

November 15, 2013

Mary Ann Jacobs  
Missouri Department of Transportation  
105 West Capitol Avenue  
Jefferson City, Missouri 65102

RE: Missouri LPA On-Call Services Letter of Interest | Traffic Engineering & TEAP

Dear Selection Committee:

Wilson & Company is excited about the opportunity to assist our local Missouri communities with transportation related on-call design services as described in your RFQ dated October 1, 2013. Our firm has provided a wide range of urban and rural civil engineering design for municipalities, counties, and DOT's across the county. Wilson & Company is an ideal choice as your on-call consultant because of our regional and local knowledge, national experience, qualified staff, and the dedication to complete all assignments to meet your expectations. We also have the local experience with preparing the necessary environmental clearance documentation to prevent delays that could effect your budgets.

**Prequalification**

Wilson & Company is listed on MoDOT's Approved Consultant Prequalification List through March 18, 2014. We will renew prior to this date.

**Workforce Diversity**

Wilson & Company is an Equal Opportunity Employer whose goal is to achieve a diverse workforce with job group demographics that are statistically representative of the local labor market. To achieve this goal, the Company takes affirmative action, which includes periodic self-analysis of demographics, collection and analysis of applicant flow data, use of various recruiting sources and efforts, review and revision of internal policies and training to give qualified women, minorities, veterans and persons with disabilities access to the Company's employment opportunities. The results of our efforts are reflected in the diversity of our current workforce, including firm ownership, as noted in **Figure 1**. As you are aware, each assignment can vary based

Figure 1

Firmwide		
Minorities	Women	Diverse Ownership
27%	22%	25%

Project Team Breakdown		
Key Team Members	Minorities	Women
31	16%	13%

on task needs and availability of staff. With diversity existing in each office, meeting any diversity requirements on any specific assignment should not be an issue.

It is our policy not to discriminate in the terms or conditions of employment against any employee or an applicant for employment because of race, color, religion, sex, national origin, disability, physical or mental impairment, serious medical condition, pregnancy, age, sexual orientation, gender identity, veteran or military status, or marital status. Hiring decisions based on the best-qualified candidate for the position based on skills, education, professional certification, job performance, contribution, and experience, and may give preference to veterans or persons with disabilities in certain instances.

**General Experience of Firm**

Wilson & Company's Transportation Group is committed to the needs of our clients. The successful track record of each individual on the team illustrates their ability to present options, assist the client in

considering those options, and deliver a final implementable solution. Our qualifications and experience enable us to take on any project – urban or rural, complex or straight-forward, or just providing support to the local community's in-house design staff for a particular design element. We provide services in all aspects of design (see **Figure 2**) that may be required under this contract.

Wilson & Company's Kansas City Transportation Group is well suited to provide the depth and breadth of experience necessary to fulfill the needs of the cities and counties. This Letter of Interest and the accompanying 4-page brochure contains the representative experience of our project team that encompasses projects for numerous municipal, state and federal agencies located locally, regionally and nationally.

In 2000, Wilson & Company's Kansas City Group was awarded a MoDOT on-call contract that resulted in 15 separate assignments that ranged from standard utility surveys to stormwater retention support for MoDOT's Route 58 design in Belton. In addition, Wilson & Company has provided on-call services contracts for a variety of clients through the years for numerous clients, including DOT's across the country. For example, our Kansas City office has held an on-call services contract since 1991 for the City of Bonner Springs, Kansas to provide general civil engineering services.

**Past Performance**

Our company was created based on five core values that we strive to meet for each client and each assignment (shared ownership, collaboration, intensity, discipline and solutions). We believe that our success and growth are directly attributable to meeting these goals as demonstrated in the number of our repeat clients.

"Practical design" has been in use at Wilson & Company since our beginnings in 1932. Some people call it "out-of-the-box thinking" beyond the clients standards. We call it "common sense" to use the skills and talents, experiences and history of our firm to help our clients stretch their budget dollars and possibly find cost-saving options. The following examples are only a few of our projects that evidence our ability to consider alternative design options, use available technology to visualize the end result, and implement a context sensitive approach in working with the public. These projects demonstrate our diverse abilities using our in-house staff for the category of Traffic Engineering & TEAP.

Figure 2: Relevant Services Offered by the Wilson & Company Team

- Survey Control, Data Collection, and Topographic Survey
- Aerial and Terrestrial LiDAR Mapping
- Aerial Photogrammetry
- Corridor Studies
- Interchange Studies and Design
- Intersection Studies and Design
- Highway and Urban Roadway Design
  - Resurfacing
  - Restoration
  - Rehabilitation
  - Reconstruction
- Traffic Signal Design
- Structural Bridge Design
- Trails Design, Sidewalk Design, and ADA Compliance
- Street and Highway Interchange Lighting Design
- Stormwater Drainage Design
- Stormwater Retention and Detention Design
- Utility Coordination (AIM: Avoid, Integrate, Mitigate)
- Access Control/ Access Management
- Public Involvement and Public Relations
- 3D Modeling and Traffic Microsimulation
- Visualization and Presentation Techniques
- Bicycle Planning and Design
- Pedestrian Planning and Design
- Construction Management Services (including Inspection)

#### URBAN ROADWAY DESIGN:

##### NE Chipman Road Improvements

Lee's Summit, Missouri

Wilson & Company recently completed the design for NW Chipman Road from View High Drive to Bent Tree Drive. This existing roadway is a narrow, winding, two-lane asphalt roadway with unimproved shoulders, roadside ditches, and poor sight distance. Additionally, there is an existing single lane tunnel under the Union Pacific Railroad (UPRR) that required coordination with future railroad right-of-way usage.

The use of 3D modeling software was used to create a surface to demonstrate the impacts of the various alignment options. Once a final alignment was selected, Wilson & Company prepared several visual aids to display how the proposed roadway improvements would impact specific properties. The City and the Wilson & Company project team met with the public on two separate occasions during the design process to receive input and keep them apprised of the project progress.

As part of the project, Wilson & Company designed the street lighting system. The City's typical standard spacing of light poles was not an option for this project. Due to the curvilinear alignment of the proposed roadway, the placement of the street lights were critical to achieve the required illumination, as well as not creating any hot spots.

The construction plans for Chipman Road include two 11 foot lanes, auxiliary lanes where needed, sidewalk/multi-use path, storm drainage, retaining walls, replacement of the existing water

distribution main, sanitary sewer improvements, and utility coordination.

*Reference: John Barker, PE, (816) 969-1850*

#### INTERSECTION/SIGNAL IMPROVEMENTS:

##### Volker Boulevard and Oak Street Intersection

Kansas City, Missouri

Wilson & Company was selected to redesign the Volker Boulevard and Oak Street intersection to add eastbound and westbound left-turn lanes. The existing intersection had two through lanes in each direction, with left-turns prohibited during peak hours of the day. The existing traffic signal was modified to accommodate the addition of left-turn phasing to the signal timing. Additionally, the existing traffic signal interconnect was reestablished. The addition of left-turn lanes in this relatively tight corridor was not without adjacent infrastructure conflicts which were addressed during design through the construction of integral sidewalk retaining walls. Other items of work include: relocating sidewalks, constructing new ADA compliant ramps, modifying the storm drainage system and relocating inlets, relocating existing utilities, and grading to tie the project back into the existing landscaping. Along with working with the City of Kansas City, Missouri, this project also involves working with the Kansas City Parks and Recreation Department and the University of Missouri at Kansas City (UMKC).

*Reference: Wes Minder, PE, (816) 513-2598*

#### SIDEWALK DESIGN (ADA COMPLIANCE):

##### 2010, 2011, 2012, 2013, and 2014 Sidewalk Rehabilitation

Leavenworth, Kansas

Wilson & Company was selected by the City of Leavenworth to provide professional design services to develop final plans, special provisions, and estimates for their sidewalk improvements program from 2010 through 2014. This contract was extended twice by the City to retain Wilson & Company to design additional sections of the City's sidewalk rehabilitation program. The various projects included a combination of new sidewalk to infill missing segments and repair of existing sidewalks that had broken panels or trip hazards. These projects provide pedestrian connectivity by linking existing sidewalks to parks and schools located along each segment.

Coordination with the Leavenworth Sidewalk Committee was facilitated to review alternatives at each location and selected preferred sidewalk locations. Adjustments to the sidewalk horizontal and vertical location were made to avoid large trees, utilities and impacts to residential landscaping. ADA compliance is especially challenging in retro-fit projects when constructing improvements adjacent to existing roadways in fully developed neighborhoods. Therefore, special consideration was given to ADA curb ramps at intersections with grades along the sidewalk.

*Reference: Michael McDonald, PE, (913) 684-0375*

#### DRAINAGE DESIGN SUPPORT TO MoDOT:

##### Missouri Route 58 (West North Street) Improvements

Belton, Missouri

Wilson & Company was tasked through the on-call program to assist MoDOT with the design of the overflow structure for Hargis Lake in association with Route 58 Improvements. The design required the development of the hydraulic model for the drainage basin and

routing the runoff through the lake. The overflow structure was designed to convey the 100-year return frequency storm event without overtopping the dam located along the northern right-of-way line on private property. The design was presented to the local homeowners association to demonstrate how the structure could be built without breaching the dam and lowering the lake level below a prescribed depth to maintain the fish population during construction.

## Qualifications of Key Personnel

**Ric Johnson, PE** | Senior Project Manager/Operations Manager  
Ric leads the Kansas City office transportation design practice, offering experience from both state and municipalities and has more than 30 years experience. Mr. Johnson has been involved in several context sensitive solution projects where a more practical approach to decision-making and design was considered. This design approach reviews impacts to the community, preserves the environment, provides scenic and aesthetic value where possible, while balancing the project need with other desirable outcomes, including historic preservation, environmental sustainability, and the creation of public spaces. **LPA Level I Certified**

**Justin Klaudt, PE** | Transportation / Civil Engineer  
Justin has been involved in various projects for municipal, county, and state clients, including sanitary sewer main extensions, water main extensions, street and highway improvements, CDBG and ARRA funded roadway improvements, and drainage improvements. Since joining Wilson & Company, Justin has served as Design Engineer/Project Engineer on many transportation-related projects. **LPA Level I Certified**

**Paul Plotas, PE, PTOE** | Senior Traffic Engineer  
Paul brings more than 26 years of transportation planning, traffic engineering, and highway design experience to this project. His experience ranges from traffic impact studies to city-wide transportation models, access modification on local streets to Access Justification Reports, traffic signal design to traffic signal interconnect systems and ITS design and includes a number of projects for MoDOT. **LPA Level I Certified**

**Steve Wilton, PE** | Senior Structural Engineer  
Steve has almost 35 years of experience specializing in railroad and highway bridge design. He has been involved in alternative bridge type, size and location studies; preparation of bridge feasibility and design reports; preliminary and final bridge design; preparation of construction plans; quantity and cost estimates; and bridge construction engineering services for many city, county and state bridge improvement projects.

**Vanessa Spartan, AICP** | Planner / Public Involvement  
Vanessa is a professional planner with experience in community planning, urban design, multi-modal planning, public outreach, and Geographic Information Systems (GIS) analysis. Vanessa has worked for both public and private sector organizations. Her public sector work includes numerous local, state, and federal community development projects throughout the United States.

**John Harrell, PE** | Senior Electrical Engineer  
John has over 35 years of electrical design experience. He has designed lighting systems for roadways, interchanges, interstate highways, parking lots, railroad yards, parks, and sports facilities. John has significant experience in exterior lighting design for municipal, state, turnpike, and commercial clients. John is experienced with software

for photometric analysis and has expertise to deal with voltage drop, electrical service issues, and light trespass problems.

**Shad McCartney** | Sr. Construction Inspector/ Constructability Review  
Shad has over 20 years experience dealing with constructability issues as a construction inspector, construction estimator, and contractor's foreman. This combined experience gives our clients a comprehensive perspective that will ensure the designs can be built correctly, efficiently and responsibly.

## Familiarity/Capability

Staying abreast of local, state and federal rules and regulations is a component of our in-house training and professional development programs. Our staff routinely works on projects involving multiple state DOT's as well as federal agencies, so maintaining a current understanding of the requirements governing the technical, business and staffing areas is crucial to our business. We are also experienced in the documentation and reporting requirements for ARRA and CDBG funded projects.

From a technical perspective, we stay current on updates to the AASHTO, HCM and MUTCD guidelines through external and internal training opportunities and incorporate changes into our transportation planning and design processes. We thoroughly understand the NEPA process, and how this guides activities during project development, from initial planning through development of construction documents. In addition to our work for state transportation agencies, a significant portion of our business comes from municipal or county agencies. We understand how the use of federal aid dollars on local projects impacts the project development process as well.

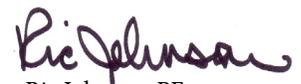
## Accessibility

Two of Wilson & Company's cores values are Shared Ownership and Intensity. This translates to a responsive, dedicated team that is committed to meeting the goals and objectives established for each and every assignment. The long-term relationships we have established with our DOT and local agency clients demonstrates our ability to consistently provide quality service and our staff's dedication to respond quickly and accurately to our client's questions and comments during the life of the project. We don't believe our role in the project ends when our portion of the work is completed; we stay engaged during and after construction of the project to ensure the overall project is a success, both in the eyes of our client as well as the public in general. To ensure that we maintain a high level of responsiveness to our client's needs, we formally solicit feedback on our performance from all of our clients on an annual basis.

WILSON & COMPANY



Troy M. Eisenbraun, PE  
Senior Vice President



Ric Johnson, PE  
Senior Project Manager



## Wilson & Company, Inc., Engineers & Architects

Wilson & Company delivers sound solutions based on more than eight decades of lessons learned. Our staff uses the latest in information technology products and strategies across 19 offices in 13 states, and you will have access to the experience and intellect of more than 450 employees who regularly deliver best practices in planning, design and project management on similar projects. We have a local office in **Kansas City, Missouri with 50+ employees.** Many of these employees work on assignments in our other offices, providing opportunities to gain perspective from other regions.

Wilson & Company Midwest Offices



Wilson & Company

- Alaska
- Arizona
- California
- Colorado
- Florida
- Kansas
- Louisiana
- Missouri
- Nebraska
- New Mexico
- Oklahoma
- Texas
- Utah

### HIGHER RELATIONSHIPS

Higher Relationships defines who we are, with focus on five core values:

**Shared Ownership** Adopt the missions and objectives of our partners—clients, colleague firms, and team members.

**Collaboration** Work together to bring out the best in all of us. Every team member’s contribution is important to the successful achievement of goals.

**Intensity** Do what it takes to meet and exceed expectations. Passion drives success.

**Discipline** Do it right, focusing on details without exception.

**Solutions** Create the right solutions, whether innovative or practical, daring or resourceful. Understanding needs and preferences, we develop answers in a win-win environment.

### EXPERIENCE

Our extensive history with DOTs includes:

- Arizona Department of Transportation
- Colorado Department of Transportation
- Federal Highway Administration
- Kansas Department of Transportation
- Missouri Department of Transportation
- Navajo Nation Department of Transportation
- Nebraska Department of Roads
- New Mexico Department of Transportation
- Oklahoma Department of Transportation
- Texas Department of Transportation
- Utah Department of Transportation
- Wyoming Department of Transportation

### SOLUTIONS

Wilson & Company provides innovative and cost-effective solutions for

- Roadway design
- Alignment and traffic studies
- Safety analysis/signalization
- Environmental documentation
- Drainage master planning
- Public involvement
- Surveying, mapping, aerial imagery

### INNOVATION

This team recognizes the budget constraints DOT’s are currently facing and we partner with you to find alternative solutions to accommodate your needs without sacrificing service or quality. We collaborate to develop innovative ways to provide sufficient data that still meets your goals and requirements.

The firm has recently completed an **Accelerated Bridge Construction (ABC)** for a DOT that minimized construction impacts to the public and maximized design and construction efficiency with a nearby bridge farm.

Wilson & Company has also recently used **alternative LiDAR platforms** for 3R projects that acquires the level of data needed for the project in the most cost efficient manner.



## Transportation Design

The Kansas City staff has managed the projects listed below:

### 96TH/108TH/US-169 INTERCHANGES STUDY | MISSOURI

Wilson & Company worked closely with the MoDOT and the City of Kansas City, Missouri to complete traffic and conceptual design evaluations for new grade separated interchanges at both the US-169/96th Street and US-169/108th Street. The goal was to analyze the functional operations of the interchanges in relation to future traffic projections developed through several studies in the area. Through conversations with the City, three options were reviewed at each location which included a free-flow interchange (roundabouts at both ends of the bridge structure), a standard diamond-type interchange, and a no-build scenario using signalized intersections. These interchanges were design in 2013.

- ▶ Urban interchanges
- ▶ Roundabouts
- ▶ Multi-use path
- ▶ Environmental clearance (categorical exclusion)
- ▶ Budgeting analysis for construction phasing

### NW 68TH STREET/US-169 INTERCHANGE CONCEPT DESIGN | MISSOURI

MoDOT contracted with Wilson & Company to complete a traffic analysis of the interchange to reduce the length of traffic queuing for the northbound traffic exiting UD-169. In addition, NW 68th Street was reviewed to accommodate a left-turn lane under the bridge and sidewalks on both sides of the roadway. After reviewing the site conditions, it was found that the MoDOT and Kansas City, Missouri traffic signals were not coordinated. Constructing an interconnect with the signals, MoDOT was able to save substantial funding by eliminating the construction of dual exit lanes and associated acquisition of additional right of way.

- ▶ Traffic modeling
- ▶ Alternatives analysis
- ▶ Context sensitive solutions approach
- ▶ Budgeting analysis

### MISSOURI ROUTE 7 IMPROVEMENTS | MISSOURI

Wilson & Company provided engineering services to the MoDOT in conjunction with City of Blue Springs, Missouri to complete a 1.5 mile conversion of Missouri Route 7 from Moreland School Road to South Wyatt Road in Blue Springs, Missouri from an existing two-lane rural road to a four-lane urban road. The design of the northern portion of roadway included the addition of curb and gutter along with an enclosed storm system, while the southern portion required the use of open ditch drainage with crossroad drainage structures in place throughout. In order to accommodate the proposed 60 mph speeds planned for this section of roadway, Wilson & Company provided the design of two additional 12-foot lanes to allow better flow of traffic through this heavy highway commercial development area.

- ▶ Context sensitive solutions (public hearings)
- ▶ Pavement analysis
- ▶ Traffic modeling
- ▶ Signal design
- ▶ Corridor safety analysis

### CENTRAL PARK BOULEVARD INTERCHANGE WITH I-70 DESIGN BUILD | COLORADO

Wilson & Company teamed with SEMA Construction, Inc. to complete the project through design-build delivery for the Colorado Department of Transportation (CDOT). The Central Park Boulevard Interchange with I-70 provides an important new interstate within the City and County of Denver limits. Using braided ramps on both sides of I-70, the interchange provides direct access to and from I-70 and I-270 to the Stapleton community, the Shops at Northfield Stapleton, and Dick's Sporting Goods Park.

- ▶ Three major bridge structures
- ▶ Arterial roadway
- ▶ Analysis of alignment alternatives
- ▶ Environmental clearance
- ▶ Maintenance of traffic
- ▶ Construction phasing
- ▶ Design build

## Planning and Traffic Engineering

The Kansas City staff has managed the projects listed below:

### I-29/35 DESIGN-BUILD, PASEO RIVER BRIDGE | KANSAS CITY, MO

This kcICON project features a landmark cable-stayed bridge over the Paseo River and the upgrade of I-29/35 to six lanes as well as the reconfiguring of six interchanges.

Wilson & Company led all traffic engineering and assisted the contractor with maintenance of traffic (MOT) plans, microsimulation of the corridor, record drawings, and post-design services.

- ▶ TransCAD traffic modeling
- ▶ VISSIM microsimulation
- ▶ Traffic forecasting
- ▶ Maintenance of traffic (MOT)

### US-385 PORTS-TO-PLAINS CORRIDOR | COLORADO

Wilson & Company developed the High Plains Highway Corridor Development and Management Plan. The primary component was a prioritized list of projects with implementation issues and potential funding sources. Projects were prioritized based on safety, freight mobility, economic development, community, travel time, and environmental considerations. Stakeholders participated in the project via steering and technical committees, representing the five counties and six towns and cities along the 200-mile-long section.

- ▶ Rural highway
- ▶ Freight corridor
- ▶ Safety corridor
- ▶ Small town circulation
- ▶ On-street parking
- ▶ Economic development

### DESIGNING TRANSIT ACCESSIBLE COMMUNITIES | MARICOPA COUNTY, AZ

Wilson & Company conducted this study aimed at furnishing tools and guidelines to promote better accessibility for pedestrians and bicyclists. The effort included:

- Inventory and categorize 7,000+ transit stops using a cluster analysis
- Develop a prototype for each category of transit stop
- Study area transit stops to document challenges for pedestrians and bicyclists
- Develop a toolkit for area agencies to better plan for and improve transit stops
- Develop funding framework

- ▶ Bicycle
- ▶ Pedestrian
- ▶ Transit
- ▶ Policy development
- ▶ Public involvement
- ▶ Agency coordination
- ▶ MPO coordination

### LEAD AVENUE & COAL AVENUE ROADWAY IMPROVEMENTS | ALBUQUERQUE, NM

Wilson & Company designed the reconstruction and improvement of this principal arterial six-mile roadway. The neighborhoods that the roadways traverse were identified as needing major revitalization. The existing infrastructure was up to 75-years old. Major design elements included a “road diet” in which the three-lane roadways were reconstructed as two-lanes in each direction with an on-street bicycle lane; 23 traffic signals; sustainable design with water harvesting areas to provide water for the new landscaping; recycling of materials, and use of LED pedestrian lighting.

- ▶ Traffic operations
- ▶ Signal design
- ▶ ADA
- ▶ Lighting
- ▶ “Road diet”
- ▶ Bicycle lanes

### US-60 ACCESS MANAGEMENT PLAN | ARIZONA

This study identified a long-term solution to accommodate travel demand and adjacent property access, establish principles to improve traffic operations, and prepare an Access Management Plan. Numerous improvements have been constructed and implemented along the corridor in recent years including intersection flyovers and underpasses, road-widening, and facility maintenance. These efforts have been made to improve safety, traffic flow, and roadway user mobility for this vital corridor.

- ▶ Access management
- ▶ Intersections
- ▶ Railroad crossings
- ▶ Land use assessment
- ▶ Safety evaluation
- ▶ Interchange concept design
- ▶ Economic development
- ▶ Transit operations

## Survey and Mapping

The Kansas City staff has managed the projects listed below:

### I-435 LIDAR MAPPING | JACKSON COUNTY, MO

Wilson & Company collaborated with Metro Geospatial to fuse data acquisition strengths into a single team that could provide all mapping services. Metro Geospatial acquired imagery and high density LiDAR data from their helicopter based HALIS® system. Wilson & Company provided ABGPS and ground control support, as well as the orthophoto processing, LiDAR classification, and vector extraction. The corridor is approximately 2.5-miles long and ties into existing mapping. Advanced processing techniques were implemented to reduce the mountain of LiDAR data into its significant components for easy ingestion into MODOT's CADD environment.

- ▶ Rotary wing LiDAR
- ▶ Simultaneous aerial digital imagery
- ▶ LiDAR processing and mapping
- ▶ Feature classification
- ▶ Advanced feature vectorization
- ▶ Data reduction
- ▶ Elevation contours
- ▶ Survey control

### K-96 MAPPING | RICE AND RENO COUNTIES, KANSAS

Wilson & Company provided aerial acquisition services, boundary and bridge survey services, and digital mapping for a corridor approximately 1500 to 1800-foot wide. It was centered on a proposed alignment running for approximately 15 miles. Digital aerial imagery over the project site was acquired at an altitude of 1,800-foot AMT using an Intergraph DMC digital sensor. After ABGPS and IMU data were processed and an aerial triangulation solution was derived, stereo-compilation adding to field topographic survey data was initiated. Full topographic mapping and digital surface models were produced using soft copy photogrammetric collection methodology of sufficient accuracy to produce one-foot contours ASPRS Class 2 accuracy standards. Planimetric data was collected showing features normally associated with one-inch equals 50-foot scale and a contour interval of one-foot within the corridor widths as identified.

- ▶ Aerial digital photography
- ▶ Survey data collection
- ▶ Boundary survey
- ▶ Topographic survey
- ▶ Digital mapping
- ▶ Photogrammetric services
- ▶ Data reduction

### PHOTOGRAMMETRIC MAPPING OF STATE HIGHWAY 29 | MARLOW, OK

Wilson & Company provided aerial acquisition services and digital mapping for a corridor approximately 600-foot wide by 9.3-miles. Digital aerial imagery was acquired at an altitude of 1,600-foot AMT using an Intergraph DMC digital sensor. ABGPS and IMU data was processed and an aerial triangulation solution was delivered. Using the ODOT approved aerial triangulation solution, surface models were produced using digital photogrammetric collection methodology of sufficient accuracy to produce one-foot contours to NSSDA/OSSDA accuracy standards. Planimetric data was collected showing features normally associated with one-inch equals 50-foot scale within the corridor widths.

- ▶ Aerial digital orthophotography
- ▶ Photogrammetric services
- ▶ Topographic and planimetric mapping

### LEWIS & CLARK VIADUCT SURVEYING | KANSAS CITY, KS

Wilson & Company recently used their full arsenal of survey tools to complete an innovative project in Kansas City. The Lewis and Clark Viaduct consists of nine bridges on Interstate Highway 70 over the Kansas River. A concept was developed to replace or rehabilitate the viaduct bridges. The project was especially challenging and required disciplined focus to field crew safety on one of the busiest roadways in Kansas City.

- ▶ GPS and conventional site survey
- ▶ LiDAR (mobile and terrestrial)
- ▶ Photogrammetric mapping (topo, plan, contours, and orthos)
- ▶ Data reduction through feature extraction