



**Missouri's
Local
Program**
*for community
development*

COVER SHEET

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

Firm's Full Legal

Name: Quigg Engineering Inc.

Firm Contact Name: Todd Welz, PE

Contact Email

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Work Category:

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



Introduction

Quigg Engineering Inc (QEI) is pleased to submit this letter of interest for on-call services for **Roadway Design** in response to your November 3, 2025, solicitation. This contract will be managed and executed from our St. Louis office. QEI is current in all categories on MoDOT’s approved consultant pre-qualification list including LPA requirements.

QEI, a woman-owned engineering firm, has provided services since 2006. QEI now has over 90 employees. Our primary focus is delivering services to the transportation industry. We serve MoDOT from our St. Louis office, which opened in 2016 and has delivered several projects throughout Missouri.

General Experience of Firm

QEI’s experience includes the planning and design of rural and urban state and local highways, freeways, expressways, intersections, interchanges, and ADA compliant pedestrian and bicycle facilities. Our roadway group staff is experienced and capable of designing a wide variety of different roadway types including two lane, multi-lane undivided, multi-lane divided, expressways, freeways, and local roads and streets, utilizing the appropriate design guidelines/standards required for the roadway type, functional classification, and funding sources. We also have experience in the design of roundabouts, complex intersections, and interchanges.

The roadway group utilizes a variety of different software packages including MicroStation, Geopak, OpenRoads Designer, AutoCAD Civil 3D, AQCESSRamp, HCS 2026, Synchro, and Vissim. Our staff has recently attended MoDOT’s OpenRoads design class. We have also developed several in-house Excel spreadsheets/macros for use as design tools in addition to using the BidTabs Pro software for cost estimates.

Past Performance

Hanley Road–Laclede Road Resurfacing, Webster Groves and Maplewood, MO, St. Louis County DOT: QEI delivered the preliminary, right-of-way and final plans for \$3.4M, 1.5-mile urban four-lane roadway between Newport Avenue and Manchester Road. The LPA project included pavement repairs and resurfacing, intersection layouts, new traffic signals and upgrading the noncompliant curb ramps to meet current ADA standards and comply with the County’s access plan. QEI performed all utility coordination and pick-up surveys. QEI developed a recommendation to control water and mud seeping from weep holes in a large retaining wall onto the sidewalk which froze during the winter. A filter system was inserted into the weep holes, and the sidewalk was relocated away from the wall providing a pervious area for the water to drain.

Midland Boulevard Resurfacing, University City, MO, St. Louis County DOT: QEI performed a pedestrian safety study at the challenging 45-degree skew Hanley intersection to determine the necessary upgrades. Developed the preliminary and final plans for new traffic signals at the Hanley intersection and the ADA upgrades to the traffic signals at the Canton intersection.



Route 79, Ralls & Pike County, MoDOT NE District: QEI prepared preliminary and final ROW plans, preliminary and final design plans 24 miles of shoulder widening, new guard rail and resurfacing along approximately 24 miles of Route 79 in Ralls and Pike Counties. The project included ADA improvements at multiple crossings along Route 79 in Louisiana, MO from Noyes Street to South Carolina Street and along Route 54 from 4th Street to Dougherty Pike. These ADA plans also include addressing drainage issues associated with these improvements and examining each intersection for perpendicular pedestrian access routes (PAR) slope criteria. The design of the ADA ramps and sidewalk improvements were in accordance with the MoDOT EPG and PROWAG.

Route 340, Olive Boulevard Widening, Creve Coeur, MO MoDOT SL District: QEI performed the preliminary and final design of the widening improvements including pavement widening and sidewalk improvements necessary to conform to current ADA guidelines. As a result of this improvement, replacement of traffic signals at each intersection were designed. QEI also designed and coordinated illuminated street signs on traffic signal mast arms for City of Creve Coeur and

coordinated this effort with MoDOT. Other improvements included light pole reallocations, new drainage system, and the development of traffic plans.

Business Loop 44, St. Louis County, MoDOT SL District: QEI prepared the conceptual report, crash analysis, pavement analysis, preliminary and final roadway plans, specifications, construction cost estimate and the Request for Environmental Services (RES) for 4.2 miles of pavement rehabilitation and resurfacing, ADA compliance and guardrail upgrades. QEI performed field checks to verify ADA compliance of existing ramps and sidewalks, completed pick up surveys at intersections using GPS and a total station, cross-section surveys using LIDAR, and boundary research.



Martin Luther King Jr. Drive and South Grand Avenue Safety Improvements, Springfield, IL: This local road project included improvements to repurpose 1.2 miles of existing traffic lanes through a road diet modifying existing four-lane section into a three-lane section with bike lanes. During the planning phase QEI performed topographic surveys, developed road concepts, prepared signalized intersection design studies and performed traffic studies culminating in the submittal project development report. Additional services included exhibit preparation of exhibits and public meetings for the project. The final plans are currently being prepared.



Route 100 over Shawnee Creek, Osage County, MoDOT CD District: Preliminary and Final Design of the replacement structure over Shawnee Creek. The existing 3-span bridge was replaced with a 2-span, 118' structure. The creek is bounded by levee on each requiring coordination with the levee district. QEI's scope included topographic, hydraulic and boundary surveys utilizing both conventional and LIDAR methods, preparing the hydraulic study, developing right of way plans, and preparing preliminary and final bridge and roadway plans, specifications, and estimates. The roadway plans were developed to the latest 3D standards.

I-70 Cave Springs to Fairgrounds, St. Charles County, MoDOT SL District (design-build): QEI was the lead design firm for the new North Outer Road from Route 94 to Fairgrounds. Tasks included developing the geometrics, ramp warping details, coordinating with the utility and structural designs and developing staging plans to maintain access from I-70 to the interchanges. Final plans included roadway, traffic staging and MOT, pavement marking, guardrail layouts, drainage and signage. QEI also designed the Route 94/I-70 ramp intersection improvements.

IL Route 75 from the Rock River to IL Route 2, Village of Rockton, IL, IDOT District 2: Prepared roadway plans, specifications, and estimates for the \$10M improvement of Illinois Route 75 through the Village of Rockton, Illinois. The scope of work included complete reconstruction of approximately 0.6 miles of IL 75 and the widening and resurfacing of approximately 0.8 miles of IL 75 in the Village of Rockton, Illinois. Project included complex traffic control plans, traffic signal installation (2 locations), a pedestrian and bicycle use facility (multi-use path), extensive ADA compliant curb ramp design, and extensive drainage improvements.



IL 47 from Yorkville, IL to Sugar Grove, IL, Kane and Kendall Counties, IL, IDOT District 1: Prepared detailed intersection design studies for 6 signalized intersections along IL 47 between Yorkville, IL and Sugar Grove, IL as part of an overall project for the reconstruction of IL 47 from a two-lane undivided roadway to a 4-lane divided highway with dedicated turning lanes at intersections. Design included traffic signal warrants in accordance with the MUTCD, traffic signal phasing/timing, geometric design, modified right turn lane design, storage length calculations, cross sections, profiles, and new/consolidated entrances. HCS 2010 was utilized for analyzing capacity of the intersections, Autoturn was utilized for corner radii and stop bar placement determination, drawings were completed in MicroStation.

Qualifications of Personnel



Todd Welz, PE, has over 39 years of experience specializing in transportation projects involving design and construction of major urban facilities and airports. His project and design management and transportation engineering expertise includes feasibility studies, alternatives analysis, Environmental Assessment and Design Reports, preliminary and final design, development of final construction plans, and Design-Build delivery.



Francis Nelson, PE, has over 25 years of civil engineering experience and a variety of project management experience. His diverse technical expertise incorporates the inspection and design of countless roadway and airport pavements, in addition to transportation and highway design, erosion control and landscape design, environmental permits, project management, construction management, pavement management systems, utility coordination, and consultation.



Stephen Kehoe, PE, has over 38 years of experience in highway and roadway design and project management. Project scopes include Feasibility Studies, Project Reports, and PS&E preparation. Roadway improvements, geometrics, intersections, interchanges, multi-use paths, and drainage systems were designed. Work also included surveying, maintenance of traffic, construction staging, constructability reviews, erosion control, value engineering studies, and independent technical reviews.



Sean Maxwell, PE, has over 10 years of experience in various areas of design and analysis including roadway design, project reports, crash analysis, maintenance of traffic design, project oversight, cost estimates, 3D Modeling, VBA programming, drainage design, and hydraulic analysis. He has been involved in multiple Bridge Condition Reports and Bridge Inspections, Transportation Management Plans, Crash & Capacity Analysis, Project Reports, and an Access Justification Report.



Tammy Neff-Smith has 29 years of experience in all aspects of Civil Engineering working on diverse projects. She possesses a thorough understanding of engineering and plan production with experience in Preliminary and Final Roadway Improvement Plans, Topographic Surveys, Utility Coordination, Electrical Plans, and miscellaneous exhibits. She has a solid knowledge and understanding Civil Engineering Construction Document standards and specifications.

Familiarity/Capability

QEI has a thorough understanding of your delivery process and procedures by delivering a variety of projects for several different districts. Though each district has their preferences, we recognize the Engineering Policy Guide (EPG) provides the planning and design methodology for all to follow. The EPG also provides the necessary design criteria or weblinks to reference manuals containing additional design criteria to be followed. Our staff is proficient with the latest version of MoDOT's OpenRoads Designer. Our staff keeps current by attending the week-long training sessions when provided by MoDOT. We also utilize MoDOT's YouTube training videos to keep our staff up to date on different design topics.

Accessibility

We pride ourselves on our service to MoDOT and being responsive to your needs. Our staff has experience delivering projects for MoDOT and will make any project assigned to us a priority to deliver a quality project meeting your schedule. We have provided high-quality services through a blend of remote and in-office work supported by our cloud computing provider the past ten years. Through the use of this technology, we are able to communicate quickly through the use of screen and file sharing. However, we understand the importance of meeting face-to-face to collaborate when needed. Our strong relationship with MoDOT is built on consistently staffing projects with responsive professionals who have the right expertise for the job.



OUR SERVICES

- Bridges & Structures
- Construction Inspection & Material Testing
- Environmental Studies & Permitting
- Surveying
- Transportation/Civil Engineering
- Traffic Studies
- Aviation
- Site Development

LICENSES / REGISTRATIONS

- 24 Professional Engineers
- 3 Professional Land Surveyors
- 3 Professional Structural Engineers
- 2 Professional Traffic Operations Engineers

***Quality with
Excellence and
Integrity***



QUIGG ENGINEERING INC

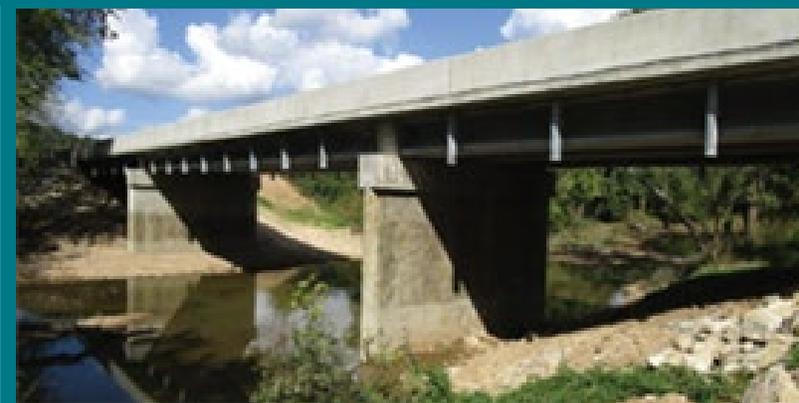
Quigg Engineering Inc. (QEI) has been proudly serving public and private sector clients since 2006 including those located in Missouri when we opened our St. Louis office in 2016. With a team of over 90 professionals across the Midwest, we specialize in a wide range of infrastructure services, including highway and bridge design, land surveying, environmental studies and permitting, site development, traffic engineering, aviation, and construction inspection. Our mission is to exceed client expectations by delivering high-quality projects on schedule and within budget—driven by the expertise and integrity of our dedicated staff.

LOCATIONS

Headquarters: Springfield, IL
2351 S. Dirksen Parkway
217-670-0563

- St. Louis, MO
- Jacksonville, IL
- LaGrange, IL
- West Chicago, IL
- Middleton, WI
- Heinston, LA
- Meridian, ID
- Columbia Heights, MN

BRIDGES & STRUCTURES



Route 94 Bridges over Smith & Lost Creeks
MoDOT NE District, Warren County, MO
Construction Cost: \$1.5M

- Completed the sounding layout sheets, bridge memorandums, final bridge plans and preliminary, right-of-way and final roadway plans for two bridge replacements.
- New bridge over Smith Creek is a 187-foot 3-span NU-girder structure.
- New bridge over Lost Creek is a 128-foot 2-span NU-girder structure.
- Additional work included safety improvements, new entrance and side road connections.



Route B over Ten Mile Creek
MoDOT SE District, Carter County, MO
Construction Cost: \$1.1M

- Completed Hydraulic Report, Preliminary and Final Plans for the bridge replacement.
- New bridge is a 114-foot, 3-span with a spread box beam superstructure with pile cap bents and integral end bents.
- Completed Preliminary, Right-of-Way and Final Plans for the approach roadways.
- Conducted boundary analysis to re-establish the existing right-of-way.
- Conducted topographic and hydraulic survey.

CONSTRUCTION INSPECTION & MATERIAL TESTING



IL Route 3 Waterloo Bypass
IDOT District 8, Monroe County, IL
Construction Cost: \$22M

- Performed the construction inspection services for the widening from two lanes to five lanes of full-depth hot mix asphalt pavement along IL Route 3.
- The project included inspecting box culverts, earth excavation, lime stabilization, storm sewer, bike trail, pedestrian tunnel, noise wall, roundabout, drainage, and signalized intersections.



Bridge Replacement over Cedar River
IADOT District 6, Cedar Rapids, IA
Construction Cost: \$10.3M

- Performed the construction inspection for the replacement of the historic eastbound Cedar River Bridge along Highway 30.
- Supervised the construction, reconstruction, resurfacing of embankments, and the adjoining roadway pavement sections.
- Directed the full-depth pavement patching, drainage systems, and coordinated landscape restoration efforts.

ENVIRONMENTAL STUDIES & PERMITTING



US 67 Safety Improvements
MoDOT SL District
St. Charles County, MO

- Delineated wetlands across multiple seasons under two separate on-call Work Orders. QEI delineated a 51-acre project area in 2020 and a 98-acre project area in 2024.
- Performed desktop review and area reconnaissance to evaluate jurisdictional connectivity of aquatic resources.
- Coordinated with MoDOT and USACE to obtain concurrence on the aquatic resource report findings and jurisdictional connections.



US Route 34 (FAP 313)
IDOT District 4
Henderson County, IL

- As part of the project team with WSP, QEI provided critical support for the completion of the Supplemental EIS for a 9-mile section of US 34, with 6 miles located within the Mississippi River floodplain
- Led the alternative evaluation, presented at public meetings, and contributed to EIS sections for farmland, ecology, special waste, and community impacts.
- Coordinated with agencies and developed EIS exhibits.
- Performed TNM 2.5 modeling, authored the noise study report, and completed noise validation work in the field.

TRANSPORTATION



MO Route 79
MoDOT NE District, Ralls and Pike Counties, MO
Construction Cost: \$8.5 million

- Prepared preliminary and final design plans for 24 miles of shoulder widening, new guardrail, resurfacing, and ADA improvements.
- Designed multiple sidewalk and ADA improvements for 17 intersections through Louisiana.
- Addressed drainage issues associated with sidewalk and ADA improvements.



IL Route 75 Rock River to IL Route 2
IDOT District 2, Winnebago County, IL
Construction Cost: \$9.3M

- Designed ADA complaint sidewalks for bicycle/pedestrian accommodations including the implementation of the Complete Streets Policy and access to 100-year-old buildings.
- Designed roadway, multi-use path, geometrics, pavement, drainage, signing/stripping, earthwork, and erosion control.
- Served as sole designer, completing field surveys, ROW plats, and construction documents

SURVEYING



MO Route 100 over Shawnee Creek
MoDOT CN District, Osage County, MO
Construction Cost: \$708,000

- Conducted topographical and hydraulic surveys, boundary research, and established existing right-of-way.
- Prepared property plats for new right-of-way taking.
- Developed the preliminary and final bridge plans.
- Developed preliminary, right-of-way, and final plans for the approach roadways
- Prepared drainage plans and added backflow preventers to keep the water in the drainage canal from entering the ditches.



Big Bend over Interstate 44
MoDOT SL District, St. Louis County, MO
Construction Cost: \$7M

- Set survey control and conducted, topographic, utility surveys using a combination of LIDAR and conventional methods.
- Established existing right-of-way and property lines through field work, courthouse document research and as-built plans.
- Designed integral end bents for the bridge replacement.
- Developed ITS layout throughout the project including fiber splicing details.

TRAFFIC STUDIES



NDSLSD, E. Grand Ave to W. Hollywood Ave
CDOT, Chicago, IL

- Updated the 2007-2011 crash data information to compile two new reports. The study included identifying hot spots, observation of potential causes, and recommendations for countermeasures.
- Obtained, compiled, and analyzed additional crash data (2012-2016) to produce a Crash Validation Memorandum.
- Assisted with the evaluation of conceptual design alternatives for the overall mainline cross-section of NDSLSD throughout the corridor and interchange configuration alternatives.



IL 43 Harlem Avenue
IDOT District 1, Cook County, IL
Construction Cost: \$26M

- Traffic Analysis: Reviewed and balanced data, prepared exhibits, and coordinated with CMAP.
- Geometric Studies: Modeled existing, No-Build, and three alternatives for five intersections.
- Intersection Design: Completed AM/PM capacity analyses.
- Bridge Inspection: Prepared abbreviated BCR for SB Harlem over RR.
- Feasibility Study: Evaluated sidewalk widening and bridge load ratings over CNRR and CSS Canal.