



Capital Improvement Program

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2022-2026 CAPITAL IMPROVEMENT PLAN ROAD TO THE FUTURE



DRAFT



City of Maryland Heights CAPITAL IMPROVEMENT PROGRAM 2022- 2026

INTRODUCTION

The Capital Improvement Program (CIP) is a plan for the City's capital investments over a five (5) year period. The CIP allows the City to project all capital costs, funding and timing. Each year the CIP is reviewed by the City Council within the context of ongoing City, County and State planning, programs and policies, as well as the City's Comprehensive Plan.

In accordance with state law, the Plan Commission reviews the location, extent and character of all proposed improvements of streets and other public facilities.

Capital investments involve major city assets that normally have long, useful lives. Items included within the CIP are usually found within one of the following six (6) categories:

1. The acquisition of land and/or buildings for a public purpose.
2. The construction of a significant facility, i.e., a building or a road, or the addition to or extension of an existing facility.
3. Rehabilitation or major repair to all or part of a facility, i.e., infrequent repairs that are not considered to be recurring maintenance, provided the total cost is estimated to be not less than \$100,000.
4. Any specific planning, engineering, design work or construction management activity related to the above three (3) categories.
5. The annual street pavement maintenance program, which includes replacement and cracksealing of concrete pavement sections, and resurfacing/microsurfacing of asphalt pavement streets.
6. Any new or replacement capital equipment or software purchase with an estimated cost of not less than \$100,000.

The current CIP includes five (5) years of projected capital expenditures totaling \$19,165,000. Additionally, some projects were started prior to 2022 and/or extend beyond 2026 and would increase the total capital costs to \$32,300,000. The first year of the Program will be incorporated into the capital portion of the FY2022 Budget. The remaining four (4) years will serve as a financial plan for capital investments. The CIP complements the Annual Budget and is updated each budget cycle.

The City is pursuing a program to upgrade all City streets functionally classified as "collector roads". In addition, the City Council has plans to continue to upgrade unimproved residential "local" streets and add sidewalks in residential areas. Storm water improvement projects are recommended by the Storm Water Advisory Commission using their adopted rating system.

ORGANIZATION OF THE CIP

The CIP's organization permits a comprehensive treatment of all pending capital projects. The major portion of the program contains the individual project descriptions, organized by categories set forth in the Strategic Plan and program areas corresponding to the Annual Budget. Each project sheet contains information regarding the description, existing conditions, funding, benefits and impact on operating costs of each project.



FINANCING THE CIP

The following funding sources may be used to finance a project in the CIP:

- Advance from Reserve - The flow of budgetary funds and the timing of capital project expenditures can cause shortfalls in the funds used for capital projects. The City's Reserve Fund is utilized to advance funds (cash) in order to finance these situations on a short-term basis.
- Available Funds - Cash currently available in one of the City's operating funds.
- Grants - Funding provided to the City by other governmental entities.
- Leasehold Revenue Bonds - To finance certain municipal facilities the Maryland Heights Public Facilities Authority may issue bonds to fund projects and lease the facilities to the City in exchange for annual debt service payments.
- Miscellaneous Sources - Funding sources that do not fall within one of the above categories. When a project lists this as a source of funding, a further description of the funding can be found in the narrative section of the project sheet.
- Private Contributions - Payments by private property owners or developers for public capital facilities (such as storm water facilities and streets) that support or enhance their property or project.
- Special Assessment - Long term borrowing for localized projects repaid through user charges or taxes that are generated within the area of the improvements.
- Tax Increment Financing - Funding provided by incremental taxes resulting from new development in a designated Tax Increment Financing (TIF) District.

City policy provides that 30% of gaming taxes are allocated to the Capital Improvement Fund.



RELATIONSHIP BETWEEN THE OPERATING BUDGET AND CIP

Whenever the City commits to a capital project, there is an associated long-range impact on operating funds. Most capital projects affect future operating budgets either positively or negatively by influencing maintenance costs or by providing capacity for new services to be offered. Such impacts vary widely from project to project and, as such, are evaluated individually during the process of assessing project feasibility. The amount of impact is categorized as: Positive, Negligible, Slight, Moderate or High.

	Definition
Positive	The project will either generate revenue to offset expenses or will actually reduce overall operating costs.
Negligible	The impact will be very small. It will generate less than \$10,000 per year in increased operating expenditures or savings.
Slight	The impact will be between \$10,000 and \$50,000 per year in increased operating expenditures.
Moderate	The impact will be between \$50,000 and \$100,000 per year in increased operating expenditures.
High	The project will increase operating expenditures by more than \$100,000 annually.

Construction management services are performed by City staff and are budgeted in the General Fund. An operating transfer is budgeted from the funds that contain capital projects to the General Fund. Consequently, the CIP includes the cost of these services.

INFLATIONARY IMPACT ON ESTIMATES

An inflation rate of 3% per year is assumed on the estimated cost of all projects included in the CIP. The main funding source, gaming taxes, has no inflationary growth associated with the projected revenues since a significant component is a flat tax on admissions. The casino operator advises the City of likely annual changes in the market and/or market share. A positive balance is shown at the end of 5 years but it should be noted that the amounts shown for each project are estimates based upon the current scope of the project. The scope or limits of a project are modified and refined during design. Therefore, the projected fund balance may be viewed as a reserve or contingency for project modifications.

NEW DEVELOPMENTS

Foreseen additions to the City's infrastructure that are a result of planned new private developments are included in the CIP. While these projects will be financed and constructed by private developers, they will add to the City's future maintenance and service responsibility and represent an investment in the City's infrastructure. Standards of governmental accounting require that the City include these assets in the City's financial statement when completed and accepted for maintenance by the City Council.



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CAPITAL IMPROVEMENT PROGRAM

Summary: All Funds

Estimated Expenditure (000's)

	Total Cost	Prior To 2021	2022	2023	2024	2025	2026	Beyond 2026
CAPITAL IMPROVEMENT FUND	29,825	875	4,820	4,045	3,095	2,900	1,830	12,260
STREETLIGHTING FUND	50	0	1	4	4	33	8	0
PARKS FUND	2,425	0	525	450	500	450	500	0
TOTAL EXPENDITURES	32,300	875	5,346	4,499	3,599	3,383	2,338	12,260



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COLLECTOR STREET PROJECTS

The collector street system provides land access and traffic circulation within residential neighborhoods, commercial and industrial areas. Urban collector systems may penetrate neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Collector streets also collect traffic from local streets in residential neighborhoods and channel it into the arterial street system.



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**CAPITAL IMPROVEMENT PROGRAM (DRAFT)
CAPITAL IMPROVEMENT FUND
Estimated Expenditure (000's)**

PROJ. #	PROJECT NAME	2022	2023	2024	2025	2026	Total 2022-2026	Prior to 2022	Beyond 2026	Total Cost
COLLECTOR STREET PROJECTS										
157	Adie Road (Dorsett Road to Lindbergh Blvd)	60	2,000				2,060	432		2,492
149	McKelvey Rd. (Ameling to Railroad Bridge)	100					100	8		108
	Fee Fee Road (Westport Plaza Dr to Schuetz Rd) Pavement Rehabilitation	1000					1,000	149		1,149
LOCAL STREET PROJECTS										
	DeRuntz Ave.			300	250		550		1,800	2,350
141	Sidewalk Construction	370	170	295			835		565	1,400
	Gill/Hedda/Broadview/Daley			400	270		670		3,125	3,795
PRESERVATION/ENHANCEMENT PROJECTS										
004	Pavement Maintenance Concrete Streets, Sidewalks & Asphalt (Repl./CrkSeal)	1,000	1,000	1,000	1,000	1,000	5,000			5,000
126	Public R/W - Property Enhancements (Trees, Entryway and Wayfinding Signage)	50	50	50	50	50	250			250
	Fee Fee Greenway Extension (Aquaport to East of I-270)	200					200		4,000	4,200
ROADWAY SUBTOTAL EXPENDITURES		2,780	3,220	2,045	1,570	1,050	10,665	589	9,490	20,744
FACILITIES/EQUIPMENT										
079	Equipment Replacement	110	180	160	250		700			700
	Government Center Parking Lot Overlay	350					350			350
FACILITIES/EQUIPMENT SUBTOTAL EXPENDITURES		460	180	160	250	0	1,050	0	0	700
STORMWATER PROJECTS										
262	12059 Autumn Lakes Drive	70	115				185			185
244	Brazemont Tributary		100	270			370			370
	Dorsett Creek (upstream of detention pond to Fee Fee Creek confluence)					260	260		835	1,095
	Edgeworth Avenue north terminus			105	40	235	380			380
264	11465 Essex Avenue (north of street, east of property)	130					130			130
255	Fee Fee Creek (Dorsett Road to aban'd trolley bridge)				325		325		1,935	2,260
260	12102 Glenpark Drive (west of street, rear of property)	70					70	42		112
	2860 Hathaway Avenue (south of street, rear of property)			135			135			135
252	11814 Jonesdale Court (east of street, rear of property)	190					190	65		255
	2706 Lakeport Drive (north of street, rear of property)			105			105			105
242	Metro Tributary (w/o Metro Blvd, to w/o Millwell Drive)		160		435		595			595
263	2703 Wagner Place	790					790	150		940
265	2515 Wesglen Estates Drive (west of street, rear of property)	65					65	29		94
240	Project Monitoring/Maintenance of Mitigation Areas per USACE	20	20	20	20	20	100			100
STORMWATER SUBTOTAL EXPENDITURES		1,335	395	635	820	515	3,700	286	2,770	6,756
	Construction Management Services	245	250	255	260	265	1,275			1,275
TOTAL FUND EXPENDITURES		4,820	4,045	3,095	2,900	1,830	16,690	875	12,260	29,825
SOURCES OF FUNDING										
	Allocation from Gaming Revenue	2,700	2,850	2,850	2,850	2,850	14,100			
	Federal STP Grant - Adie Road (Dorsett Road to Lindbergh Blvd.)		820				820			
	Federal STP Grant - Fee Fee Road Rehabilitation	630					630			
	Balance in fund at beginning of year	2,670	1,180	805	560	510				
TOTAL FUNDING SOURCES		6,000	4,850	3,655	3,410	3,360	15,550			
Balance End of Year		1,180	805	560	510	1,530				



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS and BRIDGES
 PROJECT
ADIE ROAD

(Dorsett Road to Lindbergh Boulevard)

Description

This project involves the reconstruction of Adie Road from Dorsett Road to Lindbergh Boulevard. The new road will consist of new concrete pavement 27 feet in width with curb and gutters and enclosed storm sewers. A sidewalk will be located on the north side of the road. The existing box culvert will be replaced as part of this project. East-West Gateway Council of Governments has approved funds for this project.

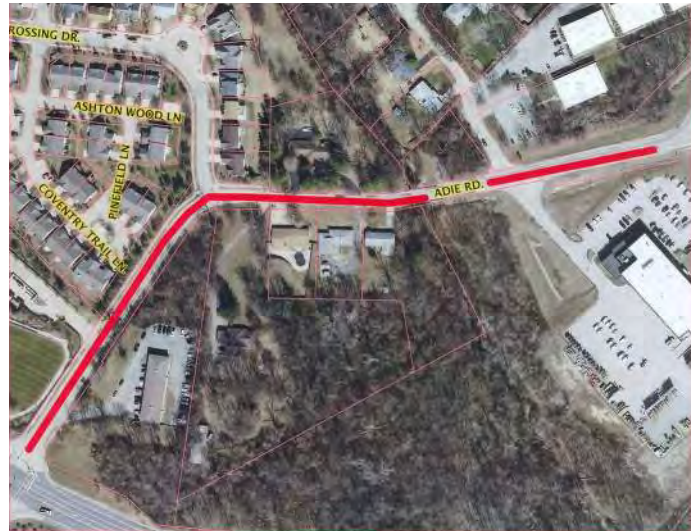
Existing Condition

The existing concrete pavement is 26 feet in width with a single span concrete culvert.

Goals

- Improve traffic flow and access to Ranken Jordan.
- Upgrade aging asphalt pavement and box culvert.
- Provide for improved safety conditions for both motorists and pedestrians with vertical curbs and sidewalks.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023*	2024	2025	2026	Beyond 2026
\$2,400,000	\$340,000	\$60,000	\$2,000,000				

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund and Federal Surface Transportation Program.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS and BRIDGES
 PROJECT
MCKELVEY ROAD
(Ameling Road to Railroad Bridge)

Description

This St. Louis County Department of Transportation roadway project involves the reconstruction of McKelvey Road from Ameling Road to the railroad bridge. St. Louis County Department of Transportation will manage the engineering, right-of-way and construction phases of this project. The City will provide a funding contribution to this St. Louis County Department of Transportation roadway project.

Existing Condition

The existing corridor has both concrete pavement and asphalt pavement which varies in width along with limited sidewalk access for pedestrians.

Goals

- Enhance the appearance of this neighborhood and community center with a new roadway, street lights and trees.
- Provide an enclosed storm water drainage system.
- Provide for improved safety conditions for both motorists and pedestrians with curbs and sidewalks.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$108,000	\$8,000	\$100,000					

*Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund and Federal Surface Transportation Program



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS and BRIDGES
 PROJECT
FEE FEE ROAD
(Westport Plaza Drive to Schuetz Road)
Pavement Rehabilitation

Description

The project will consist of removing and replacing concrete slabs and milling and overlaying the asphalt section of Fee Fee Road. Additionally, the concrete pavement along the total corridor will have diamond grinding to correct surface imperfections. The bridge deck will be replaced as part of this project.

Existing Condition

Portions of the existing concrete pavement needs to be removed and replaced based on condition rating. In addition the asphalt section needs to be milled and overlaid. The bridge deck needs replacement based on MoDOT's 2018 inspection.

Goals

- Improve the ride ability.
- Extend the pavement life.
- Improve bridge inspection rating.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$1,149,000	\$149,000	\$1,000,000					

*Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund and Federal Surface Transportation Program



LOCAL STREET PROJECTS

The local street system comprises all facilities not on one of the higher street systems. Its primary purpose is to provide direct access to abutting land and connect to the collector system.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS & BRIDGES
 PROJECT
DERUNTZ AVENUE

Description

This project will consist of removing the asphalt pavement and replacing with concrete pavement. This project will include new sidewalks on both sides of the existing road. A cul-de-sac will be constructed on the end of the current avenue. Storm drainage improvements will be incorporated as part of the project.

Existing Condition

The roadway is an asphalt pavement that is 26 feet wide without sidewalks on either side of the road.

Goals

- Enhance the appearance of this residential area with a new roadway.
- Provide for improved safety conditions for both motorists and pedestrians with curbs and sidewalks.
- Provide improved corridor to Edward Avenue.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026*
\$2,350,000				\$300,000	\$250,000		\$1,800,000

*Project Completed

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund

DEPARTMENT
PUBLIC WORKS
PROGRAM
ROADS & BRIDGES
PROJECT
SIDEWALK CONSTRUCTION



Description
 This project will provide for completing gaps in neighborhood sidewalks on public streets to increase pedestrian safety and accessibility.

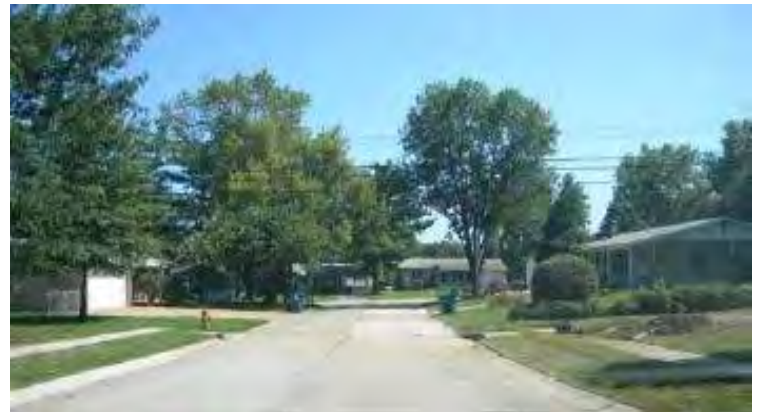
Existing Condition

Currently there are many areas where no sidewalks exist or where gaps are present in the existing sidewalk network.

Goals

- Create a sense of community.
- Enhance existing property values.
- Improve pedestrian activity and accessibility.
- Enhance City image.

Impact: Negligible



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026*
\$1,400,000		\$370,000	\$170,000	\$295,000			\$565,000

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS & BRIDGES
 PROJECT
GILL/HEDDA/BROADVIEW/DALEY

Description

This project will consist of removing the asphalt pavement and replacing with concrete pavement on the roadway projects. This project will include new sidewalks on both sides of the existing roads. Storm drainage improvements will be included with these projects.

Existing Condition

The roadways are asphalt pavement that is 20-22 feet wide without sidewalks on either side of the road.

Goals

- Enhance the appearance of this residential area with a new roadways.
- Provide for improved safety conditions for both motorists and pedestrians with curbs and sidewalks.
- Provide improved corridor.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026*
\$3,795,000				\$400,000	\$270,000		\$3,125,000

*Project Completed

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund



**PRESERVATION
AND
ENHANCEMENT PROJECTS**



DEPARTMENT
PUBLIC WORKS
PROGRAM
ROADS and BRIDGES
PROJECT
PAVEMENT MAINTENANCE
CONCRETE STREETS, SIDEWALKS
& ASPHALT STREETS
(Resurfacing/Cracksealing)

Description

The program involves the replacement of deteriorated sections of concrete pavement and cracksealing of concrete pavement. In addition, the program includes annual resurfacing of asphaltic pavement and microsurfacing of asphaltic streets based on pavement condition surveys.

Existing Condition

The City has over 120 lane miles of concrete pavement. It is necessary to continue an annual replacement program to maintain a satisfactory condition for these pavements. The City also has approximately 28 miles of asphalt streets with varying conditions. This program will enhance the present condition and longevity of these streets.



Goals

- Enhance pavement condition and riding surface.
- Extend the life of asphalt streets.
- Provide a safe environment for motorists using the City's streets.
- Maintain property values.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026
\$5,000,000		\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	

* Projects will continue indefinitely at some level of funding.

Funding Source: Available Funds

This project will be funded with revenues from the Capital Improvement Fund.



Existing Condition

Currently there are many areas in need of additional street trees and major entryways into the City are not adequately identified.

DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS & BRIDGES
 PROJECT
**PUBLIC RIGHT-OF-WAY
 PROPERTY ENHANCEMENTS
 (Trees, Entryway & Wayfinding
 Signage)**

Description

These projects will implement improvements to the rights-of-way of public streets and public property to enhance their appearance. These projects will include planting of street trees. The City Council has adopted a goal to increase the number of trees planted each year. All residential streets being reconstructed will be enhanced by the installation of decorative crosswalks, new post-top type street lighting, and street trees. Funds are included to continue to install signs at key locations.

Goals

- Create a sense of community.
- Enhance existing property values.
- Identify areas where highway noise levels exceed established criteria.
- Improve property values.
- Enhance City image.

Impact: Slight



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026
\$250,000		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS & BRIDGES
 PROJECT

FEE FEE GREENWAY EXTENSION
 (Existing Trail to East of I-270)

Description

This project would entail a preliminary engineering study to establish a location of the trail from the existing Fee Fee Greenway Trail to a new trailhead on the east side of I-270. This project will provide the residents improved pedestrian access to Aquaport and the Community Center.

Existing Condition

Presently, a trail access is not available from the west side of the I-270 to the east side of I-270 for residents.

Goals

- Provide walking/biking access to both sides of I-270 with a trail system.
- Increase health and wellness among the residents of Maryland Heights.
- Provide a construction cost for this proposed trail.

Impact: Negligible



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026
\$4,200,000		\$200,000					\$4,000,000

*Project Completed

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund



FACILITIES/EQUIPMENT



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS & BRIDGES
 PROJECT
EQUIPMENT REPLACEMENT



Description

Funding is provided to purchase replacement of tandem and single-axle dump trucks with plows and spreaders, street sweeper and other high value equipment for the Department of Public Works. This equipment is for hauling construction material and roadway deicing operations.

Existing Condition

Existing tandem, single-axle dump trucks or other equipment is reaching their projected useful life and will need to be replaced.

Goals And Impacts

- Provide upgraded equipment to reduce maintenance costs and provide improved reliability.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026
\$870,000		\$110,000	\$180,000	\$160,000	\$250,000	\$170,000	

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvements Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
ROADS and BRIDGES
 PROJECT
**GOVERNMENT CENTER
 PARKING LOT OVERLAY**

Description

The project will consist milling and overlaying the asphalt of the Government Center parking lot.

Existing Condition

The existing asphalt pavement needs to be removed and replaced based on condition rating.

Goals

- Improve the ride ability.
- Extend the pavement life.
- Improve Government Center appearance..

Impact: Positive.



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$350,000		\$350,000					

*Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvements Fund.



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STORM WATER



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DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

12059 AUTUMN LAKES DRIVE



Existing Condition

A plan for an initial phase of the Autumn Lakes housing development circa 1980 depicts drainage from the I-270 right-of-way crossing an isolated rear southeast corner of the Autumn Lakes property before entering a box culvert located near Washington Court. It appears the flow path has changed due to an overgrowth of vegetation, sediment and debris buildup, diverting drainage to the north and close to one or more buildings within the Autumn Lakes development. Water has reportedly entered the basement(s) of one of these structures.

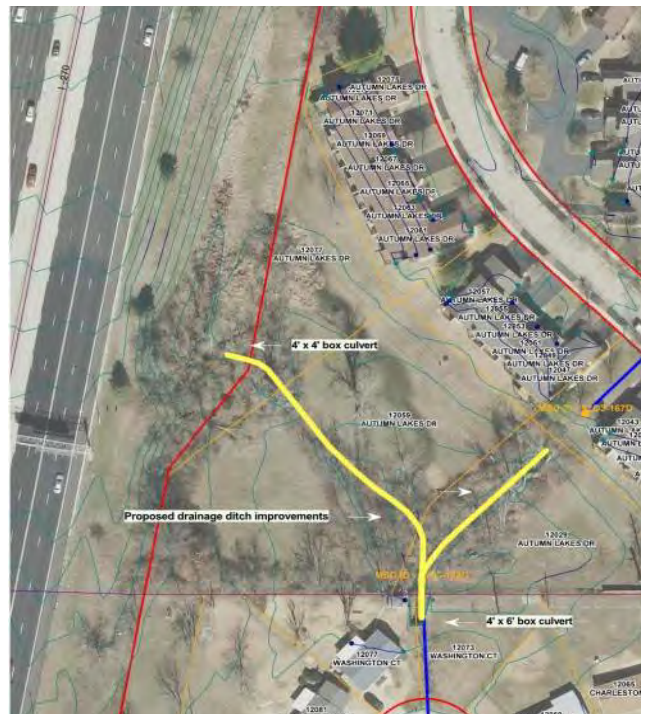
Goals

- Eliminate or reduce erosion and yard flooding and associated risks to yards and miscellaneous structures in the impacted areas.
- Maintain/improve property values and enhance the safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive

Description

This project restores and/or improves storm water flow between a 4' x 4' box culvert extending under I-270 to the west, discharge from the Autumn Lakes lower dam to the north and a 4' x 6" box culvert located at the rear of Washington Court to the south that receives the drainage. The work includes the removal of vegetation and sediment, the installation of a new culvert(s) at the access point to a rear parcel to replace a culvert that is buried, and placement of heavy stone revetment or other protection measures along the open conveyance to deter and control surface erosion. Biostabilization techniques may be used to restore and enhance the channel corridor.



Funding Schedule

Total	Expended To Date	2022	2023*	2024	2025	2026	Beyond 2026
\$185,000		\$70,000	\$115,000				

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
STORM WATER
 PROJECT
BREEZEMONT TRIBUTARY

Description

This project stabilizes the channel and banks along the reach of Breezemont Tributary, located in Brookside Subdivision common ground between Brookmont Drive on the north and Breezemont Drive/Foxwood Drive on the south, using grade control structures and bio-stabilization techniques. Existing storm sewer infrastructure located within the tributary reach that is failed or in need of attention will be repaired or replaced. Urban forestry practices may be used to restore and enhance the riparian corridor.



Existing Condition

This site is located in a residential neighborhood. The lower reach of Breezemont Tributary exhibits vertical bank instability at various locations and there are signs that the channel bed is actively incising. A bridge that provides pedestrian access between the north and south sections of Brookside Subdivision is threatened and there is moderate erosion risk to some fences and retaining walls along the drainage way. The total length of the affected channel is about 2,200 linear feet.

Goals

- Install grade control structures to stabilize the channel and prevent further erosion.
- Use urban forestry to protect and enhance existing vegetation along the stream corridor.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024*	2025	2026	Beyond 2026
\$370,000			\$100,000	\$270,000			

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

DORSETT CREEK
(upstream of detention pond to
Fee Fee Creek confluence)

Description

This project stabilizes the channel and banks along the reach of Dorsett Creek, extending from a point upstream of a detention pond located near Cedar Lake Drive to the confluence of Fee Fee Creek, using grade control structures and bio-stabilization techniques. Approximately eight grade controls will be required within this reach. A storm sewer system may be installed at strategic points along the stream to control over-the-bank drainage. Urban forestry techniques may be used to restore and enhance the riparian corridor.

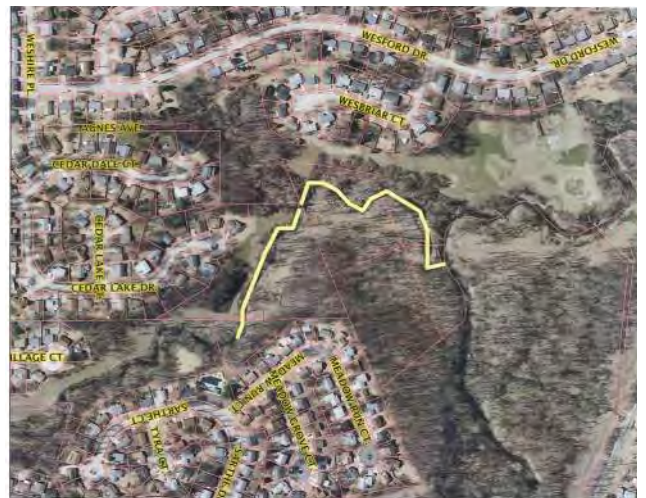
Existing Condition

This site is located in a residential neighborhood, north of Ameling Road and west of Bennington Place. Bank erosion and headcutting in Dorsett Creek threatens property adjacent to the corridor and could cause future instability in the upstream channel if left unaddressed. A detention pond located in common ground near Cedar Lake Drive is supported by a bank of the creek that is failing and could breach if exposed to extended or heavy precipitation. The total length of the affected channel is about 1,480 linear feet.

Goals

- Install grade control structures to stabilize the channel and prevent further erosion.
- Use urban forestry to protect and enhance existing vegetation along the stream corridor.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026*
\$1,095,000						\$260,000	\$835,000

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

EDGEWORTH AVENUE north terminus

Description

This project provides for the construction of a regulation cul-de-sac at the end of Edgeworth Avenue, complete with curbing and a new storm sewer system, to intercept runoff from the street corridor as appropriate. A retaining wall or other suitable means may be required to stabilize the rear slope abutting the cul-de-sac due to the vertical drop in grade.



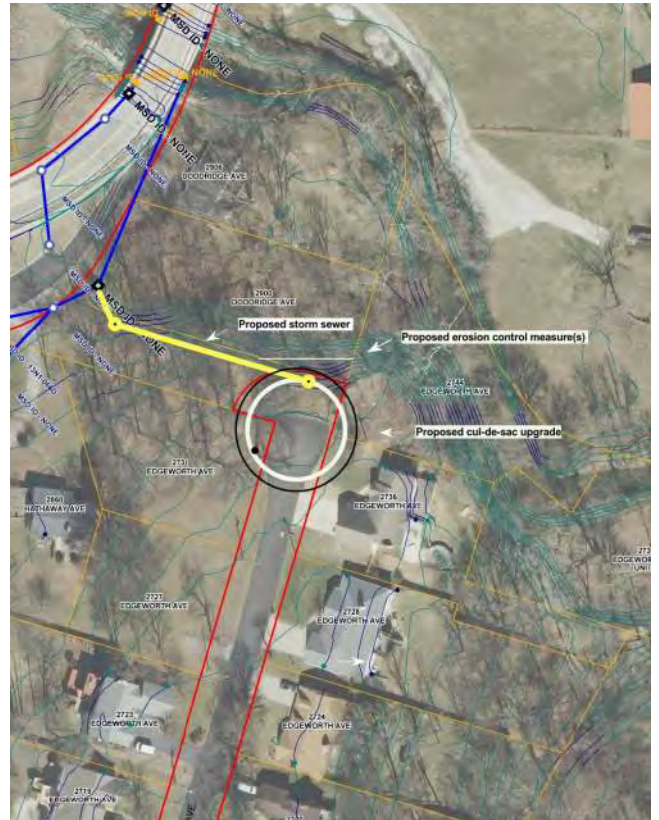
Existing Condition

This site is located in a residential area, north of Midland Avenue and east of Eldon Avenue. Bank erosion along the back edge of the north terminus of Edgeworth Avenue is threatening the Edgeworth Avenue turnaround that is deficient in both design and construction. There is no enclosed drainage along this stretch of roadway to intercept and control runoff.

Goals

- Construct cul-de-sac to intercept drainage and eliminate or reduce potential for erosion, structure and yard flooding in the impacted area(s).
- Maintain/improve property values of neighborhood residents and enhance the safety and driving experience of the motoring public.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026*	Beyond 2026
\$380,000				\$105,000	\$40,000	\$235,000	

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORMWATER
PROJECT

11465 ESSEX AVENUE
(north of street, east of property)

Description

This project provides for the construction of an underground storm sewer to intercept and convey stormwater. The new system would connect to an existing area inlet located in right-of-way of Haas Avenue and adjacent to the front yard at 11465 Essex Avenue. The improvement would consist of approximately 200' of 12" reinforced concrete pipe and appurtenances.



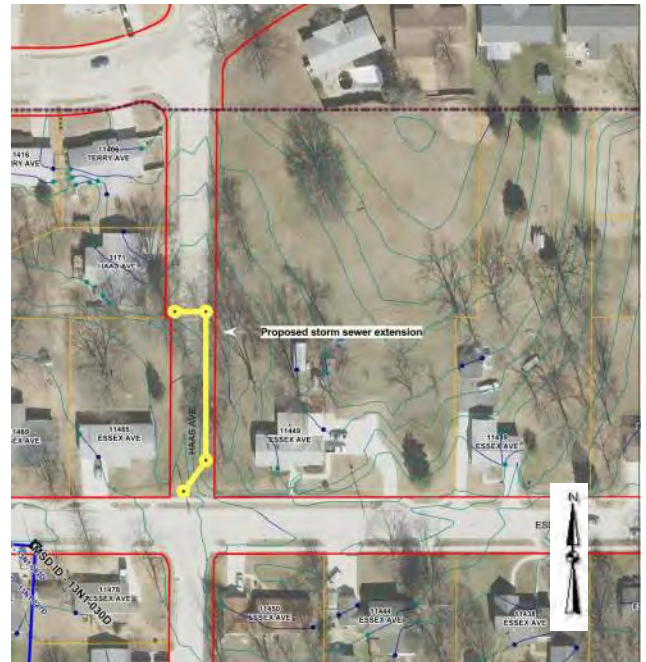
Existing Condition

Drainage from Haas Avenue flows along a shallow swale/berm within an unimproved portion of the roadway to an area inlet located just north of Essex Avenue. The under-seepage has infiltrated the side slope of the berm on more than one occasion and flows to a residential structure at 11465 Essex Avenue. The owner reports that water frequently enters the basement through openings in the foundation.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated risks to yards and miscellaneous structures in the impacted areas.
- Maintain/improve property values and enhance the safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair of identified stormwater problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$130,000		\$130,000					

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
STORM WATER
 PROJECT
FEE FEE CREEK
(Dorsett Road to
abandoned trolley bridge)

Description

This project stabilizes the channel and banks along the reach of Fee Fee Creek, extending from Dorsett Road north to the abandoned trolley bridge, using grade control structures and bio-stabilization techniques. Approximately thirteen (13) grade controls will be required within the reach. A storm sewer system may be installed at strategic points along the stream to control over-the-bank drainage. Urban forestry techniques may be used to restore and enhance the riparian corridor.

Existing Condition

This site extends through several tracts of land in a commercial subdivision, located north of Dorsett Road and east of Metro Boulevard. The abandoned trolley bridge at the extreme lower end of the project is situated near Midland Avenue. Bank erosion and headcutting in Fee Fee Creek threatens property adjacent to the corridor and could cause future instability of the upstream channel if left unaddressed. The total length of the affected channel is about 3,275 linear feet.

Goals

- Install grade control structures to stabilize the channel and prevent further erosion.
- Use urban forestry to protect and enhance existing vegetation along the stream corridor.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026*
\$2,260,000					\$325,000		\$1,935,000

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

12102 GLENPARK DRIVE
(west of street, rear of property)

Description

This project provides for the construction of an underground storm sewer within residential property to intercept and convey storm water. The system would consist of approximately 200' of 12" reinforced concrete pipe and appurtenances. The new system would connect to an existing curb inlet located in front of 12068 Glenpark Drive and extend west and thence north across residential property to a wetland area located along the north edge of 12102 Glenpark Drive.

Existing Condition

A 12" storm sewer conveys drainage from Glenpark Drive to a discharge point at the top edge of a terrace located in the rear yard at 12068 Glenpark Drive. It appears the yard was filled at some point in the past and the pipe and perhaps a natural discharge point for the outfall were covered over and altered in the process. The sewer outlet has been located and extended to daylight to restore operation. Sediment and debris from the pipe outflow frequently collect in the yard and the property owner(s) must deal with an ongoing maintenance and health/safety concern.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated health risks resulting from location of pipe discharge and effluent in the rear yard.
- Maintain/improve property values and enhance the safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problem.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$112,000	\$42,000	\$70,000					

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
STORM WATER
 PROJECT
2860 HATHAWAY AVENUE
 (south of street, rear of property)

Description

This project provides for the construction of an underground storm sewer to intercept and convey stormwater from the upper reaches of the drainage area. The improvement would consist of approximately 310' of 12" reinforced concrete pipe or approved alternative and appurtenances. It would connect to an existing storm sewer located at the rear of 2808 Hathaway Avenue.

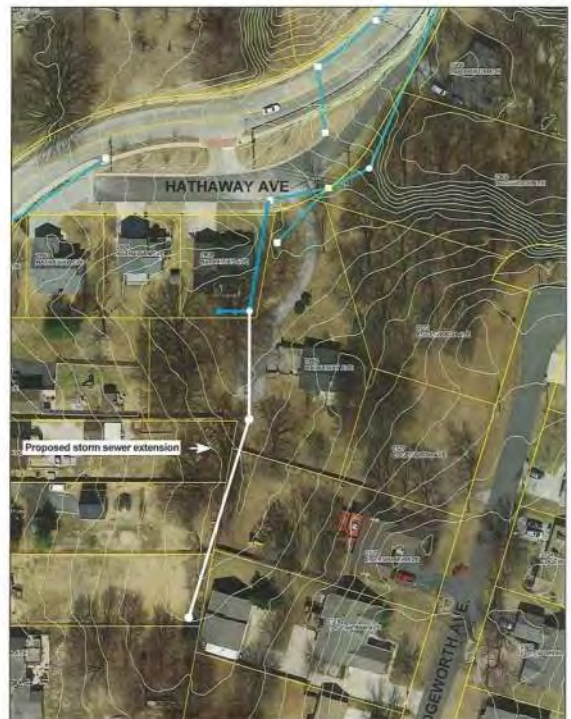
.Existing Condition

Stormwater runoff from a large drainage area roughly bounded by Eldon Avenue on the west, Midland Avenue on the south and Edgeworth Avenue on the east is conveyed across the property at 2860 Hathaway Avenue. The volume of runoff is sizeable and has eroded the lawn along a rear fence on the property and the perimeter of an area inlet that receives the flow at 2808 Hathaway Avenue.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated risks to yards and miscellaneous structures in the impacted areas.
- Maintain/improve property values and enhance the safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022*	2023	2024*	2025	2026	Beyond 2026
\$135,000				\$135,000			

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

11814 JONESDALE COURT
(east of street, rear of property)

Description

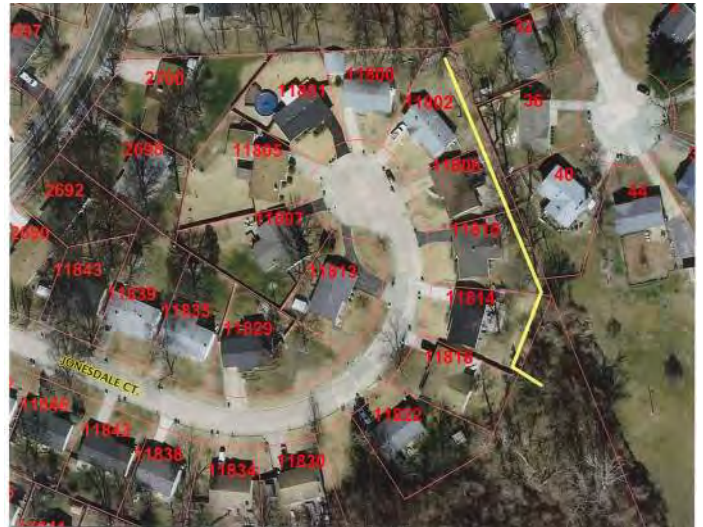
This project provides for the construction of an underground storm sewer along the rear of the residential property in the vicinity of 11814 Jonesdale Court to intercept and convey storm water. The new system shall connect to an existing storm sewer extending through the McKelvey Park Subdivision. The improvement consists of approximately 280' of 12" reinforced concrete pipe and 150' of 15" reinforced concrete pipe along with associated appurtenances.

Existing Condition

Runoff from a drainage area that extends north to McKelvey Road is conveyed across the rear of lots located at 11802 through 11818 Jonesdale Court. This runoff is frequently excessive and has resulted in flooding of a basement at 11802 Jonesdale Court, an attached garage at 11806 Jonesdale Court, a gazebo and other lawn amenities at 11810 Jonesdale Court and the rear yard adjacent to the home structure at 11814 Jonesdale Court. Ruts have formed in the yard at 11806 Jonesdale Court and sediment has been deposited in the yard at 11810 Jonesdale Court where a chain link fence is partially covered.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated risks to yards and miscellaneous structures in the impacted areas.
- Maintain/improve property values and enhance the safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problem.



Impact: Positive

Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$255,000	\$65,000	\$190,000					

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

2706 LAKEPORT DRIVE
(north of street, rear of property)

Description

This project provides for the construction of an underground storm sewer to intercept and convey stormwater from the upper reaches of the drainage area. The improvement would consist of approximately 165' of 12" reinforced concrete pipe or approved alternative and appurtenances. It would connect to an existing storm sewer located in front of 2712 Lakeport Drive.

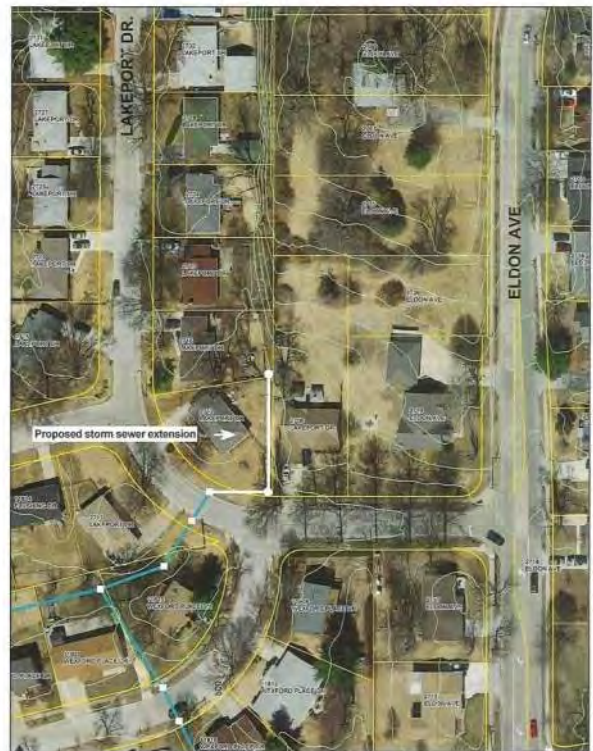
Existing Condition

Stormwater runoff from the upper reaches of the drainage area flows south and ponds on a paved patio at 2706 Lakeport Drive and a flat or low-lying area at 2712 Lakeport Drive. There is minor yard rutting evident at the rear southeast corner of the property at 2715 Lakeport Drive. A portion of the surface drainage crosses the public sidewalk and flows onto Lakeport Drive before entering a curb inlet in front of 2712 Lakeport Drives and is considered a nuisance.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated risks to yards and miscellaneous structures in the impacted areas.
- Maintain/improve property values and enhance safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022	2023	2024*	2025	2026	Beyond 2026
\$105,000				\$105,000			

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
STORM WATER
 PROJECT
METRO TRIBUTARY
 (west of Metro Blvd. to west of Millwell Dr.)

Description

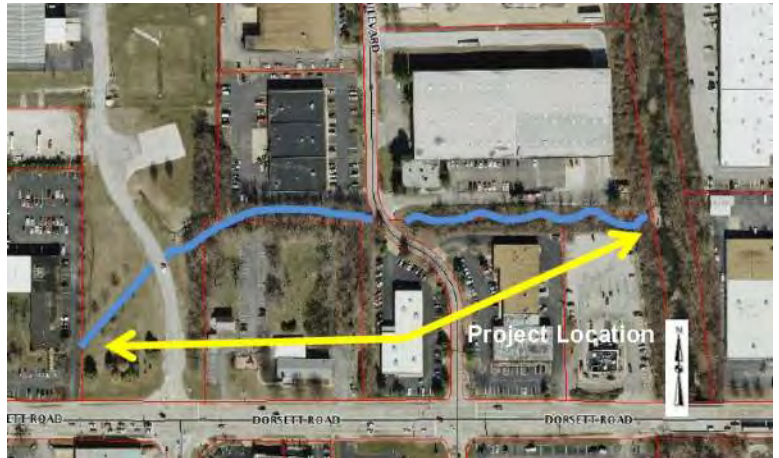
This project stabilizes the channel and banks along the reach of Metro Tributary extending east from the point of origin to the confluence with Fee Fee Creek using grade control structures and bio-stabilization techniques. A storm sewer system may be installed at strategic points along the stream to control over-the-bank drainage. Measures will also be considered to improve water quality, such as the establishment of a mesic prairie where appropriate.

Existing Condition

This site is located within a commercial/industrial district north of Dorsett Road and east of Weldon Parkway. Bank erosion and headcutting in the tributary threatens property adjacent to the corridor and could cause future instability of the upstream channel if left unaddressed. Two sanitary sewer lines located downstream of Metro Blvd. are exposed and warrant protection. The total length of the affected channel is about 1,428 linear feet.

Goals

- Install grade control structures to stabilize the channel and prevent further erosion.
- Use urban forestry to protect and enhance existing vegetation along the stream corridor and improve water quality.
- Reduce annual maintenance costs associated with the investigation and repair of identified storm water problems.



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025*	2026	Beyond 2026
\$595,000			\$160,000		\$435,000		

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
 PROGRAM
STORM WATER
 PROJECT
2703 WAGNER PLACE



Description

This project provides for the construction of an underground storm sewer system to intercept and convey stormwater. The system would extend along an established street/alley right-of-way that is unimproved and convey drainage to an adequate discharge point. The system would consist of approximately 2,000 linear feet of reinforced concrete pipe or approved alternative and appurtenances.

Existing Condition

Stormwater runoff conveyed by a concrete swale located along the west side of Warner Drive enters the Curium Pharmaceutical property at 2703 Wagner Place and frequently overwhelms the internal storm sewer system, allowing water to enter and flood portions of the facility. This location is part of a commercial/industrial park in the High Ridge Heights Subdivision that has many large buildings and sites that are mostly impervious. The drainage area that contributes water flow to the Curium Pharmaceutical property extends north and east to Dorsett Road and perhaps some points beyond.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated risks in the impacted areas.
- Maintain/improve property values and enhance safety, operations and overall productivity of the commercial/industrial users.
- Reduce annual maintenance costs associated with the investigation and repair or identified storm water problems.



Impact: Positive

Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$940,000	\$150,000	\$790,000					

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



DEPARTMENT
PUBLIC WORKS
PROGRAM
STORM WATER
PROJECT

2515 WESGLEN ESTATES VENUE
(west of street, rear of property)



Description

This project provides for the construction of an underground storm sewer to intercept and convey stormwater. The new system would connect to an existing area inlet location in the rear of 12111 Westrick Drive. The improvement would consist of approximately 90' of 12" reinforced concrete pipe and appurtenances.

Existing Condition

Stormwater runoff emanating from eight (8) residential lots located north and east of this location flows to the rear of the property where it is impeded by physical barriers and the yard grade. The runoff is frequently excessive and has entered a rear basement window of the home on several occasions. There is minor yard erosion evident in some areas of the rear and side yard.

Goals

- Eliminate or reduce erosion, structure and yard flooding and associated risks to yards and miscellaneous structures in the impacted areas.
- Maintain/improve property values and enhance safety and quality of life of the neighborhood residents.
- Reduce annual maintenance costs associated with the investigation and repair or identified storm water problems.

Impact: Positive



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$94,000	\$29,000	\$65,000					

* Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvement Fund.



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STREET LIGHTING



CAPITAL IMPROVEMENT PROGRAM STREETLIGHTING FUND Estimated Expenditures (000s)						
	2022	2023	2024	2025	2026	Total 2022-2026
PROJECTS						
Autumn Lake Drive, 12140					7	7
De Runtz Avenue Road Improvements Project				13		13
Gill/Hedda/Broadview/Daley Road Improvement Project				19		19
Local Streets	1	1	1	1	1	5
Sidewalk Projects - Future Locations TBD		3	3			6
TOTAL STREETLIGHTING EXPENDITURES	1	4	4	33	8	50

SOURCES OF FUNDING					
Allocation from 1/2 percent Utility Tax	0	0	0	0	0
Balance in fund at beginning of year	1,000	999	995	991	958
Transfer to Capital Improvement Fund					
TOTAL STREETLIGHTING FUNDING SOURCES	1,000	999	995	991	958
Balance End of Year	999	995	991	958	950



DEPARTMENT
PUBLIC WORKS
 PROGRAM
STREETLIGHTING
 PROJECT
STREET LIGHTING PROJECTS

Description

Funds from the Street Lighting Fund will be used to install new street lighting or upgrade existing lighting on City, County or State roadway facilities that are reconstructed. Projects will be selected annually by the Council.

Existing Condition

Street lighting along these roadways does not exist or needs to be upgraded to be in conformity with new roadway construction projects.

Goals

- Improve nighttime visibility.
- Provide a safe environment for motorists and pedestrians.
- Improve image of City.

Impact: Negligible



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026	Beyond 2026
\$50,000		\$1,000	\$4,000	\$4,000	\$33,000	\$8,000	

See prior page for five year expenditures.



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PARKS FUND



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**CAPITAL IMPROVEMENT PROGRAM
PARKS**

Estimated Expenditures (000s)

	2022	2023	2024	2025	2026	Total 2022-2026	Prior to 2022	Beyond 2026	Total Cost
PROJ. # PROJECT									
Sustainability Center	525					525	0	0	525
Vano Park Small Playground and Surface		450				450	0	0	450
Parkwood Park Fitness Equipment			250			250	0		250
Pavilion at McKelvey Trail Entrance			250			250	0	0	250
Eise Park Playground and Surface				450		450	0	0	450
Vago Park Large Playground					500	500	0	0	500
TOTAL PARKS EXPENDITURES	525	450	500	450	500	2,425	0	0	2,425

SOURCES OF FUNDING						
Transfer from Capital Improvement Fund						
Transfers from Reserve Fund						
Municipal Parks Grant	525	450	500	450	500	2,425
Park Fund Balance for Capital	0	0	0	0	0	
TOTAL PARKS FUND SOURCES	525	450	500	450	500	2,425

Balance End of Year	0	0	0	0	0
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DEPARTMENT
PARKS AND RECREATION
 PROGRAM
FACILITIES DEVELOPMENT
 PROJECT
SUSTAINABILITY CENTER

Description

The project involves the construction of three green houses and a new interpretive center at 2451 Creve Coeur Mill Road.

Existing Condition

The existing site is a vacant parcel.

Goals

- Sustainability Education.
- Renewable Energy Education.
- Community Enhancement.

Impact: Slight



Funding Schedule

Total	Expended To Date	2022*	2023	2024	2025	2026	Beyond 2026
\$525,000		\$525,000					

*Project Complete

Funding Source: Available Funds

This project would be funded from the Capital Improvements Fund.



Existing Condition

The playground equipment at Vago Park is dated and has safety issues. Parts are difficult to find due to it's age. This was identified in the 2019 Master Plan as needing replacement.

Goals

- Increase safety for children using the playground equipment.

Impact: Positive

DEPARTMENT
PARKS AND RECREATION
PROGRAM
FACILITIES DEVELOPMENT
PROJECT
**VAGO PARK SMALL
 PLAYGROUND AND SURFACE**

Description

Replace the dated and worn playground equipment at Vago Park near the splash pad.



Funding Schedule

Total	Expended * To Date	2022	2023*	2024	2025	2026	Beyond 2026
\$450,000			\$450,000				

*Project Complete

Funding Source: Available Funds

This project would be funded from the Parks and Recreation Fund. A municipal parks grant will be submitted.



Existing Condition

The fitness equipment in Parkwood Park is 17 years old and wearing out. This was identified in the 2019 Master Plan as needing replacement.

Goals

- Provide modern/updated fitness station in Parkwood Park.

Impact: Positive

DEPARTMENT
PARKS AND RECREATION
PROGRAM
FACILITIES DEVELOPMENT
PROJECT
PARKWOOD PARK
FITNESS EQUIPMENT

Description

Replace the dated fitness equipment in Parkwood Park.



Funding Schedule

* Total	Expended To Date	2022	2023	2024*	2025	2026	Beyond 2026
\$250,000				\$250,000			

*Project Complete

Funding Source: Available Funds

This project would be funded from the Parks and Recreation Fund. A municipal parks grant will be submitted.



Existing Condition

McKelvey Trail phase one was completed in 2017 and does not have a covered pavilion for residents to rent or use.

Goals

- Add amenity to the west side of 270 increasing outdoor recreation.
- Increase open space park usage.
- Provide trail users the opportunity to remain in the area longer by creating outdoor space that is covered.

Impact: Positive

DEPARTMENT
PARKS AND RECREATION
PROGRAM
FACILITIES DEVELOPMENT
PROJECT
**PAVILION AT
MCKELVEY TRAIL ENTRANCE**

Description

Utilize the property (near the McKelvey Trail entrance off of McKelvey Road) to create an opportunity for trail users, neighborhood residents and possible rentals on the northwest side of the City. The addition of a pavilion will allow the Parks and Recreation Department to provide additional outdoor recreational experiences for all ages.



Funding Schedule

Total	Expended To Date	2022	2023	2024*	2025	2026	Beyond 2026
\$250,000				\$250,000			

*Project Complete

Funding Source: Available Funds

This project would be funded from the Parks and Recreation Fund. A municipal parks grant will be submitted.



Existing Condition

The playground equipment at Eise Park is dated and has safety issues. Parts are difficult to find due to its age. This was identified in the 2019 Master plan as needing replacement.

Goals

- Increase safety for children using the playground equipment.

Impact: Positive

DEPARTMENT
PARKS AND RECREATION
PROGRAM
FACILITIES DEVELOPMENT
PROJECT
**EISE PARK PLAYGROUND
AND SURFACE**

Description

Replace the dated and worn playground equipment at Eise Park and install a new play surface.



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025*	2026	Beyond 2026
\$450,000					\$450,000		

*Project Complete

Funding Source: Available Funds

This project would be funded from the Parks and Recreation Fund. A municipal parks grant will be submitted.



Existing Condition

The large playground equipment at Vago Park is dated and has safety issues. Parts are difficult to find due to its age. The fitness equipment in Parkwood Park is 17 years old and wearing out. Both items were identified in the 2019 Master Plan as needing replacement.

Goals

- Increase safety for children using the playground equipment.

Impact: Positive

DEPARTMENT
PARKS AND RECREATION
PROGRAM
FACILITIES DEVELOPMENT
PROJECT
VAGO PARK LARGE PLAYGROUND

Description

Replace the dated fitness equipment in Parkwood Park.



Funding Schedule

Total	Expended To Date	2022	2023	2024	2025	2026*	Beyond 2026
\$500,000						\$500,000	

*Project Complete

Funding Source: Available Funds

This project would be funded from the Parks and Recreation Fund. A municipal parks grant will be submitted.