

*Village of Carol Stream*

**SPECIAL WORKSHOP MEETING**

**MONDAY, FEBRUARY 3, 2014**

**6:00 P.M.**

**GREGORY J. BIELAWSKI MUNICIPAL CENTER**

**500 N. GARY AVENUE**

**CAROL STREAM, ILLINOIS 60188**

**LOWER LEVEL TRAINING ROOM**

**AGENDA**

1. CALL TO ORDER
2. ATTENDANCE
3. CIP BUDGET PRESENTATION
4. OTHER BUSINESS
5. ADJOURNMENT

**VILLAGE OF  
CAROL STREAM**

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**2014-15  
CAPITAL  
IMPROVEMENT  
PROGRAM**

# AGENDA

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- **State Of The Village's Infrastructure**
  - **Roadway**
  - **Water & Sewer**
  - **Storm Water Management**
  - **Facilities**
- **Completed Projects**
- **Proposed CIP**
  - **Five Year Plan**
  - **Cash Flows**
  - **Ten & Twenty Year Plans**
  - **Project Details**

# AGENDA

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- **Requested But Not Programmed Projects**
- **Element Qualification Criteria For Project Inclusion**

# ROADWAY STATUS

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- **Pavement Condition**
- **Backlog Reduced**

# **WATER AND SEWER STATUS**

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- **Current Status**
- **Village Infrastructure Strategic Goal**
  - **Condition assessments**
  - **Identify future projects**
  - **Develop schedule**
- **GIS Utility System Update & Implementation Project**
- **Water System Study**
- **Sanitary Sewer System Evaluation Studies**
- **WRC Evaluations**

# **STORM WATER STATUS**

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- **Armstrong Park Flood Control Project**
- **Current Status**
- **Village Infrastructure Strategic Goal**
  - **Condition assessments**
  - **Identify future projects**
  - **Develop schedule**
- **GIS Utility System Update & Implementation Project**
- **Southeast Stormwater Study**
- **Tubeway & Westgate Stormwater Study**
- **Unfunded Mandates**

# FACILITY STATUS

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- **Facilities**
  - **Storage**
  - **Public Works Center**
  - **Village Hall**
  - **Town Center**



# COMPLETED CIP PROJECTS

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FY 13-14

## 2013 Pavement Preventative Maintenance Program Projects

Sixty four streets, Kuhn Road Trail and the Town Center parking lot received an application of preservative sealer and thirteen received a restorative sealer application with the Pavement Rejuvenation Projects. These two projects were completed at a total cost of \$343,597.53. The Pavement Patching Project included thirty one patches on thirteen streets totaling nearly 9,342 square feet of pavement surface. The Project was completed for \$26,624.70. In all, the Pavement Preventative Maintenance Program Projects were completed for a total cost of \$370,222.23 which was \$67,777.77 or 15.5% under the \$438,000 budgeted for these three projects.



Application of Rejuvenation Agent



Pavement Patch at Inca Boulevard & Arrowhead Trail

## 2013 Flexible Pavement Project

### Street Resurfacing, Structural Overlay & Pavement Reconstruction

A total of forty one streets or 42,800 feet received a 2” maintenance overlay and six streets or 7,408 feet had a 2.75” structural overlay and five streets or 2,874 feet the pavement was reconstructed. Curb and gutter, sidewalk and driveway removal and replacement as well as pipe under drainage, reflective crack control; street and structure patching were included with the project where conditions met Village criteria. Thermoplastic pavement markings were reapplied. The project was completed at a final cost of \$2,278,083.66. This was \$1,046,916.34 (31.5%) under the \$3,325,000 budgeted. The following are the list of streets that received resurfacing or structural overlays or the pavement was reconstructed:

#### Street Resurfacings

Aleut Trail	Lacrosse Street	Shelburne Drive
Arrowhead Trail	Moccasin Court	Silverleaf Boulevard
Aztec Drive	Mountain Glen Way	Sioux Lane
Bradbury Circle	Napa Street	Stockbridge Drive
Bristol Drive	Navajo Street	Tacoma Drive
Brookstone Drive	Niagara Street	Tahoe Court
Castleton Court	Old Meadow Court	Tama Court
Chippewa Trail	Overlook Lane	Thunderbird Trail
Cliff View Lane	Palomino Street	Ute Lane
Cochise Court	Penfield Drive	Waco Drive
Danbury Drive	Pocahontas Trail	Westward Trail
Essex Drive	Quincy Court	Williamstown Drive
High Ridge Pass	Rocky Valley Way	Windemere Lane
Hillcrest Drive	Saratoga Drive	

#### Structural Overlays

Alexandra Way	Gerzevske Lane	Pawnee Drive
Commerce Drive	Main Place	Randy Road

#### Pavement Reconstruction

Lacrosse Street	Ohio Court	Wampum Court
Palomino Street	Saginaw Court	



Saginaw Court Being Resurfaced



## 2013 Streetlight Replacement Project

Fifty seven streetlights and deteriorated poles were replaced with aluminum poles with screw-in bases and LED fixtures as well as new cables, conduit and controllers. The 2013 Streetlight Replacement Project was completed at a cost of \$281,705, which was \$43,295 or 13.3% under the \$325,000 budgeted.



Newly Installed LED Streetlight on Saginaw Court

## Building Roof Replacement Project

This project included replacement of the WRC sludge building roof, which is pre-cast concrete decking, waterproofed by an asphalt built-up roof system encompassing approximately 2,650 square feet for a total cost of \$42,532.14.



Replaced WRC Sludge Building Roof

## WRC Streetlight Replacement Project

Work included installing four replacement light poles, five LED fixtures and all associated conduit, cable and junction boxes for a total cost of approximately \$30,000 (final cost is estimated since project will not be complete until April 2014).



Streetlight at WRC to be Replaced

## **Klein Creek Flood Plain Structure Phase II Buyout**

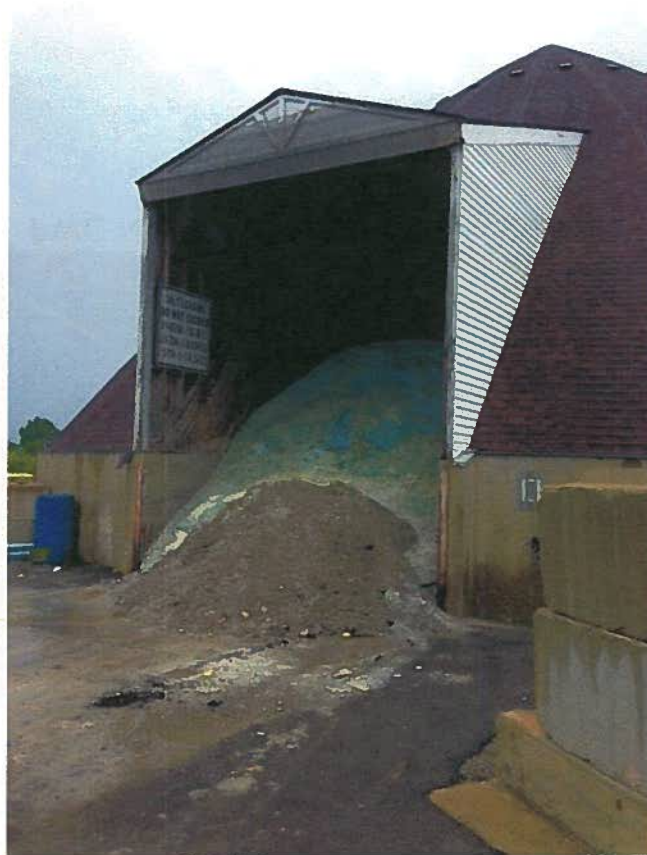
This project involved the purchase of a voluntary buyout and demolition of a flood prone structure. The total cost for the project was \$296,656.39 which was \$4,628.61 or 1.5% under the budget amount of \$301,285. The Village received an Illinois Department of Commerce and Economic Opportunity (DCEO) Community Development Block Grant (CDBG) that totally paid for the project.



**Razed Flood Prone Structure & Restored Lot**

## Salt Dome Roof Replacement

The PWC salt roof dome was replaced with a shingled roof along with metal flashing and trim and the overhead metal door was removed for a total cost of \$50,593.25.



Replaced PWC Salt Dome Roof



## PWC North Garage Roof Replacement

The standing-seam metal roof was replaced with a 40-year shingled roof and the entire clerestory window structure was replaced for a total cost of \$302,700.



PWC North Garage Roof Being Replaced

# **PROPOSED FIVE YEAR CIP**

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## **FUNDING SUMMARY**

**Village of Carol Stream**  
**5 Year Capital Improvement Program - Expenditure Summary**

<u>CIP Projects By Fund (\$000)</u>	<u>Fund</u>	<u>FY14/15 Proposed</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>FY18/19 Planned</u>	<u>Total</u>
<b><u>Roadways:</u></b>							
1. Pavement Preventative Maintenance Program	CPF	\$ 447	\$ 469	\$ 491	\$ 513	\$ 537	\$ 2,457
2. Flexible Pavement Program	CPF	3,000	2,558	3,146	4,042	-	12,746
3. Flexible Pavement Program	MFT	-	-	-	-	3,828	3,828
4. Fair Oaks Road Pavement Rehabilitation*	CPF	38	-	-	-	-	38
5. Indianwood Drive Pavement Reconstruction	CPF	147	68	-	-	-	215
6. Kuhn Road Pavement Rehabilitation*	CPF	-	374	-	-	-	374
7. Lies Road Pavement Rehabilitation*	CPF	-	36	395	-	-	431
8. Vale Road Pavement Rehabilitation	CPF	-	-	-	-	139	139
9. Doris Avenue Pavement Rehabilitation	CPF	-	-	-	-	277	277
10. Illini Drive Bridge Replacement	CPF	518	-	-	-	-	518
11. Kehoe Boulevard Rail Road Crossing Removal	CPF	25	-	-	-	-	25
12. Kuhn Road Trail*	CPF	24	-	-	-	-	24
13. West Branch DuPage River Trail*	CPF	351	450	108	-	-	909
14. Gary Avenue Improvements & Multi-Use Path	CPF	200	-	-	-	-	200
15. Carol Stream - Bloomingdale Trail Improvements*	CPF	73	112	219	-	-	404
16. Lies Road Bike Path Extension*	CPF	100	90	300	-	-	490
17. Streetlight Replacement Program	CPF	325	-	-	-	375	700
18. Roadway Drainage Improvements	CPF	-	58	61	64	67	250
<b>Subtotal</b>		<b>\$ 5,248</b>	<b>\$ 4,215</b>	<b>\$ 4,720</b>	<b>\$ 4,619</b>	<b>\$ 5,223</b>	<b>\$ 24,025</b>
<b><u>Water and Sewer Utilities:</u></b>							
1. WRC Phase II Aeration System Improvement	W/S	\$ 1,153	\$ -	\$ -	\$ -	\$ -	\$ 1,153
2. WRC Phase I Pumping Station Improvement	W/S	450	-	-	-	-	450
3. WRC Phase II Pumping Station Improvement	W/S	-	650	-	-	-	650
4. WRC Dewatering System Improvement	W/S	-	310	1,640	-	-	1,950
5. WRC Blower Motor Drive Replacement	W/S	-	-	-	110	-	110
6. WRC WAS Pump Replacement	W/S	-	-	40	-	-	40
7. WRC Secondary Clarifier Improvement	W/S	-	-	-	-	220	220
8. WRC Pavement Resurfacing & Reconstruction	W/S	300	-	-	-	-	300
9. Building Roof Replacement	W/S	65	80	-	-	-	145
10. GIS Utility System Update & Implementation	W/S	70	-	-	-	-	70

**Village of Carol Stream**  
**5 Year Capital Improvement Program - Expenditure Summary**

<u>CIP Projects By Fund (\$000)</u>	<u>Fund</u>	<u>FY14/15 Proposed</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>FY18/19 Planned</u>	<u>Total</u>
<b><u>Water and Sewer Utilities (continued):</u></b>							
11. GIS Utility System Update & Implementation	CPF	70	-	-	-	-	70
12. Schmale Road Water Main Replacement	W/S	2,351	-	-	-	-	2,351
13. Water System Studies	W/S	-	97	-	-	-	97
14. Water System Improvements	W/S	-	-	150	150	150	450
15. Water Main Replacement Program	W/S	-	-	200	2,200	2,200	4,600
16. SW Reservoir & Pumping Station	W/S	-	-	996	3,303	-	4,299
17. SW DPWC Connection & Metering Station	W/S	-	-	262	2,819	-	3,081
18. Aztec Drive Sanitary Sewer Replacement	W/S	-	52	571	-	-	623
19. North Avenue Sanitary Sewer Rehabilitation	W/S	-	-	66	726	-	792
20. Sanitary Sewer I&I Reduction	W/S	-	-	-	50	550	600
<b>Subtotal</b>		<b>\$ 4,459</b>	<b>\$ 1,189</b>	<b>\$ 3,925</b>	<b>\$ 9,358</b>	<b>\$ 3,120</b>	<b>\$ 22,051</b>
<b><u>Stormwater Utilities:</u></b>							
1. Southeast Stormwater Study	CPF	\$ 42	\$ -	\$ -	\$ -	\$ -	\$ 42
2. Tubeway & Westgate Stormwater Study	CPF	50	-	-	-	-	50
<b>Subtotal</b>		<b>\$ 92</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 92</b>
<b><u>Facilities:</u></b>							
1. PWC Front Parking Lot Resurfacing	CPF	\$ -	\$ 80	\$ -	\$ -	\$ -	\$ 80
2. Fullerton Storage Building	CPF	300	-	-	-	-	300
<b>Subtotal</b>		<b>\$ 300</b>	<b>\$ 80</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 380</b>
<b>Total Expenditures All Funds:</b>		<b>\$ 10,099</b>	<b>\$ 5,484</b>	<b>\$ 8,645</b>	<b>\$ 13,977</b>	<b>\$ 8,343</b>	<b>\$ 46,548</b>

\* Partially funded though outside sources.

**Fund Recap**

Capital Projects Fund	CPF	\$ 5,710	\$ 4,295	\$ 4,720	\$ 4,619	\$ 1,395	\$ 20,739
Motor Fuel Tax Fund	MFT	-	-	-	-	3,828	3,828
Water & Sewer Fund	W/S	4,389	1,189	3,925	9,358	3,120	21,981
		<b>\$ 10,099</b>	<b>\$ 5,484</b>	<b>\$ 8,645</b>	<b>\$ 13,977</b>	<b>\$ 8,343</b>	<b>\$ 46,548</b>

# PROPOSED FIVE YEAR CIP

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CASH  
FLOW

**Village of Carol Stream**  
**5 Year Capital Improvement Program - Fund Cash Flow Projections**

	FY12/13						
	Audited Fund	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19
	Balances	Estimated	Projected	Projected	Projected	Projected	Projected
<b><u>CAPITAL PROJECTS FUND</u></b>							
Proj. Beginning Fund Balance, May 1	\$ 22,574,313	\$ 21,739,351	\$ 22,375,351	\$ 17,163,351	\$ 13,366,351	\$ 8,731,351	\$ 4,112,351
Estimated Revenues	956,737	94,000	498,000	498,000	85,000	-	-
Estimated Expenditures*	(3,891,699)	(1,758,000)	(5,710,000)	(4,295,000)	(4,720,000)	(4,619,000)	(1,395,000)
Projected Surplus / Deficit	(2,934,962)	(1,664,000)	(5,212,000)	(3,797,000)	(4,635,000)	(4,619,000)	(1,395,000)
Transfer In From General Fund	2,100,000	2,300,000	-	-	-	-	-
<b>Proj. Ending Fund Balance, April 30</b>	<b>\$ 21,739,351</b>	<b>\$ 22,375,351</b>	<b>\$ 17,163,351</b>	<b>\$ 13,366,351</b>	<b>\$ 8,731,351</b>	<b>\$ 4,112,351</b>	<b>\$ 2,717,351</b>
<b><u>MOTOR FUEL TAX FUND</u></b>							
Proj. Beginning Fund Balance, May 1	\$ 2,615,279	\$ 3,389,061	\$ 2,125,061	\$ 2,946,061	\$ 3,756,061	\$ 4,554,061	\$ 5,340,061
Estimated Revenues	1,140,540	1,136,500	950,000	945,000	940,000	935,000	930,000
Estimated Expenditures*	(366,758)	(2,400,500)	(129,000)	(135,000)	(142,000)	(149,000)	(3,985,000)
Projected Surplus / Deficit	773,782	(1,264,000)	821,000	810,000	798,000	786,000	(3,055,000)
<b>Proj. Ending Fund Balance, April 30</b>	<b>\$ 3,389,061</b>	<b>\$ 2,125,061</b>	<b>\$ 2,946,061</b>	<b>\$ 3,756,061</b>	<b>\$ 4,554,061</b>	<b>\$ 5,340,061</b>	<b>\$ 2,285,061</b>
<b><u>WATER AND SEWER FUND</u></b>							
Proj. Beginning Cash Balance, May 1		\$ 15,424,280	\$ 15,085,780	\$ 9,998,780	\$ 8,122,780	\$ 3,253,780	\$ (7,254,220)
Estimated Revenues		8,986,500	9,612,000	10,081,000	9,909,000	9,850,000	9,950,000
Proceeds of Debt		-	-	-	-	-	-
Estimated Operating Expenses/Debt		(9,005,000)	(10,310,000)	(10,768,000)	(10,853,000)	(11,000,000)	(11,250,000)
Estimated Expenses (Construction)		(320,000)	(4,389,000)	(1,189,000)	(3,925,000)	(9,358,000)	(3,120,000)
Projected Surplus / Deficit		(338,500)	(5,087,000)	(1,876,000)	(4,869,000)	(10,508,000)	(4,420,000)
<b>Proj. Ending Cash Balance, April 30**</b>		<b>\$ 15,424,280</b>	<b>\$ 15,085,780</b>	<b>\$ 9,998,780</b>	<b>\$ 8,122,780</b>	<b>\$ (7,254,220)</b>	<b>\$ (11,674,220)</b>

\* Includes non-capital/operating expenditures.

\*\* A portion of the total cash balance is reserved for operations (25% of annual operating budget).

# **PROPOSED CIP**

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**YEARS 6 - 10**

**YEARS 11 - 20**



# CAPITAL IMPROVEMENT PROGRAM

FY19/20 THROUGH FY23/24

<u>CIP Projects By Fund (\$000)</u>	<u>Fund</u>	<u>FY19/20</u>	<u>FY20/21</u>	<u>FY21/22</u>	<u>FY22/23</u>	<u>FY23/24</u>	<u>Total</u>
<b><u>Roadway System</u></b>							
1. Pavement Preventative Maintenance Program	CPF	\$563	\$590	\$618	\$647	\$678	\$3,096
2. Flexible Pavement Program	CPF	\$4,456	\$3,114	\$3,617	\$5,159	\$0	\$16,346
3. Flexible Pavement Program	MFT	\$0	\$0	\$0	\$0	\$5,417	\$5,417
4. Kuhn Rd. Rehabilitation	CPF	\$0	\$271	\$0	\$0	\$0	\$271
5. Morton Rd. Rehabilitation	CPF	\$0	\$1,294	\$0	\$0	\$0	\$1,294
6. Fair Oaks Rd. Rehabilitation	CPF	\$0	\$0	\$903	\$0	\$0	\$903
7. Old Gary Ave. Rehabilitation	CPF	\$0	\$0	\$393	\$0	\$0	\$393
8. Streetlight Replacement Program	CPF	\$0	\$0	\$400	\$0	\$0	\$400
9. Roadway Drainage Improvements	CPF	\$70	\$74	\$78	\$82	\$86	\$390
<b>Subtotal:</b>		<b>\$5,089</b>	<b>\$5,343</b>	<b>\$6,009</b>	<b>\$5,888</b>	<b>\$6,181</b>	<b>\$28,510</b>
<b><u>Water and Sewer Utilities</u></b>							
1. WRC Secondary Clarifier Improvements	W/S	\$1,485	\$0	\$0	\$0	\$0	\$1,485
2. WRC Spencer Motor Drive Replacement	W/S	\$0	\$0	\$0	\$140	\$0	\$140
3. WRC Dewater Sludge Pumps A/B Replacement	W/S	\$0	\$0	\$0	\$60	\$0	\$60
4. WRC Digester Pump Replacement	W/S	\$0	\$0	\$0	\$136	\$0	\$136
5. Water System Improvements	W/S	\$150	\$150	\$0	\$0	\$0	\$300
6. Water Main Relacement Program	W/S	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$11,000
7. Sanitary Sewer I&I Reduction	W/S	\$550	\$550	\$550	\$550	\$550	\$2,750
8. SW Lift Station & Force Main	W/S	\$299	\$1,470	\$0	\$0	\$0	\$1,769
9. SW Sanitary Sewer Extension	W/S	\$0	\$72	\$774	\$0	\$0	\$846
10. St. Charles Rd. Sanitary Sewer Extension	W/S	\$0	\$310	\$3,011	\$335	\$0	\$3,656
11. Tall Oaks Lift Station Replacement	W/S	\$0	\$0	\$0	\$0	\$56	\$56
<b>Subtotal:</b>		<b>\$4,684</b>	<b>\$4,752</b>	<b>\$6,535</b>	<b>\$3,421</b>	<b>\$2,806</b>	<b>\$22,198</b>
<b><u>Facilities</u></b>							
1. PWC Garage Roof Replacement	CPF	\$0	\$0	\$0	\$0	\$150	\$150
<b>Subtotal:</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$150</b>	<b>\$150</b>
<b><u>Stormwater Utility</u></b>							
1. None	CPF	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal:</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Expenditures All Funds:</b>		<b>\$9,773</b>	<b>\$10,095</b>	<b>\$12,544</b>	<b>\$9,309</b>	<b>\$9,137</b>	<b>\$50,858</b>



# CAPITAL IMPROVEMENT PROGRAM

**FY24/25 THROUGH FY33/34**

	<u>Fund</u>	<u>FY</u> <u>24/25</u>	<u>FY</u> <u>25/26</u>	<u>FY</u> <u>26/27</u>	<u>FY</u> <u>27/28</u>	<u>FY</u> <u>28/29</u>	<u>FY</u> <u>29/30</u>	<u>FY</u> <u>30/31</u>	<u>FY</u> <u>31/32</u>	<u>FY</u> <u>32/33</u>	<u>FY</u> <u>33/34</u>
<b><u>Roadway System</u></b>											
1. Pavement Preventative Maintenance Program	CPF	X	X	X	X	X	X	X	X	X	X
2. Flexible Pavement Program	CPF	X	X	X	X	X	X	X	X	X	X
4. Doris Ave. Rehabilitation	CPF				X						
5. Kuhn Rd. Rehabilitation	CPF						X				
6. Morton Rd. Rehabilitation	CPF						X				
7. Fair Oaks Rd. Rehabilitation	CPF							X			
8. Old Gary Ave. Rehabilitation	CPF							X			
9. Vale Rd. Rehabilitation	CPF								X		
10. Streetlight Replacement Program	CPF	X			X			X			X
11. Roadway Drainage Improvements	CPF	X	X	X	X	X	X	X	X	X	X
<b><u>Water and Sewer Utilities</u></b>											
1. WRC Sand filter Replacement	W/S	X	X								
2. WRC Disinfection System Replacement	W/S		X								
3. WRC Non-potable Water Strainer Replacement	W/S				X						
4. WRC RAS Station Improvements	W/S						X				
5. Fire Hydrant Replacement	W/S	X	X	X	X	X	X	X	X	X	X
6. Water Main Valve Replacement	W/S	X	X	X	X	X	X	X	X	X	X
7. Water Main Replacement	W/S	X	X	X	X	X	X	X	X	X	X
8. Gary Avenue Gardens Watermain Improvement	W/S					X	X				
9. Sanitary Sewer Replacement	W/S	X	X	X	X	X	X	X	X	X	X
10. Tall Oaks Lift Station Replacement	W/S	X									
<b><u>Facilities</u></b>											
1. New Police Station	CPF										
- Land		X									
- Construction			X								
2. Community Park Improvement*	CPF	X									
3. PWC Fuel Storage Tank Replacement	CPF		X								
4. PWC Administration Bldg. Roof Replacement	CPF	X									
5. PWC South Garage Roof Replacement	CPF		X								
<b><u>Stormwater Utility</u></b>											
None											

\* Partially funded through outside source(s)

**CAPITAL  
IMPROVEMENT  
PROGRAM**

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**ROADWAY  
PROJECTS**

**Project Title: *Pavement Preventative Maintenance Program***

**Responsible Department: *Engineering Services & Public Works***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$2,457,000	\$0	\$447,000	\$469,000	\$491,000	\$513,000	\$537,000	\$3,096,000

**Description & Scope:** This Program employs a variety of pavement maintenance methods outside of the scope for the typical full-width milling, resurfacing and reconstruction projects (Flexible Pavement Program). Preventative and restorative sealers with rejuvenating agents will be applied to streets, parking lots and bike paths about every four to five years. A total of \$397,000 has been budgeted for the Pavement Rejuvenation Projects. The Pavement Preventative Maintenance Program also includes the \$50,000 Pavement Patching Project. Based upon annual assessments of streets not scheduled for full-width restoration, this element will provide for partial and full-depth asphalt patching, edge-grinding and resurfacing.

**Purpose & Need:** The Flexible Pavement Program addresses large-scale, structural needs through full-width milling and resurfacing. The Pavement Preventative Maintenance Program is designed to extend the life of street surfaces by preserving the pavement integrity through application of preservative and restorative sealers and by delivering structural repairs in small areas where needed. Repainting striping and symbols will provide safer traffic control and warnings for both motorists and pedestrians.

**Impact on Future Operating Budget:** By arresting small areas of pavement failure and applying rejuvenation materials to extend life, the program will reduce the degree of decline or failure that the annual Flexible Pavement Program must address.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	Annually	In House
Construction	5/14 - 4/15	\$447,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$447,000

**Project Title: *Flexible Pavement Program***

**Responsible Department: *Engineering Services***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$16,574,000	\$0	\$3,000,000	\$2,558,000	\$3,146,000	\$4,042,000	\$3,828,000	\$21,768,000

**Description & Scope:** This is an annual project that involves either a 2” maintenance overlay (resurfacing), a 2.75” structural overlay or total removal and replacement (pavement reconstruction) of the asphalt pavement section (binder and surface). Curb and gutter, sidewalk and driveway removal and replacement as well as pipe under drainage, street and structure patching are included with these projects if the conditions meet Village criteria. Due to a dwindling CIP balance and no reliable funding source resurfacing, structural overlay and pavement reconstruction projects were reduced 54% during the past two years. This has greatly increased the backlog of streets in fair to poor or failed condition from 22 in 2008 to 95 in 2011. Therefore, last year it was decided to restore these projects back to their original levels.

**Purpose & Need:** The Village uses the Roadway Management System (RMS) Study to develop its annual roadway management program. Streets are inventoried and a pavement condition index (PCI) is calculated for each street section. This PCI along with other factors assist engineers in evaluating maintenance/repair strategies and prioritizing street projects. As pavements continue to age they come to a point of deterioration where crackfill and rejuvenation maintenance strategies no longer become effective. At that time they are considered for resurfacing or a structural overlay. When the pavement has deteriorated beyond the point where a resurfacing operation is effective, pavement reconstruction is then considered. This type of operation is typical for severely deteriorated streets.

**Impact on Future Operating Budget:** These operations will improve the structural integrity of the pavement, its rideability and drainage of the pavement surface as well as extend its useful pavement life. It will also reduce future maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design	Annually	In House
Construction	5/14 - 4/15	\$3,000,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund (FY15-18)	\$3,000,000
Motor Fuel Tax Fund (FY19)	\$3,828,000

# **Flexible Pavement Program Project**

## **Street Resurfacing**

**Abbingdon Lane – Yardley Dr. to Woodhill Dr.**  
**Bison Trail – Birchbark Tr. to Lance Ln.**  
**Cactus Trail – Birchbark Tr. to Burning Tr.**  
**Creekwood Court – Munson Dr. to End**  
**Farm Glen Lane – Country Glen Ln. to Country Glen Ln.**  
**Glen Court – Farm Glen Ln. to End.**  
**Kamiah Court – Munson Dr. to End**  
**Mesa Verde Court – Munson Dr. to End**  
**Sauk Court – Munson Dr. to End**  
**Sundance Court – Munson Dr. to End**

**Big Eagle Trail – Morton Rd. to Birchbark Tr.**  
**Burning Trail – Birchbark Tr. to Big Eagle Tr.**  
**Country Glen Lane – Woodhill Dr. to Knollwood Dr.**  
**Dugout Trail – Birchbark Tr. to Cactus Tr.**  
**Fox Court – Evergreen Dr. to End**  
**Hawk Lane – Birchbark Tr. to Cactus Tr.**  
**Lance Lane – Birchbark Tr. to New Britton Rd.**  
**Nez Perce Court – Munson Dr. to End**  
**Sequoia Court – Munson Dr. to End**  
**Yardley Drive – Stonewood Cir. to Kuhn Rd.**

## **Structural Overlay**

**Easy Street – St. Charles Rd. to St. Charles Rd.**  
**Evergreen Drive – Birchbark Tr. to Buffalo Cir.**  
**Munson Drive – County Farm Rd. to Kuhn Rd.**

**Elk Trail – Gary Ave. to Idaho St.**  
**Idaho Street – Lies Rd. to South End**

## **Pavement Reconstruction**

**Allegheny Court – Oswego Dr. to End**  
**Cimarron Drive – Birchbark Tr. to Iroquois Tr.**  
**Dakota Court – Teton Cir. To End**  
**Iroquois Trail – Birchbark Tr. to Pawnee Dr.**  
**Nekoma Drive – Oswego Dr. to End**  
**Oswego Drive – Pawnee Dr. to Iroquois Tr.**  
**Prairie Court – Iroquois Tr. to End**  
**Shining Water Drive – Birchbark Tr. to Iroquois Tr.**

**Biloxie Court – Teton Cir. To End**  
**Colorado Court – Teton Cir. To End**  
**Esselen Court – Teton Cir. To End**  
**Minnesota Circle – Teton Cir. To End**  
**Oneida Court – Oswego Dr. to End**  
**Pontiac Lane – Pawnee Dr. to Iroquois Tr.**  
**Sand Creek Drive – Birchbark Tr. to Iroquois Tr.**



**Project Title: Fair Oaks Road Pavement Rehabilitation**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$157,417	\$137,618	\$37,358	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** This project encompasses almost all of Fair Oaks Road from Plum Grove Court to North Avenue. The Village previously totally reconstructed the roadway from Army Trail Road to Plum Grove Court. Total project length is 8,860 feet. Originally the project called for the total reconstruction of 1.18 miles of roadway, the addition of storm sewers, drainage ditches and streetlights as well as grading for a future bike trail. However, due to projected future CIP budget shortfalls the scope of the projected has been modified to save money. The new design will only involve the reconstruction of the pavement section. A new full depth roadway will be constructed with roadside ditches to keep in concert with the existing rural feel. The project will not include curb and gutter, sidewalks, storm sewers, streetlights or the regarding of ditches. The Project was completed in 2013 and the Village is waiting final invoicing from IDOT.

**Purpose & Need:** The pavement had a PCI of 66, indicating the need for rehabilitation. It was a chip and seal road with a bituminous overlay. It is beyond its useful life and the pavement needs to be reconstructed. Fair Oaks Road has an average daily traffic (ADT) of 5,337 vehicles per day (VPD) and is a Federal Aid Urban System (FAUS) route with sections in both the Village and the Wayne Township Road District (WTRD). The Village received \$506,041 in Local Agency Pavement Preservation (LAPP) funding via the Surface Transportation Program (STP) administered through the Federal Highway Administration (FHWA).

**Impact on Future Operating Budget:** Reconstruction of the asphalt roadway will economically provide a new pavement structure and will lessen maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/11 - 4/12	\$ 40,415
Construction	5/12 - 4/14	\$762,540

**Means of Financing**

Funding Source	Amount
Wayne Township Road District	\$139,597
LAPP	\$506,041
Capital Projects Fund	\$157,417

**Project Title: Indianwood Drive Pavement Reconstruction**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$215,000	\$0	\$147,000	\$68,000	\$0	\$0	\$0	\$0

**Description & Scope:** The entire pavement section consisting of a 6” Bituminous Asphalt Material (BAM) course, 2” binder course and 1½” surface course on 1,700 feet of Indianwood Drive for half the pavement width will be totally replaced as a patch in FY15. In FY15 after DuPage County has finished their \$10M Armstrong Park Flood Control Reservoir and Siphon Projects the Village will resurface all the streets in this area including Indianwood Drive. Approximately 290 feet of curb and gutter will also be replaced.

**Purpose & Need:** DuPage County will be constructing a 60” diameter siphon relief sewer along the centerline of Indianwood Drive to drain the new 115 acre-foot flood control facility being built in Armstrong Park. This will require the total removal and replacement of the asphalt pavement for approximately half the street width as well as an overlay in the following year. The overlay will be incorporated into the FY16 Flexible Pavement Program. Per the intergovernmental agreement with DuPage County and the Carol Stream Park District the Village is responsible for the restoration of the asphalt pavement.

**Impact on Future Operating Budget:** Replacing the entire pavement section with a perpetual pavement design will significantly reduce future maintenance repair costs and greatly extend the pavement life. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design – In House/DuPage County	5/12 - 12/13	\$ 0
Construction	1/14 - 4/16	\$215,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund	\$215,000

**Project Title: Kuhn Road Pavement Rehabilitation**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$408,143	\$34,143	\$0	\$374,000	\$0	\$0	\$0	\$0

**Description & Scope:** The upper 2 ½” asphalt surface course on 8,900 feet of Kuhn Road will be removed and replaced with asphalt leveling binder and surface courses. Full depth patching will be performed at severely deteriorated locations. The entire pavement surface will receive area reflective crack control treatment prior to placement of the surface course. Deteriorated driveways, storm sewer structures as well as curb and gutter sections will be repaired in accordance with Village criteria. The project limits are from Lies Road to North Avenue.

**Purpose & Need:** The ADT for Kuhn Road is over 8,600 VPD. This major collector serves a large residential section of Carol Stream. Although currently the two pavement sections have a PCI of 72 and 72, the roadway surface is deteriorating to the point where another structural overlay will be necessary in 5 years. Typically overlays are performed every fifteen years. The pavement has received one structural overlay in 1998. The existing overlay will be seventeen years old when it is replaced in 2015. Replacing the surface course will extend the pavement life, improve rideability and reduce maintenance costs. The Village has obtained \$728,000 in LAFO funding.

**Impact on Future Operating Budget:** Replacing the wearing surface course will extend the pavement life and reduce maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/13 - 4/14	\$ 34,143
Construction	5/15 - 4/16	\$1,102,000

**Means of Financing**

Funding Source	Amount
LAFO	\$ 728,000
Capital Projects Fund	\$ 408,143



**Project Title: Lies Road Pavement Rehabilitation**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$431,000	\$0	\$0	\$36,000	\$395,000	\$0	\$0	\$0

**Description & Scope:** This project involves the 2,850 foot section of Lies Road from Kuhn Road to County Farm Road. As with the Kuhn Road Pavement Rehabilitation Project, the upper 2 ½” asphalt surface course will be removed and replaced with asphalt leveling binder and surface courses. Full depth patching will be performed at severely deteriorated locations. The entire pavement surface will receive area reflective crack control treatment prior to placement of the surface course. Deteriorated driveways, storm sewer structures as well as curb and gutter sections will be repaired in accordance with Village criteria.

**Purpose & Need:** The current ADT for Kuhn Road is 9,900 VPD with a projected ADT of 11,000 VPD in 2040. This major collector also serves a large residential section of Carol Stream. The PCI is only 12 indicative of a failed condition. However, this rating was based on no crackfill or rejuvenation measures performed on the surface which would’ve increased its rating. Replacing the surface course will extend the pavement life, improve rideability and reduce maintenance costs. The Village has obtained \$352,000 in LAFO funding.

**Impact on Future Operating Budget:** Replacing the wearing surface course will extend the pavement life and reduce maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/15 - 4/16	\$ 36,000
Construction	5/16 - 4/17	\$747,000

**Means of Financing**

Funding Source	Amount
LAFO	\$352,000
Capital Projects Fund	\$431,000

**Project Title: Vale Road Pavement Rehabilitation**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$139,000	\$0	\$0	\$0	\$0	\$0	\$139,000	\$0

**Description & Scope:** This project involves an 850 foot section of Vale Road from County Farm Road east to Ethel Street. As with other Pavement Rehabilitation Projects, the upper 2 1/2" asphalt surface course will be removed and replaced with asphalt leveling binder and surface courses. Full depth patching will be performed at severely deteriorated locations. The entire pavement surface will receive area reflective crack control treatment prior to placement of the surface course. Deteriorated driveways, storm sewer structures as well as curb and gutter sections will be repaired in accordance with Village criteria.

**Purpose & Need:** The north half of Vale Road was constructed to Village standards when the North Hills Unit 5 subdivision was built leaving the south half an old chip and seal section with a bituminous overlay without curb and gutter, sidewalks, storm sewers or street lights. It was last rehabilitated in 2005. The PCI is 71 and is expected to deteriorate to the point where it will need to be rehabilitated in 2018.

**Impact on Future Operating Budget:** Replacing the wearing surface course will extend the pavement life and reduce maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/17 - 4/18	In House
Construction	5/18 - 4/19	\$139,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$139,000

**Project Title: Doris Avenue Pavement Rehabilitation**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$277,000	\$0	\$0	\$0	\$0	\$0	\$277,000	\$0

**Description & Scope:** This project will only involve the rehabilitation of the 1,800 foot section of Doris Avenue from Gary Avenue to Ellis Avenue. Keeping with other Pavement Rehabilitation Projects, the upper 2 ½” asphalt surface course will be removed and replaced with asphalt leveling binder and surface courses. Full depth patching will be performed at severely deteriorated locations. The entire pavement surface will receive area reflective crack control treatment prior to placement of the surface course. Deteriorated driveways and culverts will be repaired in accordance with Village criteria. Ditches will be regarded where necessary to maintain drainage and the existing rural feel. The project will not include curb and gutter, sidewalks, storm sewers or street lights.

**Purpose & Need:** The PCI is only 73, but further deterioration is predicted by 2018 requiring pavement rehabilitation. It’s a chip and seal road with a bituminous overlay. The pavement will be beyond its useful life and will need to be replaced.

**Impact on Future Operating Budget:** Replacing the wearing surface course will extend the pavement life and reduce maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/17 - 4/18	In House
Construction	5/18 - 4/19	\$277,000

**Means of Financing**

Capital Projects Fund	\$277,000
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**Project Title: Illini Drive Bridge Replacement**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$630,000	\$112,000	\$518,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** The project consists of removing the existing roadway, Spancrete bridge deck panels and abutments and installing a new cast-in-place or precast concrete structure. The roadway including the street, sidewalk and railings will also be replaced. The roadway will be totally closed at the structure to shorten the construction schedule. A traffic detour will be provided throughout the project.

**Purpose & Need:** The original bridge was constructed in 1973. A September 2009 bridge inspection revealed several deck panels have showed signs of seepage and delamination with cracking in the abutments. This type of deterioration is similar to what the Thunderbird Trail bridge experienced before a panel failed forcing a partial road closure. The 2011 bridge inspection has since identified the failure of one deck beam and a failed repair on another deck beam. Erosion is occurring behind each wing wall with seepage between the deck beams and abutments at isolated locations. This year the Illinois Bureau of Bridge and Structures performed a weight limit evaluation which required the Village to impose an 18 ton weight limit restriction on the bridge. Special Feature Inspections must also be performed every six months.

**Impact on Future Operating Budget:** Replacement of the bridge will reduce future bridge maintenance and repair work. It will also help protect undermining and failure of the roadway. Normal maintenance will be performed as needed and the bridge will be inspected biennially by a certified bridge inspector as required by IDOT.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/13 - 4/14	\$112,000
Construction	5/14 - 4/15	\$518,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund	\$630,000

**Project Title: Kehoe Boulevard Rail Road Crossing Removal**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$25,000	\$0	\$25,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** This project entails the removal of the existing rail road crossing and replacing it with a normal pavement section. A small section of the pavement will need to be re-profiled to maintain a uniform crown and provide proper drainage. Half the roadway will be removed/replaced at a time to maintain traffic.

**Purpose & Need:** The crossing is no longer in use and has deteriorated to the point where the crossing is considered rough.

**Impact on Future Operating Budget:** Removal of the unused rough crossing and replacing it with pavement will lessen future maintenance and repair work. It will also help alleviate damage to vehicles and make for a smoother crossing with the remaining siding. Normal maintenance operations, preservative sealing and crack filling, will be performed on the new pavement.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/14 - 4/15	In House
Construction	5/14 - 4/15	\$25,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund	\$25,000

**Project Title: *Kuhn Road Trail***

**Responsible Department: *Engineering Services***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$70,742	\$47,072	\$23,670	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** A 10-foot wide, 2.3 mile long bituminous shared-use path has been constructed on the west side of Kuhn Road from Lies Road to Barbara O’Rahilly Volunteer Park where it connects into the Park District’s trail that extends south Through Redhawk Park to a connection with the Great Western Trail. The Village has accepted the improvements and is awaiting final invoicing from IDOT.

**Purpose & Need:** The purpose and need for this project is to construct a multi-use facility that will connect local and regional trail systems. This path will enable residents easy access to the Illinois Prairie Path via the Great Western Trail. It will also link to the Lies Road Bike Path that accesses the West Branch Forest Preserve, Simkus Center, 13 parks, 6 schools, 2 churches, a proposed commercial area as well as the Village’s Town Center. The Village has received \$330,442 from the FHWA Surface Transportation Program (STP) Transportation Control Measure (TCM) Program and \$279,238 from the FHWA Congestion Mitigation Air Quality (CMAQ) Program and \$100,000 from a Department of Commerce and Economic Opportunity (DCE) Legislative Grant. The Park District contributed \$8,965 towards the Phase I Design Study.

**Impact on Future Operating Budget:** This new asphalt path will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



**Schedule of Activities**

Activity	From - To	Amount
Design Study & Final Engineering	5/08 - 4/12	\$256,972
ROW Acquisition	5/09 - 4/12	\$ 14,200
Construction	5/12 - 4/13	\$518,215

**Means of Financing**

Funding Source	Amount
FHWA STP-TCM Grant - Construction	\$330,442
FHWA CMAQ Grant – Design & Construction	\$279,238
DCEO Legislative Grant	\$100,000
Carol Stream Park District	\$ 8,965
Capital Projects Fund	\$ 70,742



**Project Title: West Branch DuPage River Trail**

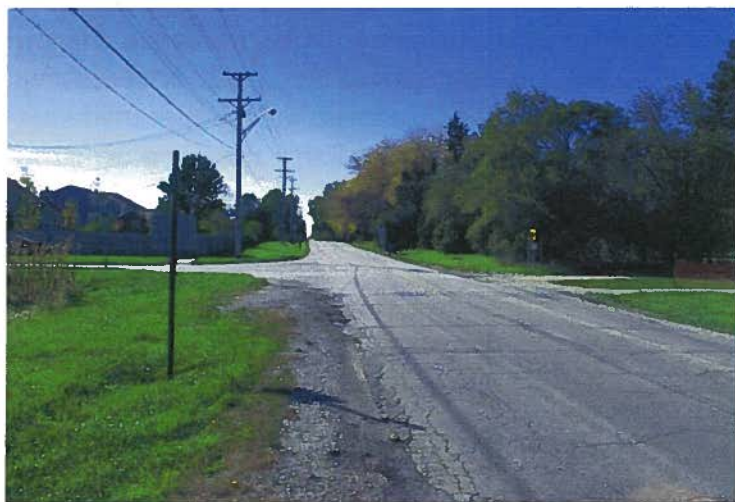
**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$216,710	\$20,842	\$351,000	\$450,000	\$108,000	\$0	\$0	\$0

**Description & Scope:** The proposed project includes a 10' wide bituminous path 13,000 feet along the east side of Fair Oaks Road from Oxford Drive to St. Charles Road, west to the West Branch of the DuPage River. It also includes a spur along the north side of St. Charles Road from Fair Oaks Road to Benjamin Middle School. This \$2,410,000 project now includes the Fair Oaks Road Bike Path Project as well since the Village has received up to \$1,296,000 in STP-TCM Program funding and \$438,000 in Illinois Transportation Enhancement Program (ITEP) grants that included both sections. It is a jointly funded project involving the Village, Wayne Township Road District (WTRD) and the Forest Preserve District of DuPage County (FPDDC).

**Purpose & Need:** Pedestrians, bicyclists and joggers have used the roadway as a path. The FPDDC has constructed a trail head with a parking facility just north of Lies Road on the west side of Fair Oaks Road. They have requested use of Village right-of-way to extend their West Branch Regional Trail System south to St. Charles Road and then west to the River where it will eventually connect with the Great Western Trail and the Illinois Prairie Path. Once constructed, this path will provide access to these trails/paths and other regional systems.

**Impact on Future Operating Budget:** This new asphalt path will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



**Schedule of Activities**

Activity	From - To	Amount
Design Study & Final Engineering	5/10 - 4/14	\$ 308,420
Right of Way Acquisition	5/12 - 4/14	\$ 237,000
Construction	5/14 - 4/15	\$1,868,000

**Means of Financing**

Funding Source	Amount
Forest Preserve District	\$ 246,000
Wayne Township Road District	\$ 216,710
FHWA STP-TCM Grant – Construction	\$1,296,000
IDOT ITEP Grant – Design Study & Final Engineering	\$ 438,000
Capital Projects Fund	\$ 216,710

**Project Title: Gary Avenue Improvements & Multi-Use Path**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$200,000	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** This project is the Village’s contribution towards two DuPage County projects: Gary Avenue Improvement and Gary Avenue Multi-Use Path Projects. The \$11.915M Improvement Project consists of resurfacing and widening Gary Avenue to a five lane section along with the addition of right turn lanes, curbs and gutters, storm sewers, traffic signal modernization and improvements to accommodate the future multi-use path. The Village is contributing \$148,000 towards this project. The \$3.085M Multi-Use Path Project entails the construction of a 10’ wide asphalt multi-use path along the west side of Gary Avenue from the Great Western Trail to Army Trail Road continuing west to Brighton Drive. It also includes the continuation of the existing ten-foot wide asphalt bike path along the north side of Lies Road to the Gary Avenue intersection. The Fountains at Town Center development contributed approximately \$17,000 for these costs. The Village is responsible for right of way acquisition estimated at \$35,000 to adjust the path in order to accommodate bus shelters. DuPage County received a \$1,875,000 STP-TCM Program grant and has responsibility for the remaining \$1,158,000 as the lead agency.

**Purpose & Need:** Numerous pedestrians and bicyclists have been observed traveling along Gary Avenue with an existing ADT of 19,700 to 27,700 VPD. There are also numerous destinations that exist along the Gary Avenue corridor such as the Village Hall, Town Center, proposed Park District Recreation Center, offices, businesses and residential neighborhoods. Future extensions are planned to bring the path north to Stratford Square Mall and eventually connecting into paths to the North Central DuPage Regional Trail.

**Impact on Future Operating Budget:** This new asphalt path will be the Village’s responsibility to maintain, but will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



**Schedule of Activities**

Activity	From - To	Amount
Gary Avenue Construction	5/14 - 4/15	\$148,000
Multi-Use Path Construction	5/16 - 4/17	\$ 52,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund (\$17,000 in developer contributions)	\$200,000



**Project Title: Carol Stream – Bloomingdale Trail Improvements**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$271,000	\$0	\$15,000	\$37,000	\$219,000	\$0	\$0	\$0

**Description & Scope:** This \$734,000 project is the extension of the existing Kuhn Road Trail 3,730 feet from Lies Road north to Army Trail Road. A new 10' de asphalt path will be constructed along the west side of the parkway. The Village has received up to \$330,000 in STP-TCM Program funding for construction. The project is contingent on receiving an Illinois Transportation Enhancement Program (ITEP) grant for the Phase I Design Study, Phase II Final Engineering and easement acquisitions.

**Purpose & Need:** The extension of the existing trail along the west side of Kuhn Road is considered a significant link in the DuPage County Regional Bikeway Plan. It's identified as a regional trail connecting the Great Western Trail on the south to Bloomingdale and eventually to the North Central DuPage Regional Trail as improvements are made to the north. It will also provide access connections to the Lies Road Bike Path and other regional systems.

**Impact on Future Operating Budget:** This new asphalt path will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design Study	5/14 - 4/15	\$ 73,000
Final Engineering & Acquisitions	5/15 - 4/16	\$112,000
Construction	5/16 - 4/17	\$549,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
FHWA STP-TCM Grant – Construction	\$330,000
IDOT ITEP Grant – Design Study, Acquisitions & Final Engineering	\$133,000
Capital Projects Fund	\$271,000

**Project Title: Lies Road Bike Path Extension**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$338,000	\$0	\$20,000	\$18,000	\$300,000	\$0	\$0	\$0

**Description & Scope:** The existing Lies Road Bike Path will be extended along the north side of Lies Road from where the path presently terminates at Klein Creek just east of Gary Avenue all the way to Glendale Heights at Schmale Road. The improvement will consist of a 10-foot wide, 5,350 foot long bituminous bike path. STP-TCM Program funding up to \$461,000 for construction has been received. The project is contingent on receiving Illinois Transportation Enhancement Program (ITEP) grants for the Phase I Design Study and Phase II Final Engineering.

**Purpose & Need:** As with the Carol Stream – Bloomingdale Trail this bike path extension is also considered a significant link in the DuPage County Regional Bikeway Plan. It will provide improved access to neighborhoods in Glendale Heights and when future extensions are completed access can be gained to the East Branch DuPage River Greenway Trail.

**Impact on Future Operating Budget:** This new asphalt path will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



**Schedule of Activities**

Activity	From - To	Amount
Design Study	5/14 - 4/15	\$100,000
Final Engineering	5/15 - 4/16	\$ 90,000
Construction	5/16 - 4/17	\$761,000

**Means of Financing**

Funding Source	Amount
FHWA STP-TCM Grant – Construction	\$461,000
IDOT ITEP Grant – Design Study & Final Engineering	\$152,000
Capital Projects Fund	\$338,000

**Project Title: *Streetlight Replacement Program***

**Responsible Department: *Public Works & Engineering Services***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$700,000	\$0	\$325,000	\$0	\$0	\$0	\$375,000	\$0

**Description & Scope:** The project involves the replacement of approximately 50 to 60 deteriorated concrete streetlight poles with standard aluminum poles with screw-in bases and LED light fixtures, along with the complete replacement of conduit, cabling and controllers. This will complete all of the Western Trails Subdivision.

**Purpose & Need:** The Village has over 1,000 concrete poles in inventory, many of which are exhibiting signs of deterioration. In addition, other elements are in need of repair such as deteriorated wiring, inadequate controls, photoelectric components and pole anchors. The LED light fixtures will also provide better, cleaner lighting.

**Impact on Future Operating Budget:** Replacing the deteriorated concrete poles will reduce potential liability due to structural failure. In addition, the LED fixtures will last considerably longer than existing fixtures, reducing maintenance and replacement intervals, as well as reducing electrical consumption. Finally, the new products selected for cabling, conduit and controllers will require less maintenance, reduce underground failures, and allow for isolation of outages so that total street blackouts are less likely.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Construction	5/14 - 4/15	\$325,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$325,000



**Project Title: Roadway Drainage Improvements**

**Responsible Department: Engineering Services & Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$250,000	\$0	\$0	\$58,000	\$61,000	\$64,000	\$67,000	\$390,000

**Description & Scope:** This is a newly created program building on previous efforts at repairing deteriorated road storm sewer structures, curbs and gutters and installing new pipe under drains. Every year approximately 20 structures and the adjoining curb and gutter sections will be repaired. Poorly draining areas of the parkway or curb and gutter sections will also be included in the program. Under drain piping and re-grading will be utilized to mitigate ponding issues within the parkway. The curb and gutter sections will be removed and replaced to reestablish the profile. Only areas meeting the Village’s Element Qualification Criteria will be considered for a project.

**Purpose & Need:** Over time storm sewer structures within the roadway deteriorate and begin leaking. These leaks cause undermining and eventual destruction of the pavement which can lead to dangerous and sometimes unseen holes. Repairing the structures will provide a safe roadway for both motorists and pedestrians. Installing new pipe under drains can alleviate ponding of water or icing in the parkway, on sidewalks and streets.

**Impact on Future Operating Budget:** By making these repairs, further destruction of the structure, curb and gutter as well as the adjacent pavement can be prevented. Liability issues can be reduced by lessening the amount and frequency of slippery or iced sidewalks and streets.



**Schedule of Activities**

Activity	From - To	Amount
Design	Annually	In House
Construction	5/15 - 4/16	\$58,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund	\$58,000

**CAPITAL  
IMPROVEMENT  
PROGRAM**

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**WATER & SEWER  
PROJECTS**



**Project Title: WRC Phase II Aeration System Improvement**

**Responsible Department: Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$1,205,000	\$115,000	\$1,090,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** Installation of advanced instrumentation that will improve control of the aeration system through process probes and blower speed controls. A \$62,800 Illinois Energy Now – Public Sector Energy Efficiency Program grant was received by the Village from the Department of Commerce and Economic Opportunity (DCEO).

**Purpose & Need:** The purpose of the project is to improve the efficiency of generating the needed air for digester aeration, improve control of air delivery to the digesters and to establish control of air delivery to the upstream aeration tank in the operating train. This project has been rated as the number two priority in the Facility Inspection Report completed by Baxter & Woodman in late 2010.

**Impact on Future Operating Budget:** Improved ability to control air delivery will allow for more efficient use of blowers, which will help reduce electrical costs.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/13 - 4/14	\$ 115,000
Construction	5/14 - 4/15	\$1,153,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$1,205,000
DCEO Grant	\$ 63,000

**Project Title: WRC Phase I Pumping Station Improvement**

**Responsible Department: Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$450,000	\$0	\$450,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** Rehabilitation of the impeller, splash plate, motor, drive, gearbox and grease pump for Primary Pump 1 and Second Stage Pumps.

**Purpose & Need:** The pumping equipment moves the sewage through the various treatment processes. The equipment is aging and has been rated the number three (3) priority in the Baxter & Woodman Facility Inspection Report completed in late 2010.

**Impact on Future Operating Budget:** Replacement of equipment with newer, more energy efficient gear will offer some benefit to energy costs.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/14 - 11/14	\$ 50,000
Design & Construction	12/14 - 4/15	\$400,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$450,000

**Project Title: *WRC Phase II Pumping Station Improvement***

**Responsible Department: *Public Works***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$650,000	\$0	\$0	\$650,000	\$0	\$0	\$0	\$0

**Description & Scope:** Rehabilitation of the impeller, splash plate, motor, drive, gearbox and grease pumps for Primary Pump #3 and Second Stage Pumps #2 and #3.

**Purpose & Need:** The equipment is requiring increasing levels of maintenance and will have reached its useful life by the scheduled replacement date. This project has been rated as the number four priority in the Facility Inspection Report completed by Baxter & Woodman in late 2010.

**Impact on Future Operating Budget:** This is a replacement of aging equipment that is critical to the operation of the facility. Without the project, operating costs will continue to rise to keep up with failing equipment. Replacement of equipment with newer, more energy efficient gear may offer some benefit to energy costs.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/15 - 9/15	\$ 80,000
Construction	10/15 - 4/16	\$570,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$650,000

**Project Title: WRC Dewatering System Improvement**

**Responsible Department: Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$1,950,000	\$0	\$0	\$310,000	\$1,640,000	\$0	\$0	\$0

**Description & Scope:** Replacement of the belt filter presses with similar equipment. Replacement of the belt press, sludge de-watering pump, polymer feed system and all accompanying equipment.

**Purpose & Need:** The two existing belt presses are original equipment and other related equipment is aging and should be replaced as scheduled. This project has been rated as the number five priority in the Facility Inspection Report completed by Baxter & Woodman in late 2010.

**Impact on Future Operating Budget:** Sludge dewatering lowers hauling costs by lowering the water content of the sludge and thus the overall volume.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/15 - 4/16	\$ 310,000
Construction	5/16 - 4/17	\$1,640,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$1,950,000



**Project Title: WRC Blower Motor Drive Replacement**

**Responsible Department: Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$110,000	\$0	\$0	\$0	\$0	\$110,000	\$0	\$0

**Description & Scope:** Rehabilitation of the motor and drive system for Blower Nos. 9 – 12.

**Purpose & Need:** Equipment will have reached the end of its useful life.

**Impact on Future Operating Budget:** More efficient motors and more control over deliver of air will reduce electric costs.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design & Construction	5/17 - 4/18	\$110,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$110,000



**Project Title: WRC WAS Pump Replacement**

**Responsible Department: Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$40,000	\$0	\$0	\$0	\$40,000	\$0	\$0	\$0

**Description & Scope:** Replacement of the existing Waste Activated Sludge (WAS) pumps with similar equipment at current capacity.

**Purpose & Need:** Equipment will have reached the end of its useful life.

**Impact on Future Operating Budget:** Replacement will help keep maintenance costs low.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design & Construction	5/16 - 4/17	\$40,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$40,000

**Project Title: WRC Secondary Clarifier Improvement**

**Responsible Department: Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$1,705,000	\$0	\$0	\$0	\$0	\$0	\$220,000	\$1,485,000

**Description & Scope:** This project consists of the replacement of the existing secondary clarifier motor, drive, skimmer/scrapper, scum beach and effluent weir for clarifiers no. 1 – 4 as well as rehabilitation of the electrical and structural components.

**Purpose & Need:** Equipment will be 20 to 24 years old and will have reached the end of its useful life.

**Impact on Future Operating Budget:** Replacing the equipment will reduce maintenance costs making the operations of the plant more reliable.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/18 - 4/19	\$ 220,000
Construction	5/19 - 4/20	\$1,485,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$1,705,000

**Project Title: WRC Pavement Resurfacing & Reconstruction**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$300,000	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** Approximately 60% of the existing deteriorated asphalt drives will be milled and replaced with a 2” maintenance overlay (resurfacing). The remaining 40% requires total removal and replacement (pavement reconstruction) of the 5” thick asphalt pavement section (binder and surface). Curb and gutter, and driveway removal and replacement as well as pipe under drainage, street patching and structure repairs are included with this project where conditions meet Village criteria. The project will be integrated with the Village’s Flexible Pavement Project to take advantage of economies of scale.

**Purpose & Need:** Portions of the pavement have deteriorated to the point where crackfill and rejuvenation maintenance strategies no longer become effective. Resurfacing is needed to restore the pavement section. Other portions have deteriorated beyond the point where resurfacing is an effective operation and therefore the pavement section must be reconstructed.

**Impact on Future Operating Budget:** As with the Village’s Flexible Pavement Project these operations will also improve the structural integrity of the pavement, its rideability and drainage of the pavement surface as well as extend its useful pavement life. It will also reduce future maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design & Construction	5/14 - 4/15	\$300,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$300,000

**Project Title: *Building Roof Replacement***

**Responsible Department: *Public Works***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$145,000	\$0	\$65,000	\$80,000	\$0	\$0	\$0	\$0

**Description & Scope:** Replacement of roofs on various buildings at the WRC including: 7 to 20 year old administration building roof (FY15), 19 year old blower building #1 roof (FY15) and 18 year old grit/screening building roof (FY16),

**Purpose & Need:** These building roofs were identified in a comprehensive analysis of roof conditions of all public works facilities performed in 2005.

**Impact on Future Operating Budget:** Failure to replace roofs can cause additional damage to building structure and contents and require additional maintenance costs.

**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Construction	5/14 - 4/15	\$ 65,000
Construction	5/15 - 4/16	\$ 80,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$145,000





**Project Title: GIS Utility System Update & Implementation**

**Responsible Department: Engineering Services & Public Works**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$140,000	\$0	\$140,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** The first phase would complete the updating and build out of all water, sanitary and storm sewer system mapping features including: pipes, vaults, valves, hydrants and control and storage facilities, manholes, inlets, catch basins, outlets, culverts, best management practices, detention and retention basins, restrictors, pump stations, structures and other appurtenances. An analysis would also be performed to determine how the updated spatial data and existing Public Works databases could be linked. The second phase of the GIS project would complete the link of spatial data and existing data bases for water, storm and sanitary sewer systems.

**Purpose & Need:** The Village does not have an accurate or complete map of its water, sanitary or storm sewer system. These maps are crucial for performing locates, making repairs, performing maintenance, analyzing components and securing the system in emergencies. The information would be available to field staff for use on site as they perform work on the utility system. The data (and maps) would include information such as the location, age or work history of pipes, structures and other appurtenances.

**Impact on Future Operating Budget:** A complete GIS atlas of the entire Village utility infrastructure will better enable staff to assess, maintain, manage and control the systems. Use of this information would aid workers in more efficiently making repairs and in limiting scope and duration of service interruptions to customers.



**Schedule of Activities**

Activity	From - To	Amount
Study	5/14 - 4/15	\$140,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$ 70,000
Capital Projects Fund	\$ 70,000



**Project Title: Schmale Road Water Main Replacement**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$2,485,000	\$134,000	\$2,351,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** The project consists of replacing and/or upsizing approximately 7,900 feet of 10” and 12” cast iron pipe (CIP) with ductile iron pipe (DIP) along Schmale Road and St. Charles Road. The limits of the project begin south of North Avenue at Covered Bridges and extend to Geneva Road. The section along St. Charles Road is from Schmale Road east to President Street which includes a small 400 foot section where there is presently no water main. All the water main would be relocated out from under the roadway pavement within proposed easements adjacent to the right of way.

**Purpose & Need:** Cast iron water mains were installed early in the Village’s life and have had more frequent breaks and required more maintenance. Public Works identified recent water main breaks in this system.

**Impact on Future Operating Budget:** Relocating water main out from under the pavement will greatly lessen repair costs. Replacing CIP with DIP will give the system more uniform pressure with less maintenance, far superior reliability and significantly less repair costs. Addition of new water main will require routine maintenance involving hydrant flushing, valve exercising and hydrant painting.



**Schedule of Activities**

Activity	From - To	Amount
Preliminary Design Report	5/13 - 4/14	\$ 134,000
Design	5/13 - 4/15	\$ 283,000
Construction	5/15 - 4/16	\$2,068,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$2,485,000

**Project Title: *Water System Studies***

**Responsible Department: *Engineering Services & Public Works***

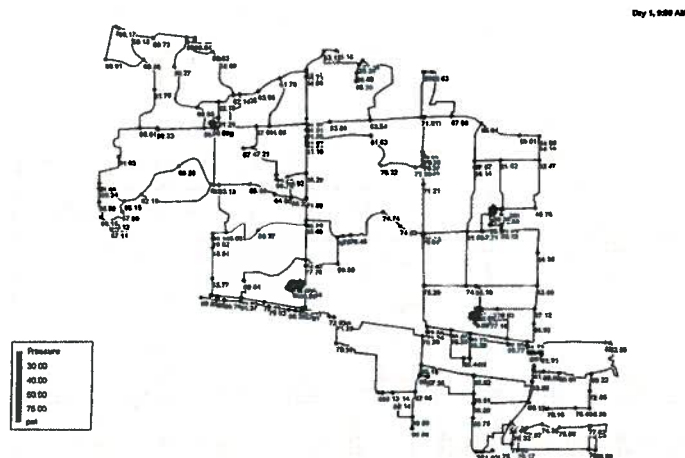
Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$97,000	\$0	\$0	\$97,000	\$0	\$0	\$0	\$0

**Description & Scope:** Two studies will be performed. The Southwest Area Water & Sanitary Sewer Infrastructure Study identified the need for a reservoir, pumping station and connection to DuPage Water Commission’s trunk line along St. Charles Road to provide adequate fire flow to this area of the Village. The first study will determine when it’s most appropriate for the Village to make these improvements through an analysis of the system. The second study involves a comprehensive asset study of the Village’s entire water system including condition assessments and performance evaluations.

**Purpose & Need:** A study is required to ascertain the impact of additional connections from the Southwest Water Main extension Project on the fire flow demand before the Village undertakes these two previously mentioned expensive projects. The aging system is experiencing more water main breaks and some functional deficiencies have been observed. The last Village wide water system study was performed in 1988. Previous Capital Improvement Programs included specific water main replacement projects. Although a Water Main Replacement Program is included in the CIP, no specific projects are being identified until completion of the comprehensive water system analysis. A system wide performance study and condition assessment is needed.

**Impact on Future Operating Budget:** The first study will give the Village a better indicator as to when future improvements are needed in order to provide adequate fire flows in the southwest area of the Village. The second study will provide a comprehensive condition assessment and performance evaluation of the water system that will allow the Village to better prioritize and target infrastructure maintenance programs and replacement and expansion projects for the next ten years.

CAROL STREAM PEAK DAY DEMAND 5200 GPM WITH FIREFLOW 2000 GPM AT MORTON



**Schedule of Activities**

Activity	From - To	Amount
Water System Analysis & Asset Study	5/15 - 4/16	\$85,000
SW Water System Study Update	5/15 - 4/16	\$12,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$97,000

**Project Title: *Water System Improvements***

**Responsible Department: *Engineering Services***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$450,000	\$0	\$0	\$0	\$150,000	\$150,000	\$150,000	\$300,000

**Description & Scope:** The water system studies to be performed in FY16 will identify deficiencies in the system including inadequate connections, piping and valves, undersized mains, lack of fire protection coverage, high pressure zones, reliability issues, etc. Over the next five years the Village will undertake projects to address those deficiencies.

**Purpose & Need:** From previous limited studies we have preliminary identified some of those deficiencies thereby justifying the need for a more thorough and comprehensive study. Correcting the deficiencies will improve system reliability, provide adequate pressure and fire flow, limit the area of service disruptions and increase connectivity.

**Impact on Future Operating Budget:** These improvements will reduce operating expenses for shutdowns and maintenance. Routine maintenance involving hydrant flushing, valve exercising and hydrant painting will be required.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	Annually	\$ 15,000
Water System Improvements	5/16 - 4/17	\$135,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$150,000



**Project Title: *Water Main Replacement Program***

**Responsible Department: *Engineering Services***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$4,600,000	\$0	\$0	\$0	\$200,000	\$2,200,000	\$2,200,000	\$11,000,000

**Description & Scope:** The Village has a list of previously identified water main replacement projects. These projects were based on pipe age, type, condition, size and break history. No studies were performed to assess their risk, prioritize and program their replacement. The planned FY16 Water System Study will accomplish those tasks enabling the Village to develop a Water Main Replacement Program. It's anticipated starting in FY17 design work will begin on the first of several water main replacement type projects. Construction will take place the following year. Each subsequent year design and construction will follow for the next project.

**Purpose & Need:** Several sections of the water system are starting to show signs of deterioration. Based on past experience there will be other water mains of similar age and material type which will also begin to exhibit breaks.

**Impact on Future Operating Budget:** The water system will experience less maintenance, significantly better reliability and far less repair costs and more uniform pressure after replacement of the deteriorated water main. The replaced water main will require routine maintenance involving hydrant flushing, valve exercising and hydrant painting.



**Schedule of Activities**

Activity	From - To	Amount
Design	Annually	\$ 200,000
Construction	5/16 - 4/17	\$2,000,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$2,200,000

**Project Title: Southwest Reservoir & Pumping Station**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$4,299,000	\$0	\$0	\$0	\$996,000	\$3,303,000	\$0	\$0

**Description & Scope:** This project involves the construction of a ground level reservoir and pumping station to serve the southwest area of the Village as well as the unincorporated areas with clean reliable potable water. Land acquisition will also be necessary to site the facilities.

**Purpose & Need:** Upon the completion of the Southwest Water Main Extension Project and as users connect onto the system a reservoir and pumping station will be necessary to provide adequate pressure and flow. The Southwest Area Water & Sanitary Sewer Infrastructure Study identified this need in the final report. It's anticipated this need will be realized by FY18 although it may occur sooner depending on the demand for connections and for flow.

**Impact on Future Operating Budget:** The new reservoir will require annual inspections and routine maintenance of the pumps, motors and valves. Periodic maintenance involving painting of the structures will also be necessary.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Land Acquisition	5/16 - 4/17	\$ 691,000
Design	5/16 - 4/17	\$ 305,000
Construction	5/17 - 4/18	\$3,303,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$4,299,000



**Project Title: Southwest DPWC Connection & Metering Station**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$3,081,000	\$0	\$0	\$0	\$262,000	\$2,819,000	\$0	\$0

**Description & Scope:** A connection to the DuPage Water Commission's 48 inch diameter trunk line will be needed to properly supply water for the ground level reservoir and pumping station. These improvements will serve the Village and unincorporated residents with clean reliable water for potable use and fire suppression. Land acquisition will be required to site the facilities, but is assumed to have occurred with the reservoir and pumping station project.

**Purpose & Need:** As more users connect onto the system the connection and metering station will be necessary to provide adequate pressure and flow. This need was identified in the Southwest Area Water & Sanitary Sewer Infrastructure Study. As with the reservoir and pumping station, these improvements are anticipated to be needed by FY18. However, depending on the demand for connections this projected construction date may change.

**Impact on Future Operating Budget:** The new connection and metering station will require annual inspections and routine maintenance of the pumps, motors and valves. Periodic maintenance involving painting of the structures will also be necessary.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/16 - 4/17	\$ 262,000
Construction	5/17 - 4/18	\$2,819,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$3,081,000

**Project Title: Aztec Drive Sanitary Sewer Replacement**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$623,000	\$0	\$0	\$52,000	\$571,000	\$0	\$0	\$0

**Description & Scope:** This project will replace 1,400 feet of vitrified clay pipe (VCP) with new polyvinyl chloride (PVC) pipe that has far better and fewer joints. This replacement project will also reduce inflow and infiltration (I&I) into the system.

**Purpose & Need:** The sanitary sewer line on Aztec Drive from Ute Lane to Chippewa Trail is constructed out of VCP. It is severely prone to root intrusions causing back-ups to connecting home services. Through the Village’s Sanitary Sewer Digital Televising Program cracks, sags and offset joints have been identified. These deteriorations have led to pipe failures, infiltration and sewer backups. This project is designed to help alleviate those issues and to maintain the Village’s sanitary sewer system in a safe and reliable operating condition.

**Impact on Future Operating Budget:** Replacing or rehabilitating the deteriorated sewer sections will reduce the likelihood of pipe failures and sewer backup exposure while also reducing calls for maintenance and repair.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/15 - 4/16	\$ 52,000
Construction	5/16 - 4/17	\$571,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$623,000

**Project Title: North Avenue Sanitary Sewer Rehabilitation**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$443,000	\$0	\$0	\$0	\$66,000	\$726,000	\$0	\$0

**Description & Scope:** This project involves the rehabilitation of 10,000 feet of deteriorated 12” diameter sanitary sewer along North Avenue that have been identified through the Public Works department’s sewer televising program. Various rehabilitation alternatives, such as relining, replacement and boring will be considered during the design phase of the project.

**Purpose & Need:** The sanitary sewer has developed sags and cracks leading to pipe failure and I&I. This rehabilitation / replacement project will correct those deficiencies.

**Impact on Future Operating Budget:** Replacing or rehabilitating the deteriorated sewer sections will reduce the likelihood of pipe failures and sewer backup exposure. It will also lessen the amount of I&I to the Water Reclamation Center (WRC) which will reduce operating costs and the likelihood of expensive expansion projects.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/16 - 4/17	\$ 66,000
Construction	5/17 - 4/18	\$726,000

**Means of Financing**

Funding Source	Amount
Water & Sewer Fund	\$792,000



**Project Title: Sanitary Sewer I&I Reduction Program**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$600,000	\$0	\$0	\$0	\$0	\$50,000	\$550,000	\$2,750,00

**Description & Scope:** This Program will involve a series of projects that will rehabilitate deteriorated sanitary sewers that have been and are being identified in the Sanitary Sewer System Evaluation Studies for I&I reduction. Various rehabilitation alternatives, such as relining, replacement and boring will be considered during the design phase of each project. Its anticipated design will commence in FY18 followed by construction in FY19 with ongoing projects occurring yearly thereafter.

**Purpose & Need:** The Village has approximately 100 miles of sanitary sewers. As the sewers age some areas develop sags and cracks which can lead to pipe failures, inflow, infiltration and possible sewer backups. This rehabilitation / replacement program is designed to address those issues and to maintain the Village’s sanitary sewer system in a safe and reliable operating condition.

**Impact on Future Operating Budget:** Replacing or rehabilitating the deteriorated sewer sections will reduce the likelihood of pipe failures and sewer backup exposure. Other repairs will restore the sanitary sewer system to a safe and reliable operating state. These projects will see an added benefit in reducing I&I to the WRC which in turn reduces operating costs and the potential for costly waste water treatment plant expansions.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design Study & Final Engineering	Annually	\$ 50,000
Construction	5/18 - 4/19	\$500,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$600,000



**CAPITAL  
IMPROVEMENT  
PROGRAM**

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**STORM WATER  
PROJECTS**

**Project Title: *Southeast Stormwater Study***

**Responsible Department: *Engineering Services***

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$42,000	\$0	\$42,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** A storm water study will be performed analyzing the watershed’s existing storm water management facilities and identify improvements to reduce street and parking lot flooding, flood damages and road closures. The study is currently underway by DuPage County. The Village will be assisting in funding the additional surveying work required for areas within Carol Stream.

**Purpose & Need:** The southeast area of the Village from Main Street and Gundersen Drive to Northland Mall on Geneva Road has experienced flooding on repeated occasions. Parking lots, streets and buildings have flooded with cars and stores being damaged. The drainage area extends north all the way up to North Avenue with several developments with ineffective or no detention at all.

**Impact on Future Operating Budget:** There will be fewer responses for road closures improving traffic flow. There will also be fewer requests for flood damage assistance.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Study	5/12 - 4/15	\$42,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$42,000

**Project Title: Tubeway & Westgate Stormwater Study**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$50,000	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** A watershed and storm water management facility study will be undertaken to identify improvements to reduce flooding in the Rothbart Subdivision and to rehabilitate the existing detention basin.

**Purpose & Need:** The existing detention basin has become overgrown with undergrowth, trees, non-native and invasive species. The bottom has two to three feet of sedimentation that has built up over the years clogging outfall pipes and reducing the efficiency of the lift station pumps. The overgrowth and sedimentation has also reduced the storage capacity of the detention basin. The pond has overtopped causing street, parking lot and truck dock flooding.

**Impact on Future Operating Budget:** Reducing overflows and street flooding will prolong pavement life and lessen the amount of time spent on road closures.



**Schedule of Activities**

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Study	5/14 - 4/15	\$50,000

**Means of Financing**

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$50,000

**CAPITAL  
IMPROVEMENT  
PROGRAM**

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**FACILITY  
PROJECTS**



**Project Title: PWC Front Parking Lot Resurfacing**

**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$80,000	\$0	\$0	\$80,000	\$0	\$0	\$0	\$0

**Description & Scope:** The pavement has deteriorated to a point where crackfill and rejuvenation maintenance strategies no longer become effective. Resurfacing of the parking lot is now needed consisting of a 2" overlay of the wearing surface. However, several base failures have been observed due to poor drainage, storm water structural failures or high track drive aisle areas. When the pavement has deteriorated beyond the point where a resurfacing operation is effective, pavement reconstruction is then utilized. The entire asphalt section (binder and surface courses) will be removed and replaced. If after removal of the asphalt and testing of the base, repairs may be made to failed sections. If significant sections fail and if the base is contaminated, additional costs could be incurred to test and dispose of the contaminated base. The project will be integrated with the Village's 2015 (FY16) Flexible Pavement Project to take advantage of economies of scale.

**Purpose & Need:** When the pavement has deteriorated beyond the point where crackfill and rejuvenation maintenance strategies are effective, resurfacing is then considered. When resurfacing is no longer effective, pavement reconstruction is then considered. This type of operation is typical for severely deteriorated pavement. Once completed, this parking lot will have a much longer service life with proper maintenance.

**Impact on Future Operating Budget:** These operations will improve the structural integrity of the pavement and drainage of the pavement surface as well as extend its useful pavement life. It will also reduce future maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



**Schedule of Activities**

Activity	From - To	Amount
Design & Construction	5/15 - 4/16	\$80,000

**Means of Financing**

Funding Source	Amount
Motor Fuel Tax Fund	\$80,000

**Project Title: Fullerton Storage Building**

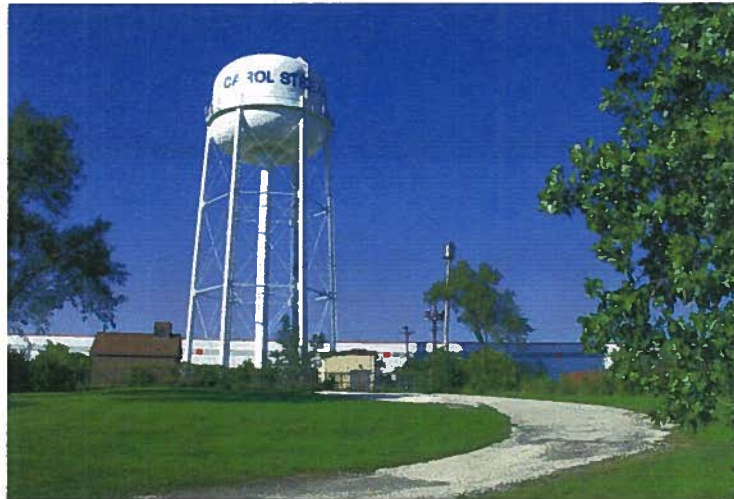
**Responsible Department: Engineering Services**

Total Project Cost	Total Expended To Date	Budget Year 1 2014-15	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19	
\$339,000	\$39,000	\$300,000	\$0	\$0	\$0	\$0	\$0

**Description & Scope:** A new storage facility approximately 2,300 square feet in size will be constructed at the Village’s Well No. 3 and Elevated Water Tank site located off Fullerton Avenue. The structure will include a fire suppression system, HVAC, fencing and gates, paved access, water, electrical and gas services, lighting, second floor attic storage with stairs, drainage improvements, landscaping and rodent control.

**Purpose & Need:** The Village Hall lacks ample space for the storage of materials, equipment and records. The facility will allow secure storage of these items in a climate controlled structure.

**Impact on Future Operating Budget:** Normal operating expenses (electric, heating, A/C and rodent control) will be necessary. All exterior materials will be maintenance free or low maintenance. Eventually the roof will need to be re-shingled.



**Schedule of Activities**

Activity	From - To	Amount
Design	5/13 - 4/14	\$ 39,000
Construction	5/14 - 4/15	\$300,000

**Means of Financing**

Funding Source	Amount
Capital Projects Fund	\$339,000

**REQUESTED  
BUT NOT  
PROGRAMMED**

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**PROJECT  
LISTING**

## Roadways

## Estimated Cost

- |                                       |                      |
|---------------------------------------|----------------------|
| 1. Morton Road Phase I Reconstruction | \$2,040,000          |
| 2. Morton Road Bike Path              | \$2,430,000          |
| 3. Sidewalk Improvements              | \$416,000            |
| 4. Industrial Park Sidewalks          | Yet To Be Determined |

## Water and Sewer Utilities

## Estimated Cost

- |   |             |
|---|-------------|
| 1. Wayne Township Water Main Extensions | \$9,000,000 |
| 2. Sanitary Force Main Replacements     | \$414,000   |

## Stormwater Utilities

## Estimated Cost

- |  |                      |
|--|----------------------|
| 1. Klein Creek Flood Forecast Warning System                     | \$39,000             |
| 2. Carol Stream Venture Flood Control                            | \$258,000            |
| 3. Southeast Storm Water System Improvements                     | Yet To Be Determined |
| 4. Tubeway Detention Basin Rehabilitation & Improvements         | Yet To Be Determined |
| 5. Fullerton & Kimberly Stormwater Study                         | \$13,000             |
| 6. Fullerton & Kimberly Storm Water System Improvements          | Yet To Be Determined |
| 7. Flood Plain Structure Buyout Program                          | \$1,200,000          |
| 8. Flood Plain Structure Buyout Lot Enhancement Program          | \$786,000            |
| 9. Flood Plain Structure Flood Proofing Program                  | \$2,900,000          |
| 10. Stormwater Management Facility (SWMF) Retrofitting Program   | \$2M Per Facility    |
| 11. TMDL Stream Restoration Program (Klein & Thunderbird Creeks) | \$12,500,000         |
| 12. Pond Shoreline Restoration                                   | Yet To Be Determined |



**ELEMENT  
QUALIFICATION  
CRITERIA FOR  
PROJECT  
INCLUSION**

## Element Qualification Criteria for Project Inclusion

The following criteria are to be used for qualifying each infrastructure element for possible inclusion into a project. Only those that meet the criteria, are not correctable by alternative means rather than reconstruction or rehabilitation, may be considered for inclusion.

### Drainage Projects

1. Ponding of water or icing four feet or more into the pavement as measured from the pavement edge for a minimum length of five feet twenty-four hours after a significant rainfall event or snow melt.
2. Ponding of water or icing at a sidewalk crosswalk, bus stop, gang mailboxes or other pedestrian paths with a minimum depth of one-half inch or a distance of 5' or greater twenty-four hours after a significant rainfall event or snow melt.
3. Significant water draining across a sidewalk, drive or street, which continues beyond forty-eight hours after a significant rainfall.
4. Overland flow routes that do not function properly.
5. **No other means of mitigating the excessive flow, ponding or icing exist. It is the primary responsibility of the property owner to correct the problem.**

### Sidewalk Projects

1. Joint differential of one inch or more.
2. Those adjacent to curbs requiring depressions.
3. For individual Public works projects any sidewalk spalled (pitted with aggregate showing) cracked or otherwise damaged sidewalk over 50% of the panel. Those adjacent to a street maintenance project will only require 25% of the panel.
4. Generally, any sidewalk humped, dipped or deflected with a change in grade greater than  $\pm 10\%$  unless specifically designed for a purpose, i.e. overland flow route drainage.
5. Those sidewalks meeting the drainage requirements as identified above.

## Element Qualification Criteria for Project Inclusion

### Curb & Gutter Projects

1. Those requiring depressions.
2. For individual Public Works project any curb and gutter spalled (pitted with aggregate showing), cracked or otherwise damaged over 50% of the section. Those adjacent to a street maintenance project will only require 25% of the section.
3. Generally, any curb and gutter humped, dipped or deflected with a change in grade greater than  $\pm 10\%$  unless specifically designed for a purpose, i.e. drainage.
4. Curb and gutter sections being rehabilitated that are adjacent to aprons may also require apron removal and replacements. In those instances where apron removal is necessary, the apron shall be removed and replaced to the next closest joint or sawn edge for concrete aprons and an eighteen-inch minimum width required for reconstruction of bituminous aprons. Only broom finished concrete and bituminous aprons or ribbons will be replaced by the Village. All aprons or ribbons constructed with other materials including but not limited to stamped concrete, colored concrete, stamped asphalt, colored asphalt, brick pavers, exposed aggregate or California style finishes.