MEMORANDUM

cityofnovi.org

TO: CHARLES BOULARD
BARBARA MCBETH

FROM: VICTOR CARDENAS, ASSISTANT CITY MANAGER

CC: MARINA NEUMAIER
LEADERSHIP GROUP

SUBJECT: CAPITAL IMPROVEMENT PLAN (CIP)

DATE: FEBRUARY 18, 2011

Each year the City of Novi, as part of the annual budget process, prepares a Capital Improvement Plan (CIP). This document serves as a guidepost for major capital expenditures for next five (5) years. This is all done in accordance to the provisions outlined in the Municipal Planning Commission Act (PA285).

Attached is the City's most recent Capital Improvement Plan and was approved by a joint CIP Committee (which includes members of the City Council and Planning Commission) at their February 17, 2011 meeting. This plan is being presented to the Planning Commission for its consideration on February 23, 2011 meeting.

The City Manager will make recommendations for projects to be included in the 2011-12 Proposed Budget to City Council, which have not been identified to date, as staff continue to prepare information regarding funding and operating budgets.

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

2011-2017

CAPITAL IMPROVEMENTS PROGRAM COMMITTEE
Terry Margolis, Novi City Council
David Staudt, Novi City Council
Wayne Wrobel, Novi City Council
Michael Lynch, Novi Planning Commission
Andrew Gutman, Novi Planning Commission
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NOTE: The capital improvements that will be included in the proposed budget are restricted by the funds available. The Water & Sewer Fund is an Enterprise Fund, and therefore City Council does not formally adopt a budget for these projects.

Capital Improvements Program

City of Novi, Michigan
2011-2017

Overview

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 2011-2017. The CIP is an opportunity to formulate strategic long-term policy decisions that extend beyond the fiscal year 2011-2012 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 on the City's Sanitary Sewage Collection System (March 27, 2007)
- Community Recreation Plan, including Americans with Disabilities Act Transition Plan, 2003-2008 (adopted October 20, 2003; amended July 25, 2005)
- Pathway and Sidewalk Prioritization Analysis and Process (adopted November 13, 2006)

Definition of a Capital Improvement

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.

Impact of Capital Budget on the Operating Budget

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 effects 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

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

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

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.

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 if 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 taxpaying 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

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

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.

Table of Icons

The following is a listing of the icons used to assist the reader:

Department of Public Services

Information Technology


Neighborhood and Business Relations

Facility Operations


Department of Public Safety


Department of Parks, Recreation and Cultural Services


Easement (temporary and permanent) Secured


Easement Needed


Design process initiated/complete

Fiscal Year 11/12

Fiscal Year 12/13

Fiscal Year 13/14

Fiscal Year 14/15

Fiscal Year 15/16

Fiscal Year 16/17


Construction ready


Grant Funding Possible


Grant Funding Secured

Capital Improvements Program

2011-2017 Project Descriptions

Roads

1. **12 Mile Road Widening (Beck Rd to Dixon Rd.) Design Only**

   Road Commission for Oakland County (RCOC) project to widen 1.4 Miles (7,340 feet) of 12 Mile Road as a 4 lane boulevard from Dixon Road to Beck Road with an at-grade crossing of the CSX Railroad right-of-way. This project has received funding for preliminary engineering ONLY in 2011, but is shown on the Regional Transportation Plan (RTP) for construction in the 2016-2020 period. The Oakland County Federal Aid Committee Transportation Improvement Plan (TIP) shows federal funding of $1,322,000 for environmental assessment and design, which is to be completed over the next six years. The city's share is $165,500 and RCOC's share is $165,500.

2. **Grand River Rehabilitation Novi Rd to Haggerty Rd (PASER 2-3-Asphalt)**

   This Road Commission for Oakland County project is partially funded by a federal (TIP) grant for extensive rehabilitation and repaving, to include making a uniform pavement width, improving shoulders, and improving intersections. The pavement surface is currently rated as a 2 or 3 depending on the location. Municipal Street Fund $374,000, RCOC $374,000, Federal Funding $2,503,000.

3. **Meadowbrook Road (10 Mile Road to Cherry Hill) Repaving (PASER 4-5, Asphalt)**

   Repair, mill, overlay and add center left turn lane to Meadowbrook Road between 10 Mile Road and Cherry Hill, a distance of 2,640 feet, to preserve the useful life of the pavement and improve safety. $363,000 in Federal Grant in the 2011 TIP to be administered by MDOT.

4. **Neighborhood Road Rehabilitation, Repaving and Reconstruction Road Program**

   The selection of streets is determined using the PASER surveys conducted in 2008 and 2010. A mix of fixes (rehabilitation, repair, and reconstruction) will be applied to optimize the funds used to improve the overall condition of local roads as reflected by an increase in the overall PASER rating for the City.

5. **Fountain Walk Dr. Rehabilitation (Paser 3; Asphalt)**

   Design, repair and repave Fountain Walk Drive from the recently reconstructed I-96 ramp to Donelson Drive (950 feet) to extend the useful life of the roadway.

6. **Sheraton Drive Rehabilitation (PASER 3, Asphalt)**
Design, repair, repave, and partial reconstruction of Sheraton Drive (825 feet) to extend the useful life of the roadway from West Oaks Drive to the end of the street at Crowne Plaza.

7. **West Oaks Drive Rehabilitation (PASER 4-Asphalt)**
Design, repair and repave West Oaks Drive from Novi Road to Donelson Drive (1,750 feet). Includes traffic safety improvements at intersections and drive entrances.

8. **Karim Blvd. Rehabilitation (Paser 3-Asphalt)**
Design, 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.

9. **Southwest Quadrant Ring Road (Flint St) Novi and Grand River (New Construction)**
Study and potential future 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. A study of the Southwest Quadrant was recommended by the Ring Road study of the Northwest Quadrant.

10. **Crescent Blvd Extension (Northwest Quadrant Ring Road) between Grand River Avenue and Novi Road**
Construction of a 1,300 foot long, 4 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 the existing portion of Crescent Blvd west of Novi Road (f/k/a Fonda Street) and a new signal at the intersection with Grand River. The final design was completed in FY10-11. Potential for 80% Federal funding under the Federal Transportation Economic Development Fund Category A (TEDF-A) if a private entity develops or redevelops abutting property. The project would be completed in 3 phases over 3 fiscal years: I - Northern section including intersections with Novi Rd. and Expo Center Drive, 2- Bridge, 3- Intersection with Grand River and spur road to west.

11. **9 Mile Road, Taft to Beck Rd. Rehabilitation (PASER 4 and 5, Asphalt)**
Design and make pavement repairs and rehabilitation of one mile of 9 Mile Road from Taft Road to Beck Road to extend the useful life of the roadway.

Major Street $345,600, Federal Funding $304,000.

12. **8 Mile Road 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). Federal Funding $2,444,000, RCOC $306,000, Local Share potentially $306,000.

13. **Bridge Repairs (Willowbrook Drive and Meadowbrook Road Bridges)**
Project includes miscellaneous repairs and preventative maintenance to the Meadowbrook Road bridge over Ingersol Creek and the Willowbrook Drive bridge over Ingersol Creek, based on findings of biannual bridge inspections.

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. **Heslip Dr. Rehabilitation (Paser 3; 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.

16. **Crescent Blvd., Novi Rd to Town Center Dr. Rehabilitation (Paser 3-4; 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 the road.

17. **11 Mile Rd., Town Center to Meadowbrook, Rehabilitation (Paser 4; Concrete to Asphalt)**
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.

18. **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.

19. **11 Mile Road Repaving: Taft Road to Beck Road (Paser 5-6; 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.

20. **13 Mile Road Rehabilitation, Novi Road to Meadowbrook Road (PASER 5; Asphalt)**
Repair and repave 13 Mile Road from Novi Road to Meadowbrook Road (2,600 feet) to extend the useful life of the roadway. The project includes reconstruction of a failed section of 13 Mile near Meadowbrook adjacent to a wetland and the repair of a failed section of Meadowbrook Road near Burroughs Ave. Potential for 80% Federal funding.

21. **Novi Rd. from 12 Mile to 13 Mile Rehabilitation (Paser 4-5; 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. Potential for 80% Federal funding.

22. **Wixom Road from 10 Mile Road to 11 Mile Road (PASER 5; Asphalt)**
Repair, mill and overlay Wixom Road from 10 Mile Road to the City Limits (10,500 feet) to extend the useful life of the road. The existing roadway is asphalt. Potential for 80% Federal funding.

23. **Taft Road, 9 Mile Road to 10 Mile Road Rehabilitation (Paser 6-7; Asphalt)**
Rehabilitation of 5,280 feet of Taft Road from 9 Mile Road to 10 Mile Road to provide a smooth asphalt surface and extend the life of the road.

24. **Old Novi Rd. Rehabilitation (Paser 7; Asphalt)**
Rehabilitation of Old Novi Road from Novi Road to 13 Mile Road (1,630 feet) to provide a smooth asphalt surface and extend the life of the road. Potential for 80% Federal funding.

25. **Cabot Dr. Extension (New)--13 Mile to 14 Mile Road--Private Funds**
Private development project to construct a new north-south between M-5 and Haggerty Road from current northern end of Cabot Drive to 14 Mile Road.

26. Trans-X Drive Rehabilitation (Paser 5/4; Concrete)

Partial reconstruction and rehabilitation of discrete areas of Trans-X Road along with preventative maintenance for the remainder of the segment. This project would complement the capital preventative maintenance completed in 2010 to preserve the life of the roadway.

27. Meadowbrook Road Reconstruction - 9 Mile to 10 Mile (PASER 4-5, Concrete)

Reconstruct Meadowbrook Road from 9 Mile Road to 10 Mile Road in concrete (5,280 feet) and make safety improvements as needed. The existing roadway is concrete.

28. Donelson to Sheraton and West Oaks - New Road Construction (as recommended in Master Plan)

Proposed new road (2,920 feet) south of existing West Oaks development connecting West Oaks Drive to Donelson and providing access to the businesses 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. A determination has not yet been made to use asphalt or concrete.

Intersections & Signals

29 Grand River and Meadowbrook Signal Modernization and Mast Arm Installation

Road Commission for Oakland County project to upgrade existing traffic signal at Grand River Avenue and Meadowbrook Road to include decorative mast arms. RCOC $60,000, City $100,000 (full share for mast arms). This project will be coordinated with RCOC's rehabilitation of Grand River Avenue.

30 Annual Traffic Control Sign Replacement Program (Regulatory Requirement)

City-wide 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 reflectivity 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.

31 Paint Signal Support Poles and Mast Arms (four locations)

The project includes preparing and painting the existing galvanized mast arms and signal supports (from gray to green) at 12 Mile and Haggerty, 12 Mile and Cabot, 12 Mile and Meadowbrook and Grand River and Main St. The project requires a permit from the Road Commission for Oakland County and extensive traffic control for the painting operation to take place.

32 13 Mile and Cabot-New Signal

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

33 Taft and 9 Mile Road - 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. A study is currently underway.

34 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.

35 Taft and 11 Mile Road - 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.

Sidewalks & Pathways

36. Segment 83 - 9 Mile, Meadowbrook to Haggerty-10' asphalt North side, federal grant

Construction of 3,800 feet of 10-foot wide shared use pathway 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. As a Federally funded project, the design must meet certain federal standards including a required 10' width and 2' clear zone on both sides along the route of the path.

37. Americans with Disabilities Act (ADA) Compliance Plan Annual Implementation

Annual program to retrofit existing sidewalk and pathway facilities with slope and ramp improvements to meet Americans with Disability Act (ADA) requirements for accessibility, based on the findings and recommendations of the February 2011 ADA Compliance Plan. This project is in addition to existing allocations in other road and sidewalk projects that are used for ADA compliance.

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

Construction of approximately 75 feet of 8' pathway and associated ramps to cross Wixom Road north of 11 Mile and at Wixom Road and Glenwood to improve the pedestrian routes to Novi Middle School and Deerfield Elementary.

39. Extension of Regional Pathway from Medilodge Site to Beck Road

This project would include the design and construction of a 2,000 foot extension of a 10-foot wide pathway that is proposed for construction from 11 Mile Road north along the ITC corridor to and through the eastern property line of the proposed Medilodge site plan, which the developer of the Medilodge site will be designing and constructing. The pathway extension would be constructed on top of the existing sanitary sewer and within an easement that is being negotiated with Providence Hospital. Along with the Medilodge pathway, the City's pathway would complete the connection from 11 Mile Road to Beck Road. (The remainder of the regional pathway is the PRCS CIP request for Greenway Plan.)

40. Segment NC1-East Lake Drive to Novi Road (8 foot asphalt)

Design and construction of 1,000 feet of 8-foot wide pathway as a neighborhood connector between Novi Road and East Lake Drive through Hickory Woods Elementary School and via New Court. Easement(s) needed from WLCS.

41. Segment #144--Meadowbrook West side, Grand River to Cherry Hill (8' Pathway) - Concrete

Design and 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 2010 Update to the Pathway and Sidewalk Prioritization Analysis. Easements required from two parcel owners.

42. **Segment #92--Novi Rd., 9 Mile to 10 Mile (5' Sidewalk for West side)-Concrete**

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 2010 Update to the Pathway and Sidewalk Prioritization Analysis.

43. **Segment #89--Novi Road, East side, 10 Mile - Arena (8' Pathway) - Concrete**

Construction of 440 feet of 8-foot wide bike path to fill one gap along the east side of Novi Road from Arena Drive to 10 Mile Road. Preliminary Engineering of this project was completed in 2005. This project was identified as a top 20 priority segment by the Greenway/Pathway Study.

44. **Segment #127A--Novi Way (East side, 5' sidewalk) - Concrete**

Construction of 350 feet of 5-foot wide sidewalk along the east side of Novi Way from 10 Mile Road south.

45. **Segment NC4--Neighborhood Connection between Main Street and Meadowbrook Glens**

Construct 650 feet of 5 foot wide concrete sidewalk and acquire easement rights over existing sidewalks to develop a neighborhood connection between Meadowbrook Glens and Main Street.

46. **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.

47. **Segment #93--9 Mile, Novi to Taft, North side (5' Sidewalk)-Concrete**

Construction of 3,300 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 2010 Update to the Pathway and Sidewalk Prioritization Analysis.

48. **Segment #10--Beck Rd., East side, South of Pontiac Trail, (5' Sidewalk Short Segment) - Concrete**

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.

49. **Installation of crosswalks on 12 Mile Road at Donelson Drive and Cabaret Drive**

The south side of these intersections (the eastbound 12 Mile Road lanes) are signalized and can be retrofitted with pedestrian signals, however the north side of the intersection (westbound 12 Mile Road lanes) are unsignalized. Crosswalks with hybrid pedestrian signals would be added to facilitate pedestrians crossings of 12 Mile Road at Donelson and 12 Mile Road and Cabaret.

50. **Segment #62--10 Mile Rd., Eaton to Churchill (5' Boardwalk 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 2010 Update to the Pathway and Sidewalk Prioritization Analysis.

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

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

52. **Annual Sidewalk Short Segment Connections - Concrete**

Short segments of sidewalk gap that have a construction cost of less than $25,000 are selected annually for design and construction. The short segments for 11-12, 12-13, and 13-14 are included in the CIP.

53. **Segment NC2--Brookfarm Park Neighborhood Connector Pathway (8' asphalt)**

Construction of 1,100 feet of 8 foot wide asphalt pathway within Brookfarm Park connecting Village Oaks Elementary School to Ripple Creek Dr and a connection to Willowbrook Farms subdivision.

54. **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.

55. **Segment #90-10 Mile Road (8' pathway, south side) Novi Road to Chipmunk Trail - Concrete**
Construction of 2,400 of 8-foot wide pathway along the south side of 10 Mile Road from Novi Road to Chipmunk Trail. This segment was identified as a top 20 priority segment by Walkable Novi Committee.

56. **Segment #84 Meadowbrook, 9 Mile to 10 Mile, (5' Sidewalk for East Side)**
Construction of 4,400 feet of 5-foot wide sidewalk to fill two gaps along the east side of Meadowbrook Road from 9 Mile Road to 10 Mile Road. This project was identified as a top 20 priority segment by the Greenway/Pathway Study.

57. **Segment #54-10 Mile Road (North side, 5' sidewalk) from Beck Road to Greenwood Oaks -Concrete**
Construction of 955 feet of 5-foot wide sidewalk along the north side of 10 Mile Road from Beck Road to Greenwood Oaks. This project was identified as a top 20 priority segment by Walkable Novi.

58. **Segment #55-Beck Road (West side, 8' pathway) 10 Mile Road to Cider Mill Road - Concrete**
Construction of 480 feet of 8-foot wide pathway along the west side of Beck Road from 10 Mile Road to Cider Mill. This project was identified as a top 20 priority segment by Walkable Novi.

59. **Segment #76--Grand River, North side, East of Seeley, (8' Pathway Short Segment)-Concrete**
Construct 180 feet of 8' pathway in concrete along the north side of Grand River just east of Seeley Road.

Storm Sewer & Drainage

60. **Improvements to Thornton Basin, Lexington Green Basin and Leavenworth Basin (RPO Funded)**
Design and construction to improve the existing regional detention basins 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. Federal RPO Grant secured for $202,500, City Share $202,500. No easements need to be obtained.

61. Brookfarm Park Streambank Stabilization

Stabilization of Ingersol Creek streambank from Willowbrook to confluence with Bishop Creek including stabilization near the abutments of the existing pedestrian bridge to prevent erosion and scouring. This project was recommended by Phase I Storm Water Master Plan. Preliminary engineering was completed in FY10-11.

62. Middle Rouge at Flint Street Streambank Stabilization

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

63. Rotary Park Streambank Stabilization

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

64. 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.

65. 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

66 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 by making 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. The City has been working with Oakland County for the past three years to negotiate obtaining additional capacity from several downstream communities.

67 Meadowbrook Glens Sanitary Sewer Rehabilitation

We have experienced several Sanitary sewer backups in the Meadowbrook Subdivision over the last several years. The sewer televising conducted in 2007 and the 2008 shows the degradation of the pipes and scale build up has additional maintenance to maintain service. The replacement of the sewer main is recommended to decrease the maintenance and inflow of ground water into the system. Sewer lines on Part of Cherry Hill, Ridge Road East, Ridge Road West, Kingspoint, and Queens Point would be replaced (4550 feet of 8 inch sewer)

68 Rehabilitation of Pipes and Structures in Areas C2 & C3

Capital Preventative Maintenance on sanitary sewers in sub-district C2 & C3 (see map attached). 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.

69 Sanitary Sewer Upgrade to Increase Pipe Capacity: 9 Mile Road West of Novi Road

Development and construction of a solution to the current capacity limitations in the sanitary sewer along 9 Mile Road west of Novi Road as identified in the 2006 Sewer Capacity Report. Sanitary sewer modeling indicates that approx. 2,000 ft. of existing 15" sanitary sewer is at or near capacity. The project will remove the bottleneck to increase flow capacity.

70 Sanitary Sewer Upgrade to Increase Pipe Capacity: 9 Mile Road East of Meadowbrook Road.

Development and construction of a solution to the current capacity limitations in

the sanitary sewer along 9 Mile Road east of Meadowbrook Road as identified in the 2006 sewer capacity report. Sewer modeling indicates that approx. 7,000 ft. of existing 18" sanitary sewer on the south side of 9 Mile near Meadowbrook is at or near capacity. The project will remove this bottleneck to increase flow capacity.

71 Rehabilitation of Pipes and Structures in Areas F1 & F2

Capital Preventative Maintenance on sanitary sewers in sub-district F1 & F2 (see map attached). 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.

72 Regency Lift Station Upgrades

Purchase and installation of a 30kW onsite generator for the station.

73 Rehabilitation of Pipes in Areas F3 & H

Capital Preventative Maintenance on sanitary sewers in sub-district F3 & H (see map attached). 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.

Water Distribution

74 Rehabilitate Two Pressure Reducing Valves (PRV) at Meadowbrook Road and Novi Road

This project will rehabilitate the current PRV's located on the corner of Meadowbrook Road and 12 Mile Road, and Novi Road north of 12 Mile Road. The upgrades will resurface the upper portion of the PRV structures and eliminate water intrusion into the vault, which make access to and maintenance of the PRV's unsafe and difficult.

The improvements will also include a base structure to allow the ability to safely lift valves and equipment from the structure.

75 Vulnerability Assessment for Water and Sewer

This project would complete an evaluation of the water system and wastewater system relative to Homeland Security. The assessment would indicate the areas within the systems that may be vulnerable to criminal activity in the form of property damage or a possible terrorist attack. The first year of the assessment will identify vulnerabilities within the water and wastewater systems and recommended actions with associated cost estimates. The second year will include implementing and installing security enhancement items recommended.

76 Water Main Replacement In Willowbrook Estates II

The existing water main within the subdivision is an undersized and fragile 6" pipe. The 6" diameter is smaller than the current standard of 8-inch and the 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. Lebost, however the water main throughout the entire subdivision should be replaced. The project will entail replacing the aging 6" water main with High Density Polyethylene (HDPE) pipe. Pipe bursting or pipe lining technologies, both of which have been proven to limit the down time associated with water main replacement to a matter of hours while still meeting all MDEQ standards for pipe installation. Both techniques involve replacement and then reconnecting all services and fire hydrants back to the water main. Overall, the Willowbrook Estates #2 Subdivision has 11,300 feet of water main that needs replacement.

77 Water Supervisory Control and Data Acquisition System (SCADA)

Installation of city-wide SCADA system for the water distribution system. The SCADA for the water distribution system would provide remote monitoring and control capabilities at the booster stations, metering stations at the connections to Detroit Water and Sewerage Department (DWSD) transmission mains, and at the pressure reducing valves. Recommended in 2008 Water System Master Plan.

78 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 a pressure reducing valve (PRV) on the north side of I-96. This improvement will allow for a third connection across I-96. Approximately 95% of the water supply for the City is delivered from the DWSD feeds on Pontiac Trail/Fourteen Mile Road. Recommended for system reliability and redundancy in 2008 Water System Master Plan. Easements and permits from MDOT will be a prerequisite for this project.

79 West Park Booster Station Upgrade

Enhance the West Park Booster Station with upgraded controls to operate the station in a more efficient manner. The station would be set to utilize downstream pressure readings to control the operation of the pumps rather than relying on flow settings, which is currently being done.

80 Water Storage Facility and Appurtenances

To reduce wholesale water rates, provide storage for the purposes of becoming a Maximum Day Demand customer from DWSD, rather than a Peak Hour Demand Customer. Construct 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-Novi Waste Water Treatment Plant on the north side of the City near West Park Drive. Install a new 24" water main approx. 700 f.t from the ground storage tank location to the west to the existing 24" water main on West Park Drive. Install a new 24" water main approximately 6,700 ft. from the ground storage tank location to the east to the existing 24" water main at 12 ½ Mile Rd. and Dixon Rd. Install a Pressure Reducing Valve (PRV) on Dixon Rd. Install a 24" connection from the high pressure side of the PRV at Novi Rd. and 12 ½ Mile Rd. to the existing 24" water main in 12 ½ Mile Rd. Install flow control valves (FCV) at all DWSD connections on the north side of the City. Recommended in 2008 Water System Master Plan.

81 Construct New 12-inch Water Main Along 12 Mile Rd. from East of Napier to Wixom

Construction of a 4,100 foot, 12-inch water main at Sloan St. and E. Bourne Terrace to the east 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 yet to be determined to separate the Island Lake pressure district. The primary benefit of this project is redundancy, since the Knightsbridge Gate subdivision and surrounding area is served by a single, dead-end water main. Recommended in 2008 Water System Master Plan.

82. 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). Recommended in 2008 Water System Master Plan.

83. 13 Mile Rd. New Pressure Reducing Valve to Realign Pressure District

Install a PRV on 13 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. Recommended in 2008 Water System Master Plan.

84. 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. Recommended in 2008 Water System Master Plan.

85. 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. Recommended in 2008 Water System Master Plan.

86. 12-Inch Water Main Along 8 Mile Rd., Club Lane to Turnberry

Extend a 12-inch water main approximately 1,300 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. Recommended in 2008 Water System Master Plan.

87. 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 fiscal year 2010-11, but was not scheduled due to the economic slowdown. Recommended in 2008 Water System Master Plan.

88. Grand River Isolation Pressure Reducing Valve (PRV) West of Lanny's Road

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. Recommended in 2008 Water System Master Plan.

89. Cabot Road Meter Installation and 24" Connection with DWSD

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. Recommended in 2008 Water System Master Plan.

90. 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. Recommended in 2008 Water System Master Plan.

91. 12" Water Main Along 9 Mile and Napier

Construction of a 12-inch water main approximately 2,400 feet from the existing 12-inch water main at Torino Drive and 9 Mile Road to Park Place Drive and Napier Road along 9 Mile Road and Napier Road. Recommended in 2008 Water System Master Plan.

92. 12-inch Water main Cross-Country from Island Lake to Provincial Glades

Construct a 12-inch approximately 3,000 feet from the existing 12-inch water main west of Terra Del Mar Dr and 10 Mile Road, cross-country to the south to the existing 12-inch water main at Avery Lane. The installation includes a pressure reducing valve in a location to be determined. Recommended in 2008 Water System Master Plan.

93. 12" Water Main along Napier, Park Place to 8 Mile

Construct a 12-inch water main along Napier Road approximately 5,700 feet from Park Place to 8 Mile Road. Recommended in 2008 Water System Master Plan.

94. 12" Water Main Along 10 Mile from Wixom to Terra Del Mar

Connect the existing water main at Wixom Road and 10 Mile Road to the existing 12-inch water main east of Terra Del Mar on 10 Mile Road with approximately 2,700

feet of 12-inch water main. Recommended in 2008 Water System Master Plan.

95. 12" Water Main along 11 Mile, Delwal to the west

Construction of approximately 400 feet from the existing 12-inch water main east of Town Center Drive along 11 Mile Road to the east to the existing water main east of Delwal. The installation will include a pressure reducing valve as it crosses a pressure district boundary. Recommended in 2008 Water System Master Plan.

96. 12" Water Main Along 8 Mile, Tuscany to Napier

Construction of approximately 5,000 feet of water main along 8 Mile Road from Tuscany Reserve, east to Napier Road. Recommended in 2008 Water System Master Plan.

97. 12-inch water main on 11 Mile, Seeley to Meadowbrook

Construct a 12-inch water main approximately 1,500 feet from the existing 12-inch water main at Seeley Road and 11 Mile to the west along 11 Mile Road to the existing water main east of Meadowbrook. Recommended in 2008 Water System Master Plan.

98. 12-inch Water Main Along Haggerty Road North of 12 Mile

Construction of approximately 1500 ft of 12-inch water main cross-country and along Haggerty Road to provide looping in Section 12. Recommended in 2008 Water System Master Plan.

99. 24-inch Water Main on 10 Mile, Beck to Lynwood

Construct a 24-inch water main approximately 1,300 feet from the existing water mains at Beck and 10 Mile west to the existing 24-inch water main east of Lynwood Drive. Recommended in 2008 Water System Master Plan.

100. 24" Water Main Replacement at Grand River and Beck

Complete the upgrade of 150 feet of water main at Beck Road and Grand River from 16-inch to 24-inch. This is the last remaining segment of the remaining 16-inch water main. Recommended in 2008 Water System Master Plan.

101. 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 . Recommended in 2008

Water System Master Plan.

Parks

102. Power Park Baseball Field Fencing Repair, Southern Two Diamonds + ITC CSP Fencing

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). 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. The total at Power Park would be about $26,000. At ITC CSP there are currently 8 fenced fields, approximately 520 linear feet per field, totally 4,416 linear feet. The project would include the bottom rail, mounting hardware and labor are approximately $6.00 per linear foot, totaling $26,496. Together the total project is estimated at $52,496.

103. Power Park Access Road, Parking Lot, and Pathway Resurfacing - Asphalt

The 9,400 sq. yd. drive and parking area associated with Ella Mae Power Park is crumbling and cracked. This parking area is used by many athletes and families. This would be a 3 phase project. Phase I (11/12): access road with 4" of asphalt over 8" of compacted stone. Phase II (12/13): costs include removal and replacement of the parking area with 3" of asphalt over 8" of aggregate stone. Phase III (13/14): the construction of a 5' wide sidewalk along the east side of the approach linking Ten Mile Road to the park. 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 1,500 feet 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.

104. Greenway Pathway Development Phases IA, IB and II :

Design, engineering and construction to plan and build a paved 4.5 mile long north-south regional pathway for recreational use along the ITC Transmission Corridor. The pathway would connect ITC Community Sports Park to the Providence Park Campus. Due to the length of the path being proposed, a phased approach to design and construction is needed. Phase 1A of the pathway (1.25 miles long) would begin at ITC Community Sports Park, continue along the ITC corridor to 9 Mile Road for an estimated cost of $1,050,000. Phase 1B of the pathway (1.0 miles long) would continue along the ITC Corridor from 9 Mile Road and end at the parking lot

of Fire Station No. 1, where a parking area could be located, for an estimated cost of $1,577,000 Phase 2 consists of the segment from Fire Station 4 to 11 Mile Road for an estimated cost of $116,000. Phase 3 is the link between the ITC corridor at 11 Mile Road through the Medilodge site (a portion of which is funded by the City through Project 39) to the pathway's terminus at Beck Road. (See memorandum dated August 3, 2010 for detailed information.)

105. Landings Park

The City submitted a Michigan Natural Resource Trust Fund (MNRTF) development grant application through the Michigan Department of Natural Resources (MDNR) for The Landings property in March of 2010 for an overall total project cost of $625,000. The application is one of 140 applications received by the MDNR for funding. Notification of award was received December 1, 2010 for $437,500. As part of the City's motion sheet, the Council designated $45,000 from the existing FY09/10 Parks, Recreation & Cultural Services budget and utilizing $29,000 from the existing Tree fund, requesting $50,000 from the Park Foundation, and reserving $63,500 from the future FY10/11 City budget to meet the matching requirements of the grant application. It was further explained that this project is a great opportunity to leverage funds.

106. 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.

107. 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 .

108. 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.

109. Tim Pope Play Structure Replacement

This project would remove the Tim Pope Play Structure (built in 1997, currently 13 years old) located at ITC Community Sports Park, off the 8 Mile entrance. The

structure would be replaced with a new accessible structure and accessible safety surfacing. The intent would be to keep the name of the playground the same after replacement of the structure.

110. Village Wood Lake/Orchard Hills West Acquisition - Park Development

On December 6, 2005 Michigan Natural Resources Trust Fund (MNRTF) awarded the City of Novi a $846,400 grant for Land Acquisition. Park development plans include an accessible pathway, fishing opportunities and small parking area.

111. 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.

112. ITC Community Sports Park Pathway Resurfacing

Resurface approximately 1 mile of ITC Sports Park pathway. This project will revitalize the park pathway system and support the active, healthy lifestyle we provide to our citizens.

113. 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.

114. ITC Community Sports Park - Engineering/Design Services for Lighting and Artificial Turf Field

This project would allow City staff to secure a engineering/design firm to complete a lighting and artificial turf master plan for the park. The lighting concept would include the design of a complete athletic field lighting infrastructure plan for the complex along with the design of an artificial turf soccer/lacrosse field with lighting.

Facilities, Equipment and Vehicles

115. 2013 FCC Radio Frequency Compliance - Replacement Radios

The Federal Communications Commission (FCC) issued a Public Notice on 12/11/09 (attached) regarding narrowband migration deadlines in the 150-174 MHz and 421-512 MHz bands. The notice states that as of 1/1/11the Commission will no longer

accept applications for new wideband 5 kHz, modification of existing wideband and by 1/1/13 Industrial/Business and Public Safety Radio Pool licenses must operate on 12.5 kHz or narrower channels, or employ a technology that achieves the narrowband of one channel per 12.5 kHz of channel bandwidth. An inventory of all DPS radios was performed in preparation for the new regulations. Some existing radios will be re-programmed to a narrower bandwidth and those that cannot be reprogrammed will have to be replaced. DPS will need to purchase 39 new radios and re-program 25 existing radios. A new base station transmitter will have to be purchased as well, and our license will need to be updated for the new frequency.

116. 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 22 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.

117. Council Chamber AV System Upgrade Project

This project entails renovating/building out the back of the Council Chambers (coat room areas) to create a state-of-the-art Audio-Visual Room on one side and an ADA accessible seating area complete with microphone capability on the other side. The renovation would include new HD cameras for the Council Chambers, overhead projector, screen, flat screen on the podium, and the ability to control all presentation equipment from the podium, making the room attractive for rental opportunities. The current A/V room is a closet which has been retrofitted throughout the years, does not have adequate ventilation, and is not positioned for optimal cable casting of meetings in the Chambers. Additional Cable Franchise Fees garnered from Bright House would enable the renovation/upgrade.

118. Ice Arena Roadway Rehabilitation

Repairing and repaving 28,000 sq. ft. of asphalt roadway that provides access to the Novi Ice Arena from Arena Drive. Costs are to mill and overlay some sections, rebuild and resurface others, and crack seal and sealcoat the remainder.

119. Police In-Car Camera System Replacement

In 2008 the Novi Police Department upgraded its in-car video system to digital technology. The system was purchased through International Police Technology (IPT). In June of 2010, the Department was notified that IPT had ceased business

operations. Since that time, the Department has struggled to keep the existing systems operational. Of primary concern is that service and repair for the technology no longer exists through IPT. The department has been working with vendors to determine the best solution. It has been determined that some of our existing infrastructure, such as wireless upload points, server space and wiring systems can be converted for use with a newer wireless solution. The department would need to replace each of the existing camera systems in each patrol unit in order to transition over and be connected with our existing infrastructure.

120. Street Sweeper (replaces 2005 Tymco Street Sweeper #606)

Street sweeping helps prevent leaves, dirt and miscellaneous debris 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. According to the 2010 National Citizen Survey Results - Summary Report (pg. 58) 71% of citizens rated the quality of street cleaning services "Excellent/Good". Maintaining the appearance of the City is vital to continuing economic development. The 2005 Tymco 600 Street Sweeper is over five years old (average useful life for a sweeper is 3 years), has approximately 27,000 miles, over 2,800 hours and is in fair condition because over $37,000 in repairs have been made to date. It is important to note that the sweeper has been out of service frequently due to frequent repairs.

121. Ice Arena Parking Lot Rehabilitation

Removing and repaving portions of the 74,246 sq. ft. of asphalt parking lot that provides parking for customers of the ice arena. Remainder to be cracksealed and sealcoated. Source of funds is the Ice Arena Enterprise Fund.

122. DPS Field Services Complex Improvements - Building and Sitework

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 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 installing fire seals at various locations. Many of these repairs relate to improving energy efficiency of the building, which in its current state is far from being weather-tight, and reduces the benefits derived from recent HVAC improvements.

123. Civic Center Carpet Replacement Program - Phase II (2011-2012)

This is a phased approach to the replacement of the 20+ year old carpeting in the Civic Center. The project includes the removal and disposal of the original flooring, furniture relocation and installation of new carpet. The cost per square varies greatly depending on the office furniture relocation costs. The meeting rooms located in the Community Center section were upgraded to wood flooring during FY 2010-11. Priority will be given to areas that enhance revenue opportunities and/or are focal points for citizens. The FY 2011-12 targeted areas are Parks, HR and Treasury offices.

124. Ice Arena Parking Area and Sidewalk Lighting - Replacement

Retrofitting current parking lot metal halide fixtures with more energy efficient lighting. There are currently 13 poles and 19 fixtures. Current poles will remain, but the fixtures will be replaced/retrofitted with new lights. Also includes allowances to replace current bollard type walkway lighting with new fixtures for better visibility along the sidewalks in front of the arena.

125. Oakland County CAMS Alternative - Computerized Maintenance Management Software (CMMS) Program

This request is an alternative to the original intent to participate in Oakland County's Collaborative Asset Management System (CAMS) by having the City of Novi host and manage its own Computerized Maintenance Management System (CMMS). This system will: Improve DPS staff maintenance and management practices for equipment and fixed asset infrastructure systems including water, sewer, storm water, streets, and signs. Reduce staff overhead costs and improve efficiencies by receiving/tracking service requests from the public and initiating work orders for unscheduled repairs, scheduled maintenance, and track new infrastructure. Track and report labor, equipment, materials, and cost for maintenance to be shared within ALL DPS divisions and throughout the City's operations. This project includes software, hardware, and consultant integration services fees. It also includes a service request API allowing other CRM software to connect to the CMMS application directly.

126. 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 used 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. #670-1988 Ford Single-Axle Dump, poor condition,

127. Additional Parking - North Side of Civic Center

This project would add 18 new parking spaces to the north side of the Civic Center, in part using the existing dead end driveway. The project would have a major sustainability component in that the aisle and stalls would be paved with porous concrete pavement, a relatively new technology that allows storm water run off to percolate through the pavement and into the ground, as opposed to discharging directly to a storm water collection system and potentially introducing pollutants (i.e., grease, oil, brake fluid, etc.) to Novi's waterways. This project would also serve as a visible example of an environmental sustainability initiative that the City has implemented

128. Water and Sewer Division - Trailer and Pipe Patch Equipment

As part of the CMOM program the trailer and pipe patch equipment would be used in conjunction with the Sanitary Sewer
Televising Equipment CIP request also submitted for FY 2011-12. The pipe patch equipment would include an 8 inch and 12 inch sewer packer, air compressor, generator, and trailer for video monitoring system.

129. Vibratory Roller - New

A vibratory roller can be used to compact stone, and multi lift layers of asphalt greater than 2", and to improve athletic fields. This roller would provide flexibility for material compaction on larger jobs and could be used on a wide variety of projects, compared to the small static unit that is used now. Purchasing a new vibratory roller would allow staff to schedule and perform asphalt and other types of repairs throughout the construction season. On average, staff rents a roller for $2,000 per month for three months per year, resulting in a payback period of approximately six years.

130. 3 - 1-Ton Dump Trucks with Plows (to replace #684-1991, #690-1998, #691-2001)

Used daily to transport materials for road maintenance, drainage activities, and snow removal operations. Replace one each over the next three years.

131. Salt Dome Loading Conveyor

Construction of a rock salt conveyor system capable of loading up to 200 tons of salt per hour into the Field Services Complex salt dome. The conveyor is a self-lubricating system and includes a salt loading pit. Price includes engineering, design and construction fees. Currently, the Department loads to the salt dome using a bucket load--an operation that is very inefficient, plus it only allows for two-thirds (at most) of the dome to be loaded. A conveyor would load the dome to its capacity, which would optimize efficiency.

132. Mini Excavator (Replaces #703)

The 1996 JCB Backhoe, with 2,750 hours is in poor condition and passed its useful life. The Water & Sewer Division use this equipment to excavate for water leaks (remove concrete and asphalt), and to correct water and sanitary sewer problems. Trading in #703 for a mini – excavator would improve the response time of our repairs, and limit help up with the repairs in the system

133. Sanitary Sewer Televising Equipment

A sanitary sewer television trailer and associated equipment would be used to videotape the conditions of the sanitary sewer system. This equipment would help us assess the integrity of the sewers following a sanitary sewer backup or after a sanitary sewer failure.

134. 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.

135. Truck-Mounted Combination (Jet and Vacuum) Sewer Cleaner (Replaces 2000 Sterling Combination Sewer Cleaner #711)

This piece of equipment is vital to the Water & Sewer Division. Sanitary sewer operation and maintenance requires annual cleaning programs in order to meet state requirements. This unit will help us continue the established sewer cleaning program and to maintain the City's sanitary manholes. Replaces #711: 2000 Sterling Vactor in fair condition with approximately 22,000 miles.

136. Parking Lot Improvements - Police

The Police Department's back parking lot has not been resurfaced in over 15 years. The asphalt driveway has deteriorated over the years. Payment is breaking up and sinking. The cracking and shifting in the material is causing a safety hazard. The parking lot is used 24/7. Review conducted by Department of Public Services indicates that the northern half of the parking lot shows rutting in the wheel path, severe alligator/block cracking and pot holes. The southern half is in better shape with only a few meander cracks. Solution being recommended is to pulverize the northern half of the parking lot and overlay 3-inches of hot mix asphalt and route/crack seal the southern half with a seal coat over top. Recommended that front parking lot and Range parking lot have seal coating applied.

137. Parking Lot Improvements - Fire

Review conducted by Department of Public Services indicates that several improvements are needed for Fire Department parking lots. CEMS Building: The parking lot is covered with severe alligator cracking. Due to the severity, the best option would be to pulverize the existing asphalt pavement and add 3" in. of hot mix asphalt over top. Fire Station #1: There is some alligator cracking near two of the storm structures as well as some meander cracks throughout the pavement. The pavement overall is structurally sound. Crack sealing and a seal coat is recommended. Fire Station #2: The parking lot is in good shape with few meander cracks throughout the parking lot, crack sealing would be helpful. Fire Station #3: There is severe alligator cracking, especially in the wheel base. Recommendation is to pulverize the existing asphalt and overlay with 3-inch hot mix asphalt. Fire Station #4: Does not need any maintenance/improvements.

138. Meadowbrook Commons Groundwater Mitigation.

Planned site work to address groundwater drainage on the west side of Meadowbrook Commons main building parking lot road way. Meadowbrook Commons has an ongoing issue with a high level of groundwater. A project to mitigate the groundwater was completed in the past at the south end of the community which has helped control the groundwater issues. This project would add extra drainage to control and divert the excess groundwater to the detention pond.

139. 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% 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.

140. DPS Field Services Complex Improvements - 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: replace existing make-up air unit serving Garage, recommission existing roof top unit serving Administration Area, provide sound alteration and ventilation for Administrative Conference Room, replace existing furnaces, air conditioning unit and exhaust fans serving Forestry/Sign Shop area with a new roof top unit, replace existing furnaces and exhaust fans serving Workshop with a new roof top unit.

141. 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. Instructor maintains complete command over the fire scenarios, allowing for instant ignition, shutdown, and re-flash of fires. The clean-burning, gas-fueled fires are environmentally sound, alleviating concerns over air, soil and water pollution. Powerful smoke generation obscures vision during fire training, or can be used independently for search and rescue and breathing apparatus training. The system features easy-to-use self-diagnostics.

142. Lower Lobby, Hallway and Locker Room Flooring - Replacement

Replace the current flooring in the lower level lobby, hallway and locker rooms with similar rubber flooring. Rubber flooring is used for skate traffic, it is gentle on the skate blades and customers will need to walk the area with their skates on and rubber flooring will accommodate them. Costs include the removal of old flooring and the installation of new flooring.

143. Civic Center Carpet Replacement Program - Phase III (2012-2013)

This is a phased approach to the replacement of the 20+ year old carpeting in the Civic Center. The project includes the removal and disposal of the original flooring, furniture relocation and installation of new carpet. The cost per square varies greatly depending on the office furniture relocation costs. The meeting rooms located in the Community Center section were upgraded to wood flooring during FY 2010-11. Priority will be given to areas that enhance revenue opportunities and/or are focal points for citizens. The FY 2012-13 targeted areas are Community Development, Assessing, IT, Facility Operations.

144. Police 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.

145. 2- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (to replace #680-1986, 681-1986))

Two dump trucks to replace existing trucks (#680, #681). The dump trucks are used to transport materials and equipment, road maintenance and drainage work, and

snow removal operations. The replacement trucks will come equipped with new V-Box inserts which have the ability to reduce annual salt consumption by 30% compared to conventional methods.

146. Utility Truck (Replaces #708)

The Water & Sewer Utility Truck is used to transport tools and equipment for water and sewer projects. It is intended to house all of the necessary parts and supplies that may be required during water main breaks and lift station repairs. The current Utility Truck is a 1999 Ford F-350 in poor condition with approximately 64,728 miles.

147. 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.

148. 1-Ton Dump Truck w/plow-New

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

149. 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 slat 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.

150. 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 used 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. Replaces #671-1988 Ford Single-Axle Dump, in poor condition, with approximately 76,500 miles.

151. Meadowbrook Commons Asphalt Repairs

The Capital Needs Assessment Report recommends $31,155 be allocated for repairs to the asphalt parking lot at Meadowbrook Commons. The final scope of work will be determined at that time due to unforeseen weather and wear and tear to the asphalt that will occur between now and then.

152. Civic Center HVAC Air Handling Units Replacement

The existing air handling units numbers 3 and 4 within the Civic Center are 20+ years old. These units have reached the end of their useful lives and maintenance costs are rising.

153. DPS Field Services Complex Improvements - 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.

154. Meadowbrook Commons Roof Replacement - Phase I (2013-14)

Per the Capital Needs Assessment report for Meadowbrook Commons, 1 of 10 roofs is scheduled to be replaced in 2013-2014.

155. Civic Center Carpet Replacement Program- Phase IV (2013-2014)

This is a phased approach to the replacement of the 20+ year old carpeting in the Civic Center. The project includes the removal and disposal of the original flooring, furniture relocation and installation of new carpet. The cost per square varies greatly depending on the office furniture relocation costs. The meeting rooms located in the Community Center section were upgraded to wood flooring during FY 2010-11. Priority will be given to areas that enhance revenue opportunities and/or are focal points for citizens. The FY 2013-14 targeted areas are Finance, Managers and City Clerks.

156. Civic Center Atrium Window Film

Colored window film installed on Atrium windows.

157. Fire Tanker 1 (replaces #311)

Request replacement of Tanker 1, #311, KME Water Tanker, 1997 Chevrolet C 8500 chassis, in very good condition, with 8,815 miles (at 11/10). The tanker carries 1,500 gallons of water and is equipped with a 500 gallon/minute power take-off pump. This apparatus has 48 ft. of ground ladders, 2 self-contained breathing apparatus, a 2,000 gallon portable water tank and is licensed by the State of Michigan as a Medical First Response vehicle. Mileage is not the sole determination for replacement of an apparatus. Time that the vehicle has been in service also must be taken into consideration. In 2013 Tanker 1 will have been in service for 16 years. Advances in vehicle handling and occupant safety should be important factors in deciding when a vehicle is replaced. With changes in the response matrix for the Fire Department in the near future it would be a good time to replace the Tanker with a vehicle that would better suit the department.

158. 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.

159. Bobcat All-Wheel Loader-New

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

160. Meadowbrook Commons Roof Replacement - Phase II (2014-15)

Per the Capital Needs Assessment report for Meadowbrook Commons, the second of 10 roofs is scheduled to be replaced in 2014-2015.

161. 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 used 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.

162. 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. would not occur.

163. Dehumidifier - Replacement

Replace the current dehumidifier with a new dehumidifier. A dehumidifier takes the moisture out of the air in the ice arena to limit condensation and improve ice quality. The current unit was installed in 1998.

164. Accountability/Telemetry System - New

An accountability console including laptop and software is used 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) monitors the status of air temperature, remaining cylinder air and time in fire. 32 firefighter's can be monitored at once. A special "mayday" alert signal is built in to the accountability system. Required annual supplies 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.

165. 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 used 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. 2001 Sterling Single-Axle Dump, fair condition, 47, 500 miles.

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

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

167. Single-Axle Large Dump Truck With Front Plow And Underbody Scraper-New

Dump trucks are used daily to transport materials and equipment for road

maintenance and drainage activities, and for snow removal operations.

168. Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper-New

The new dump truck would be an addition to the fleet and will be used to transport materials and equipment, aid in road maintenance, 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.

169. Ladder 1 (replaces #312)

Ladder 1, #312, is a 2001 American LaFrance Eagle, Tandem Axle, 100 foot Aerial Fire Apparatus, with 29,182 miles and in very good condition. It is a custom six person cab. In addition to the 100 foot ladder, it has a 1,500 gallon per minute pump with a 350 gallon booster tank. Scene lighting is supplied by a 6Kw hydraulic generator. 119 feet of ground ladder are carried on the apparatus along with six self contained breathing apparatus. Additional compartment space is dedicated to forcible entry, ventilation, and salvage and overhaul tools. It is also licensed as a State of Michigan Medical First Response Vehicle. Mileage is not the sole determining factor for the replacement of fire apparatus. The more specialized the vehicle the more maintenance is needed as it gets near the end of its useful life.

170. Zamboni - Replacement

Purchase new zamboni to replace the current one. 1998 Zamboni, Model 500, good condition, 6,777 hours.

171. 1-Ton Dump Truck w/plow (replaces #633)

A medium duty dump truck used to tow trailers up to 24,000 lbs. Transport materials, salt roads & parking lots, plow snow and perform general field operation duties. Replaces dump truck #633, 1998 GMC 3500 Series, with more than 43,000 miles in fair condition.

172. Front-End Loader (replace #689-1995)

A Front-End Loader is used 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. 1998 Case Loader 821B, poor condition, 7,800 hours.

173. 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.

174. Salt Dome Replacement

Design and construct a covered structure that protects salt from weather, which prevents leaching of saltwater to nearby freshwater watercourses.

Capital Improvements Program

2011-2017 Project Summary

	Project Name		CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Roads											
1	12 Mile Road Widening (Beck Rd to Dixon Rd.) Design Only	*	089-21	$108,840	$308,830	$308,830	$308,830	$308,830	$308,840	$1,653,000	Federal Grant $1,322,000, Municipal Street Fund $165,500, RCOC $165,500
2	Grand River Rehabilitation Novi Rd to Haggerty Rd (PASER 2-3-Asphalt)	*	102-02	$3,251,000						$3,251,000	Municipal Street Fund $374,000; RCOC $374,000; Federal Grant $2,503,000
3	Meadowbrook Road (10 Mile Road to Cherry Hill) Repaving (PASER 4-5, Asphalt)	*	089-28	$501,690						$501,690	$363,000 in Federal Grant (administered by MDOT), $138,690 City (Major Street Fund)
4	Neighborhood Road Rehabilitation, Repaving and Reconstruction Road Program		102-01	$1,000,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$8,500,000	Local Street Fund
5	Fountain Walk Dr. Rehabilitation (Paser 3; Asphalt)		092-21	$180,000						$180,000	Local Street Fund
6	Sheraton Drive Rehabilitation (PASER 3, Asphalt)		10-2021	$157,630						$157,630	Municipal Street Fund
7	West Oaks Drive Rehabilitation (PASER 4-Asphalt)		092-20	$267,200						$267,200	Local Street Fund
8	Karim Blvd. Rehabilitation (Paser 3-Asphalt)		082-18	$157,300						$157,300	Major Street Fund
9	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
10	Crescent Blvd Extension (Northwest Quadrant Ring Road) between Grand River Avenue and		082-03	$558,090	$2,331,760	$1,269,070				$4,158,920	Municipal Street Fund, Potential Federal Grant, Phase 2 stream work could be funded with Drain Funds
11	9 Mile Road, Taft to Beck Rd. Rehabilitation (PASER 4 and 5, Asphalt)		082-23		$649,600					$649,600	Federal Grant $304,000, Major Street Fund $345,600
12	8 Mile Road Rehabilitation, Beck to Napier (Paser 3; Asphalt)		109-11		$3,056,000					$3,056,000	$2,444,000 in Federal Grant, $306,000 by RCOC, $306,000 Municipal Street Fund
13	Bridge Repairs (Willowbrook Drive and Meadowbrook Road Bridges)		10-2022		$64,530					$64,530	Municipal Street Fund
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	Heslip Dr. Rehabilitation (Paser 3; Asphalt)		082-25		$640,700					$640,700	Major Street Fund

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Roads										
16	Crescent Blvd., Novi Rd to Town Center Dr. Rehabilitation (Paser 3-4; Concrete to Asphalt)	082-10			$854,200				$854,200	Major Street Fund
17	11 Mile Rd., Town Center to Meadowbrook, Rehabilitation (Paser 4; Concrete to Asphalt)	082-12			$826,800				$826,800	Major Street Fund
18	Town Center Drive Rehabilitation: Crescent Blvd to 11 Mile Rd. (PASER 6, Concrete to Asphalt)	082-11			$520,340				$520,340	Major Street Fund
19	11 Mile Road Repaving: Taft Road to Beck Road (Paser 5-6; Asphalt)	082-30				$490,000			$490,000	Major Street Fund
20	13 Mile Road Rehabilitation, Novi Road to Meadowbrook Road (PASER 5; Asphalt)	10-2023				$435,690			$435,690	Major Street Fund and potential Federal Grant (application submitted in 2011)
21	Novi Rd. from 12 Mile to 13 Mile Rehabilitation (Paser 4-5; Asphalt)	102-03				$1,179,910			$1,179,910	Major Street Fund/Potential Federal Grant opportunity (application submitted 2011)
22	Wixom Road from 10 Mile Road to 11 Mile Road (PASER 5; Asphalt)	092-22				$650,530			$650,530	Major Street fund, Federal Grant application submitted 2011
23	Taft Road, 9 Mile Road to 10 Mile Road Rehabilitation (Paser 6-7; Asphalt)	102-05					$536,100		$536,100	Major Street Fund/Potential Federal Grant opportunity (application submitted 2010)
24	Old Novi Rd. Rehabilitation (Paser 7; Asphalt)	102-04					$185,990		$185,990	Major Street Fund, Potential Grant opportunity
25	Cabot Dr. Extension (New)–13 Mile to 14 Mile Road–Private Funds	089-11					$1,900,000		$1,900,000	Private Funding
26	Trans-X Drive Rehabilitation (Paser 5/4; Concrete)	082-16						$316,600	$316,600	Major Street Fund
27	Meadowbrook Road Reconstruction - 9 Mile to 10 Mile (PASER 4-5, Concrete)	10-2024						$1,115,000	$1,115,000	Major Street Fund
28	Donelson to Sheraton and West Oaks - New Road Construction (as recommended in Master	082-32						$901,000	$901,000	Municipal Street Fund
	Roads Total:		**$6,236,750**	**$9,002,120**	**$5,279,240**	**$4,564,960**	**$4,430,920**	**$5,891,440**	**$35,405,430**	

*Projects with prior commitment, grant, etc.

	Project Name		CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Intersections & Signals											
29	Grand River and Meadowbrook Signal Modernization and Mast Arm Installation	*	10-2025	$160,000						$160,000	RCOC $60,000, City $100,000 Municipal Street Fund (full share for mast arms)
30	Annual Traffic Control Sign Replacement Program (Regulatory Requirement)		102-10	$51,000	$51,000	$51,000	$12,000	$12,000		$177,000	Major Street Fund 40%/Local Street Fund 60%
31	Paint Signal Support Poles and Mast Arms (four locations)		10-2026		$50,000					$50,000	Municipal Street Fund
32	13 Mile and Cabot-New Signal		086-06			$220,000				$220,000	Municipal Street Fund. $5,000 requested in current year for signal study).
33	Taft and 9 Mile Road - New Roundabout		086-08				$482,000			$482,000	Major Street Fund
34	Lewis and Haggerty Road - New Signal		086-07					$210,000		$210,000	Municipal Street Fund
35	Taft and 11 Mile Road - New Roundabout		086-10						$515,000	$515,000	Major Street Fund - Design Engineering in 10-11 to prepare plans for potential grant. Remainder in 11-12.
	Intersections & Signals Total:			**$211,000**	**$101,000**	**$271,000**	**$494,000**	**$222,000**	**$515,000**	**$1,814,000**	

*Projects with prior commitment, grant, etc.

	Project Name		CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Sidewalks & Pathways											
36	Segment #83 - 9 Mile, Meadowbrook to Haggerty-10' asphalt North side, Federal Grant	*	085-83	$353,700						$353,700	Municipal Street Fund $207,480/Federal Grant $146,220 approved for 2011 (Enhancement Grant) Design
37	Americans with Disabilities Act (ADA) Compliance Plan Annual Implementation		10-5002	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$300,000	Municipal Street Fund
38	Segment #133--Wixom Rd., Crossing North of 11 Mile (8' Pathway Short Segment) - Concrete		095-133	$37,000						$37,000	Municipal Street Fund
39	Extension of 10 ft. wide Regional Pathway from Medilodge Site to Beck Road		10-5001	$190,000						$190,000	Municipal Street Fund
40	Segment NC1-East Lake Drive to Novi Road (8 foot asphalt)		10-5004	$87,650						$87,650	Municipal Street Fund,
41	Segment #144--Meadowbrook West side, Grand River to Cherry Hill (8' Pathway) - Concrete		105-144	$98,000						$98,000	Municipal Street Fund
42	Segment #92--Novi Rd., 9 Mile to 10 Mile (5' Sidewalk for West side)-Concrete		085-92		$190,000					$190,000	Municipal Street Fund
43	Segment #89--Novi Road, East side, 10 Mile - Arena (8' Pathway) - Concrete		085-89		$110,500					$110,500	Municipal Street Fund
44	Segment #127A--Novi Way (East side, 5' sidewalk) - Concrete		101-127		$31,400					$31,400	Municipal Street Fund
45	Segment NC4--Neighborhood Connection between Main Street and Meadowbrook Glens		10-5007		$49,500					$49,500	Municipal Street Fund
46	8' Wide Boardwalk Along West side of Meadowbrook Road Across the Frontage of		105-00		$164,350					$164,350	Municipal Street Fund
47	Segment #93--9 Mile, Novi to Taft, North side (5' Sidewalk)-Concrete		095-93			$280,600				$280,600	Municipal Street Fund
48	Segment #10--Beck Rd., East side, South of Pontiac Trail, (5' Sidewalk Short Segment) -		095-10			$32,500				$32,500	Municipal Street Fund
49	Installation of crosswalks on 12 Mile Road at Donelson Drive and Cabaret Drive		10-5008			$250,000				$250,000	Municipal Street
50	Segment #62--10 Mile Rd., Eaton to Churchill (5' Boardwalk for North side)		085-62				$124,000			$124,000	Municipal Street Fund
51	Segment #88--9 Mile Rd., North side Novi-Railroad (5' Sidewalk) - Concrete		095-88				$198,000			$198,000	Municipal Street Fund
52	Annual Sidewalk Short Segment Connections - Concrete		105-11				$25,000	$25,000	$25,000	$75,000	Municipal Street Fund

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Sidewalks & Pathways										
53	Segment NC2--Brookfarm Park Neighborhood Connector Pathway (8' asphalt)	10-5005				$225,000			$225,000	Municipal Street Fund
54	Segment #119-Meadowbrook Rd., 8 Mile to 9 Mile (5' Sidewalk for East side)	085-119					$321,250		$321,250	Municipal Street Fund
55	Segment #90-10 Mile Road (8' pathway, south side) Novi Road to Chipmunk Trail - Concrete	105-90					$320,000		$320,000	Municipal Street Fund
56	Segment #84 Meadowbrook, 9 Mile to 10 Mile, (5' Sidewalk for East Side)	085-84						$615,360	$615,360	Municipal Street Fund
57	Segment #54-10 Mile Road (North side, 5' sidewalk) from Beck Road to Greenwood Oaks -	101-54						$103,500	$103,500	Municipal Street Fund
58	Segment #55-Beck Road (West side, 8' pathway) 10 Mile Road to Cider Mill Road - Concrete	101-55						$69,500	$69,500	Municipal Street Fund
59	Segment #76--Grand River, North side, East of Seeley, (8' Pathway Short Segment)-Concrete	095-76						$44,000	$44,000	Municipal Street Fund
	Sidewalks & Pathways Total:		**$816,350**	**$595,750**	**$613,100**	**$622,000**	**$716,250**	**$907,360**	**$4,270,810**	

*Projects with prior commitment, grant, etc.

	Project Name		CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Storm Sewer & Drainage											
60	Improvements to Thornton Basin, Lexington Green Basin and Leavenworth Basin (RPO	*	10-3003	$405,000						$405,000	$202,500 from Federal Grant (RPO), $202,500 Drain Fund
61	Brookfarm Park Streambank Stabilization		093-05	$120,000						$120,000	Drain Fund, Potential Grant opportunity
62	Middle Rouge at Flint Street Streambank Stabilization		103-03		$111,900					$111,900	Drain Fund
63	Rotary Park Streambank Stabilization		093-10			$160,900				$160,900	Drain Fund
64	Bishop District New Sedimentation Dredging Near 11 Mile Rd.		093-11				$200,800			$200,800	Drain Fund
65	Middle Rouge Near Balcombe Dr. Streambank Stabilization		103-01					$278,700		$278,700	Drain Fund
	Storm Sewer & Drainage Total:			**$525,000**	**$111,900**	**$160,900**	**$200,800**	**$278,700**		**$1,277,300**	

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Sanitary Sewer										
66	Sanitary Sewer Capacity Solution	081-02	$5,000,000						$5,000,000	Water & Sewer Fund
67	Meadowbrook Glens Sanitary Sewer Rehabilitation	091-65	$70,000	$600,000					$670,000	Water & Sewer Fund
68	Rehabilitation of Pipes and Structures in Areas C2 & C3	091-62	$250,000						$250,000	Water & Sewer Fund
69	Sanitary Sewer Upgrade to Increase Pipe Capacity: 9 Mile Road West of Novi Road	091-70		$350,000					$350,000	Water & Sewer Fund
70	Sanitary Sewer Upgrade to Increase Pipe Capacity: 9 Mile Road East of Meadowbrook	091-71		$200,000					$200,000	Water & Sewer Fund
71	Rehabilitation of Pipes and Structures in Areas F1 & F2	091-64			$250,000				$250,000	Water & Sewer Fund
72	Regency Lift Station Upgrades	091-77			$188,500				$188,500	Water & Sewer Fund
73	Rehabilitation of Pipes in Areas F3 & H	091-60				$250,000			$250,000	Water & Sewer Fund
	Sanitary Sewer Total:		**$5,320,000**	**$1,150,000**	**$438,500**	**$250,000**			**$7,158,500**	

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Water Distribution										
74	Rehabilitate Two Pressure Reducing Valves (PRV) at Meadowbrook Road and Novi Road	10-1009	$100,000						$100,000	Water & Sewer Enterprise Fund
75	Vulnerability Assessment for Water and Sewer	10-1004	$70,000	$30,000					$100,000	Water & Sewer Fund
76	Water Main Replacement in Willowbrook Estates II	101-01	$240,000	$1,360,000					$1,600,000	Water & Sewer Fund
77	Water Supervisory Control and Data Acquisition System (SCADA)	091-05		$303,200					$303,200	Water & Sewer Fund
78	16" Water Main Along Meadowbrook Under I-96	091-01		$50,000	$439,000				$489,000	Water & Sewer Fund
79	West Park Booster Station Upgrade	091-02		$65,000					$65,000	Water & Sewer Fund
80	Water Storage Facility and Appurtenances	091-09		$500,000	$9,000,000	$11,023,000			$20,523,000	Water & Sewer Fund
81	Construct New 12-inch Water Main Along 12 Mile Rd. from East of Napier to Wixom	091-13		$991,000					$991,000	Water & Sewer Fund
82	9 Mile-Connemara Pressure Reducing Valve Replacement	091-08			$351,000				$351,000	Water & Sewer Fund
83	13 Mile Rd. New Pressure Reducing Valve to Realign Pressure District	091-06			$351,000				$351,000	Water & Sewer Fund
84	12-inch Water Main Along 14 Mile Rd., Haverhill to Maples-New	091-16			$140,000				$140,000	Water & Sewer Fund
85	16" Water Main Along 9 Mile Rd., Center to Novi Rd.	091-25			$499,000				$499,000	Water & Sewer Fund
86	12-inch Water Main Along 8 Mile Rd., Club Lane to Turnberry	091-26				$203,000			$203,000	Water & Sewer Fund
87	Garfield Road Water Main, Tuscany to 9 Mile	091-24				$599,000			$599,000	Water & Sewer Fund
88	Grand River Isolation Pressure Reducing Valve (PRV) West of Lanny's Road	091-07					$351,000		$351,000	Water & Sewer Fund
89	Cabot Road Meter Installation and 24" Connection with DWSD	091-11					$832,000		$832,000	Water & Sewer Fund
90	Cabot 24-inch Water Main, MacKenzie to 14 Mile Rd.	091-10					$710,000		$710,000	Water & Sewer Fund

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Water Distribution										
91	12" Water Main Along 9 Mile and Napier	091-14						$374,000	$374,000	Water & Sewer Fund
92	12-inch Water Main Cross-Country from Island Lake to Provincial Glades	091-28						$819,000	$819,000	Water & Sewer Fund
93	12" Water Main along Napier, Park Place to 8 Mile	091-23						$889,000	$889,000	Water & Sewer Fund
94	12" Water Main Along 10 Mile from Wixom to Terra Del Mar	091-22						$421,000	$421,000	Water & Sewer Fund/Private Funding
95	12" Water Main along 11 Mile, Delwal to the west	091-17						$413,000	$413,000	Private Funding
96	12" Water Main Along 8 Mile, Tuscany to Napier	091-15						$733,000	$733,000	Water & Sewer Fund
97	12-inch water main on 11 Mile, Seeley to Meadowbrook	091-18						$819,000	$819,000	Water & Sewer Fund
98	12-inch Water Main Along Haggerty Road North of 12 Mile	091-31						$128,000	$128,000	Water & Sewer Fund
99	24-inch Water Main on 10 Mile, Beck to Lynwood	091-21						$355,000	$355,000	Water & Sewer Fund
100	24" Water Main Replacement at Grand River and Beck	091-12						$31,000	$31,000	Private Funding
101	11 Mile Rd., Water Main Gaps, Taft to Beck Rd.	091-19						$474,500	$474,500	Water & Sewer Fund
	Water Distribution Total:		**$410,000**	**$3,299,200**	**$10,780,000**	**$11,825,000**	**$1,893,000**	**$5,456,500**	**$33,663,700**	

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Parks										
102	Power Park Baseball Field Fencing Repair, Southern Two Diamonds + ITC CSP Fencing	109-05	$52,500						$52,500	Parks, Recreation & Cultural Services Fund
103	Power Park Access Road, Parking Lot, and Pathway Resurfacing - Asphalt	109-04	$167,690	$310,000	$48,630				$526,320	Parks, Recreation & Cultural Services Fund
104	Greenway Pathway Development Phases IA, 1B and II:	109-06	$1,048,500	$1,576,900	$115,819				$2,741,219	Parks, Recreation & Cultural Services Fund/Potential Grant, General Fund
105	Landings Park	109-01	$580,000						$580,000	Parks, Recreation & Cultural Services Fund FY09/10 $45,000, FY10/11 $63,500, Park Foundation $50,000, State Grant
106	Lakeshore Park Play Structure Replacement	109-08		$75,000					$75,000	Parks, Recreation & Cultural Services Fund
107	Rotary Park Play Structure Replacement	109-09		$75,000					$75,000	Federal/State Grants/Potential Grant
108	Power Park Play Structure Replacement	109-10		$75,000					$75,000	Federal/State Grant/Potential Grant
109	Tim Pope Play Structure Replacement	109-03		$300,000					$300,000	Parks, Recreation & Cultural Services Fund
110	Village Wood Lake/Orchard Hills West Acquisition - Park Development			$290,000					$290,000	Potential grant, Parks, Recreation & Cultural Services Fund
111	ITC Community Sports Park Play Structure Replacement	100-003			$75,000				$75,000	Parks, Recreation & Cultural Services Fund/Potential Grant
112	ITC Community Sports Park Pathway Resurfacing	100-005			$94,000				$94,000	Parks, Recreation & Cultural Services Fund
113	Lakeshore Park Asphalt Paved Parking Lot and Drive-New	100-002			$337,000				$337,000	Parks, Recreation & Cultural Services Fund/Potential Grant
114	ITC Community Sports Park - Engineering/Design Services for Lighting and Artificial Turf Field	100-004				$75,000			$75,000	Parks, Recreation & Cultural Services Fund
	Parks Total:		**$1,848,690**	**$2,701,900**	**$670,449**	**$75,000**			**$5,296,039**	

*Projects with prior commitment, grant, etc.

	Project Name		CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Facilities, Equipment and Vehicles											
115	2013 FCC Radio Frequency Compliance - Replacement Radios	*	DPS	$25,000						$25,000	DPS-Field Ops, 30 New Radios, 21 Reprogrammed, 77% of New Base Station Transmitter.
116	Civic Center Roof Replacement		Facility	$220,000						$220,000	General Fund
117	Council Chamber AV System Upgrade Project		Neigh	$50,000						$50,000	General Fund
118	Ice Arena Roadway Rehabilitation		PRCS	$66,000						$66,000	Municipal Street Fund
119	Police In-Car Camera System Replacement		Police	$170,200						$170,200	Federal Forfeiture Funds
120	Street Sweeper (replaces 2005 Tymco Street Sweeper #606)		DPS	$200,000						$200,000	General Fund $66,667, Major Street Fund $66,667, Local Street Fund $66,666
121	Ice Arena Parking Lot Rehabilitation		PRCS	$39,300						$39,300	Novi Ice Arena Enterprise Fund
122	DPS Field Services Complex Improvements - Building and Sitework		DPS	$151,400						$151,400	General Fund
123	Civic Center Carpet Replacement Program - Phase II (2011-2012)		Facility	$50,000						$50,000	General Fund
124	Ice Arena Parking Area and Sidewalk Lighting - Replacement		PRCS	$27,250						$27,250	Novi Ice Arena Fund
125	Novi Enterprise Asset Management System (NEAMS)		DPS	$195,000	$18,140	$18,510	$18,880	$19,260	$19,640	$289,430	Water & Sewer Fund, Drain Fund, Municipal Street Fund
126	1- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces		DPS	$241,500						$241,500	General Fund
127	Additional Parking - North Side of Civic Center		DPS	$64,100						$64,100	General Fund
128	Water and Sewer Division - Trailer and Pipe Patch Equipment		DPS	$55,000						$55,000	Water & Sewer Fund
129	Vibratory Roller - New		DPS	$36,800						$36,800	General Fund
130	3 - 1-Ton Dump Trucks with Plows (to replace #684-1991, #690-1998, #691-2001)		DPS	$71,200	$74,760	$79,800				$225,760	General Fund
131	Salt Dome Loading Conveyor		DPS	$170,000						$170,000	General Fund

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Facilities, Equipment and Vehicles										
132	Mini Excavator (Replaces #703)	DPS	$85,000						$85,000	Water & Sewer Fund
133	Sanitary Sewer Televising Equipment	DPS	$60,000						$60,000	Water & Sewer Fund
134	Mini Excavator-New	DPS	$85,000						$85,000	General Fund
135	Truck-Mounted Combination (Jet and Vacuum) Sewer Cleaner (Replaces 2000 Sterling	DPS	$350,000						$350,000	Water & Sewer Fund
136	Parking Lot Improvements - Police	Police		$126,450					$126,450	General Fund
137	Parking Lot Improvements - Fire	Fire		$94,210					$94,210	General Fund
138	Meadowbrook Commons Groundwater Mitigation.	PRCS		$54,640					$54,640	Senior Housing Fund
139	Civic Center Boiler Replacement	Facility		$80,000					$80,000	General Fund
140	DPS Field Services Complex Improvements - Mechanical	DPS		$151,680					$151,680	General Fund. $29,023 in EECBG Funds completed the replacement of two existing roof top units and exhaust fans
141	Retrofit Fire Tower - Fire Station #4	Fire		$165,375					$165,375	General Fund
142	Lower Lobby, Hallway and Locker Room Flooring - Replacement	PRCS		$50,300					$50,300	Novi Ice Arena Fund
143	Civic Center Carpet Replacement Program - Phase III (2012-2013)	Facility		$50,000					$50,000	General Fund
144	Police Biometric Access Control System	Police		$68,200					$68,200	Federal Forfeiture Funds
145	2- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (to replace	DPS		$460,000					$460,000	General Fund
146	Utility Truck (Replaces #708)	DPS		$155,000					$155,000	Water & Sewer Fund
147	Gradall Ditching Machine (replaces #675)	DPS		$300,000					$300,000	General Fund
148	1- 1-Ton Dump Truck w/plow-New	DPS		$60,000					$60,000	General Fund

*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Facilities, Equipment and Vehicles										
149	Four Combination V-Box Salt Spreader Inserts	DPS		$252,000					$252,000	General Fund
150	1- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces	DPS			$241,500				$241,500	General Fund
151	Meadowbrook Commons Asphalt Repairs	PRCS			$31,160				$31,160	Senior Housing Fund
152	Civic Center HVAC Air Handling Units Replacement	Facility			$250,000				$250,000	General Fund
153	DPS Field Services Complex Improvements - Electrical	DPS			$577,940				$577,940	General Fund
154	Meadowbrook Commons Roof Replacement - Phase I (2013-14)	PRCS			$39,600				$39,600	Senior Housing Fund
155	Civic Center Carpet Replacement Program-Phase IV (2013-2014)	Facility			$50,000				$50,000	General Fund
156	Civic Center Atrium Window Film	Facility				$50,000			$50,000	General Fund
157	Fire Tanker 1 (replaces #311)	Fire				$293,600			$293,600	General Fund
158	Closed Circuit Video Monitoring System for Twelve Oaks Mall-New	Police				$46,850			$46,850	General Fund
159	Bobcat All-Wheel Loader-New	DPS				$50,000			$50,000	General Fund
160	Meadowbrook Commons Roof Replacement - Phase II (2014-15)	PRCS				$40,800			$40,800	Senior Housing Fund
161	1- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces	DPS					$253,580		$253,580	General Fund
162	Civic Center Irrigation Well and Filter System	Facility					$25,000		$25,000	General Fund
163	Dehumidifier - Replacement	PRCS					$184,480		$184,480	Novi Ice Arena Fund
164	Accountability/Telemetry System - New	Fire					$65,900		$65,900	General Fund
165	1- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper (replaces	DPS					$253,580		$253,580	General Fund

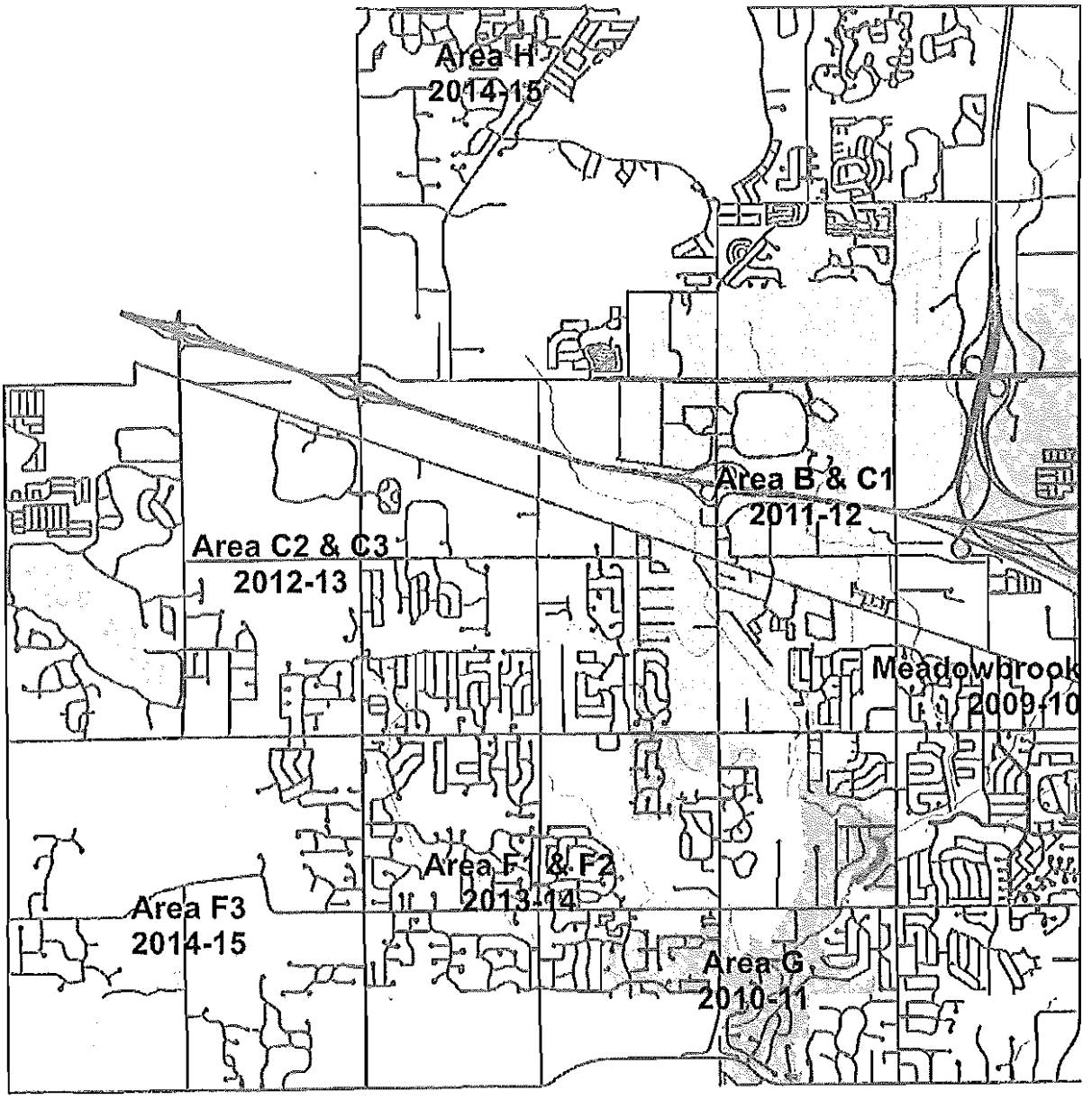
*Projects with prior commitment, grant, etc.

	Project Name	CIP#	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	TOTAL	Funding Source
Facilities, Equipment and Vehicle										
166	1- Tandem 7-Cubic Yard Dump Truck with Underbody Scraper and Front Plow (replaces	DPS					$253,580		$253,580	General Fund
167	1- Single-Axle Large Dump Truck With Front Plow And Underbody Scraper-New	DPS					$253,580		$253,580	General Fund
168	1- Single-Axle 5-Cubic Yard Dump Truck With Front Plow and Underbody Scraper-New	DPS					$230,000		$230,000	General Fund
169	Ladder 1 (replaces #312)	Fire						$1,152,200	$1,152,200	General Fund
170	Zamboni - Replacement	PRCS						$92,240	$92,240	Novi Ice Arena Fund
171	1- 1-Ton Dump Truck w/plow (replaces #633)	DPS						$76,577	$76,577	General Fund
172	Front-End Loader (replace #689-1995)	DPS						$252,000	$252,000	General Fund
173	Grader (replaces #612)	DPS						$300,000	$300,000	General Fund
174	Salt Dome Replacement	DPS						$235,500	$235,500	General Fund
	Other Total:		**$2,412,750**	**$2,160,755**	**$1,288,510**	**$500,130**	**$1,538,960**	**$2,128,157**	**$10,029,262**	

*Projects with prior commitment, grant, etc.

SANITARY SEWER REHABILITATION AREAS

LISTED BY YEAR FOR CONSTRUCTION



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