



October 18, 2021

Honorable Mayor and Council Members
City of Princeton
705 N 2nd St
Princeton, MN

Re: Pavement Management Work Plan
City of Princeton, MN

I am pleased to submit this work plan on behalf of WSB to implement a pavement management plan the City of Princeton's pavement infrastructure. We plan on working closely with City personnel throughout this process including in the field for questions on the pavement inspections.

Cost Summary

It is proposed that this project be billed hourly on a cost not to exceed basis, with total cost not exceeding **\$26,882**. If you agree with the terms as outlined in this proposal, please sign where indicated below and return a copy to our office.

The following tasks will be completed as part of this work plan:

1. Data Management

WSB personnel will create and set up a pavement management database utilizing a software called PAVER.

As part of this process, the City of Princeton will:

- Provide any pavement history records they have available including original construction dates and maintenance history for each road section.
- Review and provide comments on proposed street segments.

WSB will:

- Create each road segment in the database and input road history data as provided.
- Deploy data to field tablets for use in detailed field inspections
- Create street inventory to include street width, identify rural vs urban, identify presence of sidewalk
- Maintain data during the duration of the project
- Create a GIS map to track progress, store photos, and document additional pavement segment features as requested by the city

Cost: \$3,500

2. Detailed Inspections of City Pavement

WSB personnel will rate the paved roads in the City of Princeton. It was determined that approximately 33 miles of roads are to be rated.

WSB will:

- View the segment condition on the ground and record information on the distresses
- Input distress data into the PAVER database and determine the PCI based on the U.S. Army Corps of Engineers standards
- Collect data on pavement width to verify that the segment areas are correct.
- Utilize ArcGIS Collector application to collect data on if sidewalks or curb and gutter are present along a segment.
- Photos will be taken of each segment and used as verification of the segment PCI in the QA/QC process.

Cost: \$9,180

3. Pavement Summary

WSB will:

- Create a detailed map showing the updated condition of each roadway in 2021
- Generate a spreadsheet detailing the route name, segment ID pavement length, pavement area, and Pavement Condition Index.
- WSB will review the data and provide a one-page report summarizing the current pavement conditions.

Cost: \$2,570

4. Meetings/Presentations

WSB will:

- Attend up to three meeting with City staff to discuss pavement ratings, network OCI, CIP Goals, and recommendation for maintenance for the City.

Cost: \$3,206

5. Pavement Analysis

WSB will work with City personnel to develop different budget scenarios within the PAVER system that can most accurately represent the City's pavement management program and how modifications can be integrated to optimize the existing system.

WSB will:

- Create maps and graphs relevant to the analysis.
- Highlight the findings from the analysis as well as 4 different 5-year budget models and recommendations for maintenance for the City in the report.

Cost: \$4,330

6. 5-Year CIP

WSB will:

- Assist the City in preparing a 5-Year CIP based on the results of the inspections.
- This task will include input from City staff.

Cost: \$4,096

Extra Services

1. Pavement Investigations

Perform pavement forensics study which include obtaining pavement cores or/and soils borings

- o Analysis of pavement cores obtained.
- o To determine depths of pavement lifts, signs of bonding or debonding, and distresses that might not be visible from the road surface.

Cost: Based on hourly rates

The task listed above is an additional opportunity that WSB could provide to determine pavement condition and material depth for streets. Pavement coring could be performed based on a two-man coring crew at a rate of \$265/hour, which includes the travel time and the time for coring operation. Analysis of pavement core and time needed for forensic report writing could be performed at a rate of \$102/hour.

Project Timeline

Update Street Segments	TBD
Detailed Inspection of City Pavement	TBD
Pavement Summary and Report Update	TBD
Meetings/Presentation	TBD
Pavement Analysis	TBD
5-Year CIP	TBD
Pavement Investigations	TBD

Thank you for this opportunity to develop the City of Princeton's pavement management system. I am confident that the level of service on this project will meet or exceed your expectations. If you should have any questions regarding this proposal, please contact me at 218-341-3614.

Sincerely,

WSB



Matt Indihar, PE
Pavement/Materials Engineer

ACCEPTED BY:

City of Princeton

By: _____

Title: _____

Date: _____