



Meeting Date: September 19, 2016

Report No. CC-16-112

Agenda Item No. 8-a

Status: General Orders

Purpose: FY17 Pavement Management Program Project Recommendations

Background Summary: The pavement management program is a systematic process for inspection, evaluation, planning, maintenance and rehabilitation of the City's street paving network. The computerized pavement management system called IMS or Infrastructure Management System is used to recommend appropriate pavement maintenance strategies to streets based on their condition and service life. The primary goal of the program is to effectively allocate resources to maximize the service life of pavements. Staff uses the pavement management system as a pavement condition inventory and to develop annual project recommendations. The recommendations are based on engineering analysis of available strategies for a street segment given the pavement condition, coordination with other projects (utility and road) and field inspections.

We are now approaching our third 5-year inventory update of City streets in 2017 with the original data collection in 2007 and an update in 2012. The condition of our streets continually degrades with exposure to the environment and use, but it degrades at different rates all around the City and we also add streets to our inventory with right-of-way acquisition and annexation. It is important to update our inventory to make sure we are applying the right strategies to the right locations and getting the most benefit from the money we have available each year. We try to maintain high quality streets with preventative maintenance, improve moderate-quality streets with rehabilitation, and improve low-quality streets with reconstruction and deferred maintenance. After construction each year, we also update our inventory to reflect our progress.

The City of Stillwater's Pavement Management Program includes four primary strategies: Preventative Maintenance, Rehabilitation, Reconstruction, and Deferred Maintenance.

- Preventative Maintenance includes application of crack seals, thin non-structural overlays, and other treatments used to maintain and extend the service life of pavement.
- Rehabilitation strategies include application of structural pavement overlays, full depth patching, and other treatments to repair and extend the service life of pavement.
- Reconstruction strategies include replacement of existing pavement with new pavement and base material on streets that renews the service life of pavement.
- Deferred Maintenance strategies include rehabilitation and reconstruction strategies on localized areas such as high severity potholes/failed concrete panels or significant segments of failed pavement to extend the service life.

Based on the FY17 budget of \$3,657,357 from the General Fund (\$2,501,543 FY17 budget appropriation and \$1,155,814 carry-forward from FY16) and \$1,448,457 from the ½ cent sales tax Transportation Fund totaling \$5,105,814, staff recommends the following program allocations for the FY17 pavement management program:

Strategy	Allocation Recommendation	(% of Total Strategy \$)	Lane Miles (LM)	(% of Total LM)
Preventative				
Maintenance:	\$704,551	15%	17	63%
Rehabilitation:	\$1,353,568	30%	6	22%
Reconstruction:	\$1,943,509	43%	3	11%
Deferred Maintenance:	\$550,000	12%	1	4%
Crack Sealing:	\$150,000			
Design, Test & Inventory:	\$370,000			
Total Program Allocation:	\$5,071,628	100%	27	100%

The recommended allocation for this year’s program includes work on 27 lane miles of pavement. The proposed street segments targeted for inclusion in the FY17 program are listed in Attachment #1 and shown on the map in Attachment #2. The basis for selecting the proposed street segments is the current pavement condition and coordination with other city projects. As design information is obtained, engineering estimates are developed, and actual bids are received, the list may be adjusted according to fit the available funding.

Upon Council approval of the FY17 pavement management program, staff will proceed with implementation. Implementation will include the development of engineering plans for the reconstruction and rehabilitation projects, development of five separate bid packages for the different pavement repair strategies, and negotiation of a continuation contract with IMS for an updated inventory and condition assessment of the City’s pavement/sidewalk/street signage assets. In addition to the inventory and condition assessment by IMS, the “design, test & inventory” category also includes a funding allocation for construction testing that is needed to ensure project specifications are met.

Budget Impact: The current approved budget for the FY17 pavement management program includes \$3,657,357 from the General Fund (Construction Contract account 1014035-54009 and Professional Service account 1014035-54020) and \$1,448,457 (estimated to be available towards the end of the 4th quarter of FY17) from the Transportation Sales Tax Fund (Construction Contracts account 2604035-54009 and Professional Services account 2604035-54020) for a total of \$5,105,814. The Rehabilitation – Mill & Overlay project (total project including construction, design and testing estimated at \$1,448,457) will not be bid until the Transportation Sales Tax Fund contains adequate funding for the project.

Prior Council Action or Part of an Approved Project: No **Related Items:**

Recommendation: It is recommended that the Council approve the proposed FY17 pavement management program and direct staff to begin implementation.

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Reviewed by: Dan Blankenship, Deputy City Manager

Submitted by: Norman McNickle, City Manager

Attachments: Project List; Project Map