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November 13, 2014

Ms. Mary Ann Jacobs  
Local Programs Administrator  
Missouri Highways and Transportation Commission  
105 West Capitol Avenue  
Jefferson City, Missouri 65102

Re: On-call Professional Services - Structural  
Local Programs Administration

Dear Ms. Jacobs,

We are pleased to present this letter of interest for on-call engineering consulting services for Missouri's Local Programs. We are qualified in the Structural category.

**Qualifications of the Firm:**

Leigh & O'Kane is prequalified as a design consultant for bridges with MoDOT. We are also certified as a DBE with MoDOT and are on the MoDOT list. We have completed the LPA certification.

**General Experience of the Firm:**

Leigh & O'Kane, LLC, has been in business in Kansas City, Missouri for twenty-eight years and provides Structural Engineering services. Their experience includes vertical construction as well as transportation and drainage structures. The firm has over twenty years of experience with bridge superstructure and substructure, hydraulics, culverts, retaining walls, and pedestrian bridges as well as bridge inspections and rehabilitation. The LPA projects would be a perfect fit. Leigh & O'Kane has worked as a consultant to other engineering firms on MoDOT projects and as the prime structural engineer on projects for municipal Public Works, Parks & Recreation, and the Aviation Division.

**Similar Project Experience:**

**Bern Street Bridge Replacement at Kansas City International Airport**

Design Engineer – Cheri J. Leigh, P.E.

Reference – Homi Kapadia, P.E., Kansas City Aviation Department

The superstructure was replaced on this single-span bridge over the spillway. The steel girders were replaced with precast concrete I-girders along with the deck and guardrails.

**100<sup>th</sup> Street Culvert over Second Creek**

Design Engineer – Cheri J. Leigh, P.E.

Reference – James Wang, P.E., Kansas City Public Works Department

This double RCB is the traffic surface for 100<sup>th</sup> Street over Second Creek. The culvert includes guard rails and turned back wing walls.



### **Shoal Creek Bridge over I-435**

Design Engineer – Amanda R. Bush, P.E.

Reference – Steve Hatfield, RLA, Kansas City Parks & Recreation Department

A multiple bicycle and pedestrian lane will be added to the existing bridge. This required the addition of a new barrier for traffic separation and revised drainage for the roadway and the bicycle lane.

### **Blue Parkway at Eastwood Trafficway**

Design Engineer – Amanda R. Bush, P.E.

Reference – James Wang, P.E., Kansas City Public Works Department

Culvert extensions added to two existing culverts as the street was widened at the intersection.

Drainage structures were also included in the project scope.

### **Economy Lot Bridge Rehabilitation at Kansas City International Airport**

Design Engineer – Cheri J. Leigh, P.E.

Reference – Homi Kapadia, PE, Kansas City Aviation Department

Repair of five bridges including deck surface repair and guardrails. The project also included repairs to the Terminal Inbound and Outbound Bridges and approaches.

### **Rehabilitate 44 Bridges in the Kansas City Urban Area**

Design Engineer – Amanda R. Bush, P.E.

Project Manager – Mark Huck, P.E., Burns & McDonnell

Reference – Mike Harms, P.E., MoDOT Bridge Division

This MoDOT project demonstrates the kind of work that might be expected for bridge rehabilitation and repair. Leigh & O'Kane provided complete design and drawings for five of the bridges in this project. The work included the replacement of expansion joints, rehabilitation of end abutments, painting and bolt replacements. The project also included cost estimates for each bridge.

### **Past Performance:**

The firm has developed a good professional relationship with the municipal departments in Kansas City and have worked on many transportation and infrastructure projects with them and MoDOT. Our references confirm the quality of our work and working relationships.

### **Personnel Qualifications:**

Our Project Manager and structural designer will be Amanda R. Bush, P.E., with Leigh & O'Kane. Amanda has nine years of experience in bridge design. With Harrington & Courtelyou, she gained a breadth and depth of experience in structural design and bridge hydraulics. With Leigh & O'Kane she has led the bridge design projects.

Cheri J. Leigh, P.E. will serve as the Principal in Charge and will provide Quality Assurance on the technical, contractual, and staffing needs for the project. She has forty years of structural engineering experience and has been involved in many bridge, culvert, and infrastructure projects.



Ursula Deza, Ph.D. will be a structural designer on transportation projects. She has bridge experience on both superstructure and substructure design for the US 69 Bridge over the Missouri River.

Leigh & O'Kane is committed to developing a diverse workforce.

**Familiarity and Capability:**

We are familiar with the standards required to deliver a successful LPA project. These include local, state, and federal processes and laws. Leigh & O'Kane has been subcontracted to other engineering firms for much of our experience. Those good relationships allow on us to consult with the best resources in the state for mentoring and review.

We have been encouraged to pursue work as a prime consultant, but have found it difficult to be considered without already having that experience. These projects are a perfect opportunity for us to provide the consulting engineering work and consult with other teaming partners as needed to ensure that the process goes smoothly.

**Accessibility and Availability:**

We are available on an on-call basis for these types of small projects. This would be a key project for our office as we are a DBE firm with aspirations of expanding our bridge department and growing our company experience. Our ability to dedicate a full-time engineer and full-time technician, our availability to attend meetings and site visits as required, along with our familiarity of design standards makes Leigh & O'Kane well suited for this project. Leigh & O'Kane is not currently engaged in other LPA work and would be able to turn our attention to upcoming projects immediately.

Thank you for your consideration of our firm. The size of our firm and the size of the prospective projects would be a good fit. We would give them our utmost attention.

Sincerely,

A handwritten signature in black ink that reads 'Cheri J. Leigh'.

Cheri J. Leigh, P.E.



*Bern Street Bridge*

Leigh & O'Kane, LLC is a **Structural Engineering** firm with a wide scope of services and experience. The firm works both as a prime engineering consultant and as consultants to the best architects and engineers in the area.

We have been in business in Kansas City since 1986, and have sustained growth by providing excellent structural design and responding to the needs of our clients. Our structural experience includes bridges, infrastructure, and vertical construction. As a complement to the engineering, we added **Construction Services** to our scope of work, including **Construction Inspections and Material Testing**. This provides a further level of quality control for the project. Leigh & O'Kane is a MoDOT certified DBE firm.

#### Representative Bridge Design Projects:

- Missouri Route 291 over Mill Creek, with H.W. Lochner, Inc.
- I-70 Manchester Bridge, with HNTB
- I-64 Daniel Boone Bridge and Chesterfield Airport Road Bridges, with Burns & McDonnell
- Soccer Drive Bridge and Shoal Creek Bridge over I-435, addition of bicycle lane barriers and drainage.
- Bern Street Bridge Replacement at Kansas City International Airport, superstructure replacement
- Troost Avenue Pedestrian Bridge
- Manchester Bridge, deck and capbeam replacement, girder redesign, HNTB
- NW 100th Street Culvert over Second Creek

#### Bridge Load-rating:

- MoDOT Safe and Sound Bridge Replacement Program, load-rating for 450 precast concrete bridges
- 23rd Street Viaduct, load-rating for replacement spans after rehabilitation

#### Condition inspections and repairs:

- KCI Terminal Bridges and Economy Lot Bridges
- Biennial Bridge Inspections for the city of Kansas City 1990 through 2012
- ATK Lake City Army Ammunition Plant condition ratings

- MARKETS**
- Bridge design
  - Bridge load-rating
  - Bridge repair
  - Pedestrian Bridges
  - Retaining Walls
  - Culverts
  - Condition Inspections
  - Biennial Bridge Inspections
  - Full-time Resident Inspections



**S A F E &  
S O U N D**



*MoDOT Safe and Sound Load-rating*



*Pedestrian Bridge*



*Bridge Inspections*

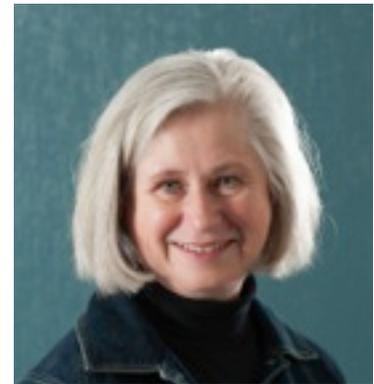
Ms. Leigh has been a partner and project manager with Leigh & O'Kane since 1986. She was previously a sole proprietor dba Leigh Engineering. Her responsibilities include management and quality control of projects. She has experience with private and public projects of all types.

#### Representative Projects:

- Bern Street Bridge Replacement; Kansas City International Airport
- Economy Lot Bridge Repair; Kansas City International Airport
- Terminal Bridge Repair; Kansas City International Airport
- 100th Street Culvert over Second Creek; Kansas City
- Polar Bear Exhibit; Kansas City Zoo
- Briarcliff Hilltop Office; Kansas City
- Starlight Theatre Stagehouse; Kansas City
- Fire Stations #3, 14, 23, and 36; Kansas City
- Brush Creek Community Center; Kansas City
- Children's Center Campus; Kansas City
- Kansas City Aviation Department Office



*Bern Street Bridge*



#### EDUCATION

Southern Methodist University  
Bachelor of Science in  
Civil Engineering, 1973

University of Kansas  
Master of Science in Engineering  
Management, 1989

#### PROFESSIONAL ENGINEERING LICENSES

Missouri  
Kansas  
Nebraska  
Iowa  
Colorado

#### PROFESSIONAL INTERESTS

Missouri Board for Architects, Professional  
Engineers, Professional Land Surveyors  
and Landscape Architects, 1988-1992  
and 2000-2008.

Structural Exam Committee for the  
National Council of Examinations for  
Engineers and Surveyors

Society of Women Engineers

American Council of Engineering  
Companies/ Missouri

Structural Engineers Association of  
Kansas and Missouri

Ms. Bush has been with Leigh & O'Kane since 2010. She was the lead engineer for the Leigh & O'Kane subcontract on the Safe and Sound load-rating project, which included load-rating over 450 precast bridges. She has worked on other bridge inspections and infrastructure projects with Leigh & O'Kane including bridges for MoDOT and the city of Kansas City.

She worked with another bridge consulting firm, Harrington and Cortelyou, Inc. for six years. She performed preliminary design, hydraulic design and structural design for a variety of bridge projects.

Design assignments included off-system bridges, state bridges, and railway bridges. She has experience with substructure and superstructure elements, including steel plate girders, concrete slab bridges, pre-stressed concrete I-girders, and double tee girders, and bridge load-rating.

#### Representative Projects with Leigh & O'Kane:

- Missouri 291 over Mill Creek, MoDOT project in Jackson County, MO. New prestressed (P/S) concrete girder bridge. Design is complete.
- North Brighton Avenue, Kansas City MO. New P/S concrete girder bridge currently in design.
- Manchester Bridge on I-70, Kansas City, MO. Load-rating for all spans on I-70 and over Blue River.
- Daniel Boone Bridge over the Missouri River, MoDOT Design Build project, Chesterfield, MO. Design of P/S beams for one unit, design of 2-span P/S beam ramp bridge. Load-rating for entire project. Currently under construction.
- 2010 and 2012 Biennial Bridge Inspections, Kansas City, MO
- Missouri Safe and Sound Bridge Project Load-rating for P/S concrete girders.
- 23rd Street Bridge, Kansas City, MO. Load-rating for steel girder spans.
- Soccer Drive and Shoal Creek Parkway Bridges over 435, Kansas City, MO. Modify bridges for a new bicycle lane, including new guardrail and barrier rail and drainage.
- 76th Street Culvert, Kansas City, MO
- Mission Road Culvert modifications, Prairie Village, KS
- Hamm Industries Bridge pile foundation, Perry, KS

The following projects are individual experience:

- US 159 over the Missouri River, Rulo, NE  
Hydraulic and scour analysis and non-integral abutment.
- Route 17 over Jacks Fork River, Texas County, MO  
Design of four span haunched steel plate girder superstructure.
- Burr Oak Road Bridge over Perche Creek, Boone County, MO



#### EDUCATION

University of Missouri Rolla  
Bachelor of Science  
Civil Engineering, 2003

#### PROFESSIONAL ENGINEERING LICENSE

Missouri  
Kansas



*Route 17 Bridge over Jacks Fork River  
Photo Courtesy Harrington & Cortelyou*