Missouri's Local Program
for community development

COVER SHEET

(This must accompany your firm's letter of interest and does not count in the page limit)

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Work Category:

- ☐ Roadway Design
- ☐ Trails & Sidewalks
- ☐ Construction Inspection
- ☐ Traffic Engineering & TEAP
- ☑ Structures
- ☐ Environmental
- ☐ Historic Preservation
- ☐ Multimodal Planning / Systems and Facilities Design
- ☐ Transportation Planning – NEW CATEGORY

December 4, 2025

Re: Missouri's Local Program 2026–2029 On-Call Solicitation – Structures

Dear Members of the Selection Committee,

Infratek Solutions, Inc. is pleased to submit this Letter of Interest for the Structures work category under the Missouri Local Program 2026–2029 On-Call Solicitation. Since 2014, we have focused on bringing innovation and advanced technologies to our industry through novel solutions for high-speed, non-destructive evaluation (NDE) of concrete bridge decks and other transportation infrastructure. Our systems are designed to collect reliable, repeatable data at traffic speeds, eliminating lane closures while giving owners the information they need to plan preservation and rehabilitation with confidence.

General Experience of Our Firm

Infratek specializes in automated, high-speed bridge deck condition surveys using a suite of integrated sensors mounted on a single survey vehicle:

- High-speed chain drag for delamination surveys – Our automated chain drag system identifies both incipient and developed delaminations at traffic speeds. Rather than performing slow, lane-by-lane manual dragging, our vehicle runs chains across the deck while traveling between 15–25 mph (and higher when conditions allow), captures the full acoustic signature, and converts it into a continuous, non-interpolated delamination map.
  The output reflects the true acoustic response of the deck; nothing is fabricated or smoothed, and has been independently validated by state DOTs, including Indiana, Texas, and the Port Authority of New York and New Jersey as well as Purdue University as the closest industry method to manual chain drag or Impact Echo in terms of accuracy and reliability but with much higher speeds.
- Air-launched and 3D GPR Systems – We operate high-speed horn antennas or 3D GPR systems to locate rebar, measure cover depth and identify areas of potential relative moisture ingress.
- High-intensity laser illumination paired with ultra-high-resolution cameras enables us to capture crisp, consistent bridge deck imagery day or night at speeds up to 55 mph. Our AI-driven crack-detection model is trained to identify cracks as small as 0.004 inches wide. The system automatically color-codes, labels, and measures each crack, classifies them into width-based categories, and tabulates all results in whichever reporting framework our client specifies, including AASHTO NBE, SNBI, or any custom schema required for project delivery.
- Additional context sensors – Our deck survey vehicle also includes a 360-degree camera, an infrared camera, LiDAR, and a longitudinal laser surface profiler. The

results are compiled with high-accuracy GPS and presented in condition plots that correspond to the local coordinate system of the bridge deck.

Our methods conform to federal and state practices for NDE of bridge decks. In multi-firm validation tests (e.g., INDOT/Purdue NDE Study), Infratek has repeatedly been the only provider whose automated results matched ground truth.

Infratek's High-Speed NDE Deck Survey System

Past Performance

Infratek has delivered high-speed bridge deck surveys and related assessments for many state DOTs, bridge and asset owners such as Texas DOT, Port Authority of NY & NJ, Louisiana DOTD, Virginia DOT, Pennsylvania DOT, Indiana DOT, Iowa DOT, Ohio DOT, Delaware DOT, Oregon DOT, Vermont Agency of Transportation, Connecticut DOT, LaGuardia Airport, Lincoln Tunnel, FHWA and several other agencies.

A key measure of performance is that all of our clients return for additional work. They rely on our accuracy, repeatability, mobilization efficiency, lower cost, and clear deliverables.

Qualifications of Personnel

Our team includes:

- Project managers and engineers with decades of experience in bridge NDE;
- Field crews trained extensively before leading collection efforts;
- Data scientists responsible for overseeing our automated processing engines, validating, and visualizing the data.

This combination allows us to take responsibility for the entire workflow and guarantee quality delivery of results.

Familiarity and Capability

We are fully familiar with federal-aid requirements and DOT expectations for documentation, QA/QC, and traceability. Our experience across multiple states includes coordinating traffic control, developing QA plans, producing defensible condition maps, and delivering electronic data packages ready for design and construction.

Our systems scale effectively, we have completed surveys of dozens of bridges in different seasons, and condition assessment of bridge decks is our company's main focus and line of business, positioning us well to support our client's on-call needs.

Accessibility

Infratek prioritizes responsiveness and clear communication. Our project managers are accessible throughout each assignment. We use shared cloud workspaces for fast data exchange and can provide preliminary condition maps quickly when timelines are tight.

We appreciate your consideration of Infratek Solutions, Inc. for the Structures category and look forward to supporting our future clients' needs.

Sincerely,

Amir Rezvani

Chief Operating Officer

Infratek Solutions, Inc.

Infratek SOLUTIONS

insight

Fast, Comprehensive, Cost Effective Solution for Inspection of Bridges

Automated High-Speed NDE Condition Assessments of Bridges Decks

No lane closure required with speeds as high as 55 mph

- **True high-speed NDE:** Collects automated chain drag acoustics, surface imaging, crack mapping, GPR, LiDAR, 360-degree imagery, and Infra-red (thermal) images at highway speeds (up to 55 mph) with no lane closures.
- **Industry-leading resolution:** Detects cracks as fine as 0.004 inches, delivering forensic-level detail at traffic speed.
- **Full multimodal data fusion:** Integrates visual, acoustic, and subsurface data into a unified assessment aligned with AASHTO NBE and SNBI requirements.
- **Consistently repeatable results:** Rigidly calibrated, and synchronized sensors ensure consistent data regardless of field conditions.
- **Turnkey deployment:** One vehicle, two crew members, no boots on the ground, minimal setup, thousands of square feet scanned per hour day or night, hot or cold.
- **Proven nationwide:** Successfully deployed with tens of state DOTs across the U.S., including TXDOT, Iowa DOT, Indiana DOT, WisDOT, LADOTD, VDOT, DelDOT, PennDOT, ODOT and many others, scanning dozens to hundreds of bridges with all of the clients being repeat clients.

Comprehensive Best-in-class Sensor Payload

- High Speed Chain Drag
- High Resolution Surface Imaging
- Automated Crack Mapping
- GPR
- Surface Profiler
- InfraRed
- 360 Degree Camera for Visual Inspection
- High Accuracy GPS
- LiDAR
- Inertial Measurement Unit
- Distance Measurement Unit

FAST

- Shortest data acquisition, processing, and analysis time in the market
- Minimal impact to traffic with effective pre-screening through highway speed technologies as well as swift and optimized deployment of ground coupled NDE sensors
- Zero lane closure

RELIABLE

- Accurate damage and corrosion size and location estimations of surface and sub-surface
- Remaining service life and repair/replacement recommendations based on client-specific criteria
- Eliminate human error and subjectivity with automation and standardization
- Accounts for individual bridge characteristics and environmental factors

AFFORDABLE

- No equipment purchase required
- Cost saving measures applied at every stage of the process resulting in low per square foot pricing
- Optimized skill-based deployment of labor and equipment
- Automated real-time quality control and remote monitoring by experts on all data to avoid errors and cost overruns

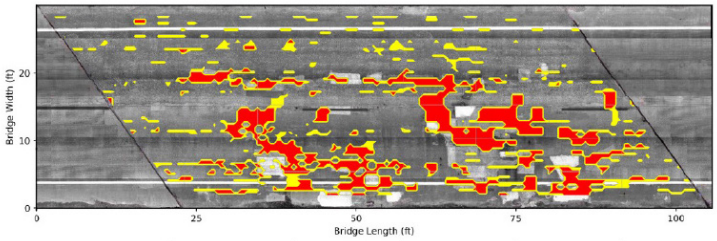
Infratek SOLUTIONS

609.269.4695 info@infrateksolutions.com infrateksolutions.com

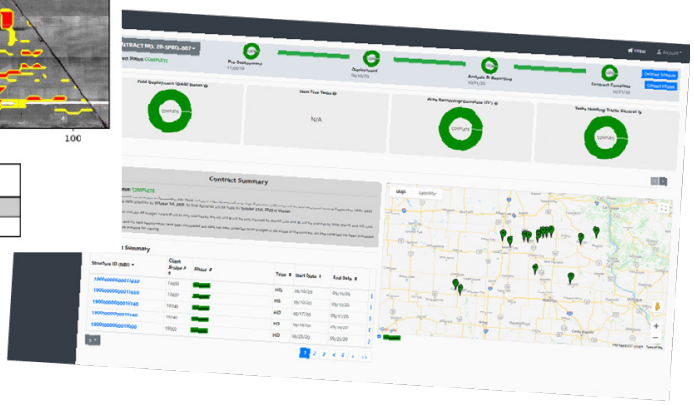
High Speed
automated chain drag

Features:

- Advanced, automated data acquisition
- Continuous impact mechanism to maximize the sounded deck area
- Custom-made acoustic chambers to minimize noise from the surrounding environment
- Automated quality control and noise removal of data
- Fast, automated data processing
- Modular and flexible design to accommodate any settings
- Correlation and cross checks with multiple NDE sensors to increase confidence (IR, GPR, Surface crack mapping)



Delamination Index	Delaminated	Moderately Delaminated	Sound
	19.31 %	5.97 %	74.72 %
72.21	482 ft²	149 ft²	1,864 ft²



Learn More

Contact us to discuss a custom program using Infratek's advanced and comprehensive bridge deck inspection service. We can share sample reports and provide additional insight into how we can help you create substantial cost savings in project scoping and maintenance planning.

Unparalleled Capabilities

- Fast (DAQ & Results)
- Safe
- Continuous
- Accurate & Reliable
- Transparent
- Affordable
- Interactive
- Realtime Quality Control

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