2019-2024 Capital Improvement Plan DRAFT EDITION



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Presented: April 17, 2018

2019-2024 Capital Improvement Plan Introduction

A Capital Improvement Plan (CIP) is a multi-year planning instrument used to identify needs and financing sources for public infrastructure improvements. The purpose of a CIP is to facilitate the orderly planning of infrastructure improvements; to maintain, preserve, and protect the City's existing infrastructure system; and to provide for the acquisition or scheduled replacement of equipment in order to ensure the efficient delivery of services to the community. The CIP is also utilized to ensure that capital improvements are fiscally sound and consistent with the goals and policies of the City Council and residents of Rochester Hills.

CIP & the Community

A comprehensive Capital Improvement Plan is an essential tool used in the planning and development of the social, physical, and economic well being of the City of Rochester Hills. This process is a necessary step in an organized effort to strengthen the quality of public facilities and services; to provide a framework for the realization of community goals and objectives; and to provide a sound basis on which to build a healthy and vibrant community.

The CIP informs residents and stakeholders on how the City plans to address significant capital needs over the next six-years. The CIP provides visual representations of the City's needs including maps which detail the timing, sequence, and location of capital projects. The CIP can also influence community growth as infrastructure improvements can impact development patterns.

Some of the many benefits that the CIP provides for the residents and stakeholders of Rochester Hills include:

- Optimize the uses of revenue
- Focus attention on community goals, needs, and capabilities
- Guide future growth and development
- Encourage efficient government
- Improve intergovernmental and regional cooperation
- Help maintain a sound and stable financial program
- Enhance opportunities for the participation in federal and/or state grant programs

Overview

Projects identified in the CIP represent the City of Rochester Hills' plan to serve residents and anticipate the needs of a dynamic community. Projects are guided by various development plans and policies established by the Planning Commission, City Council, and City Administration. Plans and policies include:

Components of the City's Strategic Plan City of Rochester Hills' Mission Statement City Council Goals & Objectives Administrative Policies Storm Water Management System Plan Master Land Use Plan Master Transportation Plan Master Pathway Plan Master Recreation Plan LDFA Master Plan

2019-2024 Capital Improvement Plan CIP Process

CIP Process

Preparation of the CIP is done under the authority of the Municipal Planning Commission Act (PA 285 of 1931). It is the City of Rochester Hills Planning Commission's goal that the CIP be used as a tool to implement the City Master Plan and to assist in the City's financial planning process.

The CIP is dynamic. Each year all projects included within the CIP are reviewed, a call for new projects is made, requests for new projects are considered, and adjustments are made to existing projects arising from changes in the amount of funding required, conditions, or timeline. A new year of programming is also added each year to replace the year funded in the annual operating budget. A status report on the prior 2018-2023 CIP can be found in the Appendix section located at the end of this book.

The CIP program will continue to develop over time by adding processes to improve quality and efficiencies. Greater attention shall be devoted to provide more detailed information regarding individual project requests, program planning, fiscal analysis, fiscal policies, and debt strategy (if applicable).

CIP & the Budget Process

The CIP plays an increasingly significant role in the implementation of a master plan by providing the link between planning and budgeting for capital projects. The CIP process precedes the budget process and is used to develop the capital project portion of the upcoming annual budget. Approval of the CIP by the Planning Commission does not mean final approval of all projects contained within the plan is granted. Rather by approving the CIP, the Planning Commission acknowledges that these projects represent a reasonable interpretation of the upcoming needs for the City and that projects contained in the plan are suitable for inclusion in future budgets.

Project priority rankings do not necessarily correspond to funding sequence. For example, a roadwidening project which is ranked lower than a park project may be funded before the park project because the road project may have access to a restricted revenue source, whereas a park project may have to compete for funding from other revenue sources. A project's funding depends upon a number of factors – not only its merit, but also its location, cost, funding source, and logistics.

The City of Rochester Hills strives to maximize resources by maintaining a balance between operating and capital budgets. A continuous relationship exists between the CIP and the annual budget. A direct link can be seen between the two documents, as there should be in a strategic planning environment.

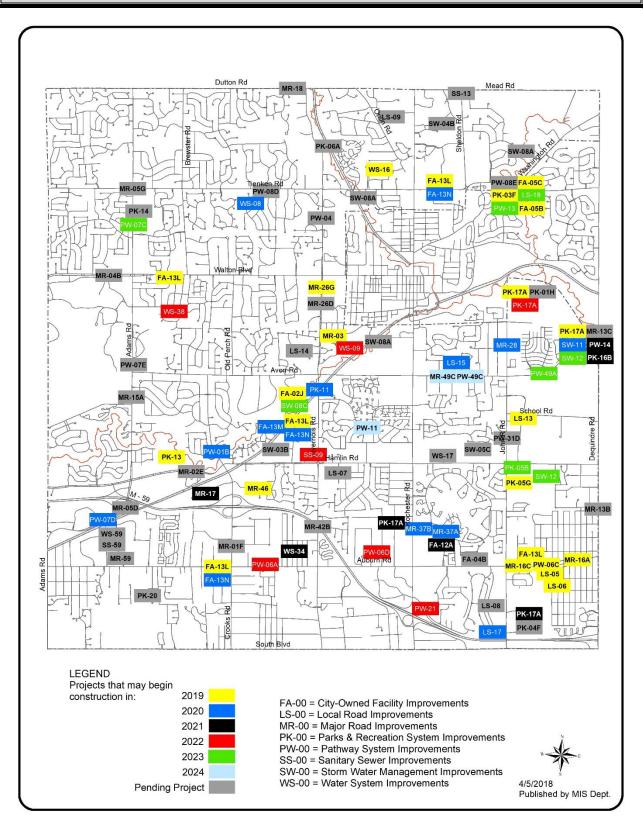
2019-2024 Capital Improvement Plan CIP Policy

As used in the City of Rochester Hills' Capital Improvement Program, a capital improvement project is defined as a major, nonrecurring expenditure that includes one or more of the following:

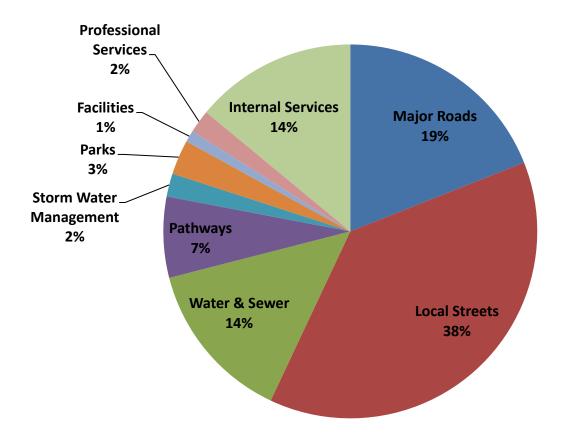
- 1. Any construction of a new facility (i.e., major/local roadways, water/sanitary sewer mains, storm water management, pathways*, recreational facilities, or public buildings), an addition to, or extension of such a facility, provided that the cost is \$25,000 or more and that the improvement will have a useful life of three years or more.
- 2. Any non-recurring rehabilitation of all or a part of a building, its grounds, a facility, or equipment, provided that the cost is \$25,000 or more and the improvement will have a useful life of three years or more.
- 3. Any purchase or replacement of major equipment to support City programs provided that the cost is \$25,000 or more and will be coded to a capital asset account.
- 4. Any planning, feasibility, engineering, or design study related to an individual capital improvement project or to a program that is implemented through individual capital improvement projects provided that the cost is \$25,000 or more and will have a useful life of three years or more.
- 5. Any planning, feasibility, engineering, or design study costing \$50,000 or more that is <u>not</u> part of an individual capital improvement project or a program that is implemented through individual capital improvement projects.
- 6. Any acquisition of land for a public purpose that is not part of an individual capital improvement project or a program that is implemented through individual capital improvement projects provided that the cost is \$25,000 or more. **
- * = Note: Beginning in FY 2008, pathway projects are reviewed and rated by the Pathway Ad-hoc Committee as opposed to the CIP raters.
- ** = Note: Land acquisition funded by the Green Space Preservation millage has <u>not</u> been included in the CIP process

Adopted March 10, 1997 by the CIP Policy Group Revised February 25, 2011 by the CIP Policy Group

2019-2024 Capital Improvement Plan Aggregate Citywide Project Locations



2019-2024 Capital Improvement Plan Aggregate City Share Summary



2019-2024 CIP City Share Breakdown					
Major Roads	\$	18,807,000	19%		
Local Streets	\$	31,414,000	38%		
Water & Sewer	\$	23,665,680	14%		
Pathways	\$	6,385,560	7%		
Storm Water Management	\$	948,250	2%		
Parks	\$	4,096,890	3%		
Facilities	\$	2,808,000	1%		
Professional Services	\$	225,000	2%		
Internal Services	\$	18,942,690	14%		
	\$	107,293,070			

2019-2024 Capital Improvement Plan



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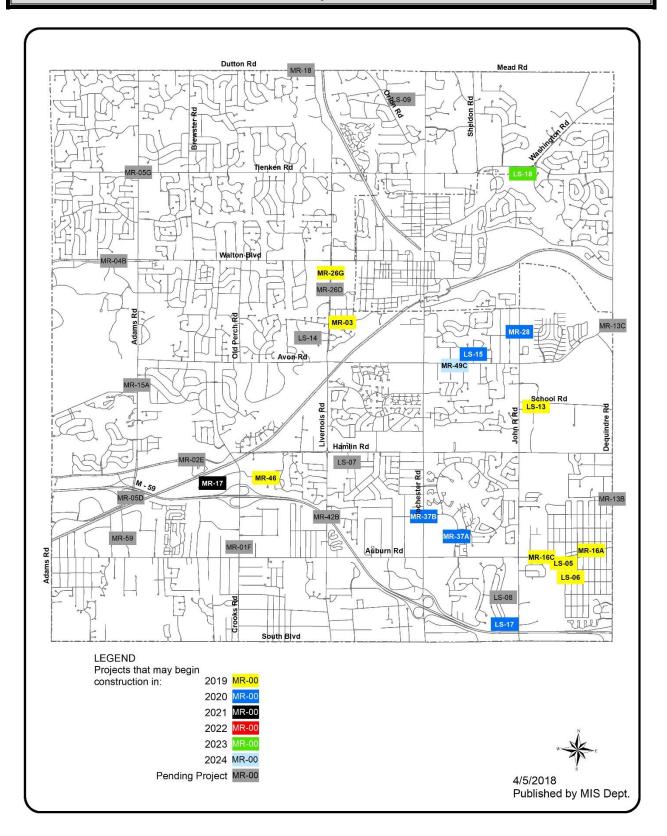
The purpose of the Street Improvement Program is to preserve and maintain safe neighborhoods in an effort to sustain the quality of life that Rochester Hills residents expect. The Street Improvement Program is part of a long-term solution aimed at the systematic maintenance, repair, and rehabilitation of City streets. This program provides a consistent standard and maintenance level over a period of years for both the major road and local street systems.

Local streets in Rochester Hills came under the City's jurisdiction in 1985. Prior to then the City was known as Avon Township and the responsibility for designing, maintaining, repairing, and replacing our streets fell upon the Road Commission of Oakland County (RCOC). Design standards were much different 30 years ago, and streets in neighborhoods which were built during the 1960's, 1970's, and early 1980's were constructed based upon design standards that have since become outdated.

In 1998, the Planning Commission adopted the Master Thoroughfare Plan to provide a better understanding of current and projected traffic trends in the community, using traffic forecasts through the year 2015. This plan presented a comprehensive program of solutions to address the problems identified by the traffic forecasts. Components of the plan have been incorporated into the Capital Improvement Plan. An update to the plan began in 2007 consisting of monthly Technical Review Committee meetings along with several public information meetings, which allowed the citizens of Rochester Hills to provide invaluable input. The Planning Commission adopted the current Master Thoroughfare Plan Update on October 21, 2008.

The City of Rochester Hills contains both public and private roadways. Public roads are owned and operated by the Michigan Department of Transportation (MDOT), the Road Commission of Oakland County (RCOC), and the City of Rochester Hills. Private roads are owned and operated by private developments and homeowner groups.

The City currently maintains approximately 42-miles of paved major roads, 195-miles of paved local streets, and 22-miles of gravel local streets. In order to define priorities and establish a course of action for the local street and major road rehabilitation programs, a Pavement Management System using Pavement Surface Evaluation and Rating (PASER) is used. PASER is a visual survey method for evaluating the condition of roads with the corresponding data serving as the foundation on which to build cost-effective pavement maintenance strategies. This information is a valuable tool when combined with an engineer's knowledge and experience to plan for and to prioritize reconstruction, rehabilitation, and traffic enhancement projects.



MR-01A	Major Road System: Rehabilitation Program			
		2019-2024		
Estim	ated City Cost:	\$3,000,000	Estimated City Share:	100%
Rehabilitation or reconstruction of failed concrete and asphalt sections within the Major Road network, as identified through the City's Pavement Management System and based upon field inspections. Work also to include rehabilitating storm water structures and installing edge drains as needed. The annual Major Road Rehabilitation Program allows for greater flexibility in coordinating activities with those of DPS crews and also allows for spreading work over a wider area rather than focusing on street specific repairs. Operating costs are anticipated to decrease by \$15,000 per year for each 0.5 miles proposed to be replaced annually. This program is proposed to be funded at \$500,000 per year and is on-going.				

MR-01B	LDFA Road System: Rehabilitation Program				
	2019-2024				
Estim	ated City Cost:	\$1,200,000	Estimated LDFA Share:	100%	
network, as ident The annual LDFA activities with the of industrial and \$6,000 per year f	Rehabilitation or reconstruction of failed concrete and asphalt sections within the LDFA District Road network, as identified through the City's Pavement Management System and based upon field inspections. The annual LDFA Concrete & Asphalt Rehabilitation Program allows for greater flexibility in coordinating activities with those of DPS crews. This program assists in maintaining road infrastructure and the viability of industrial and technology parks within the LDFA District. Operating costs are anticipated to decrease by \$6,000 per year for each 0.3 miles proposed to be replaced annually. This program is proposed to be funded at \$200,000 per year and is on-going.				

MR-03	Harding Avenue Rehabilitation			
Estimated Total Project:		\$512,000	2019-2019	
Estim	ated City Cost:	\$512,000	Estimated City Share:	100%
			andina Arrange franz Linear dia Daad	

Rehabilitate approximately 1,300' of asphalt section of Harding Avenue from Livernois Road to May Road. The existing road is 27' wide with curb and gutter. The 2016 Paser rating was a 3 (poor) out of a scale of 10. The pavement rehabilitation strategy is a 2" asphalt mill and overlay (final determination upon geotechnical testing and recommendation) with selective base and curb and gutter repairs. Operating costs are anticipated to decrease approximately \$3,000 per year due to less routine maintenance. Construction is planned to begin in 2019.

MR-12	Major Road System: Traffic Calming Program			
Estimated	d Total Project:	\$120,000	2019-2024	
Estim	ated City Cost:	\$60,000	Estimated City Share:	50%
speeding along recommendation calming devices match between devices along res	residential streets is to the Advisory are recommended the HOA and the idential collector ty	After performing Traffic and Safety Bo as a solution. This p City to provide assis	vision homeowner's associations (He in-depth traffic studies, City staf ard (ATSB). Often speed humps of ogram allows for 'seed' money to cance for the implementation of t assified as major roads. This program- going.	f bring forth r other traffic offer a 50/50 raffic-calming

MR-16A		Auburn Road Corridor Improvements			
Estimated	d Total Project:	\$7,134,000	2018-2019		
Estim	ated City Cost:	\$7,134,000	Estimated City Share:	100%	
street parking, in islands, two rour	Improvements to the Auburn Road Corridor from Culbertson Avenue to Dequindre Road, including on- street parking, improved pedestrian walking zone areas with ADA upgrades, lighting, median boulevard islands, two roundabout intersections, storm water upgrades, and lansdcaping/streetscaping. Work may involve redefining the existing road topography and elevations. This project will better control vehicle				

access onto Auburn Road and improve the accommodations and delineations for pedestrian travel. Design will occur in 2018. Construction is expected to occur in 2019. Funding assistance programs are being pursued to help offset the total expense.

MR-16C	** Auburn Road Rehabilitation [Rochester Road to Culbertson Avenue] **			
Estimated	d Total Project:	\$1,180,000	2019-2019	
Estim	ated City Cost:	\$1,180,000	Estimated City Share:	100%

Perform a 2" mill and overlay of Auburn Road between Rochester Road and Culbertson Avenue. The jurisdiction transfer of Auburn Road between Rochester Road and Dequindre Road included a project contribution of funding from the Michigan Department of Transportation (MDOT). The acceptance of funding is conditioned upon the City using the funds to improve Auburn Road within five years. The corridor improvement project between Culbertson Avenue and Dequindre Road coupled with this project will meet the requirement. Construction is planned to coordinate with MR-16A Auburn Rd Corridor project in 2019.

MR-17	Avon Industrial Drive			
Estimated	d Total Project:	\$762,500	2021-2021	
Estim	ated City Cost:	\$762,500	Estimated City Share:	100%
side street off Av The 2016 Paser r and overlay (fina curb repairs. O	von Industrial Drive ating was a 4 out of al determination up). The existing road is a scale of 10. The pa oon geotechnical test anticipated to decr	of Avon Industrial Drive and 370' of 36' wide asphalt with concrete curvement rehabilitation strategy is a 4 ing & recommendation) with select ease by \$6,000 per year due to r	rb and gutter. 4" asphalt mill tive base and

MR-26G	** Liver	** Livernois Reconstruction [Avon Road to N of Walton Boulevard] **			
Estimated	d Total Project:	\$4,950,000	2019-2019		
Estim	ated City Cost:	\$675,000	Estimated City Share:	10%	
is in poor condit	Reconstruction of Livernois Road from Avon Road to north of Walton Boulevard. The pavement in this area is in poor condition. The project will involve the removal and replacement of the pavement surface and miscellaneous drainage improvements. Preliminary Engineering is anticipated to be split 50/50 with RCOC.				

Construction is planned to begin in 2019.

MR-27	Major Road System: Bridge Rehabilitation Program				
2019-2024					
Estim	ated City Cost:	\$228,000	Estimated City Share:	100%	
Shagbark Road c Creek; 4) King's Structure Invento Department of T	Performance of maintenance and rehabilitation type work to the four (4) existing City-owned bridges: 1) Shagbark Road over Sargent Creek; 2) Butler Road over Galloway Creek; 3) Rochdale Road over Sargent Creek; 4) King's Cove Drive over Paint Creek. Repairs are based upon the City's latest Biennial Bridge Structure Inventory Report, as required by the Federal Highway Administration (FHWA) and the Michigan Department of Transportation (MDOT). Bridge Rehabilitation Study is to occur every "even-year" with Bridge Rehabilitation to occur every "odd-year". This program is on-going.				

MR-28	łoł	John R Road Rehabilitation [Avon Road to Bloomer Road]			
Estimated	d Total Project:	\$768,000	2020-2020		
Estim	ated City Cost:	\$768,000	Estimated City Share:	100%	
Road. The existin 4 out of a scale determination up re-grading. Open	Rehabilitation of approximately 3,000' of asphalt section of John R Road from north of Avon Road Bloomer Road. The existing road is 22' wide with no curb and 2' wide gravel shoulders. The 2016 Paser rating was a 4 out of a scale of 10. The pavement rehabilitation strategy is a 4" asphalt mill and overlay (final determination upon geotechnical testing & recommendation) with selective base repairs and possible ditch re-grading. Operating cost are anticipated to decrease approximately \$6,000 per year due to rehabilitation. Construction is planned to begin in 2020.				

MR-37A		Barclay Ci	rcle Rehabilitation	
		2020-2020		
Estim	nated City Cost:	\$1,452,500	Estimated City Share:	100%
The existing road scale of 10 from Road. The propo geotechnical tes as deemed nece Traffic Signal Im	d is 60' wide from b Rochester Road to bed pavement reh ting & recommend essary. Will coord aprovements. Op	back of curb to back of o Ashley Circle and 4 or abilitation strategy is a lation) with selective ba inate project timing wi erating costs of appro	clay Circle from Rochester Road to curb. The 2015 City PASER Rating at of a scale of 10 from Ashley Cir 3" asphalt mill & fill (final detern se repairs and concrete curb and th (MR-37B) Rochester Road @ I ximately \$15,000 per year are a fuction is planned to begin in 2020	was 3 out of a rcle to Auburn nination upon gutter repairs Barclay Circle: anticipated to

MR-37B	Barclay Circle @ Rochester Road: Traffic Signal Improvements				
Estimate	d Total Project:	\$375,000	2019-2020		
Estim	nated City Cost:	\$125,000	Estimated City Share:	33%	
compliant pathw The Barclay Circl turn movements thus improving t primarily funded the Barclay Circle	vay ramps to meet e median island wil s off Barclay Circle a he traffic flow and via CMAQ funds. T e median island in o	ADA compliance ald I also be reworked and Wabash Drive. capacity through th he City would be res rder to allow for pro	an design. Work would also include u ong with associated pedestrian counto to allow for the proper alignment betw This will eliminate the need for split t e intersection. The traffic signal upgra ponsible for the costs associated with oper left turn offset with Wabash Road nd maintenance costs. Construction	down signals. ween the left time phasing, ade would be reconfiguring d. Potentially	

MR-46	Star Batt Drive Reconstruction					
	2019-2020					
Estim	nated City Cost:	\$1,662,500	Estimated City Share:	100%		
on results of geo with integral asp Road to the end replacement of t	technical pavement whalt curbing. The d of Star Batt Dri the asphalt with in	nt cores). The existing ro 2016 PASER rating was a ve. The pavement reha tegral curb section. Ope	halt road (final road repair strategy bad is 36' wide from back of curb t a 2 (very poor) out of a scale of 10 bilitation strategy is a complete erating costs of approximately \$15 onstruction. Construction is plann	o back of curb 0 from Crooks removal and 5,000 per year		

MR-49C	Avon	Avon Road Widening [Princeton Avenue – Grovecrest Avenue]				
Estimate	d Total Project:	\$577,500	2023-2024			
Estim	nated City Cost:	\$192,500	Estimated City Share:	33%		
accommodate a allowing vehicles	n 11' wide center s to exit the throug due to this section	left-turn lane. The p n lanes and enter a de	Princeton Avenue and Grovecrest roposed project will provide safety dicated center left-turn lane. No op med and operated by the RCOC. Co	benefits by erating costs		

LS-01	Local Street System: Rehabilitation Program					
2019-2024						
Estimated City Cost: \$30,000,000 Estimated City Share: 100%						
identified throug costs of approxin of the local stree	Rehabilitation or reconstruction of failed concrete and asphalt sections within the Local Street network, as identified through the City's Pavement Management System and based upon field inspections. Operating costs of approximately \$57,000 per year are anticipated to decrease to \$42,000 per year for each 9.0 miles of the local street network that is proposed to be rehabilitated or reconstructed annually. This program is proposed to be funded at \$5,000,000 per year and is on-going.					

LS-05	Reuther Middle School Area Street Lighting				
Estimated Total Project: \$100,000 2019-2019					
Estimated City Cost:		\$0	Estimated City Share:	0%	
Ave near Reuthe the street lights. Community Scho	Installation of approximately 20 street lights along the walking routes, i.e., Culbertson Ave and Marlowe Ave near Reuther Middle School. Funding will be sought from Safe Routes to School for the installation of the street lights. The ongoing operations and maintenance would be funded 50/50 between Rochester Community School (RCS) District and the City. The installations would be coordinated with DTE Energy. Construction is planned to begin in 2019.				

LS-06	Reuther Middle School Area Sidewalks				
Estimated Total Project:		\$775,000	2019-2019		
Estimated City Cost:		\$285,500 Estimated City Shar		33% / 50%	
Installation of approximately 5,900' of 5' wide concrete sidewalk along the walking routes, i.e., Culbertson Ave and Marlowe Ave, near Reuther Middle School. Funding will be sought from Safe Routes to School for the installation of the sidewalks. The on-going operations and maintenance will be the responsibility of the adjacent property owners. Construction is planned to begin in 2019.					

LS-12	Local Street System: Traffic Calming Program				
Estimated	l Total Project:	\$300,000	2019-2024		
Estim	ated City Cost:	\$150,000	Estimated City Share:	50%	
The City receives many traffic related concerns from subdivision homeowner's associations (HOA) regarding speeding through residential streets. After performing in-depth traffic studies, City staff bring forth recommendations to the Advisory Traffic and Safety Board (ATSB). Often speed humps or other traffic calming devices are recommended as a solution. This program would allow for 'seed' money to offer a 50/50 match between the HOA and the City to provide assistance for the implementation of approximately					

funded at a City share of \$25,000 per year and is on-going.

LS-13	School Road Paving (John R Road – 1,700' Eastbound)				
Estimate	Estimated Total Project: \$512,500 2018-2019				
Estimated City Cost:		\$432,500	Estimated City Share:	100 / 73%	
Pave approximately 1,700' of School Road from John R Road easterly to the existing pavement at the culvert crossing. The road is currently gravel. As part of the Harvard Place PUD agreement, the developer will					

crossing. The road is currently gravel. As part of the Harvard Place PUD agreement, the developer will contribute 1/2 of the road cost for the portion across the development's 900' of frontage. This equates to an approximate 27 percent contribution of the project cost. The proposed road cross section is 22' of travel width with shoulders. A future proposed project would also construct a passing lane for southbound John R Road to turn left onto School Road. Operating costs are anticipated to decrease for a period of time by approximately \$1,360 per year due to gravel road grading/chloride operations being eliminated. Construction is planned to begin in 2019.

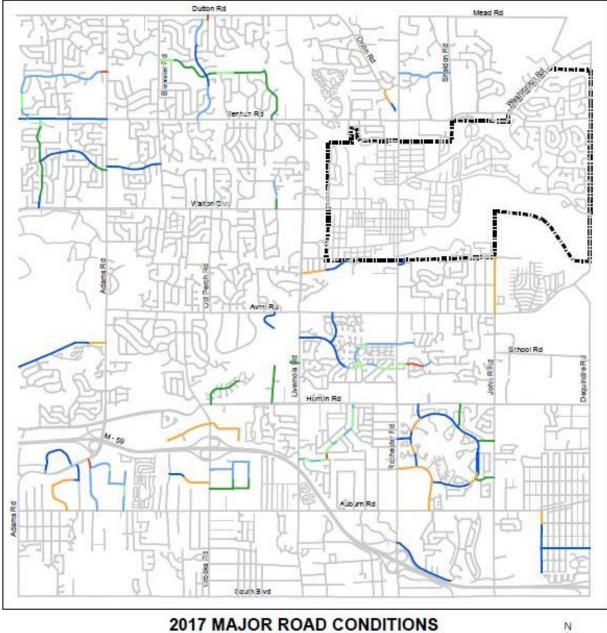
LS-15	** Bolinger Street Paving (SAD) **				
Estimated	d Total Project:	\$280,500	2019-2020		
Estim	ated City Cost:	\$112,200	Estimated City Share:	40%	
Dave an analyzed by COO' of Delinger Street nexts of Aver Deed through the edepted City Deling for Coosiel					

Pave approximately 600' of Bolinger Street north of Avon Road through the adopted City Policy for Special Assessment District gravel to pavement projects. The road is currently gravel. A majority of residents living on Bolinger Street submitted petition signatures to request the paving of Bolinger Street in accordance with the SAD policy adopted by City Council on April 17, 2017. Construction is planned to begin in 2020.

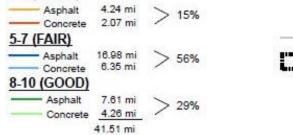
LS-17	** Michelson [West of John R] (SAD) **			
Estimated	d Total Project:	\$490,000	2019-2020	
Estim	ated City Cost:	\$196,000	Estimated City Share:	40%
Pave approximat	tely 1,100' of Micl	helson west of John	R through the adopted City Polic	y for Special
Assessment District gravel to pavement projects. The road is currently gravel. A majority of residents living				
		•	paving of Michelson in accordance	with the SAD
policy adopted by	y City Council on Ap	oril 17, 2017. Construc	tion is planned to begin in 2020.	

LS-18	** Runyon Road Paving **				
Estimated	d Total Project:	\$267,800	2022-2023		
Estimated City Cost: \$267,8		\$267,800	Estimated City Share: 100%		
roads are curren project and woul	Pave approximately 1,130' of Van Hoosen, Runyon and Washington Roads south of Tienken Road. The roads are currently gravel. This project could be coordinated with the proposed Runyon Road pathway project and would offset some of the storm water sewer and ditch enclosure costs that are currently in the new pathway project. Construction is planned to begin in 2023.				

2019-2024 Capital Improvement Plan City Map – Major Road Conditions



2017 MAJOR ROAD CONDITIONS (PUBLIC PAVED ROADS)

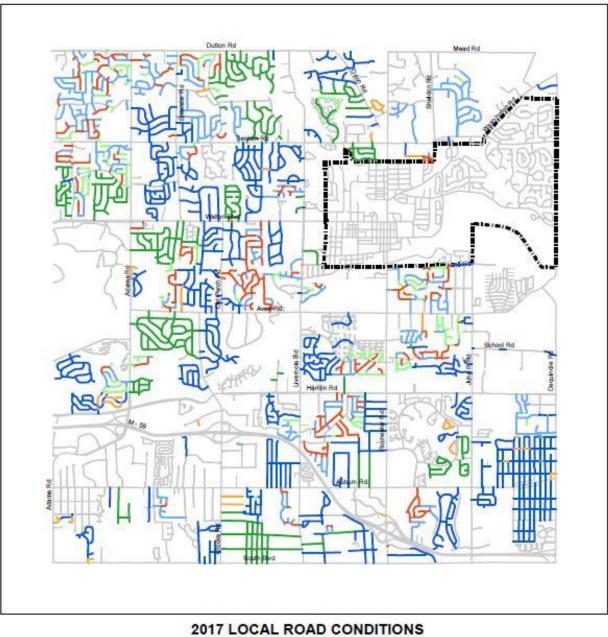


1-4 (POOR)





2019-2024 Capital Improvement Plan City Map – Local Street Conditions



2017 LOCAL ROAD CONDITIONS (PUBLIC PAVED ROADS)







	2017 Local Streets in P	s in Poor Condition [Paser Rating Between 1-4]			
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Abington Ct	Tower Hill Ln	Dead End or Start	3: Poor	264	Concrete
Ansal		Lake Forest	4: Poor	195	Concrete
Antler Ct	Stag Rdg	Dead End or Start	4: Poor	322	Concrete
Arlington Dr		Dalton Dr	4: Poor	317	Concrete
Arlington Dr	Dalton Dr	Bolinger	3: Poor	327	Concrete
Arlington Dr	Bolinger	Whitney Dr	3: Poor	312	Concrete
Arlington Dr	Whitney Dr		3: Poor	491	Concrete
Arms Ct	Thames Dr	Dead End or Start	4: Poor	618	Concrete
Avoncrest Dr	Old Perch Rd		4: Poor	63	Asphalt
Avoncrest Dr		Dead End or Start	4: Poor	180	Concrete
Avonstoke Rd		W Hamlin Rd	3: Poor	391	Concrete
Aynsley Dr	Kingspath Dr	Wedgewood Dr	3: Poor	401	Concrete
Baypoint Dr		Doral Dr	4: Poor	169	Concrete
Beechcrest	Adams Rd	Paddington Ct	4: Poor	-	Asphalt
Bembridge Dr	x	v	4: Poor		Concrete
Berry Nook Ln	Whitney Dr & Arlington Dr	Bloomer	4: Poor		Concrete
Biggers	Bridgestone Dr	Allston	3: Poor	517	
Bolinger			4: Poor		Concrete
Box Canyon		Dead End or Start	3: Poor	132	
Brilliance	Empire Dr	Honor Dr	4: Poor	486	
	Chelsea Ct	Dead End or Start	4: Poor	275	
Bromley Ln	S Livernois Rd			-	
Burgoyne		S Livernois Rd	2: Very Poor		Asphalt
Buttercup Dr	Daylily Dr	Goldenrod Dr	4: Poor	935	Concrete
Cal Ave	Culbertson	Emmons	4: Poor	-	Asphalt
Campus	Old Perch Rd		3: Poor		Asphalt
Campus		Campus Ct	3: Poor	407	Concrete
Campus	Campus Ct	Baylor	4: Poor		Concrete
Campus Ct	Campus	Dead End or Start	3: Poor	591	Concrete
Canterbury Trl	Chalet Dr		3: Poor	296	
Cascade Cir			3: Poor	-	Concrete
Cascade Cir			3: Poor	79	Concrete
Castlebar	W Avon Rd	Leinster	4: Poor	496	Asphalt
Castlebar	Leinster	Munster	4: Poor	1,183	Asphalt
Catalpa	City/Twp Line	Red Oak & Catalpa Ct	4: Poor	312	Concrete
Catalpa	Red Oak & Catalpa		4: Poor	132	Concrete
Cedar Shake Dr	Falcon Dr & Firewood Dr		4: Poor	1,135	Concrete
Cedar Shake Dr	Falcon Dr & Firewood Dr		4: Poor	32	Concrete
Chaffer Dr	Royal Doulton Blvd & Cobridge Dr		3: Poor	470	Concrete
Chaffer Dr	Aynsley Dr	Wedgewood Dr	3: Poor	713	Concrete
Chalet Dr	Kimberly Fair	Canterbury Trl	4: Poor	523	Concrete
Chalet Dr	Canterbury Trl		4: Poor	317	Concrete
Chatham Cir	Orion Rd & Elmhill Rd	Chatham Cir	4: Poor	327	Asphalt
Chatham Cir	Scarborough	Harwich	4: Poor		Asphalt
Chatham Cir	Chatham Cir	Orion Rd	4: Poor		Asphalt
Chatham Cir	Scarborough	Harwich	4: Poor	1	Asphalt
Chelsea Ct	Bromley Ln	Dead End or Start	4: Poor		Concrete
Cherrywood Ln	Crestwood		3: Poor	1	Concrete
Cherrywood Ln		Falcon Dr & Cherrywood Ct	3: Poor	1	Concrete
Cherrywood Ln	Falcon Dr & Cherrywood Ln	Dead End or Start	3: Poor		Concrete
Clovelly	Weaverton	Bridget	4: Poor	1	Asphalt
Cobridge Ct	Cobridge Dr	Dead End or Start	3: Poor	1	Concrete
	Royal Doulton Blvd & Chaffer Dr	Cobridge Ct	4: Poor	-	Concrete
Cobridge Dr		Wedgewood Dr			
Cobridge Dr	Baroque Ct		4: Poor		Concrete
Corbin	Kentucky Dr	Dead End or Start	4: Poor	-	Concrete
Courtfield	Lexham Ln Parkland Dr	Crestline Ct	4: Poor 4: Poor		Concrete Concrete
Crestline					

	2017 Local Streets in P	2017 Local Streets in Poor Condition [Paser Rating Between 1-			
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Crestline Ct	Crestline	Crestline Ct @ Crestline	3: Poor	37	Concrete
Crestline Ct	Crestline Ct @ Crestline	Cul-de-sac	3: Poor	322	Concrete
Crestline Ct	Cul-de-sac	Dead End or Start	3: Poor	58	Concrete
Croydon Rd		Lake Forest	3: Poor	454	Concrete
Croydon Rd	Lake Forest	Spartan Dr	3: Poor	348	Concrete
Croydon Rd	Spartan Dr	Dead End or Start	4: Poor	206	Concrete
Cypress		Sumac Dr	3: Poor	53	Concrete
Dalton Dr	Arlington Dr	Hadley Rd	4: Poor	1,241	Concrete
Dawes	Hessel	Dequindre Rd	4: Poor	333	Asphalt
Dawson Dr	Cumberland Dr	Highsplint Dr	4: Poor	348	Concrete
Daylily Dr	Buttercup Dr	Mayapple Ct	4: Poor	855	Concrete
Daylily Dr	Mayapple Ct	Vardon St	4: Poor	296	Concrete
Devonwood	Stonington Ln	Westwood Dr	4: Poor	306	Asphalt
Devonwood		Foresthill Dr	3: Poor		Concrete
Edmunton Dr	Hartford Ct	Salem Dr	3: Poor		Concrete
Edmunton Dr	Salem Dr	McCormick Dr	3: Poor	871	
Elkhorn Dr	Torrent Ct		4: Poor		Concrete
Englewood Dr	Brandon Ct		4: Poor	607	
-	Brandon Ct		2: Poor		
Englewood Dr		E della stan			Concrete
Essex Dr		Eddington	4: Poor		Concrete
Essex Dr	Essex	Essex	4: Poor		Concrete
Essex Dr	Lexington		3: Poor	190	
Essex Dr	Lexington	Pembroke	3: Poor	280	
Essex Dr	Pembroke	Essex Ct	4: Poor		Concrete
Evergreen Ct	Stanford Cir	Dead End or Start	4: Poor	227	Concrete
Fair Oak Dr	Yale Ct	Dead End or Start	4: Poor	190	Concrete
Fairfield		Ridgecrest	4: Poor	602	Concrete
Fawn Ct	Stag Rdg	Dead End or Start	4: Poor	201	Concrete
Flanders Dr	Highsplint Dr		4: Poor	671	Concrete
Ford Croft Dr	Stonetree Cir	Raintree Dr	3: Poor	966	Concrete
Forest View Ct	Woodfield Way	x	4: Poor	116	Concrete
Foresthill Dr	Devonwood	E16-001 starting point	3: Poor	132	Concrete
Fox Woods Ln	Woodfield Way	Fox Wood	3: Poor	211	Concrete
Fulham Dr	Fulham Ct	Brompton Rd & Tottenham Ct	4: Poor	227	Concrete
Fulham Dr	Brompton Ct	S Livernois Rd & Sierra Blvd	3: Poor	539	Concrete
Gallaland	Dakota Dr		4: Poor	275	Concrete
Gallaland	Pioneer Dr	Dead End or Start	3: Poor	285	Concrete
Glen Meadow Ct	Colony Dr	Glen Meadow Ct to CulDeSac	3: Poor	422	Concrete
Glen Meadow Ct	Glen Meadow Ct to CulDeSac	Dead End or Start	3: Poor		Concrete
Goldenrod Dr	Buttercup Dr	Primrose Dr	4: Poor	697	Concrete
Greenleaf Dr			3: Poor	227	
Greenleaf Dr		Rochdale	4: Poor		Concrete
Greenspring Ln	Heron Ridge Dr	Hickory Trl	3: Poor		Asphalt
Greenspring Ln	Blue Heron Ln		4: Poor		Asphalt
Greenwood	South Blvd W	Sawgrass C+		-	Asphalt
		Sawgrass Ct intersection bad	4: Poor		-
Grosvenor Dr Grosvenor Dr	intersection bad		3: Poor		Concrete
	intersection bad	Harvard Dr	3: Poor	-	Concrete
Grovecrest	Slumber	Misty Brook Ln	4: Poor		Concrete
Harlan Ct	Warrington Rd	Flanders Dr	4: Poor		Concrete
Harlan Ct	Flanders Dr	Dead End or Start	3: Poor	-	Concrete
Harvard Dr	Grosvenor Dr	intersection Harvard& Grosvenor	3: Poor		Concrete
Harvard Dr	intersection Harvard& Grosvenor	intersection Harvard& Grosvenor	3: Poor	5	Concrete
Hedgewood Ln	Hickory Trl	Mapleridge Ct	4: Poor	1,489	Asphalt
Heidelberg Dr	Cambridge	Dead End or Start	4: Poor	1,082	Asphalt
Hessel	E Auburn Rd	Dawes	4: Poor	375	Asphalt
Hidden Ln	Springwood Ln	Dead End or Start	4: Poor	697	Concrete

	2017 Local Streets In	n Poor Condition [Paser Rating Betw		1	
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Highsplint Dr	Kentucky Dr	Flanders Dr	4: Poor	496	
Highsplint Dr	Flanders Dr		4: Poor	290	Concrete
Highsplint Dr	Warrington Rd		3: Poor	412	Concrete
Highsplint Dr			3: Poor	243	Concrete
Highsplint Dr		Dawson Dr	3: Poor	428	Concrete
Highsplint Dr	Dawson Dr		4: Poor	422	Concrete
Highsplint Dr		Dead End or Start	3: Poor	148	Concrete
Hillcrest Dr	Pleasant View Dr	Devonwood	3: Poor	253	Concrete
Hillcrest Dr	Devonwood		3: Poor	343	Concrete
Hillside Ln	Hillside to Sandalwood	Drexelgate Pkwy	3: Poor	544	Concrete
Holiday Ct	Summit Rdg	Dead End or Start	3: Poor	359	Concrete
Hollenshade	Olympia Dr	Muirwood Ct	4: Poor	-	Concrete
Ivy Wood Ct	Arlington Dr	Dead End or Start	3: Poor		Concrete
Jason Cir	Snowden Cir	Quincy Dr	4: Poor	-	Concrete
June	Crooks Rd	Dead End or Start	4: Poor		Asphalt
Keats Dr	Shelley Dr	Shelley Dr	4: Poor		Asphalt
Kendal Ln	Bellshire Ln	Dead End or Start	3: Poor	-	Concrete
Kentucky Dr		Cumberland Dr	4: Poor	-	Concrete
Kentucky Dr			4: Poor		Concrete
Kentucky Dr		Cumberland Dr	4: Poor		Concrete
Kilburn Ct		Dead End or Start	3: Poor	-	Concrete
W Kilburn Rd	Cummit Dela			-	
	Summit Rdg		3: Poor		Concrete
W Kilburn Rd	N Adams Rd & W Kilburn Rd		4: Poor	-	Concrete
Kimberly Fair	Chalet Dr		3: Poor	507	
Kimberly Fair			4: Poor		Concrete
Kimberly Fair		Sussex Fair	4: Poor	-	Concrete
Kirkton Ct		Dead End or Start	2: Poor		Concrete
Lake Forest	Croydon Rd	Rutgers	4: Poor	285	
Lake Forest	Rutgers	Campus	4: Poor	-	Concrete
Lake Forest	Campus	Lake Forest Ct	4: Poor	692	
Lake Forest	Lake Forest Ct	Bucknell Ct	3: Poor	-	Concrete
Lake Forest			4: Poor	-	Concrete
Lake Forest			4: Poor	-	Concrete
Lake Forest		Sumac Dr	4: Poor		Concrete
Lake Forest	Sumac Dr	Ansal	4: Poor	781	Concrete
Lake Forest	Ansal	Spartan Dr	4: Poor	781	Concrete
Langley Ct	Langley Rd	Dead End or Start	3: Poor	269	Concrete
Langley Rd	Beacon Hill Dr	Langley Ct	4: Poor	296	Concrete
Langley Rd	Langley Ct	Lassiter Dr	3: Poor	882	Concrete
Lexham Ln	W Auburn Rd	Courtfield	4: Poor	306	Concrete
Lexham Ln	Courtfield	Dead End or Start	4: Poor		Concrete
Lexington Dr	Essex Dr	Ternbury Dr	4: Poor	1,410	Concrete
Lion St	Hampton Cir	Hampton Cir	4: Poor	1,214	Asphalt
Live Oak Dr	Ulster	Munster	4: Poor	333	Concrete
Live Oak Dr	Munster	Dead End or Start	4: Poor	296	Concrete
Long Meadow Ln	Twin Oaks Ct	Lake Ridge	3: Poor	269	Concrete
Long Meadow Ln	Twin Oaks Ct	Woodfield Way	4: Poor	401	Concrete
Long Meadow Ln	Woodfield Way		3: Poor	121	Concrete
Maple	City/Twp Line	Red Oak	3: Poor	190	Concrete
Mapleridge Ct		Hickory Trl	3: Poor	612	Asphalt
Mapleridge Ct		Dead End or Start	3: Poor	-	Asphalt
Mayapple Ct	Daylily Dr	Dead End or Start	4: Poor	-	Concrete
Meadowbrook Dr	Adams Rd	Country Club Dr	3: Poor		Concrete
Meadowbrook Dr	Country Club Dr	Trailwood Dr	4: Poor	-	Concrete
Meadowbrook Dr		Walton Blvd	4: Poor	-	Concrete
Meadowview Ct	Brewster Rd		3: Poor		Asphalt
Meadowview Ct		Dead End or Start	3: Poor		Concrete

	2017 Local Streets in	n Poor Condition [Paser Rating Betwe			_
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Merriweather	Sudbury Ct	Old Homestead	4: Poor	375	Concrete
Michelson	S Rochester Rd		3: Poor	90	Concrete
Millbrook Ct		Dead End or Start	3: Poor	90	Concrete
Misty Brook Ln	Grovecrest	Rambling Dr	4: Poor	649	Concrete
Morley	Culbertson	Emmons	4: Poor	327	Asphalt
Morley	Emmons	Longview	4: Poor	327	Asphalt
Morley	Longview	Harrison	4: Poor	333	Asphalt
Muirwood Ct	Hollenshade	Dead End or Start	4: Poor	348	Concrete
Munster	Live Oak Dr	Stanford Cir	4: Poor	1,220	Concrete
Munster	Stanford Cir		4: Poor	158	Concrete
Nawakwa	S Rochester Rd		4: Poor	306	Asphalt
New Kent Rd	N Kilburn Rd	Lambeth Park	4: Poor	586	Concrete
Norton Lawn		Norton Rd & Cumberland Dr	4: Poor	201	Concrete
Norton Lawn		Norton Rd & Cumberland Dr	4: Poor	1,727	Concrete
Notre Dame Rd	Spartan Dr	Ten Point Dr	3: Poor	322	Concrete
Oakrock	Rochdale		3: Poor	185	Concrete
Oakrock		Dead End or Start	3: Poor	100	Asphalt
Old Homestead		Merriweather	4: Poor	845	Concrete
Old Homestead	Merriweather	Salem Dr	2: Poor	148	Concrete
Old Homestead	Salem Dr	Summit Rdg	4: Poor	681	Concrete
Orchardale		Walton Blvd	4: Poor		Concrete
Paddington Ct	Beechcrest	Dead End or Start	4: Poor		Asphalt
Parkland Ct	Sandalwood Dr	Dead End or Start	4: Poor	269	Concrete
Parkland Dr	Sandalwood Dr Sandalwood Dr	Parkland	4: Poor	797	Concrete
Parkland Dr	Parkland	Drexelgate Pkwy	3: Poor	-	Concrete
Pembroke Dr	Essex		3: Poor		
		Bembridge Eagle Dr	4: Poor	-	Concrete
Pheasant Ring Dr	Pheasant Ring Ct		3: Poor	602	Concrete
Pinehurst Dr	Raintree Dr	Doral Dr			Concrete
Pleasant View Dr Poco Ct	Hillcrest Dr Winchester	Deed Fed or Stort	3: Poor	1,119	Concrete
	Winchester	Dead End or Start	3: Poor	-	
Preswick			4: Poor	-	Concrete
Primrose Ct	Primrose Dr	Dead End or Start	4: Poor		Concrete
Primrose Dr	Johnathan Dr	Daylily Dr	4: Poor		Concrete
Primrose Dr	Daylily Dr	Primrose Ct	4: Poor		Concrete
Primrose Dr	Primrose Ct	Goldenrod Dr	4: Poor	-	Concrete
Primrose Dr	Goldenrod Dr	E Auburn Rd	3: Poor	-	Concrete
Prospect Dr	Cumberland Dr	Elkhorn Dr	4: Poor	-	Concrete
Quail Ridge Cir	Glengrove Dr	Park Creek Ct	3: Poor	-	Concrete
Quincy Dr	Jason Cir	Salem Dr	3: Poor		Concrete
Red Oak	Courtland		3: Poor	-	Asphalt
Red Oak		Sycamore	3: Poor		Concrete
Red Oak	Sycamore	Catalpa Ct	4: Poor	269	Concrete
Red Oak	Catalpa Ct & Catalpa	Maple	3: Poor		Concrete
Ridgecrest	Pleasant View Dr	Fairfield	3: Poor	602	Concrete
Ridgecrest	Fairfield		3: Poor	312	Concrete
Ridgefield Ct	Grandview	Dead End or Start	4: Poor	771	Concrete
Rochdale	Strea mview Ct	Greenleaf Dr	4: Poor	333	Concrete
Rocky Crest Dr	Charlwood	Tacoma Dr	3: Poor	924	Concrete
Rocky Crest Dr	Tacoma Dr & Rocky Crest Dr	Dead End or Start	4: Poor	222	Concrete
Rosewood Ln	Falcon Dr	Dead End or Start	4: Poor	507	Concrete
Rutgers	Lake Forest	Spartan Dr	4: Poor	1,373	Concrete
Sandalwood Ct		CuldeSac	4: Poor		Concrete
Sandalwood Ct	Sandal wood Ct	Dead End or Start	4: Poor		Concrete
Sandalwood Dr	Drexelgate Pkwy	Parkland Ct	4: Poor		Concrete
Sandalwood Dr	Parkland Ct	Sandalwood	4: Poor	-	Concrete
Sawgrass Ct	Greenwood	Dead End or Start	4: Poor		Asphalt

	2017 Local Streets	2017 Local Streets in Poor Condition [Paser Rating Between 1-4			
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Shelley Dr	Hampton Cir	Keats Dr	4: Poor	201	Asphalt
Shelley Dr	Keats Dr	Keats Dr	4: Poor	892	Asphalt
Shelley Dr	Keats Dr	Dead End or Start	4: Poor	253	Asphalt
Slade Ct	Winchester	Dead End or Start	3: Poor	444	Concrete
Snowden Cir	Albany Dr	Salem Dr	4: Poor	824	Concrete
Snowden Ct	Salem Dr	Dead End or Start	3: Poor	227	Concrete
Spartan Dr	Croydon Rd	Notre Dame Rd	3: Poor	1,104	Concrete
Spartan Dr	Notre Dame Rd	Rutgers	3: Poor	354	Concrete
Spartan Dr	Rutgers	Lake Forest	4: Poor	723	Concrete
Stag Rdg	W Avon Rd	Antler Ct	3: Poor	222	Concrete
Stag Rdg	Antler Ct	Fawn Ct	4: Poor	121	Concrete
Stag Rdg	Fawn Ct	Ten Point Dr	4: Poor	148	Concrete
Stanford Cir	W Avon Rd		4: Poor		Concrete
Stanford Cir	Stanford Ct		3: Poor	385	Concrete
Stanford Cir	Evergreen Ct	Munster	4: Poor		Concrete
Starr Ct	Avon Industrial	Dead End or Start	4: Poor	-	Asphalt
Stonetree Cir			4: Poor		Concrete
	N Fairview Ln	Devonwood	4: Poor 4: Poor	-	Asphalt
Stonington Ln				-	
Stonington Ln	Devonwood	Grandview & Stonington Ct	4: Poor		Asphalt
Sugar Pine	Black Maple Dr	Walton Blvd	4: Poor		Concrete
Sumac Dr	Cypress	Tanglewood Dr	3: Poor	-	Concrete
Summit Ct	Summit Rdg	Dead End or Start	2: Poor		Concrete
Summit Rdg	East Pointe Ct	W Kilburn Rd	4: Poor	898	Concrete
Summit Rdg	McCormick Dr	Wales Dr	3: Poor	850	Concrete
Sussex Fair	Chalet Dr	Kimberly Fair	3: Poor	296	Concrete
Sussex Fair	Kimberly Fair	Dead End or Start	4: Poor	739	Concrete
Sycamore	City/Twp Line	Red Oak	4: Poor	375	Concrete
Tamm	Crooks Rd	Dead End or Start	4: Poor	1,357	Asphalt
Tanglewood Ct	Tanglewood Dr	Dead End or Start	4: Poor	539	Concrete
Tanglewood Dr		Black Maple Dr	4: Poor	238	Concrete
Tanglewood Dr	Black Maple Dr		4: Poor	528	Concrete
Tanglewood Dr		Sugar Pine	4: Poor	69	Concrete
Tanglewood Dr	Sugar Pine	Lake Forest	4: Poor	227	Concrete
Tanglewood Dr	Lake Forest	Sumac Dr	4: Poor	412	Concrete
Tanglewood Dr		Dead End or Start	3: Poor	206	Concrete
Teakwood	Falcon Dr	Cherrywood Ln & Crestwood	4: Poor		Concrete
Teakwood	Falcon Dr	Cherrywood Ln & Crestwood	3: Poor	-	Concrete
Teakwood	Cherrywood Ln	Coachwood Ln	3: Poor	-	Concrete
Ten Point Dr	Stag Rdg	Stag Rdg	4: Poor		Concrete
Ten Point Dr	Stag Rdg	Notre Dame Rd	3: Poor	1.278	Concrete
Ten Point Dr	Notre Dame Rd	Noti e Dame Ru	3: Poor	95	Concrete
		Tarahuru Da			
Ternbury Dr	Ternbury Dr	Ternbury Dr	4: Poor		Concrete
Thames Dr	Thames	Arms Ct	3: Poor	-	Asphalt
Thames Dr	Arms Ct	E Avon Rd	3: Poor		Asphalt
Thornberry Ct	Beechcrest	Dead End or Start	4: Poor		Asphalt
Thornridge Ct	Thornridge Dr	Dead End or Start	3: Poor		Concrete
Tienken Ct		Dead End or Start	3: Poor	-	Asphalt
Tower Hill Ln	Charm	Abington Ct	4: Poor		Concrete
Tower Hill Ln		Brewster Rd	4: Poor		Asphalt
Twin Oaks Ct	Long Meadow Ln	Twin Oaks Ct	4: Poor	359	Concrete
Valley Stream Ct	Valley Stream Dr	Dead End or Start	4: Poor	201	Concrete
Valley Stream Dr	Dead End or Start	Valley Stream Ct	4: Poor	190	Concrete
Wagner Dr	Woodridge Dr	Dead End or Start	4: Poor	95	Concrete
Wakefield Ct	Charlwood & Olympia Dr	Parkwood Dr	4: Poor	412	Concrete
Warrington Rd			4: Poor		Concrete
Wedgewood Dr	Arbor Creek Dr	Chaffer Dr	3: Poor		Concrete

	2017 Local Streets in Poor Condition [Paser Rating Between 1-4]							
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface			
Whitney Dr	Berry Nook Ln & Arlington Dr	Pioneer Dr	3: Poor	1,135	Concrete			
Whitney Dr	Arlington Dr		3: Poor	232	Concrete			
Wimpole		Walton Blvd	3: Poor	58	Concrete			
Windrift Ln		Eddington	3: Poor	560	Concrete			
Woodfield Way	Lake Ridge Rd	Oak View Ct	4: Poor	882	Concrete			
Woodfield Way	Oak View Ct	Forest View Ct	4: Poor	333	Concrete			
Woodfield Way	Forest View Ct	Fox Woods Ln	4: Poor	380	Concrete			
Woodfield Way	Long Meadow Ln	Fox Woods Ln	3: Poor	317	Concrete			
Woodridge Ct	Woodridge Dr	Dead End or Start	4: Poor	238	Concrete			
Woodridge Dr	Wagner Dr	Woodridge Ct	3: Poor	290	Concrete			
Yale Ct	Fair Oak Dr	Dead End or Start	4: Poor	370	Concrete			

Notes to Local Street Conditions:

- Pavement Surface Evaluation and Rating System (PASER) is a visual survey method for evaluating the condition of roads. This data serves as the foundation of which to build cost-effective pavement maintenance strategies.
- Local Street conditions are depicted on the map. The PASER condition ratings are grouped by the following categories: POOR (1-4); FAIR (5-7); and GOOD (8-10). Only streets in POOR condition are listed in the table.
- Local Streets are presented by segment (not by total average PASER rating). The same street may be listed as both Fair and Poor because different segments are at different quality levels.
- Streets degrade at different rates due to a variety of factors such as traffic volume, road crosssection, drainage, etc... The PASER rating listed in the tables only represent today's current street condition and <u>does not</u> guarantee that the ranking of roads will remain the same after subsequent street evaluation surveys are conducted. The entire Local Street system is re-evaluated and PASER figures updated each year.

2019-2024 Capital Improvement Plan



innovative *by* nature

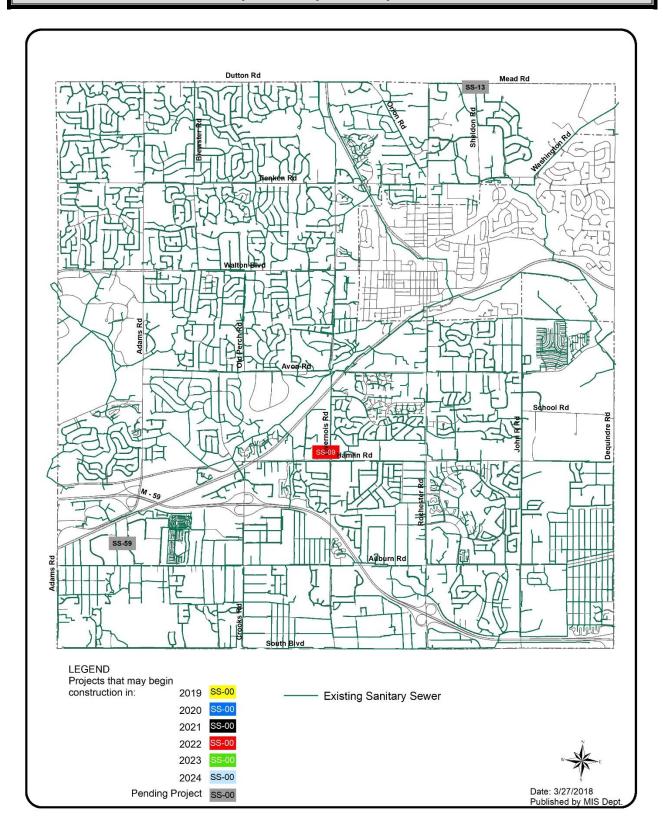
The mission of the Water Supply and Sanitary Sewage Disposal System Plan is to preserve the integrity of the water and sanitary sewer systems; to implement a capital maintenance program that sustains reliability; and (if justified) to extend the distribution and collection systems throughout the remainder of the City.

The extension of the sanitary sewage disposal system throughout the City will eventually eliminate private septic systems, thereby preserving the environment as well as the water source for private well systems, which some residents are dependent upon as their source of potable water.

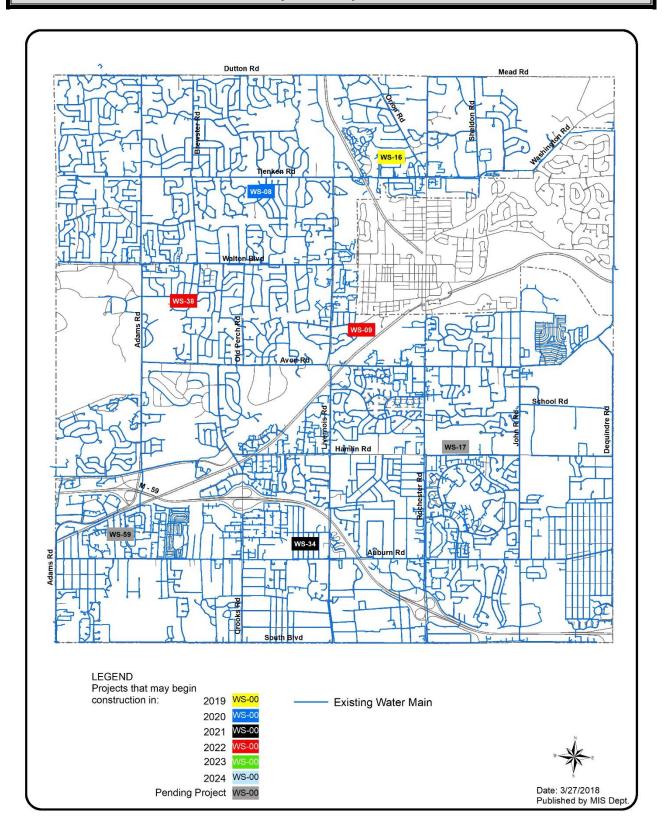
The development of the proposed water and sanitary sewer projects were based upon system deficiencies and needs obtained from area residents, business owners, and City staff. These projects are coordinated with storm water management, roadway, and pathway improvements whenever possible to maximize cost savings through economies of scale, resulting in a more effective and efficient process to implement the construction projects.

The proposed water and sanitary sewer projects are flexible, allowing for the addition of new improvements to address specific needs without deferring other projects along the way. Studies and analysis of the existing system is an on-going program that, when coupled with new technologies, provides for improved system capabilities and reliability.

Water and sanitary sewer projects identified as urgent are not subject to the rating/weighting scale required of capital improvement projects as these projects are deemed necessary for the health, safety, and welfare of our customers.



2019-2024 Capital Improvement Plan Water System Improvements



SS-01B	SCADA System Upgrade Schedule				
		2019-2024	Ļ		
Estim	ated City Cost:	\$733,880	Estimated City Share:	100%	
to occur approx scheduled for re 2021. Annual op	imately every 5 ye placement in 2020 perating costs of \$6 ensive service and r	ears. Servers and oth The communication 50,000 are anticipated	e components (including radio syste er SCADA hardware/software con s (radio) system is scheduled to b to remain consistent with timely e required to keep older equipment	nponents are e replaced in replacement,	

SS-02B	Sanitary Sewer Rehabilitation Program				
2019-2024					
Estim	ated City Cost:	\$1,500,000	Estimated City Share:	100%	
Rehabilitation of the existing sanitary sewer system in various areas of the City as determined through an in-house sanitary sewer system evaluation study that occurs every other year. Selective rehabilitation is planned to occur in the years following the sanitary sewer system evaluation study. This program is proposed to be funded at \$500,000 every other year and is on-going.					

SS-09	** Livernois Sanitary Sewer Extension **				
2022-2022					
Estim	ated City Cost:	\$200,000	Estimated City Share:	100%	
Extend the sanitary sewer approximately 540 linear feet south on Livernois to provide access for properties currently not connected to public sewer. Construction is proposed to begin in 2022.					

SS-11	*	** Oakland Macomb Interceptor Drain Improvements **				
2019-2023						
Estim	ated City Cost:	\$6,468,000	Estimated City Share:	100%		
approximately 83 Oakland County	The Oakland Macomb Interceptor Drain (OMID) is a large diameter interceptor sewer that serves approximately 830,000 residents of Macomb and Oakland Counties. The City is a part of OMID and as the Oakland County Water Resource Commission (OCWRC) does improvements on OMID, the City is assessed its percentage of the project. The City has been notified of upcoming costs (City portion) for 2019 through					

SS-30		Sanitary Sewer Easement Machine					
		2019-2019)				
Estin	nated City Cost:	\$60,000	Estimated City Share:	100%			
conjunction with the City's high- wooded areas, sanitary sewer s	Purchase of a self-propelled all-terrain easement cleaning machine with hose reel assembly to be used in conjunction with a high pressure hydraulic sewer cleaner. The purpose of this unit is to extend the use of the City's high-pressure sewer cleaner into normally inaccessible areas such as easements, hillsides, wooded areas, and/or behind/between homes and/or buildings. Increased level of service to the City's sanitary sewer system and it's customers by potentially reducing the number of sanitary sewer backups. Annual equipment maintenance costs of \$2,500 per year are anticipated. Purchase is planned for 2019.						

WS-08		Fieldstone & Ironstone: Water Main Replacement				
	-	2020-202	D			
Estim	nated City Cost:	\$1,298,000	Estimated City Share:	100%		
Ironstone Drive water main does per the MDEQ ar	in Section 9 of the s not meet the mir nd Ten State Stand	e City. Cast iron pipe is nimum size requiremen dards). The water main	on water main located along Fieldst s no longer installed in our water s t (8" pipe is the minimum public w will be replaced with 8" ductile iro n method). Construction is planne	system and 6" ater main size n pipe or high		

WS-09	Flora Valley Court – River Bend Drive: Water Main Connection						
		2022-2022					
Estimated City Cost: \$536,900 Estimated City Share: 100%							
Drive) in Section discourages dead flushing and crea a small addition	Install approximated City Cost: \$556,900 Estimated City Share: 100% Install approximately 1,300' of 8" water main between River Bend Drive and Flora Valley Court (Proposed Drive) in Section 15 to complete a water main loop and eliminate two long dead end mains. The City discourages dead end water mains that extend more than 600'. A looped system eliminates the need for flushing and creates a more redundant system. Impact on future operating costs minimal as this would be a small addition to our water main system, will save on the need for flushing dead end water mains. Construction is planned to begin in 2022.						

WS-16	Bedford Square Apartments/Tienken Court: Water Main Replacement						
	2019-2019						
Estim	Estimated City Cost: \$2,424,900 Estimated City Share: 100%						
Replacement of approximately 2,800' of 6" and 4,050' of 8" cast iron water main located at the Bedford Square Apartment Complex and along Tienken Court in Section 3 of the City. The water main will be replaced with 8" ductile iron pipe or high density polyethylene (HDPE) pipe (depends on installation method). A connection between the apartment complex and Tienken Court will be constructed to improve system redundancy and eliminate a dead end water main along Tienken Court. Construction is planned to begin in 2019.							

WS-34	Glidewell Subdivision: Water Main Replacement					
	2021-2021					
Estim	Estimated City Cost: \$4,926,500 Estimated City Share: 100%					
Section 28 of the meet the minimu State Standards)	Replace approximately 16,700' of 6" and 8" cast iron water main located in the Glidewell Subdivision in Section 28 of the City. Cast iron pipe is no longer installed in our water system and 6" water main does not meet the minimum size requirement (8" pipe is the minimum public water main size per the MDEQ and Ten State Standards). The water main will be replaced with 8" ductile iron pipe or high density polyethylene (HDPE) pipe (depends on installation method). Construction is planned to begin in 2021.					

WS-38	** Springhill Subdivision Water Main Replacement Project **					
	2021-2022					
Estim	ated City Cost:	\$5,312,500	Estimated City Share:	100%		
Replace approximately 6,000' of 6" and 11,000' of 8" AC water main located in the Springhill Subdivision in Section 17 of the City. The water main will be replaced with 8" ductile iron pipe or high density polyethylene (HDPE) pipe (depends on installation method). Construction is planned to begin in 2022.						

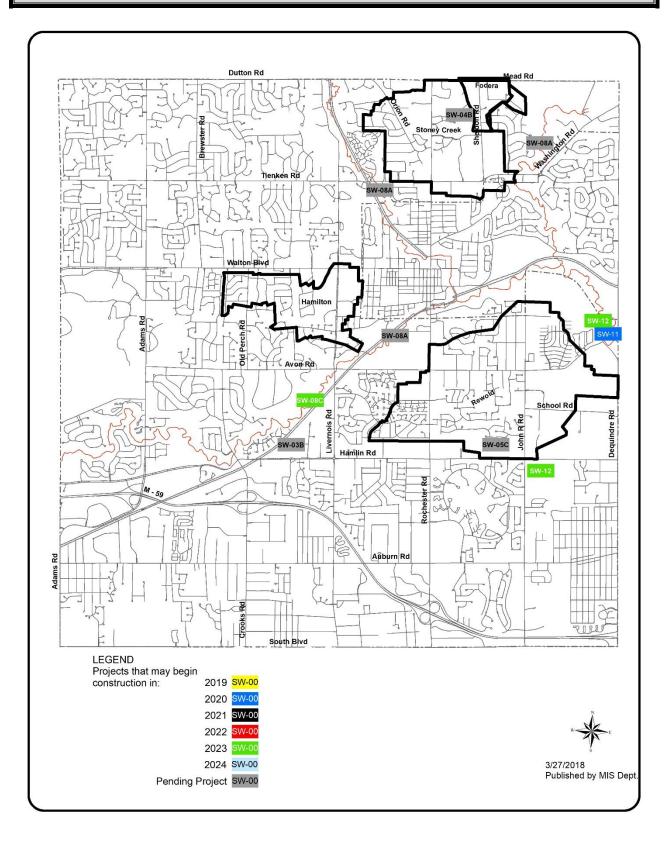
WS-39	** Meter Test Bench Replacement **					
	2019-2019					
Estim	Estimated City Cost: \$205,000 Estimated City Share: 100%					
is approximately of a new test ben The new test ben test and reduce system would be well. All of thes	40 years old and re ach that could test unch would include a the amount of wate purchased with thi e upgrades would a	epairs are difficult to r p to five (5) 5/8"-1" m a recirculation system er discharged into our s project that would a allow us to test more	o water meter test benches. The ex nake. This project would include the teters and three (3) 1 1/2"-2" meter that would reduce water consumption sanitary sewer system. A portable llow our meter staff to test meters e meters at one time, reduce the te eased revenue. Equipment purchas	ne installation rs at one time. otion for each e field testing in the field as sest time, and		

Prior to FY 2000, the primary focus of Storm Water Management in Rochester Hills was to develop a storm water system adequate to provide for storm water runoff in existing flood-prone areas. Much of the storm water management improvements made were financed and constructed through the use of Chapter 20 of the Drain Code. The improvements were made in parts of the City that were developed prior to the 1970s without drainage improvements. More recently it has become apparent that rain water from smaller, more common storms pass water through detention basins un-detained and are an untreated source of surface water pollution.

The mission of the Storm Water Management Plan is to provide the City with a method of managing storm water runoff in order to provide for adequate drainage in existing flood-prone areas. In addition, the plan addresses water quality standards, minimizes impacts associated with land improvements, and complies with the NPDES Phase II rule and the City's MDEQ Municipal Separate Storm Systems Permit (MS4). The main goal is to protect the health, safety, and welfare of the public and to better protect the surface waters and natural environment of the City of Rochester Hills and downstream communities.

To accomplish this mission it is necessary to:

- Develop a comprehensive storm water management policy that clearly defines the role of the City in storm water management issues, along with a mechanism for funding capital improvements and operations/maintenance of all drainage systems within the City
- Plan and implement the actions identified in the City's Storm Water Pollution Prevention Initiative (SWPPI) and when necessary, update the SWPPI with more cost effective and efficient actions to meet the goals and objectives of the storm water management plans
- Continue to participate and support the activities of the Storm Water Advisory Groups (SWAG) for the Red Run, Clinton Main, Stoney/Paint Creeks, Rouge Main 1-2 Sub-Watersheds, the Alliance of Rouge Communities (ARC), and the Clinton River Public Advisory Council (PAC)
- Cooperate with the Oakland County Water Resources Commission to reach compliance requirements of the Soil Erosion and Sedimentation Act
- Continue the planning, design, construction, and if necessary, right-of-way acquisition for improvements based on the projects listed in the CIP
- Continue to search for and pursue alternative funding sources to help accomplish our mission
- Work cooperatively with other cities, townships, and villages to efficiently and cost effectively comply with the mandates of the NPDES Phase II rule



SW-08C	Clinton River: Natural Channel Restoration				
Estimated	d Total Project:	\$840,000	2022-2024		
Estim	ated City Cost:	\$420,000	Estimated City Share:	50%	
between Liverno approximately 50 due to the bank's property. It is pro 50% match) bec additional grants riverbank and flo habitat within th insect habitat with also proposed to	bis Road and Croo D0' of the channel a s failure. The whole oposed that the bala ome available. The to allow the City's ow characteristics of e City property. In th the intent to creat be added to protect	ks Road. In 2010, and stabilized the base project area consi- ance of the project city has applied match dollars to g f the river, and pro- addition to the red ate a self-sustaining ct the banks from a	along the Clinton River within the as part of Phase I (SW-08B), the ank to protect the Clinton River Trail sts of approximately one mile of rive (Phase II) be improved in phases as for several grants and will continu o further toward the goal of restorivide in-stream habitat, as well as ad uction in erosion, the project will im fishery. Angling and paddling access ccess and use disturbance. Construct grant award, or if erosion increases of	City restored I from collapse er through City grants (up to a e to apply for ing the natural jacent riparian prove fish and s to the river is ction for Phase	

SW-11	Clinton River / Yates Park: Riverbank Stabilization			
Estimated	d Total Project:	\$400,000	2020-2022	
Estim	ated City Cost:	\$230,000	Estimated City Share:	50% / 100%

Angler traffic at Yates Park, the adjacent dam, and the Cider Mill area has caused bank erosion resulting in pool filling, over-widening, and lack of holding water for steelhead trout. This project seeks to utilize the latest science to design and then restore habitat and provide suitable access along the river at this trout fishery. Partnership with Clinton River Watershed Council for monitoring and public involvement will convey results. The design phase will create a master plan for future construction phases. The construction phases will be broken into smaller projects as those that can be performed with volunteers and those that would require heavy equipment/contractors. Once the planning phase is completed, construction projects will be more attractive for receiving grant support. The Great Lakes Restoration Initiative (GLRI) has been a source of grants for similar projects. Construction is planned to begin in 2020.

SW-12	Watertowns Storm Water Improvements					
Estimated Total Project:		\$146,500	2023-2023			
Estim	ated City Cost:	\$73,250	Estimated City Share:	50%		
Infrastructure Co the addition of pa quality and cont Construction is p	Incorporate recommendations of the Clinton River Watershed Council (CRWC) Watertowns Green Infrastructure Community Report to improve storm water runoff at Yates Park and Borden Park through the addition of parking lot swales, rain gardens, permeable pavers, and bio-retention cells. Improved water quality and controlled runoff of storm water would reduce the load on storm water infrastructure. Construction is planned to begin in 2023. Funding could move this project up to coincide with any of their park improvements for these locations.					

SW-13	Storm Water Best Management Practices (BMP) Retrofitting			
Estimated	d Total Project:	\$450,000	2022-2023	
Estim	ated City Cost:	\$225,000	Estimated City Share:	50%
Retrofit up to 10 city-owned properties with storm water Best Management Practices (BMP) which include methods, measures, or practices to prevent or reduce surface runoff and/or water pollution, including but				
not limited to, structural and non-structural storm water management practices and operational / maintenance procedures. Construction is planned to begin in 2023, or if funding becomes available.				

2019-2024 Capital Improvement Plan Pathway System

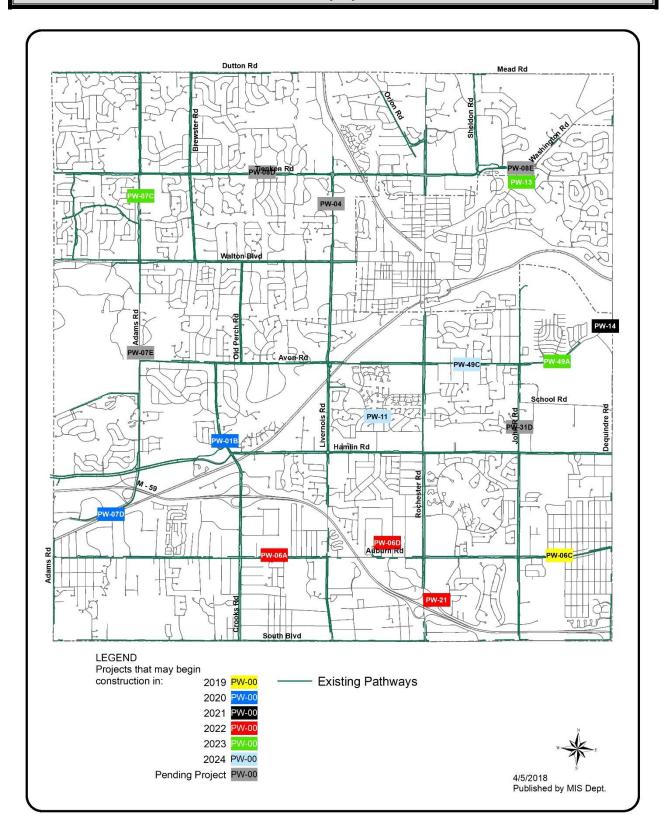
In the mid 1970's the City of Rochester Hills (formerly Avon Township) initiated a pathway program that planned for approximately 125-miles of pathways along major roads. To date, approximately 96.5 miles of pathways have been constructed by private development and/or through public funding. Approximately 31 miles of pathways are needed to complete the pathway system. Additionally, approximately 4.5 miles of the Clinton River Trailway was surfaced utilizing recycled asphalt materials in 2015.

The scope of the pathway program has gone beyond the initial goal of just extending the system to both sides of all arterial roads in the City. In November of 2006, a twenty-year 0.1858 mill ballot proposal was approved by the residents of Rochester Hills to fund the continuation of new pathways, rehabilitation and maintenance of existing pathways, and to preserve the system for the public's use and enjoyment. The current pathway program has evolved through the continuation of the development of the City along with a heightened awareness of the value of a non-motorized transportation facility.

The pathway program is comprised of the following elements:

- Construction of new pathways to fulfill the goal of pathways along both sides of all arterial streets.
 - The pathway millage language allows for construction along school routes, connectivity for high volume pedestrian generator sites, and along the Clinton River Trailway.
- Rehabilitation of existing pathways to maintain an adequate level of service for pathway users.
 - Each year, more segments of the pathway system exceed their service life and require some form of rehabilitation. Additionally, any pathway upgrades or rehabilitations must now comply with current Americans with Disabilities Act (ADA) requirements.
- Maintenance of the existing pathway system to protect and extend the condition of the pathway segments to the end of their service life.
 - Beyond routine winter maintenance, other maintenance activities such as pothole patching, crack sealing, and vegetation control need to be done system-wide on a routine basis to preserve the integrity of the system.

Starting in FY 2008, the Pathway Ad-hoc Committee began reviewing and rating the pathway projects.



PW-01A	Pathway System Rehabilitation Program			
		2019-2024	1	
Estim	ated City Cost:	\$1,500,000	Estimated City Share:	100%
section repairs in a pedestrian brid the inspection, th bridge inspection section are antic	n order to maintair ge inspection prog ne City may perfor n inventory and rep ipated to decrease	n the integrity of the ov gram to be performed of m pedestrian bridge re port. Operating costs of	em by performing bituminous ove erall pathway system. In 2008, the n a four (4) year cycle. Every fourth habilitation work as identified in th approximately \$3,400 per year for e to this rehabilitation program. The ng.	e City initiated year following e consultants' each 2.0-mile

PW-01B	Crool	Crooks Road Pathway Gap [Clinton River – Bonnie Brae Street]			
		2020-2021			
Estim	ated City Cost:	\$155,130	Estimated City Share:	100%	
Clinton River to E will connect the Connectivity of considering the C	Sonnie Brae Street to gap in the pathwa the pathway syste Clinton River Trail ac	o fill in the existing pat ay along Crooks Road m provides an increa ccess is just south of th	way along the east side of Crooks F hway gap. Constructing this portion from Bonnie Brae Street to the sed level of service to pedestria his area. Operating costs of appro- tion added. Construction is plann	on of pathway Clinton River. ns, especially ximately \$200	

PW-06A	Auburr	Auburn Road Pathway Gaps [Alexander Avenue – Livernois Road]				
2021-2022						
Estim	ated City Cost:	\$225,100	Estimated City Share:	100%		
between Alexand	Construction of approximately 1,000' of 8' wide asphalt pathway along the north side of Auburn Road between Alexander Avenue and Livernois Road to fill in the pathway gaps. Operating costs of approximately \$280 per year are anticipated due to the additional pathway sections added. Construction is planned to					

PW-06C	Auburn Road Pathway Gaps [Culbertson Road – Dequindre Road]				
2019-2019					
Estim	ated City Cost:	\$446,500	Estimated City Share:	100%	
This project will i the rebuilt pathw Road reconstruct	include constructio vay alignment along ion project betwee \$700 per year are	n of new pathway at o the corridor. This path n Culbertson Avenue a	Road between Culbertson and De existing gap sections and replacing away project will be coordinated wi and Dequindre Road. Additional o e new pathway sections added. C	g and defining ith the Auburn perating costs	

PW-06D	Auburn Road Pathway Gaps [Walbridge Road – Hickory Lawn Road]				
2021-2022					
Estim	ated City Cost:	\$464,950	Estimated City Share:	100%	
between Walbric of approximately	Construction of approximately 2,100' of 8' wide asphalt pathway along the north side of Auburn Road between Walbridge Road and 500' east of Hickory Lawn Road to fill in the pathway gaps. Operating costs of approximately \$590 per year are anticipated due to the additional pathway sections added. Construction is planned to begin in 2022.				

PW-07C	Adam	Adams Road Pathway [Powderhorn Ridge Road – Tienken Road]				
2022-2023						
Estim	Estimated City Cost: \$429,250 Estimated City Share: 100%					
Powderhorn Ridg Powderhorn Rid Operating costs	Construction of approximately 2,400' of 8' wide pathway along the east side of Adams Road between Powderhorn Ridge Road and the Premier Academy site. Also, construct a key walk along the north side of Powderhorn Ridge Road to allow pedestrians to safely cross Adams Road at the traffic intersection. Operating costs of approximately \$730 per year are anticipated due to the additional pathway sections added. Construction is planned to begin in 2023.					

PW-07D	Adams Road @ Clinton River Trailway: Pathway Crossing			
		2020-2021		
Estim	ated City Cost:	\$180,330	Estimated City Share:	100%
connect the Clint the use of eight (project would als the crossing. Ap order to provide county's right-of- volume warrants	on River Trailway to 8) solar powered p to include the insta proximately 500' of connection. Note: way and will requ are met. Operatin	o the nearby shopping c bush-button rapid flashe allation of two (2) steel of asphalt and concrete The project is located tire prior approval by the ng costs of approximate	Road near Leach Drive and Market enter. The proposed crossing wou er beacons (RFBs), four (4) in each of poles and mast arms with overhe e pathway would be required to b within the Road Commission for Oa he RCOC demonstrating that pede ly \$1,000 per year are anticipated of anned to begin in 2021.	Id incorporate direction. The ead signage at e extended in akland (RCOC) estrian/bicycle

PW-11	Dr	Drexelgate Pathway Gap [Wexford Way – Rochester Road]				
2023-2024						
Estim	ated City Cost:	\$1,018,500	Estimated City Share:	100%		
between Wexfor and to the goal segments of path	Construct approximately 5,100' of eight (8) foot wide pathway along the north side of Drexelgate Parkway between Wexford Way and Rochester Road. Contributes to the connectivity of the City's pathway network and to the goal of having pathway constructed along all major section line roads. Provides additional segments of pathway for residents and pedestrians to utilize. Operating costs of approximately \$3,000 per year are anticipated due to the additional pathway section added. Construction is planned to begin in 2024.					

PW-13	** Runyon Road Pathway **				
2022-2023					
Estim	ated City Cost:	\$367,500	Estimated City Share:	100%	
side of Runyon a	Construction of approximately 1,700' of 8' wide concrete pathway along the west side of Van Hoosen, south side of Runyon and east side of Washington Road. The pathway will fill an existing pathway system gap while also providing a pedestrian link to the City Museum at the Van Hoosen Farm. Construction is planned to begin in 2023.				

PW-14		** Yates Pathway [Yates Park to North of Avon] **			
2020-2021					
Estim	ated City Cost:	\$233,500	Estimated City Share:	100%	
heading east and Clinton River Tra quadrant of the	d north along Avor ailway crossing of [n and Dequindre to the Dequindre; The second Intersection and headin	kimately 1,200' from the Yates Parl City of Rochester corporate limit being approximately 200' from t g west of Avon Road towards Yat	t south of the he southwest	

PW-21	Eas	East Nawakwa Pathway [Rochester Road – Joshua Drive]			
2021-2022					
Estim	ated City Cost:	\$401,050	Estimated City Share:	100%	
Construction of a	Construction of approximately 2,100' of 8' wide asphalt pathway along the north side of East Nawakwa				
Road between Rochester Road and Joshua Drive. Operating costs of approximately \$590 per year are					
anticipated due t	to the additional pat	thway section added.	Construction is planned to begin in	ו 2022.	

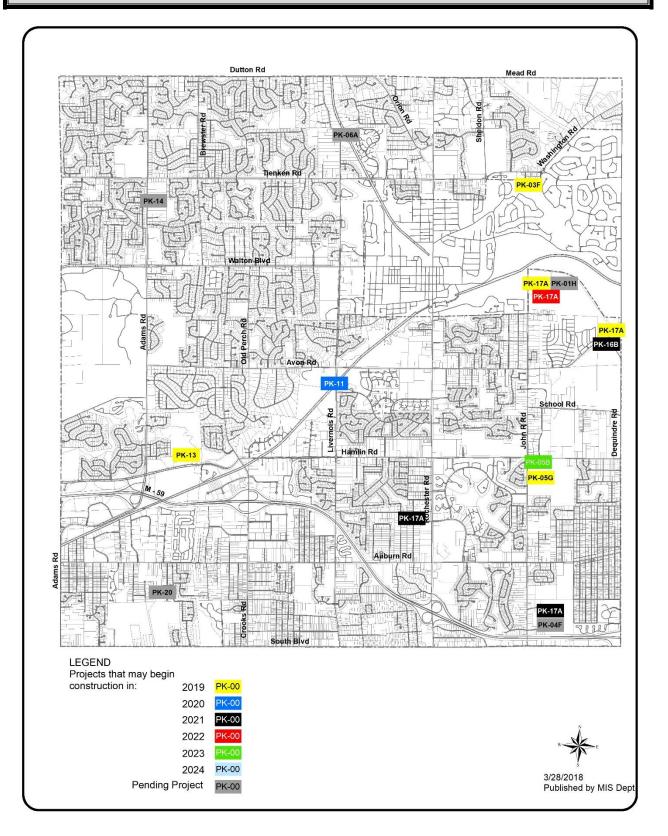
PW-49A	Avon R	Avon Road Pathway [LeGrande Boulevard – Cider Mill Boulevard]			
2022-2023					
Estim	ated City Cost:	\$311,750	Estimated City Share:	100%	
Construction of approximately 1,500' of 8' wide asphalt pathway along the north side of Avon Road between Le Grande Boulevard and Cider Mill Boulevard. Operating costs of approximately \$420 per year are anticipated due to the additional pathway section added. Construction is planned to begin in 2023.					

PW-49C	Avo	Avon Road Pathway [Rainier Avenue – Bembridge Drive]			
	2023-2024				
Estim	nated City Cost:	\$652,000	Estimated City Share:	100%	
between Rainier	Construction of approximately 3,200' of 8' wide asphalt pathway along the south side of Avon Road between Rainier Avenue and Bembridge Drive. Operating costs of approximately \$890 per year are anticipated due to the additional pathway section added. Construction is planned to begin in 2024.				

The City of Rochester Hills' Parks provide active and passive recreational opportunities for its residents. The City operates 2 regional trails and 14 parks, Museum and Green Space that cover over 1,100 acres and vary in purpose, size, and development.

Every five years the Parks and Recreation Master Plan is updated. Once the Plan is adopted by the Planning Commission it is incorporated into the City's Master Land Use Plan. The Parks and Recreation Master Plan, which was last updated in 2016, provides an overview of regional recreational opportunities, identifies long and short-term objectives for park development, and meets criteria for Michigan Department of Natural Resources (MDNR) grant eligibility.

Park development and operational costs are supported primarily by the City's General Fund and Capital Improvement Fund and are supplemented by user fees, charges, grants, and donations.



PK-03F		Van Hoosen Museum	: Equipment Barn Replacement	
Estimated	d Total Project:	\$770,000	2019-2019	
Estim	ated City Cost:	\$577,500	Estimated City Share:	75%
down in 1999 du this facility and v space for storage recreate the hist footprint of the building will also public tours. At o will allow us to cr items and equip	e to its deteriorate would like to rebuil a and maintenance toric farm setting original building ar allow two smaller l one time, the Van F reate a broader inte	d condition. The Mus Id it to continue resto activities. The Equips at the Van Hoosen F nd would replicate th buildings to transfer th Hoosen Farm was a wo erpretive story, create ing the winter to av	Hoosen Farm operation. Built in 191 eum has a full set of photographs an ring the Van Hoosen Farm facility, v ment Barn will help the Museum mo arm. The building will be located e original building in nearly all deta heir contents to this building and the orld class dairy operation and the equ an on-site maintenance space, and b oid deterioration from weather an	d drawings of while creating ore accurately on the exact ils. This new n be open for uipment barn oring valuable

РК-05В	Borden	Borden Park: Roller Hockey Rink Board & Tile Replacement Schedule				
	2019-2024					
Estim	Estimated City Cost: \$104,810 Estimated City Share: 100%					
skating surface is need of replacen which should no	There are two (2) roller hockey rinks located at Borden Park. The dasher boards are molded plastic and the skating surface is made up of plastic tiles. Due to age and damage from use, the boards and tiles are in need of replacement every 6-8 years. Operating costs are anticipated to decrease due to newer materials which should not require as much maintenance for the first few years. It is planned to upgrade Roller Hockey Rink #1 in 2023. This program is on-going.					

PK-05G	** Basketball, Tennis, and Pickle Ball Court Renovation Program **			
Estimated Total Project:		\$900,000	2019-2022	
Estim	ated City Cost:	\$900,000	Estimated City Share:	100%
Renovation of the 3 tennis courts and 4 pickle ball courts at Borden Park, the 3 basketball courts at Borden				

Renovation of the 3 tennis courts and 4 pickle ball courts at Borden Park, the 3 basketball courts at Borden Park, 2 basketball and 2 tennis courts at Avondale Park, and 2 tennis courts at Spencer Park. The courts currently have many cracks, drainage issues, and several have a plastic tile surface meant as a temporary fix until repairs can be made. Both the asphalt and tiles are beyond their useful life expectancy. The courts are currently considerably below industry standards and residents' expectations. This project would be a complete rebuild of the asphalt courts and fencing that would recreate the courts as they were when they were first opened. Renovations are planned to begin in 2019 with Borden Tennis and Pickle Ball courts. This program is on-going.

РК-11	Clinton River Access: Parking Lot & Canoe/Kayak Launch						
Estimated	l Total Project:	\$300,000	2020-2020				
Estim	ated City Cost:	\$150,000	Estimated City Share:	50%			
canoe/kayak laur Council, the City o in their cities an	nch into the Clinton of Rochester and/o d possible grant o	River at Eagle's Landin r the City of Auburn Hi	Construction of a small parking area (approximately 20 spaces), an accessible pathway, and an accessible canoe/kayak launch into the Clinton River at Eagle's Landing. Cooperation with the Clinton River Watershed Council, the City of Rochester and/or the City of Auburn Hills could provide for additional river access points in their cities and possible grant opportunities. Operating costs of approximately \$1,000 per year are				

PK-13	Innovation Hills: Park Development			
Estimated	d Total Project:	\$4,986,880	2013-2020	
Estim	ated City Cost:	\$2,493,440	Estimated City Share:	Approx. 50%

Development of Innovation Hills park including parking lot, trails and boardwalks, improvements to the wetlands, invasive vegetation control, fitness stations, restrooms, playgrounds, water features & ponds, pavilion(s), sensory garden, observation areas, support structures, bridges across Clinton River, community gathering areas, & community building. Private donations and grant funding will be pursued to offset overall project costs. Construction began in 2014. Over \$1,000,000 in grants and private funding has been raised over the last year. Construction plans are currently under way for trail system, invasive vegetation control, two boardwalks, restroom, kayak landing, parking lot, water features & ponds, playground entrance, & sensory garden.

PK-16B	Yates Park: Clinton River Access Improvements			
		2021-2021		
Estim	ated City Cost:	\$141,600	Estimated City Share:	100%
around the Cider The path and lau The dam for Yate dam separates th accessible portag their boats. Pro	Mill Dam. Yates Panch would provide a sc Cider Mill is a da ne river as it runs f ge around the dam ject also includes	ark is heavily used for k ADA compliant access t ngerous impediment for rom Auburn Hills to La with a rail system so th rain gardens and storn	Yates Park and a universally accest ayak and canoe launching into the o the river as well as to protect the or canoes and kayaks in the Clinto ke St. Clair. This project would p at canoe/kayakers would not have n water improvements and pavin ear are anticipated for this facility.	e Clinton River. e stream bank. on River as the provide a safe, e to get out of ng the existing

is planned to begin in 2021.

PK-17A	Playground Replacement Schedule				
		2019-2024			
Estim	ated City Cost:	\$577,980	Estimated City Share:	100%	
Scheduled replace	Scheduled replacement and/or upgrades of existing playground equipment at City Parks to comply with				
Federal and State	e Laws by adding su	rfacing and equipment	, or replacing existing equipment.	Design and/or	
U U			guidelines. Playground Equipmer		
to be replaced at	fter 20-years. It is	planned to upgrade the	ne playground equipment at Bloom	mer and Yates	
Parks in 2019, W	Vabash Park and S	pencer Park in 2021, a	and Bloomer Park in 2022. Oper	rating costs of	
approximately \$	10,000 per year a	re anticipated to rem	ain consistent with the new equ	ipment. This	
program is on-go	ing.				

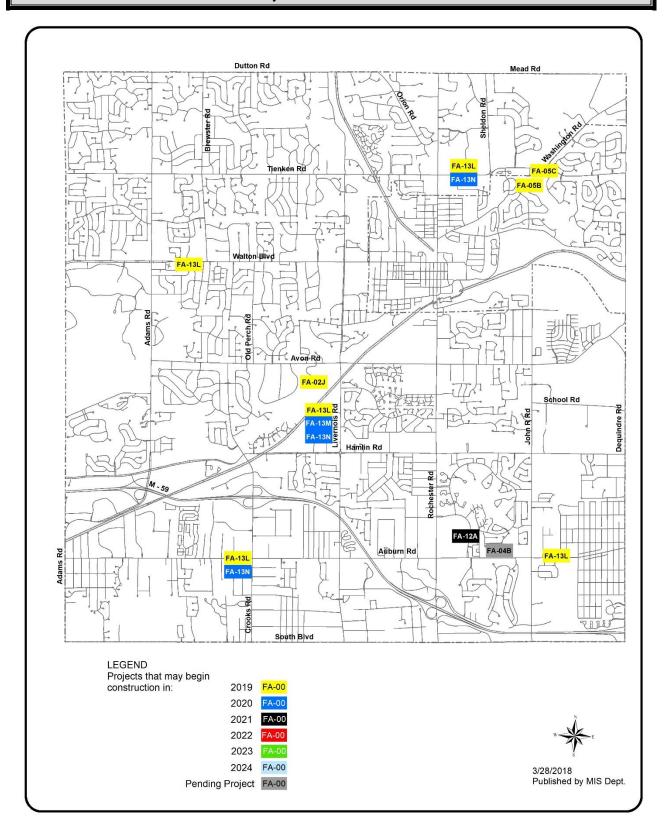
2019-2024 Capital Improvement Plan



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The City of Rochester Hills owns 34 buildings totaling over 288,000 square feet of space with a replacement cost of over \$55.8 million. These buildings support the ability of departments to provide services to the public. The rehabilitation, renovation, and/or replacement of the City's facilities is inevitable. Changes in services required by residents, changes in local government regulations, Federal and State mandated programs for health, safety or building access, changes in technology, as well as securing the investment of our taxpayers, requires systematic improvements and varying degrees of maintenance. Improvements are planned to address these issues as well as indoor air quality, ergonomics, energy conservation, and customer service.

The Capital Improvement Plan addresses the on-going deterioration of City-owned facilities caused by age and use. The Capital Reinvestment Program, as a component of the Capital Improvement Plan, involves a number of rehabilitation projects, which contain strategies to increase the useful life-span of individual facilities while reducing their maintenance and operational costs. A Facility Condition Index, a measure of repair costs as a percentage of replacement cost, determines the course of action to rehabilitate a facility; redevelop the site; or evaluate the loss of the facility to the community.



FA-02J	** City Hall Compound Gate **				
Estimated	d Total Project:	\$240,000	2019-2019		
Estim	ated City Cost:	\$240,000	Estimated City Share:	100%	
from the public a to operate, and n	Installation of a City Hall compound gate. This project will replace the gate separating the compound lot from the public access lot on the west side of the City Hall parking lot. The current gate is rusting, difficult to operate, and needs to be replaced. This gate is a security point for the City Hall building and City vehicles				
in the compound	lot. Construction	is planned to begin in 2	2019.		

FA-05B	** Van Hoosen Dairy Barn Generator **			
Estimated	d Total Project:	\$72,000	2019-2019	
Estim	ated City Cost:	\$72,000	Estimated City Share:	100%
Upgrade of the Dairy Barn generator. The existing generator at the Dairy Barn only powers a small portion of the building. With the additional level of activity, it is important to provide a safe environment for Museum visitors in the event of a power failure. The project will provide a generator that will power the				
entire Dairy Barn	and allow us to mai	ntain a safe environr	ment. Construction is planned to be	gin in 2019.

FA-05C	**	** Van Hoosen Museum Schoolhouse Siding Project **		
Estimated	d Total Project:	\$72,000	2019-2019	
Estim	ated City Cost:	\$72,000	Estimated City Share:	100%
replaced. The	Installation of siding at the Schoolhouse. The existing siding and trim is deteriorating and needs to be replaced. The new siding will be installed in keeping with the historical facade of the structure. Construction is planned to begin in 2019.			

FA-07C	;	** Citywide HVAC Maintenance & Repairs Schedule **			
Estimated	d Total Project:	\$1,179,000	2019-2023		
Estim	ated City Cost:	\$1,179,000	Estimated City Share:	100%	
maintenance, rej	Scheduled replacement of units based on estimated life expectancy. HVAC systems require continual maintenance, repairs and upgrades to keep to City buildings safe and comfortable for all residents, visitors and employees. This program is on-going.				

FA-07D		** Citywide Energy Management Systems **			
Estimated	d Total Project:	\$180,000	2019-2024		
Estim	ated City Cost:	\$180,000	Estimated City Share:	100%	
Energy Managen when functioning	Replacement of existing Energy Management Systems to the current system used by other City locations. Energy Management Systems allow us to use our HVAC systems with the greatest efficiency and control when functioning properly with minimal errors or delay. Upgrading to the uniform system with grant us a higher level of control over building environments. This program is on-going.				

FA-09	IT Infrastructure Capacity Funding				
2022-2024					
Estimated City Cost: \$100,000 Estimated LDFA Share: 100%					
One of the goals of the State of Michigan's SmartZone program is to provide local communities, through an LDFA, with the capability to improve Information Technology (IT) Infrastructure within Certified Technology Parks. Capacity improvements would be on a case-by-case basis, often associated with the needs of specific companies. Funding for these projects must occur in public right-of-ways or in a deeded easement only. It is not known when these individual requests will arise, and the improvement must be constructed within a					

short period of time. A pool of funding set aside from the LDFA's TIF capture would allow for a quick response, and improve the competitiveness of the City's technology parks for the attraction and/or retention of companies. There are no operating cost impacts associated with these improvements since the LDFA will not own the infrastructure, but rather would only pay the installation costs.

FA-11		ADA Compliance	Implementation Program	
		2019-202	4	
Estim	ated City Cost:	\$240,000	Estimated City Share:	100%
Act) inspections of areas needing AL involve coordinat coordinate similat include: concre wrapping of plum tables, grills, boar	of all City Facilities. DA adjustments in o tion with the Facilit ar projects for effic te replacement, in bbing fixtures, handi	A transition plan was rder to comply with t ies Division, Departm iency and cost saving iside and outside sig cap push pads on doo	alist to perform ADA (Americans w s completed identifying a full descri- he State and Federal guidelines. Th ent of Public Services, and Parks D gs. Examples of ADA compliance i gnage upgrades, handrail installat rs, accessible pathways, trailways, s oms, etc This program is proposed	iption of work his project will Department to mprovements ion/upgrades, shelters, picnic

FA-12A		** OCSO Substation Water Heater **				
Estimated	d Total Project:	\$31,000	2021-2021			
Estim	ated City Cost:	\$31,000	Estimated City Share:	100%		
	Replacement of the water heater at the Oakland County Sheriff Office (OCSO) Substation. The unit is reaching the end of its useful life and more efficient options are now available. Replacement is planned in					

FA-13L		Fire Department LED Signs				
Estimated	Total Project:	\$396,000	2019-2019			
Estim	ated City Cost:	\$396,000	Estimated City Share:	100%		
Installation of LED signs at each of the 5 fire stations. The new signs will enable the Fire Department to better communicate events and programs to residents to improve community outreach for emergency						
	•	•	anned to begin in 2019.			

FA-13M	*	** Fire Station #1 Concrete Approach Replacement **			
Estimated	d Total Project:	\$190,000	2020-2020		
Estim	ated City Cost:	\$190,000	Estimated City Share:	100%	
Replacement of cracked concrete approach to Fire Station #1 in front of apparatus bays. This project will provide a safe and reliable concrete drive for Fire Department vehicles to respond to emergencies. Construction is planned to begin in 2020.					

FA-13N		** Fire Station Bay Heaters **				
Estimated	d Total Project:	\$108,000	2020-2020			
Estim	ated City Cost:	\$108,000	Estimated City Share:	100%		
the Fire vehicles	Replacement of the bay heaters in the Fire Station #1, 3 and 5 Apparatus Bays. They are essential to keeping the Fire vehicles and Ambulance supplies at optimal temperature for their life-saving capabilities. Without working bay heaters, emergency services can be slowed or interrupted by low temperatures. Replacement					

** = New project to the 2019-2024 CIP

is planned in 2020.

2019-2024 Capital Improvement Plan



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2019-2024 Capital Improvement Plan Professional Services

Professional services are solicited when technical expertise or knowledge of a specialized field is critical to the performance of a service that cannot be efficiently performed in-house by City staff. Professional services involve extended analysis, discretion, and independent judgment and an advanced or specialized type of knowledge, expertise, or training which is customarily acquired either by a prolonged course of study or equivalent level of experience in the field. These services include, but are not limited to: attorneys, engineers, planning consultants, architects, and other similar professionals.

PS-07	Master Plan Update Schedule				
2019-2024					
Estim	ated City Cost:	\$100,000	Estimated City Share:	100%	
Plan is the policy of 2008) the Mas	Contract with a planning consultant to prepare scheduled updates to the City's Master Plan. The Master Plan is the policy tool used as a guide in the physical development of the community. By State Law (PA 33 of 2008) the Master Plan must be reviewed and updated every five years. The Master Plan was updated in 2018 and the next required five year review and update is planned to begin in 2023.				

PS-08	Master Thoroughfare Plan Update Schedule			
		2019-20)24	
Estim	ated City Cost:	\$150,000	Estimated City Share:	100%
transportation p transportation vi anticipated that point, it will be transportation in concepts as requ	lanning by providing sion, and vice versa. priority projects reco time to prepare a nprovements. It is uired by State Law,	adjacent and reg The current Mast ommended therein new or updated anticipated that in addition to ot	ordinating document that helps gional communities with an unders er Thoroughfare Plan was adopted in will be completed in the next few Master Thoroughfare Plan to gu the new plan will incorporate Co her motorized and non-motorized next update is planned to be compl	standing of our n 2008 and it is years. At that ide future City mplete Streets transportation

2019-2024 Capital Improvement Plan



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Internal Service Support Programs play a pivotal role in the City's ability to deliver services to its residents. These programs involve a wide range of support services for functions that interact directly with residents. Individual components of support programs are not normally considered to be capital expenditures; however, the Capital Improvement Plan Policy includes purchases of major equipment (i.e., items with a cost individually or in total of \$25,000 or more and will be coded to a capital asset account).

Internal Service Support Program projects are funded internally by user charges to City departments or directly by millage levy. Projects in this category directly and/or indirectly affect a broad range of services including Management Information Systems (MIS); Geographic Information Systems (GIS); Fleet Equipment and Vehicles; Fire Equipment, Vehicles and Apparatus; as well as Communication Systems.

IS-02B		City Website Update Schedule			
		2019-202	4		
Estir	nated City Cost:	\$35,000	Estimated City Share:	100%	
Improvements whosting provide are anticipated	would likely require ch r. Upgrades to the Ci	anges to the current ty's website are ant as current website p	to the City's current website t content management system as v icipated to occur every 5 years. C processes are already in place. Th e is on-going.	well as Internet Operating costs	

IS-04D	SCBA Replacement Schedule				
	-	2019-2024			
Estim	ated City Cost:	\$956,000	Estimated City Share:	100%	
SCBA is an essen filled, toxic areas years and air cor Department of H	Scheduled replacement of Self Contained Breathing Apparatus (SCBA) gear for fire suppression personnel. SCBA is an essential part of a firefighter's protective equipment as it allows a firefighter to enter smoke filled, toxic areas while providing clean air to breathe. SCBA gear is scheduled to be replaced every 8-10 years and air compression equipment every 16-20 years. The Fire Department looks to grants from the Department of Homeland Security as well as other possible grants to cover all or a percentage of the costs associated with replacement. The next replacement is planned to begin in 2024. This replacement program				

IS-04G		Heart Monitor Replacement Schedule				
2019-2024						
Estim	ated City Cost:	\$235,000	Estimated City Share:	100%		
life threatening h of equipment is	Scheduled replacement of Heart Monitors. A Heart ECG Monitor allows paramedics to monitor possible life threatening heart rhythms, provide defibrillation capabilities, along with vital sign monitoring. This piece of equipment is used on approximately 60-70% of all patients treated. Heart monitors are anticipated to be replaced every 5-7 years. Operating costs are anticipated to remain consistent with timely replacement,					

** = New project to the 2019-2024 CIP

before more extensive service and maintenance levels are required to keep older equipment operational. The next replacement is planned to begin in 2022. This replacement program is on-going.

IS-04H		** Scott Sight Tl	nermal Imaging Camera **		
2019-2019					
Estimated City Cost: \$155,500 Estimated City Share: 100%					
during firefightin enough where it purchasing fire e their job, the Scc in the mask allow vision. Having communication,	ng operations. The can be attached rig equipment, firefighte ott Sight only adds 8 ws for hands-free the a hands free tech victim extrication, a	thermal imaging ca ght to the mask of t ers already wear in e 1/2 ounces of weigh ermal intelligence sy nology, firefighters and carrying much	igh thick black smoke which is ofter mera has now become hands free he firefighter. Weight is always a excess of 60 pounds of gear and too at to the mask. Having a thermal im rstem that enables firefighters to ha now have both hands availab needed tools inside a building. Ac ment. The purchase of 100 units i	e and is small concern when ols to perform naging camera ave always-on le for better dditionally the	

IS-05	Citywide Fleet Replacement Schedule			
		2019-202	4	
Estim	ated City Cost:	\$9,951,930	Estimated City Share:	100%
maintenance, su remain consister required to keep	pplies) of approxi nt with timely rep o older equipment	mately \$600,000 per lacement, before mor	ehicles and equipment. Operatin year for the entire City Fleet are re extensive service and maintena iled schedule is provided on page	anticipated to nce levels are

IS-07	Citywide Copier Replacement Schedule			
		2019-2024	ļ	
Estim	ated City Cost:	\$200,000	Estimated City Share:	100%
Scheduled replacement of City copier machines when they have reached the end of their useful service lives. Operating costs of approximately \$18,000 per year for all City copiers are anticipated to remain consistent with timely replacement. All City copier machines were replaced in 2018, the next replacement is planned for 2023. This project is on-going.				

IS-08	Fire Vehicle & Apparatus Replacement Schedule			
2019-2024				
Estim	ated City Cost:	\$4,245,250	Estimated City Share:	100%

** = New project to the 2019-2024 CIP

Scheduled replacement of various Fire Department vehicles and apparatus. Operating costs (fuel, maintenance, supplies) of approximately \$100,000 per year are anticipated to remain consistent with timely replacement, before more extensive service and maintenance levels are required to keep older equipment operational. A detailed schedule is provided on page 76 in the Appendix Section. This replacement program is on-going.

IS-10B	Computer Network Upgrade Schedule			
2019-2024				
Estim	ated City Cost:	\$630,000	Estimated City Share:	100%

Regularly scheduled network computer system upgrade(s). Items to be evaluated for replacement include servers, storage, firewalls, switches, and software such as operating systems, back-up, anti-virus, and network management. Operating costs are anticipated to remain consistent with timely replacement, before more extensive service and maintenance levels are required to keep the network operational. This update schedule is on-going.

IS-10D	Office Software Suite Upgrade Schedule			
2019-2024				
Estimated City Cost: \$134,010 Estimated City Share: 100%			100%	
Scheduled upgrade of existing office productivity software suite to current version. Using the product after support ends would pose a significant security risk. The next replacement is planned to begin in 2022. This replacement program is on-going.				

IS-12A		Financial Software System Replacement Schedule		
		2019-202	4	
Esti	mated City Cost:	\$1,500,000	Estimated City Share:	100%
Scheduled upgrade of existing financial system to current version. Supports ends in 2020 and using the product after support ends would pose a significant security risk. The next upgrade is planned to begin in 2019. The upgrade will include hardware, software, implementation services, integration services, and support. Annual maintenance costs are anticipated to remain consistent at \$40,000 per year. This replacement program is on-going.				

IS-16C		Electronic P	lan Review Software	
Estimated	d Total Project:	\$500,000	2019-2019	
Estim	ated City Cost:	\$500,000	Estimated City Share:	100%
	6			

The purchase of software and related equipment that allows the City departments to scan in all construction documents, permit applications and all related paperwork to be stored digitally and allows for electronic plan reviews to be performed. This will reduce the plan review time frame and reduce the number of calls and counter visits for front office staff. It will also enable quicker access to permits, plans, and specifications

** = New project to the 2019-2024 CIP

that will reduce the time to process FOIA requests. Software maintenance of \$100,000 per year is expected for the life of the software.

IS-18	Election Equipment Replacement Schedule			
		2019-2024	ļ	
Estim	ated City Cost:	\$400,000	Estimated City Share:	100%
election equipme at a discounted tabulators, as we \$3,500 per year service and main	ent from the State of rate. The City cu ell as related softwa are anticipated to tenance levels are r	of MI through the Feder rrently has 38 voting are for programming th remain consistent wi required to keep older	nistered elections. In FY 2005, the ral Help America Vote Act (HAVA) g tabulators, 27 Auto mark Handic e equipment. Operating costs of a th timely replacement, before m equipment operational. The election 2023. This replacement program	grant program ap Accessible approximately ore extensive on equipment

Projects pending are projects that may be deemed as potentially worthy and viable; however they are not included as part of the active 2019-2024 Capital Improvement Plan. Projects pending may require additional information, studies, research, review, or City Council policies to be in place before more accurate timelines and/or funding levels can be identified. It is possible that these projects may not fall under the City's jurisdiction and will require other agencies to move the project forward, while some projects may not fall within the 2019-2024 timeframe.

DPS Facility: Alternative Energy

Provide an alternative electrical energy source for the Department of Public Services (DPS) Facility. Alternative sources could include, but are not limited to, solar and wind power. Annual operating costs for electricity at the DPS Facility are anticipated to be reduced by a minimum of 75% and/or possibly eliminated. The City intends to seek out grant funding sources to be used towards project implementation. If grant funding is secured for this project which will bring the Return on Investment (ROI) within acceptable levels.

Crooks Boulevard: Street Lighting

Installation of street lighting along Crooks Boulevard between South Boulevard and the M-59 Interchange to provide for increased nighttime travel safety and visibility. This project is proposed to be entirely funded through METRO Act funding sources. Operating costs of approximately \$15,000 per year are anticipated due to the lighting addition. A Comprehensive City Street Lighting Policy approved by City Council is recommended to be in place prior to including as an active CIP project.

MR-02E

FA-04B

MR-01F

Hamlin Boulevard: Street Lighting

Installation of street lighting along Hamlin Boulevard between the West City Limit and Livernois Road to provide for increased nighttime travel safety and visibility. This project is proposed to be entirely funded through METRO Act funding sources. Operating costs of approximately \$28,000 per year are anticipated due to the lighting addition. A Comprehensive City Street Lighting Policy approved by City Council is recommended to be in place prior to including as an active CIP project.

MR-04B

Walton Boulevard: Street Lighting

Installation of street lighting along Walton Boulevard between the West City Limit and just east of Adams Road to provide for increased nighttime travel safety and visibility. This project is proposed to be entirely funded through METRO Act funding sources. Operating costs of approximately \$10,800 per year are anticipated due to the lighting addition. A Comprehensive City Street Lighting Policy approved by City Council is recommended to be in place prior to including as an active CIP project.

MR-05D

Adams Boulevard: Street Lighting

Installation of street lighting along Adams Boulevard between Marketplace Circle and just north of Hamlin Boulevard to provide for increased nighttime travel safety and visibility. This project is proposed to be entirely funded through METRO Act funding sources. Operating costs of approximately \$10,400 per year are anticipated due to the lighting addition. A Comprehensive City Street Lighting Policy approved by City Council is recommended to be in place prior to including as an active CIP project.

MR-05G	Adams Road @ Tienken Road: Intersection Improvements
Extension of the	northbound Adams Road right-turn lane and the southbound Adams Road right-turn lane
to increase stora	ge capacity. Work also involves upgrading the existing traffic signal from a "span-wire" to
a "box-span" con	figuration. This improvement is recommended based upon the City's Master Thoroughfare
Plan Update and	a previous joint traffic study between the cities of Rochester Hills and Auburn Hills. This
project may assi	st with minimizing southbound Adams Road cut-through traffic through the Judson Park
Subdivision, whic	h has been brought forth to the Advisory Traffic and Safety Board on several occasions. No
operating costs o	re anticipated due to this section of roadway being owned and operated by the RCOC.

MR-13B

Dequindre Road Reconstruction (Hamlin Road - Auburn Road)

Reconstruction of Dequindre Road as a 5-lane road between Auburn Road and Hamlin Road. This improvement is part of a larger Road Commission of Oakland County (RCOC) project to widen Dequindre Road as a 5-lane road southbound to Long Lake Road in the City of Troy. No operating costs are anticipated due to this section of roadway being owned and operated by the RCOC.

MR-13C

Dequindre Road Realignment (South of Avon – 23 Mile Road)

Construction of Dequindre Road on a new alignment behind the Yates Cider Mill to eliminate the Dequindre Road offset at Avon Road. No operating costs are anticipated due to this section of roadway being owned and operated by the RCOC.

MR-15A

Adams Road @ Butler Road: Traffic Signal & Road Improvement

Installation of a new traffic signal at the Adams Road @ Butler Road intersection. Corresponding center left-turn lane improvements are required to facilitate the proposed traffic signal. Pathway ramps meeting ADA compliance will also be installed, including push button and countdown signals. The City has received confirmation from RCOC that the intersection meets signal warrants #2 for installation with the condition that the University Presbyterian Church's (UPC) existing drive be removed and relocated to align with Butler Road and that UPC perform on-site parking lot improvements at their cost. The traffic signal installation is also conditioned upon restricting the turning movements in and out of the UPC's southerly drive and the existing drive for the Brookfield Academy to the north. The City and RCOC would share the costs for the installation of the traffic signal and construction of road improvements. The future operations and maintenance costs of the traffic signal would be shared by the City (25%), RCOC (50%), and the University Presbyterian Church (25%). Operating costs of approximately \$6,000 per year are anticipated due to the widened roadway section and the operation of an additional traffic signal.

MR-18 Dutton Road Paving (Rainbow Drive – Arthurs Way)

Pave and improve approximately 4,200' of Dutton Road between approximately 3,000' west of Livernois Road (just east of Rainbow Drive) and the existing Dutton Road pavement just east of Livernois Road (approximately 1,200'). Proposed road improvements include placing concrete curb & gutter along both sides of Dutton Road to thereby eliminate extensive erosion of existing open ditching and abrupt side embankments adjacent to tree areas. Paving this segment of Dutton Road as a 2-lane roadway would improve road safety by providing a uniform paved road surface for steep road grade and improve safety for Dutton Road at its intersections: Tall Oaks Boulevard, Acorn Glen, Livernois Road, and the Paint Creek Trailway. No operating costs are anticipated due to this section of roadway being owned and operated by the RCOC.

MR-26D

Livernois Boulevard: Street Lighting

Installation of street lighting along Livernois Boulevard between Avon Road and just north of Walton Boulevard to provide for increased nighttime travel safety and visibility. This project is proposed to be entirely funded through METRO Act funding sources. Operating costs of approximately \$12,500 per year are anticipated due to the lighting addition. A Comprehensive City Street Lighting Policy approved by City Council is recommended to be in place prior to including as an active CIP project.

MR-42B

Livernois Road @ M-59 Highway: Bridge Expansion

Participate in a cost share agreement for expanding the Livernois Road @ M-59 Highway Bridge. The City and RCOC may have the option to construct a complete expansion to the 5-lane bridge, or construct and have abutments placed. No operating costs are anticipated due to this section of roadway being owned and operated by the RCOC.

MR-59

LDFA Major Road Upgrades

One of the primary purposes for completing the M-59 Corridor Plan was to identify what infrastructure would be needed to support an increase in the intensity of development in the study area. It is unknowable at this time where such intensification will occur, so no specific timeframe or dollar value is being assigned. The M-59 Corridor Plan's infrastructure projects are not being prioritized at this point in time as implementation will occur opportunistically as part of a private/public partnership or to support a specific commitment by the private sector.

LS-07

Hamlin Court Drainage Improvements

Hamlin Court has had poor drainage and has been difficult to maintain for years. This project would extend storm water piping southbound down Hamlin Court to a point that an open ditch could be installed in order to provide drainage for the balance of the road. Any increased operating costs for maintenance would be offset by road and ditch maintenance cost savings.

Bendelow Road Ditching (East Side)

Provide drainage for the east side of Bendelow Road including the front yards and road base. The spring thaws and heavy rains can cause water to pond in the yards and adjacent to the Bendelow roadway. In 1996, drainage for Bendelow Road was planned to be improved as part of the west branch of the East Ferry Drain. In 2004, the developer of the Country Club Village Subdivision agreed to install storm sewers that would provide drainage for the west side of Bendelow Road. In 2006, the East Ferry Drain project (SW-06A) was designed and constructed without the Bendelow Road improvements. The change in the project saved the City approximately \$420,000. This project would utilize the improvements previously installed by the developer to provide for catch basins and ditching to the east side of Bendelow Road. No additional operating costs are anticipated for site maintenance.

LS-09

LS-08

Hillview Street Drainage Improvements

Install ditches along Hillview Street. Hillview Street is a gravel local street, 595' in length which runs east to west and slopes steeply at the eastern end. The roadway was constructed without a design and has experienced drainage problems throughout its life. The problem has gotten worse in the last few years as a result of the ditch's loss of definition. Most storm water travels down the roadway causing erosion and depositing the gravel material in a residential front yard. After heavy rains, residents routinely use a wheelbarrow and shovel to manually return the sand and gravel.

LS-14

Kingsview Avenue Paving (SAD)

Pave approximately 2,100' of Kingsview Avenue from Livernois Road to Springwood Lane through the adopted City Policy for Special Assessment District gravel to pavement projects. The road is currently gravel. A majority of residents living on Kingsview Avenue submitted petition signatures to request the paving of Kingsview Avenue in accordance with the SAD policy adopted by City Council on October 1, 2013. This project does not include the paving of Kingsview Avenue Court since 3 out of 4 residents were against participation. Operating costs are anticipated to decrease for a period of time by approximately \$1,680 per year due to gravel road grading/chloride operations being eliminated.

РК-01Н

Bloomer Park: Restroom Modernizations

Remodel/upgrade or replace restroom facilities and shelters in Bloomer Park. Project includes an assessment of each building to determine cost effectiveness of an upgrade or replacement of each building. Upgrades include bringing the buildings into compliance with the ADA and universal accessibility and adding heat to provide modern restrooms for year round use.

PK-04F

Splash Pad / Spray Park

Add new water play feature (Splash Pad) to Spencer Park and/or Bloomer Park. This project can also address some ADA features for lake access and increase the offerings at Spencer Park. It would add a water feature to Bloomer Park. The project would generate additional attendance and revenue in either park.

Paint Creek Trailway: Resurfacing Schedule

The Paint Creek Trail is surfaced with limestone fines which require major maintenance approximately every fifteen (15) years. As a member of the Paint Creek Trailway Commission, the City is responsible for the maintenance of its portion of the trail located within the City. The project will be coordinated by the Paint Creek Trailway Commission staff. No changes to operating costs are anticipated. Construction was last done in 2018.

РК-14

PK-06A

Nowicki Park: Development

Development of the 35-acre park located on Adams Road to include both active and passive recreational opportunities.

PK-20

Avondale Park: Field Rehabilitation

Growing demand for field rental is greater than available resources. Improved turf and irrigation will aid in the recovery of a field after use, allowing additional games to be played at the park to help meet demand and to generate additional revenue. Private Local League support will be sought to offset some of the costs to rehabilitate the field. Operating costs of approximately \$10,000 per year per field are anticipated to remain consistent with timely renovation, before more extensive service levels are required to keep the field in a suitable condition for play.

PW-04

PW-07E

Livernois Road Pathway (New Life Lane – Tienken Road)

Construction of approximately 4,000' of 8' wide pathway along the west side of Livernois Road between New Life Lane and Tienken Road. Project is also to include a bridge crossing over Sargent Creek. Operating costs of approximately \$1,120 per year are anticipated due to the additional pathway section added.

Adams Road Pathway – East Side [Avon Road – S of Hillendale]

Construction of approximately 3,330 feet of 8 foot wide asphalt pathway along the east side of Adams Road between Avon Rd and just south of Hillendale Dr. Project also includes a bridge or culvert crossing over the stream. Operating costs of approximately \$1,200 per year due to the additional pathway section added.

PW-08D

Tienken Road Pathway Gaps [Tiverton Trail Drive – E of Whispering Knoll Lane]

Construction of approximately 810' of 8' wide asphalt pathway along the north side of Tienken Road between Tiverton Trail Drive and 400' east of Whispering Knoll Lane to fill in the pathway gaps. Operating costs of approximately \$250 per year are anticipated due to the additional pathway sections added.

PW-08E Tienken Road Pathway [Van Hoosen Road – Washington Road]

Construction of approximately 1,100' of 8' wide pathway along the south side of Tienken Road between Van Hoosen Road and Washington Road, including ramps at the SE and NW corners of the roundabout. Operating costs of approximately \$600 per year are anticipated due to the additional pathway section added.

PW-31D

SS-13

John R Road Pathway [Hamlin Road – School Road]

Construction of approximately 4,350' of 8' wide asphalt pathway along the east side of John R Road between Hamlin Road and School Road. Operating costs of approximately \$1,220 per year are anticipated due to the additional pathway section added. Construction is planned to begin in 2023.

Sheldon Road: Sanitary Sewer Metering Equipmen	1etering Equipment
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Installation of new sanitary sewer metering equipment in existing manhole location on Sheldon Road to monitor the amount of Oakland Township sanitary sewer flows entering the City of Rochester Hills Sanitary Sewer System. The installation of this equipment will allow the City to monitor Oakland Township's sanitary sewer flow in order to insure that they are not exceeding their allotted capacity. The sanitary sewer installation on Sheldon Road was constructed with the District 21 Sanitary Sewer Interlocal Agreement approved by City Council. The City is currently visually monitoring Oakland Township flow and proposes to install the equipment when additional homes are connected to the system. Annual operating costs are anticipated to be covered by the Oakland County Water Resources Commissioner.

SS-59

LDFA Sanitary Sewer Main Upgrades

One of the primary purposes for completing the M-59 Corridor Plan was to identify what infrastructure would be needed to support an increase in the intensity of development in the study area. It is unknowable at this time where such intensification will occur, so no specific timeframe or dollar value is being assigned at this time. The M-59 Corridor Plan's infrastructure projects are not being prioritized at this point in time as implementation will occur opportunistically as part of a private/public partnership or to support a specific commitment by the private sector.

SW-03B

Karas Creek Bank Stabilization

Perform bank stabilization along the Karas Creek (Section 21) from Hamlin Road north to the Clinton River. The existing open ditch is badly eroded and is very sinuous. Soil from the bank is eroding away and is being transported to the Clinton River. If allowed to continue, adjacent lands are at risk of falling into the creek and continued sediment deposits into the river could cause negative impacts to this channel and the Clinton River bank improvements. No additional operating costs are anticipated for site maintenance.

SW-04B

Stoney Creek Drain Extension

In the northeast section of Rochester Hills there are three (3) main tributary branches of Stoney Creek referred to as the Fodera Drain (the Sheldon Road Branch, the Mead Road Branch, and the Tienken Road Branch). These branches service a drainage area of approximately 1,230 acres that extend into Oakland Township. The Mead Road Branch is intended to address the drainage of Mead Road and areas between Blue Beech Road and Wimberly Road. The Tienken Road Branch is intended to address treet and along Orion Road between Ann Maria Drive and Cherry Tree Lane. The Tienken Road branch is also intended to include local drainage for the adjacent streets along Orion Road.

Memorial Cultural Center site. According to the Rewold Drain Study, floodwaters can flood over John R Road during a significant rain event, while water currently floods over Hamlin Road near John R Road. This project will correct both of these conditions except during an extreme rain event. Operating costs of approximately \$5,000 per year are anticipated for site maintenance. The City will pursue cost-sharing options for this

SW-08A

Project to identify areas along the Clinton River, Paint Creek, and Stony Creek that could benefit from a variety of actions such as stream bank stabilization and/or land acquisition to protect the natural features of the waterways and adjacent tributary areas such as floodplains and wetlands. This project is intended to be funded entirely through grant sources. The City is continuing to seek grant support for preservation.

SW-10

Sump Line Collection System

Provide a permanent connection point for sump pump discharge for subdivisions that do not have sump collection systems. Many of the subdivisions developed in the 1970's and early 1980's do not have sump pump collection systems designed to capture footing drain discharge from residential homes. Many complaints are received of icing in roadways and yards from being saturated by excess sump water. This project proposes to install approximately 83,000 lineal feet of sump collection lines along roadways and will require that homeowners connect. In addition to icing and wet ground complaints, there is a concern that some homeowners may have violated city code by connecting footing drains to the sanitary sewer system, which reduces capacity in the sanitary sewer system and increases the amount of discharge to the county interceptor which increases overall sanitary sewer disposal costs.

WS-17

Wayside Park: Water Main Extension

Installation of approximately 650 feet of 8" ductile iron water main to serve the properties along Wayside Court and to place a fire hydrant. The units are currently served with City water by long water services installed in the late 1970's.

WS-59

LDFA Water Main Upgrades

One of the primary purposes for completing the M-59 Corridor Plan was to identify what infrastructure would be needed to support an increase in the intensity of development in the study area. It is unknowable at this time where such intensification will occur, so no specific timeframe or dollar value is being assigned at this time. The M-59 Corridor Plan's infrastructure projects are not being prioritized at this point in time as implementation will occur opportunistically as part of a private/public partnership or to support a specific commitment by the private sector.

project and also for the on-going operations.

Major Waterway Preservation

Rewold Drain (Phase C)

SW-05C

Construction of a regional detention basin north of Hamlin Road and west of John R Road on the Christian

2019-2024 Capital Improvement Plan



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2019-2024 Capital Improvement Plan CIP Role Identification

The Capital Improvement Plan **Policy Group** reviews the policy, develops the project rating and weighting criteria, rates project applications, reviews funding options, and presents the six-year recommendation to the Administrative Group.

Planning Commission Representative (2) City Council Representative Building/Ordinance/Facilities Director Chief Financial Officer Parks & Natural Resources Director Planning & Economic Development Director Department of Public Services Director

The Capital Improvement Plan **Project Group** prepares new project applications, reviews existing CIP projects, and serves as support staff to departments and the Policy Group as needed.

City Clerk	Planning Manager
Facilities Manager	Media Production Leader
Deputy Director DPS / City Engineer	Park Manager
Deputy Information Systems Director	Public Utilities Engineering Manager
Fire Chief	Senior Financial Analyst
Fleet Manager	Communication Systems Administrator
Economic Development Manager	Transportation Engineering Manager

The **Administrative Group** brings the CIP Draft forward at the Planning Commission Workshop and presents the CIP at the Planning Commission Public Hearing.

Chief Financial Officer Planning & Economic Development Director

The **Planning Commission** works with the Policy Group during the plan development, conducts workshops, reviews the Policy Group's recommendation, receives public input, conducts public hearings, adopts the plan, and requests City Council to consider incorporating funding for projects into the upcoming three-year Budget Plan.

The **City Council** is encouraged to use the CIP as a tool in the adoption of the three-year Budget Plan in accordance with City Council goals and objectives.

Residents are encouraged to participate in plan development by working with various Boards and Commissions at the Planning Commission workshops, the Planning Commission public hearings, and at City Council budget workshops and public hearings. As always, communication is open between residents, Council representatives, Planning Commission representatives, and staff.

	Program Area:
Prepared By:	Date Prepared:
CIP ID #:	
Project Description: Provide a brief	(1-2 paragraph) description of project:
Planning Context: Is the project par	rt of an Adopted Program, Policy or Plan?
Yes (Must Identify):	
No No	olicy, and how this project directly or indirectly meets these objectives:
No No	olicy, and how this project directly or indirectly meets these objectives:
No No	olicy, and how this project directly or indirectly meets these objectives:
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No Must List the adopted program or product of the program or product of the program or product of the program of the product of t	No No Initial No

Prior Approval:	Is this project included the 2018 Adopted or prior approved by any Board, Commission or City Cour	
Yes (Plea	se check appropriate box(es) below)	No
	ity Council Planning Com	mission
	018 Budget Prior Year Bu	udget:
Fotal Estimated	cost: In 2018 dollars (Amount shown here should a	gree with total on Form 2)
\$ ist all funding or	tions available for this project?	
Recommended fi	Inding option(s) to be used? (i.e: Operating Revenue	es, Fund Balance, Bond Issue etc)
Basis of Cost Esti	mate: Please check one of the following	
Cost of c	omparable facility / equipment	of thumb indicator / unit costs
Cost esti	nate from engineer / architect Prelin	ninary estimate
Ballpark	'guesstimate"	
Budget Impact (Costs):	Any and all future operating costs this project/item Maintenance; Supplies etc (* <i>Details Required</i>)	will create: Payroll/Staffing;
Budget Impact (Savings):	Any and all future operating savings this project/ite Maintenance; Supplies etc (* <i>Details Required</i>)	m will create: Payroll/Staffing;
	ceeds Saving Impact: Please explain in detail the incomendation of this project (* Details Required)	
	ted without thorough future cost/savings projections	

Equipment:			Date Pr	epared:							
Department:											
Form of Acquisition: F	Please check one of the foll	owing		Rental / Leas	e						
Number of Un	its Requested:		_								
Estimated Serv	vice Life (Years):										
Total Net Imp	oact Over Service Life		<u>Per U</u>	nit (\$):	Tot	al Cost (\$):					
Plus: Purchase	Price:		10		-	\$0.00					
Plus: Installati	on or Related Charges:		÷		-	\$0.00					
	Salvage Value, Discount:		-		-	\$0.00					
	se Cost / Annual Rent: Operational – After:			\$0.00	-	\$0.00 \$0.00					
	Operational – Ajter: Operational – Savings:		.	\$0.00							
	Operational Impact:			\$0.00		\$0.00					
	ional Impact Over Service	Life:	15 12	\$0.00		\$0.00					
Total Net In	npact Over Service Life:		n. R	\$0.00	-	\$0.00					
Purpose of Expenditur	e: Please check appropria	te box	(es):								
Scheduled Rep	lacement		Presen	t Equipment C	bsolet	e					
Replace Worn	Out Equipment		Reduce	Personnel Tir	me						
Expanded Serv	rice Life		New O	peration							
Increased Safe	ty		Improv	ed Service to	Commi	unity, Procedures etc					
=											
Replaced Item(s): Atta	ach Separate Sheet if Nece	ssary			P	rior Year's					
Item	Make	,	4ge	Maintena \$	nce	Rental Cost					
				\$		\$ \$					
				\$		\$					

* Coordinate with: * Note:	Grand Total Project	Total Operating Impact	Est. Other Impact	Est. Maintenance Impact	Est. Operational Impact	Est. Staffing Impact	Future Net Operating Costs / Savings	Total Project Construction	Equipment / Vehicle Purchase	Other Construction Costs	Construction Engineering	Construction	Geotechnical Engineering	Land Acquisition (ROW)	Right-of-Way Services	Preliminary Engineering	Project Construction
	\$0	\$0					Cost Before	o\$									Project Title: Cost Before 2018
	\$0	0\$						0\$									ADOPTED BUDGET 2018
	0\$	\$0						0\$									PROJECTED BUDGET 2019
	\$0	\$0						0\$									PROJECTED BUDGET 2020
	\$0	\$0						0\$		-							2021
	\$0	\$0						0\$									2022
	\$0	\$0						0\$									2023
	\$0	\$0						0\$								-	CIP ID #
	\$0	\$0			10 O\$	\$0 10	C Total Sh	o\$	10 D\$	10 O\$	10 O\$		10 D\$	JT 0\$	10 O\$	\$0 1(Total Sh
		Γ	100%	100%	100%	100%	City Share TOTAL CITY		100%	100%	100%	100%	100%	100%	100%	100%	Gity Share TOTAL CITY
	\$0	\$0	\$0	\$0	\$0	\$0	YTI	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Ŧ

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2019-2024 Capital Improvement Plan Project Rating Form

	2019-2024 CAPITAL IMPROVEMENT				
	Project Name:	Project #:			n
	Department:	Total Score:)	6
	Rater Name:	Score Range	Rater Score	Weight	Total Points
1	Contributes to Health, Safety and Welfare			5	
	Eliminates a known hazard (accident history)	5			100
	Eliminates a potential hazard Materially contributes	4	1		0
	Minimally contributes	1			
	No Impact	0			
					-
2	Project Needed to Comply with Local, State or Federal Law			5	•
	Yes No	5			0
	INO	•			
3	Project Conforms to Adopted Program, Policy or Plan			4	
	Project is consistent with adopted City Council policy or plan	5		4	0
	Project is consistent with Administrative policy	3			U
	No policy / plan in place	0			
4	Project Remediates an Evisting or Projected Definitions				
-	Project Remediates an Existing or Projected Deficiency Completely Remedy Problem	5		3	
	Partially Remedy Problem	3			0
	No	0			
5	Will Project Upgrade Facilities			3	
	Rehabilitates / upgrades existing facility Replaces existing facility	5			0
	New facility	1			100
6	Contributes to Long-term Needs of Community			2	
	More than 30 years	5		<u> </u>	
	21 - 30 years	4			0
	11 - 20 years 4 - 10 years	2			v
	3 years or less	1			
7	Annual Impact on Operating Costs Compared to			2	
	Operating Costs Absent the Project			-	
	Net Cost Savings No Change	5			0
	Minimal increase (<\$25,000)	3	1		U
	Moderate Increase (\$25,000 - \$100,000)	2			
	Major Increase (> \$100,000)	1			
8	Impact Measures - Net Present Value & Internal Rate of Return / # of Years to Recoup Costs			2	
	# of Years to Recoup Costs High / 0-3 Years	5		L	
	Medium-High / 4-7 Years	4			~
	Medium / 8-11 Years	3			0
	Medium-Low / 12-15 Years	2			
	Low / 15 - 20 Years	1			
	Never	0			
0	Comites Area of Dusiant				
9	Service Area of Project Regional	5		2	
	Gty-Wide	4			0
	Several neighborhoods	3			
_	One neighborhood or less	1			
10	Department Priority High	5		2	
	High Medium	3			0
	Low	1			
11	Project Delivers Level of Service Desired by Community			2	
	High Medium	5			0
					-

2019 FLEET EQUIPMENT PURCHASES BREAKDOWN							
			REPLACEMENT	ES	TIMATED		
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST		
Tractor Cab	Parks - Borden		10	\$	8,030		
Sewer Easement Machine	DPS - W&S		10	\$	60,000		
Transmission Fluid Exchanger	DPS - Fleet	#1115	6	\$	6,120		
Wheel Load Weigher	OCSO	#1122	8	\$	6,530		
Wheel Load Weigher	OCSO	#1123	8	\$	6,530		
Concrete Power Screed	DPS - Roads	#5877	10	\$	7,490		
Utility Tractor	Parks	#5999	10	\$	65,730		
Zero-Turn Mower	Parks - Borden	#6736	4	\$	10,930		
Zero-Turn Mower	Parks - Borden	#6737	4	\$	10,930		
Utility Vehicle	Parks - Spencer	#6778	4	\$	14,790		
Utility Vehicle	Parks - Borden	#6779	4	\$	20,160		
Finish Machine	DPS - Roads	#902547	5	\$	8,510		
Stump Grinder	Forestry	39-317	10	\$	45,340		
Concrete Saw	DPS - Roads	39-323	10	\$	15,610		
Service Truck	Fleet	39-015	12	\$	60,000		
Wheeled Excavator	DPS	39-082	12	\$	304,220		
Pickup 4wd	Forestry	39-160	7	\$	32,330		
Crew Truck	DPS - W&S	39-179	12	\$	215,080		
Pickup 2wd	Building	39-184	7	\$	17,760		
Pickup 4wd w∖ Plow	DPS	39-292	7	\$	34,630		
Pickup 4wd w∖ Plow	DPS	39-293	7	\$	33,300		
Pickup 4wd w∖ Plow	DPS	39-298	7	\$	37,380		
Pickup 4wd w\ Plow	DPS	39-299	7	\$	35,940		
Pickup 4wd w∖ Plow	DPS	39-528	7	\$	35,940		
Pickup 4wd w\ Plow	DPS	39-534	7	\$	33,250		
	TOTAL 2019 FLEET V	'EHICLE / EQU	JIPMENT COSTS:	\$1	L,126,530		

2020 FLEET EQUIPMENT PURCHASES BREAKDOWN							
	REPLACEMENT						
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST		
Fuel Management System	Fleet	#6143	10	\$	30,710		
Zero Turn Mower	Parks - Borden	#6263	4	\$	11,800		
Zero Turn Mower	Parks - Borden	#6264	4	\$	11,800		
Pressure Washer	DPS - Fleet	#6743	5	\$	10,520		
Utility Vehicle	Parks - Borden	#6776	4	\$	9,340		
Utility Vehicle	Parks - Borden	#6777	4	\$	9,340		
Utility Vehicle	Parks - Museum	#6780	4	\$	9,260		
Trailer Mounted Hot Pathcer	DPS - Roads	29-235	8	\$	33,320		
Tractor/Loader/Backhoe	DPS - Roads	39-084	12	\$	149,510		
Integrated Tool Kit Loader	DPS	39-169	12	\$	259,660		
Forklift	DPS	39-188	10	\$	33,680		
Trash Pump	DPS - Fleet	39-212	10	\$	60,670		
Steam Generating Unit/Trailer	DPS	39-225	12	\$	28,360		
Tractor / Loader	DPS	39-286	10	\$	149,720		
Wheel Loader	DPS - Roads	39-296	10	\$	201,710		
Radar Smart Cart	OCSO	39-324	5	\$	16,120		
Crash Attenuator	Fleet	39-327	10	\$	23,310		
Wood Chipper	Forestry	39-335	8	\$	44,490		
Sewer Camera Truck	DPS - W&S	39-158	12	\$	60,820		
Tandem-Axle Dump Truck	DPS	39-189	12	\$	236,150		
Tandem-Axle Dump Truck	DPS	39-190	12	\$	236,150		
Tandem-Axle Dump Truck	DPS	39-270	12	\$	236,150		
Tandem-Axle Dump Truck	DPS	39-271	12	\$	236,150		
Tandem-Axle Dump Truck	DPS	39-272	12	\$	236,150		
Passenger Car	City Pool	39-525	7	\$	24,850		
Passenger Car	DPS - Roads	39-526	7	\$	24,850		
Pickup 4wd w∖ Plow	DPS - W&S	39-527	7	\$	38,870		
Pickup 4wd w∖ Plow	Facilities	39-530	7	\$	35,700		
Pickup 4wd	DPS - W&S	39-533	7	\$	29,290		
Pickup 4wd w∖ Plow & Platform	DPS	39-535	7	\$	38,910		
Pickup 4wd w∖ Plow	DPS	39-536	7	\$	34,580		
Pickup 4wd w∖ Plow	DPS	39-537	7	\$	34,580		
Pickup 4wd w∖ Plow & Platform	DPS	39-538	7	\$	38,910		
Pickup 4wd	Building	39-543	7	\$	27,580		
Pickup 2wd	Parks - Spencer	39-544	7	\$	30,750		
Pickup 4wd w\ Plow	Parks - Borden	39-547	6	\$	35,170		
Pickup 4wd w∖ Dump	Parks - Borden	39-548	6	\$	38,440		
Sport Utility 4wd	Media	39-555	7	\$	25,040		
Pickup 4wd w\ Platform	Parks - Borden	39-560	7	\$	47,320		
Ĩ	OTAL 2020 FLEET V	EHICLE / EQU	JIPMENT COSTS:	\$2	,839,730		

2021 FLEET EQUIPMENT PURCHASES BREAKDOWN								
	REPLACEMENT							
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST			
Field Rake	Parks - Borden	#6841	5	\$	14,240			
Municipal Tractor	DPS	39-287	12	\$	165,070			
Asphalt Roller	DPS - Roads	39-231	10	\$	8,680			
Concrete Saw	DPS - Roads	39-336	10	\$	25,450			
Pickup 4wd	DPS	39-297	10	\$	42,830			
2-Yard Dump Truck	DPS	39-531	10	\$	54,350			
Sanitary Sewer Truck	DPS - W&S	39-532	10	\$	544,210			
Sport Utility 4wd	DPS - W&S	39-550	7	\$	25,720			
Passenger Car	Assessing	39-551	7	\$	25,220			
Pickup 4wd w∖ Plow	DPS	39-567	6	\$	39,030			
Pickup 4wd w\ Plow	DPS	39-568	6	\$	39,030			
Pickup 4wd w\ Crane Body	DPS	39-569	6	\$	72,260			
	TOTAL 2021 FLEET V	EHICLE / EQU	JIPMENT COSTS:	\$1	,056,090			

2022 FLEET EQUIPMENT PURCHASES BREAKDOWN							
			REPLACEMENT	ES	TIMATED		
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST		
Dump Body Vehicle Insert	Parks - Borden	#6134	5	\$	8,840		
Rotary Broom	Parks - Spencer	#6155	4	\$	10,840		
Zero Turn Mower	Parks - Borden	#6265	4	\$	15,720		
Municipal Tractor	Parks - Borden	#6270	10	\$	55,160		
Utility Vehicle	Parks - Borden	#6606	4	\$	10,040		
Dump Body Vehicle Insert	Parks - Borden	39-232	10	\$	9,700		
Dump Body Vehicle Insert	Cemetery	39-233	10	\$	8,670		
Dump Body Vehicle Insert	Parks - Borden	39-234	10	\$	11,610		
Equipment Trailer	DPS	39-236	10	\$	10,240		
Equipment Trailer	DPS	39-237	10	\$	10,240		
Pickup 4wd w∖ Plow	Parks - Borden	39-579	6	\$	34,830		
Tandem-Axle Dump Truck	DPS	39-294	12	\$	255,650		
Tandem-Axle Dump Truck	DPS	39-295	12	\$	255,650		
2-Yard Dump Truck	Parks - Borden	39-549	8	\$	95 <i>,</i> 590		
Forestry Chipper Truck	Forestry	39-552	8	\$	76,460		
Sport Utility 4wd	Building	39-561	7	\$	27,830		
Pickup 4wd	Ordinance	39-563	7	\$	31,570		
Pickup 4wd	DPS	39-564	7	\$	31,570		
Pickup 4wd	DPS - Roads	39-565	7	\$	31,570		
Pickup 4wd	DPS - W&S	39-566	7	\$	31,570		
Cargo Van	DPS - W&S	39-570	7	\$	25,010		
Cargo Van	DPS - W&S	39-571	7	\$	25,010		
Sport Utility 4wd	Building	39-592	7	\$	27,830		
	TOTAL 2022 FLEET V	EHICLE / EQU	JIPMENT COSTS:	\$1	L,101,200		

2023 FLEET EQUIPMENT PURCHASES BREAKDOWN							
			REPLACEMENT	ES	TIMATED		
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST		
Sign Shop Cutter	DPS - Roads	#6163	5	\$	8,640		
Slide-In Aluminum Dump Unit	DPS	#6526	10	\$	8,090		
Zero-Turn Mower	Parks - Borden	#6736	4	\$	12,790		
Zero-Turn Mower	Parks - Borden	#6737	4	\$	12,790		
Utility Vehicle	Parks - Spencer	#6778	4	\$	17,310		
Utility Vehicle	Parks - Borden	#6779	4	\$	23,590		
Equipment Trailer	OCSO	39-230	5	\$	10,450		
Traffic Arrowboard	DPS	39-325	7	\$	5,780		
Traffic Arrowboard	DPS	39-326	7	\$	5,780		
Pickup 4wd w/Plow	DPS	39-575	7	\$	51,080		
Pickup 4wd w/Plow & Dump Body	Cemetery	39-589	6	\$	41,540		
Jeep Patriot FWD	DPS	39-582	7	\$	25,130		
GMC TS15653	Building	39-576	7	\$	34,690		
GMC Savanna	Facilities	39-574	7	\$	29,500		
2 WD EXT CAB PICKUP	Building	39-577	7	\$	34,690		
4X4 CREW CAB PICKUP	Building	39-578	7	\$	34,500		
GMC SIERRA 4X4 PICKUP w\ Plow	Parks - Borden	39-587	6	\$	33,250		
GMC SIERRA 4X4 PICKUP w\ Plow	Parks - Borden	39-588	6	\$	33,250		
GMC 4X4 EXTENDED CAB	Ordinance	39-545	10	\$	31,020		
VACTOR 2115 COMBINATION	DPS	39-546	10	\$	577,050		
	TOTAL 2023 FLEET V	EHICLE / EQU	JIPMENT COSTS:	\$1	L,030,920		

2024 FLEET EQUIPMENT PURCHASES BREAKDOWN							
			REPLACEMENT	ES	TIMATED		
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST		
Transmission Fluid Exchanger	DPS - Fleet	#1115	6	\$	7,450		
Finish Machine	DPS - Fleet	#902547	5	\$	10,360		
Zero-Turn Mower	Parks - Borden	#6832	4	\$	13,800		
Zero-Turn Mower	Parks - Borden	#6833	4	\$	13,800		
Slide IN Combination Unit	DPS	#6375	12	\$	55,880		
Slide IN Combination Unit	DPS	#6376	12	\$	55,880		
Four Mobile Lift Column	DPS	#6607	10	\$	57,140		
TIG Welder	DPS - Fleet	#6882	8	\$	8,150		
4X4 CREW CAB PICKUP	Building	39-590	7	\$	37,820		
Cargo Van	DPS - Meters	39-591	7	\$	29,090		
Cargo Van	Facilities	39-592	7	\$	29,090		
4X4 CREW CAB PICKUP	DPS	39-586	7	\$	37,820		
2 WD EXT CAB PICKUP	Parks - Bloomer	39-585	7	\$	28,550		
Pickup 4wd w∖ Crane Body	DPS	39-593	7	\$	63,850		
Street Sweeper	DPS	39-029	7	\$	355,710		
GMC Cut Away Van/Cube w\ Interior Package	DPS	39-442	10	\$	75,810		
Tandem Axle Dump Truck	DPS	39-556	10	\$	275,780		
Tandem Axle Dump Truck	DPS	39-556	10	\$	275,780		
Tandem Axle Dump Truck	DPS	39-556	10	\$	275,780		
Tandem Axle Dump Truck	DPS	39-556	10	\$	275,780		
Freightliner	DPS	39-542	12	\$	267,450		
Freightliner	DPS	39-541	12	\$	271,870		
Freightliner	DPS	39-540	12	\$	274,820		
T	OTAL 2024 FLEET V	EHICLE / EQU	JIPMENT COSTS:	\$2	2,797,460		

2019 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN										
			REPLACEMENT		ESTIMATED					
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST					
Ladder Quint	Fire Suppression	Ladder 3	20	\$	981,500					
	2019 TOTAL FIRE DI	EPARTMENT VEHICLE & /	APPARATUS COSTS:	\$	981,500					
2020 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN										
			REPLACEMENT		ESTIMATED					
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST					
	- ; - - :	1 1+111+11 1	10	ć	51,250					
Pickup 4wd	Fire Suppression	Utility 1	10	\$	51,250					
Pickup 4wd Pickup 4wd	Fire Suppression	Utility 3	10	\$ \$	51,250					
•		,								
Pickup 4wd	Fire Suppression	Utility 3	10		51,250					
Pickup 4wd Pickup 4wd	Fire Suppression Fire Suppression	Utility 3 Utility 2	10 10	\$ \$	51,250 51,250					

2021 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN									
			REPLACEMENT	E	STIMATED				
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST				
None Scheduled				\$	-				
	2021 TOTAL FIRE DEPA	ARTMENT VEHICLE 8	APPARATUS COSTS:	\$	-				

	2022 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN									
			REPLACEMENT		ESTIMATED					
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST					
Rescue Pumper	Fire Suppression	Engine 1	15	\$	640,000					
Rescue Pumper	Fire Suppression	Engine 4	15	\$	640,000					
Ambulance	EMS	Alpha 21	6	\$	330,000					
Ambulance	EMS	Alpha 22	6	\$	330,000					
Ambulance	EMS	Alpha 24	6	\$	330,000					
Ambulance	EMS	Alpha 23	6	\$	330,000					
Ambulance	EMS	Alpha 25	6	\$	330,000					
	2022 TOTAL FIRE DEP	ARTMENT VEHICLE 8	APPARATUS COSTS:	\$	2,930,000					

	2023 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN										
			REPLACEMENT		ESTIMATED						
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST						
None Scheduled				\$	-						
	2023 TOTAL FIRE DEP/	ARTMENT VEHICLE 8	APPARATUS COSTS:	\$	-						

2024 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN									
			REPLACEMENT		ESTIMATED				
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST				
Sport Utility 4wd	Fire Suppression	Battalion 1	10	\$	33,000				
Sport Utility 4wd	Fire Suppression	Inspector 2	10	\$	33,000				
	2024 TOTAL FIRE DEF	PARTMENT VEHICLE &	APPARATUS COSTS:	\$	66,000				

2019-2024 Capital Improvement Plan Aggregate Spreadsheet

Aggregate Spreadsheet (page #1)

2019-2024 Capital Improvement Plan Aggregate Spreadsheet

Aggregate Spreadsheet (page #2)

2019-2024 Capital Improvement Plan CIP Schedule

January 16	Planning Commission representative (at Planning Commission meeting) announces request for public submission of any eligible project. Project Application form will be available on City website for public.
January 22	CIP Project Group receives CIP schedule and instructions. Mayor or City Council representative (at City Council meeting) announces request for public submission of any eligible project.
February 23	Deadline to submit new CIP project applications/re-evaluations.
March 20	CIP Project group & CIP Policy group meeting (Q & A opportunity for CIP Policy group).
March 29	CIP Project ratings due from Policy Group.
April 17	Planning Commission Workshop and public hearing to review Draft 2019-2024 CIP and to provide an opportunity for public input.

2019-2024 Capital Improvement Plan Notice of Public Hearing



NOTICE OF PUBLIC HEARING ON THE PROPOSED 2019-2024 CAPITAL IMPROVEMENT PLAN

ROCHESTER HILLS PLANNING COMMISSION

Notice is hereby given that the City of Rochester Hills Planning Commission will hold a Public Hearing at 1000 Rochester Hills Drive, Rochester Hills, Oakland County, Michigan 48309, on Tuesday, April 17, 2018 at 7:00 p.m. to receive public comments regarding the City of Rochester Hills 2018-2023 Capital Improvement Plan as a component of the City's Comprehensive Plan.

Information regarding the Capital Improvement Plan may be obtained from the Fiscal Department during regular business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, or by calling (248) 656-4660. Written comments concerning this matter will be received by the Planning and Economic Development Department prior to the Public Hearing or by the Planning Commission at the Public Hearing.

Deborah Brnabic, Chairperson Rochester Hills Planning Commission

Note: Anyone planning to attend the meeting who has need of special assistance under the Americans Disabilities Act (ADA) is asked to contact the Facilities Division (248) 656-2560 forty-eight (48) hours prior to the meeting. Staff will be pleased to make the necessary arrangements.

Dated this 22nd day of March 2018 at Rochester Hills, Michigan. Publish Monday, April 2, 2018

2019-2024 Capital Improvement Plan Capital Improvement Plan Review

2019-2024 Capital Improvement Plan / Projects Added

		<u>Year</u>	
FA-02J	City Hall Compound Gate	2019	New Project Submittal
FA-05B	Van Hoosen Dairy Barn Generator	2019	New Project Submittal
FA-05C	Van Hoosen Museum Schoolhouse Siding Project	2019	New Project Submittal
FA-07C	Citywide HVAC Maintenance & Repairs Schedule	2019-2023	New Project Submittal
FA-07D	Energy Management Systems	2021	New Project Submittal
FA-12A	Sheriff Substation Water Heater	2021	New Project Submittal
FA-13M	Fire Station #1 Concrete Approach Replacement	2020	New Project Submittal
FA-13N	Fire Station Bay Heaters [Stations 1, 3 & 5]	2020	New Project Submittal
IS-04H	Scott Sight Thermal Imaging Camera	2019	New Project Submittal
LS-15	Bolinger Street SAD	2019-2020	New Project Submittal
LS-17	Michelson [West of John R] SAD	2019-2020	New Project Submittal
LS-18	Runyon Road Paving	2022-2023	New Project Submittal
MR-16C	Auburn Road [Rochester to Culbertson]	2019	New Project Submittal
MR-26G	Livernois Road [Avon to North of Walton]	2019	New Project Submittal
PK-05G	Basketball, Tennis and Pickle Ball Court Renovations	2020-2022	New Project Submittal
PW-13	Runyon Road Pathway	2022-2023	New Project Submittal
PW-14	Yates Park to North of Avon Pathway	2020-2021	New Project Submittal
SS-09	Livernois Sanitary Sewer Extension [North of Hamlin]	2022	New Project Submittal
SS-11	Oakland Macomb Interceptor Drain Improvements	2019-2023	New Project Submittal
WS-38	Springhill Subdivision Water Main Replacement	2021-2022	New Project Submittal
WS-39	Meter Test Bench Replacement	2019	New Project Submittal

2019-2024 Capital Improvement Plan Capital Improvement Plan Review

2019-2024 Capital Improvement Plan /	Projects Deleted
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		<u>Reason Not Included</u>
FA-03G	Van Hoosen / Jones Cemetery: Pole Barn	Project Complete
MR-02J	Hamlin Road [City Limit to East of Adams Road]	Project Complete
PK-05F	Borden Park: Soccer Field Renovations	Project Complete
PK-06A	Paint Creek Trailway: Resurfacing Schedule	Defer to Pending
PK-07	Infield Groomer	Project Complete
PK-16	Yates Park: Parking Lot Rehabilitation	Project Deleted
PW-09A	Technology Drive Pathway [Auburn Road - 2,250' North]	Project Complete
SS-10B	Wimberly Drive: Sanitary Sewer Replacement	Project Complete
WS-17	Wayside Court: Water Main Extension	Defer to Pending
WS-37	Adams High School: Water Main Replacement	Project Complete

2019-2024 Capital Improvement Plan Capital Improvement Plan Review

2019-2024 Capital Improvement Plan / Project Timeline Changes			
		Project T	imelines:
		<u>Prior</u>	<u>Revised</u>
IS-16C	Electronic Plan Review Software	2018-2018	2019-2019
LS-05	Reuther Middle School Area Street Lighting	2018-2018	2019-2019
LS-06	Reuther Middle School Area Sidewalks	2018-2019	2019-2019
MR-03	Harding Avenue Rehabilitation	2018-2018	2019-2019
MR-28	John R Road Rehabilitation [Avon Road to Bloomer Road]	2021-2021	2020-2020
MR-46	Star Batt Reconstruction	2019-2020	2019-2019
MR-49C	Avon Road Widening [Princeton Avenue - Grovecrest Avenue]	2019-2020	2023-2024
PK-03F	Van Hoosen Museum: Equipment Barn Replacement	2018-2018	2019-2019
PW-01B	Crooks Road Pathway Gap [Clinton River - Bonnie Brae Street]	2018-2019	2020-2021
PW-06D	Auburn Pathway Gaps [Walbridge - Hickory Lawn]	2020-2021	2021-2022
PW-07C	Adams Road Pathway [Powderhorn Ridge Road - Tienken Road]	2019-2019	2022-2023
PW-07D	Adams Road @ Clinton River Trailway: Pathway Crossing	2019-2020	2020-2021
PW-11	Drexelgate Pathway Gap [Wexford Way - Rochester Road]	2021-2022	2023-2024
PW-21	East Nawakwa Pathway [Rochester Road - Joshua Drive]	2019-2020	2021-2022
PW-49A	Avon Road Pathway [LeGrande Boulevard - Cider Mill Boulevard]	2019-2020	2022-2023
PW-49C	Avon Road Pathway [Rainier Avenue - Bembridge Drive]	2019-2020	2023-2024
SS-30	Sewer Easement Machine	2018-2018	2019-2019
SW-08C	Clinton River: Natural Channel Restoration	2020-2022	2022-2024
SW-12	Watertowns Storm Water Improvements	2019-2019	2023-2023
SW-13	Storm Water BMP Retrofit	2020-2021	2022-2023
WS-08	Fieldstone & Ironstone: Water Main Replacement	2019-2019	2020-2020
WS-09	Flora Valley Court - River Bend Drive: Water Main Connection	2021-2021	2022-2022
WS-16	Bedfordt Square Apartments/Tienken Court: Water Main Replacement	2018-2019	2019-2019
WS-34	Glidewell Subdivision: Water Main Replacement	2018-2019	2021-2021

2019-2024 Capital Improvement Plan

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