2018-2023 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

LDFA Master Plai

2018-2023 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 2016-2021 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 road-widening 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.

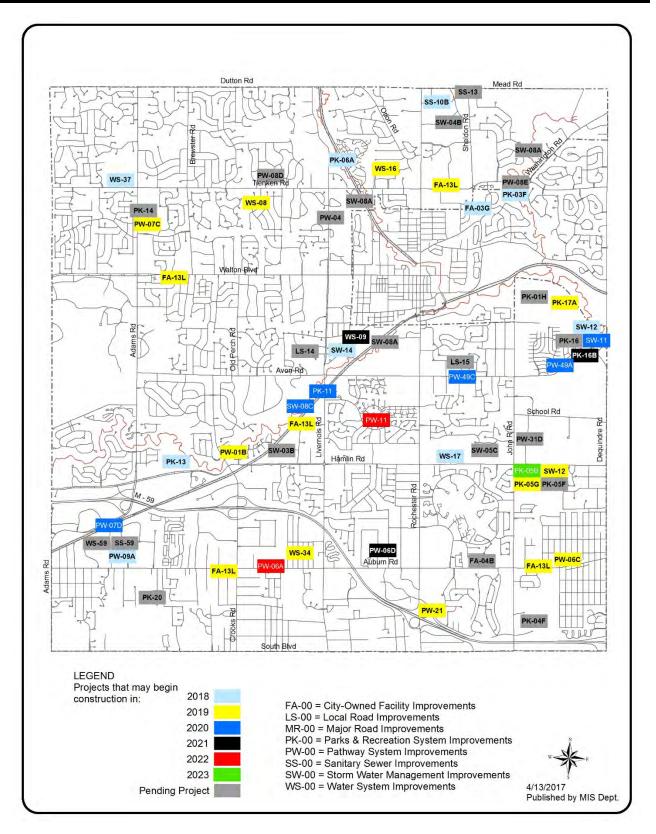
2018-2023 Capital Improvement Plan CIP Policy

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:

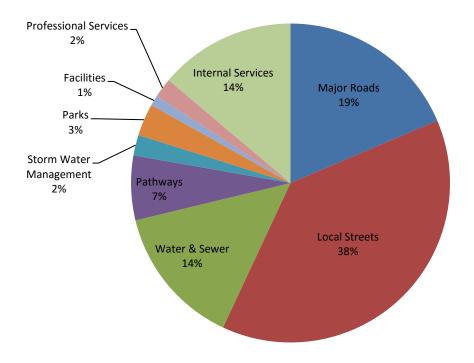
- 1. Any construction of a new facility (i.e., major/local roadways, water/sanitary sewer mains, storm water management, pathways*, recreational facilities, or public buildings), an addition to, or extension of such a facility, provided that the cost is \$25,000 or more and that the improvement will 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

2018-2023 Capital Improvement Plan Aggregate Citywide Project Locations



2018-2023 Capital Improvement Plan Aggregate City Share Summary



2018-2023 CIP City Share Breakdown					
Major Roads	\$ 14,912,125	19%			
Local Streets	\$ 30,723,100	38%			
Water & Sewer	\$ 11,441,028	14%			
Pathways	\$ 5,241,010	7%			
Storm Water Management	\$ 1,670,000	2%			
Parks	\$ 2,616,890	3%			
Facilities	\$ 850,000	1%			
Professional Services	\$ 1,575,000	2%			
Internal Services	\$ 11,095,850	14%			
	\$ 80,125,003				

2018-2023 Capital Improvement Plan



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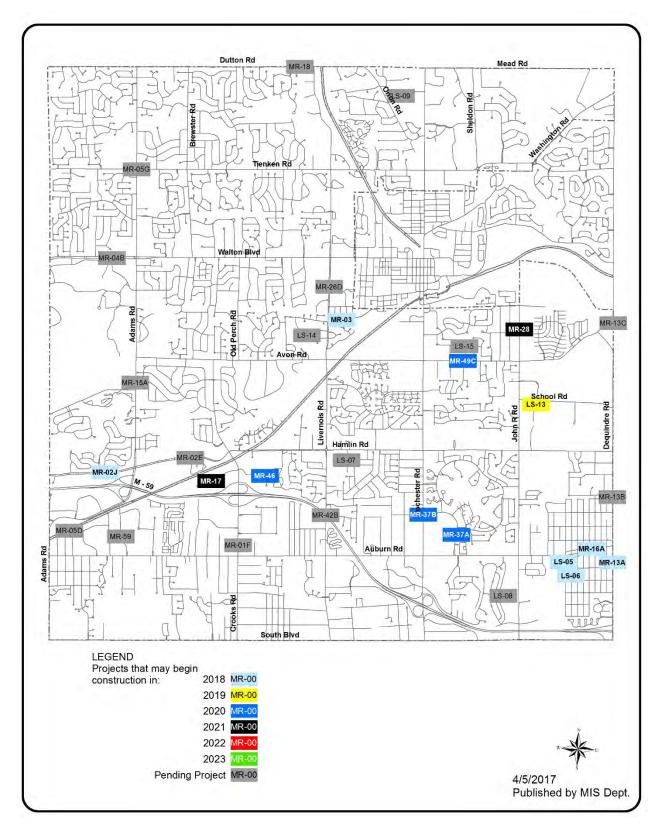
The purpose of the Street Improvement Program is to preserve and maintain safe neighborhoods in an effort to sustain the quality of life that Rochester Hills residents expect. The Street Improvement Program is part of a long-term solution aimed at the systematic maintenance, repair, and rehabilitation 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 39-miles of paved major roads, 214-miles of paved local streets, and 23-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

2018-2023

Estimated 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

2018-2023
Estimated City Cost: \$1,200,000 Estimated LDFA Share: 100%

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-02J	** Hamlin Road [City Limit to East of Adams Road] **			
Estimated	d Total Project:	\$5,673,750	2018-2018	
Estim	ated City Cost:	\$2,836,875	Estimated City Share:	50%

Reconstruct over 5,500 feet of existing concrete pavement from the westerly city limit to about 500 feet east of Adams Road. The 2016 Paser rating was rated poor. The pavement reconstruction strategy is a complete removal and replacement of the existing concrete pavement, including edge drain, aggregate base, undercuts, etc. Final determination upon geotechnical testing & recommendation. Pathway ramps will be upgraded to meet ADA compliance along with pedestrian push buttons for the pedestrian signal heads. This portion of Hamlin is planned become a City road after reconstruction. Additional ongoing operating and maintenance costs of \$7,500 per year are anticipated. Construction is planned to begin in 2018.

MR-03 ** Harding Avenue Rehabilitation **

Estimated Total Project: \$237,750 2018-2018

Estimated City Cost: \$237,750 Estimated City Share: 100%

Rehabilitate approximately 1,300 feet of asphalt section of Harding Avenue from Livernois up to May Road. The existing road is 27 foot wide with curb and gutter. The 2016 Paser rating was a 3 (poor) out of a scale of 10. The pavement rehabilitation stategy is a 2 inch 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 2018.

MR-12	Major Road System: Traffic Calming Program			
Estimated	d Total Project:	\$120,000	2018-2023	
Estim	ated City Cost:	\$60,000	Estimated City Share:	50%

The City receives many traffic related concerns from subdivision homeowner's associations (HOA) regarding speeding along 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 allows for 'seed' money to offer a 50/50 match between the HOA and the City to provide assistance for the implementation of traffic-calming devices along residential collector type roads which are classified as major roads. This program is proposed to be funded at a City share of \$10,000 per year and is on-going.

MR-13A	Dequindre Road Reconstruction [Clovelly Avenue – South Boulevard]			
Estimated Total Project:		\$32,428,400	2015-2018	
Estim	nated City Cost:	\$810,710	Estimated City Share:	2.5%

Reconstruction of Dequindre Road as a 5-lane road section between Clovelly Avenue and South Boulevard. 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. Phase #1 roadway segment from South Boulevard to Melville Drive is planned to begin in 2016. Phase #2 roadway segment from Melville Drive to Clovelly Drive is planned to begin in 2018.

MR-16A	** Auburn Road Corridor Implementation **			
Estimated	d Total Project:	\$3.842,500	2018-2019	
Estim	ated City Cost:	\$3,842,500	Estimated City Share:	100%

Improve the Auburn Rd Corridor from Culbertson Ave to Dequindre, including on street parking, improved pedestrian walking zone areas with ADA upgrades, street lighting, median boulevard islands, storm water upgrades, water main upgrades, sanitary sewer upgrades, and lansdcaping/streetscaping. Work may involve redefining the existing road topography and elevations.

The 1st phase in the process is to initiate an early preliminary engineering (EPE) study to determine the scope and scale of the proposed Auburn Rd improvements and better define the 2nd phase, which is the preliminary engineering requirements. The EPE phase will also determine the recommended project time line for construction, which is phase 3.

MR-17	** Avon Industrial Drive **			
Estimate	d Total Project:	\$587,500	2021-2021	
Estim	nated City Cost:	\$587,500	Estimated City Share:	100%

Rehabilitation of approximately 2,600 feet of asphalt section of Avon Industrial Drive and 370 feet of Star Court(a side street off Avon Industrial Drive). The existing road is 36 foot wide asphalt with concrete curb and gutter. The 2016 Paser rating was a 4 out of a scale of 10. The pavement rehabilitation strategy is a 4 inch asphalt mill and overlay (final determination upon geotechnical testing & recommendation) with selective base and curb repairs. Operating costs are anticipated to decrease by \$6,000 per year due to rehabilitation. Construction is planned to begin in 2021.

MR-27	Major Road System: Bridge Rehabilitation Program			
2018-2023				
Estimated City Cost: \$228,000 Estimated City Share: 100%				

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	** John R Road Rehabilitation [Avon Road to Bloomer Road] **			
Estimated	d Total Project:	\$673,000	2021-2021	
Estim	ated City Cost:	\$673,000	Estimated City Share:	100%

Rehabilitation of approximately 3000 feet of asphalt section of John R Road from north of Avon up to Bloomer Road. The existing road is 22 foot wide with no curb and 2 foot wide gravel shoulders. The 2016 Paser rating was a 4 out of a scale of 10. The pavement rehabilitation strategy is a 4 inch 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 2021.

MR-37A	Barclay Circle Rehabilitation			
2020-2020				
Estim	nated City Cost:	\$1,025,000	Estimated City Share:	100%

Rehabilitate approximately 4,000' of asphalt section of Barclay Circle from Rochester Road to Auburn Road. The existing road is 60,' wide from back of curb to back of curb. The 2015 City PASER Rating was 3 out of a scale of 10 from Rochester Road to Ashley Circle and 4 out of a scale of 10 from Ashley Circle to Auburn Road. The proposed pavement rehabilitation strategy is a 3" asphalt mill & fill (final determination upon geotechnical testing & recommendation) with selective base repairs and concrete curb and gutter repairs as deemed necessary. Will coordinate project timing with (MR-37B) Rochester Road @ Barclay Circle: Traffic Signal Improvements. Operating costs of approximately \$15,000 per year are anticipated to decrease to \$9,000 per year due to reconstruction. Construction is planned to begin in 2020.

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%

Upgrade of the existing traffic signal to a modern box span design. Work would also include upgrading non compliant pathway ramps to meet ADA compliance along with associated pedestrian countdown signals. The Barclay Circle median island will also be reworked to allow for the proper alignment between the left turn movements off Barclay Circle and Wabash Drive. This will eliminate the need for split time phasing, thus improving the traffic flow and capacity through the intersection. The traffic signal upgrade would be primarily funded via CMAQ funds. The City would be responsible for the costs associated with reconfiguring the Barclay Circle median island in order to allow for proper left turn offset with Wabash Road. Potentially minor cost savings to annual traffic signal operations and maintenance costs. Construction is planned to begin in 2020.

MR-46	Star Batt Drive Reconstruction			
2019-2020				
Estin	nated City Cost:	\$1,280,000	Estimated City Share:	100%
Reconstruction of Star Batt Drive; approximately 2,300' asphalt road (final road repair strategy is contingent on results of geotechnical pavement cores). The existing road is 36' wide from back of curb to back of curb				

with integral asphalt curbing. The 2016 PASER rating was a 2 (very poor) out of a scale of 10 from Crooks Road to the end of Star Batt Drive. The pavement rehabilitation strategy is a complete removal and replacement of the asphalt with integral curb section. Operating costs of approximately \$15,000 per year are anticipated to decrease to \$12,000 per year due to reconstruction. Construction is planned to begin in 2020.

MR-49C	Avon Road Widening [Princeton Avenue – Grovecrest Avenue]			
Estimate	d Total Project:	\$577,500	2019-2020	
Estin	nated City Cost:	\$192,500	Estimated City Share:	33%

Widen approximately 1,300 feet of Avon Road between Princeton Avenue and Grovecrest Avenue to accommodate an 11' wide center left-turn lane. The proposed project will provide safety benefits by allowing vehicles to exit the through lanes and enter a dedicated center left-turn lane. No operating costs are anticipated, due to this section of roadway being owned and operated by the RCOC. Construction is planned to begin in 2020.

LS-01	Local Street System: Rehabilitation Program					
2018-2023						
Estim	nated City Cost:	\$30,000,000	Estimated City Share:	100%		

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	2018-2018		
Estim	nated City Cost:	\$0	Estimated City Share:	0%	

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.

LS-06 ** Reuther Middle School Area Sidewalks **

Estimated Total Project: \$775,000 2018-2019

Estimated City Cost: \$285,500 Estimated City Share: 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 ongoing operations and maintenance will be the responsibility of the adjacent property owners.

LS-12	Local Street System: Traffic Calming Program				
Estimated	d Total Project:	\$300,000	2018-2023		
Estim	nated 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 twenty (20) traffic-calming devices per year along residential streets. This program is proposed to be funded at a City share of \$25,000 per year and is on-going.

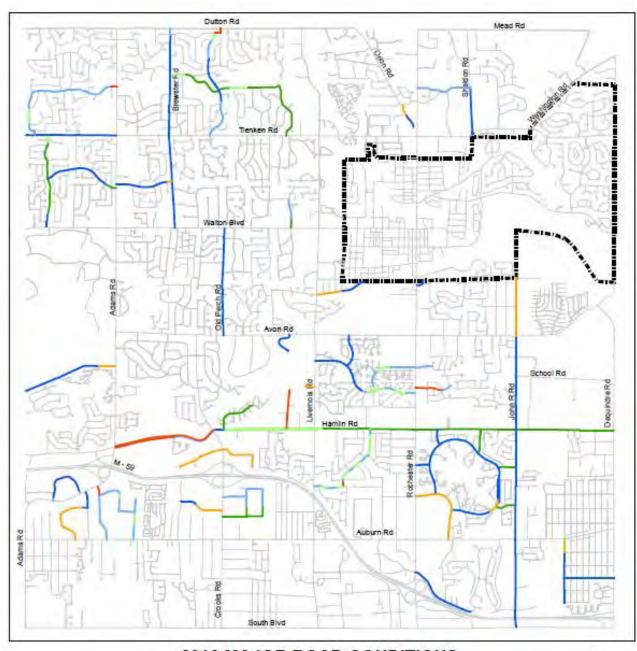
LS-13	School Road Paving (John R Road – 1,700' Eastbound)				
Estimate	d Total Project:	\$360,500	2018-2019		
Estim	nated City Cost:	\$287,600	Estimated City Share:	100 / 73%	

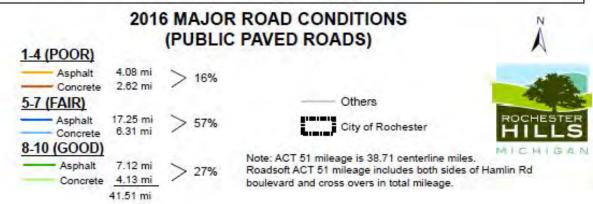
Pave approximately 1,700' of School Road from John R Road easterly to the existing pavement at the culvert crossing. The road is currently gravel. As part of the Harvard Place PUD agreement, the developer will contribute 1/2 of the road cost for the portion across the development's 900' of frontage. 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.



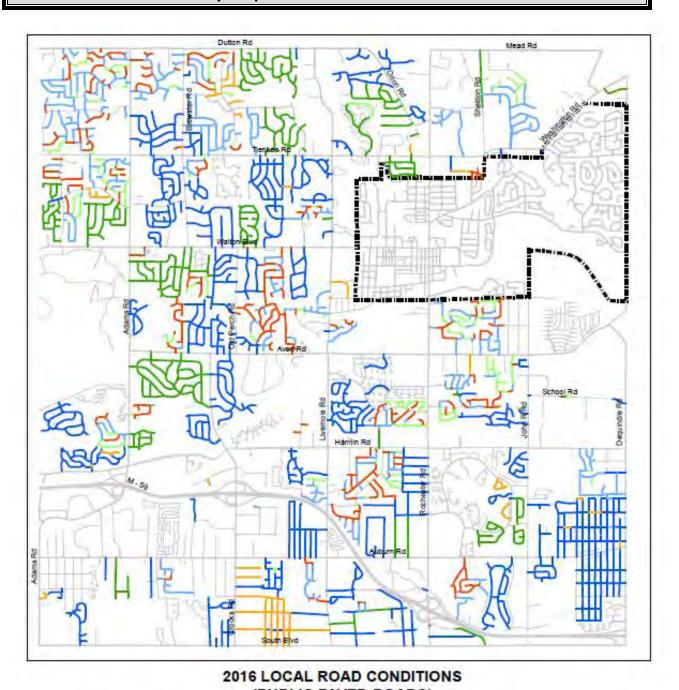
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2018-2023 Capital Improvement Plan City Map – Major Road Conditions





2018-2023 Capital Improvement Plan City Map – Local Street Conditions



(PUBLIC PAVED ROADS) 1-4 (POOR) Asphalt 8.22 mi 15% 20.70 mi Concrete Others 5-7 (FAIR) City of Rochester Asphalt 83.69 mi Concrete 36.49 mi 8-10 (GOOD) Notes: Asphalt 32.48 mi 1) Actual travel length (219.56 miles) 23% 2) ACT 51 certified length (198.24 miles) Concrete 12.88 mi 3) Roadsoft length (194.46 miles) 194.46 mi

	2016 Local Streets 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	4: Fair	264	Concrete		
Alida	South Blvd W	Grace	4: Fair	887	Asphalt		
Alida	Grace	Ruby	4: Fair	940	Asphalt		
Alida	Ruby	Alsdorf	4: Fair	813	Asphalt		
Alsdorf	Crooks Rd	Alida	4: Fair	1,616	Asphalt		
Alsdorf	Alida	Samuel	4: Fair	327	Asphalt		
Alsdorf	Samuel	Mildred	4: Fair	333	Asphalt		
Alsdorf	Mildred	Cone	4: Fair	306	Asphalt		
Ansal		Lake Forest	4: Fair	195	Concrete		
Antler Ct	Stag Rdg	Dead End or Start	4: Fair	322	Concrete		
Arlington Dr		Dalton Dr	4: Fair	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: Fair	618	Concrete		
Avoncrest Dr	Old Perch Rd		4: Fair		Asphalt		
Avoncrest Dr		Dead End or Start	4: Fair	180			
Avonstoke Rd		W Hamlin Rd	3: Poor		Concrete		
Aynsley Dr	Kingspath Dr	Wedgewood Dr	3: Poor		Concrete		
	Kingspatir Di	Doral Dr	4: Fair	169			
Baypoint Dr Beechcrest	Adams Rd	Paddington Ct	4: Fair		Asphalt		
	Additis Ru	Paddington Ct		+	•		
Bembridge Dr	White or Dr. 9. Addington Dr.	DI	4: Fair	+	Concrete		
Berry Nook Ln	Whitney Dr & Arlington Dr	Bloomer	4: Fair	1	Concrete		
Biggers	Bridgestone Dr	Allston	3: Poor	1	Asphalt		
Box Canyon		Dead End or Start	3: Poor	1	Concrete		
Brandon Ct		Dead End or Start	2: Very Poor	_	Concrete		
Brilliance	Empire Dr	Honor Dr	4: Fair	_	Concrete		
Bromley Ln	Chelsea Ct	Dead End or Start	4: Fair	275	Concrete		
Brookfield Ct	Grandview	Dead End or Start	3: Poor	792	Asphalt		
Burgoyne	S Livernois Rd	S Livernois Rd	2: Very Poor	69	Asphalt		
Buttercup Dr	Daylily Dr	Goldenrod Dr	4: Fair	935	Concrete		
Cal Ave	Culbertson	Emmons	4: Fair	285	Asphalt		
Campus	Old Perch Rd		3: Poor	79	Asphalt		
Campus		Campus Ct	3: Poor	407	Concrete		
Campus	Campus Ct	Baylor	4: Fair	840	Concrete		
Campus Ct	Campus	Dead End or Start	3: Poor	591	Concrete		
Canterbury Trl	Chalet Dr		3: Poor	296	Concrete		
Cascade Cir			4: Fair	90	Concrete		
Cascade Cir			3: Poor		Concrete		
Catalpa	City/Twp Line	Red Oak & Catalpa Ct	4: Fair	+	Concrete		
Catalpa	Red Oak & Catalpa		4: Fair		Concrete		
Cedar Shake Dr	Falcon Dr & Firewood Dr		4: Fair		Concrete		
Cedar Shake Dr	Falcon Dr & Firewood Dr		4: Fair		Concrete		
Cedar shake bi	Grandview	Ridgecrest	4: Fair	+	Asphalt		
_	Ridgecrest	Mugeerest	3: Poor	1			
Cedaredge Chaffor Dr				1	Asphalt		
Chaffer Dr	Royal Doulton Blvd & Cobridge Dr	Wodgowe ad Da	3: Poor	1	Concrete		
Chaffer Dr	Aynsley Dr	Wedgewood Dr	3: Poor	1	Concrete		
Chalet Dr	Kimberly Fair	Canterbury Trl	4: Fair	+	Concrete		
Chalet Dr	Canterbury Trl	<u> </u>	4: Fair		Concrete		
Chalet Dr		Longford	4: Fair	1	Concrete		
Chancery Ct	N Kilburn Rd	Dead End or Start	3: Poor	1	Concrete		
Chelsea Ct	Bromley Ln	Dead End or Start	4: Fair	1	Concrete		
Cherrywood Ln	Crestwood		3: Poor		Concrete		
Cherrywood Ln		Falcon Dr & Cherrywood Ct	3: Poor	164	Concrete		

	2016 Local Streets in I	Poor Condition [Paser Rating Betwee		1	_
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Clear Point Ct	Grandview	Dead End or Start	3: Poor	502	Asphalt
Clovelly	Weaverton	Bridget	4: Fair	322	Asphalt
Cobridge Ct	Cobridge Dr	Dead End or Start	4: Fair	222	Concrete
Cobridge Dr	Royal Doulton Blvd & Chaffer Dr	Cobridge Ct	4: Fair	523	Concrete
Cobridge Dr	Baroque Ct	Wedgewood Dr	4: Fair	449	Concrete
Cone	South Blvd W	Grace	4: Fair	876	Asphalt
Cone	Grace	Ruby	4: Fair	924	Asphalt
Cone	Ruby	Alsdorf	4: Fair	708	Asphalt
Corbin	Kentucky Dr	Dead End or Start	4: Fair	132	Concrete
Courtfield	Lexham Ln		4: Fair	391	Concrete
Crestline	Parkland Dr	Crestline Ct	4: Fair	433	Concrete
Crestline	Crestline Ct	Drexelgate Pkwy	4: Fair	428	Concrete
Crestline Ct	Crestline	Crestline Ct @ Crestline	3: Poor	37	Concrete
Crestline Ct	Cul-de-sac	Dead End or Start	3: Poor	58	Concrete
Croydon Rd		Baylor	3: Poor	16	Concrete
Croydon Rd		Lake Forest	3: Poor		Concrete
Croydon Rd	Lake Forest	Spartan Dr	3: Poor	348	
Croydon Rd	Spartan Dr	Dead End or Start	4: Fair	206	Concrete
Cypress	·	Sumac Dr	3: Poor	53	Concrete
Dalton Dr	Arlington Dr	Hadley Rd	4: Fair	1,241	
Dawson Dr	Cumberland Dr	Highsplint Dr	4: Fair	 	Concrete
Daylily Dr	Buttercup Dr	Mayapple Ct	4: Fair	855	Concrete
Daylily Dr	Mayapple Ct	Vardon St	4: Fair	296	Concrete
Dearborn	South Blvd W	Grace	4: Fair	882	Asphalt
Dearborn	Grace	Ruby	4: Fair	903	Asphalt
Devonwood	Stonington Ln	Westwood Dr	4: Fair	306	Asphalt
Devonwood	Stormigton En	Foresthill Dr	3: Poor	333	Concrete
Eagle Ct	Eagle Dr	Dead End or Start	3: Poor	285	Concrete
Eagle Dr	Dead End or Start	Eagle Ct	4: Fair	248	Concrete
Eagle Dr	Eagle Ct	Pheasant Ring Dr	3: Poor	660	Concrete
Edmunton Dr	Hartford Ct	Salem Dr	3: Poor	264	Concrete
Edmunton Dr	Salem Dr	McCormick Dr	3: Poor	871	Concrete
Elkhorn Dr	Torrent Ct	WICCOTTILCK DI	4: Fair	100	Concrete
Englewood Dr	Brandon Ct		4: Fair	607	Concrete
Englewood Dr	Brandon et		2: Very Poor	48	Concrete
Essex Dr	Eddington	+	3: Poor	327	Concrete
Essex Dr	Laurigion	Lexington Dr	3: Poor	190	Concrete
Essex Dr	Lexington Dr	Pembroke Dr	3: Poor	280	Concrete
Essex Dr	Pembroke Dr	FEIIDI OKE DI	4: Fair	354	Concrete
Evergreen Ct	Stanford Cir	Dead End or Start	4: Fair	227	Concrete
Fair Oak Dr	Yale Ct	Dead End or Start	4: Fair		Concrete
		Dead Elid Of Start			
Fairfield	Grandview	Dood Fold on Chart	3: Poor	723	Asphalt
Fawn Ct	Stag Rdg	Dead End or Start	4: Fair	201	Concrete
Fielding Dr	Drexelgate Pkwy	Glenbrooke Ct	3: Poor	433	Concrete
Fielding Dr	Glenbrooke Ct	Meadowfield Dr	3: Poor	190	Concrete
Flanders Dr	Highsplint Dr	Polintuse Du	4: Fair	671	Concrete
Ford Croft Dr	Stonetree Cir	Raintree Dr	3: Poor	966	Concrete
Forest View Ct	Woodfield Way	545 004 starti	4: Fair	116	Concrete
Foresthill Dr	Devonwood	E16-001 starting point	3: Poor	132	Concrete
Fox Woods Ln	5.11.00	Woodfield Way	3: Poor	211	Concrete
Fulham Dr	Fulham Ct	Brompton Rd & Tottenham Ct	4: Fair	227	Concrete
Fulham Dr	Brompton Ct	S Livernois Rd & Sierra Blvd	3: Poor	539	Concrete
Gallaland	Dakota Dr		4: Fair	275	Concrete
Gallaland	Pioneer Dr	Dead End or Start	4: Fair	285	Concrete

	2016 Local Streets in Poor Condition [Paser Rating Between 1-4]						
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface		
Glen Meadow Ct	Colony Dr	Glen Meadow Ct to CulDeSac	3: Poor	422	Concrete		
Glen Meadow Ct	Glen Meadow Ct to Cul DeSac	Dead End or Start	3: Poor	74	Concrete		
Goldenrod Dr	Buttercup Dr	Primrose Dr	4: Fair	697	Concrete		
Grace	Crooks Rd	Alida	4: Fair	1,600	Asphalt		
Grace	Cone	Dearborn	4: Fair	327	Asphalt		
Grace	Dearborn	S Livernois Rd	4: Fair	2,196	Asphalt		
Greenleaf Dr			3: Poor	227	Concrete		
Greenleaf Dr		Rochdale	4: Fair	174	Concrete		
Greens pring Ln			3: Poor	95	Concrete		
Greenspring Ln			3: Poor	760	Concrete		
Greens pring Ln	Heron Ridge Dr	Hickory Trl	4: Fair	111	Asphalt		
Grosvenor Dr	intersection bad	intersection bad	3: Poor	11	Concrete		
Grovecrest	Slumber	Misty Brook Ln	4: Fair	470	Concrete		
Harlan Ct	Warrington Rd	Flanders Dr	4: Fair	296	Concrete		
Harlan Ct	Flanders Dr	Dead End or Start	4: Fair	216	Concrete		
Harvard Dr	Grosvenor Dr	intersection Harvard& Grosvenor	3: Poor	26	Concrete		
Harvard Dr	intersection Harvard& Grosvenor	intersection Harvard& Grosvenor	3: Poor	5	Concrete		
Heritage Hill Ct	Dutton Rd		2: Very Poor	21	Asphalt		
Heritage Hill Ct		Dead End or Start	3: Poor	153	Concrete		
Hessel	E Auburn Rd	Dawes	4: Fair	375	Asphalt		
Highsplint Dr	Kentucky Dr	Flanders Dr	4: Fair	496	Concrete		
Highsplint Dr	Flanders Dr		4: Fair	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: Fair	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: Fair	950	Concrete		
Innsbrook Ct	Innsbrook Dr	Dead End or Start	3: Poor	280	Asphalt		
Innsbrook Dr	Innsbrook Ct	Raintree Dr	3: Poor	797	Asphalt		
Innsbrook Dr	Innsbrook Ct	Raintree Dr	3: Poor	750	Asphalt		
Ivy Wood Ct		Dead End or Start	3: Poor	459	Concrete		
Jason Cir	Arlington Dr Snowden Cir	Quincy Dr	4: Fair	259	Concrete		
		·		+			
June Kasta Da	Crooks Rd	Dead End or Start	4: Fair	1,315	Asphalt		
Keats Dr	Shelley Dr	Shelley Dr Dead End or Start	4: Fair	549	Asphalt		
Kendal Ln	Bellshire Ln		3: Poor	359	Concrete		
Kentucky Dr		Cumberland Dr	4: Fair	491	Concrete		
Kentucky Dr			4: Fair	422	Concrete		
Kentucky Dr		Cumberland Dr	4: Fair	887	Concrete		
Kilburn Ct	N Kilburn Rd		4: Fair	428	Concrete		
Kilburn Ct		Dead End or Start	3: Poor	143	Concrete		
Kimberly Fair			4: Fair	53	Concrete		
Kimberly Fair		Sussex Fair	4: Fair	58	Concrete		
Kingsview	Springwood Ln		3: Poor	238	Concrete		
Kirkton Ct		Dead End or Start	3: Poor	211	Concrete		
Lake Forest	Croydon Rd	Rutgers	4: Fair	285	Concrete		
Lake Forest	Rutgers	Campus	4: Fair	280	Concrete		
Lake Forest	Campus	Lake Forest Ct	4: Fair	692	Concrete		
Lake Forest	Lake Forest Ct	Bucknell Ct	3: Poor	306	Concrete		
Lake Forest			4: Fair	211	Concrete		
Lake Forest			4: Fair	90	Concrete		

	2016 Local Streets	in Poor Condition [Paser Rating Betv	veen 1-4]		
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Lake Forest		Sumac Dr	4: Fair	570	Concrete
Lake Forest	Sumac Dr	Ansal	4: Fair	781	Concrete
Lake Forest	Ansal	Spartan Dr	4: Fair	781	Concrete
Langley Ct	Langley Rd	Dead End or Start	3: Poor	269	Concrete
Langley Rd	Beacon Hill Dr	Langley Ct	4: Fair	296	Concrete
Langley Rd	Langley Ct	Lassiter Dr	3: Poor	882	Concrete
Lexham Ln	Woodelm	Courtfield	4: Fair	306	Concrete
Lexington Dr	Ternbury Dr	Essex Dr	4: Fair	1,410	Concrete
Lion St	Hampton Cir	Hampton Cir	4: Fair	1,214	Asphalt
Live Oak Dr	Ulster	Munster	3: Poor	333	Concrete
Live Oak Dr	Munster	Dead End or Start	4: Fair	296	Concrete
Long Meadow Ln		- Twin Oaks Ct	3: Poor	269	Concrete
Long Meadow Ln	Twin Oaks Ct	Woodfield Way	4: Fair	401	Concrete
Maple	City/Twp Line	Red Oak	3: Poor	190	Concrete
Mapleridge Ct		Hickory Trl	4: Fair	612	Asphalt
Mapleridge Ct		Dead End or Start	4: Fair	486	Asphalt
Maryknoll Ct	Ulster	Dead End or Start	3: Poor	354	Concrete
Mayapple Ct	Daylily Dr	Dead End or Start	4: Fair	496	Concrete
Meadowbrook Dr	Adams Rd	Country Club Dr	3: Poor	502	Concrete
Meadowbrook Dr	Country Club Dr	Trailwood Dr	4: Fair	290	Concrete
Meadowbrook Dr		Walton Blvd	4: Fair	63	Concrete
Meadowview Ct	Rusk		4: Fair	69	Asphalt
Meadowview Ct		Dead End or Start	4: Fair	391	Concrete
Merriweather	Sudbury Ct	Old Homestead	3: Poor	375	Concrete
Michele Ct	Charlwood	Dead End or Start	4: Fair	333	Concrete
Michelson	S Rochester Rd		4: Fair	90	Concrete
Mildred	South Blvd W	Grace	4: Fair	876	Asphalt
Mildred	Grace	Ruby	4: Fair	940	Asphalt
Mildred	Ruby	Alsdorf	4: Fair	734	Asphalt
Millbrook Ct	Grandview		3: Poor	79	Concrete
Millbrook Ct			3: Poor	100	Concrete
Millbrook Ct			3: Poor	5	Concrete
Millbrook Ct			4: Fair	79	Concrete
Millbrook Ct		Dead End or Start	3: Poor	90	Concrete
Misty Brook Ln	Grovecrest	Rambling Dr	4: Fair	649	Concrete
Morley	Longview	Harrison	4: Fair	333	Asphalt
Morley	Harrison	Eastern	3: Poor	327	Asphalt
Muirwood Ct	Hollenshade	Dead End or Start	4: Fair	348	Concrete
Munster	Live Oak Dr	Stanford Cir	4: Fair	1,220	Concrete
Munster	Stanford Cir	Staffford Cif	4: Fair	158	Concrete
Norton Lawn	Stalliold Cli	Cumberland Dr	4: Fair	201	
Norton Lawn		Cumberland Dr	4: Fair		
	Sporton Dr			1,727	Concrete
Notre Dame Rd	Spartan Dr	Ten Point Dr	3: Poor	322	Concrete
Oakrock	Rochdale		3: Poor	185	Concrete
Oakrock		Don't Ford a City	3: Poor	143	Concrete
Oakrock	B A construct Allege	Dead End or Start	3: Poor	100	Asphalt
Old Homestead	Merriweather	Salem Dr	2: Very Poor	148	Concrete
Old Homestead	Salem Dr	Summit Rdg	4: Fair	681	Concrete
Orchardale		Walton Blvd	4: Fair	48	Concrete
Paddington Ct	Beechcrest	Dead End or Start	4: Fair	259	Asphalt
Park Creek Ct	Quail Ridge Cir	Dead End or Start	2: Very Poor	290	Concrete
Parkland Ct	Sandalwood Dr	Dead End or Start	4: Fair	269	Concrete
Parkland Dr	Sandalwood Dr	Parkland	4: Fair	797	Concrete
Parkland Dr	Parkland	Drexelgate Pkwy	3: Poor	296	Concrete
Pembroke Dr	Essex Dr	Bembridge Dr	3: Poor	1,030	Concrete

2016 Local Streets in Poor Condition [Paser Rating Between 1-4]						
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface	
Pheasant Ring Ct	Pheasant Ring Dr	Dead End or Start	3: Poor	153	Concrete	
Pheasant Ring Dr	Pheasant Ring Ct	Eagle Dr	4: Fair	1,251	Concrete	
Pinehurst Dr	Raintree Dr	Doral Dr	3: Poor	602	Concrete	
Pleasant View Dr	Hillcrest Dr	Foresthill Dr	3: Poor	1,162	Concrete	
Pleasant View Dr	Foresthill Dr	Grandview	3: Poor	1,140	Concrete	
Poco Ct	Winchester	Dead End or Start	4: Fair	449	Concrete	
Preswick			4: Fair	206	Concrete	
Primrose Ct	Primrose Dr	Dead End or Start	4: Fair	127	Concrete	
Primrose Dr	Johnathan Dr	Daylily Dr	4: Fair	301	Concrete	
Primrose Dr	Daylily Dr	Primrose Ct	4: Fair	375	Concrete	
Primrose Dr	Primrose Ct	Goldenrod Dr	4: Fair	1,146	Concrete	
Primrose Dr	Goldenrod Dr	E Auburn Rd	3: Poor	533	Concrete	
Prospect Dr	Cumberland Dr	Elkhorn Dr	3: Poor	312	Concrete	
Quail Ridge Cir	Glengrove Dr	Park Creek Ct	4: Fair	808	Concrete	
Quincy Dr	Jason Cir	Salem Dr	4: Fair	972	Concrete	
Ravine Terrace Ct	Ravine Terrace	Dead End or Start	3: Poor	449	Concrete	
Red Oak	Courtland		3: Poor	1,093	Asphalt	
Red Oak		Sycamore	3: Poor	100	Concrete	
Red Oak	Sycamore	Catalpa	4: Fair	269	Concrete	
Red Oak	Catalpa	Maple	3: Poor	232	Concrete	
Ridgecrest	Pleasant View Dr	Fairfield	3: Poor	602	Concrete	
Ridgecrest	Fleasant view Di	Cedaredge	3: Poor	855	Asphalt	
-	Grandview	Dead End or Start	4: Fair	771	Concrete	
Ridgefield Ct Rochdale						
Rochdare Rochester Ind. Ct	Streamview Ct	Greenleaf Dr Dead End or Start	4: Fair	333	Concrete	
	Rochester Indust.		2: V,Poor	338	Concrete	
Rochester Indust.	Rochester Indust.	Dead End or Start	2:V,Poor	359	Concrete	
Rocky Crest Dr	Charlwood	Tacoma Dr	3: Poor	924	Concrete	
Rocky Crest Dr	Tacoma Dr	Dead End or Start	4: Fair	222	Concrete	
Rosewood Ln	Falcon Dr	Dead End or Start	4: Fair	507	Concrete	
Ruby	Crooks Rd	Alida	4: Fair	1,621	Asphalt	
Ruby	Alida	Samuel	3: Poor	322	Asphalt	
Ruby	Samuel	Mildred	3: Poor	327	Asphalt	
Ruby	Mildred	Cone	3: Poor	322	Asphalt	
Ruby	Cone	Dearborn	4: Fair	348	Asphalt	
Rutgers	Lake Forest	Spartan Dr	4: Fair	1,373	Concrete	
Salem Ct	Salem Dr	Dead End or Start	3: Poor	195	Concrete	
Salem Dr	Burlington Dr	Saratoga Dr	3: Poor	597	Concrete	
Samuel	South Blvd W	Grace	4: Fair	882	Asphalt	
Samuel	Grace	Ruby	4: Fair	940	Asphalt	
Samuel	Ruby	Alsdorf	4: Fair	776	Asphalt	
Sandalwood Ct		Sandalwood Ct	4: Fair	285	Concrete	
Sandalwood Ct	Sandalwood Ct	Dead End or Start	4: Fair	121	Concrete	
Sandalwood Dr	Drexelgate Pkwy	Parkland Ct	4: Fair	306	Concrete	
Sandalwood Dr	Parkland Ct	Parkland	4: Fair	407	Concrete	
Shellbourne Dr	Raintree Dr		2: V,Poor	871	Concrete	
Shellbourne Dr			3: Poor	201	Concrete	
Shelley Dr	Hampton Cir	Keats Dr	4: Fair	201	Asphalt	
Shelley Dr	Keats Dr	Keats Dr	4: Fair	892	Asphalt	
Shelley Dr	Keats Dr	Dead End or Start	4: Fair	253	Asphalt	
Slade Ct	Winchester	Dead End or Start	3: Poor	444	Concrete	
Snowden Ct	Salem Dr	Dead End or Start	3: Poor	227	Concrete	
Spartan Dr	Croydon Rd	Notre Dame Rd	4: Fair	1,104	Concrete	
Spartan Dr	Notre Dame Rd	Rutgers	4: Fair	354	Concrete	
Spartan Di	ou e burne nu	Transport 5	7.1011	334	SOMETELE	

	2016 Local Streets	in Poor Condition [Paser Rating Betv	veen 1-4]		
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface
Stag Rdg	W Avon Rd	Antler Ct	3: Poor	222	Concrete
Stag Rdg	Antler Ct	Fawn Ct	4: Fair	121	Concrete
Stag Rdg	Fawn Ct	Ten Point Dr	4: Fair	148	Concrete
Stanford Cir	W Avon Rd		4: Fair	243	Concrete
Stanford Cir	Box Canyon	Stanford Ct	3: Poor	164	Concrete
Stanford Cir	Stanford Ct		3: Poor	385	Concrete
Stanford Cir	Evergreen Ct	Munster	4: Fair	1,104	Concrete
Starr Ct	Avon Industrial	Dead End or Start	4: Fair	370	Asphalt
Stonington Ln	N Fairview Ln	Devonwood	4: Fair	554	Asphalt
Stonington Ln	Devonwood	Stonington Ct	4: Fair	338	Asphalt
Sugar Pine	Black Maple Dr	Walton Blvd	4: Fair	533	Concrete
Sumac Dr	Cypress	Tanglewood Dr	3: Poor	649	Concrete
Summit Ct	Summit Rdg	Dead End or Start	3: Poor	253	Concrete
Summit Rdg	East Pointe Ct	W Kilburn Rd	4: Fair	898	Concrete
Summit Rdg	McCormick Dr	Wales Dr	3: Poor	850	Concrete
Sunbury Ct		Dead End or Start	2: V,Poor	407	Concrete
Sussex Fair		Kimberly Fair	3: Poor	296	Concrete
Sussex Fair	Kimberly Fair	Dead End or Start	4: Fair	739	Concrete
Sycamore	City/Twp Line	Red Oak	4: Fair	375	Concrete
Tamm	Crooks Rd	Dead End or Start	4: Fair	1,357	Asphalt
Tanglewood Ct	Tanglewood Dr	Dead End or Start	4: Fair	539	Concrete
Tanglewood Dr	-	Black Maple Dr	4: Fair	238	Concrete
Tanglewood Dr	Black Maple Dr	·	4: Fair	528	Concrete
Tanglewood Dr	·	Sugar Pine	4: Fair	69	Concrete
Tanglewood Dr	Sugar Pine	Lake Forest	4: Fair	227	Concrete
Tanglewood Dr	Lake Forest	Sumac Dr	4: Fair	412	Concrete
Tanglewood Dr		Dead End or Start	3: Poor	206	Concrete
Teakwood	Falcon Dr	Cherrywood Ln	3: Poor	866	Concrete
Teakwood	Falcon Dr	Crestwood	3: Poor	322	Concrete
Teakwood	Cherrywood Ln	Coachwood Ln	3: Poor	232	Concrete
Ten Point Dr	Stag Rdg	Stag Rdg	4: Fair	766	Concrete
Ten Point Dr	Stag Rdg	Notre Dame Rd	4: Fair	1,278	Concrete
Ten Point Dr	Notre Dame Rd	Notice Burne nu	3: Poor	95	Concrete
Ternbury Dr	Lexington Dr	Dead End or Start	4: Fair	158	Concrete
Thames Dr	Arms Ct	Thames to Arms Ct	3: Poor	58	Asphalt
Thames Dr	Arms Ct	E Avon Rd	3: Poor	876	Asphalt
Thornridge Ct	Thornridge Dr	Dead End or Start	3: Poor	301	Concrete
Tienken Ct	morninge bi	Dead End or Start	3: Poor	486	Asphalt
Tower Hill Ln		Brewster Rd	4: Fair	74	Asphalt
Twin Oaks Ct	Long Meadow Ln	Dead End or Start	4: Fair	359	Concrete
Ulster	W Maryknoll	Dead Elid Of Start	3: Poor	195	Concrete
Ulster	W Wat ykiloti	Ulster	3: Poor	153	Concrete
	Manufus all Ch			+	
Ulster	Maryknoll Ct	Live Oak Dr	3: Poor	312	Concrete
Valley Stream Ct	Valley Stream Dr	Dead End or Start	4: Fair	201	Concrete
Valley Stream Dr	Dead End or Start	Valley Stream Ct	4: Fair	190	Concrete
W Kilburn Rd	Summit Rdg		3: Poor	333	Concrete
W Kilburn Rd	W Kilburn Rd		4: Fair	639	Concrete
Wagner Dr	Woodridge Dr	Dead End or Start	4: Fair	95	Concrete
Wakefield Ct	Charlwood	Parkwood Dr	4: Fair	412	Concrete
Warrington Rd			4: Fair	84	Concrete
Warrington Rd			4: Fair	628	Concrete
Wedgewood Dr	Arbor Creek Dr	Chaffer Dr	3: Poor	74	Concrete
Westwood Dr	Devonwood	Hillcrest Dr	4: Fair	1,051	Concrete
Whitney Dr	Berry Nook Ln	Pioneer Dr	4: Fair	1,135	Concrete
Whitney Dr	Arlington Dr		3: Poor	232	Concrete

	2016 Local Streets in Poor Condition [Paser Rating Between 1-4]						
Street	From	То	PASER Rating	Length (Feet)	Pavement Surface		
Willow Grove Ln	S Livernois Rd	Willow Grove Ct	3: Poor	792	Asphalt		
Willow Grove Ln	Burgoyne	Willow Grove Ct	4: Fair	876	Asphalt		
Wimpole		Walton Blvd	3: Poor	58	Concrete		
Windrift Ln		Eddington	3: Poor	560	Concrete		
Woodfield Way	Lake Ridge Rd	Oak View Ct	4: Fair	882	Concrete		
Woodfield Way	Oak View Ct	Forest View Ct	4: Fair	333	Concrete		
Woodfield Way	Forest View Ct	Fox Woods Ln	4: Fair	380	Concrete		
Woodfield Way	Fox Woods Ln	Long Meadow Ln	3: Poor	317	Concrete		
Woodford Cir	N Kilburn Rd	N Kilburn Rd	4: Fair	1,468	Concrete		
Woodridge Ct	Woodridge Dr	Dead End or Start	4: Fair	238	Concrete		
Woodridge Dr	Wagner Dr	Woodridge Ct	4: Fair	290	Concrete		
Yale Ct	Fair Oak Dr	Dead End or Start	4: Fair	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 cross-section, drainage, etc... The PASER rating listed in the tables only represent today's current street condition and <u>does</u> <u>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.

2018-2023 Capital Improvement Plan Water & Sanitary Sewer System Improvements

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.

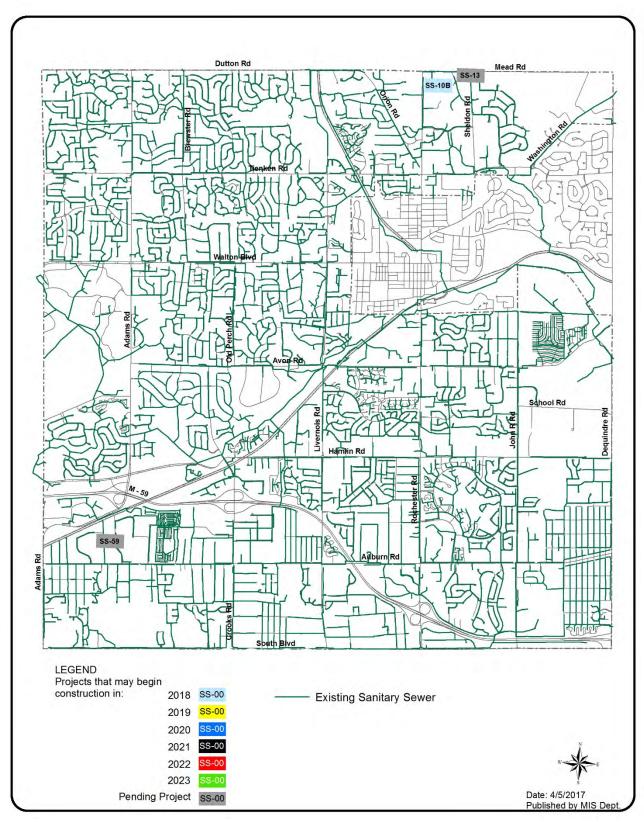
The extension of the sanitary sewage disposal system throughout the City will eventually eliminate private septic systems, thereby preserving the environment as well as the water source for private well systems, which some residents are dependent upon as their source of potable water.

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.

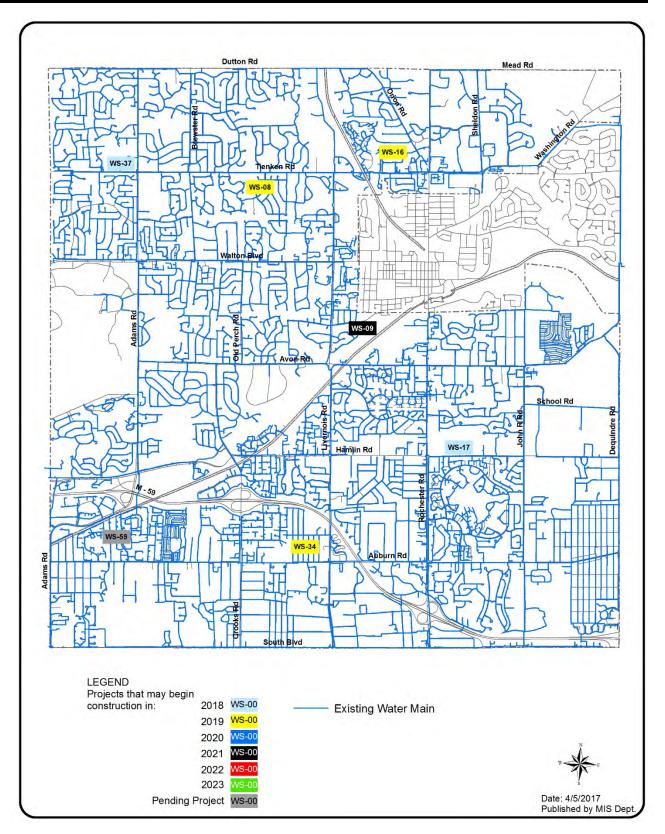
The proposed water and sanitary sewer projects are flexible, allowing for the addition of new improvements to address specific needs without deferring other projects along the way. Studies and analysis of the existing system is an on-going program that, when coupled with new technologies, provides for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

2018-2023 Capital Improvement Plan Sanitary Sewer System Improvements



2018-2023 Capital Improvement Plan Water System Improvements



2018-2023 Capital Improvement Plan Water & Sanitary Sewer System Improvements

SS-01B SCADA System Upgrade Schedule

2018-2023
Estimated City Cost: \$893,410 Estimated City Share: 100%

Regular replacement of servers and other SCADA hardware components (including radio system) scheduled to occur approximately every 5 years. Servers and other SCADA hardware/software components are scheduled for replacement in 2017. The communications (radio) system is scheduled to be replaced in 2020. Annual operating costs of \$60,000 are anticipated to remain consistent with timely replacement, before more extensive service and maintenance levels are required to keep older equipment operational. This project is on-going.

SS-02B	Sanitary Sewer Rehabilitation Program						
	2018-2023						
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-10B	Wimberly Drive: Sanitary Sewer Replacement			
2017-2018				
Estimated City Cost:		\$175,000	Estimated City Share:	100%

Replace approximately 700' of 2" HDPE sanitary sewer main along Wimberly Drive in Section 2. This sanitary sewer main is a low pressure line that is served by individual grinder pumps. The sanitary sewer was installed in FY 2006. Only a portion of the main which appears to be damaged (and creates the need for continual maintenance) will be replaced. Construction is planned to begin in 2018.

SS-30	Sanitary Sewer Easement Machine				
	2018-2018				
Estim	Estimated City Cost: \$60,000 Estimated City Share: 100%				

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 area 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 2018.

2018-2023 Capital Improvement Plan Water & Sanitary Sewer System Improvements

WS-08	Fieldstone & Ironstone: Water Main Replacement
	2019-2019

Estimated City Cost: \$1,298,000 Estimated City Share: 100%

Replace approximately 1,640' of 6" and 2,025' of 8" cast iron water main located along Fieldstone Drive and Ironstone Drive in Section 9 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 2019.

WS-09	Flora Valley Court – River Bend Drive: Water Main Connection			
2021-2021				
Estimated City Cost: \$536,900 Estimated City Share: 100%				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 2021.

WS-16	** Bedford Square Apartments/Tienken Court: Water Main Replacement **			
Estimated	d Total Project:	\$2,304,690	2018-2019	
Estim	ated City Cost:	\$2,304,690	Estimated City Share:	100%

Replacement of approximately 2,800 feet of 6" and 4,050 feet 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 Ct. Construction is planned to begin in 2019.

WS-17	** Wayside Court: Water Main Extension **			
Estimated	d Total Project:	\$195,000	2018-2018	
Estim	ated City Cost:	\$195,000	Estimated City Share:	100%

2018-2023 Capital Improvement Plan Water & Sanitary Sewer System Improvements

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. Construction is planned to begin in 2018.

WS-34	Glidewell Subdivision: Water Main Replacement				
	2018-2019				
Estin	nated City Cost:	\$4,803,340	Estimated City Share:	100%	

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 2019.

WS-37	** Adams High School: Water Main Replacement **			
Estimated	d Total Project:	\$604,688	2018-2018	
Estim	ated City Cost:	\$604,688	Estimated City Share:	100%

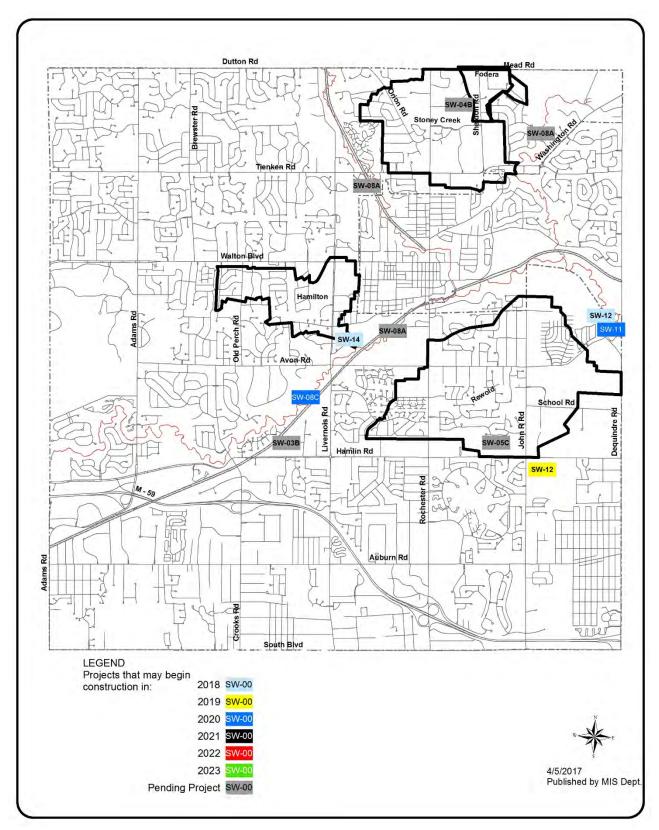
Replacement of approximately 1235 feet of 6" cast iron water main, 200 feet of 8" water main that serves Adams High School and install a 500 feet 8" ductile iron water main connection between on the north side of the High School to improve system redundancy for the school. Construction is planned to begin in 2018.

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 Total Project: \$840,000 2020-2022

Estimated City Cost: \$420,000 Estimated City Share: 50%

Significant bank erosion and channel widening exists along the Clinton River within the City property between Livernois Road and Crooks Road. In 2010, as part of Phase I (SW-08B), the City restored approximately 500' of the channel and stabilized the bank to protect the Clinton River Trail from collapse due to the bank's failure. The whole project area consists of approximately one mile of river through City property. It is proposed that the balance of the project (Phase II) be improved in phases as grants (up to a 50% match) become available. The City has applied for several grants and will continue to apply for additional grants to allow the City's match dollars to go further toward the goal of restoring the natural riverbank and flow characteristics of the river, and provide in-stream habitat, as well as adjacent riparian habitat within the City property. In addition to the reduction in erosion, the project will improve fish and insect habitat with the intent to create a self-sustaining fishery. Angling and paddling access to the river is also proposed to be added to protect the banks from access and use disturbance. Construction for Phase II is planned to begin in 2020.

SW-11	Clinton River / Yates Park: Riverbank Stabilization			
Estimated	d Total Project:	\$400,000	2020-2022	
Estim	nated 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				
	2018-2019				
Estim	ated City Cost:	\$150,500	Estimated City Share:	100%	

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 2018.

SW-13 Storm Water Best Management Practices (BMP) Retrofitting

Estimated Total Project: \$450,000 2020-2022

Estimated 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 2020.

SW-14 ** Hamilton Relief Drain Repair **

Estimated Total Project: \$565,000 2017-2019

Estimated City Cost: \$565,000 Estimated City Share: 100%

The Hamilton Drain was installed in the 1970's. The outlet location for this 96" diameter pipe in between two residential homes near the Clinton River. This originally armored discharge has recently had severe erosion occurring that intrudes into a private residential property. This work would correct the erosion and provide long term bank protection for this location. The bottom of the Hamilton Drain has also eroded to expose the top of an existing 24-inch Rochester Hills sanitary sewer crossing of the drain. Abandonment of approximately 90-feet of sewer, replacement of 110 feet of new sewer and a new connection to the Oakland County Water Resources Clinton-Oakland sanitary interceptor sewer is proposed with this project. Construction is planned to begin in 2018.

2018-2023 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 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.

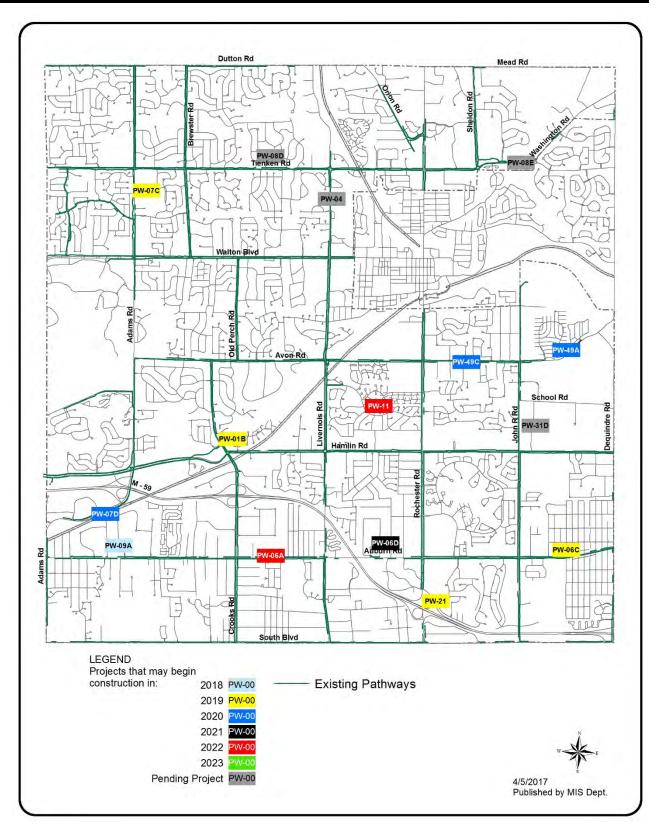
The scope of the pathway program has gone beyond the initial goal of just extending the system to both sides of all arterial roads in the City. In November of 2006, a twenty-year 0.1858 mill ballot proposal was approved by the residents of Rochester Hills to fund the continuation of new pathways, rehabilitation 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.

2018-2023 Capital Improvement Plan Pathway System



PW-01A		Pathway System Rehabilitation Program			
	2018-2023				
Estim	nated City Cost:	\$1,500,000	Estimated City Share:	100%	

Rehabilitation of the existing City asphalt pathway system by performing bituminous overlays or large section repairs in order to maintain the integrity of the overall pathway system. In 2008, the City initiated a pedestrian bridge inspection program to be performed on a four (4) year cycle. Every fourth year following the inspection, the City may perform pedestrian bridge rehabilitation work as identified in the consultants' bridge inspection inventory and report. Operating costs of approximately \$3,400 per year for each 2.0-mile section are anticipated to decrease to \$2,950 per year due to this rehabilitation program. This program is proposed to be funded at \$250,000 per year and is on-going.

PW-01B	Crooks Road Pathway Gap [Clinton River – Bonnie Brae Street]				
2018-2019					
Estim	nated City Cost:	\$155,130	Estimated City Share:	100%	

Construction of approximately 770' of 8' wide asphalt pathway along the east side of Crooks Road from the Clinton River to Bonnie Brae Street to fill in the existing pathway gap. Constructing this portion of pathway will connect the gap in the pathway along Crooks Road from Bonnie Brae Street to the Clinton River. Connectivity of the pathway system provides an increased level of service to pedestrians, especially considering the Clinton River Trail access is just south of this area. Operating costs of approximately \$200 per year are anticipated due to the additional pathway section added. Construction is planned to begin in 2019.

PW-06A	Auburr	Auburn Road Pathway Gaps [Alexander Avenue – Livernois Road]		
2021-2022				
Estim	ated City Cost:	\$239,500	Estimated City Share:	100%
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 nathway gaps. Operating costs of approximately				

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 begin in 2022.

PW-06C	Auburn Road Pathway Gaps [John R Road – Dequindre Road]				
	2018-2019				
Estim	nated City Cost:	\$221,000	Estimated City Share:	100%	

Construct 8' wide asphalt pathway to fill in gaps along the north side of Auburn Road between John R Road and Dequindre Road. Three locations include: NW corner of Auburn Road and Dequindre Road (approx. 70'); Fronting 1825 and 1845 Auburn Road (approx. 260'); Between Emmons Avenue and Eastern Avenue (approx. 950' if proposed pathway is constructed between the existing buildings and Auburn or 1,250-feet if the pathway is directed north of the buildings along the existing alley). This project should occur after the Auburn Road Corridor Study plan is completed. The corridor study is currently being overseen by the Planning Department. Operating costs of approximately \$800 per year are anticipated due to the additional pathway sections added. Construction is planned to begin in 2019.

PW-06D	Auburn	Auburn Road Pathway Gaps [Walbridge Road – Hickory Lawn Road]		
2020-2021				
Estim	nated City Cost:	\$498,950	Estimated City Share:	100%

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 2021.

PW-07C	Adams Road Pathway [Powderhorn Ridge Road – Tienken Road]				
2019-2019					
Estim	ated City Cost:	\$203,970	Estimated City Share:	100%	

Construction of approximately 2,600' of 8' wide pathway along the east side of Adams Road between Powderhorn Ridge Road and Tienken Road (across Nowicki Park frontage). Also construct a key walk along the north side of Powderhorn Ridge Road to allow for 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 2019.

PW-07D	Adams Road @ Clinton River Trailway: Pathway Crossing			
2019-2020				
Estim	ated City Cost:	\$180,330	Estimated City Share:	100%
Construction of a mid-block pedestrian crossing at Adams Road near Leach Drive and Marketplace Circle to connect the Clinton River Trailway to the nearby shopping center. The proposed crossing would incorporate the use of eight (8) solar powered push-button rapid flasher beacons (RFBs), four (4) in each direction. The				

project would also include the installation of two (2) steel poles and mast arms with overhead signage at

the crossing. Approximately 500' of asphalt and concrete pathway would be required to be extended in order to provide connection. Note: The project is located within the Road Commission for Oakland (RCOC) county's right-of-way and will require prior approval by the RCOC demonstrating that pedestrian/bicycle volume warrants are met. Operating costs of approximately \$1,000 per year are anticipated due to routine and winter maintenance requirements. Construction is planned to begin in 2020.

PW-09A	Technology Drive Pathway [Auburn Road – 2,250' North]					
	2016-2018					
Estim	ated City Cost:	\$175,100	Estimated City Share:	100%		

Construction of approximately 2,250' of 8' wide asphalt pathway along the west side of Technology Drive between Auburn Road and the pathway connection to Adams Road. Operating costs of approximately \$540 per year are anticipated due to the additional pathway section added. Construction is planned to begin in 2018.

PW-11	Drexelgate Pathway Gap [Wexford Way – Rochester Road]					
	2021-2022					
Estim	ated City Cost:	\$1,054,250	Estimated City Share:	100%		

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 2022.

PW-21	East Nawakwa Pathway [Rochester Road – Joshua Drive]				
	2019-2020				
Estim	nated City Cost:	\$420,000	Estimated City Share:	100%	
Road between R	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 to the additional pathway section added. Construction is planned to begin in 2019.				

PW-49A	Avon Road Pathway [LeGrande Boulevard – Cider Mill Boulevard]			
		2019-202)	
Estim	ated City Cost:	\$311,750	Estimated City Share:	100%
between Le Grar	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 yea are anticipated due to the additional pathway section added. Construction is planned to begin in 2020.			

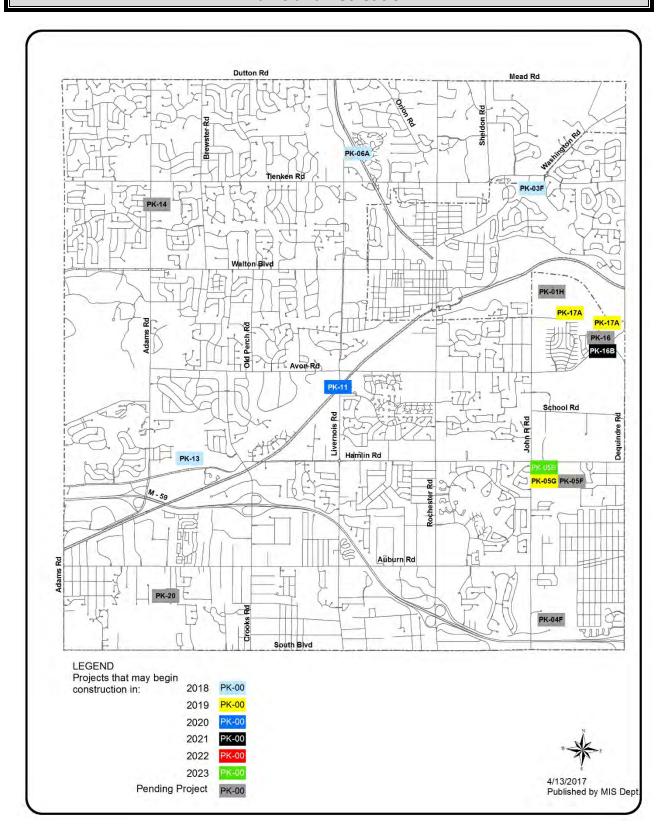
PW-49C	Ave	Avon Road Pathway [Rainier Avenue – Bembridge Drive]		
2019-2020				
Estim	nated City Cost:	\$703,400	Estimated City Share:	100%
Construction of	annroximately 3.20	10' of 8' wide asphalt	nathway along the south side of	Avon Road

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 2020.

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 Total Project: \$500,000 2018-2018

Estimated City Cost: \$375,000 Estimated City Share: 75%

The Equipment Barn was once an integral part of the Van Hoosen Farm operation. Built in 1912, it was torn down in 1999 due to its deteriorated condition. The Museum has a full set of photographs and drawings of this facility and would like to rebuild it to continue restoring the Van Hoosen Farm facility, while creating space for storage and maintenance activities. The Equipment Barn will help the Museum more accurately recreate the historic farm setting at the Van Hoosen Farm. The building will be located on the exact footprint of the original building and would replicate the original building in nearly all details. At one time, the Van Hoosen Farm was a world class dairy operation and the equipment barn will allow us to create a broader interpretive story, create an on-site maintenance space, and bring valuable items and equipment indoors during the winter to avoid deterioration from weather and vandalism. Construction is planned to begin in 2018.

PK-05B	Borden Park: Roller Hockey Rink Board & Tile Replacement Schedule				
2018-2023					
Estim	Estimated City Cost: \$194,810 Estimated City Share: 100%				

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 #2 in 2017 and Rink #1 in 2023. This program is on-going.

PK-05G	** Borden Park: Tennis & Pickle Ball Court Rehabilitation **			
Estimated	d Total Project:	\$350,000	2019-2019	
Estim	ated City Cost:	\$350,000	Estimated City Share:	100%

Renovation of the 4 tennis courts at Borden Park. Three courts will remain tennis courts and one court will become 4 pickle ball courts. Project will provide a new quality recreational opportunity primarily serving an age group not well represented in the park system. The Older Persons Commission and other pickle ball groups have requested consideration of pickle ball courts being added to the parks. The courts currently have a plastic tile surface. This project would be a complete rebuild of 4 asphalt courts and fencing that would recreate the courts as they were when the Borden Park opened. Asphalt courts allow a higher level of play than plastic tiles. Asphalt underneath has degraded requiring annual filling in of cracks underneath tiles to make plastic tile surfacing safe. Renovation is planned to begin in 2019.

Estimated City Cost: \$50,000 Estimated City Share: 100%				100%
2018-2023				
PK-06A	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 is planned to begin in 2018.

PK-07	** Infield Groomer **			
Estimated	d Total Project:	\$30,000	2018-2018	
Estim	ated City Cost:	\$30,000	Estimated City Share:	100%

Infield groomer with laser level to drag infields that can also be used for landscaping and trail maintenance. Regular grooming provides a safe playing surface with reliable footing for players and consistent bounce for balls. The laser level allows for the crown to be maintained for proper drainage reducing the need for drying agents after rain events. Equipment is planned to be purchased in 2018.

PK-11	Clinton River Access: Parking Lot & Canoe/Kayak Launch				
Estimated	d Total Project:	\$300,000	2020-2020		
Estim	ated City Cost:	\$150,000	Estimated City Share:	50%	

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 anticipated for this facility. Construction is planned to begin in 2020.

PK-13	Riverbend Park: Development			
Estimated	d Total Project:	\$6,924,209	2013-2020	
Estim	ated City Cost:	\$3,543,209	Estimated City Share:	Approx. 50%

Development of Riverbend Park including parking lot, entrance road, nature and fitness trails, improvements to the wetlands, and invasive vegetation control. Future development may include fitness stations, restrooms, playgrounds, water features, pavilion, sensory garden, support structures, and educational facilities. Private donations and grant funding will be pursued to offset overall project costs. Construction began in 2014.

PK-16B	Yates Park: Clinton River Access Improvements				
2021-2023					
Estim	ated City Cost:	\$141,600	Estimated City Share:	100%	

Construct an accessible path and kayak/canoe launch at Yates Park and a universally accessible portage around the Cider Mill Dam. Yates Park is heavily used for kayak and canoe launching into the Clinton River. The path and launch would provide ADA compliant access to the river as well as to protect the stream bank. The dam for Yates Cider Mill is a dangerous impediment for canoes and kayaks in the Clinton River as the dam separates the river as it runs from Auburn Hills to Lake St. Clair. This project would provide a safe, accessible portage around the dam with a rail system so that canoe/kayakers would not have to get out of their boats. Project also includes rain gardens and storm water improvements and paving the existing parking lot. Operating costs of approximately \$1,000 per year are anticipated for this facility. Construction is planned to begin in 2021.

PK-17A	Playground Replacement Schedule			
2018-2023				
Estimated City Cost: \$577,980 Estimated City Share: 100%				100%

Scheduled replacement and/or upgrades of existing playground equipment at City Parks to comply with Federal and State Laws by adding surfacing and equipment, or replacing existing equipment. Design and/or surfacing needs to meet ADA/CPSC/ASTM standards and guidelines. Playground Equipment is scheduled to be replaced after 20-years. It is planned to upgrade the playground equipment at Bloomer and Yates Parks in 2019, Wabash Park and Spencer Park in 2021, and Bloomer Park in 2022. Operating costs of approximately \$10,000 per year are anticipated to remain consistent with the new equipment. This program is on-going.

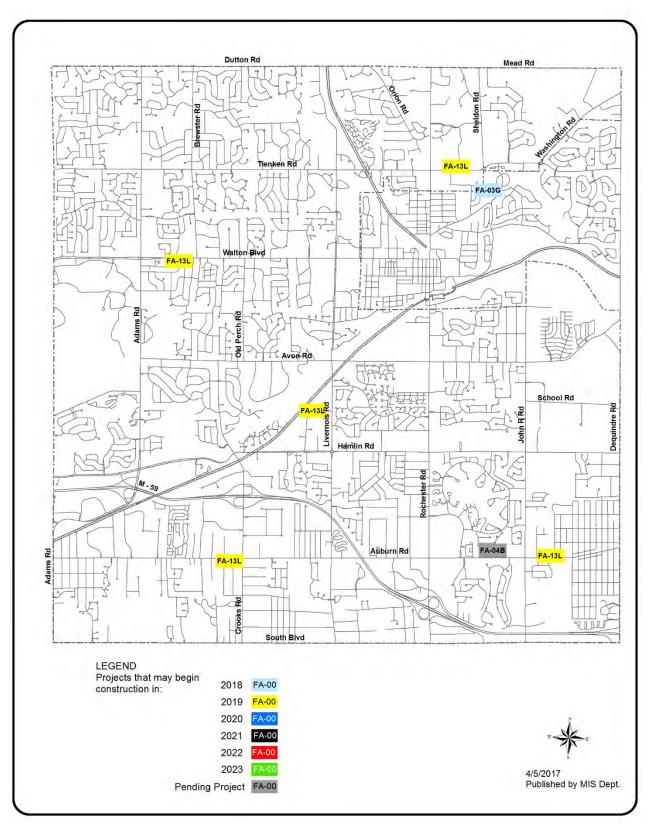
2018-2023 Capital Improvement Plan



innovative by nature

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-03G ** Van Hoosen / Jones Cemetery: Pole Barn **

Estimated Total Project: \$180,000 2018-2018

Estimated City Cost: \$180,000 Estimated City Share: 100%

Construction of a 30' x 40' pole barn behind the existing Cemetery Office. The pole barn will be used to store and maintain all equipment and material used on the cemetery property. The minimal cost increase of building maintenance will be covered by the savings from longer life-span of equipment that is protected from the elements.

FA-09 IT Infrastructure Capacity Funding

2020-2022
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			
2018-2023				
Estimated City Cost: \$240,000 Estimated City Share: 100%				100%

In 2010, the City contracted an outside Compliance Specialist to perform ADA (Americans with Disabilities Act) inspections of all City Facilities. A transition plan was completed identifying a full description of work areas needing ADA adjustments in order to comply with the State and Federal guidelines. This project will involve coordination with the Facilities Division, Department of Public Services, and Parks Department to coordinate similar projects for efficiency and cost savings. Examples of ADA compliance improvements include: concrete replacement, inside and outside signage upgrades, handrail installation/upgrades, wrapping of plumbing fixtures, handicap push pads on doors, accessible pathways, trailways, shelters, picnic tables, grills, boat launches, beaches, shower areas, restrooms, etc... This program is proposed to be funded at \$40,000 per year and is on-going.

FA-13L	** Fire Department LED Signs **			
Estimated	d Total Project:	\$330,000	2019-2019	
Estim	ated City Cost:	\$330,000	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 services. Minimal maintenance costs.

2018-2023 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 Land Use Plan Update Schedule			
2017-2023				
Estim	nated City Cost:	\$75,000	Estimated City Share:	100%

Contract with a planning consultant to prepare scheduled updates to the City's Master Land Use Plan (MLUP). The MLUP is the policy tool used as a guide in the physical development of the community. By State Law (PA 33 of 2008) the Master Land Use Plan must be reviewed and if necessary updated every 5-years. The current MLUP was adopted in 2007 and the required 5-year review was completed in 2012. That review resulted in minor updates which were completed in-house by City Staff. The next update is planned to begin in 2017.

PS-08	Master Thoroughfare Plan Update Schedule			
2018-2023				
Estim	nated City Cost:	\$150,000	Estimated City Share:	100%

The Master Thoroughfare Plan is an important coordinating document that helps guide regional transportation planning by providing adjacent and regional communities with an understanding of our transportation vision, and vice versa. The current Master Thoroughfare Plan was adopted in 2008 and it is anticipated that priority projects recommended therein will be completed in the next few years. At that point, it will be time to prepare a new or updated Master Thoroughfare Plan to guide future City transportation improvements. It is anticipated that the new plan will incorporate Complete Streets concepts as required by State Law, in addition to other motorized and non-motorized transportation planning for infrastructure and right of way needs. The next update is planned to begin in 2019.

2018-2023 Capital Improvement Plan Professional Services

PS-15B		Green Space Stewardsh	ip: Implementation	
	-	2018-2023		
Estim	ated City Cost:	\$1,350,000	Estimated City Share:	100%

The City has adopted the "Rochester Hills Natural Features Stewardship Program Long Term Management Plan" as the guide for setting priorities and timelines for the management of Green Space properties, City open space, and significant natural resources such as the Clinton River and other named watercourses. Elements of the work will include: Invasive species removal, natural features restoration, and educational programs to promote stewardship. We will continue to work with a consultant and the Green Space Advisory Board (GSAB) to review the management plan and make budget recommendations. This stewardship program is proposed to be funded at \$225,000 per year and is on-going.

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 Websit	e Update Schedule	
		2018-2023		
Estim	ated City Cost:	\$35,000	Estimated City Share:	100%

Scheduled improvements in functionality and design to the City's current website configuration. Improvements would likely require changes to the current content management system as well as Internet hosting provider. Upgrades to the City's website are anticipated to occur every 5 years. Operating costs are anticipated to remain consistent as current website processes are already in place. The next website upgrade is planned to begin in 2018. This update schedule is on-going.

IS-04D		SCBA Repl	lacement Schedule	
	-	2018-2023	3	
Estim	ated City Cost:	\$956,830	Estimated City Share:	100%

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 2022. This replacement program is on-going.

IS-04G Heart Monitor Replacement Schedule

2018-2023

Estimated City Cost: \$129,450 Estimated City Share: 100%

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, 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-05		Citywide Fleet I	Replacement Schedule	
	-	2018-2023		
Estim	nated City Cost:	\$6,962,610	Estimated City Share:	100%

Scheduled replacement of various Fleet Department vehicles and equipment. Operating costs (fuel, maintenance, supplies) of approximately \$600,000 per year for the entire City Fleet 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 pages 72-76 in the Appendix Section. This replacement program is on-going.

IS-08		Fire Vehicle & Apparat	us Replacement Schedule	
		2018-2023		
E	stimated City Cost:	\$5,988,000	Estimated City Share:	100%
Scheduled r	eplacement of various	Fire Department vehic	cles and apparatus. Opera	ting costs (fuel,

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 77 in the Appendix Section. This replacement program is on-going.

IS-10B		Computer Netw	ork Upgrade Schedule	
	-	2018-2023		
Estin	nated City Cost:	\$630,000	Estimated City Share:	100%
Pogularly schod	ulad natwork samp	itar systam ungrada(s)	Itams to be evaluated for replace	mont include

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

2018-2023
Estimated City Cost: \$134,010 Estimated City Share: 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

2018-2023
Estimated City Cost: \$3,500,000 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 Plan Review Software **

Estimated Total Project: \$500,000 2018-2018

Estimated City Cost: \$500,000 Estimated City Share: 100%

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 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 R	eplacement Schedule	
		2017-2023		
Estim	ated City Cost:	\$390,000	Estimated City Share:	100%

Scheduled replacement of voting equipment for City administered elections. In FY 2005, the City received election equipment from the State of MI through the Federal Help America Vote Act (HAVA) grant program at a discounted rate. The City currently has 38 voting tabulators, 27 Auto mark Handicap Accessible tabulators, as well as related software for programming the equipment. Operating costs of approximately \$3,500 per year are anticipated to remain consistent with timely replacement, before more extensive

service and maintenance levels are required to keep older equipment operational. The next replacement and/or upgrade of election equipment is planned for 2017. This replacement program is on-going.

2018-2023 Capital Improvement Plan Projects Pending

Projects pending are projects that may be deemed as potentially worthy and viable; however they are not included as part of the active 2018-2023 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 2018-2023 timeframe.

FA-04B 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.

MR-01F 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 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.

2018-2023 Capital Improvement Plan Projects Pending

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 storage capacity. Work also involves upgrading the existing traffic signal from a "span-wire" to a "box-span" configuration. 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 assist with minimizing southbound Adams Road cut-through traffic through the Judson Park Subdivision, which has been brought forth to the Advisory Traffic and Safety Board on several occasions. No operating costs are 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.

2018-2023 Capital Improvement Plan Projects Pending

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.

2018-2023 Capital Improvement Plan Projects Pending

LS-08

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

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.

LS-15

Bolinger Street Paving (SAD)

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 October 1, 2013. Operating costs are anticipated to decrease for a period of time by approximately \$480 per year due to gravel road grading/chloride operations being eliminated.

2018-2023 Capital Improvement Plan Projects Pending

PK-01H 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.

PK-05F Borden Park: Soccer Field Renovations

Renovation of three (3) existing soccer fields at Borden Park. Correct drainage, grading, and re-sod to improve performance and safety under high traffic and use. Operating costs of approximately \$10,000 per year per field are anticipated to remain consistent with timely renovations, before more extensive service levels are required to keep the fields in a suitable condition for play.

PK-14 Nowicki Park: Development

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

PK-16 Yates Park: Parking Lot Rehabilitation

Reconstruction and resurfacing of the Yates Park parking lot in order to make it safer for patrons exiting the park. The existing gravel parking surface and lot angle makes it difficult for patrons to safely merge into traffic on the main roadway. Project could be coordinated with PK-16B Yates Park: Clinton River Access Improvements.

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.

2018-2023 Capital Improvement Plan Projects Pending

PW-04

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.

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

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.

SS-13

Sheldon Road: Sanitary Sewer Metering Equipment

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.

2018-2023 Capital Improvement Plan Projects Pending

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 drainage along Rochester Road north of Tienken Road including Perrydale Street 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.

SW-05C Rewold Drain (Phase C)

Construction of a regional detention basin north of Hamlin Road and west of John R Road on the Christian 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 project and also for the on-going operations.

SW-08A Major Waterway Preservation

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,

2018-2023 Capital Improvement Plan Projects Pending

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-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.

2018-2023 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
City Assessor
Chief Financial Officer
Director of Planning & Development
Director of Public Services

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
Crew Leader – Facilities
Deputy Director DPS / City Engineer
Deputy Director MIS / Network Administrator
Director of Building

Fire Chief
Fleet Supervisor

Manager of Economic Development

Manager of Planning Media Specialist

Park Operations Manager
Public Utilities Engineer
Senior Financial Analyst
Supervisor of Communications
Transportation Engineer

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
Director of Planning & Development

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.

Project Title: _	Program Area:
Prepared By: _	Date Prepared:
CIP ID #:	
Project Descrip	tion: Provide a brief (1-2 paragraph) description of project:
Planning Conte	xt: Is the project part of an Adopted Program, Policy or Plan?
	ust Identify):
— Tes (IVIC	ist identity).
No Must List the ac	dopted program or policy, and how this project directly or indirectly meets these objectives:
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Prior Approval:	Is this project included the 2017 Adopted or prior year's budget? Has this project been approved by any Board, Commission or City Council?
Yes (Plea	se check appropriate box(es) below) No
	City Council Planning Commission
	2017 Budget Prior Year Budget:
Total Estimated	Cost: In 2017 dollars (Amount shown here should agree with total on Form 2)
\$ List all funding on	ptions available for this project?
Recommended f	unding option(s) to be used? (i.e: Operating Revenues, Fund Balance, Bond Issue etc)
Basis of Cost Est	imate: Please check one of the following
	omparable facility / equipment Rule of thumb indicator / unit costs
Cost esti	mate from engineer / architect Preliminary estimate
Ballpark	"guesstimate"
Budget Impact (Costs):	Any and all future operating costs this project/item will create: Payroll/Staffing; Maintenance; Supplies etc (* Details Required)
(costs).	Wallterlance, Supplies etc (Details Required)
Budget Impact	Any and all future operating savings this project/item will create: Payroll/Staffing;
Budget Impact (Savings):	Any and all future operating savings this project/item will create: Payroll/Staffing; Maintenance; Supplies etc (* Details Required)
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Equipment:			Date Pr	epared:		
Department:						
orm of Acquisition: Please Purchase	check one of the follo	owing		Rental / Lease	e	
Number of Units Re	quested:					
Estimated Service Li	fe (Years):					
Total Net Impact (Over Service Life		Per U	nit (\$):	<u>Tota</u>	l Cost (\$):
Plus: Purchase Price	e					\$0.00
Plus: Installation or	Related Charges:				-	\$0.00
Less: Trade-in, Salva	age Value, Discount:				_	\$0.00
Net Purchase Co				\$0.00	_	\$0.00
Plus: Annual Opera				_	\$0.00	
Less: Annual Opera			\$0.00	-	\$0.00 \$0.00	
Net Annual Oper		lfo.		\$0.00		\$0.00
•	Impact Over Service L Over Service Life:	ile:		40.00	-	\$0.00
urpose of Expenditure: Pl		e box(-	
Scheduled Replacen		_		t Equipment O	bsolete	
Replace Worn-Out B	quipment		Reduce	Personnel Tin	ne	
Expanded Service Li	fe		New O	peration		
Increased Safety			Improv	ed Service to 0	Commur	nity, Procedures etc
Other:						_
Replaced Item(s): Attach Se	parate Sheet if Neces	sary				
				Mariatana		ior Year's
Item	Make		ige	Maintenai \$	nce	Rental Cost
				\$		\$
		<u> </u>		>		2

* 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	Const	Geotechnical Engineering	Land Acquisition (ROW)	Right-of-Way Services	Preliminary Engineering	Project Construction
	\$0	impact \$0	Impact	Impact	Impact	Impact	Cost Before	ruction \$0	ırchase	n Costs	neering	Construction	neering	(ROW)	ervices	neering	Cost Before 2017
	\$0	\$0						\$0									BUDGET 2017
	\$0	\$0						\$0									BUDGET 2018
	\$0	\$0						\$0									BUDGET 2019
	\$0	\$0						\$0									2020
	\$0	\$0						\$0									2021
	\$0	\$0						\$0									2022
	\$0	\$0		-				\$0									2023
	\$0	\$0				\$0	Total	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	Total
			100%	100%	100%		Gty Share 1		100%	100%	100%	100%	100%	100%	100%	100%	City Share 1
	\$0	\$0	\$0	\$0	\$0	\$0	TOTAL CITY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	TOTAL CITY

	Project Name:	Project #		
	Department:		10	0
Н	Rater Name:	Score Range	Rater Score	Weight
1	Contributes to Health, Safety and Welfare Eliminates a known hazard (accident history)	5	-	5
	Eliminates a potential hazard	4		
	Materially contributes	3	1	
	Minimally contributes	1	1	
	No Impact	0	1	
2	Project Needed to Comply with Local, State or Federal Law		1	5
	Yes No	5		
	NO			
3	Project Conforms to Adopted Program, Policy or Plan		Т	
	Project is consistent with adopted City Council policy or plan	5	1	4
	Project is consistent with Administrative policy	3		
	No policy / plan in place	0		
	Project Remediates an Existing or Projected Deficiency			
•	Project Remediates an Existing of Projected Deficiency Completely Remedy Problem	5	1	3
	Partially Remedy Problem	3		
	No	0	1	
5	Will Project Upgrade Facilities		1	3
	Rehabilitates / upgrades existing facility	5		
	Replaces existing facility New facility	3	-	
	THE WILLIAM	<u> </u>		
6	Contributes to Long-term Needs of Community			2
	More than 30 years	5		
	21 - 30 years	4		
	11 - 20 years	3		
	4 - 10 years	2	4	
_	3 years or less	1		
7	Annual Impact on Operating Costs Compared to	T		_
	Operating Costs Absent the Project		1	2
	Net Cost Savings	5		
	No Change	4		
	Minimal increase (<\$25,000)	3		
	Moderate Increase (\$25,000 - \$100,000)	2	1	
	Major Increase (>\$100,000)	1		
8	Impact Measures - Net Present Value & Internal Rate of Return /			
	# of Years to Recoup Costs		1	2
	High / 0-3 Years	5		
	Medium-High / 4-7 Years	4	1	
	Medium / 8-11 Years	3	1	
	Medium-Low / 12-15 Years	2	-	
	Low / 16 - 20 Years	1	4	
	Never	0		
	Service Area of Project			-
9	Regional	5		2
9	City-Wide	4		
9		3	_	
9	Several neighborhoods			
9		1		
	Several neighborhoods One neighborhood or less	1		
	Several neighborhoods One neighborhood or less Department Priority		-	2
	Several neighborhoods One neighborhood or less Department Priority High	5		2
	Several neighborhoods One neighborhood or less Department Priority			2
10	Several neighborhoods One neighborhood or less Department Priority High Medium Low	5 3		2
10	Several neighborhoods One neighborhood or less Department Priority High Medium Low Project Delivers Level of Service Desired by Community	5 3 1		
10	Several neighborhoods One neighborhood or less Department Priority High Medium Low	5 3	-	2

2018-2023 Capital Improvement Plan Fleet Replacement Schedule

2018 FLEET EQUIPMENT PURCHASES BREAKDOWN								
			REPLACEMENT	ESTIMATED				
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE	COST				
Transmission Fluid Exchanger	DPS - Fleet	#1115	6	\$	5,890			
Deep Tine Aerator	Parks - Borden	#4526	10	\$	44,250			
De-Icing Vehicle Insert	Parks - Borden	#6133	5	\$	5,040			
Dump Body Vehicle Insert	Parks - Borden	#6135	5	\$	10,150			
Rotary Broom	Parks - Spencer	#6155	4	\$	9,270			
Dump Truck Body Insert	Parks	#6185	7	\$	13,820			
Utility Vehicle	Parks - Borden	#6606	4	\$	-			
Wheeled Excavator	DPS - Roads	39-148	12	\$	260,530			
Air Compressor	DPS - Fleet	39-228	10	\$	20,010			
Floor Scrubber	DPS - Fleet	39-276	12	\$	58,470			
Tractor/Loader	Cemetery	39-277	12	\$	67,670			
Smart Cart	OCSO	39-324	5	\$	11,290			
Pickup 4wd w\ Plow	DPS	39-293	7	\$	33,300			
Pickup 4wd w\ Plow	DPS	39-299	7	\$	35,940			
Pickup 4wd w\ Plow	Parks - Bloomer	39-528	7	\$	35,940			
Pickup 4wd w\ Plow	DPS - W&S	39-529	7	\$	33,000			
TOTAL 2018 FLEET VEHICLE / EQUIPMENT COSTS:					644,570			

2018-2023 Capital Improvement Plan Fleet Replacement Schedule

2019 FLEET EQUIPMENT PURCHASES BREAKDOWN							
			REPLACEMENT	ESTIMATED			
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST		
Wheel Balancer	DPS - Fleet	#5282	8	\$	4,740		
Concrete Power Screed	DPS - Roads	#5877	10	\$	7,200		
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 - Fleet	#902547	5	\$	8,190		
Tractor/Loader/Backhoe	DPS - Roads	39-084	12	\$	138,230		
Excavator	DPS	39-169	12	\$	240,070		
Forklift	DPS	39-188	10	\$	31,140		
Trash Pump	DPS - Fleet	39-212	10	\$	56,100		
Steam Generating Unit/Trailer	DPS	39-225	12	\$	26,220		
Asphalt Roller	DPS - Roads	39-231	10	\$	8,030		
Tractor / Loader	DPS	39-286	10	\$	143,970		
Concrete Saw	DPS - Roads	39-323	10	\$	15,010		
Wood Chipper	Forestry	39-335	8	\$	42,780		
Sewer Camera Truck	DPS - W&S	39-158	12	\$	56,230		
Pickup 4wd	Forestry	39-160	7	\$	31,090		
Pickup 4wd w\ Plow	DPS	39-292	7	\$	33,300		
Pickup 4wd w\ Plow	Facilities	39-298	7	\$	35,940		
Passenger Car	City Pool	39-525	7	\$	22,970		
Passenger Car	DPS - Roads	39-526	7	\$	22,970		
Pickup 4wd w\ Plow	DPS - W&S	39-527	7	\$	35,940		
Pickup 4wd w\ Plow	DPS - Roads	39-530	7	\$	33,000		
Pickup 4wd	DPS - W&S	39-533	7	\$	28,160		
Pickup 4wd w\ Plow	DPS	39-534	7	\$	33,250		
Pickup 4wd w\ Plow & Platform	DPS	39-535	7	\$	37,410		
Pickup 4wd w\ Plow	DPS	39-536	7	\$	33,250		
Pickup 4wd w\ Plow	DPS	39-537	7	\$	33,250		
Pickup 4wd w\ Plow & Platform	DPS	39-538	7	\$	37,410		
Sport Utility 4wd	Media	39-555	7	\$	24,070		
TOTAL 2019 FLEET VEHICLE / EQUIPMENT COSTS:					L,342,460		

2018-2023 Capital Improvement Plan Fleet Replacement Schedule

2020 FLEE	2020 FLEET EQUIPMENT PURCHASES BREAKDOWN					
			REPLACEMENT	ES	TIMATED	
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	
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	
Tandem-Axle Dump Truck	DPS	39-189	12	\$	228,060	
Tandem-Axle Dump Truck	DPS	39-190	12	\$	228,060	
Tandem-Axle Dump Truck	DPS	39-270	12	\$	228,060	
Tandem-Axle Dump Truck	DPS	39-271	12	\$	228,060	
Tandem-Axle Dump Truck	DPS	39-272	12	\$	228,060	
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	
Pickup 4wd w\ Platform	Parks - Borden	39-560	7	\$	47,320	
	TOTAL 2020 FLEET V	EHICLE / EQU	JIPMENT COSTS:	\$1	1,686,790	

2021 FLEET EQUIPMENT PURCHASES BREAKDOWN					
			REPLACEMENT	ES	STIMATED
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST
Municipal Tractor	DPS	39-287	12	\$	165,070
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 VEHICLE / EQUIPMENT COSTS:					1,033,170

2018-2023 Capital Improvement Plan Fleet Replacement Schedule

2022 FLEET	EQUIPMENT PURCHA	SES BREAKDO)WN		
			REPLACEMENT	ES	TIMATED
VEHICLE TYPE	DEPARTMENT	VEHICLE#	CYCLE		COST
De-Icing Vehicle Insert	Parks - Borden	#6133	5	\$	5,890
Dump Body Vehicle Insert	Parks - Borden	#6134	5	\$	8,500
Dump Body Vehicle Insert	Parks - Borden	#6135	5	\$	11,880
Rotary Broom	Parks - Spencer	#6155	4	\$	10,420
Sign Shop Cutter	DPS - Roads	#6163	5	\$	7,990
Field Rake	Parks - Borden	#6168	5	\$	14,240
Zero Turn Mower	Parks - Borden	#6265	4	\$	15,720
Municipal Tractor	Parks - Borden	#6270	10	\$	66,260
Utility Vehicle	Parks - Borden	#6606	4	\$	10,040
Equipment Trailer	OCSO	39-230	5	\$	10,050
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	\$	95,590
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 VEHICLE / EQUIPMENT COSTS:					

2018-2023 Capital Improvement Plan Fleet Replacement Schedule

2023 FLEET	2023 FLEET EQUIPMENT PURCHASES BREAKDOWN					
			REPLACEMENT	ESTIMATED		
VEHICLE TYPE	DEPARTMENT	VEHICLE #	CYCLE		COST	
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	
Traffic Arrowboard	DPS	39-325	7	\$	7,230	
Traffic Arrowboard	DPS	39-326	7	\$	7,230	
Pickup 4wd w/Plow	DPS	39-575	7	\$	59,220	
Pickup 4wd w/Plow	Cemetery	39-154	6	\$	41,290	
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 CAB & w\ Platform Body	DPS	39-289	6	\$	60,010	
GMC SIERRA 4X4 PICKUP w\ Plow	Parks - Borden	39-290	6	\$	38,950	
GMC SIERRA 4X4 PICKUP w\ Plow	Parks - Borden	39-291	6	\$	38,950	
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	1,094,030	

2018-2023 Capital Improvement Plan Fire Replacement Schedule

	2018 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN					
			REPLACEMENT		ESTIMATED	
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST	
Sport Utility 4wd	Administration	Chief 1	10	\$	56,000	
Sport Utility 4wd	Administration	Chief 2	10	\$	56,000	
Sport Utility 4wd	Fire Prevention	Chief 3	10	\$	56,000	
Sport Utility 4wd	Training	Captain 2	10	\$	56,000	
2018 TOTAL FIRE DEPARTMENT VEHICLE & APPARATUS COSTS:					224,000	

	2019 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN					
			REPLACEMENT		ESTIMATED	
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST	
Pickup 4wd	Fire Suppression	Utility 1	10	\$	46,000	
Pickup 4wd	Fire Suppression	Utility 3	10	\$	46,000	
Pickup 4wd	Fire Suppression	Utility 4	10	\$	46,000	
Ladder Quint	Fire Suppression	Ladder 3	20	\$	1,200,000	
2019 TOTAL FIRE DEPARTMENT VEHICLE & APPARATUS COSTS:				\$	1,338,000	

2020 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN					
			REPLACEMENT		ESTIMATED
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST
Sport Utility 4wd	Fire Prevention	Inspector 1	10	\$	48,000
Sport Utility 4wd	Fire Prevention	Inspector 2	10	\$	48,000
2020 TOTAL FIRE DEPARTMENT VEHICLE & APPARATUS COSTS:			\$	96,000	

2021 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN					
			REPLACEMENT	E	STIMATED
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST
None Scheduled				\$	-
2021 TOTAL FIRE DEPARTMENT VEHICLE & 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 DEPA	RTMENT VEHICLE &	APPARATUS COSTS:	\$	2,930,000	

2023 FIRE DEPARTMENT VEHICLE & APPARATUS BREAKDOWN						
			REPLACEMENT		ESTIMATED	
VEHICLE TYPE	DIVISION	VEHICLE #	CYCLE (Years)		COST	
Ladder Quint	Fire Suppression	Ladder 4	20	\$	1,400,000	
2023 TOTAL FIRE DEPARTMENT VEHICLE & APPARATUS COSTS:				\$	1,400,000	

2018-2023 Capital Improvement Plan Aggregate Spreadsheet

Aggregate Spreadsheet (page #1)

2018-2023 Capital Improvement Plan Aggregate Spreadsheet

Aggregate Spreadsheet (page #2)

2018-2023 Capital Improvement Plan CIP Schedule

January 17	CIP Project Group receives CIP schedule and instructions. 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 23	Mayor or City Council representative (at City Council meeting) announces request for public submission of any eligible project.
February 24	Deadline to submit new CIP project applications/re-evaluations.
March 21	CIP Project group & CIP Policy group meeting (Q & A opportunity for CIP Policy group).
March 31	CIP Project ratings due from Policy Group.
April 18	Planning Commission Workshop and public hearing to review Draft 2018-2023 CIP and to provide an opportunity for public input.

2018-2023 Capital Improvement Plan Notice of Public Hearing



NOTICE OF PUBLIC HEARING ON THE PROPOSED 2018-2023 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 18, 2017 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 23rd day of March 2017 at Rochester Hills, Michigan. Publish Monday, April 3, 2017

2018-2023 Capital Improvement Plan Capital Improvement Plan Review

	2018-2023 Capital Improvement Plan / Projects Added					
		<u>Year</u>				
FA-03G	Van Hoosen / Jones Cemetery: Pole Barn	2018	New Project Submittal			
FA-13L	Fire Department LED Signs - All Stations	2019	New Project Submittal			
IS-16C	Electronic Plan Review Software	2018	New Project Submittal			
LS-05	Reuther Middle School Street Lighting	2018	New Project Submittal			
LS-06	Reuther Middle School Area Sidewalks	2018-2019	New Project Submittal			
MR-02J	Hamlin Road [City Limit to East of Adams Road]	2017-2018	New Project Submittal			
MR-03	Harding Avenue Rehabilitation	2018	New Project Submittal			
MR-16A	Auburn Road Corridor Improvements	2018-2019	New Project Submittal			
MR-17	Avon Industrial Drive	2021	New Project Submittal			
MR-28	John R Road Rehabilitation [Avon Road to Bloomer Road]	2021	New Project Submittal			
PK-05G	Borden Park: Tennis & Pickle Ball Court Rehabilitation	2019	New Project Submittal			
PK-07	Infield Groomer	2018	New Project Submittal			
SW-14	Hamilton Relief Drain Repair	2017-2018	New Project Submittal			
	Bedford Square Apartments / Tienken Court: Water Main					
WS-16	Replacement	2018-2019	New Project Submittal			
WS-17	Wayside Court Water Main Extension	2018	New Project Submittal			
WS-37	Adams High School: Water Main Replacement	2018	New Project Submittal			

2018-2023 Capital Improvement Plan Capital Improvement Plan Review

2018-2023 Capital Improvement Plan / Projects Deleted				
		<u>Reason Not Included</u>		
FA-02K	Fire Station #1: Rear Access Drive Reconstruction	Project Complete		
FA-08B	Interchange Technology Park: Site Preparation	Project Deleted		
LS-14	Kingsview Avenue Paving (SAD)	Defer to Pending		
LS-15	Bolinger Street Paving (SAD)	Defer to Pending		
MR-02I	Hamlin Boulevard [Adams Road - West City Limit]: Irrigation System	Project Complete		
MR-07A	Auburn Road: Turn-Lane Improvements	Project Complete		
MR-08	Horizon Court Rehabilitation	Project Complete		
MR-11	Rochester Industrial Drive Reconstruction	Project Complete		
MR-23C	Meadowfield Drive @ Yorktowne Drive: Traffic Signal Installation	Project Deleted		
MR-26F	Livernois Road: NB Right-Turn Lane @ Auburn Road	Project Complete		
MR-31E	John R Road: NB Right-Turn Lane @ Auburn Road	Project Complete		
MR-39	South Boulevard Rehabilitation [East of Crooks - West of Livernois]	Project Complete		
MR-57	Drexelgate/Eddington @ Rochester Road: Traffic Signal	Project Complete		
PK-01H	Bloomer Park: Restroom Modernizations	Defer to Pending		
PK-05H	Borden Park: Office Relocation	Project Complete		
PK-05J	Borden Park: Maintenance Yard	Project Complete		
PW-12	Rochester Road Pathway Gaps [Orion Road & Wimberly Drive]	Project Complete		
WS-07	Booster Station #2: Replacement	Project Complete		
WS-15	Michelson Road: Water Main Extension	Project Complete		
WS-36	Section #33: Water Main Replacement	Project Complete		
WS-40	Tienken Court: Water Main Replacement	Project Deleted		

2018-2023 Capital Improvement Plan Capital Improvement Plan Review

2018-2023 Capital Improvement Plan / Project Timeline Changes				
		Project Timelines:		
		<u>Prior</u>	<u>Revised</u>	
	Star Batt Drive Reconstruction (Formerly Titled Industro Plex			
MR-46	Industrial Park Reconstruction)	2019-2019	2019-2020	
PK-11	Clinton River Access: Parking Lot & Canoee/Kayak Launch	2018-2018	2020-2020	
PK-16B	Yates Park: Clinton River Access Improvements	2018-2018	2021-2023	
PS-08	Master Thoroughfare Plan Update Schedule	2018-2019	2019-2020	
PW-07C	Adams Road Pathway [Powderhorn Ridge Road - Tienken Road]	2016-2016	2019-2019	
PW-09A	Technology Drive Pathway [Auburn Road - 2,250' North]	2016-2017	2016-2018	
PW-21	East Nawakwa Pathway [Rochester Road - Joshua Drive]	2017-2018	2019-2020	
SS-10B	Wimberly Drive: Sanitary Sewer Replacement	2016-2016	2017-2018	
SS-30	Sanitary Sewer Easement Machine	2017-2017	2018-2018	
WS-16	Bedford Square Apts/Tienken Court: Water Main Replacement	2020-2020	2018-2019	

2018-2023 Capital Improvement Plan Index

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