

**City of Sedgwick
City Council Meeting
December 4, 2024**

TO: Mayor and City Council

SUBJECT: KDOT Innovative Technology Grant

INITIATED BY: Administration

AGENDA: New Business

Recommendation: Staff recommends approval of the grant application

Background: The Kansas Department of Transportation (KDOT) has announced their 2024 Innovative Technology Program. This program is part of the Eisenhower Legacy Transportation Program (IKE) and provides financial assistance to partners for innovative technology projects that improve safety, leverage state funds to increase total technology investment and help both rural and urban areas of the state improve the transportation system. A minimum of 25% match is required for projects from the local applicants.

Staff have been in contact with the City of Halstead and Professional Engineering Consultants (PEC) discussing a project that would utilize new technology to develop an updated street inventory and evaluation of current conditions of streets, street signs, and street markings which in turn would be used to develop a five-year plan for maintenance investments for the roads. For Sedgwick, this technology would utilize the existing GIS platform to add an additional street layer for evaluation. If awarded, the cities would enter into an MOU to clarify the financial responsibility of each party. Sedgwick's direct estimated costs are approximately \$34,000 while the total project for both cities is around \$105,000. The estimated local match needed from Sedgwick will be around \$8,500; with a total project match around \$26,000.

Financial Considerations: Matching funds could most likely come from the City Equipment Fund or the Capital Improvement Fund. With the potential for 75% of the project to be covered, this program offers an opportunity for the city to develop a plan for continued maintenance of city streets by leveraging existing technology utilizing it beyond its initial intended scope.

Recommendations/Actions: Motion to approve staff to submit an application for KDOT Innovative Technology Program, authorizing up to \$9,000 in local matching funds if awarded.

Street Condition Assessment Scope

November 2024

Project will consist of completing a street condition evaluation and making recommendations for street maintenance for city-owned streets in the City of Sedgwick. Pavement condition information will be collected via a GoPro camera mounted on a vehicle driving at speed. The camera takes continuous video, and the video is run through a calibrated algorithm to determine the condition rating for each street segment based on the 1-10 PASER methodology/scale. The results are displayed in a GIS Layer. Deliverables include a GIS Dashboard with interactive queries, a map display, and a quantity estimator and a summary report with recommendations for maintenance treatments (e.g., microsurfacing, crack sealing, chip seal, etc.) and associated cost estimates.

Specific services include:

- Create a GIS street layer (lines) for city street network including arterial, collector, and local streets, drawn at street centerlines, divided into one-block segments, and attributed with average dimensions.
- Create a GIS dashboard to include a quantity estimator, queries/bar charts, and other infographics. Provide staff training on the dashboard.
- Collect pavement condition on all city maintained streets using a GoPro camera mounted on a vehicle driving at speed
- Analyze collected condition data using PASER methodology using an artificial intelligence algorithm
- Bring PASER ratings into the dashboard and finalize dashboard and layers
- In collaboration with client, develop prioritization criteria (including condition rating), maintenance recommendations, and planning level cost estimates.
- Present the results and dashboard to the client

OWNER: City of Sedgwick, KS
PROJECT: Street Condition Inventory and Assessment
PEC PROJECT NO: 241015-999
DATE: November 13, 2024



ITEM NO.	DESCRIPTION	QUANTITY	UNIT		
				UNIT PRICE	COST
PLANNING LEVE ESTIMATE					
1	Street Assessment	1	1	\$ 17,000.00	\$ 17,000.00
2	5 - Year Maintenance Plan	1	1	\$ 10,000.00	\$ 10,000.00
3			Total	\$ -	\$ 27,000.00
4	OPTIONAL			\$ -	\$ -
5	Signs Inventory *	1	1	\$ 3,500.00	\$ 3,500.00
6	Pavement Markings Inventory **	1	1	\$ 3,500.00	\$ 3,500.00
7	GPS Subscription ***	1	1	\$ 1,000.00	\$ 1,000.00
8			Total	\$ -	\$ 8,000.00
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