



MUNICIPALITY PRINCETON

Department of Infrastructure
& Operations

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MEMORANDUM

To: Mayor and Council
From: James J. Purcell, PE, *Assistant Municipal Engineer*
Subject: Professional Services Agreement with Advanced Infrastructure Design for Pavement Condition Assessment and Management System
Date: July 22, 2026

Attached for Council's authorization at its July 27, 2026 meeting is a professional services agreement with Advanced Infrastructure Design, Inc. (AID) to perform a municipality-wide inventory and assessment of roadway infrastructure utilizing an integrated testing vehicle, to assess our current asset management system and provide recommendations for a pavement improvement program. In addition, an evaluation of selected curb ramps for ADA compliance and an inventory of roadway signage will be provided.

AID performed a similar inventory in 2022 and their assessment of the roadway conditions was used to develop a pavement management approach to prioritize the annual resurfacing and pavement preservation efforts. Using an industry standard called Surface Distress Index (SDI), the 2022 assessment showed that 0.5% of Princeton roads were in poor or fair condition; 25% were in good condition; and 74% were in excellent condition. Using this data, along with other factors such as type of roadway, volume of traffic, and budget constraints, the pavement resurfacing and preservation program for each of the subsequent years prioritized the roads in the worst condition for treatment. The annual resurfacing program has targeted an average of 3.5 miles per year for resurfacing. Coupled with other capital improvement projects, micro-surfacing for pavement preservation, and utility resurfacing, a majority of the roads identified in 2022 as being in poor, fair, or good condition have been or are being addressed.

Roadway inventory and assessment should be performed periodically to both evaluate the improvements achieved and assess the condition of those assets that have not been improved. Industry standard is to perform this evaluation every three to four years. Furthermore, technological advances allow for additional data collection to aid in the assessment, which will be taken advantage of.

Under this proposed professional services agreement, AID will digitally scan the municipal right of way to gather location-based data on roadways, sidewalks, curb ramps, signs and other roadside items. Deliverables will be roadway pavement condition assessment (SDI), pavement treatment recommendations, asphalt pavement thicknesses, ADA curb ramp evaluations, and a traffic sign inventory. The form of contract deliverables include geographic information system (GIS) data that will be added to the Engineering Department's GIS database and video for use in future analyses.

The data captured through this contract will enhance Princeton's efforts to create a comprehensive asset database of Princeton's physical infrastructure which currently includes street trees, storm sewers, sanitary sewers, and roadway rights of way. This database assists us in providing data-driven justification to support the Mayor and Council in its prioritization and allocation of municipal funding.

Please feel free to contact me if you have any questions.