



Minneapolis looking to extend the life of its concrete streets

An interview with Nathan Koster, Minneapolis Transportation Planning Manager, and Ole Mersinger, Principal Professional Engineer, City of Minneapolis

The City of Minneapolis started two concrete street rehabilitation projects in 2017. Work done in both the Waite Park neighborhood and at Oliver-Penn Avenues is expected to extend the life of those concrete streets at least 20 years.

The problem

Like so many other cities across the state and nation, Minneapolis has more streets to fix than money to fix them. In its residential areas alone, the city owns and maintains 631 miles of streets. About 20 percent of those streets were built with concrete in the '60s and '70s with a projected life span of 45 to 50 years.

"Some areas have aged very well," said Nathan Koster, Minneapolis Transportation Planning Manager. And most — now more than 40 to 60 years old — have exceeded their projected life span. Still, there are many demanding the city's attention.

The solution

In hopes of extending the life of its concrete streets another 20 years before having to replace them, the City Council approved a Concrete Pavement Rehabilitation Program in 2016. Public Works recommended \$5 million annually for the program over the next 20 years to its capital improvement program.

Rehabilitation is intended to extend the life of the concrete street and to address deterioration to the streets before they require more costly repairs or full reconstruction.

Reconstruction projects will be recommended when a street has reached the end of its useful life and typically include the replacement of the sidewalk, pavement, curb and gutter, lighting, signals, signing, striping, and public utility infrastructure.

The goal is to identify the "right fix at the right time" to stretch our tax dollars as far as possible, said Koster.

He added that the city also wants those tax dollars distributed equitably throughout the city. To accomplish that, the city developed a criteria-based system after conducting extensive public outreach. The program takes into account pavement condition, a neighborhood's income, racial makeup and level of poverty, how the streets are being used, and number of vehicles using the street.

2017 Rehabilitation Projects

Waite Park Neighborhood

The city began concrete street repairs in a 36-block area of the Waite Park Neighborhood in August, with work completed the end of October. The area — bordered by St. Anthony Parkway on the south, west of Stinson Boulevard, south of the CP railroad tracks and east of Central Avenue — encompasses 3.33 miles of streets. Another 3.25 miles of street repairs are planned in 2018.

The neighborhood's 50-year-old streets were rated in fair condition. The concrete pavement was 6 inches thick and 32 feet wide comprised of two 10-foot-wide driving lanes and two 6-foot parking lanes.

This year's work included a combination of full- and partial-depth repairs, full- and partial-panel replacements, joint and crack repairs, and some pedestrian ramp and sidewalk work.

Of note: The city developed a YouTube video approximately five years ago to educate residents and stakeholders on concrete street repair. This was especially useful to share with residents impacted by large residential projects such as this one.

Key facts about the project

- ▶ Total Concrete Placed: 3,137 CY, with 2,834 CY used for full-depth repairs, 242 CY used for manholes, catch basins and spot curb and gutter repairs, and 61 CY of 3U18 bags used for partial-depth repairs.
- ▶ City officials put the price tag of this year's work at about \$3 million. About one-quarter of the cost (\$675,000) will be assessed to property owners. The cost of utility work done in conjunction with the project (\$400,000) to be paid by the utilities.



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- ▶ Owner: City of Minneapolis
 - ▶ Project Engineer: Marcus Thomas, Bolton & Menk
 - ▶ Contractor: Interstate Improvement
 - ▶ Ready Mix Producer: Cemstone

- ▶ For more information, contact:
Nathan Koster, 612-673-3638
Nathan.Koster@minneapolismn.gov
or
Ole Mersinger, PE, 612-673-3537
ole.mersinger@minneapolismn.gov
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Oliver-Penn Avenues

The city completed repair work on a half-mile stretch of Penn Avenue South and Oliver Avenue South in South Minneapolis, just north of Lake of the Isles near Kenwood Elementary School. Work began in mid-June and was completed by mid-August prior to school opening.

The concrete pavement was six inches thick from Lake of the Isles to 21st Street and eight inches thick from 21st Street to Douglas. Widths varied along the route: With two, 12-foot driving lanes and parking on both sides of the street, the average typical section from Lake of the Isles



to 21st Street was 33-foot wide; from 21st Street to Franklin and Franklin to Summit, 34-foot wide; and from Summit to Douglas, 36-foot wide.

Key facts about the project

- ▶ Total Concrete Placed: 1,445 CY used for full-depth repairs, including intersection replacement and curb and gutter, and 2 CY or about 146 bags of 50-pound 3U18 bags used for partial-depth repairs.
- ▶ Cost of the project was about \$925,000, including engineering costs.
- ▶ The City of Minneapolis completed the majority of repair work using their own forces and only contracted out the diamond grinding.

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 - ▶ Pavement Grinding Contractor: Diamond Surface, Inc.

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ole.mersinger@minneapolismn.gov
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Photos courtesy of the City of Minneapolis