



CITY OF STOUGHTON  
STREET DEPARTMENT

515 South Fourth Street, Stoughton, WI 53589  
(608) 873-6303 Ext. 622  
(608) 877-8387 Fax  
[www.cityofstoughton.com](http://www.cityofstoughton.com)

KARL D. MANTHE  
Street Superintendent  
[kmanthe@ci.stoughton.wi.us](mailto:kmanthe@ci.stoughton.wi.us)

Date: May 4, 2015  
To: Finance Committee  
From: Karl D. Manthe – Street Superintendent  
Subject: Funding Street Reconstruction Projects for Capital Improvement Plan

As the City and Street Department experience increasing costs for reconstruction projects, it is very important that the city develop a financial plan to make sure we are allowing adequate yearly funding to support the planning of street projects for our 57 miles of city streets.

The Street Department currently has a street rating program we use to monitor pavement conditions and determine which streets need some sort of street maintenance. Currently, funding for street reconstructions can vary greatly from year to year, which makes it difficult to plan what streets reconstruction projects can be completed yearly (in some years, streets have been removed from CIP).

As the Street Superintendent, it is my responsibility to make sure that the streets of the city are in good driving condition by addressing pavement conditions and providing the needed preventive maintenance to prolong the life of the street and limit costly reconstruction projects.

If the city can allow adequate funding to make sure we catch pavement treatments at the correct time, we can prevent higher construction costs in the future. I do understand the challenges with budget restraints, but feel if we budget the dollars wisely, it is for the better of our financial situation

I have listed the different types of street maintenance, which will inform and assist you on the importance of creating a financial plan to address street maintenance

**Crack Sealing:** The best value for your investment in street maintenance. It is crucial to crack seal streets in a timely manner to assure the expected longevity of the street will be what were expected and that the street base will be protected from moisture that can prematurely cause pavement failure. Streets in this category are rated 7 or 8 and crack sealing normally occurs after the street is 3 to 5 years old and is starting to experience signs of transversal cracking. Current funding for crack sealing comes from Capital Outlay as it is a yearly maintenance service. Budget amount is usually @ \$30,000 thousand dollars. Staff recommends a yearly budget of \$50,000 thousand dollars.

**Chip Sealing:** Another great value for the investment. Applying a good chip seal protects the pavement from the environment elements that can harm the pavement surface. Streets in this category are rated 5 or 6. This funding is also currently funded in Capital Outlay and has typically been @ \$70,000 thousand dollars. Staff recommends a yearly budget of \$100,000

**Mill and Overlay:** A good option if the street doesn't have too much surface cracking. This was the method of choice @ 20 years ago, but has since been replaced by better technologies in the industry. Using this method, the profile milling takes off 3.5 inches at the curb line and tapers to zero at the middle of the street and then manholes are raised to accommodate the new asphalt thickness. Streets in this category are normally rated 3 or 4.

**Full Depth Pulverization and Overlay:** The Street Department currently uses this method and has been doing so for the last 15 years. The full depth pulverization mixes the old asphalt with 8 inches of the current street base to revitalize the base course. Once the street is pulverized, it is reshaped with 3 to 4 percent slope to get water off street and into gutters. Any excess materials is hauled away to use on other city projects. Once the street is compacted and tested for any soft base course, the street has asphalt overlay of 4 inches. Streets in this category are usually rated 3 or 4. Staff recommends budgeting a minimum of \$700,000 thousand dollars in the CIP for these projects.

**Reconstruction:** The most expensive option. Once a street is scheduled for reconstruction, it means the pavement surface and base has failed and the entire street base/pavement needs replacement (other factors for reconstruction include the need to replace or add underground infrastructure). Once a street is identified for reconstruction, the pavement won't deteriorate much more than current conditions. So based on project details (need for infrastructure replacement, daily traffic counts, and proximity to other scheduled street projects), it may be more to the city's advantage to drop a street reconstruction project versus adding another full depth pulverization project or funding additional crack sealing projects. Streets in this category are usually rated 1 or 2. Staff recommends budgeting a minimum of \$500,000 thousand dollars in the CIP for Street portion of project (Utilities and Stormwater would be additional costs).

Mapping out our current streets, we have noticed the following;

- A good percentage of streets rated higher 7 and higher, which means that only crack sealing is needed and that our current program is working.
- A fair amount of streets have ratings of 3 or 4 and we want to make sure we scheduled these for overlays soon so they don't fall into costly reconstruction projects.
- There are very few streets that currently fall into the 1 or 2 category, which is good and limits the costly projects.

Staff recommends a plan to address as many overlay projects (3 or 4) and increase crack sealing and chip seal budgets and work with Stoughton Utilities to complete 1 major reconstruction project yearly.

Please let me know if you have any questions.