal grants totaling \$2,736,381; state grants totaling \$3,143,339; St Louis River Corridor bond proceeds (½ and ½ tax) of \$5,582,632; other Grants and Donations totaling \$3,637,153; other City funding totaling \$374,086; and the Parks fund contribution of \$1,480,061 for a combined program total of \$16,953,652.

The Street and Bridge Improvement and Preservation program for 2020 totals \$29,919,469. Funding sources include \$19,805,469 from aids and grants, \$280,000 from property tax dollars levied in the Permanent Improvement fund, \$7,500,000 from the local sales tax dedicated to street improvement (.5%), \$1,509,000 from the Street System Maintenance levy, and \$825,000 from other City funding sources.

2020 Capital Utility Projects total \$17,330,600 and will be funded using \$16,330,600 from utility revenue and \$1,000,000 from utility bond proceeds.

Capital Improvement Plan

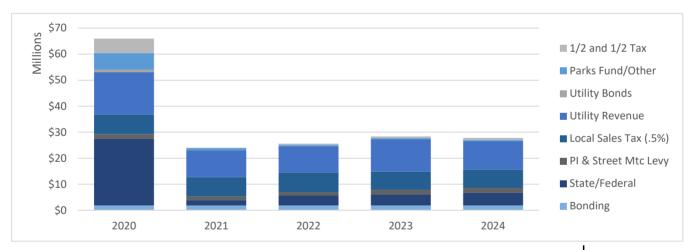




Five Year Improvement Plan Funding

The City has identified \$171.8 million in improvements along with funding sources over the course of the next five years. The City will bond for certain types of improvements as allowed in State Statute. As can be seen below, over the next five years, the City is proposing to bond for a total of \$9 million in capital improvements.

Shown in the chart below are the funding sources by year for the five-year capital improvement plan.



	2020	2021	2022	2023	2024	Total
Bonding	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	9,000,000
State/Federal	25,685,189	2,117,150	3,900,000	4,300,000	5,044,219	41,046,558
PI & Street Mtc Levy	1,789,000	1,336,644	1,336,000	1,780,000	1,780,000	8,021,644
Local Sales Tax (.5%)	7,500,000	7,500,000	7,500,000	7,000,000	7,000,000	36,500,000
Utility Revenue	16,330,600	10,250,000	10,040,000	12,395,000	10,900,000	59,915,600
Utility Bonds	1,000,000	-	-	-	-	1,000,000
Parks Fund/Other	6,316,300	825,000	518,750	500,000	500,000	8,660,050
1/2 and 1/2 Tax	5,582,632	209,430	510,000	575,000	794,283	7,671,345
Total Plan	66,003,721	24,038,224	25,604,750	28,350,000	27,818,502	171,815,197

City of Duluth 2020-2024 Capital Improvement Plan

2020 Funding Sources by Project

Facilities	Bond			
CIP Eligible VFA Building Improvements	125,000			
Maintenance Buildings Improvements	425,000			
Civic Buildings (CCW/City Hall/Library)	750,000			
Public Safety Buildings (Fire/Police)	500,000			
Total	1,800,000			
Parks and Trails	Parks Fund	1/2 &1/2 Tax	Aids/Grants	Other
Zoo Exhibit Restoration	-	1,900,000	1,900,000	-
Spirit Landing, Trail & Water Access	-	679,245	2,322,578	110,500
Lincoln Park Restoration	37,500	810,000	1,278,601	-
Wade/Wheeler Ball Field Improvements	200,000	607,234	275,000	16,294
Lower Chester MMP Implementation	26,840	-	-	-
Keene Park MMP Implementation	225,000	90,000	52,000	-
Piedmont Park MMP Implementation	-	47,707	219,341	-
Natural Resources	129,900	-	-	-
Merritt Park MMP Implementation	75,000	90,000	-	-
Other Park Improvements	342,821	113,180	-	-
Cross City Trail-River Route & Wayfinding	-	464,917	1,350,452	-
DWP Trail	51,000	79,360	889,198	-
Brighton Beach Lakewalk Extension	92,000	-	300,000	247,292
DWP - Sargent Creek Bridge	-	351,911	250,000	-
Snowmobile Trail	-	175,000	390,625	-
Grand Avenue Nordic Center	-	50,000	150,000	-
Western Waterfront Trail	-	89,078	89,078	-
All Weather Mountain Bike Trail-Phase II	90,000	35,000	-	-
Lakewalk Mini-Master Plan	75,000	-	-	-
St. Louis River Heritage Trail	50,000	-	50,000	-
Other Trail Improvements	85,000	-	-	-
Total	1,480,061	5,582,632	9,516,873	374,086
			Street Mtc	
Street & Bridge Reconstruction and	PI/Prior Year		Levy/Local	
Preservation Program	PI	Aids/Grants	Sales Tax	Other
Downtown Superior Street	-	5,330,000	643,500	555,000
Aerial Lift Bridge Paint & Structural Repairs	-	1,000,000	-	11,000,000
East Superior St recon Lester River Rd to TH61	-	1,356,250	-	-
Woodland Ave & Kent Rd- Signal Replacement	-	500,000	-	-

City of Duluth 2020-2024 Capital Improvement Plan

2020 Funding Sources by Project

			Street Mtc	
Street & Bridge Reconstruction and	PI/Prior Year		Levy/Local	
Preservation Program Continued	PI	Aids/Grants	Sales Tax	Other
Rice Lake Rd /Arlington /Arrowhead intersection				
improvements	60,000	150,000	-	270,000
Lake (2020) & 5th Ave West (2024) Bridges -ADA				
imrpovements	-	319,219	-	-
Engineering for following year's Federal Projects	-	150,000	-	-
Street Preservation (Various Locations)	-	-	8,265,500	-
Misc Annual Infrastructure	200,000	-	-	-
Sidewalks (includes 27th Ave W)	20,000	-	100,000	-
Total	280,000	8,805,469	9,009,000	11,825,000
	Utility			
Capital Utility Projects	Rev/Bond			
2nd Street 20-inch main 6th to 12th Ave. East	1,000,000			
Annual Transportation SIP projects	100,000			
Arrowhead and Rice Lake (County)	350,000			
Cathodic Protection System on 42-inch steel	80,000			
Citywide sanitary sewer rehabilitation/lining	1,500,000			
Clarkhouse Creek	50,000			
Decker Road	2,199,500			
Gas Blanket Project	1,500,000			
Greys Creek	50,000			
Lift Station 15 Twin Ports Interchange	4,400,000			
Lower Coffee Creek	50,000			
Meter relocations/bollards	100,000			
Michigan Street 16-inch	526,800			
Middle Pump Station	2,400,000			
Morris Thomas Rd. 16-inch main inspection	100,000			
PW&U Garfield Facility gravel cover	24,800			
PW&U Garfield Facility roof	500,000			
Steel main replacements	100,000			
Stora Enso flow meter	250,000			
Superior Street	575,000			
Technology Drive signal system	120,000			
Warwick signal system	110,500			
Woodland Ave and E Calvary water main	1,244,000			
Total	17,330,600			

City of Duluth 2020-2024 Capital Improvement Plan

Facilities	2020	2021	2022	2023	2024	Total
CIP Eligible VFA Building						
Improvements	125,000	10,000	1,650,000	1,000,000	5,000	2,790,000
Facilities Building	•					
Improvements	75,000	-	-	-	-	75,000
Fleet building Improvements	-	-	-	450,000	-	450,000
42nd Tool House						
Improvements	-	-	-	-	250,000	250,000
40th Tool House						
Improvements	350,000	-	-	-	-	350,000
Lund Tool House						
Improvements	-	-	-	-	45,000	45,000
Tree Farm/Riley Road						
Improvements	-	350,000	-	-	-	350,000
City Center West						
Improvements	-	625,000	50,000	-	-	675,000
City Hall Improvements	750,000	-	-	-	-	750,000
Library Improvements	-	125,000	-	-	400,000	525,000
Firehall #1 Improvements	-	360,000	100,000	-	300,000	760,000
Firehall #2 Improvements	-	-	-	-	450,000	450,000
Firehall #4 Improvements	-	-	-	-	350,000	350,000
Firehall #7 Improvements	-	-	-	-	-	
Firehall #8 Improvements	-	50,000	-	-	-	50,000
Firehall #10 Improvements	-	280,000	-	125,000	-	405,000
Firehall #11 Improvements	-	-	-	-	-	
Public Safety Building	500,000	-	-	225,000	-	725,000
Facilities Total	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	9,000,000
Parks and Trails	2020	2021	2022	2023	2024	Total
Zoo Exhibit Restoration	3,800,000	-	-	-	-	3,800,000
Spirit Landing, Trail & Water						
Access	3,112,323	-	-	-	-	3,112,323
Lincoln Park Restoration	2,126,101	-	-	-	-	2,126,101
Wade/Wheeler Ball Field						
Improvements	1,098,528	-	-	-	-	1,098,528

City of Duluth 2020-2024 Capital Improvement Plan

Parks and Trails Continued	2020	2021	2022	2023	2024	Total
Memorial Park MMP						
Implementation	-	85,000	510,000	-	-	595,000
Lower Chester MMP						
Implementation	26,840	375,000	-	-	-	401,840
Keene Park MMP						
Implementation	367,000	-	-	-	-	367,000
Piedmont Park MMP						
Implementation	267,048	-	-	-	-	267,048
Norton Park MMP						
Implementation	-	225,000	-	-	-	225,000
Natural Resources	129,900	50,000	-	-	-	179,900
Merritt Park MMP						
Implementation	165,000	-	-	-	-	165,000
Brighton Beach	-	100,000	-	_	-	100,000
Parks Strategic Master Plan	-	60,000	-	-	-	60,000
Other Park Improvements	456,001	114,430	250,000	575,000	575,000	1,970,431
Cross City Trail-River Route						
& Wayfinding	1,815,369	-	-	_	-	1,815,369
DWP Trail	1,019,558	-	-	_	-	1,019,558
Cross City Trail-Irving Park to						
Greene Street	-	-	-	_	819,283	819,283
Brighton Beach Lakewalk					,	,
Extension	639,292	-	-	_	-	639,292
DWP - Sargent Creek Bridge	601,911	_	-	-	-	601,911
Snowmobile Trail	565,625	_	-	_	-	565,625
Grand Avenue Nordic Center	200,000	-	-	_	-	200,000
Western Waterfront Trail	178,156	-	-	_	-	178,156
All Weather Mountain Bike	•					,
Trail-Phase II	125,000	-	-	-	-	125,000
Lakewalk Mini-Master Plan	75,000	-	-	-	-	75,000
St. Louis River Heritage Trail	100,000	-	-	-	-	100,000
Other Trail Improvements	85,000	25,000	250,000	500,000	500,000	1,360,000
Parks and Trails Total	16,953,652	1,034,430	1,010,000	1,075,000	1,894,283	21,967,365

City of Duluth 2020-2024 Capital Improvement Plan

Street & Bridge						
Reconstruction and						
Preservation Program	2020	2021	2022	2023	2024	Total
Superior Street	6,528,500	-	-	-	-	6,528,500
Aerial Lift Bridge Paint &						
Structural Repairs	12,000,000	-	-	-	-	12,000,000
E Superior St reconditioning-						
Lerster River Rd to TH61	1,356,250	-	-	-	-	1,356,250
Woodland Ave & Kent Rd-						
Signal Replacement	500,000	-	-	-	-	500,000
Rice Lake Rd /Arlington						
/Arrowhead intersection						
improvements	480,000	-	-	-	-	480,000
Lake (2020) & 5th Ave	319,219	-	-	-	194,219	513,438
East 3rd Street Recondition	-	-	-	1,650,000	-	1,650,000
Engineering for following						
year's Federal Projects	150,000	-	150,000	150,000	150,000	600,000
Federal Projects TBD	-	-	-	-	1,600,000	1,600,000
Railroad Street (Lake Ave to						
5th Ave W)	-	1,717,150	-	-	-	1,717,150
Glenwood & Snively						
Intersection Improvements						
(County)	-	-	750,000	-	-	750,000
Arrowhead Rd Mill &						
Overlay (w/County)	-	-	925,000	-	-	925,000
Street Preservation (Various						
Locations)	8,265,500	8,856,644	10,456,000	10,900,000	10,900,000	49,378,144
Signal Replacement (City	-	-	93,750	-	-	93,750
Misc Annual Infrastructure	200,000	260,000	260,000	260,000	260,000	1,240,000
Sidewalks (includes 27th Ave	120,000	120,000	120,000	120,000	120,000	600,000
Street, Bridge, and						
Preservation Total	29,919,469	10,953,794	12,754,750	13,080,000	13,224,219	79,932,232

City of Duluth 2020-2024 Capital Improvement Plan

Capital Utility Projects	2020	2021	2022	2023	2024	Total
20th Ave. West, 23rd				=0 0.000		
Avenue West, 10th Street	-	-	-	500,000	500,000	1,000,000
24th Ave. West, 3rd to 7th						
Street	-	-	450,000	-	-	450,000
2nd Street 20-inch main 6th						
to 12th Ave. East	1,000,000	-	-	-	-	1,000,000
3rd Street, Vernon, 2nd						
Street Alley	-	-	200,000	-	-	200,000
40th Avenue West (County)	-	-	-	-	600,000	600,000
4th Street water main, 6th						
Ave East to Mesaba (design)	-	-	-	-	200,000	200,000
Annual Transportation SIP						
projects	100,000	100,000	100,000	100,000	100,000	500,000
Arrowhead and Rice Lake						
(County)	350,000	-	-	-	-	350,000
Block-long culvert & ditch						
system improvements	-	-	-	250,000	250,000	500,000
Brewery Creek tuck pointing	-	190,000	-	-	-	190,000
Building shell at Stora Enso	-	-	140,000	-	-	140,000
Cathodic Protection System						
on 42-inch steel	80,000	80,000	80,000	-	-	240,000
Citywide pipe repairs &						
steep slope down drains	-	110,000	310,000	250,000	250,000	920,000
Citywide sanitary sewer						
rehabilitation/lining	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000	9,500,000
Clarkhouse Creek	50,000	100,000	-	-	-	150,000
Decker Road	2,199,500	-	-	-	-	2,199,500
Duluth Heights #1 and #2	-	-	907,500	-	-	907,500
Duluth Heights #3	-	-	-	-	1,000,000	1,000,000
Electrical upgrades at WTP	-	-	-	-	1,500,000	1,500,000
Far East Superior Street						
water main off 42-inch	-	-	-	600,000	700,000	1,300,000
Fascia repairs at main WTP						
pump building	-	-	-	100,000	-	100,000
Gas Blanket Project	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000

City of Duluth 2020-2024 Capital Improvement Plan

Capital Utility Projects						
Continued	2020	2021	2022	2023	2024	Total
•						
Gogebic Creek CIPP and						
storm improvements	-	-	-	275,000	-	275,000
Greys Creek	50,000	100,000	-	-	-	150,000
Hidden Valley phase 2 water						
main replacement	-	1,400,000	-	-	-	1,400,000
Kenwood Avenue box						
culvert fish passage -						
Chester Creek	-	-	40,000	300,000	300,000	640,000
Lift Station 15 Twin Ports						
Interchange	4,400,000	-	-	-	-	4,400,000
Lift Station rehabilitation	-	450,000	450,000	450,000	450,000	1,800,000
Lower Coffee Creek	50,000	100,000	100,000	-	-	250,000
Meter relocations/bollards	100,000	250,000	250,000	250,000	250,000	1,100,000
Michigan Street 10-inch	-	-	120,000	-	-	120,000
Michigan Street 16-inch	526,800	-	-	-	-	526,800
Middle Pump Station	2,400,000	-	-	-	-	2,400,000
MNDOT Central entrance, 8						
inch replacement	-	-	-	-	100,000	100,000
MNDOT Gogebic Creek	-	-	-	300,000	-	300,000
MNDOT US Steel Creek	-	-	-	120,000	-	120,000
Morris Thomas Rd. 16-inch						
main inspection	100,000	-	-	-	-	100,000
Morris Thomas Rd. water						
main (County)	-	2,140,000	-	-	-	2,140,000
PW&U Garfield Facility						
gravel cover	24,800	300,000	-	-	-	324,800
PW&U Garfield Facility roof	500,000	-	-	-	-	500,000
Raleigh St, 59th to Grand	-	530,000	-	-	-	530,000
Steel main replacements	100,000	100,000	500,000	500,000	500,000	1,700,000
Stora Enso flow meter	250,000	-	-	-	-	250,000
Superior Street laterals	50,000	-	-	-	-	50,000
Superior Street						
reconstruction	525,000	-	-	-	-	525,000
Superior Street, Lakewood						
to McQuade Rd culvert exts	-	-	100,000	-	-	100,000

City of Duluth 2020-2024 Capital Improvement Plan

Continued 2020 2021 2022 2023 2024 Total Technology Drive signal system 120,000 - - - - 120,000 Traffic signal & street lighting communications upgrades - 100,000 - - - 100,000 Traffic signal upgrades - 700,000 700,000 700,000 700,000 2,800,000 Upper Lakeside phase 1, connection on Glenwood - - 900,000 - - 900,000 Upper Lakeside phase 2, promotion on Glenwood in page Lakeside phase 3 - - 787,500 - - 900,000 Upper Lakeside phase 3 - - - 900,000 - - 787,500 Upper Lakeside phase 3 - - - - 787,500 - - 787,500 Upper Lakeside phase 3 - - - - - 1,600,000 Woodland Pump Station - - - - - - - - <th>Capital Utility Projects</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Capital Utility Projects						
System 120,000 - - - - 120,000 Traffic signal & street lighting communications Upgrades - 100,000 - - - 100,000	Continued	2020	2021	2022	2023	2024	Total
System 120,000 - - - - 120,000 Traffic signal & street lighting communications Upgrades - 100,000 - - - 100,000	Technology Drive signal						
Traffic signal & street lighting communications upgrades	•,	120 000	_	_	_	_	120 000
lighting communications upgrades	•	120,000	_	_	_	_	120,000
upgrades - 100,000 - - - 100,000 Traffic signal upgrades - 700,000 700,000 700,000 700,000 2,800,000 Upper Lakeside phase 1, connection on Glenwood - - 900,000 - - 900,000 Upper Lakeside phase 2, Upper Lakeside phase 3 upgrades - - - 787,500 - - 787,500 Warwick signal system 110,500 - - - 110,500 Woodland Ave. 6-inch steel pipe replacement 500,000 - - - 500,000 Woodland Ave. and East Calvary water main (County) Woodland Pump Station construction - - - - 744,000 Woodland Pump Station design - - - 2,600,000 - 2,600,000 Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 5,000	_						
Traffic signal upgrades - 700,000 700,000 700,000 700,000 2,800,000 Upper Lakeside phase 1, connection on Glenwood 900,000 900,000 Upper Lakeside phase 2, 787,500 787,500 Upper Lakeside phase 3 upgrades 1,600,000 - 1,600,000 Warwick signal system 110,500 110,500 Woodland Ave. 6-inch steel pipe replacement 500,000 500,000 Woodland Ave. and East Calvary water main (County) Woodland Pump Station construction 2,600,000 - 2,600,000 Woodland Pump Station design 200,000 2,600,000 Woodland Pump Station study 5,000 5,000 WTP pump station service 200,000 200,000 200,000 WTP pump station service 200,000 200,000		_	100 000	_	_	_	100 000
Upper Lakeside phase 1, connection on Glenwood 900,000 900,000 Upper Lakeside phase 2, - 787,500 - 787,500 Upper Lakeside phase 3 upgrades 1,600,000 - 1,600,000 Warwick signal system 110,500 1,600,000 Woodland Ave. 6-inch steel pipe replacement 500,000 500,000 Woodland Ave. and East Calvary water main (County) 744,000 2,600,000 - 2,600,000 Woodland Pump Station construction 200,000 2,600,000 Woodland Pump Station design 200,000 200,000 Woodland Pump Station study 5,000 5,000 WTP pump station service - 200,000 200,000	, 0	_	•	700 000	700 000	700 000	
connection on Glenwood - - 900,000 - - 900,000 Upper Lakeside phase 2, - - 787,500 - - 787,500 Upper Lakeside phase 3 - - - - 1,600,000 - 1,600,000 - 1,600,000 - 110,500 - - - 110,500 - - - - 110,500 - - - - 110,500 - - - - - 110,500 - - - - 110,500 - - - - 110,500 - - - - 110,500 - - - - - 500,000 - - - - 500,000 -		_	700,000	700,000	700,000	700,000	2,800,000
Upper Lakeside phase 2, Upper Lakeside phase 3 upgrades - - 787,500 - - 787,500 Warwick signal system 110,500 - - - - 1,600,000 - 110,500 Woodland Ave. 6-inch steel pipe replacement 500,000 - - - - 500,000 Woodland Ave. and East Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station construction - - - 2,600,000 - 2,600,000 - 2,600,000 Woodland Pump Station design - - 200,000 - - 200,000 - - 5,000 Woodland Pump Station study - - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	···	_	_	900 000	_	_	900 000
Upper Lakeside phase 3 upgrades - - - 1,600,000 - 1,600,000 Warwick signal system 110,500 - - - - 110,500 Woodland Ave. 6-inch steel pipe replacement 500,000 - - - - 500,000 Woodland Ave. and East Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station construction - - - 2,600,000 - 2,600,000 Woodland Pump Station design - - 200,000 - - 200,000 Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000		_	_	•	_	_	
upgrades - - - 1,600,000 - 1,600,000 Warwick signal system 110,500 - - - - 110,500 Woodland Ave. 6-inch steel pipe replacement 500,000 - - - - - 500,000 Woodland Ave. and East Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station design - - - 2,600,000 - 2,600,000 Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000		_	_	787,300	_	_	787,300
Warwick signal system 110,500 - - - - - 110,500 Woodland Ave. 6-inch steel pipe replacement 500,000 - - - - 500,000 Woodland Ave. and East Calvary water main (County) 744,000 - - - - - 744,000 Woodland Pump Station design - - - 2,600,000 - 2,600,000 Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	··				1 600 000		1 600 000
Woodland Ave. 6-inch steel pipe replacement 500,000 - - - - 500,000 Woodland Ave. and East Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station construction - - - 2,600,000 - 2,600,000 Woodland Pump Station design - - 200,000 - - 200,000 Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	• •	110 500	-	_	1,000,000	_	
pipe replacement 500,000 - - - - 500,000 Woodland Ave. and East Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station - - - 2,600,000 - 2,600,000 Woodland Pump Station - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	- ·	110,500	_	_	_	_	110,500
Woodland Ave. and East Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station - - - 2,600,000 - 2,600,000 Woodland Pump Station - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000		500 000	_	_	_	_	500 000
Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station - - - 2,600,000 - 2,600,000 Woodland Pump Station - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	pipe replacement	300,000	_	_	_	_	300,000
Calvary water main (County) 744,000 - - - - 744,000 Woodland Pump Station - - - 2,600,000 - 2,600,000 Woodland Pump Station - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	Woodland Ave and Fast						
Woodland Pump Station - - - 2,600,000 - 2,600,000 Woodland Pump Station - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000		744 000	_	_	_	_	744 000
construction - - - 2,600,000 - 2,600,000 Woodland Pump Station - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	•	744,000					7 4 4,000
Woodland Pump Station design - - 200,000 - - 200,000 Woodland Pump Station - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	·	_	_	_	2 600 000	_	2 600 000
design - - 200,000 - - 200,000 Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000					2,000,000		2,000,000
Woodland Pump Station study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - 200,000	·	_	_	200 000	_	_	200 000
study - - 5,000 - - 5,000 WTP pump station service - - 200,000 - - - 200,000				200,000			200,000
WTP pump station service 200,000 200,000	•	_	_	5.000	_	_	5.000
	•	_	_	-	_	_	•
Capital Utility Projects Total 17,330,600 10,250,000 10,040,000 12,395,000 10,900,000 60,915,600	pamp station service			200,000			
	Capital Utility Projects Total	17.330.600	10.250.000	10.040.000	12.395.000	10.900.000	60.915.600
		_,,550,500	_0,_00,000	10,0 10,000	12,000,000	_0,000,000	00,010,000
GRAND TOTAL 66,003,721 24,038,224 25,604,750 28,350,000 27,818,502 171,815,197	GRAND TOTAL	66,003,721	24,038,224	25,604,750	28,350,000	27,818,502	171,815,197

City of Duluth 2020-2024 Capital Improvement Plan

5 Year Funding Sources

	2020	2021	2022	2023	2024	Total
Bond	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	9,000,000
Parks Fund	1,480,061	825,000	500,000	500,000	500,000	3,805,061
1/2 & 1/2 Tax	5,582,632	209,430	510,000	575,000	794,283	7,671,345
Permanent Improvement						
Fund	280,000	280,000	280,000	280,000	280,000	1,400,000
Street System Maintenance						
Levy	1,509,000	1,056,644	1,056,000	1,500,000	1,500,000	6,621,644
Local Sales Tax (.5%)	7,500,000	7,500,000	7,500,000	7,000,000	7,000,000	36,500,000
Minnesota State Aid	7,576,250	-	-	-	-	7,576,250
State Grants	14,143,339	832,150	2,560,000	2,980,000	3,125,000	23,640,489
Federal Grants/Aid	3,965,600	1,285,000	1,340,000	1,320,000	1,919,219	9,829,819
Other Funding Sources	4,836,239	-	18,750	-	-	4,854,989
Utilities - Bond	1,000,000	-	-	-	-	1,000,000
Utilities - Current Year						
Revenue						
-Water	4,497,200	3,185,000	3,530,000	5,220,000	4,000,000	20,432,200
-Gas	3,846,500	2,865,000	2,710,000	2,850,000	2,850,000	15,121,500
-Sewer	6,430,000	2,525,000	2,450,000	2,450,000	2,450,000	16,305,000
-Stormwater	1,101,400	875,000	650,000	1,175,000	900,000	4,701,400
-Street Lighting	455,500	800,000	700,000	700,000	700,000	3,355,500
Total	66,003,721	24,038,224	25,604,750	28,350,000	27,818,502	171,815,197

City of Duluth 2020-2024 Capital Improvement Plan

Capital Improvement Program Summary

Operating Cost Implications of Proposed Projects:

The Capital Improvement Program is the principal funding program the City uses to make large, planned improvements and corrections to its building inventory and infrastructure. It traditionally consists of issuing general obligation bonds for City Hall, public safety facilities, libraries and public works facilities. The City maintains 148 structures with an average age of over 40 years. These structures require continued accessibility and code compliance efforts.

Projects	2020	2021	2022	2023	2024	Total
CIP Eligible VFA Building Maintenance Buildings	125,000	10,000	1,650,000	1,000,000	5,000	2,790,000
Improvements Civic Buildings (CCW/City	425,000	350,000	-	450,000	295,000	1,520,000
Hall/Library) Public Safety Buildings	750,000	750,000	50,000	-	400,000	1,950,000
(Fire/Police)	500,000	690,000	100,000	350,000	1,100,000	2,740,000
Total	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	9,000,000
Funding	2020	2021	2022	2023	2024	Total
Capital Improvement Bond	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	9,000,000

City of Duluth 2020-2024 Capital Improvement Plan

CIP Eligible VFA Building Improvements

Description:

It is important to maintain a city-wide program of facility system replacements and accessibility compliance for structures. Many remote sites need masonry tuck pointing; this is our primary point of water migration into finished spaces. There are damaged window heads, sills and parapets which also need repairs. Additionally, many remote sites are being heated with boilers or furnaces which are 20 years old and beyond. Replacing these with modern, high efficient units with electronic controls can realize significant annual energy savings over the continued life of the structure. All of these types of system replacements and facility upgrades are aimed at keeping these public buildings in the best state of repair and function possible with the funding available.

Project	2020	2021	2022	2023	2024	Total
CIP Eligible VFA Building						
Improvements	125,000	10,000	1,650,000	1,000,000	5,000	2,790,000
Total	125,000	10,000	1,650,000	1,000,000	5,000	2,790,000
Funding	2020	2021	2022	2023	2024	Total
Capital Improvement Bond	125,000	10,000	1,650,000	1,000,000	5,000	2,790,000

City of Duluth 2020-2024 Capital Improvement Plan

CIP Eligible VFA Building Improvements

Project Title:

CIP Eligible VFA Building Improvements

Description:

These fund improvements related to deferred maintenance, end-of-life-cycle systems, and other facility improvement requirements identified in the City's asset management system.

Funding Source:

FY 2020-2024

Capital Improvement Bond

2,790,000



City of Duluth 2020-2024 Capital Improvement Plan

Maintenance

Description:

As a group of CIP eligible facilities, the Maintenance buildings that support the activities of Property and Facilities Management and Maintenance Operations represent some of the most rapidly deteriorating CIP eligible facilities that the City currently owns. Each of these facilities have significant capital needs that are extremely critical to maintain facility integrity and to continue operations as viable assets housing core City services. The group of maintenance facilities represents many challenges and opportunities. As part of a longer term strategy for this element of the portfolio, the reality that most of these facilities have capital improvement needs in excess of 50% of their replacement value has driven Property and Facilities Management to consider investments that are primarily aimed at maintaining the facility integrity and ensuring the safety and comfort of City staff working out of these facilities while not significantly improving the assets. As assets, this group of buildings have significant value for potential resale, as most are located on prime real estate, and should a longer term solution aimed at a total consolidation of maintenance activities into one newly constricted facility come to fruition, the focus of this part of the capital plan is on – primarily – maintaining the status quo in a manner that sufficiently meets the operational needs and protects the assets from significant deterioration over the next 5 years.

Project	2020	2021	2022	2023	2024	Total
Facilities Building Improvements	75,000	-	-	-	-	75,000
Fleet building Improvements	-	-	-	450,000	-	450,000
42nd Tool House Improvements	-	-	-	-	250,000	250,000
40th Tool House Improvements	350,000	-	-	-	-	350,000
Lund Tool House Improvements	-	-	-	-	45,000	45,000
Tree Farm/Riley Road						
Improvements	-	350,000	-	-	-	350,000
Total	425,000	350,000	-	450,000	295,000	1,520,000
						•
Funding	2020	2021	2022	2023	2024	Total
Capital Improvement Bond	425,000	350,000	-	450,000	295,000	1,520,000

City of Duluth 2020-2024 Capital Improvement Plan

Maintenance

Project Title:

Facilities Building Improvements

Description:

Build additional garage in yard to replace shipping containers



Funding Source:

FY 2020

Capital Improvement Bond

75,000

Project Title:

40th Toolhouse Improvements

Description:

New salt shed



Funding Source:

FY 2020

Capital Improvement Bond

350,000

Project Title:

Tree Farm / Riley Road Improvements

Description:

New salt shed



Funding Source:

FY 2021

Capital Improvement Bond

350,000

City of Duluth 2020-2024 Capital Improvement Plan

Maintenance

Project Title:

Fleet Building Improvements

Description:

Replace roof



Funding Source:

FY 2024

Capital Improvement Bond

450,000

Project Title:

42nd Toolhouse Improvements

Description:

Structural study and repair



Funding Source:

FY 2024

Capital Improvement Bond

250,000

Project Title:

Lund Toolhouse Improvements

Description:

Lighting upgrades



Funding Source:

FY 2024

Capital Improvement Bond

45,000

City of Duluth 2020-2024 Capital Improvement Plan

Civic (City Center West/City Hall/Library)

Description:

These are the public facing facitilies that are owned and operated by the City. Much of the activity in these facilities support the operation of City business by housing staff and serving and points of direct engagement with the public seeking City services such as Construction Services, Planning, Engineering, City Clerk, Elections, Public Library, City Council, Public Commissions and the like. These investements constitute renewal and improvement of core facility infrastructure systems such as lighting, HVAC, emergency systems, and building envelope improvements.

Project	2020	2021	2022	2023	2024	Total
						_
City Center West Improvements	-	625,000	50,000	-	-	675,000
City Hall Improvements	750,000	-	-	-	-	750,000
Library Improvements	-	125,000	-	-	400,000	525,000
Total	750.000	750.000	50.000	-	400,000	1.950.000

Funding	2020	2021	2022	2023	2024	Total
Capital Improvement Bond	750,000	750,000	50,000	-	400,000	1,950,000

City of Duluth 2020-2024 Capital Improvement Plan

Civic (City Center West/City Hall/Library)

Project Title:

City Center West Improvements

Description:

EOC driveway and parking lot and EOC radiant heat



Funding Source:

FY 2021-2022

Capital Improvement Bond 675,000

Project Title:

City Hall Improvements

Description:

Fourth and ground floor remodel



Funding Source:

FY 2020

Capital Improvement Bond 750,000

Project Title:

Library Improvements

Description:

Cabling at main library



Funding Source:

FY 2021, 2024

Capital Improvement Bond 525,000

City of Duluth 2020-2024 Capital Improvement Plan

Public Safety (Fire/Police)

Description:

Over the next five years, the City is proposing to invest \$2.8 million in capital maintenance projects at firehalls and police facilities throughout the City. There are remodeling projects to accommodate staff reorganizations as part of the Fire Department consolidation plan. Energy improvements consist of installing new windows and overhead doors, lighting, building controls and replacing furnaces and roofs. Repair and maintenance projects consist of masonry and brick repair, as well as resolving drainage issues and replacing driveways, aparatus bay doors, heating systems, ventilation systems and deferred maintenance requirements identified by the City asset management system (VFA).

Project	2020	2021	2022	2023	2024	Total
Firehall #1 Improvements	-	360,000	100,000	-	300,000	760,000
Firehall #2 Improvements	-	-	-	-	450,000	450,000
Firehall #4 Improvements	-	-	-	-	350,000	350,000
Firehall #7 Improvements	-	-	-	-	-	-
Firehall #8 Improvements	-	50,000	-	-	-	50,000
Firehall #10 Improvements	-	280,000	-	125,000	-	405,000
Firehall #11 Improvements	-	-	-	-	-	
Public Safety Building (Police)	500,000	-	-	225,000	-	725,000
Total	500,000	690,000	100,000	350,000	1,100,000	2,740,000
					•	•
Funding	2020	2021	2022	2023	2024	Total
Capital Improvement Bond	500,000	690,000	100,000	350,000	1,100,000	2,740,000

City of Duluth 2020-2024 Capital Improvement Plan

Public Safety (Fire/Police)

Project Title:

Firehall #1 Improvements

Description:

Mechanical system and building control upgrades, ADA / bathroom upgrades, and living quarters upgrade / reorganization



Funding Source:

FY 2021-2022, 2024

Capital Improvement Bond 760,000

Project Title:

Firehall #2 Improvements

Description:

Flooring upgrades, interior remodel, and roof replacement



Funding Source:

FY 2024

Capital Improvement Bond 450,000

Project Title:

Firehall #4 Improvements

Description:

Flooring upgrades and interior/kitchen remodel



Funding Source:

FY 2024

Capital Improvement Bond 350,000

City of Duluth 2020-2024 Capital Improvement Plan

Public Safety (Fire/Police)

Project Title:

Firehall #8 Improvements

Description:

Replace concrete in front of garage



Funding Source:

FY 2021

Capital Improvement Bond

50,000

Project Title:

Firehall #10 Improvements

Description:

HVAC upgrades and basement/bedroom remodel



Funding Source:

FY 2021, 2024

Capital Improvement Bond

405,000

Project Title:

Public Safety Building Improvements

Description:

Impound lot and miscellaneous maintenance



Funding Source:

FY 2020, 2023

Capital Improvement Bond

725,000

City of Duluth 2020-2024 Capital Improvement Plan

Parks and Trails Summary

Description:

Parks and trails capital projects are funded from three major sources: Parks Fund, 1/2 and 1/2 tax, and federal and state grants. The Parks Fund allocates monies each year for small parks and trails capital projects (usually less than \$100,000 each). The 1/2 and 1/2 tax was authorized in 2014 to fund a total of \$18 million in parks, trails, and outdoor recreation projects in the St. Louis River Corridor. The 1/2 and 1/2 tax and the Parks Fund are used to leverage state and federal grants that increase the magnitude of parks and trails capital improvements. Selection and design of capital projects is shaped by input and direction from the community, Parks Commission, and City Council.

Projects	2020	2021	2022	2023	2024	Total
Parks	11,548,741	1,009,430	760,000	575,000	575,000	14,468,171
Trails	5,404,911	25,000	250,000	500,000	1,319,283	7,499,194
Total	16,953,652	1,034,430	1,010,000	1,075,000	1,894,283	21,967,365
Funding	2020	2021	2022	2023	2024	Total
Federal Grant	2,736,381	-	-	-	600,000	3,336,381
State Grant	3,143,339	-	-	-	-	3,143,339
Other Grants/ Donations/						
Funding	3,637,153	-	-	-	-	3,637,153
Parks Fund	1,480,061	825,000	500,000	500,000	500,000	3,805,061
Other City Funding	374,086	-	-	-	-	374,086
1/2 and 1/2 Tax	5,582,632	209,430	510,000	575,000	794,283	7,671,345
Total	16,953,652	1,034,430	1,010,000	1,075,000	1,894,283	21,967,365

City of Duluth 2020-2024 Capital Improvement Plan

Parks Detail

						Ī
Project	2020	2021	2022	2023	2024	Total
Zoo Evhihit Doctoration	2 000 000					2 900 000
Zoo Exhibit Restoration	3,800,000	-	-	-	-	3,800,000
Spirit Landing, Trail & Water Access	2 112 222					2 112 222
Lincoln Park Restoration	3,112,323	-	-	-	-	3,112,323
Wade/Wheeler Ball Field	2,126,101	-	-	-	-	2,126,101
	1 000 530					1 000 530
Improvements Memorial Park MMP	1,098,528	-	-	-	-	1,098,528
		9E 000	E10 000			E0E 000
Implementation Lower Chester MMP	-	85,000	510,000	-	-	595,000
Implementation	26,840	375,000				401,840
Keene Park MMP Implementation	367,000	373,000	-	-	-	Ī
Piedmont Park MMP	367,000	-	-	-	-	367,000
Implementation	267,048					267,048
Norton Park MMP	207,046	-	-	-	-	207,046
Implementation		225,000				225,000
Natural Resources	- 129,900	50,000	-	-	-	179,900
Merritt Park MMP	129,900	30,000	_	-	_	179,900
Implementation	165,000	_	_	_		165,000
Brighton Beach	103,000	100,000	_	_	_	100,000
Parks Strategic Master Plan	_	60,000	_	_	_	60,000
Other Park Improvements	456,001	114,430	250,000	575,000	575,000	1,970,431
Total	11,548,741	1,009,430	760,000	575,000	575,000	14,468,171
Total	11,540,741	1,005,430	700,000	373,000	373,000	14,400,171
Funding	2020	2021	2022	2023	2024	Total
Federal Grant	944,226	-	-	-	-	944,226
State Grant	1,466,141	-	-	-	-	1,466,141
Other Grants/ Donations/ Funding	3,637,153	-	-	-	-	3,637,153
Parks Fund	1,037,061	800,000	250,000	250,000	250,000	2,587,061
Other City Funding	126,794	-	-	-	-	126,794
1/2 and 1/2 Tax	4,337,366	209,430	510,000	325,000	325,000	5,706,796
Total	11,548,741	1,009,430	760,000	575,000	575,000	14,468,171

City of Duluth 2020-2024 Capital Improvement Plan

Parks Projects

Project Title:

Zoo Exhibit Restoration

Description:

This project will design, construct, and equip a new large brown bear exhibit and adjacent large cat exhibit in the space of the former Polar Shores exhibit.

Funding Source:

	FY 2020
1/2 & 1/2	1,900,000
State Bond	1,900,000
Total	3,800,000



Project Title:

Spirit Landing, Trail & Water Access

Description:

This project will include a new road and adjoining paved trail from Grand Avenue to a new accessible canoe/kayak access and trailhead on the riverfront.

	FY 2020
1/2 & 1/2	679,245
Other City Funding	110,500
State Grant	797,000
Other Grants/Donations	1,525,578
Total	3,112,323



City of Duluth 2020-2024 Capital Improvement Plan

Parks Projects

Project Title:

Lincoln Park Restoration

Description:

This project is the implementation of the Lincoln Park Mini-Master Plan Phase I.

Funding Source:

	FY 2020
Parks Fund	37,500
1/2 & 1/2	810,000
Federal Grant	792,501
State Grant	299,525
Other Grants/Donations	186,575
Total	2,126,101



Project Title:

Wade/Wheeler Ball Field Improvements

Description:

This project includes upgrades to existing amenities, including: family-assist restroom; bocce ball courts; playing surface upgrades; an accessible water fountain; and burying power lines. New facilities include: accessibility improvements; dugouts per competition standards, and basketball/tennis/pickleball courts.

	FY 2020
Parks Fund	200,000
1/2 & 1/2	607,234
Other City Funds	16,294
State Grant	250,000
Other Grants/Donations	25,000
Total	1,098,528



City of Duluth 2020-2024 Capital Improvement Plan

Parks Projects

Project Title:

Neighborhood Parks

Description:

This project is the implementation of the Mini-Masterplan: Keene Park, Merritt Park, & Piedmont Park (2020); Norton Park & Lower Chester Park (2021).

Funding Source:

	FY 2020-2021
Parks Fund	836,840
1/2 & 1/2	317,707
Federal Grant	151,725
State Grant	119,616
Total	1,425,888





Project Title:

Natural Resources

Description:

This project includes a Natural Resources Plan/implementation, invasive removal and land acquisition for natural areas.

Funding Source:

Parks Fund FY 2020-2021 179,900



City of Duluth 2020-2024 Capital Improvement Plan

Parks Projects

Project Title:

Other Park Improvements

Description:

This project includes signage, bridges, large maintenance projects, future project design and projects with funding under \$100,000.

Funding Source:

	FY 2020-2024
Parks Fund	1,172,821
1/2 & 1/2	797,610
Total	1,970,431



Project Title:

Memorial Park Mini-Masterplan Implementation

Description:

This project is the Memorial Park Mini-Masterplan design and implementation.



Funding Source:

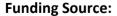
	FY 2021-2022
1/2 & 1/2	595,000

Project Title:

Brighton Beach Mini-Masterplan Implementation

Description:

This project is the Brighton Beach Mini-Masterplan Implementation-Green Space.







City of Duluth 2020-2024 Capital Improvement Plan

Parks Projects

Project Title:

Parks Strategic Master Plan

Description:

This project will create an updated master plan for the Parks and Recreation Department.



Funding Source:

FY 2021

Parks Fund 60,000

City of Duluth 2020-2024 Capital Improvement Plan

Trails Detail

Project	2020	2021	2022	2023	2024	Total
-						
Cross City Trail-River Route &						
Wayfinding	1,815,369	-	-	-	-	1,815,369
DWP Trail	1,019,558	-	-	-	-	1,019,558
Cross City Trail-Irving Park to						
Greene Street	-	-	-	-	819,283	819,283
Brighton Beach Lakewalk						
Extension	639,292	-	-	-	-	639,292
DWP - Sargent Creek Bridge	601,911	-	-	-	-	601,911
Snowmobile Trail	565,625	-	-	-	-	565,625
Grand Avenue Nordic Center	200,000	-	-	-	-	200,000
Western Waterfront Trail	178,156	-	-	-	-	178,156
All Weather Mountain Bike Trail-						
Phase II	125,000	-	-	-	-	125,000
Lakewalk Mini-Master Plan	75,000	-	-	-	-	75,000
St. Louis River Heritage Trail	100,000	-	-	-	-	100,000
Other Trail Improvements	85,000	25,000	250,000	500,000	500,000	1,360,000
Total	5,404,911	25,000	250,000	500,000	1,319,283	7,499,194

Funding	2020	2021	2022	2023	2024	Total
Federal Grant	1,792,155	-	-	-	600,000	2,392,155
State Grant	1,677,198	-	-	-	-	1,677,198
Other Grants/Donations/Funding	-	-	-	-	-	-
Parks Fund	443,000	25,000	250,000	250,000	250,000	1,218,000
Other City Funding	247,292	-	-	-	-	247,292
1/2 and 1/2 Tax	1,245,266	-	-	250,000	469,283	1,964,549
Total	5,404,911	25,000	250,000	500,000	1,319,283	7,499,194

City of Duluth 2020-2024 Capital Improvement Plan

Trails Projects

Project Title:

Paved Trails: Cross City Trail-River Route and Wayfinding

Description:

These two projects will complete one phase of the Cross City Trail system, from Carlton Street to Irving Park, and will add wayfinding signage along the trail.

Funding Source:

	FY 2020
1/2 & 1/2	464,917
Federal Grants	1,062,452
State Grant	288,000
Total	1 815 369



Project Title:

Crushed Stone Trails: DWP Trail Legacy Project

Description:

This project will complete the conversion of 5.5 miles of the former Duluth Winnipeg and Pacific (DWP) Railroad bed from Spirit Mountain to the intersection of West Skyline Parkway and Becks Road to a multi-use accessible trail.

	FY 2020
Parks Fund	51,000
1/2 & 1/2	79,360
State Grant	889,198
Total	1,019,558



City of Duluth 2020-2024 Capital Improvement Plan

Trails Projects

Project Title:

Brighton Beach Lakewalk Extension

Description:

This project will construct the final segment of the Lakewalk, which will connect the bike lanes on North Shore Scenic Byway to the existing Lakewalk and Cross City Trail, creating a continuous commuter trail the length of Duluth.



Funding Source:

	FY 2020
Parks Fund	92,000
Other City Funding	247,292
Federal Grant	300,000
Total	639,292

Project Title:

Crushed Stone Trails: DWP Trail-Sargent Creek Bridge

Description:

This project will be the Sargent Creek Bridge restoration. This is the second and final major bridge restoration necessary to realize the DWP Multiuse Trail span from Spirit Mountain to Becks Road.

	FY 2020
1/2 & 1/2	351,911
State Grant	250,000
Total	601,911



City of Duluth 2020-2024 Capital Improvement Plan

Trails Projects

Project Title:

Natural Surface Trails: Snowmobile Trail

Description:

This project will return the western section of the Duluth Cross Town snowmobile trail, to its original, scenic route, on lands permanently protected from development. The project will also replace the shared use bridges at Kingsbury Creek and Knowlton Creek.

Funding Source:

	FY 2020
1/2 & 1/2	175,000
Federal Grant	140,625
State Grant	250,000
Total	565.625



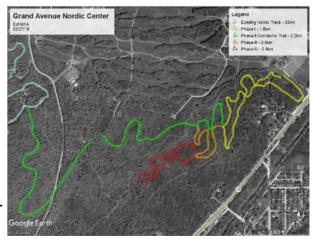
Project Title:

Grand Avenue Nordic Center - Phase II

Description:

This project is Phase II, the Connector, and will provide a two-way trail that connects the Phase I loop to 20 km (12.4 miles) of Spirit Mountain Nordic Center trails, as well as 14 km (8.7 miles) of Magney-Snively Nordic trails, at the top of Spirit Mountain.

	FY 2020
1/2 & 1/2	50,000
Federal Grant	150,000
Total	200.000



City of Duluth 2020-2024 Capital Improvement Plan

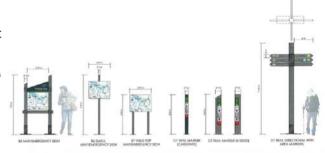
Trails Projects

Project Title:

Crushed Stone Trails: *Western Waterfront Trail Wayfinding

Description:

This project will improve public access to the St. Louis River estuary through upgraded wayfinding signage and amenities on the Western Waterfront Trail. * Trail proposed to be renamed Waabizheskikana-The Marten Trail: A River Heritage Trail , pending City Council approval.



Funding Source:

	FY 2020
1/2 & 1/2	89,078
Federal Grant	89,078
Total	178,156

Project Title:

Natural Surface Trails: All Weather Trail-Phase II

Description:

This project is a partnership between the City of Duluth and Spirit Mountain for the creation of an All-Weather Mountain Bike Trail.

_	FY 2020
Parks Fund	90,000
1/2 & 1/2	35,000
Spirit Mountain (\$90,000 in-kind)	
Total	125,000



City of Duluth 2020-2024 Capital Improvement Plan

Trails Projects

Project Title:

St. Louis River Heritage Trail Interpretive Plan

Description:

This project will create a stakeholder-driven Heritage Trail Plan that defines the specific details and significant common themes of interpretation along the Western Waterfront Trail (Waabizheskikana-The Marten Trail: A River Heritage Trail) on the St. Louis River.

Funding Source:

	FY 2020
Parks Fund	50,000
Federal Grant	50,000
Total	100,000



Project Title:

Lakewalk Mini-Master Plan

Description:

This project is an assessment of current and future Lakewalk assets.

Funding Source:

Parks Fund FY 2020
75,000



City of Duluth 2020-2024 Capital Improvement Plan

Trails Projects

Project Title:

Other Trail Improvements

Description:

This project will provide other trail improvements.

Funding Source:

	FY 2020-2024
Parks Fund	860,000
1/2 & 1/2	500,000
Total	1,360,000



Project Title:

Paved Trails: Cross City Trail-Irving Park to Greene Street

Description:

This project will complete one phase of the Cross City Trail system, from Irving Park to Greene Street.

	FY 2024
1/2 & 1/2	219,283
Federal Grant	600,000
Total	819,283



City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects Summary

Description:

These projects include street reconstruction, street preservation and bridge maintenance. Funding sources include Municipal State Aid (MSA), federal funds, grants, street system maintenance levy, local sales tax, St. Louis County, and developer contributions. Utility improvements that may occur in conjunction with these projects are included in the Utilities Capital Improvement Plan.

Operating Cost Implications of 2020 Approved Projects:

The three year Downtown Superior Street reconstruction project will end in 2020. Beginning in 2020, the Street Improvement Program will begin receiving dedicated funding through a local .5% sales tax. The Street Improvement Program (SIP) encompasses the entire City's street inventory and street improvements are annually reviewed and prioritized on a variety of factors, in accordance with the SIP plan.

Project	2020	2021	2022	2023	2024	Total
Downtown Superior Street	6,528,500	-	-	-	-	6,528,500
Aerial Lift Bridge Paint &						
Structural Repairs	12,000,000	-	-	-	-	12,000,000
East Superior St						
reconditioning- Lerster River						
Rd to TH61	1,356,250	-	-	-	-	1,356,250
Woodland Ave & Kent Rd-						
Signal Replacement	500,000	-	-	-	-	500,000
Rice Lake Rd /Arlington						
/Arrowhead intersection						400.000
improvements	480,000	-	-	-	-	480,000
Lake (2020) & 5th Ave West						
(2024) Bridges -ADA	240 240				104 210	E42.420
imrpovements	319,219	-	-	-	194,219	513,438
East 3rd Street				1 650 000		1 650 000
reconditioning	-	-	-	1,650,000	-	1,650,000
Engineering for following	150,000		150,000	150,000	150,000	600,000
year's Federal Projects Federal Projects TBD	150,000	-	150,000	150,000	150,000 1,600,000	1,600,000
rederal Frojects TDD	-	-	-	-	1,000,000	1,000,000

City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects Summary

Railroad Street (Lake Ave to						
5th Ave W)	-	1,717,150	-	-	-	1,717,150
Project	2020	2021	2022	2023	2024	Total
Glenwood & Snively						
Intersection Improvements						
(County)	-	-	750,000	-	-	750,000
Arrowhead Rd Mill &						
Overlay (w/County)	-	-	925,000	-	-	925,000
Street Preservation (Various						
Locations)	8,265,500	8,856,644	10,456,000	10,900,000	10,900,000	49,378,144
Signal Replacement (City						
share of County Projects)	-	-	93,750	-	-	93,750
Misc Annual Infrastructure	200,000	260,000	260,000	260,000	260,000	1,240,000
Sidewalks (includes 27th						
Ave W)	120,000	120,000	120,000	120,000	120,000	600,000
Total	29,919,469	10,953,794	12,754,750	13,080,000	13,224,219	79,932,232
Funding	2020	2021	2022	2023	2024	Total
Federal	1,229,219	1,285,000	1,340,000	1,320,000	1,319,219	6,493,438
State	18,576,250	832,150	2,560,000	2,980,000	3,125,000	28,073,400
Street System Mtce Levy	1,509,000	1,056,644	1,056,000	1,500,000	1,500,000	6,621,644
Local Sales Tax (.5%)	7,500,000	7,500,000	7,500,000	7,000,000	7,000,000	36,500,000
Permanent Improvement	280,000	280,000	280,000	280,000	280,000	1,400,000
Special Assessments	150,000	-	-	-	-	150,000
Other (Utility Funds)	675,000		18,750			693,750
Total	29,919,469	10,953,794	12,754,750	13,080,000	13,224,219	79,932,232

City of Duluth 2020-2024 Capital Improvement Plan

Miscellaneous Annual Infrastructure

Description:

Miscellaneous annual infrastructure projects include those that are funded by the permanent improvement property tax levy, street system maintenance utility, and limited use of special assessments to the affected property owner. Permanent improvement projects are generally limited to intersections, bridges, and other items that are not eligible for other funding sources. These projects may include repair or replacement of the brick streets and sidewalks, concrete sidewalks, one way street conversions, retaining walls, and guard rail repair.

Project	2020	2021	2022	2023	2024	Total
Permanent Improvements	140,000	200,000	200,000	200,000	200,000	940,000
Patch & Sidewalks	180,000	180,000	180,000	180,000	180,000	900,000
Total	320,000	380,000	380,000	380,000	380,000	1,840,000
						•
Funding	2020	2021	2022	2023	2024	Total
PI Fund	220,000	280,000	280,000	280,000	280,000	1,340,000
Street System Mtce Levy	100,000	100,000	100,000	100,000	100,000	500,000
Total	320,000	380,000	380,000	380,000	380,000	1,840,000

City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects

Project Title:

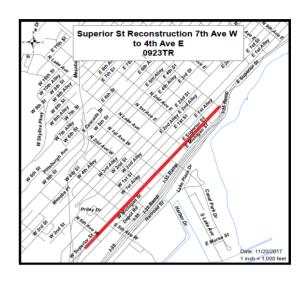
Downtown Superior Street Reconstruction www.superiorstreet.org

Description:

Downtown street reconstruction Lake Ave to 3rd Ave W

Funding Source:

	2020
Municipal State Aid	5,330,000
Utility Funds	555,000
Street System Mtce Levy	643,500
	6 528 500



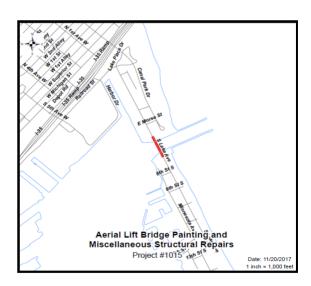
Project Title:

Aerial Lift Bridge

Description:

Painting and misc. structural Repairs

	2020
Municipal State Aid	1,000,000
State Bridge Bond	11,000,000
	12,000,000



City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects

Project Title:

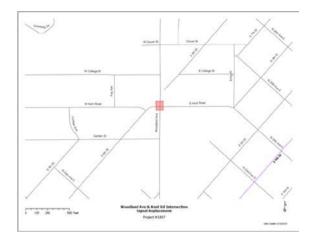
Woodland Ave & Kent Road

Description:

Signal replacement

Funding Source:

Municipal State Aid 2020
500,000



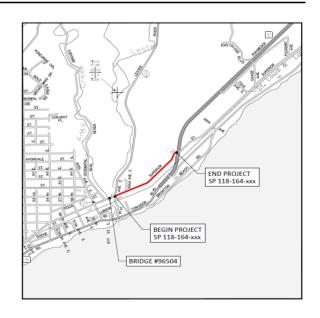
Project Title:

East Superior Street Reconditioning

Description:

Street reconditioning from Lester River Road to TH 61

	2020
Federal	1,110,000
Municipal State Aid	246,250
	1 356 250



City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects

Project Title:

Rice Lake Rd/Arlington Ave/Arrowhead Rd

Description:

Intersection improvements (including sidewalk) City share of County project.

Funding Source:

	2020
Municipal State Aid	150,000
Special Assessment Fund	150,000
Street Lighting Fund	120,000
Permanent Improvement Fund	60,000
	480.000



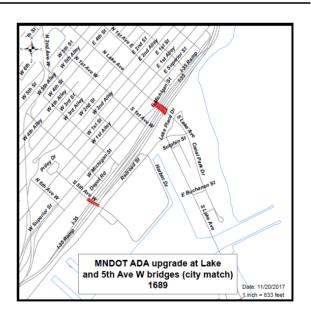
Project Title:

5th Ave W & Lake Ave Bridges

Description:

ADA upgrades and bridges rehab (MNDOT)

	2020 & 2024
Federal	238,438
Municipal State Aid	275,000
	513.438



City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects

Project Title:

Railroad Street: Lake Ave to 5th Ave W

Description:

Street improvements

Funding Source:

	2021
Federal	1,285,000
Municipal State Aid	432,150
	1 717 150



Project Title:

Snively Rd & Woodland Ave

Description:

Signal replacement (County Project) City share for Hardy St leg.

	2022
Federal	75,000
Street Lighting Fund	18,750
	93.750



City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects

Project Title:

Glenwood Ave & Snively Rd

Description:

Intersection improvements (with County)

Funding Source:

	2022
Federal	600,000
Municipal State Aid	150,000
	750,000



Project Title:

Arrowhead Rd: Dodge Ave to Woodland Ave

Description:

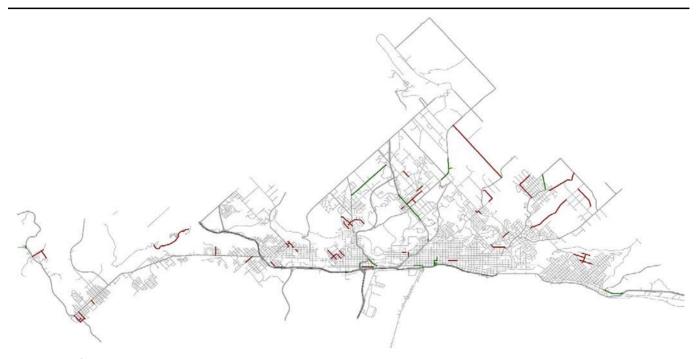
Mill & overlay and signal replacement (with County)

	2022
Federal	665,000
Municipal State Aid	260,000
	925.000



City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects



Project Title:

Street Preservation Projects*

Description:

Various Locations: Annual preservation projects are determined on critieria outlined in the City's Street Improvement Program. 2020 project goal is 18.61 miles of street improvements.

	2020-2024
Municipal State Aid	7,400,000
Local Sales Tax	36,500,000
Street System Mtce Levy	5,478,144
	49,378,144

City of Duluth 2020-2024 Capital Improvement Plan

Street Improvement & Bridge Projects

Project Title:

3rd St: Mesaba Ave to 12th Ave E

Description:

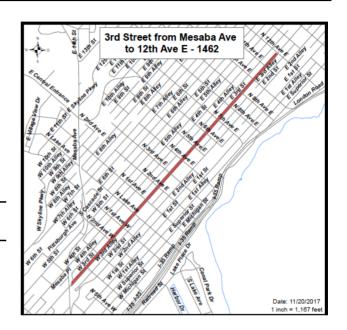
Street reconditioning

Funding Source:

 Eederal
 1,320,000

 Municipal State Aid
 330,000

 1,650,000



City of Duluth 2020-2024 Capital Improvement Plan

Capital Utility Projects Summary

Description:

Utility projects within the five year capital improvement plan primarily focus on the continued rehabilitation and replacement of aging infrastructure, as well as the continued extension of the city's natural gas system.

Operating Cost Implications of 2020 Approved Projects:

The Water Fund projects are for replacement and rehabilitation of the water system to increase system reliability and will have no operating expense impact. The Gas Fund projects will have very little operating expense impact with the exception of the gas main extensions, which will have minimal maintenance and corrosion protection costs offset by new customer account revenue. Sanitary Sewer projects for rehabilitation and relining will provide future savings to sanitary sewer treatment costs through a reduction of inflow and infiltration flows. Stormwater projects will result in indirect savings through cost avoidance of surface water damage. Street Lighting's signal system replacements provides cost avoidance of maintenance on temporary fixtures.

Project	2020	2021	2022	2023	2024	Total
Water	5,497,200	3,185,000	3,530,000	5,220,000	4,000,000	21,432,200
Gas	3,846,500	2,865,000	2,710,000	2,850,000	2,850,000	15,121,500
Sewer	6,430,000	2,525,000	2,450,000	2,450,000	2,450,000	16,305,000
Stormwater	1,101,400	875,000	650,000	1,175,000	900,000	4,701,400
Street Lighting	455,500	800,000	700,000	700,000	700,000	3,355,500
Total	17,330,600	10,250,000	10,040,000	12,395,000	10,900,000	60,915,600
Funding	2020	2021	2022	2023	2024	Total
Water Improvement						
Bonds/Loans	1,000,000	-	-	-	-	1,000,000
Water - Current Revenue	4,497,200	3,185,000	3,530,000	5,220,000	4,000,000	20,432,200
Gas - Current Revenue	3,846,500	2,865,000	2,710,000	2,850,000	2,850,000	15,121,500
Sewer - Current Revenue	6,430,000	2,525,000	2,450,000	2,450,000	2,450,000	16,305,000
Stormwater - Current Revenue	1,101,400	875,000	650,000	1,175,000	900,000	4,701,400
Street Lighting - Current						
Revenue	455,500	800,000	700,000	700,000	700,000	3,355,500
Total	17,330,600	10,250,000	10,040,000	12,395,000	10,900,000	60,915,600

City of Duluth 2020-2024 Capital Improvement Plan

Water Capital Projects

Description:

The proposed water projects over the next five years include updating aging infrastructure by replacing those distribution mains with a high number of recurring leaks. Rehabilitation of primary transmission lines and pump station upgrades will increase system reliability to meet water demand. Significant improvements are required at the Lakewood Water Treatment Plant (WTP). Built in 1975, this aging facility requires renovation of electrical systems as well as structural repairs to both the treatment plant and pump building. Bonding of \$4.05 Million in 2018 continues to fund the 2020 Downtown Superior Street reconstruction of water mains.

Project	2020	2021	2022	2023	2024	Total
						_
2nd Street 20-inch main 6th to						
12th Ave. East	1,000,000	-	-	-	-	1,000,000
24th Ave. West, 3rd to 7th						
Street	-	-	450,000	-	-	450,000
4th Street water main, 6th Ave						
East to Mesaba (design)	-	-	-	-	200,000	200,000
40th Avenue West (County)	-	-	-	-	600,000	600,000
Arrowhead and Rice Lake						
(County)	200,000	-	-	-	-	200,000
Cathodic Protection System on						
42-inch steel	80,000	80,000	80,000	-	-	240,000
Decker Road	1,117,000	-	-	-	-	1,117,000
Duluth Heights #1 and #2	-	-	907,500	-	-	907,500
Duluth Heights #3	-	-	-	-	1,000,000	1,000,000
Electrical upgrades at WTP	-	-	-	-	1,500,000	1,500,000
Far East Superior Street water						
main off 42-inch	-	-	-	600,000	700,000	1,300,000
Fascia repairs at main WTP						
pump building	-	-	-	100,000	-	100,000
Hidden Valley phase 2 water						
main replacement	-	1,400,000	-	-	-	1,400,000
Middle Pump Station	2,400,000	-	-	-	-	2,400,000
MNDOT Gogebic Creek	-	-	-	200,000	-	200,000
MNDOT US Steel Creek	-	-	-	120,000	-	120,000
Morris Thomas Rd. water main						
(County)	-	1,100,000	-	-	-	1,100,000

City of Duluth 2020-2024 Capital Improvement Plan

Water Capital Projects

Project	2020	2021	2022	2023	2024	Total
PW&U Garfield Facility gravel						
cover	6,200	75,000	-	-	-	81,200
PW&U Garfield Facility roof	125,000	-	-	-	-	125,000
Raleigh St, 59th to Grand	-	530,000	-	-	-	530,000
Upper Lakeside phase 1,						
connection on Glenwood	-	-	900,000	-	-	900,000
Upper Lakeside phase 2,						
connection at golf course	-	-	787,500	-	-	787,500
Upper Lakeside phase 3						
upgrades	-	-	-	1,600,000	-	1,600,000
Woodland Ave. and East Calvary						
water main (County)	569,000	-	-	-	-	569,000
Woodland Pump Station						
construction	-	-	-	2,600,000	-	2,600,000
Woodland Pump Station design	-	-	200,000	-	-	200,000
Woodland Pump Station study	-	-	5,000	-	-	5,000
WTP pump station service						
entrance	-	-	200,000	-	-	200,000
Total	5,497,200	3,185,000	3,530,000	5,220,000	4,000,000	21,432,200
					•	•
Funding	2020	2021	2022	2023	2024	Total
Water Improvement Bonds	1,000,000	-	-	-	-	1,000,000
Water - Current Revenue	4,497,200	3,185,000	3,530,000	5,220,000	4,000,000	20,432,200
Total	5,497,200	3,185,000	3,530,000	5,220,000	4,000,000	21,432,200

City of Duluth 2020-2024 Capital Improvement Plan

Natural Gas Capital Projects

Description:

The proposed gas projects over the next five years include the continued extension of the system into unserved areas and the relocation of gas meters due to code requirements. Other significant costs include projects to replace existing thin wall plastic mains and older steel mains where leaks occur.

Project	2020	2021	2022	2023	2024	Total
3rd Street, Vernon, 2nd Street						
Alley	-	-	200,000	-	-	200,000
20th Ave. West, 23rd Avenue						
West, 10th Street	-	-	-	500,000	500,000	1,000,000
Building shell at Stora Enso	-	-	140,000	-	-	140,000
Decker Road 6-inch	538,500	-	-	-	-	538,500
Gas Blanket Project	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Meter relocations/bollards	100,000	250,000	250,000	250,000	250,000	1,100,000
Michigan Street 10-inch	-	-	120,000	-	-	120,000
Michigan Street 16-inch	526,800	-	-	-	-	526,800
MNDOT Central entrance, 8 inch						
replacement	-	-	-	-	100,000	100,000
MNDOT Gogebic culverts	-	-	-	100,000		100,000
Morris Thomas Rd. 16-inch main						
inspection	100,000	-	-	-	-	100,000
Morris Thomas Rd. 16-inch main						
replacement	-	940,000	-	-	-	940,000
PW&U Garfield Facility gravel						
cover	6,200	75,000	-	-	-	81,200
PW&U Garfield Facility roof	225,000	-	-	-	-	225,000
Steel main replacements	100,000	100,000	500,000	500,000	500,000	1,700,000
Stora Enso flow meter	250,000	-	-	-	-	250,000
Woodland Ave. 6-inch steel pipe						
replacement	500,000	-	-	-	-	500,000
Total	3,846,500	2,865,000	2,710,000	2,850,000	2,850,000	15,121,500
Funding	2020	2021	2022	2023	2024	Total
Gas - Current Revenue	3,846,500	2,865,000	2,710,000	2,850,000	2,850,000	15,121,500
Total	3,846,500	2,865,000	2,710,000	2,850,000	2,850,000	15,121,500

City of Duluth 2020-2024 Capital Improvement Plan

Sanitary Sewer Capital Projects

Description:

The proposed sanitary sewer projects over the next five years focus on the continued lining or rehabilitation of leaking pipes and the reconstruction of sanitary sewer lift stations located throughout the city. Of the total cost to relocate Lift Station 15, \$4.0 million is reimbursable by the Minnesota Department of Transportation.

Project	2020	2021	2022	2023	2024	Total
Arrowhead and Rice Lake						
(County)	150,000	-	-	-	-	150,000
Citywide sanitary sewer						
rehabilitation/lining	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000	9,500,000
Decker Road	223,800	-	-	-	-	223,800
Lift Station 15 Twin Ports						
Interchange	4,400,000	-	-	-	-	4,400,000
Lift Station rehabilitation	-	450,000	450,000	450,000	450,000	1,800,000
PW&U Garfield Facility gravel						
cover	6,200	75,000	-	-	-	81,200
PW&U Garfield Facility roof	100,000	-	-	-	-	100,000
Superior Street laterals	50,000	-	-	-	-	50,000
Total	6,430,000	2,525,000	2,450,000	2,450,000	2,450,000	16,305,000
					·	•
Funding	2020	2021	2022	2023	2024	Total
Sewer - Current Revenue	6,430,000	2,525,000	2,450,000	2,450,000	2,450,000	16,305,000
Total	6,430,000	2,525,000	2,450,000	2,450,000	2,450,000	16,305,000

City of Duluth 2020-2024 Capital Improvement Plan

Stormwater Capital Projects

Description:

The proposed stormwater projects over the next five years include continued replacement of failing storm sewer lines and large culverts. Reconstruction of Brewery, Chester, Clarkhouse, Gogebic, Greys and Lower Coffee Creeks is planned to repair deteriorated public infrastructure. Significant costs will occur in the repair and replacement of storm sewer in steep slope areas that discharge into streams located throughout the city. Downtown Superior Street reconstruction continues during 2020.

Project	2020	2021	2022	2023	2024	Total
Annual Transportation SIP						
projects	100,000	100,000	100,000	100,000	100,000	500,000
Block-long culvert & ditch						
system improvements	-	-	-	250,000	250,000	500,000
Brewery Creek tuck pointing	-	190,000	-	-	-	190,000
Citywide pipe repairs & steep						
slope "down drains"	-	110,000	310,000	250,000	250,000	920,000
Clarkhouse Creek	50,000	100,000	-	-	-	150,000
Decker Road	320,200	-	-	-	-	320,200
Gogebic Creek CIPP and storm						
improvements	-	-	-	275,000	-	275,000
Greys Creek	50,000	100,000	-	-	-	150,000
Kenwood Avenue box culvert						
fish passage - Chester Creek	-	-	40,000	300,000	300,000	640,000
Lower Coffee Creek	50,000	100,000	100,000	-	-	250,000
Morris Thomas Road (County)	-	100,000	-	-	-	100,000
PW&U Garfield Facility gravel						
cover	6,200	75,000	-	-	-	81,200
PW&U Garfield Facility roof	50,000	-	-	-	-	50,000
Superior Street, Lakewood to						
McQuade Rd culvert exts	-	-	100,000	-	-	100,000
Superior Street reconstruction	300,000	-	-	-	-	300,000
Woodland/Calvary						
reconstruction (County)	175,000	-	-	-	-	175,000
Total	1,101,400	875,000	650,000	1,175,000	900,000	4,701,400
Funding	2020	2021	2022	2023	2024	Total
Stormwater - Current Revenue	1,101,400	875,000	650,000	1,175,000	900,000	4,701,400
Total	1,101,400	875,000	650,000	1,175,000	900,000	4,701,400

City of Duluth 2020-2024 Capital Improvement Plan

Street Lighting Capital Projects

Description:

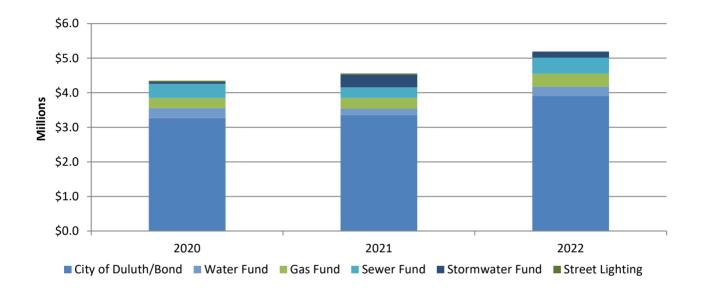
The proposed street lighting capital plan over the next five years will utilize most resources on the replacement of traffic signal systems located throughout the city. Signal and lighting replacements for the Downtown Superior Street project continues in 2020.

Project	2020	2021	2022	2023	2024	Total
Superior Street reconstruction	225,000	-	-	-	-	225,000
Traffic signal & street lighting						
communications upgrades	-	100,000	-	-	-	100,000
Traffic signal upgrades	-	700,000	700,000	700,000	700,000	2,800,000
Technology Drive signal system	120,000	-	-	-	-	120,000
Warwick signal system	110,500	-	-	-	-	110,500
Total	455,500	800,000	700,000	700,000	700,000	3,355,500
Funding	2020	2021	2022	2023	2024	Total
Street Lighting - Current						
Revenue	455,500	800,000	700,000	700,000	700,000	3,355,500
Total	455,500	800,000	700,000	700,000	700,000	3,355,500

Capital Equipment Plan

Three Year Equipment Plan:

The objective of the City's three-year capital equipment plan is to identify equipment needs, determine financial impacts, prioritize requests, and develop a comprehensive financial plan. The City has developed a viable multi-year capital equipment plan which is achievable within expected available resources. \$14.09 million in equipment purchases are proposed in this plan for the period of 2020 through 2022. Of that total, \$10.52 million of equipment will be financed using bond proceeds and the balance of \$3.57 million will be paid for using utility revenues. Shown in the chart below are the various funding sources by year for the plan.



_	2020	2021	2022	Total
City of Duluth/Bond	3,269,445	3,354,350	3,900,000	10,523,795
Water Fund	286,500	181,550	271,500	739,550
Gas Fund	294,700	318,450	382,650	995,800
Sewer Fund	405,500	297,725	460,000	1,163,225
Stormwater Fund	58,800	374,275	175,350	608,425
Street Lighting	34,000	31,000	-	65,000
Total Plan	4,348,945	4,557,350	5,189,500	14,095,795

Capital Equipment Plan

2020 Proposed Equipment:

The City's proposed 2020 capital equipment plan includes \$4.35 million for capital equipment purchases, of which \$3.27 million will be financed using bond proceeds and the remaining \$1.08 million will be paid for using utility revenues.

For 2020, the City is proposing bonding for rolling stock purchases in the amount of \$1.58 million comprised of Park Maintenance vehicles totaling \$191,000; Fire vehicles totaling \$45,000; Police vehicles totaling \$615,000; Parks vehicles totaling \$30,000; Street Maintenance vehicles totaling \$530,000; Facilities equipment totaling \$150,000; and Transportation Engineering vehicles totaling \$17,000. For 2020 the City is also proposing bonding for non-rolling stock equipment in the amount of \$1.69 million for technology improvements and replacements, police and fire equipment, voting equipment for clerk's office, and engineering equipment.

The breakdown of equipment purchases for the utility funds in 2020 includes \$90,000 for non-rolling stock equipment and \$990,000 for rolling stock vehicles for a total of \$1.08 million in 2020; to be paid for using utility revenues.

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

	2020	2021	2022	Total
Fire Department				
Unspecified vehicle for Life Safety	_	-	40,000	40,000
Vehicle Replacements	45,000	165,000	82,500	292,500
Subtotal Fire Department	45,000	165,000	122,500	332,500
Construction Services				
Construction Services Vehicles	-	-	52,500	52,500
Subtotal Construction Services	-	-	52,500	52,500
Police Department				
Police Vehicles	615,000	620,000	525,000	1,760,000
Subtotal Police Department	615,000	620,000	525,000	1,760,000
Facilities Management				
JLG Lift	100,000	90,000	-	190,000
Scissor Lift	50,000	-	-	50,000
Service Van	-	-	40,000	40,000
Subtotal Facilities Management	150,000	90,000	40,000	280,000
Park Maintenance				
Trailers	22,000	-	-	22,000
John Deere Gator	21,000	-	-	21,000
1-Ton Dump Truck with Plow	72,000	-	-	72,000
Small Sidewalk Sweeper	40,000	-	-	40,000
Athletic Field Groomers	36,000	-	-	36,000
Wide Area Mower	-	73,000	-	73,000
Wheelbarrow, Chipper, SandPro	-	102,000	-	102,000
Sidewalk Cleaner	-	-	197,000	197,000
Stump Grinder	-	-	49,000	49,000
Subtotal Park Maintenance	191,000	175,000	246,000	612,000
Parks Department			_	
Small SUV for Transport	30,000	-	-	30,000
2 Full Size Vans	-	-	59,000	59,000
Subtotal Parks Department	30,000	-	59,000	89,000

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

	2020	2021	2022	Total
Charles Additional Control				
Street Maintenance			1	
Retro Fit Plow Trucks	190,000	-	470,000	660,000
Sweeper	265,000	-	-	265,000
1 Ton Dump Truck w/Plow	75,000	60,000	-	135,000
Plow Truck	-	235,000	-	235,000
Backhoe	-	75,000	-	75,000
3/4 Ton Pickup w/Plow	-	120,000	-	120,000
Asphalt Trailer	-	60,000	-	60,000
3/4 Ton Pickups	-	-	80,000	80,000
Subtotal Street Maintenance	530,000	550,000	550,000	1,630,000
Library				
Library Delivery Van	-	-	35,000	35,000
Subtotal Library	-	-	35,000	35,000
Transportation Engineering				
Engineering Vehicles	17,000	50,000	20,000	87,000
Subtotal Transportation Engineering	17,000	50,000	20,000	87,000
Rolling Stock Bond Total	1,578,000	1,650,000	1,650,000	4,878,000

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Fire Department - Replace Squad

Description:

This squad is used by Station 4 to respond to medical calls. The old squad will be reallocated within the department.

Funding Source: FY 2020

Capital Equipment Bond 45,000



Fun Fact: This squad had been on over 5,791 runs since its acquisition.

City Priority Strategic Alignment:

City Priority

Safe and Secure Community

Definition

Service Response: Provides for a well-planned, effective and prompt response to emergencies of all kinds, including individual calls for service, fires, public safety threats and natural disasters

Police Department - Police Vehicles

Description:

Annual police vehicle replacement is required for overall police fleet sustainability. The Duluth Police Dept. needs to ensure our police vehicles are safe, efficient and functional in order to meet the expectations of our community.

Funding Source: FY 2020

Capital Equipment Bond 615,000



Fun Fact: The DPD will travel approximately 1.5 million miles annually.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Safe and Secure Community Safety Presence: Fosters a feeling of personal safety through a

visible and approachable public safety presence, proactive

prevention, community care-taking and education

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Facilities - JLG Lift

Description:

A JLG lift replaces the traditional use of ladders and scaffolding and to more safely provide maintenance to areas above ground.

Funding Source: FY 2020

Capital Equipment Bond 100,000



City Priority Strategic Alignment:

City Priority Definition

Infrastructure Facilities: Continuously improve and invest in a well-maintained,

safe and effective public infrastructure network and accessible,

efficient, adequately regulated city facilities

Facilities - Scissor Lift

Description:

A Scissor Lift can be used to move people, maintenance supplies and equipment straight up to areas above ground level in a safer manner than using ladders or traditional scaffolding.

Funding Source: FY 2020

Capital Equipment Bond 50,000



Fun Fact: The design of a scissor lift allows for compact storage when not in use.

City Priority Strategic Alignment:

City Priority Definition

Infrastructure Facilities: Continuously improve and invest in a well-maintained, safe and effective public infrastructure network and accessible,

efficient, adequately regulated city facilities

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Park Maintenance - Trailer

Description:

These tandem axle trailers are used to haul equipment in summer and winter, including mowers and snow removal equipment.

Funding Source: FY 2020

Capital Equipment Bond 22,000



Fun Fact: The replaced trailers could only be used in summer but new ones

City Priority Strategic Alignment:

City Priority Definition

Green Space and Energy Conservation

Open Space Development: Design, develop and enhance its parks, trails, open spaces and recreation facilities, ensuring they are sustainable, convenient, safe, accessible, attractive and well-maintained

can be used year round.

Park Maintenance - John Deere Gator

Description:

A gator is a 6-wheel low-impact utility turf vehicle that is used to transport 2 employees, materials, and supplies in a small utility manually-operated dumpbox.

Funding Source: FY 2020

Capital Equipment Bond 21,000



City Priority Strategic Alignment:

City Priority Definition

Green Space and Energy Conservation

Open Space Development: Design, develop and enhance its parks, trails, open spaces and recreation facilities, ensuring they are sustainable, convenient, safe, accessible, attractive and well-maintained

Fun Fact: These units can drive through a foot of water without

stopping when working on trails.

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Park Maintenance - 1-Ton Dump Pickup with Plow

Description:

This is a heavy duty pickup truck with a 1-yard dump box instead of a pickup box.

Funding Source: FY 2020

Capital Equipment Bond 72,000



<u>City Priority</u> Livable Neighborhoods and Affordable

Housing

Definition

Transportation: Ensure ease of mobility and safe travel for motorists, bicyclists and pedestrians, including access to paths and trails, effective traffic control, access to public transportation, and adequate parking



Fun Fact: This unit is the most used vehicle in all of Park Maintenance's fleet. They are operated 5-6 days per week, all year long.

Park Maintenance - Small Sidewalk Sweeper

Description:

The street sweeper is used primarily for snow blowing and sweeping City sidewalks.

Funding Source: FY 2020

Capital Equipment Bond 40,000

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Livable Neighborhoods and Affordable Housing

Transportation: Ensure ease of mobility and safe travel for motorists, bicyclists and pedestrians, including access to paths and trails, effective traffic control, access to public transportation, and adequate parking

north in Canada.



Fun Fact: This was created, researched and developed by our neighbors to the

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Park Maintenance - Athletic Field Groomers

Description:

This is used to spread a mixture of 85% sand and 15% peat moss on athletic turf. This process augments the organic capability for the root structure of the turf to absorb more nutrients.

Funding Source: FY 2020

Capital Equipment Bond 36,000



<u>City Priority</u> <u>Definition</u>

Culture and Recreation Open Space Development: Develop, preserve, enhance and invest

in community parks, neighborhood parks, open spaces, green spaces, lakes and waterways, ensuring they are safe, clean,

attractive and accessible to all



Fun Fact: This process naturally reduces compacted soil and playing surfaces.

Transportation Engineering - Engineering Vehicle

Description:

This vehicle is used in engineering services, including inspections and construction project supervision at locations throughout the city.

Funding Source: FY 2020

Capital Equipment Bond 17,000

Fun Fact: Baling wire is holding up right rear bumper of the replaced vehicle.

City Priority

City Priority Strategic Alignment:

Livable Neighborhoods and Affordable Housing

Definition

Development/Redevelopment: Encourage and support strategically planned, well-designed and uniformly regulated mixed-use development and redevelopment, enhancing its desirability as a great place to live and work

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Street Maintenance - Retro Fit Plow Trucks

Description:

These trucks are used for snow plowing, sanding roads, hauling blacktop, gravel, sand, salt, and other materials.

Funding Source: FY 2020

Capital Equipment Bond 190,000



Fun Fact: In addition to hauling materials; our trucks will plow approximately 20,000,000 cu.ft. of snow each year!

City Priority Strategic Alignment:

City Priority Definition

Safe and Secure Community

Transportation: Designs and constructs a safe transportation
network that is well-maintained, accessible and enhances traffic

flow for all types of mobility options

Street Maintenance - Street Sweeper

Description:

Street sweepers are used to remove the dirt and debris from city streets.

Funding Source: FY 2020

Capital Equipment Bond 265,000



Fun Fact: Each year approximately 5,500 yards of salt/sand, leaves, and debris are

swept from our streets as part of our storm

City Priority Strategic Alignment:

<u>City Priority</u> <u>Elivable Neighborhoods and Affordable</u> S

Housing

Definition

Safe/Quality Neighborhood: Promote, support, and sustain well-maintained, safe, clean, visually appealing, free of blight neighborhoods, commercial areas and public spaces

water management program.

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Rolling Stock Vehicles

Street Maintenance - 1 Ton Dump Truck w/Plow

Description:

These trucks haul traffic control devices, personnel, paint, paint beads, conducting traffic control, serving as a chase truck, etc. Some are equiped with snow plows as well.

Funding Source: FY 2020

Capital Equipment Bond 75,000



City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure

Transportation: Continually invest in building and improving a well-designed, well-maintained, accessible transportation system of safe and sustainable roadways, street lights, sidewalks and bridges

Parks - Small SUV for Transport

Description:

This vehicle will be shared among the four Recreation Specialists for Citywide engagement and recreation programming and events.

Funding Source: FY 2020

Capital Equipment Bond 30,000



City Priority Strategic Alignment:

City Priority Definition

Culture and Recreation Healthy, Active Lifestyle: Offer a variety of recreational activities

that meet the interests and needs of the community and promotes

a healthy, active lifestyle

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

	2020	2021	2022	Total
IT				
ARMER Radio Replacements	200,000	400,000	300,000	900,000
Enterprise Wide PC/Laptop Replacements	225,000	250,000	250,000	725,000
Network Equipment Replacements	200,000	200,000	300,000	700,000
PC / Peripheral Adds	5,000	5,000	5,000	15,000
Document Mgt	-	100,000	100,000	200,000
TRAKiT Upgrade	500,000	125,000	-	625,000
Conference Room Technology Needs	-	-	45,000	45,000
Security Regulations	-	50,000	-	50,000
Pictometry/Lidar Imagery	-	-	45,000	45,000
Duluth Tax & Special Assessments Online Trxs	-	25,000	-	25,000
ITSC Project Planning	-	100,000	250,000	350,000
Camera System Hardware Replacements	20,000	20,000	20,000	60,000
Attorney File Management	90,000	-	-	90,000
Aerial Lift Bridge PLC	85,000	-	-	85,000
City Hall Electronic Kiosks	-	50,000	-	50,000
Community Center Projectors	-	-	5,000	5,000
Library Scan and Fax	-	25,000	-	25,000
Subtotal IT	1,325,000	1,350,000	1,320,000	3,995,000
Library				
Replacement furniture at Main Library	-	20,000	30,000	50,000
Shelving	-	-	25,000	25,000
Microfilm Reader	-	-	15,000	15,000
Subtotal Library	-	20,000	70,000	90,000
Parks				
Community Center Furniture Replacements	-	-	5,000	5,000
Subtotal Parks	-	-	5,000	5,000

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

	2020	2021	2022	Total
City Clerk				
Election Equipment	11,200	-	-	11,200
Subtotal Clerk	11,200	-	-	11,200
Fire				
Personal Protection Equipment	215,850	50,000	50,000	315,850
Water Rescue Equipment	25,000	25,000	-	50,000
EOC Upgrade	50,000	-	-	50,000
Extractors	-	15,000	-	15,000
Rope Rescue Equipment	-	20,000	-	20,000
AEDs	-	-	125,000	125,000
SCBA_	-	-	650,000	650,000
Subtotal Fire	290,850	110,000	825,000	1,225,850
Police				
Taser	-	30,000	30,000	60,000
Firearms	-	25,150	-	25,150
Digital Recorder	9,400	90,000	-	99,400
Spex Forensic Reflective UV Imaging Camera	35,000	-	-	35,000
Panoscan PointGun Scanner	19,995	-	-	19,995
Subtotal Police	64,395	145,150	30,000	239,545
Street Maintenance				
Air Compressor	-	18,000	-	18,000
Subtotal Street Maintenance	-	18,000	-	18,000
Engineering				
GPS Unit Replacement	-	61,200	-	61,200
Subtotal Engineering	-	61,200	-	61,200
Non-Rolling Stock Bond Total	1,691,445	1,704,350	2,250,000	5,645,795

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

IT - ARMER Radio Replacement

Description:

Current models being used citywide will no longer be supported in 2019 making our models obsolete upon failure. All radios will need to move to more current industry supported standard.

Funding Source: FY 2020

Capital Equipment Bond 200,000



City Priority Strategic Alignment:

City Priority Definition

Safe and Secure Community Service Response: Provides for a well-planned, effective and

prompt response to emergencies of all kinds, including individual calls for service, fires, public safety threats and natural disasters

IT - Enterprise Wide PC/Laptop Replacements

Description:

This is for the replacement of approximately 250 PCs and laptops to maintain optimum performance and reliability as well as keep up with application and security payloads. The City Council adopted a resolution to maintain a 4 year life cycle of computer equipment.

Funding Source: FY 2020

Capital Equipment Bond 225,000



City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Innovation and Excellence in Service Compliance: Provide assurance of regulatory and policy

compliance to build trust, accountability and foster transparency

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

IT - Network Equipment Replacements

Description:

This is the annual life cycle replacement of network technology infrastructure.

Funding Source: FY 2020

Capital Equipment Bond 200,000



Fun Fact: The City monitors and manages over 6,000 network connections.

City Priority Strategic Alignment:

City Priority Definition

Innovation and Excellence in Service High Performing Organization: Focuses on equipping, training and

continuously expanding the abilities of decision-makers,

leadership, management and staff to successfully accomplish

public goals

IT - PC / Peripheral Adds

Description:

This is for desktop computing environments for added staff or new work functions.

Funding Source: FY 2020

Capital Equipment Bond 5,000



City Priority Strategic Alignment:

City Priority Definition

Innovation and Excellence in Service Workforce: Attract, develop, equip, motivate, and retain a high-

quality, diverse, engaged and productive workforce focused on

creative service excellence

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

IT - TRAKIT Upgrade

Description:

This upgrade is necessary as development has ceased in the current version of TRAKIT that is in use by Construction Services, PWU Engineering, and Life Safety.

Funding Source: FY 2020

Capital Equipment Bond 500,000



Fun Fact: City of Duluth inspectors complete nearly 11,000 inspections per year.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Innovation and Excellence in Service Customer Service: Ensures timely and effective two-way

communication with internal customers, residents, and businesses providing equal access to information encouraging input from all areas of the organization and the community at large

IT - Camera System Hardware Replacements

Description:

The cameras are used for public safety, port security, and building security. They are aging and require ongoing funding for replacement and maintenance to remain functional.

Funding Source: FY 2020

Capital Equipment Bond 20,000

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Safe and Secure Community

Safety Presence: Fosters a feeling of personal safety through a visible and approachable public safety presence, proactive prevention, community care-taking and education



Fun Fact: The average US citizen appears on a

security camera over 300 times a day and approximately 25 million surveillance cameras

are operating around the world.

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

IT - Attorney File Management

Description:

This is for the criminal division's electronic filing system (TCP). It is unsupported and needs updating.



Capital Equipment Bond 90,000

City Priority Strategic Alignment:

City Priority Definition

Innovation and Excellence in Service High Performing Organization: Focuses on equipping, training and

continuously expanding the abilities of decision-makers, leadership, management and staff to successfully accomplish

resolved quickly.

public goals



criminal) cases open. There have been 1,820 criminal cases opened excluding any that have

IT - Aerial Lift Bridge PLC

Description:

This is an upgrade to digital operation of current electromechanical systems to operate the Aerial Lift Bridge.

Funding Source: FY 2020

Capital Equipment Bond 85,000

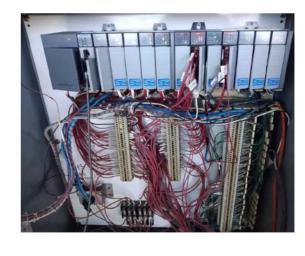
City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Safe and Secure Community

Transportation: Designs and constructs a safe transportation
network that is well-maintained, accessible and enhances traffic

flow for all types of mobility options



City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

Clerks - Election Equipment

Description:

This is for the two additional machines to process ballots at secondary early voting location in 2020.

Funding Source: FY 2020

Capital Equipment Bond 11,200



City Priority Strategic Alignment:

City Priority Definition

Culture and Recreation Community Outreach: Value diversity and fostering inclusivity so

that everyone is enriched and is part of the community

Fire - Personal Protection Equipment

Description:

This equipment will be replaced in compliance with industry standards for cancer reduction and prevention.

Funding Source: FY 2020

Capital Equipment Bond 215,850



Fun Fact: The jacket weighs up to 15 lbs and the pants weigh up to 30 lbs. That's why firefighters always wear suspenders. The knees have special material for all the crawling they do.

City Priority Strategic Alignment:

City Priority Definition

Safe and Secure Community Service Response: Provides for a well-planned, effective and

prompt response to emergencies of all kinds, including individual calls for service, fires, public safety threats and natural disasters

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

Fire - Water rescue equipment

Description:

This equipment will replace out of service rescue suits and upgrade to beach and swift water suits and equipment.

Funding Source: FY 2020

Capital Equipment Bond 25,000



City Priority Strategic Alignment:

City Priority Definition

Safe and Secure Community

Service Response: Provides for a well-planned, effective and prompt response to emergencies of all kinds, including individual calls for service, fires, public safety threats and natural disasters

Fire - EOC Upgrade

Description:

This equipment will replace multiple monitors, a projector, re-wiring, and other cost associated with reconfiguration. There will be seamless integration with multiple types of devices.

Funding Source: FY 2020

Capital Equipment Bond 50,000



City Priority Strategic Alignment:

City Priority Definition

Innovation and Excellence in Service High Performing Organization: Focuses on equipping, training and

continuously expanding the abilities of decision-makers, leadership, management and staff to successfully accomplish

public goals

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

Police - Digital Recorder

Description:

These units will be used to digitally dictate reports.

Funding Source: FY 2020

Capital Equipment Bond 9,400



Fun Fact: The Police
Department processes over
12,000 Case Narrative
Transcriptions per year. It is
estimated that a 1/3 of these
transcriptions are over 20
minutes in length.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Innovation and Excellence in Service High Performing Organization: Focuses on equipping, training and

continuously expanding the abilities of decision-makers, leadership, management and staff to successfully accomplish

public goals

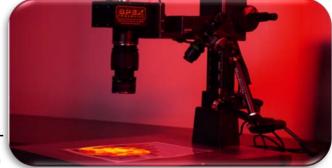
Police - Spex Forensic Reflective UV Imaging Camera

Description:

These cameras will allow CSIU investigators to examine items for evidence prior to applying any treament to them, thus preserving the evidence from unnecessary damage or contamination of DNA evidence.

Funding Source: FY 2020

Capital Equipment Bond 35,000



City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Safe and Secure Community

Service Response: Provides for a well-planned, effective and prompt response to emergencies of all kinds, including individual calls for service, fires, public safety threats and natural disasters

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

Police - Panoscan PointGun Scanner

Description:

This equipment will allow CSIU investigators to conduct a 3D scan of smaller, typically indoor crime scenes to accurately document the scene with a 3D scale diagram in minutes.

Funding Source: FY 2020

Capital Equipment Bond 19,995



City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Safe and Secure Community Service Response: Provides for a well-planned, effective and prompt response to emergencies of all kinds, including individual

calls for service, fires, public safety threats and natural disasters

City of Duluth 2020 - 2022 Capital Equipment Program

Utility Funds Capital Equipment Summary

	2020	2021	2022	Total
Water Fund				
Cars/Pick-ups	15,200	41,750	27,450	84,400
Trucks/Vans	164,350	36,000	70,600	270,950
Dump Trucks	54,250	31,000	-	85,250
Excavator/Vactor	-	52,500	131,250	183,750
Other Rolling Stock	12,800	5,300	19,200	37,300
Non-Rolling Capital Equipment	39,900	15,000	23,000	77,900
Subtotal Water Fund	286,500	181,550	271,500	739,550
Gas Fund				
Cars/Pick-ups	15,200	37,550	79,100	131,850
Trucks/Vans	213,850	100,800	172,000	486,650
Dump Trucks	38,750	124,000	-	162,750
Excavator/Vactor	-	37,500	93,750	131,250
Other Rolling Stock	19,000	8,600	19,800	47,400
Non-Rolling Capital Equipment	7,900	10,000	18,000	35,900
Subtotal Gas Fund	294,700	318,450	382,650	995,800
Sewer Fund				
Cars/Pick-ups	41,600	6,100	12,850	60,550
Trucks/Vans	14,250	7,200	248,400	269,850
Dump Trucks	193,750	-	-	193,750
Excavator/Vactor	-	227,500	93,750	321,250
Other Rolling Stock	133,000	51,925	92,000	276,925
Non-Rolling Capital Equipment	22,900	5,000	13,000	40,900
Subtotal Sewer Fund	405,500	297,725	460,000	1,163,225
Stormwater Fund				
Cars/Pick-ups	-	6,100	6,100	12,200
Trucks/Vans	8,550	130,000	100,000	238,550
Dump Trucks	23,250	-	-	23,250
Excavator/Vactor	-	212,500	56,250	268,750
Other Rolling Stock	4,200	20,675	-	24,875
Non-Rolling Capital Equipment	22,800	5,000	13,000	40,800
Subtotal Stormwater Fund	58,800	374,275	175,350	608,425

City of Duluth 2020 - 2022 Capital Equipment Program

Utility Funds Capital Equipment Summary

	2020	2021	2022	Total
Pick-ups	34,000	31,000	-	65,000
	34,000	31,000	-	65,000
	1,079,500	1,203,000	1,289,500	3,572,000
	Pick-ups	Pick-ups 34,000 34,000	Pick-ups 34,000 31,000 31,000	Pick-ups 34,000 31,000 - 34,000 -

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

Public Works and Utilities - Street Lighting:

3/4 Ton Pick-Up with Lift Gate and Racks

Description:

This replacement will be used for transporting decorative light poles, electrical wire and other heavy repair and maintenance materials.

Funding Source: FY 2020

Street Lighting Fund Revenue 34,000



Fun Fact: Street Lighting maintains over 2,200 decorative and 1,052 cobra head street lights.

City Priority Strategic Alignment:

City Priority Definition

Infrastructure Transportation: Continually invest in building and improving a welldesigned, well-maintained, accessible transportation system of

safe and sustainable roadways, street lights, sidewalks and bridges

Public Works and Utilities - Customer Service:

Step Van

Description:

This replacement will be used for the installation and repair of water and gas meters and service lines.

Funding Source:		FY 2020
Water Fund Revenue		14,000
Gas Fund Revenue		56,000
	Total	70,000

City Priority Strategic Alignment:

City Priority Definition

Infrastructure



Fun Fact: Over 28,000 active meters in each the Gas Utility and Water Utility require routine maintenance, repair and replacement.

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

Public Works and Utilities - Customer Service:

1 Ton Vans (2)

Description:

These replacements will be used for the installation of water and gas services and meters as well as provide natural gas appliance repairs.

Funding Source:		FY 2020
Water Fund Revenue	_	14,400
Gas Fund Revenue		57,600
	Total	72,000



Fun Fact: Over 7,600 appliance service and furnace cleaning work orders were completed in 2018.

City Priority Strategic Alignment:

City Priority Definition

Infrastructure Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable

water, sewer, storm drainage, natural gas, steam and hot water

services to the community

Public Works and Utilities - Utility Operations

3/4 Ton Extended Cab Pick-up

Description:

The replacement will be used to transport materials and trailered equipment for sanitary sewer repair and maintenance activities.

Funding Source:	FY 2020
Sanitary Sewer Fund Revenue	34 000



Fun Fact: There are 398 miles of

Sanitary Sewer pipe in Duluth.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure Utilities: Design, build, improve and proactively maintain a utility

infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

services to the community

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

Public Works and Utilities - Utility Operations

1 Ton Compressor Truck

Description:

The replacement will be used for the transport of light construction equipment and to perform valve box cleanouts.

Funding Source:		FY 2020
Water Fund Revenue	•	8,200
Gas Fund Revenue		32,800
	Total	41.000



Fun Fact: There are 7,564 water valves and 1,605 gas valves controlling pipes 1" and larger in diameter.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community

Public Works and Utilities - Utility Operations

1 Ton Welding Truck

Infrastructure

Description:

The replacement will be used for transporting welding equipment and supplies utilized on pipeline and other infrastructure repairs.

Funding Source:		FY 2020
Water Fund Revenue	_	7,000
Gas Fund Revenue		28,000
	Total	35,000



Fun Fact: Pipeline welders must re-test for certification every six months.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

services to the community

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

Public Works and Utilities - Utility Operations

1 Ton Dump Truck

Description:

The replacement will be used to transport gravel, sand, rock and trailered equipment for infrastructure repair and maintenance.

Funding Source:		FY 2020
Water Fund Revenue		19,950
Gas Fund Revenue		14,250
Sanitary Sewer Fund Revenue		14,250
Stormwater Fund Revenue		8,550
	Total	57,000

City Priority Strategic Alignment:

Definition City Priority

Utilities: Design, build, improve and proactively maintain a utility Infrastructure infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

services to the community



Fun Fact: Most repairs require both the removal and safe disposal of poor soils as well as the addition of clean

Public Works and Utilities - Utility Operations

Tandem Dump Trucks (2)

Description: Excavator/Vactor

These replacements will be used to transport materials for infrastructure repair.

Funding Source:		FY 2020
Water Fund Revenue		54,250
Gas Fund Revenue		38,750
Sanitary Sewer Fund Revenue		193,750
Stormwater Fund Revenue		23,250
	Total	310.000

City Priority Strategic Alignment:

Infrastructure

City Priority Definition



Fun Fact: Approximately 20,000 tons of gravel will be used in utility maintenance and repair activities during 2019.

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

Public Works and Utilities - Utility Operations

1.5 Ton Service Truck

Description:

The replacement will be used to determine location and extent of leaks in utility pipelines.

Funding Source:		FY 2020
Water Fund Revenue	_	100,800
Gas Fund Revenue		25,200
	Total	126 000

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community

Fun Fact: Utility Operations repaired 104 water main breaks and inspected 516 natural gas valves in 2018.

Public Works and Utilities - Utility OperationsForklift

Description:

The replacement will be used for loading and moving pipe, culverts, castings and other heavy materials at the PW&U Garfield facility.

Funding Source:		FY 2020
Water Fund Revenue		9,800
Gas Fund Revenue		7,000
Sanitary Sewer Fund Revenue		7,000
Stormwater Fund Revenue		4,200
	Total	28,000

City Priority Strategic Alignment:

Infrastructure

<u>City Priority</u> <u>Definition</u>

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community



Fun Fact: Forklift safety training is required for use of equipment. Recertification is required every 3 years.

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

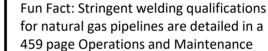
Public Works and Utilities - Utility Operations

Welding Machine

Description:

This truck mounted welder will be used to repair pipelines and other infrastructure.

Funding Source:		FY 2020
Water Fund Revenue		3,000
Gas Fund Revenue		12,000
	Total	15,000



Manual. This manual is updated annually.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure Utilities: Design, build, improve and proactively maintain a utility

infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

services to the community



6" Trailer Mounted Pump

Description:

Infrastructure

This will be used for bypass pumping at lift stations and pumping out flooded basements.

Funding Source:	FY 2020
Sanitary Sewer Fund Revenue	26,000

Fun Fact: When young and spry, this 26 year-old could pump over 1,000 gallons per minute.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Utilities Rolling Stock Vehicles

Public Works and Utilities - Utility Operations

Wheeled Generator

Description:

This replacement will be a critical emergency response generator needed to operate sewer lift stations in the event of electrical power failure.

Funding Source: FY 2020 Sanitary Sewer Fund Revenue 100,000



Fun Fact: There are 52 lift stations that

require routine maintenance and

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure Utilities: Design, build, improve and proactively maintain a utility

infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

emergency backup plans.

services to the community

Public Works and Utilities - Natural Gas

3/4 Ton Pick-up with Service Body

Description:

This replacement will be used for the maintenance and repair of the SCADA communication system.

Funding Source:		FY 2020
Water Fund Revenue		15,200
Gas Fund Revenue		15,200
Sanitary Sewer Fund Revenue		7,600
	Total	38.000



Fun Fact: Approximately 100 site locations are linked to monitor real time data that provides critical utility operations information.

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure Utilities: Design, build, improve and proactively maintain a utility

infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

services to the community

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

Public Works & Utilities - Water Treatment and Pumping:

Turbidimeters (4)

Description:

They provide water plant operators crucial information about the quality of incoming water and the effectiveness of the plant's five filters.



Water Fund Revenue

City Priority Strategic Alignment:

City Priority Definition

Safe and Secure Community

Livable Community: Ensure regulatory compliance in order to

22,000

provide clean and well-maintained neighborhoods, to protect property, the environment and the lives and health of its residents

and visitors



Fun Fact: The Safe Drinking Water Act requires turbidimeters run 24/7.

Public Works & Utilities - Utility Operations:

Camera Head for CCTV

Description:

CCTV camera is used for televising and inspecting sanitary sewer and stormwater pipelines. Changing technology provides clearer pictures, which is critical for assessing the condition of infrastructure and prioritizing replacement schedules.

Funding Source:	FY 2020
	·

Sanitary Sewer Fund Revenue 15,000
Stormwater Fund Revenue 15,000
Total 30,000

City Priority Strategic Alignment:

Infrastructure

<u>City Priority</u> <u>Definition</u>

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community



Fun Fact: Approximately 31 miles of Sanitary pipe and 24 miles of Stormwater pipe were televized in 2018.

City of Duluth 2020 - 2022 Capital Equipment Program

City of Duluth Non-Rolling Stock Equipment

Public Works & Utilities - Utility Operations:

Hydrant Flow Test Equipment

Description:

Replacement gauges are necessary to maintain proper pressures in the system for new construction and the safety of our water conveyance system. Current gauges are past their useful life.

Funding Source: FY 2020

Water Fund Revenue 10,000

City Priority Strategic Alignment:

<u>City Priority</u> <u>Definition</u>

Infrastructure

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water

services to the community



Fun Fact: There are over 2,700 water hydrants in the City of Duluth.

Public Works & Utilities - Utility Engineering:

GPS Unit (1) Trimble R10 GNSS

Description:

Trade in of old R8 2012 model based on a planned 5 year rotation cycle. As of January 2018, R8 models have no replacement parts available.

Water Fund Revenue 7,900
Gas Fund Revenue 7,900
Sanitary Sewer Fund Revenue 7,900
Stormwater Fund Revenue 7,800
Total 31,500

City Priority Strategic Alignment:

Infrastructure

<u>City Priority</u> <u>Definition</u>

Fun Fact: GPS units are used for locating above and below ground infrastructure. Precision can be as high as 8mm horizontal and 15mm vertical. Respectively, that is within 1/3 and 2/3 of an inch.

Utilities: Design, build, improve and proactively maintain a utility infrastructure system that provides safe, affordable and reliable water, sewer, storm drainage, natural gas, steam and hot water services to the community

