North Central Regional Planning Commission

Request for Quotations

The NCRPC seeks to engage a vendor capable of producing one or more informational videos that illustrate how best to pilot a UAS drone under specific conditions as well as explain the best uses of conventional photography, thermal imaging, photogrammetry, and LiDAR technologies when those are applied to bridge and road inspections. Collectively, the videos are to provide a comparative analysis of the technologies, revealing the limitations of each technology in addition to its ideal use when performing such inspections. Individually, the videos are to be capable of standing alone by simply showing what each technology can do.

County-level officials are the targeted audience given such technology is becoming a part of the daily routines in select departments (e.g., road and bridge), but other users in both the private public sectors may find the information beneficial.

Ideally, each video is to be 10 to 15 minutes long, but time is negotiable if the intent of each video is met. The following identifies the videos and subject matter to be described.

UAS Examples

1. Illustrate examples of the best techniques for piloting a quadcopter drone under circumstances that require the drone to be out of sight for a short period of time. Such a circumstance might arise during a bridge inspection when the drone goes beneath the bridge deck.

2. Illustrate examples of the best techniques for piloting a quadcopter drone into position to photograph object(s) of interest. These objects may be positioned above or below the drone (e.g., bottom of a bridge deck), so the video needs to illustrate how best to take photographs from a variety of angles.

Sensor Examples

1. Illustrate how drone-produced conventional photography can be productively used when conducting county-level bridge and road inspections. Suggest flight patterns officials should consider when applying such technology to maximize information gained. Further explain what information can be collected and what that data can reveal.

2. Illustrate the most productive applications of thermal imaging when performing bridge and road inspections. Suggest flight patterns, including elevations, officials should consider when using such technology to maximize information gained. Explain what information can be collected. Describe what the data will reveal and discuss the pros and cons of using thermal imaging in this way.

3. Illustrate the most productive use of photogrammetry technology in performing bridge and road inspections. Suggest flight patterns, including elevations, officials should consider when using such technology to maximize information gained. Explain what information can be collected and what the data will enable the user to do. Further explain the pros and cons of using photogrammetry in this way and what other informational needs the technology can provide.

4. Illustrate the most productive use of LiDAR technology in performing bridge and road inspections. Suggest flight patterns, including elevations, officials should consider when using such technology within a limited geography to maximize information gained. Provide examples of what information can be collected and what the data will reveal. Explain the pros and cons of using LiDAR imaging for bridge and road inspections.

Completed Product

All work must be completed by July 15, 2025, given the project funding ends August 1, 2025.

The videos are to be the property of the North Central Regional Planning Commission and uploaded to its website using either a FTP process or a platform such as DropBox, WeTransfer, or something similar (e.g., YouTube) for file sharing. The vendor may suggest other means of such a transfer and those suggestions will be considered. The videos will carry the NCRPC logo and color scheme and be identified as a product of a US DOT SMART grant awarded the NCRPC in 2022, the specifics of which will be provided during production. The vendor will be clearly acknowledged as the one providing the service.

Contact Information

Interested parties should submit a brief explanation of who they are and their experiential background along with a price per video to the following address. This documentation is not expected to be any longer than one to three (1-3) pages.

John Cyr
109 N. Mill St.
North Central Regional Planning Commission
Beloit, KS 67420

This RFQ will remain open until the NCRPC makes its decision.