Submitted to:
Kathy Hurst
Oklahoma Department of Transportation
Email: khurst@odot.org

July 31, 2012

Off-System Bridge Inspections
EC No. 1426

Submitted by:
Infrastructure Engineers, Inc.
Point of Contact: Gregg Hostetler, PE
9636 North May Ave, Suite 200
Oklahoma City, OK 73120
Phone: 405.753.4170
Email:ghostetler@infrastructureengineers.com
July 31, 2012

Ms. Kathy Hurst
Project Management Division, Room 1C-4A
Oklahoma Department of Transportation
200 NE 21st Street
Oklahoma City, OK 73105-3204

Re: EC 1426 – Off-System Bridge Inspection

Dear Ms. Hurst:

Infrastructure Engineers, Inc. is pleased to submit our statement of interest to the Oklahoma Department of Transportation (ODOT) for the currently advertised Off-System Bridge Inspection Services contract. Since 1999, Infrastructure Engineers has had a professional relationship with ODOT by performing bridge inspection services on contracts that include the on-and off-system inspection of fracture critical bridges (2010 – current) and underwater bridge inspections (1999 – current). Our commitment to ODOT has culminated with the recent opening of our Oklahoma City office, which will serve as the project office for this contract. Infrastructure Engineers is an ODOT-certified DBE, and all of our team leaders assigned to this project have participated in ODOT’s QC/QA Bridge Inspection Workshop.

Infrastructure Engineers' bridge inspection expertise has been refined over 18 years, having performed over 18,500 NBIS or similar inspections in over 40 states, Spain, Guam, Japan, Cuba, and Australia. Infrastructure Engineers’ work quality is so highly regarded in the bridge inspection field that we provide bridge inspection training to others through FHWA’s National Highway Institute (NHI), teaching NHI Course 130053 Bridge Inspection Refresher Training nationwide, including a 2008 course in Oklahoma City. The knowledge gained through instructing these courses has allowed us to be on the leading edge of the bridge inspection industry.

I, Gregg Hostetler, PE, will serve as project/program manager and single point of contact for the Department. As a registered professional engineer in Oklahoma, I assure you of my availability and will manage this project from our Oklahoma City office. I am well-versed in all phases of bridge inspection projects: coordinating and communicating with the client; planning and scheduling; performing inspections; and submitting comprehensive inspection reports that include accurate and detailed maintenance recommendations. I pride myself on operating within the established budget and adhering to the schedule; I also understand the importance of continuous communication with the Department throughout this contract. Over the past 16 years, I have been dedicated to providing bridge engineering services, including performing thousands of bridge inspections, as well as training inspection personnel as part of the NHI bridge inspection refresher program.

Our project principal, David Reser, PE, also serves as the firm’s CEO; as such, he has served in a leadership role for every bridge inspection project that we have completed since 1994. He also serves as a lead instructor for the NHI training course. He will verify that our deliverables reflect the highest level of quality and will personally ensure that all resources and specialized equipment are available in order to make this project a success for the Department, while protecting the traveling public of the state.

Infrastructure Engineers’ commitment to the Oklahoma Department of Transportation remains strong, and we welcome the opportunity to further develop our relationship with your staff. Thank you for your consideration.

Sincerely,

INFRASTRUCTURE ENGINEERS, INC.

Gregg Hostetler, PE
Vice President
Our entire inspection team is NBIS-qualified—all have attended the two-week NHI 130055 Safety Inspection of In-Service Bridges course with associated refresher training as required. Additionally, all team leaders have attended ODOT’s QC/QA Bridge Inspection Workshop.
Introduction

Infrastructure Engineers, Inc. was established in 1994 as a hybrid transportation engineering firm with a focus on bridge inspections. Our experience performing routine bridge inspections in a multitude of environments has produced unparalleled technical expertise. Eighteen years later, bridge inspection accounts for over 60 percent of our engineering work, requiring an expert staff and state-of-the-art equipment. As a result, much of our corporate success is due to an investment in quality people and unequaled service.

Since our founding, Infrastructure Engineers has performed over 18,500 NBIS or similar bridge inspections. We have established an outstanding national reputation in routine bridge inspection through projects in over 40 states, including Oklahoma. We have performed complex work for state departments of transportation, the US Navy, the US Army Corps of Engineers, and the Department of the Interior. In addition to inspection services, Infrastructure Engineers has extensive structural design capability and is frequently called upon to perform design and plans preparation after a thorough structural investigation has been completed. The ability to combine thorough inspection and documentation with design of repair and rehabilitation plans brings great value to our clients.

For this contract, we stand ready to continue our relationship with the Oklahoma Department of Transportation (ODOT), further establishing that we are an innovative organization with a practical, detailed, can-do philosophy that has built a reputation for providing reliable, efficient, attentive, cost-effective, and high quality bridge management services. With the recent opening of our Oklahoma City office, we will be responsive to the ODOT's needs while providing a wide range of bridge inspection techniques. We can perform effectively in any field situation and also possess the capability to perform an in-depth analysis of bridge deterioration or loading. Additionally, Infrastructure Engineers is an Oklahoma-certified DBE.

The map below illustrates the worldwide locations in which Infrastructure Engineers has performed bridge inspections.
Infrastructure Engineers has also invested in our personnel, seeking the most talented and physically capable inspectors that are continually trained to better their skill set. We maintain this well-equipped staff by supplying teams with the latest and best available inspection equipment, and enabling our teams to work on a variety of structures under an array of conditions, including over traffic and in confined spaces. Our staff, facilities and equipment will be able to adjust to any changes, unforeseen conditions or activities that may occur under this contract. We have proven to our clients time and time again that we can provide quality inspections in a timely and cost-effective manner. Our nationwide expertise is further validated by the fact that our engineers teach others how to perform bridge inspections, as illustrated below.

**NHI Course No. 130053 Bridge Inspection Refresher Training**

2010 Course of Excellence - Ranked 9th of 300 Courses

Infrastructure Engineers is currently teaching this course, having trained thousands of senior inspectors and team leaders across the country. We have received extremely high marks from participants, many indicating that the reason is not only due to the content and delivery of the class, but the wealth of experience the instructors and firm have in bridge inspections. In fact, Infrastructure Engineers’ course instruction has been recognized by NHI as a “Course of Excellence” several times since being awarded the instruction contract in 2007.

"The National Highway Institute (NHI) is extremely pleased with the work that Infrastructure Engineers is doing for the FHWA…Time and time again, NHI observes and hears from the participants in the course that Infrastructure Engineers’ extensive experience in bridge inspections in all parts of the nation significantly contributes to the effectiveness and practicality of the training…We would highly recommend Infrastructure Engineers to other bridge owners."

- Louisa Ward, NHI Structural Program Manager

During field operations, our inspectors use the latest in bridge inspection equipment to provide efficient inspections. We are closely aligned with the FHWA and NHI through our contract to deliver bridge inspection training nationwide; as such, we are introduced to many developing inspection techniques and equipment, which are used to enhance our own inspection teams. This allows us to remain on the leading edge of technology in our industry.
Experience and Familiarity with Department Procedures

Our team understands the requirements of this project and is extremely well-suited to provide the required services. We are thoroughly familiar with the procedures and expectations of ODOT. Currently, we are serving as the prime consultant on ODOT’s On- and Off-System Truss and Fracture Critical Bridge Inspection contracts, and have also served as a subconsultant on the Statewide Underwater Bridge Inspection contract during previous cycles. A majority of our proposed team has performed inspections directly for ODOT, thus allowing us the additional advantage of being meticulously aware of what it takes to successfully perform on and complete such a contract. Our reputation as detailed and thorough inspectors is built on the inspection of thousands of structures for state agencies since 1994. We possess a powerful combination of expertise in structural inspection and a familiarity with ODOT inspection and reporting procedures, eliminating the inherent learning curve for this contract. We are committed to key personnel participation in ODOT’s QC/QA training program, to include our project manager and team leaders.

Infrastructure Engineers has been performing bridge inspections in Oklahoma since 1999!

A majority of our proposed team leaders have performed inspections throughout the state.

Infrastructure Engineers team leader Fred Meek, CBI performing ultrasonics on a steel bridge.
Gregg Hostetler, PE (OK #25904) - Project Manager/Program Manager

As Vice President of Infrastructure Engineers, Gregg Hostetler, PE provides project management and quality assurance for NBIS routine and underwater bridge inspections, load ratings, overhead sign inspections, and transportation design projects. He is an experienced inspector with 16 years of experience performing over 2,000 NBIS inspections on bridges throughout the United States and in Okinawa, Japan. He also has extensive experience with load ratings, structural analysis and bridge repair and rehabilitation design.

Mr. Hostetler’s relevant project experience includes serving as project manager for the NBIS local government bridge inspections for the Florida Department of Transportation (FDOT) District Two. This project consisted of over 670 routine bridge inspections. He also served as project manager for two cycles of NBIS bridge inspections on the northern system of Florida’s Turnpike. Mr. Hostetler also served as project manager for the NBIS inspection of bridges located throughout the United States and Japan for the US Navy. Additionally, Mr. Hostetler serves as an instructor for NHI Course no. 130053, Bridge Inspector Refresher Training and has been recognized by FHWA as an “Instructor of Excellence”.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop (scheduled to attend in 2012)
- FHWA/NHI 130055 - Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 - Bridge Inspector Refresher Training
- FHWA/NHI 130036 - Inspection of Fracture Critical Members
- FHWA/NHI 130046 - Stream Stability/Scour at Bridges
- FHWA/NHI 130051 - Bridge Management System Inspector Training
- FHWA/NHI 420018 - Instructor Development

David Reser, PE - Project Principal/QA Manager

David Reser, PE is the Chief Executive Officer of Infrastructure Engineers and has 25 years of engineering experience in NBIS above and underwater bridge inspection, and structural design and analysis. Mr. Reser also has extensive experience managing complex projects involving coordination with consultants across the nation. He is exceptionally capable of ensuring compliance with project budgets and established schedules. He will commit all necessary personnel and equipment resources to meet the requirements of this contract. Mr. Reser’s bridge inspection experience includes projects for various Departments of Transportation, the Bureau of Indian Affairs, and the US Navy. Additionally, Mr. Reser serves as an instructor for NHI course no. 130053, Bridge Inspector Refresher Training and has been recognized by NHI as an “Instructor of Excellence”.

Inspection Courses:
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130036 – Inspection of Fracture Critical Members
- FHWA/NHI 130046 – Stream Stability & Scour at Bridges
- FHWA/NHI 420018 – Instructor Development
- FHWA/NHI 130051 – Bridge Management System Inspector Training
Fred Meek, CBI - Team Leader
Fred Meek serves as a senior inspector and team leader for NBIS routine bridge inspections nationwide and has 12 years of experience. Mr. Meek is NICET Level I-certified. His duties include structural inspection, PONTIS report preparation, and quality assurance review. Mr. Meek has served as deputy project manager and team leader for routine bridge inspections for the FDOT District Two; the NBIS inspections of bridges and other structures for the northern system of Florida’s Turnpike Enterprise; and for the NBIS routine bridge inspections for the Bureau of Indian Affairs.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130078 – Fracture Critical Inspection Techniques for Steel Bridges
- FHWA/NHI 420018 – Instructor Development

David Orr, CBI - Team Leader
David Orr has 27 years of experience and is proficient in structural inspection and load rating, report preparation, and quality assurance review. He also has experience in the preparation of load ratings, posting, repair, and upgrade recommendations. He formerly was a supervising bridge manager for the Texas Department of Transportation (TxDOT), responsible for the inspection of all on and off-system structures in the TxDOT Atlanta District. In the private sector, he has served as a project manager and team leader for the inspection of over 1,200 bridges for TxDOT. He has served as project manager on NBIS local government bridge inspections for the Florida DOT, District Two, as well as an inspector on three consecutive contracts for bridge inspections for Florida’s Turnpike.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130036 – Inspection of Fracture Critical Members
- FHWA/NHI 130047 – Stream Stability/Scour at Highway Bridges
- FHWA/NHI 130051 - Bridge Management System Inspector Training
- FHWA/NHI 420018 - Instructor Development

Andrew Young, PE (OK #24644) - Team Leader
Andrew Young has eight years of experience in providing NBIS routine bridge inspections for local governments, state departments of transportation and federal agencies. His duties also include load ratings, engineering report preparation and drawings development. Additionally, Mr. Young serves as an instructor for NHI course no. 130053, Bridge Inspector Refresher Training and has been recognized by NHI as an “Instructor of Excellence”. His experience in Oklahoma includes serving as a team leader for our current Off-System fracture critical bridge inspection contract. He also serves as a team leader on our contract with the US Navy to inspect bridges worldwide.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130078 – Fracture Critical Inspection Techniques for Steel Bridges
- FHWA/NHI 130047 – Stream Stability/Scour at Highway Bridges
- FHWA/NHI 420018 - Instructor Development
- FHWA/NHI 130091 - Underwater Bridge Inspection
Brian Dietrich, PE (OK #23377) - Team Leader

Brian Dietrich has performed on over 5,100 bridge inspections nationwide including a variety of structure types such as arch, box girder, cable stay, culvert, girder, moveable, suspension, and truss. He is also certificated as a Level II Climber by the Society for Professional Rope Access Technicians (SPRAT). He is proficient in preparing reports and is skilled in a variety of engineering software programs including AutoCAD, Microstation, and MathCAD. Mr. Dietrich served as an inspector for both the on- and off-system bridge inspections for ODOT, as well as serving as an inspector on our contract to inspect structures nationwide with the Bureau of Indian Affairs.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130078 – Fracture Critical Inspection Techniques for Steel Bridges

Joe Costa, PE (OK #23781) - Team Leader

Joe Costa has participated in more than 4,760 bridge inspections. Federal clientele include the Bureau of Indian Affairs and the US Navy, as well as state departments of transportation in Oklahoma, Pennsylvania, Kansas, and Florida to name a few. Mr. Costa serves as an instructor for NHI Course No. 130053, Bridge Inspection Refresher Training. He is also currently serving as project manager and/or team leader on our on- and off-system bridge inspection contracts for ODOT.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130036 – Inspection of Fracture Critical Members
- FHWA/NHI 420018 - Instructor Development

Chace Hulon, PE - Team Leader

Chace Hulon serves as a project engineer and inspector. He has seven years of experience providing NBIS routine bridge inspections for local governments, state departments of transportation and federal agencies. He is also certificated as a Level I Climber by the Society for Professional Rope Access Technicians (SPRAT). He is proficient in preparing reports and is skilled in a variety of engineering software programs including AutoCAD, Microstation, and MathCAD. Mr. Hulon served as an inspector for both the on- and off-system bridge inspections for ODOT, as well as serving as an inspector on our contract to inspect structures nationwide with the Bureau of Indian Affairs.

Inspection Courses:
- ODOT - QC/QA Bridge Inspection Workshop
- FHWA/NHI 130055 – Safety Inspection of In-Service Bridges
- FHWA/NHI 130053 – Bridge Inspection Refresher Training
- FHWA/NHI 130078 – Fracture Critical Inspection Techniques for Steel Bridges

Christopher Howard, PE (OK #25595) - Load Rating Manager

Christopher Howard has over 28 years of bridge engineering experience and has provided load ratings for our bridge inspection projects for the Florida Department of Transportation, Florida’s Turnpike Enterprise, the US Navy and the Bureau of Indian Affairs. He has completed in-service Load and Resistance Factor Rating (LRFR), Load Factor Rating (LFR), and Allowable Stress Rating (ASR) load ratings for flat slab bridges, AASHTO beams, inverted T-beams, steel I-beams, box culverts, timber and steel H-piles, timber beams, pony trusses, simple span structures, and continuous span structures.
Inspection Methods

Our team’s bridge inspection techniques have been refined over 18 years of experience; we will utilize our field-tested, proven inspection process to provide expert bridge inspection services to ODOT. Our process is detailed below.

**Inspection Preparation:** Inspection preparation sets the tone for the entire inspection process. Time effectively spent by the team before performing the field work can save significant field time, improve safety, and increase the quality of the inspections.

**Master Schedule Validation** – Upon issuance of a work order, we will validate and refine our master schedule. Our project manager, Gregg Hostetler, with assistance from a production coordinator, will verify the inspection due dates, gather the previous reports, prepare field files, verify Maintenance of Traffic (MOT) requirements, and coordinate lane closures (if applicable).

**Mobilization** – Our technical staff knows from experience the equipment and preparation required to ensure that goals are met for the inspection schedule. Each member of the team has specific responsibilities, including:

- **Production Coordinator**
  - Print checklists and photo logs
  - Print schedule
  - Organize field files, including previous reports, plans and location maps

- **Team Leader**
  - Review field files
  - Review location maps and plans
  - Review schedule and previous reports
  - Review MOT plans (if required)
  - Meet with Load Rating Manager to identify fracture critical components (as required)

- **Assistant Inspector(s)**
  - Load equipment utilizing job-specific load lists
  - Complete equipment maintenance checklist and check all safety equipment
  - Gather miscellaneous supplies

**Field Files** – Our field files consist of a standard on-site checklist, previous inspection report (if available), Structural Inventory and Appraisal (SI&A) report, fracture critical inspection plan (if required), plans (if available), lane closure authorization form (if required), MOT plan (if required), and confined space entry form (if required). Field files are prepared during the schedule validation phase and at least 30 days prior (if possible) to the scheduled inspection month.

**Maintenance of Traffic (MOT)** – Infrastructure Engineers has extensive experience working with maintenance of traffic. We will minimize MOT requirements to the maximum extent possible. When absolutely required, we plan to provide our own traffic control to minimize the cost of an outside subconsultant, unless it proves to be more economically feasible to bring in a local contractor. We own all basic equipment required for a lane closure, and will rent additional equipment such as a towable message board as required. Lane closure request forms will be submitted at least one month in advance to the appropriate authority for public notification. MUTCD standards are used when possible, and site specific plans are developed as needed. Most of our inspectors are trained and have experience with setting up and running traffic control systems.
Bridge Access and Equipment – In the event traffic control and use of a snooper is not feasible, Infrastructure Engineers has the ability to perform rope access inspections. We understand that bridges on this contract may require an under bridge inspection vehicle. In the event that it is needed, Infrastructure Engineers has an established account with a company who provides under bridge inspection vehicles nationwide. We will schedule the snooper immediately upon execution of the work order to ensure availability. Company-owned equipment also includes two bucket vans and a towable lift, which are utilized to perform inspections from roadways beneath the bridge when needed.

Bridge Inspection Procedures: A qualified team leader with bridge inspection experience will conduct all inspections in accordance with NBIS, FHWA, ODOT and AASHTO standards. The team determines a safe parking location, wears reflective safety vests, and deploys appropriate traffic control and flashing lights, as needed. All traffic control procedures will conform to the latest editions of the FHWA/USDOT ‘Manual on Uniform Traffic Control Devices’ and ODOT specifications.

Bridge Identification & Location Verification – After arriving at each inspection site, the first step is verifying the structure. This step involves making sure that the team is at the correct bridge based on available plans, past reports, photos, and location maps. Changes are made to the existing bridge location maps as needed. Bridge inventory photos, including both elevations, both approaches, and upstream and downstream views (when applicable), are taken at this time.

Soundings – Soundings are typically taken from the barrier rails or another fixed reference location specified in the previous bridge inspection report. Soundings are always taken at the start of the inspection to determine if an underwater inspection is needed and to allow the inspectors to decide what method of access is appropriate to inspect the substructures. Soundings are generally taken using measuring tapes with a lead weight on the end. Soundings on larger bridges are performed using a recording fathometer. Infrastructure Engineers also has the equipment to perform a complete hydrographic survey if needed.

Structural Inspection Procedures: Our inspections are conducted from the top down. We begin with the deck and work down to the substructure in an organized and methodical manner. Key issues for common bridge elements are briefly highlighted in the following paragraphs.

Guardrails and Traffic Barriers – Guardrails and traffic barriers are examined for impact damage, missing hardware, damaged posts, general deterioration, and conformance with AASHTO. If the guardrail or barrier does not conform to current safety standards, an explanation is noted. Guardrails below the bridge on grade separation structures are inspected for condition and compliance with current standards. If guardrails are not present, clear zone distances are measured for compliance with current standards.

Safety Features – All safety features related to the bridge are inspected for condition and compliance with standards. These typically include advance warning signs, striping, object markers, weight restriction signs, reflectors, lighting, railings, and fences.

Approach Slabs and Deck Features – The deck, expansion joints, curbs, sidewalks, and approach slabs are inspected for condition. Bridge deck slabs are inspected for excessive cracking and delamination. Deteriorated joints can result in water and debris accumulating on bearings and substructure elements, accelerating deterioration. Incompressible material in expansion joints can cause spalling of the nosing or deck around the joint. The drainage system on the deck is inspected for condition and performance. Poor drainage can aggravate erosion around end bents, approach slabs, and slope protection. Approach slabs can be susceptible to undermining where drainage is poor near the end bents, or where expansion joints are severely damaged at bridge transitions.

Slope Protection – Our inspectors understand the issues associated with all types of slope protection. Spill-through abutments typically have rubble riprap, sand-cement bags, or concrete slope pavement for protection. This protective feature can be compromised by erosion due to poor drainage, flooding, or mechanical damage. Concrete slope pavement can conceal serious drainage problems. Typical problem areas are joints between sections and the end bents which can deteriorate and allow water to enter and erode the fill below.
Bearings – Bearings are inspected for movement, cracking, debris, and performance. Measurements are taken, as appropriate, to document movement and condition.

Concrete Superstructure – Typically, deterioration in these members is first visible as cracks with corrosion of prestressing tendons and/or mild steel. Cracks in prestressed members are generally indicative of overstress. All significant crack dimensions are documented and marked for future inspections to compare conditions. Suspect areas of deterioration are sounded for delamination and marked and photographed. Our inspectors give special attention to beams that have impact damage, and note the condition and performance of any repairs.

Steel Superstructure – Steel components are inspected over their entire length with special attention given to areas where dirt or debris can accumulate, such as near the bearings. Fracture critical members and fatigue-prone areas are inspected at close range with a light and magnifying glass as needed. Dye penetrant testing is performed when cracks are suspected. Crack limits are marked and dated for monitoring or repair.

Timber Structures – Timber bridges are some of the most challenging structures to inspect. Our inspectors have extensive experience inspecting timber bridges, a key factor in a quality inspection. Typically, timber will decay internally where the protective coating is breached at connection points, such as stringer tops, bolt hole connections, drift pin attachment points, etc. Internal decay is first detected by sounding with a hammer. Our inspectors are trained to hammer sound every member near connection points on timber bridges. Suspect areas are drilled using a Resistograph® drill shown in the adjacent image.

The Resistograph® is a device that produces an electronic chart of drill resistance, which is directly related to internal decay. This inspection tool performs electronically controlled drill resistance measurements which are printed on-site, allowing inspectors to further investigate suspect areas of decay and hollow spaces. The printout data is then incorporated into the bridge inspection report using analytical software that creates decay zone profiles.

Decay is also common on non-submerged timber piles at the ground line, where moisture content is often ideal for decay. Our inspectors are experienced at distinguishing between normal timber imperfections and structural defects caused by decay or overloading.

Concrete Piles – Reinforced and prestressed concrete piles can be damaged during pile driving, from vessel/vehicle impact, or can develop chloride-induced corrosion of the internal reinforcing steel/prestressing strands. Chemical-induced scaling is a common problem on piles in fresh water environments. Our inspectors thoroughly document any resulting section loss.

Steel Piles – Steel piles can be exposed and impacted on various bridge types, and they are susceptible to corrosion and abrasion damage. Our inspectors will document the remaining cross section using calipers and/or ultrasonic equipment when possible.

Equipment: Our customized equipment packages allow inspection teams to travel with nearly every piece of equipment necessary. In a compact, efficient arrangement, our equipment packages include non-destructive testing equipment, traffic safety equipment, and industrial rope access climbing equipment. In this way, our equipment packages function as mobile inspection equipment rooms that allow teams to be prepared at each bridge site in order to perform a thorough, in-depth inspection on a wide variety of bridges. Some portions of some of the bridges may require the use of a bucket truck, a self-propelled lift or an under-bridge inspection unit. In many cases, the need for mechanical access equipment and traffic control can be eliminated altogether by utilizing industrial rope access techniques performed by our in-house SPRAT-certified climbers.
**Capacity of Team to Accomplish the Work**

Infrastructure Engineers has assembled the proposed team not only for their technical expertise, but also for their availability. All of the proposed team leaders have the availability to commit the required time to this project. We will work closely with ODOT to make sure all deadlines are met and that capacity to complete the work is not an issue. Infrastructure Engineers has a formal process for shifting personnel and workloads to meet the demands of each specific project. The graph below illustrates our current workload.

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<thead>
<tr>
<th>PROJECTS</th>
<th>Gregg Hostetter, PE</th>
<th>David Reser, PE</th>
<th>Fred Meek, CBI</th>
<th>David Or, CBI</th>
<th>Andrew Young, PE</th>
<th>Chace Hulon, PE</th>
<th>Brian Dietrich, PE</th>
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<td>Off-System Truss &amp; Fracture Critical Bridge Inspections (ODOT)</td>
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Infrastructure Engineers has a proven track record of completing work in a timely and efficient manner. Much of this success is due to our comprehensive scheduling program and project principal David Reser, PE who is dedicated to ensuring that the required personnel with appropriate experience are available to complete the work. Many of our engineers and staff are also cross-trained to work on different types of jobs, providing clients with more in-depth experiences.

Critical to Gregg Hostetler’s successful project management in completing the work is cost control and adherence to the accepted schedule. As such, Mr. Hostetler will: (a) verify that the project cost is properly estimated so that no change orders are required except in extremely unusual circumstances; (b) develop the schedule so that all necessary resources are available for both the field and office work and so that inspections are completed on schedule, including all non-professional contracts and permits; (c) verify that the team leader is aware of the inspection type, previously documented problems on the structure, and potential problem areas; (d) maintain the quality of field inspections and of deliverables; and (e) monitor the budget to verify compliance.

Team leaders also have specific responsibilities for maintaining quality, schedule and cost, including: (a) ensuring site and team safety; (b) coordinating the inspection team at the site; (c) establishing traffic control, if required; (d) organizing any non-professional services; (e) providing permits on site, if required; (f) conveying to the team the inspection type, location, and existing/potential problem areas and details, and (g) providing a thorough and complete inspection and report, with notes, measurements, photographs, and sketches, all within the established schedule.
Past Performance
As previously mentioned, Infrastructure Engineers has performed over 18,500 NBIS bridge or similar inspections since our founding. The following pages detail our past project experience similar to that of the work proposed for this contract.

On-System Truss and Fracture Critical Inspections - Oklahoma DOT (2011 - present)
Infrastructure Engineers has been awarded a contract to perform statewide on-system, in-depth inspections of 29 fracture critical bridges for the Oklahoma Department of Transportation. Access to the primary structural members and floor systems is achieved entirely without mechanical access equipment or traffic control by the use of rope access techniques, ladders and boats. Infrastructure Engineers is responsible for all necessary equipment to complete the bridge inspections. The inspections include non-destructive testing and are conducted in compliance with the National Bridge Inspection Standards (NBIS), current AASHTO policies, and state and FHWA regulations. Each inspection requires a comprehensive engineering report, including PONTIS, SI&A and text reports with photos.

Off-System Truss and Fracture Critical Inspections - Oklahoma DOT (2010 - present)
Infrastructure Engineers is responsible for the in-depth, hands-on inspection of 103 fracture critical bridges in Lincoln, Ottawa, Pawnee, Tulsa, and Washington Counties. The inspections include through truss, pony truss, and dual-girder bridges. Access to the primary structural members and floor systems is achieved entirely without mechanical access equipment or traffic control by the use of rope access techniques, ladders and boats. In addition, the substructures, decks, channels, approach spans and roadway approaches are visually inspected in sufficient detail to complete the biennial NBIS and PONTIS inspection forms. Other responsibilities include biennial NBIS, element-level and fracture critical inspections. Exposed substructure elements are probed and scour POAs are prepared if necessary. Deficiencies are classified according to Oklahoma’s FX/PX/CX system and responsibilities include follow-up inspections to assure that CX deficiencies are remedied by the counties within the allotted time-frame.

“The field data you generated was closely monitored by our engineers and was consistently found to be without error. You have clearly demonstrated the highest level of professional performance on numerous NBIS Bridge Inspections for the Navy. Your cooperation with the Government, and eagerness to provide a quality product, has been unsurpassed.”

- J.F. Alling, Commander, US Navy
**NBIS Bridge Inspections, Worldwide - US Navy (2001 - present)**

Infrastructure Engineers has been selected for its third consecutive IDIQ contract to perform NBIS inspections of bridges located throughout the United States, Australia, Cuba, Spain, Guam, and Japan. This project includes routine, fracture critical and underwater inspections. Each inspection requires the preparation of an engineering report describing the condition of the structure and recommending maintenance and repairs. The inspection reports include photographs, channel profile, load ratings, NBIS Inventory and Appraisal form, and cost estimate for repairs. Load ratings are prepared on most bridges to include accommodating specialized military transport vehicles used to move missiles to submarines from storage facilities. We combined rope access and diving to perform both the fracture critical and underwater inspection of a two-girder bridge in Guantanamo Bay, Cuba.

**NBIS Bridge Inspection and Inventory, Worldwide - Bureau of Indian Affairs (2001 - present)**

Infrastructure Engineers has been selected for two consecutive cycles to perform NBIS bridge inspections and prepare an inventory of Indian-owned bridges throughout the United States. Services include engineering analysis of existing conditions, review and updating of previous inspection reports and drawings, recommendations for follow-up actions, cost estimates, and documentation of findings in accordance with BIA, NBIS, and AASHTO reporting requirements. This project includes routine, fracture critical and underwater inspections. Load ratings are performed on new bridges and bridges with significant deterioration. Rope access techniques are also used.

**Local Government NBIS Bridge Inspections - Florida DOT, District Two (2008-2011)**

Infrastructure Engineers was selected by the Florida Department of Transportation, District Two to perform two 2-year cycles of NBIS bridge inspection services for various local governments within the District, including numerous counties and cities. The contract included routine inspections of approximately 670 bridges throughout 18 counties, including 14 bridges that required snooper and/or rope access inspection. Three bridges were fracture critical. Approximately 200 underwater inspections were also included, as well as approximately 240 interim inspections due to low NBI ratings and/or bridge posting. An estimated 24 initial inspections and 30 load ratings were included in the project. Structure types included concrete, steel and timber.
Infrastructure Engineers was selected to perform a fourth consecutive two-year cycle of structural inspections. Services include the inspection of 400+ bridges, two of which require a snooper for access; 300+ overhead sign structures; 200+ high mast light towers; and up to 45 large non-qualifying culverts. Bridge inspections for this contract include biennial routine inspections; fracture critical inspections, initial bridge inspections; post rehabilitation inspections; post repair inspections; underwater inspections; and interim bridge inspections. Bridges with significant deterioration require load rating analysis. The firm also provides a PONTIS report of all deficiencies, including photographs, for all structures included in this contract.

"Florida’s Turnpike Enterprise has found Infrastructure Engineers’ performance to be exceptional and dependable. The firm has consistently performed according to the contract terms, has demonstrated a high degree of competence in performing structural inspections, and has delivered the required services in a timely manner. On the basis of their performance, I would recommend Infrastructure Engineers to any client considering the firm for structural inspection and assessment services."

- Aran Lessard, PE
Structures Maintenance Engineer, Florida’s Turnpike Enterprise

Infrastructure Engineers performed multiple cycles of NBIS inspections for 100 locally-owned structures districtwide. The structures ranged in length from 20 ft. to 80 ft. Superstructure types were primarily concrete T-beams & slabs, prestressed concrete beams and steel multi-beam configurations, as well as culverts. Detailed inspection reports included SI&A updating, scour evaluation, prioritized maintenance recommendations and a revised load rating when required.
**Nez Pierce and Clearwater Counties - Idaho DOT (2008)**

Infrastructure Engineers performed routine NBIS and element-level inspections for local agencies in Nez Pierce and Clearwater Counties in Idaho on an IDIQ basis. Structure types consisted of reinforced concrete slabs, arches, girders and T-beams; prestressed box and I-beams; and steel I-beams, girders, trusses and arches. Also included were two signature structures: a 1,558-ft. long suspension bridge and a 1,208-ft. long deck truss bridge. Inspection tasks included agency notification prior to beginning work, field inspection, report preparation, maintenance recommendations, and reviewing findings with representatives from the respective local agencies.

**Safety Inspections of Highway Structures, Bridges and Support Structures for Traffic Devices, Hampton Roads District - Virginia DOT (2009 - 2012)**

As a subconsultant, Infrastructure Engineers is responsible for 278 NBIS safety inspections (41 bridges, 222 luminaires and 15 overhead sign structures) under five task orders for Virginia Department of Transportation in the Hampton Roads District. Each structure is inspected according to the NBIS and Virginia DOT standards. The project includes load rating and non-destructive testing as needed. Each inspection requires a comprehensive report.

**Safety Inspections of Highway Structures and Bridges, Richmond District - Virginia DOT (2009-2012)**

As a subconsultant, Infrastructure Engineers has provided 101 NBIS bridge inspections under seven task orders for the Virginia Department of Transportation in the Richmond District. The contract includes various types of bridge structures, including trusses. All inspections were performed in accordance with the NBIS and Virginia DOT’s Structure and Bridge Division Instructional and Informational Memorandum Number S&B-27.6. The project included seven underwater inspections, as well as fracture critical inspections. The firm prepared a comprehensive report for each inspection.
## References

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerry Lente, PE</td>
<td>Bureau of Indian Affairs</td>
<td>PO Box 26567, Albuquerque, NM 87125</td>
<td>505.563.3317</td>
</tr>
<tr>
<td>Wes Kellogg, PE</td>
<td>Oklahoma Department of Transportation</td>
<td>200 NE 21st Street, Oklahoma City, OK 73105</td>
<td>405.521.2606</td>
</tr>
<tr>
<td>Aran Lessard, PE</td>
<td>Florida's Turnpike Enterprise</td>
<td>PO Box 9828, Ft. Lauderdale, FL 33310-9828</td>
<td>954.934.1234</td>
</tr>
<tr>
<td>Scott Hamilton, CBI</td>
<td>Florida Department of Transportation, District Two</td>
<td>710 NW Lake Jeffery Road, Lake City, FL 32055</td>
<td>386.961.7000</td>
</tr>
<tr>
<td>Louisa Ward</td>
<td>Federal Highway Administration</td>
<td>1310 N. Courthouse Road, Arlington, VA 22201</td>
<td>703.235.0523</td>
</tr>
</tbody>
</table>
1. Project Name/Location for which firm is filing:  
Off-System Bridge Inspection  
Contract No. 1426

2a. Date of Announcement:  
July 10, 2012

2b. Agency originating announcement:  
Oklahoma Department of Transportation

3. Firm (or Joint-Venture) Legal Name and Address:  
Infrastructure Engineers, Inc.  
9636 N. May Avenue  
Suite 200  
Oklahoma City, OK 73120

3a. Certificate of Authority Number: CA 2518 PE

3b. FEI/Tax ID Number: 59-3221706

3c. Name, Title, & Telephone Number of Principal Contact:  
David R. Reser, PE  
Chief Executive Officer  
P: 864.595.8030

3d. Address of office to perform work if different from Item 3:  

4. Personnel by Discipline: (List each person only once, by primary function.)

<table>
<thead>
<tr>
<th>Administrative</th>
<th>Economists</th>
<th>Mechanical Engineers</th>
<th>6 Report Technicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architects</td>
<td>Electrical Engineers</td>
<td>Mining Engineers</td>
<td>1 Intern</td>
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<td>3 CAD/CADD Technicians</td>
<td>Estimators</td>
<td>Planners: Urban/Regional</td>
<td>8 Inspection Technicians</td>
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<td>Chemical Engineers</td>
<td>Geologists</td>
<td>Sanitary Engineers</td>
<td>14 Engineer-in-Training</td>
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<tr>
<td>18 Civil Engineers</td>
<td>Hydrologists</td>
<td>Soil Engineers</td>
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<td>4 Construction Inspectors</td>
<td>Interior Designers</td>
<td>Specification Writers</td>
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<tr>
<td>Draftsmen</td>
<td>Landscape Architects</td>
<td>Structural Engineers</td>
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<tr>
<td>Ecologists</td>
<td>Land Surveyors</td>
<td>Surveyors</td>
<td>69 Total Personnel</td>
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5. If submittal is by a JOINT-VENTURE, list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: All firms and the joint venture MUST be registered with Construction and Properties, Department of Central Services, 2401 N. Lincoln Blvd., Suite 106, P. O. Box 53448, Oklahoma City, OK 73152-3448.

5a. Has this Joint-Venture previously worked together? □ Yes  □ No  If YES, how many times? _____
6. Brief resume of key persons, specialists, and individual consultants employed by sub-consultants anticipated for THIS PROJECT.

<table>
<thead>
<tr>
<th>a. Name and Title: Gregg Hostetler, PE</th>
<th>a. Name and Title: David Reser, PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment: Project Manager</td>
<td>b. Project Assignment: Project Principal/QA Manager</td>
</tr>
<tr>
<td>c. Name of firm with which associated: Infrastructure Engineers, Inc.</td>
<td>c. Name of firm with which associated: Infrastructure Engineers, Inc.</td>
</tr>
<tr>
<td>d. Years experience: With this firm 12</td>
<td>d. Years experience: With this firm 18</td>
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<tr>
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<td>With other firms 7</td>
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<tr>
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<td>e. Education: Degree(s)/Year/Specialization</td>
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<td>MS'1992/Business Administration BS'1987/Civil Engineering</td>
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<td>f. Active Registration: State/Year first registered/Discipline/ Oklahoma License Number</td>
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<td>OK/1993/Professional Engineer/17078</td>
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<td>Oklahoma Certificate of Authority (if any)</td>
</tr>
<tr>
<td>g. Other experience and qualifications relevant to the proposed project:</td>
<td>g. Other experience and qualifications relevant to the proposed project:</td>
</tr>
<tr>
<td>Mr. Hostetler provides project management and quality assurance for NBIS routine and underwater bridge inspection, load rating, overhead sign inspection, and bridge design projects. He is also an experienced inspector, performing inspections on bridges throughout the United States and in Okinawa, Japan. During the course of his career, he has conducted over 2,000 NBIS inspections nationwide. His design experience includes bridge replacements, widening, and repair design using a variety of materials including concrete, prestressed concrete, and timber. He also has extensive experience with computer-aided drafting and structural analysis. Project Manager, NBIS Structure Inspection, Florida’s Turnpike Enterprise – Northern System: Infrastructure Engineers has been selected for four consecutive two-year cycles by Florida’s Turnpike Enterprise to perform NBIS inspection services on its northern system. The project includes inspections of 400+ bridges and culverts, 300+ overhead sign structures, 200+ high mast light poles, and up to 45 non-qualifying culverts. Each inspection requires a comprehensive engineering report and bridge load rating if applicable. The project includes structures in nine counties. Project Manager / Team Leader, Local Government Bridge Inspections, Florida Department of Transportation – District Two: Infrastructure Engineers was selected to provide NBIS bridge inspection services for the routine inspection of approximately 670 bridges, including 14 bridges that require snooper and/or rope access inspection. Three of these bridges are fracture critical. Approximately 200 underwater inspections are also included. The project also includes approximately 240 interim inspections due to low NBI ratings and/or bridge posting. An estimated 24 initial inspections and 30 load ratings are also included. Project Manager/Team Leader, IDIQ Contract for NBIS Bridge Inspection, Worldwide, Naval Facilities Engineering Command: Infrastructure Engineers has been selected for three consecutive IDIQ contracts to perform NBIS routine, fracture critical, and underwater inspections of bridges and waterfront structures located worldwide. Each inspection requires the preparation of an engineering report describing the condition of the structure and recommending maintenance and repairs. Project Manager/Team Leader, IDIQ Contract for Nationwide NBIS Bridge Inspection and Inventory, Bureau of Indian Affairs: Infrastructure Engineers has been selected for two consecutive cycles of NBIS bridge inspections, including routine, fracture critical and underwater inspections. Services include engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings. The project includes rope access techniques and load ratings. Team Leader, IDIQ Contract for Nationwide NBIS Bridge Inspection and Inventory, Bureau of Indian Affairs: Infrastructure Engineers was selected for two consecutive cycles to perform NBIS routine, fracture critical, and underwater bridge inspections and prepare an inventory of Indian-owned bridges nationwide. Services included engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings in accordance with BIA, NBIS, and AASHTO reporting requirements.</td>
<td>Mr. Reser serves as CEO of Infrastructure Engineers and has extensive engineering experience in NBIS routine and underwater bridge inspection, structural design and analysis, evaluation of marine structures, marine construction, and project management. He also has experience managing complex projects involving coordination with consultants across the nation. Principal, On-System Truss &amp; Fracture Critical Bridge Inspections, Oklahoma Department of Transportation Infrastructure Engineers is performing on-system, in-depth inspections of 48 truss bridges and 57 fracture critical bridges. Responsibilities include biennial NBIS, element-level and fracture critical inspections. The inspections include non-destructive testing and are conducted in compliance with the NBIS, current AASHTO policies, and state and FHWA regulations. Each inspection requires a comprehensive engineering report. Principal/Team Leader, IDIQ Contract for NBIS Bridge Inspection, Worldwide, Naval Facilities Engineering Command: Infrastructure Engineers has been selected for three consecutive IDIQ contracts to perform NBIS routine, fracture critical, and underwater inspections of bridges and waterfront structures located worldwide. Each inspection requires the preparation of an engineering report describing the condition of the structure and recommending maintenance and repairs. Project Manager/Team Leader, IDIQ Contract for Nationwide NBIS Bridge Inspection and Inventory, Bureau of Indian Affairs: Infrastructure Engineers has been selected for two consecutive cycles of NBIS bridge inspections, including routine, fracture critical and underwater inspections. Services include engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings. The project includes rope access techniques and load ratings. Principal, Local Government Bridge Inspections, Florida Department of Transportation – District Two: Infrastructure Engineers was selected to provide two cycles of NBIS inspection for 670+ bridges for various local governments. The contract included routine, fracture critical and underwater inspections. The project also included over 30 load ratings per cycle. Principal, NBIS Structures Inspections, Florida Department of Transportation, Turnpike Enterprise – Northern System: Infrastructure Engineers has been selected for four consecutive two-year cycles by Florida’s Turnpike Enterprise to perform NBIS inspection services on its northern system, including routine, fracture critical, interim and special inspections for 400+ bridges. Each inspection required a comprehensive engineering report and bridge load rating if applicable.</td>
</tr>
</tbody>
</table>
6. Brief resume of key persons, specialists, and individual consultants employed by sub-consultants anticipated for THIS PROJECT.

<table>
<thead>
<tr>
<th>a. Name and Title: Fred Meek, CBI</th>
<th>a. Name and Title: David Orr, CBI</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment: Team Leader</td>
<td>b. Project Assignment: Team Leader</td>
</tr>
<tr>
<td>c. Name of firm with which associated: Infrastructure Engineers, Inc.</td>
<td>c. Name of firm with which associated: Infrastructure Engineers, Inc.</td>
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<tr>
<td>d. Years experience: With this firm 12 With other firms 7</td>
<td>d. Years experience: With this firm 7 With other firms 20</td>
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<td>e. Education: Degree(s)/Year/Specialization</td>
<td>e. Education: Degree(s)/Year/Specialization</td>
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<td>Oklahoma Certificate of Authority (if any)</td>
<td>Oklahoma Certificate of Authority (if any)</td>
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<tr>
<td>g. Other experience and qualifications relevant to the proposed project:</td>
<td>g. Other experience and qualifications relevant to the proposed project:</td>
</tr>
<tr>
<td>Mr. Meek serves as a senior inspector and team leader for NBIS routine and underwater bridge inspections nationwide. He is also experienced in overhead sign, high-mast light pole, and non-qualifying culvert inspections. Mr. Meek is NICET Level I-certified. He has performed inspections for local, state, and federal governments and agencies, and has extensive experience preparing inspection reports for a multitude of clients across the United States and worldwide.</td>
<td>Mr. Orr serves as a senior inspector and team leader for NBIS bridge inspections. He is proficient in structural inspection and rating, report preparation, and quality assurance review. He also has experience in the preparation of load ratings, posting, repair and upgrade recommendations. He was a supervising bridge manager for the Texas Department of Transportation (TxDOT), responsible for the inspection of all on and off system structures in the TxDOT Atlanta District.</td>
</tr>
<tr>
<td><strong>Team Leader, Local Government Bridge Inspections, Florida Department of Transportation – District Two:</strong> Infrastructure Engineers was selected to provide two cycles of NBIS inspection for 670+ bridges for various local governments. The contract included routine, fracture critical and underwater inspections. The project also included over 30 load ratings per cycle.</td>
<td><strong>Project Manager/Team Leader, Districtwide NBIS Local Government Bridge Inspection, Florida Department of Transportation – District Two:</strong> Infrastructure Engineers was selected to provide two cycles of NBIS inspection for 670+ bridges for various local governments. The contract included routine, fracture critical and underwater inspections, and over 30 load ratings per cycle.</td>
</tr>
<tr>
<td><strong>Team Leader, NBIS Structures Inspections, Florida Department of Transportation, Turnpike Enterprise – Northern System:</strong> Infrastructure Engineers has been selected for four consecutive two-year cycles by Florida’s Turnpike Enterprise to perform NBIS inspection services on its northern system. The project includes inspections of 400+ bridges and culverts, 300+ overhead sign structures, 200+ high mast light poles, and up to 45 non-qualifying culverts. Each inspection requires a comprehensive engineering report and bridge load rating if applicable. The project includes structures in nine counties.</td>
<td><strong>Team Leader, Structures Inspection, Florida’s Turnpike Enterprise – Northern System:</strong> Infrastructure Engineers has been selected for four consecutive two-year cycles by Florida’s Turnpike Enterprise to perform NBIS inspection services on its northern system. The project includes inspections of 400+ bridges and culverts, 300+ overhead sign structures, 200+ high mast light poles, and up to 45 non-qualifying culverts. Each inspection requires a comprehensive engineering report and bridge load rating if applicable. The project includes structures in nine counties.</td>
</tr>
<tr>
<td><strong>Team Leader, IDIQ Contract for Nationwide NBIS Bridge Inspection and Inventory, Bureau of Indian Affairs:</strong> Infrastructure Engineers has been selected for two consecutive cycles of NBIS bridge inspections, including routine, fracture critical and underwater inspections. Services include engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings. The project includes rope access techniques and load ratings.</td>
<td><strong>Team Leader, NBIS Bridge Inspection, Nationwide, Bureau of Indian Affairs:</strong> Infrastructure Engineers has been selected for two consecutive cycles, and is one of three firms performing NBIS bridge inspections and preparing an inventory of Indian-owned bridges throughout the United States. Services include engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings in accordance with BIA, NBIS, and AASHTO reporting requirements. Rope access techniques are required to access several bridges. The bridge inspections include the underwater inspection of bridge substructures and scour analysis when required. Load ratings are performed on new bridges and bridges with significant deterioration.</td>
</tr>
<tr>
<td><strong>Inspector, IDIQ Contract for NBIS Bridge Inspection, Worldwide, Naval Facilities Engineering Command:</strong> Infrastructure Engineers has been selected for three consecutive IDIQ contracts to perform NBIS routine, fracture critical, and underwater inspections of bridges and waterfront structures located worldwide. Each inspection requires the preparation of an engineering report describing the condition of the structure and recommending maintenance and repairs.</td>
<td><strong>Project Manager, Routine Bridge Inspections, Polk County, Florida:</strong> Infrastructure Engineers was selected to provide professional engineering services for the routine inspection of 41 bridges maintained by Polk County in accordance with the NBIS and the Florida Department of Transportation’s Manual for Bridge and Other Structures Inspection. All of the reports were created in the PONTIS format with photographs, load rating summary sheet, field preparation form, channel bottom profiles and soundings and location map with detour routes. Underwater inspections were performed on bridges located over waterways with a greater than three-ft. depth.</td>
</tr>
<tr>
<td></td>
<td>a. Name and Title: Andrew Young, PE</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>b. Project Assignment:</td>
<td>Team Leader/Load Rating Engineer</td>
</tr>
<tr>
<td>c. Name of firm with which associated:</td>
<td>Infrastructure Engineers, Inc.</td>
</tr>
<tr>
<td>d. Years experience:</td>
<td>With this firm 8 With other firms 0</td>
</tr>
<tr>
<td>e. Education: Degree(s)/Year/Specialization</td>
<td>BS/2004/Civil Engineering</td>
</tr>
<tr>
<td>f. Active Registration: State/Year first registered/Discipline/Oklahoma License Number</td>
<td></td>
</tr>
<tr>
<td>g. Other experience and qualifications relevant to the proposed project:</td>
<td>Mr. Young has eight years of experience in providing NBIS inspections for local governments, state departments of transportation and federal agencies. His duties also include load ratings, engineering report preparation, and drawings development. He is also certified as a Level I Climber by the Society for Professional Rope Access Technicians (SPRAT). He is proficient in AutoCAD, Microstation, and SAP2000.</td>
</tr>
</tbody>
</table>

**Team Leader, Off-System Truss & Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** Infrastructure Engineers is responsible for the in-depth, hands-on inspection of 103 fracture critical bridges in Lincoln, Ottawa, Tulsa, and Washington Counties. The inspections include through truss, pony truss, and dual-girder bridges.

**Team Leader, On-System Truss & Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** Infrastructure Engineers is performing on-system, in-depth inspections of 48 truss bridges and 57 fracture critical bridges. Responsibilities include biennial NBIS, element-level and fracture critical inspections. The inspections include non-destructive testing. Each inspection requires a comprehensive engineering report.

**Team Leader, IDIQ Contract for NBIS Bridge Inspection, Worldwide, Naval Facilities Engineering Command:** Infrastructure Engineers has been selected for three consecutive IDIQ contracts to perform NBIS routine, fracture critical, and underwater inspections of bridges and waterfront structures located worldwide. Each inspection requires the preparation of an engineering report describing the condition of the structure and recommending maintenance and repairs.

**Team Leader, IDIQ Contract for Nationwide NBIS Bridge Inspection and Inventory, Bureau of Indian Affairs:** Infrastructure Engineers has been selected for two consecutive cycles of NBIS bridge inspections, including routine, fracture critical and underwater inspections. Services include engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings. The project includes rope access techniques and load ratings.

**Team Leader, NBIS Structures Inspections, Florida Department of Transportation, Turnpike Enterprise – Northern System:** Infrastructure Engineers has been selected for four consecutive two-year cycles by Florida’s Turnpike Enterprise to perform NBIS inspection services on its northern system, including routine, fracture critical, interim and special inspections for 400+ bridges. Each inspection required a comprehensive engineering report and bridge load rating if applicable.

**Team Leader, IDIQ Contract for Nationwide NBIS Bridge Inspection and Inventory, Bureau of Indian Affairs:** Infrastructure Engineers has been selected for two consecutive cycles of NBIS bridge inspections, including routine, fracture critical and underwater inspections. Services include engineering analysis of existing conditions, review and update previous inspection reports and drawings, recommendations for follow-up actions, cost estimates and documentation of findings. The project includes rope access techniques and load ratings.
### 6. Brief resume of key persons, specialists, and individual consultants employed by sub-consultants anticipated for THIS PROJECT.

| a. Name and Title: Joe Costa, PE | Name and Title: Brian Dietrich, PE |
| b. Project Assignment: Team Leader | Project Assignment: Team Leader |
| c. Name of firm with which associated: Infrastructure Engineers, Inc. | Name of firm with which associated: Infrastructure Engineers, Inc. |
| d. Years experience: With this firm 2 With other firms 18 | Years experience: With this firm 1 With other firms 16 |
| f. Active Registration: State/Year first registered/Discipline/Oklahoma License Number OK/2009/Professional Engineer/23377 Oklahoma Certificate of Authority (if any) | Active Registration: State/Year first registered/Discipline/Oklahoma License Number OK/2009/Professional Engineer/23781 Oklahoma Certificate of Authority (if any) |
| g. Other experience and qualifications relevant to the proposed project: Mr. Costa has participated in more than 4,760 bridge inspections and has climbed more than 406 bridges. Many of these inspections utilized both destructive and nondestructive testing techniques to evaluate conditions. With a former employer, Mr. Costa served as a team leader for several Oklahoma DOT inspections, including the 2009 fracture critical inspection of the railroad overpasses in Woodward and Altus, OK, and the US 377 Bridge over Lake Texoma. **Project Manager/Team Leader, Off-System Truss & Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** Infrastructure Engineers is responsible for the in-depth hands-on inspection of 103 fracture critical bridges in Lincoln, Ottawa, Tulsa, and Washington Counties. The inspections include through truss, pony truss, and dual-girder bridges. **Project Manager/Team Leader, On-System Truss & Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** Infrastructure Engineers is performing on-system, in-depth inspections of 48 truss bridges and 57 fracture critical bridges. Responsibilities include biennial NBIS, element-level and fracture critical inspections. The inspections include non-destructive testing and are conducted in compliance with the NBIS, current AASHTO policies, and state and FHWA regulations. Each inspection requires a comprehensive engineering report. **Project Manager/Team Leader, Fracture Critical Bridge Inspections, Ohio Department of Transportation – District 8:** This project involved in-depth inspections of six box girder bridges associated with Fort Washington Way in Cincinnati, monitoring inspections of bridges with areas of concern, and three annual inspections of the Jeremiah Morrow bridges over the Little Miami River. Climbing techniques were used and detailed narrative reports were prepared for this inspection. **Project Manager/Team Leader, In-Depth Inspections of LA-182 and US-90 Bridges over the Atchafalaya River, Louisiana Department of Transportation:** Mr. Costa was involved in the inspection of two major truss bridges in Morgan City, LA. Inspection focused on all primary and secondary components of trusses using adapted rock climbing techniques. Both bridges are steel through trusses. Each inspection required a comprehensive condition reports. **Project Engineer/Team Leader, Fracture Critical Inspection of 12 Portland Area Bridges, Oregon Department of Transportation:** This project involved the inspection of 12 major truss bridges. Inspection focused on fracture critical members and fatigue prone details. Adapted rock climbing techniques were used to access all of the structures. Condition reports were produced for each structure, which noted member conditions and repair/maintenance recommendations. | Other experience and qualifications relevant to the proposed project: Mr. Dietrich has performed on over 5,100 bridge inspections nationwide on a variety of structure types including arch, box girder, cable stay, culvert, girder, moveable, suspension, and truss. He is an experienced SPRAT-certified Level II Climber, and has utilized industrial rope access techniques on thousands of bridges. He is skilled in destructive and non-destructive testing methods including impact echo testing in concrete, magnetic particle testing, ultrasonic testing, concrete sounding and coring, chloride ion sampling in concrete, liquid dye penetrant testing, ground penetrating radar, half-cell potential measurements in concrete, timber boring, and carbonization testing in concrete. **Team Leader, Off-System Truss & Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** Infrastructure Engineers is responsible for the in-depth hands-on inspection of 103 fracture critical bridges in Lincoln, Ottawa, Tulsa, and Washington Counties. The inspections include through truss, pony truss, and dual-girder bridges. **Team Leader, On-System Truss & Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** Infrastructure Engineers is performing on-system, in-depth inspections of 48 truss bridges and 57 fracture critical bridges on the Oklahoma State Highway System. Responsibilities include biennial NBIS, element-level and fracture critical inspections. The inspections include non-destructive testing and are conducted in compliance with the NBIS, current AASHTO policies, and state and FHWA regulations. Each inspection requires a comprehensive engineering report. **Co-Project Manager and NBEIS Team Leader, Statewide Off-System Truss and Fracture Critical Bridge Inspections, Oklahoma Department of Transportation:** With a previous employer, Mr. Dietrich provided project management and fracture critical inspection of county-owned bridges throughout Oklahoma for the 2009 – 2011 cycle. **Team Leader, Fracture Critical Inspection of Six River Bridges, Kentucky Transportation Department:** This project involved the fracture critical inspection of six major truss bridges using adapted rock climbing techniques. Condition reports were produced for each structure detailing member conditions, as well as repair and maintenance recommendations. **Team Leader, Fracture Critical Bridge Inspections, Iowa Department of Transportation:** This project involved the inspection of the Julien Dubuque through truss bridge and the Iowa-Illinois Memorial suspension bridge, both over the Mississippi River, and a floorbeam inspection on the Fort Dodge Bridge in Iowa. Condition reports were produced for each structure, which noted member conditions and repair and maintenance recommendations. |
7. Work by firm or members which best illustrates current qualifications relevant to THIS PROJECT (list not more than 10 projects).

<table>
<thead>
<tr>
<th>a. Project Name and Location</th>
<th>b. Nature Of Firms Responsibility</th>
<th>c. Project Owner’s Name and Address</th>
<th>d. Completion Date</th>
<th>e. Est. Cost (000's) Entire Project Firm’s Portion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Off-System Truss and Fracture Critical Bridge Inspections</td>
<td>C Fracture critical bridge inspection, report preparation, load ratings</td>
<td>Oklahoma Department of Transportation 200 NE 21st Street Oklahoma City, OK 73105</td>
<td>Ongoing</td>
<td>720 720</td>
</tr>
<tr>
<td>2. On-System Truss and Fracture Critical Bridge Inspections</td>
<td>C Fracture critical bridge inspection, report preparation, load ratings</td>
<td>Oklahoma Department of Transportation 200 NE 21st Street Oklahoma City, OK 73105</td>
<td>Ongoing</td>
<td>400 400</td>
</tr>
<tr>
<td>3. NBIS Bridge Inspection and Inventory, Nationwide</td>
<td>C Routine, fracture critical and underwater bridge inspection, report preparation, load ratings</td>
<td>Bureau of Indian Affairs 1001 Indian School Road NW, Suite 320 Albuquerque, NM 87104</td>
<td>Ongoing</td>
<td>350 per year 350 per year</td>
</tr>
<tr>
<td>4. NBIS Bridge Inspection, Worldwide</td>
<td>C Routine, fracture critical and underwater bridge inspection, report preparation, load ratings</td>
<td>Naval Facilities Engineering Command 720 Kennon Street SE, Building 36 Suite 333 Washington Navy Yard, DC 20374</td>
<td>Ongoing</td>
<td>500 per year 500 per year</td>
</tr>
<tr>
<td>5. Local Government NBIS Bridge Inspections, Florida Department of Transportation - District Two</td>
<td>C Routine, fracture critical and underwater bridge inspection, report preparation, load ratings</td>
<td>Florida Department of Transportation - District Two 1109 South Marion Avenue Lake City, FL 32025</td>
<td>2011</td>
<td>1,600 1,600</td>
</tr>
<tr>
<td>6. NBIS Structures Inspections, Florida Department of Transportation - Turnpike North</td>
<td>C Routine, fracture critical and underwater bridge inspection, report preparation, load ratings</td>
<td>Florida Department of Transportation - Turnpike Enterprise P.O. Box 9828 Fort Lauderdale, FL 33310</td>
<td>Ongoing</td>
<td>1,178 1,178</td>
</tr>
<tr>
<td>7. Safety Inspections of Highway Structures, Bridges and Support Structures for Traffic Devices, Hampton Roads District</td>
<td>C Routine safety inspections, load rating, non-destructive testing, report preparation</td>
<td>Virginia Department of Transportation 1401 E. Broad Street Richmond, VA 23219</td>
<td>2012</td>
<td>NA 350</td>
</tr>
<tr>
<td>8. Safety Inspections of Highway Structures and Bridges, Richmond District</td>
<td>C Routine, underwater and fracture critical bridge inspections, report preparation.</td>
<td>Virginia Department of Transportation 1401 E. Broad Street Richmond, VA 23219</td>
<td>2012</td>
<td>NA 359</td>
</tr>
<tr>
<td>9. Local NBIS Bridge Inspections</td>
<td>C Routine bridge inspections, load rating, report preparation</td>
<td>Pennsylvania Department of Transportation District 9-0 1620 N. Juniata Street Hollidaysburg, PA 16648</td>
<td>2012</td>
<td>248 248</td>
</tr>
<tr>
<td>10. FHWA Bridge Inspection Refresher Course, Nationwide</td>
<td>C Course instruction for bridge inspection</td>
<td>Federal Highway Administration 400 Seventh Street, SW Washington, DC 20590</td>
<td>Ongoing</td>
<td>240 per year 240 per year</td>
</tr>
</tbody>
</table>
8. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm’s qualifications for the proposed project.

Infrastructure Engineers, Inc. was established in 1994, as a hybrid transportation engineering firm with a focus on bridge inspections. Our experience performing routine bridge inspections in a multitude of environments has produced unparalleled technical expertise. Eighteen years later, bridge inspection accounts for over 60 percent of our engineering work, requiring an expert staff and state-of-the-art equipment. We have consistently provided quality bridge inspections and resulting condition reports, scour analysis, non-destructive evaluations, load ratings, and repair designs for public and private clients. Since our founding, Infrastructure Engineers has performed over 18,500 NBIS bridge or similar inspections, establishing an outstanding national reputation in routine bridge inspection through projects in over 40 states, including Oklahoma. We have performed bridge inspections in Oklahoma since 1999. Our experience in the past five years listed below demonstrates our commitment to the Oklahoma Department of Transportation (ODOT):

- On-System Truss and Fracture Critical Bridge Inspections (2011)
- Off-System Truss and Fracture Critical Bridge Inspections (2010)
- On-System NBIS Bridge Inspections (2011 - no task orders to date)
- Statewide Underwater Bridge Inspections (1999 - current)

For this contract, we stand ready to continue our relationship with the ODOT, further establishing that we are an innovative organization with a practical, detailed, can-do philosophy that has built a reputation for providing reliable, efficient, attentive, cost-effective, and high quality bridge management services. We will be responsive to the ODOT’s needs while providing a wide range of bridge inspection techniques. Whether utilizing industrial rope access techniques to inspect a bridge with limited traffic control or utilizing the latest non-destructive testing techniques, including ultrasonics, dye-penetrant or mag-particle testing, we can perform effectively in any field situation. Additionally, we have the capability to perform an in-depth analysis of bridge deterioration or loading.

Whether it is a small stream crossing or a large truss bridge, our inspectors plan, prepare, and implement bridge inspections following a proven system. Our teams are firm believers that proper preparation saves a significant amount of time in the field, which is cost-effective to the client. During field operations, our inspectors use the latest in bridge inspection equipment to provide efficient inspections. We are also closely aligned with the FHWA and NHI through our contract to deliver bridge inspection training nationwide; as such, we are introduced to many developing inspection techniques and equipment, which are used to enhance our own inspection teams. This allows us to remain on the leading edge of technology in our industry.

A majority of our proposed team has performed inspections directly for ODOT, thus allowing us the additional advantage of being meticulously aware of what it takes to successfully perform on and complete such a contract. Our reputation as detailed and thorough inspectors is built on the inspection of thousands of structures for state agencies since 1994. We possess a powerful combination of expertise in structural inspection and a familiarity with ODOT inspection and reporting procedures, eliminating the inherent learning curve for this contract. We are also an Oklahoma-certified DBE. Thank you for your consideration.

9. 61 O.S., § 64. Offenses

Any consultant or person doing architectural, surveying or engineering work for the State of Oklahoma, their agents, servants or employees, who shall receive gratuity from any contractor or builder of any public building or works, or solicit, receive or make any political contribution from or to a contractor or a builder of any public building or works, or who attempts to interfere with the competitive bidding process of the State of Oklahoma in any manner, is guilty of a misdemeanor, and upon conviction thereof shall be fined not less than One Hundred Dollars ($100.00) nor more that Five Hundred Dollars ($500.00), and by imprisonment in the county jail for not less than six (6) months nor more than one (1) year. Any contractor or builder of any public building or works, or among other employees, who shall offer any gratuity or political contribution to any consultant doing architectural, surveying or engineering work for the State of Oklahoma, or who attempts to interfere with the competitive bidding process of the State of Oklahoma in any manner, is guilty of a misdemeanor, and upon conviction thereof shall be fined not less than One Hundred Dollars ($100.00) nor more than Five Hundred Dollars ($500.00), and by imprisonment in the county jail for not less than six (6) months nor more than one (1) year.

10. The foregoing is a statement of facts. My signature below indicates I have read the above excerpt from Title 61 of the Oklahoma Statutes.

Signature: ____________________________
Typed Name and Title: David R. Reser, PE, CEO

Date: 7/31/2012

Return this form along with your letter expressing interest to the agency from whom you received the notice of this project.