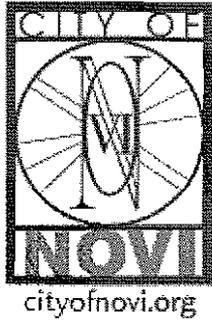


## MEMORANDUM



**TO:** CHARLES BOULARD  
BARBARA MCBETH  
**FROM:** KATHY SMITH-ROY  
**CC:** LEADERSHIP GROUP  
MARINA NEUMAIER  
**SUBJECT:** CAPITAL IMPROVEMENT PLAN (CIP)  
**DATE:** FEBRUARY 20, 2009

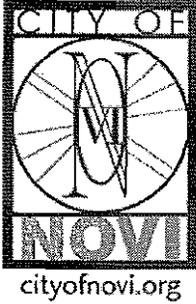
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The City of Novi prepares and includes in its annual budget the Capital Improvement Plan. In an effort to provide a comprehensive, efficient and effective plan this is done in conjunction and compliance with the Municipal Planning Commission Act (PA285).

The attached plan was prepared by City staff, and was approved at a meeting of the joint CIP Committee (which includes Planning Commission members and City Council members). This plan is being presented to the Planning Commission for its adoption on February 24, 2010.

The City Manager will make recommendations for projects to be included in the 2010-11 Proposed Budget to City Council, which have not been identified to date, as staff continues to prepare information regarding funding and operating budgets.

If you have any questions, or would like any additional information, please let me know.



## Capital Improvement Plan (CIP) Committee

CITY OF NOVI

CIP Meeting

Thursday, February 19, 2010 | 6:30 P.M.

Mayors Conference Room | Novi Civic Center | 45175 W. Ten Mile Road

Meeting was called to order at 6:50 p.m.

**MEMBERS PRESENT:** Andy Gutman, Mike Lynch, Terry Margolis, Andrew Mutch, David Staudt

**MEMBERS ABSENT:** Mark Pehrson (absent/excused)

**STAFF PRESENT:** Marina Neumaier, Charles Boulard, Rob Hayes, Kathy Smith-Roy

### PURPOSE OF THE MEETING

Discussion and approval of Capital Improvement Plan 2010-2016

### Discussion

Ms. Smith-Roy provided brief introduction regarding plan and following steps.

Member Margolis inquired about a new item in the *Intersections and Signals* section "Traffic Control Sign Replacement Program". Mr. Hayes responded that this program is a federally mandated program and is new this year.

Member Staudt inquired about the type of vehicle recommended for "Fire Department Emergency Vehicle Replacement – Squad 4". Ms. Smith-Roy responded that the City is looking at two cost-effective alternatives for the replacement of the medical transport vehicles, and the City Manager will be coming forward with a recommendation in the proposed budget.

General discussion continued regarding availability of funds and prioritization. The City Manager recommendations will be included in the proposed budget.

**Motion by Margolis, seconded by Lynch; CARRIED UNANIMOUSLY: To approve the Capital Improvements Plan for purposes of presenting to the Planning Commission.**

**Motion by Margolis, seconded by Staudt; CARRIED UNANIMOUSLY: To adjourn the meeting at 7:35 a.m.**

# ***Capital Improvements Program***

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**City of Novi, Michigan  
2010-2016**

## **Overview**

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The City of Novi's Capital Improvements Program (CIP) is a planning tool, with a goal to identify and schedule capital improvements over a six-year period from 2010-2016. The CIP is an opportunity to formulate strategic long-term policy decisions that extends beyond the current 2010-2011 budget year. The CIP helps track multi-year projects that may require planning, design, land acquisition and construction. The projects identified in the CIP represent the City of Novi's plan to serve residents and anticipate the needs of a growing and dynamic community. The following documents were considered in preparation of the CIP:

- Master Plan for Land Use (adopted December 1, 2004, including amendments adopted April 16, 2008)
- Water System Master Plan Report (adopted November 24, 2008)
- Storm Water Master Plan Update (adopted February 12, 2007)
- Capacity Management Operations & Maintenance Report (March 27, 2007)
- Community Recreation Plan, including Americans with Disabilities Act Transition Plan, 2009-2013 (adopted)
- Pathway and Sidewalk Prioritization Analysis and Process (adopted November 2006; updated November 2009)

## **Definition of a Capital Improvement**

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A capital improvement is defined as any new equipment, construction, acquisition or improvement to public lands, buildings or structures in excess of \$25,000 with a minimum life expectancy of five years. Maintenance-oriented, operational or continuous expenditures are not considered to be capital improvements.

The CIP allows for responsible and thoughtful planning of future major expenditures that are not necessarily financed or automatically included in the annual budgeting process. All capital projects, however, as they pertain to the definition of capital improvements above should be part of this CIP. Specifically, the purpose of the CIP is to:

- Identify and evaluate the needs for public facilities.
  - Determine cost estimates for each capital project submitted.
  - Determine if there will be future operating costs for such projects.
  - Determine potential sources of funding for such projects.
  - Adopt policies for implementing capital improvement construction.
  - Anticipate and pre-plan projects with an emphasis on seizing opportunities for partnerships and alternative funding.
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## **Impact of Capital Budget on the Operating Budget**

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As new policies and programs are approved, both the operating and capital budgets are impacted. For example, an increase in service levels approved as part of the operating budget would have long-term affects on the Capital Improvements Program. Conversely, a restrictive change to the use of long-term debt would slow capital programs.

Regardless of the difference between the operating and capital budgets, the two are interdependent. Budgetary policy states that all foreseeable operating costs related to capital projects be estimated and provided for as part of the review process associated with the Capital Improvements Program. In addition, departments are required to include costs associated with operating and maintaining capital projects that are requested for the upcoming year.

## **Legal Basis of the Capital Improvements Program**

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The Capital Improvements Program has been authorized by the Municipal Planning Commission Act (Section 9, Public Act 285 of 1931). This mandate gives responsibility for preparing a CIP to local Planning Commission bodies, and reads as follows:

*“For the purpose of furthering the desirable future development of the municipality under the master plan the city planning commission, after the commission shall have adopted a master plan, shall prepare coordinated and comprehensive programs of public structures and improvements. The commission shall annually show those public structures and improvements, in the general order of their priority, which in the commissions judgment will be needed or desirable and can be undertaken within the six-year period. The above comprehensive coordinated programs shall be based upon the requirements of the community for all types of public improvements, and, to that end, each shall upon request furnish the commission with lists, plans and estimates of time and cost of public structures and improvements within the purview of such department.”*

## **Planning and Benefits of the Capital Improvements Program**

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The CIP is first and foremost, a planning tool. It can be quite useful as a primary guide in implementing the Master Plan. With thoughtful foresight and review as a result of a CIP, the many outstanding capital projects that communities are faced with implementing every year, can be viewed as one package, rather than as small, fragmented groups or lists, with no unified sense of focus and direction.

When capital improvements begin with careful planning and study, the City of Novi’s chances for receiving state and federal grants are greatly enhanced. Some grants require the inclusion of a CIP with their application. Formulation of a CIP assists those involved to look at alternative funding mechanisms that might not have been considered before. Instead of relying on local revenue sources alone, the CIP allows the City to think more creatively to fulfill Master Plan goals and policies. The CIP often avoids reactive planning, and instead replaces it with balanced growth initiatives.

## **Program Funding**

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There are multiple methods available to local governments for financing capital improvement projects. Since capital improvements require large outlays of capital for any given project, it is often necessary to pursue multiple creative solutions for financing projects.

## **General Obligation (G.O.) Bonds**

These types of bonds are especially useful for financing large municipal projects such as infrastructure improvements. They require voter approval and usually are used for projects that will benefit the residents of the entire community.

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When the City sells G.O. Bonds, the purchaser is basically lending money to the City. The amount of the bond, plus interest is repaid through property taxes that the City, as the issuing authority, has the power to levy at the level necessary and within state guidelines to retire the debt.

A variation of the G.O. Bonds is the G.O. Limited Tax Bonds which can be repaid through tax millage. The interest rate for this type of issue is slightly higher than for the G.O. Bonds, and though voter approval is not required, a referendum period is afforded to the citizenry to challenge the proposed bond resolution.

### **Revenue Bonds**

These bonds are generally sold as a means for constructing revenue-producing facilities such as water and sewer systems, and other such facilities that produce tolls, fees, rental charges, etc. (i.e. Novi Ice Arena, and Meadowbrook Commons). Security for and payment of revenue bonds are typically based upon the revenue-producing facility or activity rather than the economic or taxing base.

### **Federal Grants**

Funding is made available to cities through Federal grants and programs. Grants are usually subject-specific, and require application by the local government for consideration. Amounts of grants vary, and are determined by the grantor through criteria-based processes. The availability of grants is usually a competitive process, so creative and effective grant writing is crucial to receiving funding for capital improvement projects.

### **Building Authority**

The City of Novi has a Building Authority that functions as a mechanism to facilitate the selling of bonds to finance public improvements. These bonds can be used as funding for buildings and recreational uses. Though voter approval is not required, a referendum period is afforded to the citizenry to challenge the proposed bond resolution. This is the mechanism used in the construction of the ice arena and the older adult housing facility.

### **Enterprise Funds**

Enterprise funds are typically established for services such as water, sewer, recreation, and housing. Revenues are generated primarily through user charges and connection fees from those who benefit from the improvements.

### **Developer Contributions**

Developers as part of subdivision and site planning requirements may provide infrastructure, open space and recreational facilities. Developers may contribute a share of funds to the government entity, or install the facilities themselves as local need arises, and/or during the construction process. Once completed, the local government entity may agree to maintain the facilities.

### **Special Assessments**

Special assessment financing allows local government to collect special taxes from owners of property directly benefiting from capital improvements. These types of improvements often include streets and sidewalks, sanitary sewer, storm drainage, and water distribution systems.

### **Gas and Weight Tax**

The City of Novi receives a formula-rated share of motor fuel and highway usage taxes from the State of Michigan to be utilized for transportation and maintenance-related projects.

### **Millage**

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Property taxes are based upon the local millage rate. Revenue received from property taxes may be used for capital improvements as part of the General Fund, but such improvements are usually smaller scale and less expensive.

### **General Fund**

The General Fund for the City of Novi may be used for capital improvements; however, it is not the intent of the CIP to earmark these funds for projects. Instead, smaller scale, less expensive capital projects with a high priority could be funded as line items.

### **State Shared Revenue**

In addition to the Gas and Weight Taxes above which are shared revenue, the City receives its share of various taxes and fees from programs and requirements by the State of Michigan.

### **Public/Private Partnership**

This type of financing has become increasingly popular in areas where creative financing is fostered. In many communities the local revenue share may not support some kinds of public improvements. In contrast, private developers may avoid taking on a project where the infrastructure cost far exceeds profitability. This method of funding brings both the public sector and private contributor together to share in the costs of a project, or a part of a project, which inevitably lessens the overall financial burden falling onto a single source.

### **Miscellaneous Funding**

There are additional methods that are suitable for funding capital improvements. Examples of alternative funding methods are Tax Increment Financing (TIF), Impact Fees, Facility User Fees, etc. Current State legislation does not permit some of these funding methods, which have been used successfully in other states; changes in legislation could see these and other innovative methods permitted in the future.

### **Project Summary**

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The following tables include project summaries with estimated costs over the six-year period. The first column identifies an item number and the tables are followed by a numeric Project Description. Following the Project Descriptions section is the estimated future operating and maintenance cost schedule.

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## 2010-2016 CAPITAL IMPROVEMENT PROGRAM

Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Roads</b>									
1 Novi Road Link, 10 Mile to Grand River Ave. RCOC Project*	* 089-03	\$31,958,000						\$31,958,000	Municipal Street Fund/Federal/State Grant
2 Cranbrooke Drive Bridge Repair	* 097-01	\$248,000						\$248,000	Municipal Street Fund/Potential Grant
3 Neighborhood Rehabilitation, Repaving and Reconstruction Road Program	102-01	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$9,000,000	Local Street Fund/Municipal Street Fund
4 Meadowbrook Road Repaving: 10 Mile to Cherry Hill (Paser 4, asphalt)	* 082-28	\$548,400						\$548,400	Major Street Fund/Federal Grant. Engineering paid by the City.
5 Beck Road Repaving, 9 Mile to Cheltenham (Paser 3; asphalt)	082-22	\$366,600						\$366,600	Major Street Fund -Project is scaled back to only the worst areas of Beck Road near Nine Mile.
6 Northwest Quadrant of Ring Road, Grand River to Novi Rd.	082-03	\$3,662,750						\$3,662,750	Municipal Street Fund/Potential Grant
7 12 Mile Road Widening: Beck Rd. to Dixon Rd. (Bridge over CSX) Design Only	089-21		\$1,653,000					\$1,653,000	Federal \$1,322,000, Municipal Street Fund \$165,500, RCOC \$165,500
8 West Oaks Rehabilitation (Paser 4; asphalt)	092-20		\$267,200					\$267,200	Local Street Fund
9 Karim Blvd. Rehabilitation (Paser 4; asphalt)	082-18		\$157,300					\$157,300	Major Street Fund
10 Southwest Quadrant Ring Road (Flint St) Novi and Grand River (New Construction)	092-50		\$55,000				\$1,750,000	\$1,805,000	Municipal Street Fund
11 Grand River Rehabilitation Novi Rd. to Haggerty	102-02			\$2,129,000				\$2,129,000	Municipal Street Fund \$213,000; RCOC \$213,000; Fed Funds \$1,703,000
12 9 Mile Rd., Taft to Beck Rd. Rehabilitation (Paser 4-6; asphalt)	082-23			\$460,200				\$460,200	Major Street Fund/Federal Funding \$304,000. City share \$156,200.
13 8 Mile Rehabilitation, Beck to Napier (Paser 3; asphalt)	109-11			\$2,444,000				\$2,444,000	Municipal Street Fund/Federal funding
14 Town Center Drive from Grand River to 11 Mile Rd. (Paser 3; concrete to asphalt)	092-10			\$450,700				\$450,700	Major Street Fund
15 Trans-X Drive Rehabilitation (Paser 4; concrete)	082-16			\$316,600				\$316,600	Major Street Fund
16 Crescent Blvd., Novi Rd to Town Center Dr. Rehabilitation (Paser 2-4; concrete to asphalt)	082-10			\$854,200				\$854,200	Major Street Fund
17 Town Center Drive Rehabilitation: Crescent Blvd to 11 Mile Rd. (Paser 6, concrete to asphalt)	082-11				\$487,400			\$487,400	Major Street Fund

\*Projects with prior commitment, grant, etc.

Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Roads</b>									
18	Fountain Walk Dr. Rehabilitation (Paser 3; asphalt)	092-21				\$134,300		\$134,300	Local Street Fund
19	11 Mile Rd., Town Center to Meadowbrook, Rehabilitation (Paser 3; concrete)	082-12				\$826,800		\$826,800	Major Street Fund
20	Heslip Dr. Rehabilitation (Paser 4; asphalt)	082-25				\$640,700		\$640,700	Major Street Fund
21	11 Mile Rd. Repaving: Taft to Beck Rd. (Paser 7; asphalt)	082-30				\$490,000		\$490,000	Major Street Fund/Potential Grant
22	Taft Rd., 9 Mile to 10 Mile Rehabilitation (Paser 7; asphalt)	102-05				\$536,100		\$536,100	Major Street Fund/Potential federal grant opportunity (application submitted 2010)
23	Novi Rd. from 12 Mile to 13 Mile Rehabilitation (Paser 7; asphalt)	102-03				\$703,600		\$703,600	Major Street Fund/Potential federal grant opportunity (application submitted 2010)
24	Old Novi Rd. Rehabilitation (Paser 6-8; asphalt)	102-04				\$242,200		\$242,200	Major Street Fund/Potential federal grant opportunity (application submitted 2010)
25	Donelson to Sheraton and West Oaks - new road construction (as recommended in Master Plan)	082-32					\$901,000	\$901,000	Municipal Street Fund
<b>Roads Total:</b>			<b>\$38,283,750</b>	<b>\$3,632,500</b>	<b>\$8,154,700</b>	<b>\$3,589,200</b>	<b>\$3,471,900</b>	<b>\$4,151,000</b>	<b>\$61,283,050</b>

Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source	
<b>Intersections &amp; Signals</b>										
26	Traffic Control Sign Replacement Program (Regulatory Requirement)	102-10	\$51,000	\$51,000	\$51,000	\$51,000	\$12,000	\$12,000	\$228,000	Major Street Fund/Local Street Fund
27	Old Novi Rd/13 Mile/South Lake Dr.-- Intersection Improvements	086-09	\$152,000						\$152,000	Municipal Street Fund
28	Taft and 11 Mile Roads - New Roundabout	086-10	\$30,000	\$515,000					\$545,000	Major Street Fund - Design Engineering in 10-11 to prepare plans for potential grant. Remainder in 11-12.
29	13 Mile and Cabot-New Signal	086-06		\$210,000					\$210,000	Municipal Street Fund
30	Lewis and Haggerty Road - New Signal	086-07				\$210,000			\$210,000	Municipal Street Fund
31	Taft and 9 Mile Roads - New Roundabout	086-08					\$482,000		\$482,000	Major Street Fund
<b>Intersections &amp; Signals Total:</b>			<b>\$233,000</b>	<b>\$776,000</b>	<b>\$51,000</b>	<b>\$261,000</b>	<b>\$494,000</b>	<b>\$12,000</b>	<b>\$1,827,000</b>	

Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Sidewalks &amp; Pathways</b>									
32	Segment #79--Meadowbrook Rd., East side, 10 Mile to Grand River (5' Sidewalk)	095-79	\$275,200					\$275,200	Municipal Street Fund
33	Segment #145--10 Mile Rd., North side, Catherine-Myrtle (5' Sidewalk)	085-145	\$131,000					\$131,000	Municipal Street Fund
34	Segment #144--Meadowbrook West side, Grand River to Cherry Hill (8' Pathway)	105-144	\$88,000					\$88,000	Municipal Street Fund
35	Segment #15--13 Mile Rd., South side, West of Martin (5' Sidewalk Short Segment)	095-15	\$25,000					\$25,000	Municipal Fund - Potential cost savings if constructed with S Lake/13 Mile/Old Novi intersection improvements.
36	8' Wide Boardwalk Along West side of Meadowbrook Road Across the Frontage of Orchard Hills West Park.	105-00	\$164,350					\$164,350	Municipal Street Fund
37	Segment #83--9 Mile Rd., Meadowbrook to Haggerty (10' pathway for North side, Federal Grant)	085-83	\$46,500	\$274,200				\$320,700	Municipal St/Federal Funding (\$146,220) approved for 2011 (Enhancement Grant) Design Engineering & ROW acquisition in 2010.
38	Segment #92--Novi Rd., 9 Mile to 10 Mile (5' Sidewalk for West side)	085-92		\$266,000				\$266,000	Municipal Street Fund
39	Segment #10--Beck Rd., East side, South of Pontiac Trail, (5' Sidewalk Short Segment)	095-10		\$32,500				\$32,500	Municipal Street Fund
40	Segment #93--9 Mile, Novi to Taft, North side (5' Sidewalk)	095-93			\$271,600			\$271,600	Municipal Street Fund
41	Segment #76--Grand River, North side, East of Seeley, (8' Pathway Short Segment)	095-76		\$44,000				\$44,000	Water & Sewer Fund
42	Segment #62--10 Mile Rd., Eaton to Churchill (5' Sidewalk for North side)	085-62			\$125,000			\$125,000	Municipal Street Fund
43	Segment #88--9 Mile Rd., North side Novi-Railroad (5' Sidewalk)	095-88			\$205,000			\$205,000	Municipal Street Fund
44	Segment #133--Wixom Rd., Crossing North of 11 Mile (8' Pathway Short Segment)	095-133			\$25,000			\$25,000	Municipal Street Fund
45	Segment #119--Meadowbrook Rd., 8 Mile to 9 Mile (5' Sidewalk for East side)	085-119				\$321,000		\$321,000	Municipal Street Fund
46	Annual Sidewalk Short Segment Connections	105-11				\$25,000	\$25,000	\$50,000	Municipal Street Fund
47	Segment #99--10 Mile Rd., South side From Wixom to Beck Rd. (8' Pathway)	095-99					\$398,000	\$398,000	Municipal Street Fund
<b>Sidewalks &amp; Pathways Total:</b>			<b>\$730,050</b>	<b>\$572,700</b>	<b>\$315,600</b>	<b>\$355,000</b>	<b>\$346,000</b>	<b>\$423,000</b>	<b>\$2,742,350</b>

	<b>Project Name</b>	<b>DPS CIP</b>	<b>FY10-11</b>	<b>FY11-12</b>	<b>FY12-13</b>	<b>FY13-14</b>	<b>FY14-15</b>	<b>FY15-16</b>	<b>TOTAL</b>	<b>Funding Source</b>
<b>Storm Sewer &amp; Drainage</b>										
48	Civic Center Basin Improvements	093-20	\$154,900						\$154,900	Drain Fund
49	Bishop Creek and Ingersol Creek Streambank Stabilization	103-02	\$37,100						\$37,100	Drain Fund
50	Brookfarm Park Streambank Stabilization	093-05		\$100,000					\$100,000	Drain Fund/Potential Grant
51	Middle Rouge at Flint Street Streambank Stabilization	103-03		\$111,900					\$111,900	Drain Fund
52	Improvements to Thornton Basin	093-21			\$149,800				\$149,800	Drain Fund
53	Rotary Park Streambank Stabilization	093-10			\$160,900				\$160,900	Drain Fund
54	Lexington Green Basin Improvements	083-04				\$31,200			\$31,200	Drain Fund/Potential Grant
55	Improvements to Leavenworth Basin	093-22				\$99,035			\$99,035	Drain Fund
56	Bishop District New Sedimentation Dredging Near 11 Mile Rd.	093-11					\$200,800		\$200,800	Drain Fund
57	Middle Rouge Near Balcombe Dr. Streambank Stabilization	103-01						\$278,700	\$278,700	Drain Fund
<b>Storm Sewer &amp; Drainage Total:</b>			<b>\$192,000</b>	<b>\$211,900</b>	<b>\$310,700</b>	<b>\$130,235</b>	<b>\$200,800</b>	<b>\$278,700</b>	<b>\$1,324,335</b>	

	<b>Project Name</b>	<b>DPS CIP</b>	<b>FY10-11</b>	<b>FY11-12</b>	<b>FY12-13</b>	<b>FY13-14</b>	<b>FY14-15</b>	<b>FY15-16</b>	<b>TOTAL</b>	<b>Funding Source</b>
<b>Sanitary Sewer</b>										
58	Sanitary Sewer Capacity Solution	081-02	\$5,000,000						\$5,000,000	Water & Sewer Fund
59	Rehabilitation of Pipes and Structures in Area G	091-63	\$250,000						\$250,000	Water & Sewer Fund
60	Rehabilitation of Pipes and Structures in Areas B & C1	091-61		\$250,000					\$250,000	Water & Sewer Fund
61	Meadowbrook Glens Sanitary Sewer Rehabilitation	091-65		\$320,000					\$320,000	Water & Sewer Fund
62	Rehabilitation of Pipes and Structures in Areas C2 & C3	091-62			\$250,000				\$250,000	Water & Sewer Fund
63	9 Mile Sanitary Sewer Upgrade to Increase Pipe Capacity: Meadowbrook Rd.	091-71			\$200,000				\$200,000	Water & Sewer Fund
64	Rehabilitation of Pipes and Structures in Areas F1 & F2	091-64				\$250,000			\$250,000	Water & Sewer Fund
65	Rehabilitation of Pipes in Areas F3 & H	091-60					\$250,000		\$250,000	Water & Sewer Fund
66	Regency Lift Station Upgrades	091-77					\$154,000		\$154,000	Water & Sewer Fund
67	9 Mile Sanitary Sewer Upgrade to Increase Pipe Capacity: Novi Road	091-70						\$350,000	\$350,000	Water & Sewer Fund
<b>Sanitary Sewer Total:</b>			<b>\$5,250,000</b>	<b>\$570,000</b>	<b>\$450,000</b>	<b>\$250,000</b>	<b>\$404,000</b>	<b>\$350,000</b>	<b>\$7,274,000</b>	

Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Water Distribution</b>									
68	Island Lake Booster Station Study and Operation Upgrades (VFD)	091-04	\$180,000					\$180,000	Water & Sewer Fund
69	Grand River Isolation Pressure Reducing Valve (PRV)	091-07		\$351,000				\$351,000	Water & Sewer Fund
70	Garfield Road Water Main, Tuscany to 9 Mile	091-24		\$599,000				\$599,000	Water & Sewer Fund
71	13 Mile Rd. New Pressure Reducing Valve to Realign Pressure District	091-06		\$351,000				\$351,000	Water & Sewer Fund
72	Construct New 12-inch Water Main Along 12 Mile Rd. from West of Napier to Wixom	091-13		\$991,000				\$991,000	Water & Sewer Fund
73	Water Main Replacement in Willowbrook Estates II	101-01		\$1,600,000				\$1,600,000	Water & Sewer Fund
74	9 Mile-Connemara Pressure Reducing Valve Replacement	091-08			\$351,000			\$351,000	Water & Sewer Fund
75	Water Supervisory Control and Data Acquisition System (SCADA)	091-05				\$300,000		\$300,000	Water & Sewer Fund
76	16" Water Main Along 9 Mile Rd., Center to Novi Rd.	091-25		\$499,000				\$499,000	Water & Sewer Fund
77	Water Storage Facility and Appurtenances	091-09		\$500,000	\$21,023,000			\$21,523,000	Water & Sewer Fund
78	12-inch Water Main Along 8 Mile Rd., Club Lane to Turnberry	091-26			\$203,000			\$203,000	Water & Sewer Fund
79	12-inch Water Main Along 14 Mile Rd., Haverhill to Maples-New	091-16			\$140,000			\$140,000	Water & Sewer Fund
80	16" Water Main Along Meadowbrook Under I-96	091-01				\$1,044,000		\$1,044,000	Water & Sewer Fund
81	Cabot 24-inch Water Main, MacKenzie to 14 Mile Rd.	091-10				\$710,000		\$710,000	Water & Sewer Fund
82	DWSD Connection at Haggerty Booster Station	091-11					\$832,000	\$832,000	Water & Sewer Fund
83	11 Mile Rd., Water Main Gaps, Taft to Beck Rd.	091-19					\$474,500	\$474,500	Water & Sewer Fund
<b>Water Distribution Total:</b>			\$180,000	\$3,892,000	\$1,350,000	\$21,366,000	\$2,054,000	\$1,306,500	\$30,148,500

\*Projects with prior commitment, grant, etc.

Friday, February 19, 2010

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Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Parks</b>									
84	Fuerst Park Phase II - Development of Lights, Seating and Landscaping and a Formal Garden	109-07	\$305,000					\$305,000	Parks, Recreation & Cultural Services Fund
85	Power Park Access Road and Parking Lot Resurfacing in Asphalt and Pathway Resurfacing	109-04	\$285,000					\$285,000	Parks, Recreation & Cultural Services Fund/Municipal Street Fund - The pathway resurfacing was originally requested as a separate project for 14/15 but was combined with paving (+\$100k)
86	Basketball and Tennis Court Resurfacing (ITC Sports Park & Rotary Park)	109-02	\$25,000					\$25,000	Parks, Recreation & Cultural Services Fund
87	Public Property Located at S. Lake Drive and Old Novi Road on Walled Lake (Landing Property)	109-01							Parks, Recreation & Cultural Services Fund
88	Village Oaks/Orchard Hills Park Development			\$290,000				\$290,000	Potential grant; P&R/General Fund
89	Power Park Baseball Field Fencing Repair, Southern Two Diamonds	109-05		\$26,000				\$26,000	Parks, Recreation & Cultural Services Fund
90	Greenway Development Phase I - Design and Engineering	109-06		\$100,000	\$275,000	\$275,000	\$275,000	\$925,000	Parks, Recreation & Cultural Services Fund/Potential Grant
91	Tim Pope Play Structure Renovation	109-03		\$294,800				\$294,800	Parks, Recreation & Cultural Services Fund
92	Lakeshore Park Play Structure Replacement	109-08			\$75,000			\$75,000	Parks, Recreation & Cultural Services Fund
93	Rotary Park Play Structure Replacement	109-09			\$75,000			\$75,000	Federal/State Grants/Potential Grant
94	Power Park Play Structure Replacement	109-10			\$75,000			\$75,000	Federal/State Grant/Potential Grant
95	Lakeshore Park Asphalt Paved Parking Lot and Drive-New	100-002				\$100,000		\$100,000	Parks, Recreation & Cultural Services Fund/Potential Grant
96	ITC Community Sports Park Play Structure Replacement	100-003				\$75,000		\$75,000	Parks, Recreation & Cultural Services Fund/Potential Grant
97	ITC Community Sports Park Pathway Resurfacing	100-005				\$100,000		\$100,000	Parks, Recreation & Cultural Services Fund
<b>Parks Total:</b>			<b>\$615,000</b>	<b>\$710,800</b>	<b>\$500,000</b>	<b>\$550,000</b>	<b>\$275,000</b>	<b>\$2,650,800</b>	

\*Projects with prior commitment, grant, etc.

Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Other</b>									
98	Biometric Access Control System	Police	\$95,000					\$95,000	Federal Forfeiture Funds
99	Exterior Wall and Soffit Replacement & Repair - Civic Center	Facility	\$90,000					\$90,000	General Fund
100	Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper-New	DPS	\$216,000					\$216,000	General Fund
101	Fire Department Emergency Vehicle Replacement - Squad 4	Fire	\$90,000					\$90,000	General Fund
102	Four Combination V-Box Salt Spreader Inserts	DPS	\$240,000					\$240,000	General Fund
103	Civic Center Floor Replacement - Phase I: Activity Room, Multi-Purpose Room/Stage Area, and Conference Rooms A-C	Facility	\$93,400	\$50,000	\$75,000			\$218,400	General Fund
104	DPS Facility Critical Needs Assessment - Phase I Mechanical	DPS	\$155,600					\$155,600	General Fund - Additional \$68,836 provided by Energy Efficiency and Conservation Block Grant (EECBG)
105	Energy Management System - Civic Center	Facility	\$208,000					\$208,000	General Fund
106	Civic Center Atrium Window Film	Facility	\$50,000					\$50,000	General Fund
107	Civic Center Irrigation Well and Filter System	Facility	\$25,000					\$25,000	General Fund
108	Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #680-1986)	DPS		\$237,600				\$237,600	General Fund
109	Fire Department Emergency Vehicle Replacement - Squad 3	Fire		\$94,500				\$94,500	General Fund
110	DPS Facility Critical Needs Assessment - Phase II Electrical	DPS		\$312,400				\$312,400	General Fund
111	Fire Station #1 Additions and Alterations	Fire		\$2,953,000				\$2,953,000	General/Police & Fire Funds/Debt Financing
112	Small Dump Trucks with Plows (replaces #684-1991, #690-1998, #691-2001)	DPS		\$71,200	\$74,760	\$79,800		\$225,760	General Fund
113	Grass Ditching Machine (replaces #675)	DPS		\$300,000				\$300,000	General Fund
114	Mini Excavator-New	DPS		\$82,000				\$82,000	General Fund
115	Street Sweeper (replaces #606)	DPS		\$189,000				\$189,000	General Fund
116	Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #670-1988)	DPS			\$259,200			\$259,200	General Fund
117	Closed Circuit Video Monitoring System for Twelve Oaks Mall-New	Police			\$46,300			\$46,300	General Fund

\*Projects with prior commitment, grant, etc.

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Project Name	DPS CIP	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	TOTAL	Funding Source
<b>Other</b>									
118	Fire Department Emergency Vehicle Replacement - Squad 2	Fire		\$99,000				\$99,000	General Fund
119	Retrofit Fire Tower - Fire Station #4	Fire		\$159,100				\$159,100	General Fund
120	DPS Facility Critical Needs Assessment - Phase III Architectural	DPS		\$151,400				\$151,400	General Fund
121	Small 1-Ton Dump Truck-New	DPS		\$40,000				\$40,000	General Fund
122	Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #671-1988)	DPS			\$280,800			\$280,800	General Fund
123	Civic Center Roof Replacement	Facility			\$220,000			\$220,000	General Fund
124	Accountability/Telemetry System-New	Fire			\$59,800			\$59,800	General Fund
125	Bobcat All-Wheel Loader-New	DPS			\$50,000			\$50,000	General Fund
126	New Vibratory Roller	DPS			\$38,000			\$38,000	General Fund
127	Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #605-2001)	DPS				\$302,400		\$302,400	General Fund
128	Fire Engine #3 Replacement	Fire				\$588,300	\$3,500	\$591,800	Police & Fire Fund/General Fund
129	Civic Center Boiler Replacement	Facility				\$60,000		\$60,000	General Fund
130	Single-Axle Large Dump Truck With Front Plow And Underbody Scraper-New	DPS				\$252,900		\$252,900	General Fund
131	Grader (replaces #612)	DPS				\$300,000		\$300,000	General Fund
132	Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #621-2001)	DPS					\$324,000	\$324,000	General Fund
133	Police Department Renovation	Police					\$6,926,000	\$6,926,000	General Obligation Bonds/General Fund/Police & Fire Fund
134	Front-End Loader (replace #689-1995)	DPS					\$150,000	\$150,000	General Fund
135	Tandem 7-Cubic Yard Dump Truck with Underbody Scraper and Front Plow (replaces #699)	DPS					\$220,000	\$220,000	General Fund
136	Salt Dome-replace (larger)	DPS					\$235,500	\$235,500	General Fund
<b>Other Total:</b>			\$1,263,000	\$4,289,700	\$904,760	\$728,400	\$1,503,600	\$7,859,000	\$16,548,460

\*Projects with prior commitment, grant, etc.

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## 2010-2016 CAPITAL IMPROVEMENT PROGRAM PROJECT DESCRIPTIONS

### Roads

#### **1 Novi Road Link, 10 Mile to Grand River Ave. RCOC Project\***

Road Commission for Oakland County (RCOC) project to widen Novi Road to five lanes, relocate utilities and provide a bridge over the CSX Railroad. The estimated project funding is \$3,167,200 by RCOC; \$3,167,200 by Novi and the remainder is federally funded.

#### **2 Cranbrooke Drive Bridge Repair**

Perform repairs to the existing Cranbrooke Drive Bridge over Ingersol Creek. The 2008 bi-annual bridge inspection of the structure indicated that the structure is in fair to poor condition and recommended the following: repair all delaminated/spalled concrete at each abutment and existing slope protection; place additional riprap below the bridge to prevent further scour, replace the bearings, replace the beam ends, seal deck joints including removing the landscaping in the median over the bridge and placing waterproofing on the bridge deck, and perform a scour analysis. The work should be completed within two years to prevent additional damage to the bridge.

#### **3 Neighborhood Rehabilitation, Repaving and Reconstruction Road Program**

The selection of streets is determined using the PASER survey conducted in 2008. A mix of fixes (rehabilitation, repair and reconstruction) will be applied to optimize the funds used to increase the overall PASER rating for the City.

#### **4 Meadowbrook Road Repaving: 10 Mile to Cherry Hill (Paser 4, asphalt)**

Repair, mill and overlay Meadowbrook Road between 10 Mile Road and Cherry Hill (2,640 feet) to preserve useful life. Includes a continuous center left turn lane for the entire project to improve safety.

#### **5 Beck Road Repaving, 9 Mile to Cheltenham (Paser 3; asphalt)**

Reconstruction of approximately 900 feet of Beck Road from 9 Mile Road to near Beckenham and repair, mill and overlay of Beck Road from 9 Mile near Beckenham Road to Cheltenham (1,300 feet) to preserve life of roadway until reconstruction occurs in or around 2020.

**6 Northwest Quadrant of Ring Road, Grand River to Novi Rd.**

Proposed construction of a 1,300 foot long, four lane boulevard connecting Novi Road and Grand River Avenue in the northwest quadrant of the intersection, and a 650 foot long industrial spur road. Project includes a bridge over the Rouge River, repaving of Fonda and new signals at Novi Road and Grand River Avenue intersections. Final design was funded in fiscal year 2009-10.

**7 12 Mile Road Widening: Beck Rd. to Dixon Rd. (Bridge over CSX) Design Only**

Road Commission for Oakland County (RCOC) project to widen 12 Mile Road as a four lane boulevard to transition from Dixon Road to Beck Road, including construction of a bridge over the CSX Railroad. This project has received funding for preliminary engineering ONLY in 2011, but is shown on the Regional Transportation Plan (RTP) for construction in 2016-2020. (7,340 feet). The SEMCOG Transportation Improvement Plan shows federal funding of \$1,322,000. The city's share is \$165,500 and RCOC share is \$165,500.

**8 West Oaks Rehabilitation (Paser 4; asphalt)**

Repair and repave West Oaks Drive from Novi Road to Donelson Drive (1,750 feet). Includes traffic safety improvements.

**9 Karim Blvd. Rehabilitation (Paser 4; asphalt)**

Repair, mill and overlay Karim Blvd between 10 Mile Road and Grand River Avenue (1,771 feet) to extend the useful life of the roadway.

**10 Southwest Quadrant Ring Road (Flint St) Novi and Grand River (New Construction)**

Construction of a realignment of Flint Street to provide a connection to the ring road at the northwest quadrant of Grand River Avenue and Novi Road. The study was recommended by the Ring Road study for the Northwest Quadrant.

**11 Grand River Rehabilitation Novi Rd. to Haggerty**

The pavement surface is currently rated a 2, 3, 4 and has been selected for federal funding in 2012 for extensive rehabilitation and repaving.

**12 9 Mile Rd., Taft to Beck Rd. Rehabilitation (Paser 4-6; asphalt)**

Pavement repairs and rehabilitation of one mile of 9 Mile from Taft to Beck to extend the useful life of the roadway.

**13 8 Mile Rehabilitation, Beck to Napier (Paser 3; asphalt)**

Repair and repaving of 8 Mile Road from Beck to Napier Road (Road Commission for Oakland County project).

**14 Town Center Drive from Grand River to 11 Mile Rd. (Paser 3; concrete to asphalt)**

Reconstruction of Town Center Drive from Grand River to 11 Mile (650 feet) as an asphalt road.

**15 Trans-X Drive Rehabilitation (Paser 4; concrete)**

Partial reconstruction of discrete areas of Trans-X Road along with preventative maintenance for the remainder of the segment. Originally proposed as a reconstruction in the amount of \$886,800, however rehabilitation will preserve the road at a lower cost.

**16 Crescent Blvd., Novi Rd to Town Center Dr. Rehabilitation (Paser 2-4; concrete to asphalt)**

Rehabilitation of Crescent Blvd from Novi Road to Town Center Drive (1,800 feet) to provide a new smooth pavement surface in asphalt and to preserve the life of road.

**17 Town Center Drive Rehabilitation: Crescent Blvd to 11 Mile Rd. (Paser 6, concrete to asphalt)**

Rehabilitation of existing Town Center Drive from Crescent Blvd to 11 Mile Road (1,600 feet) to provide a smooth asphalt surface and to extend the useful life of the roadway.

**18 Fountain Walk Dr. Rehabilitation (Paser 3; asphalt)**

Repair and repave Fountain Walk Drive from the I-96 ramp to Donelson (950 feet) to extend the useful life of the roadway.

**19 11 Mile Rd., Town Center to Meadowbrook, Rehabilitation (Paser 3; concrete)**

Rehabilitation of existing 11 Mile Road from Town Center to west of Meadowbrook (3,100 feet) to provide a smooth asphalt surface and extend the life of the road.

**20 Heslip Dr. Rehabilitation (Paser 4; asphalt)**

Rehabilitation of Heslip Drive from 9 Mile Road to the end (2,050 feet) to provide a smooth asphalt pavement surface and extend the life of the roadway.

**21 11 Mile Rd. Repaving: Taft to Beck Rd. (Paser 7; asphalt)**

Repair and repaving of 11 Mile Road between Taft Road and Beck Road (5,280 feet). Includes the addition of a dedicated right turn lane for westbound 11 Mile Road at Beck Road as recommended in Beck Road Scoping Study short term capacity improvements.

**22 Taft Rd., 9 Mile to 10 Mile Rehabilitation (Paser 7; asphalt)**

Rehabilitation of one mile of Taft Road from 9 Mile Road to 10 Mile Road to provide a smooth asphalt surface and extend the life of the road.

**23 Novi Rd. from 12 Mile to 13 Mile Rehabilitation (Paser 7; asphalt)**

Rehabilitation of Novi Road from 12 Mile Road to 13 Mile Road (6,700 feet) to provide a smooth asphalt surface and extend the life of the road.

**24 Old Novi Rd. Rehabilitation (Paser 6-8; asphalt)**

Rehabilitation of Old Novi Road from Novi Road to 13 Mile Road (2,300 feet) to provide a smooth asphalt surface and extend the life of the road.

**25 Donelson to Sheraton and West Oaks - new road construction (as recommended in Master Plan)**

Proposed new road south of existing West Oaks development connecting West Oaks Drive to Donelson and providing access to the business that currently have access from Sheraton Drive. The project would include changes to existing Sheraton Drive and West Oaks Drive. Requires property owner cooperation or acquisition of right-of-way. This project was proposed in the 2007 Master Plan for Land Use update. (Total length 2,920 feet).

**Intersections & Signals**

**26 Traffic Control Sign Replacement Program (Regulatory Requirement)**

Replacement of regulatory (stop, yield, speed limit, etc), warning signs (with yellow background), guide signs (with green background) and street name signs to meet new federal retro reflectivity requirements. All regulatory, warning, and ground mounted guide signs must be replaced with upgraded material to meet the retro electivity requirements by January 2015. All street name signs must be replaced with the new material by January 2018. There are a total of 3,900 signs that require replacement based on the 2008 inventory at a total cost of \$325,800 over the next 4 to 7 years; which began in 2009-10.

**27 Old Novi Rd/13 Mile/South Lake Dr.-- Intersection Improvements**

Removal of existing traffic signal, installation of three-way stop signs, and intersection improvements to better facilitate traffic.

**28 Taft and 11 Mile Roads - New Roundabout**

Construct a modern roundabout at the intersection of Taft Road and 11 Mile Road. The roundabout would eliminate the existing four-way stop control and act as a traffic calming measure. There is existing right-of-way available on two of the four corners. Roundabouts not only act as a traffic calming measure (slowing traffic down) but are also safer by eliminating the head-on and angle crashes which tend to cause injury.

**29 13 Mile and Cabot-New Signal**

Construct a new traffic signal for 13 Mile and Cabot Drive based on anticipated future need.

**30 Lewis and Haggerty Road - New Signal**

Construct a new traffic signal for the intersection of Lewis Drive and Haggerty Road based on anticipated future need.

**31 Taft and 9 Mile Roads - New Roundabout**

Construct a modern roundabout at the intersection of Taft Road and 9 Mile Road. The roundabout would eliminate the existing four-way stop control and act as a traffic calming measure. Roundabouts not only act as a traffic calming measure (slowing traffic down) but are also safer by eliminating the head-on and angle crashes which tend to cause injury.

<b>Sidewalks &amp; Pathways</b>
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**32 Segment #79--Meadowbrook Rd., East side, 10 Mile to Grand River (5' Sidewalk)**

Construct 2,310 feet of 5' sidewalk in 3 segments along the east side of Meadowbrook Road from 10 Mile to Grand River. Project also includes the construction of a 200 feet length of 5-foot wide sidewalk to fill two gaps along the north side of 10 Mile Road from Meadowbrook Road to Haggerty Road. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.

**33 Segment #145--10 Mile Rd., North side, Catherine-Myrtle (5' Sidewalk)**

Construction of 1,150 feet of 5-foot wide sidewalk to fill a gap along the north side of 10 Mile Road from Myrtle to Catherine Industrial Road, including a crossing of the Rouge River and CSX railroad. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.

**34 Segment #144--Meadowbrook West side, Grand River to Cherry Hill (8' Pathway)**

Construction of 700 feet of 8-foot wide pathway along the west side of Meadowbrook Road from Cherry Hill to Grand River. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.

**35 Segment #15--13 Mile Rd., South side, West of Martin (5' Sidewalk Short Segment)**

Construction of 300 ft of 5' sidewalk along the south side of 13 Mile, west of Martin Avenue.

- 36 8' Wide Boardwalk Along West side of Meadowbrook Road Across the Frontage of Orchard Hills West Park.**  
Construction of approximately 600 feet of 8-foot wide boardwalk to replace the existing 8' concrete sidewalk along Meadowbrook Road across the frontage of Orchard Hills West Park. The existing sidewalk was constructed by a developer and experiences flooding and icing due to poor drainage. A culvert was originally investigated to solve the drainage issue, but will not work due to the large area of flooding on the pathway and the existing elevation of the roadside ditch.
- 37 Segment #83--9 Mile Rd., Meadowbrook to Haggerty (10' pathway for North side, Federal Grant)**  
Construction of 3,800 feet of 5-foot wide sidewalk along the north side of 9 Mile Road from Meadowbrook Road to Haggerty Road. The project was awarded a federal transportation enhancement grant in the amount of \$146,220 for 2011, however all right-of-way/easements must be acquired by April 2011, therefore design and right-of-way acquisition are requested for FY10-11. As a federally funded project, the design must meet certain federal standards including a required 10' width and 2' clear zone along the route of the path.
- 38 Segment #92--Novi Rd., 9 Mile to 10 Mile (5' Sidewalk for West side)**  
Construction of 2,800 feet of 5-foot wide sidewalk to fill four gaps along the west side of Novi Road from 10 Mile Road to 9 Mile Road. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.
- 39 Segment #10--Beck Rd., East side, South of Pontiac Trail, (5' Sidewalk Short Segment)**  
Construct 200 feet of 5' sidewalk along the east side of Beck Road across the frontage of K & S Plaza, South of Pontiac Trail to fill an existing gap in the sidewalk system.
- 40 Segment #93--9 Mile, Novi to Taft, North side (5' Sidewalk)**  
Construction of 3,200 feet of 5-foot wide sidewalk along the north side of 9 Mile Road from Novi Road to Taft Road. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.
- 41 Segment #76--Grand River, North side, East of Seeley, (8' Pathway Short Segment)**  
Construct 180 feet of 8' pathway along the north side of Grand River just east of Seeley Road.
- 42 Segment #62--10 Mile Rd., Eaton to Churchill (5' Sidewalk for North side)**  
Construction of 400 feet of boardwalk to fill a gap along the north side of 10 Mile Road from Eaton Center to Churchill Crossing. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.

**43 Segment #88--9 Mile Rd., North side Novi-Railroad (5' Sidewalk)**

Construction of 1,750 feet of 5-foot wide sidewalk along the north side of 9 Mile Road from Novi Road to CSX Railroad.

**44 Segment #133--Wixom Rd., Crossing North of 11 Mile (8' Pathway Short Segment)**

Construction of approximately 75 feet of 8' pathway and associated ramps to cross Wixom Road north of 11 Mile.

**45 Segment #119-Meadowbrook Rd., 8 Mile to 9 Mile (5' Sidewalk for East side)**

Construction of 3,800 feet of 5-foot wide sidewalk to fill two gaps along the east side of Meadowbrook Road from 8 Mile Road to 9 Mile Road. This project was identified as a top 20 priority segment by the 2009 Update to the Pathway and Sidewalk Prioritization Analysis.

**46 Annual Sidewalk Short Segment Connections**

Short segments of sidewalk gap that have a construction cost of less than \$25,000 are selected annually for design and construction.

**47 Segment #99--10 Mile Rd., South side From Wixom to Beck Rd. (8' Pathway)**

Construction of 3,500 feet of 8' pathway along the south side of 10 Mile in two segments from Wixom to Beck

<b>Storm Sewer &amp; Drainage</b>
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**48 Civic Center Basin Improvements**

Improve the existing regional detention basin to provide additional attenuation (flow rate reduction to prevent downstream flooding) in the following manner: upgrade the control structure to properly restrict flows during storm events and avoid debris collection, repair/clean around inlet and outlet pipes, improve accessibility to outlet control structure by installing access drive. This project was recommended by the Phase II Storm Water Master Plan.

**49 Bishop Creek and Ingersol Creek Streambank Stabilization**

Stabilization of streambanks near the confluence of the Bishop Creek and Ingersol Creek.

**50 Brookfarm Park Streambank Stabilization**

Stabilization of Ingersol Creek stream bank from Willowbrook to confluence with Bishop Creek. This project was recommended by Phase I Storm Water Master Plan.

#### **51 Middle Rouge at Flint Street Streambank Stabilization**

Stabilization of Middle Rouge River streambanks upstream of Flint Street and Novi Road.

#### **52 Improvements to Thornton Basin**

Improve the existing regional detention basin to provide additional attenuation (flow rate reduction to prevent downstream flooding) in the following manner: retrofitting the control structure to properly restrict flows during storm events and avoid debris collection, and improve accessibility to outlet control structure by installing access drive. The project also includes native buffer plantings. This project was recommended by the Phase II Storm Water Master Plan.

#### **53 Rotary Park Streambank Stabilization**

Stabilization of Middle Rouge River streambanks within Rotary Park. The project was recommended by Phase I Storm Water Master Plan.

#### **54 Lexington Green Basin Improvements**

Improve the existing regional detention basin to provide additional attenuation (flow rate reduction to prevent downstream flooding) in the following manner: retrofit and/or repair the control structure to properly restrict flows during storm events. This project was recommended by the Phase II Storm Water Master Plan.

#### **55 Improvements to Leavenworth Basin**

Improve the existing regional detention basin to provide additional attenuation (flow rate reduction to prevent downstream flooding) in the following manner: retrofit and/or repair the control structure to properly restrict flows during storm events, remove sediment that has accumulated in the basin and improve accessibility to outlet control structure by installing access drive. This project was recommended by the Phase II Storm Water Master Plan.

#### **56 Bishop District New Sedimentation Dredging Near 11 Mile Rd.**

Project to address the sedimentation within the wetland south of 11 Mile and west of Meadowbrook. Potential dredging to remove accumulated sediment. Includes streambank stabilization upstream and downstream of 11 Mile Road. The project was recommended by the Phase 1 Storm Water Master Plan.

#### **57 Middle Rouge Near Balcombe Dr. Streambank Stabilization**

Stabilization of Middle Rouge River streambanks north of Balcombe Drive. Project may include removal of several small wooden dams. Park area recently acquired by City of Novi, and contains a conservation easement.

## Sanitary Sewer

### **58 Sanitary Sewer Capacity Solution**

This project would provide a solution to the future sanitary sewer capacity needs of the City by purchasing capacity from either a downstream community or a contribution to a project that provides storage. The need for the additional capacity was discussed in the Capacity, Management, Operations and Maintenance (CMOM) capacity report completed in FY05-06.

### **59 Rehabilitation of Pipes and Structures in Area G**

Capital Preventative Maintenance on sanitary sewers in sub-district G. The Sanitary Sewer Evolution Survey (SSES) activities and Cleaning and Televising would be conducted as maintenance activities prior to this project to determine specific locations to be rehabilitated. The rehabilitation could include structural repairs, root intrusion repairs, repairs of defective taps and other repairs needed to remove inflow and infiltration from the system. Inflow and infiltration is groundwater and surface water sources (non-sewage) that enter the system and increase treatment costs and decrease available capacity.

### **60 Rehabilitation of Pipes and Structures in Areas B & C1**

Capital Preventative Maintenance on sanitary sewers in sub-district B & C1. The Sanitary Sewer Evaluation Survey (SSES) activities and Cleaning and Televising would be conducted as maintenance activities prior to this project to determine specific locations to be rehabilitated. The rehabilitation could include structural repairs, root intrusion repairs, repairs of defective taps and other repairs needed to remove inflow and infiltration from the system. Inflow and infiltration is groundwater and surface water sources (non-sewage) that enter the system and increase treatments costs and decrease available capacity..

### **61 Meadowbrook Glens Sanitary Sewer Rehabilitation**

The existing sanitary sewers in Meadowbrook Glens have experienced problems with inflow/infiltration which is compounded by the accumulation of mineral deposits inside the pipe. Inflow and infiltration is groundwater and surface water sources (non-sewage) that enter the system and increase treatment costs and decrease available capacity.

## **62 Rehabilitation of Pipes and Structures in Areas C2 & C3**

Capital Preventative Maintenance on sanitary sewers in sub-district C2 & C3. The Sanitary Sewer Evaluation Survey (SSES) activities and Cleaning and Televising would be conducted as maintenance activities prior to this project to determine specific locations to be rehabilitated. The rehabilitation could include structural repairs, root intrusion repairs, repairs of defective taps and other repairs needed to remove inflow and infiltration from the system. Inflow and infiltration is groundwater and surface water sources (non-sewage) that enter the system and increase treatment costs and decrease available capacity.

## **63 9 Mile Sanitary Sewer Upgrade to Increase Pipe Capacity: Meadowbrook Rd.**

Development and construction of a solution to the future capacity problems in the sanitary sewer along 9 Mile Road east of Meadowbrook Road as identified in the 2006 sewer capacity report. There is a "bottleneck" at this location that decreases the flow capacity of the trunk sewer.

## **64 Rehabilitation of Pipes and Structures in Areas F1 & F2**

Capital Preventative Maintenance on sanitary sewers in sub-district F1 & F2. The Sanitary Sewer Evaluation Survey (SSES) activities and Cleaning and Televising would be conducted as maintenance activities prior to this project to determine specific locations to be rehabilitated. The rehabilitation could include structural repairs, root intrusion repairs, repairs of defective taps and other repairs needed to remove inflow and infiltration from the system. Inflow and infiltration is groundwater and surface water sources (non-sewage) that enter the system and increase treatment costs and decrease available capacity.

## **65 Rehabilitation of Pipes in Areas F3 & H**

Capital Preventative Maintenance on sanitary sewers in sub-district F3 & H. The Sanitary Sewer Evaluation Survey (SSES) activities and Cleaning and Televising would be conducted as maintenance activities prior to this project to determine specific locations to be rehabilitated. The rehabilitation could include structural repairs, root intrusion repairs, repairs of defective taps and other repairs needed to remove inflow and infiltration from the system. Inflow and infiltration is groundwater and surface water sources (non-sewage) that enter the system and increase treatment costs and decrease available capacity.

## **66 Regency Lift Station Upgrades**

Purchase and installation of an on-site generator for the station.

## **67 9 Mile Sanitary Sewer Upgrade to Increase Pipe Capacity: Novi Road**

Development and construction of a solution to the future capacity problems in the sanitary sewer along 9 Mile Road west of Novi Road as identified in the 2006 Sewer Capacity Report. There is a "bottleneck" at this location that decreases the flow capacity of the trunk sewer.

### **Water Distribution**

## **68 Island Lake Booster Station Study and Operation Upgrades (VFD)**

Rehabilitate or replace Island Lake Pump Station jockey pump motor with a variable frequency drive (VFD) and revised controls and operation procedures of the station to supply a constant discharge pressure of 80 psi during low flow time periods. The rehabilitation should include: upgrading the jockey pump capacity to operate the VFD at the required flow rates, and replacement of the existing jockey pump check valve with a properly sized valve to meet pump performance requirements. Also, develop a study of the Island Lake pressure district to identify operational and cost benefits of supplying the north end of the district from the intermediate pressure district and expanding the existing district to the south where there are higher ground elevations as future demands develop.

## **69 Grand River Isolation Pressure Reducing Valve (PRV)**

Install a PRV at Grand River Avenue just west of Lanny's Road. The PRV should allow water to flow towards the West Park Pump Station. This will allow West Park Pump Station to better maintain pressures on the west side of the system. This location is preferred because it prevents creating a dead end 16-inch water main with no demands on it. By utilizing a PRV rather than an isolation or check valve, the PRV direction provides redundancy to the west automatically if the West Park Pump Station or the West Park I-96 crossing fails and still has the option to reverse its flow direction with controls should the Novi Road crossing ever fail.

## **70 Garfield Road Water Main, Tuscany to 9 Mile**

Construction of a water main along Garfield Road to connect the 9 Mile water main constructed in fiscal year 2005-6 with the water main to be constructed for Tuscany Reserve on 8 Mile Road. The water main connection is intended to improve system reliability and pressures in the southwest portion of the City.

The project was originally funded for FY08-09, however, the connecting water main for Tuscany Reserve has not been constructed. It was projected for construction in this fiscal year, but was not because of the economic slowdown.

**71 13 Mile Rd. New Pressure Reducing Valve to Realign Pressure District**

Install a PRV on Thirteen Mile Road just west of Novi Road. The PRV should maintain downstream hydraulic grade line of approximately 1,091 feet. This will eliminate the need for a PRV at Cabot Road and the PRV at Twelve Mile Road and Meadowbrook Road will no longer be required.

**72 Construct New 12-inch Water Main Along 12 Mile Rd. from West of Napier to Wixom**

Construction of a 12-inch water main along 12 Mile Road to connect to the existing long dead-end water main serving Knightsbridge Gate to the water main on Wixom Road. Includes a Pressure Reducing Valve (PRV) in a location that is to be determined to separate the Island Lake pressure district.

**73 Water Main Replacement in Willowbrook Estates II**

The existing water main within the subdivision is 6-inch asbestos cement (AC) pipe. The 6-inch diameter is smaller than the current standard of 8-inch and the AC material is not durable. There were four water main breaks in this sub in 2008 and another one in 2009 due to failure of the water main. The primary area of concern is on W Lebest, however the water main throughout the entire subdivision should be replaced. The project will entail replacing the aging 6-inch Asbestos Cement (AC) watermain with High Density Polyethylene (HDPE) pipe. The pipe bursting technique has been proven to limit the down time associated with watermain replacement to hours and still meet all MDEQ standards for pipe installation. The bursting technique involves replacement and then reconnecting all services and fire hydrants back to the watermain. The Willowbrook Estates # 2 has 11,300 feet of watermain that needs replacement.

**74 9 Mile-Connemara Pressure Reducing Valve Replacement**

Replace existing pressure reducing valve from a 2-inch PRV to a larger PRV (which will be determined during project design).

**75 Water Supervisory Control and Data Acquisition System (SCADA)**

Installation of city-wide SCADA system for the water distribution system. The sanitary sewer SCADA installation is nearing completion. The SCADA for the water distribution system would provide monitoring and some control capabilities at the booster stations, the metering stations at the connections to Detroit Water and Sewerage Department (DWSD) and the pressure reducing valves.

**76 16" Water Main Along 9 Mile Rd., Center to Novi Rd.**

Extend a 16-inch water main approximately 2,400 feet from the existing 16-inch water main on 9 Mile Road east of Center St to the east to the existing water main at Novi Road and 9 Mile Road.

## **77 Water Storage Facility and Appurtenances**

Provide storage for the purposes of becoming a Maximum Day Demand customer from DWSD, rather than a Peak Hour Demand Customer. • Install an 8 million gallon (MG) ground storage tank with an 18.6 million gallon per day (MGD) pump station on available property near the Walled Lake-Novı Waste Water Treatment Plant on the north side of the City near West Park Drive. • Install a new 24-inch water main approximately 700 feet from the ground storage tank location to the west to the existing 24-inch water main on West Park Drive. • Install a new 24-inch water main approximately 6,700 feet from the ground storage tank location to the east to the existing 24-inch water main at 12 ½ Mile Road and Dixon Road. • Install a Pressure Reducing Valve (PRV) on Dixon Road. • Install a 24-inch connection from the high pressure side of the PRV at Novi Road and 12 ½ Mile Road to the existing 24-inch water main in 12 ½ Mile Road. • Install flow control valves (FCV) at all DWSD connections on the north side of the City.

## **78 12-inch Water Main Along 8 Mile Rd., Club Lane to Turnberry**

Extend a 12-inch water main approximately 1300 feet from the existing 12-inch water main at 8 Mile Road and Club Lane to the east to the existing 12-inch water main on 8 Mile Road east of Cambridge.

## **79 12-inch Water Main Along 14 Mile Rd., Haverhill to Maples-New**

Extend a 12-inch water main approximately 900 feet from the existing 12-inch water main west of Kingswood and 14 Mile Road to the existing 12-inch water main off of the northeast loop of Columbia Drive in Maples. This connection will increase area fire flows by over 1,000 gallons per minute.

## **80 16" Water Main Along Meadowbrook Under I-96**

Installation of approximately 2,000 feet of 16-inch water main along Meadowbrook Road underneath I-96 and install a pressure reducing valve (PRV) on the north side of I-96. This improvement will allow for a third connection of I-96. Approximately 95% of the water supply for the City is delivered from the DWSD feeds on Pontiac Trail/Fourteen Mile Road.

## **81 Cabot 24-inch Water Main, MacKenzie to 14 Mile Rd.**

Construction of a 24-inch water main from the existing water main at Cabot and MacKenzie, north approximately 2,600 feet to the existing DWSD stub at Haggerty Booster Station.

**82 DWSD Connection at Haggerty Booster Station**

Install a new master meter connection to DWSD along with a pressure reducing valve (PRV). If this additional connection to DWSD is constructed after the CIP project to construct an 8 million gallon water storage tank a flow control valve will also be required at this location estimated cost for this is an additional \$350,000, potentially increasing this project to \$1,182,000.

**83 11 Mile Rd., Water Main Gaps, Taft to Beck Rd.**

Complete the 12-inch water main on 11 Mile from Beck to Taft. The project includes a total of 4,000 feet of 12-inch water main .

<b>Parks</b>
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**84 Fuerst Park Phase II - Development of Lights, Seating and Landscaping and a Formal Garden**

This phase will add 28 additional light poles throughout the park and uplights at signage (including electricity needs). Additional seating will be incorporated by adding 8 park benches and about 80 large boulders. This phase will also include the wildflower planting that bisects the property and formal gardens in place of barn foundations.

**85 Power Park Access Road and Parking Lot Resurfacing in Asphalt and Pathway Resurfacing**

The 9,700 sq. yd. drive and parking area associated with Ella Mae Power Park is crumbling and cracked. This access is utilized annually by numerous softball players and parents parking to watch their children participate in athletic events. The parking area accommodates approximately 200 spaces and is utilized April through November. Removal and replacement of the parking area and access road with 4" of asphalt and 8" of compacted stone is estimated to cost approximately \$5.00 per sq. yd. The pathway system in the park is vital to mobility between athletic fields, facilities and to the health and welfare of park patrons. There is nearly 1 mile of pathway at Ella Mae Power Park in need of resurfacing. This will revitalize the pathway system and support the active, healthy lifestyle we provide to our citizens.

**86 Basketball and Tennis Court Resurfacing (ITC Sports Park & Rotary Park)**

Resurface four 10 year old tennis courts and two basketball courts which have cracked asphalt and heaved net stanchions. The six courts total approximately 21,000 sq. ft. industry pricing standards are approximately \$1.00 per sq. ft. for resurfacing, an additional \$4,000 would be used to seal cracks. The project would be completed by the end of the fourth quarter for the respective year.

**87 Public Property Located at S. Lake Drive and Old Novi Road on Walled Lake (Landing Property)**

In FY09-10, a consultant conducted a land use analysis to determine the best use of the property located at S. Lake Drive and Old Novi Road on Walled Lake. The consultant created a conceptual plan for the property as a park. City Council determined the property could best serve the community as a park and requested further refinement of the conceptual plan and consideration to submit a grant application for the development of the park. If successful, the grant would provide initial development of the park.

**88 Village Oaks/Orchard Hills Park Development**

Park development with potential grant opportunity.

**89 Power Park Baseball Field Fencing Repair, Southern Two Diamonds**

Approximately 2,000 linear feet of bottom rail and mounting hardware is required to secure the fences on the two southern diamonds at Ella Mae Power Park. The bottom rail, mounting hardware and labor are approximately \$6.00 per linear foot. The fence wire has also been damaged in several areas from batting practice (soft toss) . The department estimates that approximately 1,000 feet of 6' fabric needs to be replaced as a result of this activity. The 6-guage fencing material installed on existing posts is approximately \$14.00 per linear foot.

**90 Greenway Development Phase I - Design and Engineering**

To plan and build a paved, greenway for recreational use along the ITC transmission corridor and eventually connect with Oakland County Regional Greenway System.

**91 Tim Pope Play Structure Renovation**

The current play structure located at ITC Community Sports Park is 12 years old and is showing signs of accelerated wear.

**92 Lakeshore Park Play Structure Replacement**

This project would remove one of two existing structures at the park. The structure would be replaced with a new accessible structure developed for children ages 2-12.

**93 Rotary Park Play Structure Replacement**

This project would remove the existing structure and replace it with a new accessible structure developed for children ages 2-12 .

**94 Power Park Play Structure Replacement**

Ella Mae Power Park currently has two structures. The newest structure is designed for children ages 5-12 and the older unit is designed for ages 2-5. This project would remove the existing structure in the first quarter and replace it with a new accessible structure developed for children ages 2-5 by the end of the third quarter.

**95 Lakeshore Park Asphalt Paved Parking Lot and Drive-New**

Reduce maintenance costs for Lakeshore Park's lot and drives by replacing gravel surfaces with asphalt.

**96 ITC Community Sports Park Play Structure Replacement**

This project would remove one of two existing structures in the first quarter and replace it with a new accessible structure developed for children ages 2-12 by the end of the third quarter.

**97 ITC Community Sports Park Pathway Resurfacing**

This project will revitalize the park pathway system and support the active, healthy lifestyle we provide to our citizens.

<b>Other</b>
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**98 Biometric Access Control System**

The Biometric Access Control System is a system that is web enabled and used to track, secure and provide full accountability of critical assets. It is the intent of the Police Department to use the system as a tool for efficient equipment security and management of the armory. The system individually secures items in lockers or gun racks and allows officers access to them through a touch screen kiosk. The administrator of the system will be able to manage the system remotely through a standard web browser. System includes a basic kiosk station which consists of a touch-screen PC reader for asset identification, biometric fingerprint reader for authentication and locker storage.

**99 Exterior Wall and Soffit Replacement & Repair - Civic Center**

The exterior soffit is pulling away from the Civic Center Facility from expansion of water that has come in through the block façade since the facility was constructed. The soffit needs to be inspected and repaired. Funding will also be used to seal mortar that has cracked on the east side of the facility and repair cracked blocks on supporting columns. Attached estimate adjusted for additional repairs.

**100 Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper-New**

The new dump truck will be utilized to transport materials and equipment, road maintenance and drainage work, and snow removal operations. The truck will come equipped with a new V-Box insert which has the ability to reduce annual salt consumption by 30% compared to conventional methods.

**101 Fire Department Emergency Vehicle Replacement - Squad 4**

Vehicle is a transport capable basic life support (BLS) medium-duty vehicle. Squad 4 is a 1999 McCoy Miller Freightliner ambulance with 54,178 miles. This vehicle is in fair/poor condition after ten years of service. There has been notable service on the engines and transmissions. The paint is deteriorating and corrosion is quite visible. Although we do not regularly transport, these vehicles are integral to delivery of EMS. The replacement squad vehicle is smaller Type III unit with a shorter wheelbase and smaller modular body. It will be a van-type chassis with a reduced price, frame and size with a slightly shorter projected life. This vehicle replacement is a viable alternate to the ICMA Staffing and Utilization recommendation.

**102 Four Combination V-Box Salt Spreader Inserts**

The next step in the City's snow and ice removal program is to enhance winter maintenance functions on four tandem axle dump trucks. Combination truck box inserts are designed to carry granular rock salt and liquid anti icing solutions that can assist with winter snow and ice control and summer dust suppression on gravel roads. The combination unit is a "V-Box" that slides into the existing dump body from a self-supporting leg kit. It is equipped with liquid tanks carrying up to 720 gallons of liquid, a reversible continuous belt cross conveyor, salt slurry generator, spinner and anti-ice boom system that can de-ice up to three lanes of traffic at one time.

**103 Civic Center Floor Replacement - Phase I: Activity Room, Multi-Purpose Room/Stage Area, and Conference Rooms A-C**

This project will be broken down into three phases and is intended to replace all of the original flooring in the Civic and Community Centers in either Carpet or Wood (to be determined). Phase I includes the Activity Room, Multi-Purpose Room/Stage Area and Conference Rooms A-C \$93,400. Phase II includes replacement of all original flooring in the Treasury, Community Development, Human Resources and Parks departments. Phase III includes replacement of all the flooring on the 2nd floor. For the relocation of office furniture, removal and disposal of the original floor and new installation, the project is estimated to cost \$45.00 per square yard or \$5.00 per square foot. The Civic Center Campus Public Programming Venture Team identified new initiatives and reprioritized the 2009-2010 CIP carpet replacement program to help increase Community Center rentals. The \$40,000 for carpeting in Phase I that was approved in the City's 2009-2010 budget would be applied to the cost of Phase I. The attached cost estimate is for proposed building improvements that would be implemented in multi-phases.

#### **104 DPS Facility Critical Needs Assessment - Phase I Mechanical**

This project addresses the critical needs of the DPS facility as identified in the 2006 Facility Needs Master Plan prepared by Wold Architects and Engineers, Mechanical needs include: repairing the garage make-up air unit, the furnace and exhaust fans for the workshop, furnaces and air conditioning and exhaust fans for the Parks and Forestry Bay. This project does not include the replacement of the air handling unit/furnace that was approved for funding under the EECBG program.

#### **105 Energy Management System - Civic Center**

Automated Energy Management System that would allow staff to digitally regulate thermal zones throughout the Civic and Community Centers. This system can be programmed/controlled from remote locations and allows energy efficient thermal regulation of the facility. Facility Operations staff could control individual heating and cooling zones and regulate airflow throughout the building.

#### **106 Civic Center Atrium Window Film**

Colored window film installed on Atrium windows.

#### **107 Civic Center Irrigation Well and Filter System**

Installation of a well for irrigation purposes at the Civic Center and Police Department. The well would also include an iron removal system so that staining of sidewalks, signage, etc. does not occur.

#### **108 Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #680-1986)**

Dump truck to replace existing truck (#680). The dump truck is utilized to transport materials and equipment, road maintenance and drainage work, and snow removal operations. The replacement truck will come equipped with a new V-Box insert which has the ability to reduce annual salt consumption by 30% compared to conventional methods.

#### **109 Fire Department Emergency Vehicle Replacement - Squad 3**

Vehicle is a transport-capable basic life support (BLS) medium-duty vehicle. Squad 3 is a 1999 McCoy Miller Freightliner ambulance with 50,410 miles. This vehicle is in fair/poor condition after ten years of service. There has been notable service on the engine and transmission. The paint is deteriorating and corrosion is quite visible. Although we do not regularly transport, these vehicles are integral to delivery of EMS. The replacement squad vehicle is a smaller Type III unit with a shorter wheelbase and smaller modular body. It will be a van-type chassis with a reduced price, frame and size with a slightly shorter projected life. This vehicle replacement is a viable alternate to the ICMA Staffing and Utilization recommendation.

### **110 DPS Facility Critical Needs Assessment - Phase II Electrical**

This project addresses the critical electrical needs of the DPS facility as identified in the 2006 Facility Needs Master Plan prepared by Wold Architects & Engineers and includes; Electrical needs include: upgrading the electrical service branch circuiting to accommodate mechanical improvements, upgrading generator system to separate life safety devices from non-life safety devices (new generator breaker, transfer switch 480v panel, transformer and 208v panel), new switchgear and distribution panels for new mechanical units.

### **111 Fire Station #1 Additions and Alterations**

Update Fire Station #1 according to the architectural analysis/needs assessment presented by CDPA Architects in August 2007. The expansion/renovation would include an added area of 2,100 sq. ft. and a reconfiguration of the existing 6,700 sq. ft. The specific improvements would include new locker/toilet/shower rooms for men and women, meeting/conference rooms for administrative staff and emergency response personnel, security and video monitoring of building and site, and improved kitchen/dormitory/workout areas. In addition, technological improvements in emergency notification, radio communication, video teleconferencing and data entry would be completed for all Fire Department employees. The projected cost will include engineering and construction.

### **112 Small Dump Trucks with Plows (replaces #684-1991, #690-1998, #691-2001)**

Utilized daily to transport materials for road maintenance, drainage activities, and snow removal operations.

### **113 Gradall Ditching Machine (replaces #675)**

A Ditching Machine/Excavator can be driven instead of being trailered to job sites. Projects include road maintenance, culvert replacements and drain repairs. This machine is designed for precision excavation and the lifting of large, heavy items on construction sites.

### **114 Mini Excavator-New**

The Department of Public Services currently performs such tasks as catch basin repair, water main repair, ditching and various roadway improvement projects. Often times multiple crews require the use of the same equipment to perform excavation or heavy lifting functions. The purchase of an additional mini track excavator would enhance efficiency and provide a higher level of service to residents.

**115 Street Sweeper (replaces #606)**

Street sweeping helps prevent leaves, dirt and miscellaneous construction materials from entering catch basins and the storm system. By catching this loose debris before it enters our storm drain system we save money on basin cleaning, ditching and keep the community clean.

**116 Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #670-1988)**

Dump truck to replace existing truck (#670). The dump truck is utilized to transport materials and equipment, road maintenance and drainage work, and snow removal operations. The replacement truck will come equipped with a new V-Box insert which has the ability to reduce annual salt consumption by 30% compared to conventional methods.

**117 Closed Circuit Video Monitoring System for Twelve Oaks Mall-New**

Establish a network to provide for on-demand monitoring of Twelve Oaks Mall Security Department cameras. Cameras would be used as needed to monitor ongoing situations and relay information from dispatchers to officers. Twelve Oaks Mall has strategically placed security cameras with monitoring provided by security personnel. This project will provide a feed to the dispatch center at the Police Department. Camera monitors can be viewed by dispatchers as a crime prevention tool and to plan a comprehensive response to a particular incident or emergency.

**118 Fire Department Emergency Vehicle Replacement - Squad 2**

Vehicle is a transport-capable basic life support (BLS) medium-duty vehicle. Squad 2 is a 1999 McCoy Miller Freightliner ambulance with 31,816 miles. This vehicle is in fair/poor condition after ten years of service. There has been notable service on the engine and transmission. The paint is deteriorating and corrosion is quite visible. Although we do not regularly transport, these vehicles are integral to delivery of EMS. The replacement squad vehicle is a smaller Type III unit with a shorter wheelbase and smaller modular body. It will be a van-type chassis with a reduced price, frame and size with a slightly shorter projected life. This vehicle replacement is a viable alternate to the ICMA Staffing and Utilization recommendation.

**119 Retrofit Fire Tower - Fire Station #4**

The retrofit of the fire training tower would upgrade the facility with realistic gas burners for all firefighter training. System provides for challenging training scenarios for both seasoned veterans and new recruits.

## **120 DPS Facility Critical Needs Assessment - Phase III Architectural**

This project addresses the critical needs of DPS Field Services Complex as described in the Facility Needs Master Plan prepared by Wold Architects & Engineers in 2006. This particular phase relates to critically needed architectural improvements to the building and yard, including: repairing damaged pavement, repairing building's exterior and interior masonry, replacing thresholds and gaskets at overhead door locations, filling abandoned pipe penetrations, replacing failed window systems, replacing leaking vestibule glass, repainting rusted lintels and doors, installing a seal in door from office to garage, replacing severely rusted exterior doors and door from garage to wash bay, and installing fire seals at various locations.

## **121 Small 1-Ton Dump Truck-New**

Utilized Daily to transport materials for road maintenance, drainage activities and snow maintenance operations.

## **122 Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #671-1988)**

Dump truck to replace existing truck (#671). The dump truck is utilized to transport materials and equipment, road maintenance and drainage work, and snow removal operations. The replacement truck will come equipped with a new V-Box insert which has the ability to reduce annual salt consumption by 30% compared to conventional methods.

## **123 Civic Center Roof Replacement**

This project replaces the original roofing stone and membrane over City Hall and the Community Center. The existing roofing material is approximately 21 years old. The new roof will be a similar flat roofing system that utilizes rubber and plastic composites to form a water tight seal over the entire complex. The new roof would be topped with stone to depreciate heat and protect the surface from abrasive materials, ice and snow. The new system will carry a 15 year warranty.

## **124 Accountability/Telemetry System-New**

An accountability console including laptop and software is to monitor all firefighters using air in a fire. A command center unit monitors four vital stats with radio signals from each firefighter whenever a Self Contained Breathing Unit (SCBA) is turned on. The Personal Alert Safety System (PASS) status, air temperature, remaining cylinder air and time in fire are all readouts for the supervisor to monitor. (32) firefighter's can be monitored at once. A special "mayday" alert signal is built in to the accountability system. The required annual supplies will include electronic calibration, maintenance and batteries. In addition to the accountability console, each SCBA will include a new telemetry unit which sends information to the accountability console. A ISI repeater is also included to relay distant telemetry signals from the SCBA.

**125 Bobcat All-Wheel Loader-New**

Utilized to transport materials for confined space projects in rear yards, storm drain easements, snow removal on bridge decks, and heavily landscaped locations.

**126 New Vibratory Roller**

Used for asphalt finishing for small patchwork projects. It would allow staff to schedule and perform asphalt repairs throughout the construction season (currently staff rents a roller for one month).

**127 Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #605-2001)**

Dump truck to replace existing truck (#605). The dump truck is utilized to transport materials and equipment, road maintenance and drainage work, and snow removal operations. The replacement truck will come equipped with a new V-Box insert which has the ability to reduce annual salt consumption by 30% compared to conventional methods.

**128 Fire Engine #3 Replacement**

Engine #3 will be 16 years old in 2010 and has 59,129 miles. The projected cost includes replacement of hand tools, radios and various portable and loose equipment. The cost for hose and related equipment is included in the capital item in the amount of \$18,000.

**129 Civic Center Boiler Replacement**

The existing boiler in City Hall is over 20 years old and is serviced regularly. The unit can be replaced with two smaller energy efficient units requiring minimal maintenance and saving up to 20% off of existing energy costs. The new boilers and circulation pumps will be synchronized to work in unison with the modernized chiller that was replaced in 2007.

**130 Single-Axle Large Dump Truck With Front Plow And Underbody Scraper-New**

Dump trucks are utilized daily to transport materials and equipment for road maintenance and drainage activities, and for snow removal operations.

**131 Grader (replaces #612)**

Grader is used for snow removal, maintaining road shoulders, cutting and leveling road surfaces for asphalt and concrete repairs. As the community grows traffic volume increases on the few remaining gravel roads Novi maintains. If not maintained there becomes an increased risk of vehicle damage and traffic accidents.

**132 Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces #621-2001)**

Dump truck to replace existing truck (#621). The dump truck is utilized to transport materials and equipment, road maintenance and drainage work, and snow removal operations. The replacement truck will come equipped with a new V-Box insert which has the ability to reduce annual salt consumption by 30% compared to conventional methods.

**133 Police Department Renovation**

Per the Wold Architects & Engineers assessment conducted in 2006 it is estimated that the City will reach "build-out" and maximum population at about 2024. Based on this anticipated growth in the City and the corresponding growth in the staffing level and operation of the Department, recommendations were made regarding renovation and additional space needs. The proposal increases the area of the facility from 36,300 sq. ft. to 47,742 sq. ft. Renovation includes space for prisoner receiving sally port, expanded evidence storage, offices, locker rooms, training room, emergency operation center as well as related mechanical and technology needs. It is anticipated that this project could begin anywhere between FY 2015-16 and FY 2016-17 depending on economic conditions and community build-out.

**134 Front-End Loader (replace #689-1995)**

Loader is utilized daily for loading dirt, debris, road salt and to unload gravel train deliveries. It is also used for snow removal on bridge decks and parking areas.

**135 Tandem 7-Cubic Yard Dump Truck with Underbody Scraper and Front Plow (replaces #699)**

Utilized year round for snow maintenance, road maintenance, drain repairs, grading gravel road shoulders and for hauling material.

**136 Salt Dome-replace (larger)**

A covered structure that protects salt granules from wet weather damage.