



**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

Address: twelz@quiggengineering.com

Firm's Mailing Address: 720 Olive St., Suite 160, St. Louis, MO 63101

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 **Traffic Engineering & TEAP** 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.

Quigg Engineering Inc. (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 for MoDOT.

General Experience of Firm

QEI provides a comprehensive suite of traffic engineering services that includes traffic operations analysis and modeling, Transportation Management Plans (TMP), traffic signal timing design and analysis, multimodal traffic analysis, and development and review of transportation impact studies. QEI also has extensive experience with safety engineering including developing safety plans and studies, performing crash analysis to identify the factors contributing to crashes and recommending strategies to mitigate them, using the Highway Safety Manual (HSM) and IHSDM to predict the number of crashes that would be expected for design alternatives, road safety assessments and countermeasure performance evaluations.

Our team of traffic engineering professionals consists of licensed professionals who bring extensive traffic, safety and operations engineering expertise. QEI's Traffic Group utilizes a variety of different software packages including Synchro / SimTraffic, Highway Capacity Software (HCS) and Interactive Highway Safety Design Model (IHSDM).

Past Performance

Route 340 (Olive Boulevard) Widening, Creve Couer, MO, MoDOT SL District: Performed the preliminary and final design of the widening improvements including pavement widening and sidewalk improvements necessary to conform to current ADA guidelines. The pavement widening located on the south side of the corridor is required to provide full length storage for left turns between Spoede and Old Olive Street Road. As a result of this improvement, the traffic signals at each intersection were replaced and interconnected. Illuminated street signs on traffic signal mast arms for City of Creve Coeur and new light poles were part of the project.

North DuSable Lake Shore Drive Phase I Study, E. Grand Ave. to W. Hollywood, Chicago, IL, Chicago Department of Transportation: As part of the on-going Phase I Study, QEI has updated the crash analysis and compiled two new reports: an existing Crash Data Book with summary tables and collision diagrams and an Existing Crash Data Analysis Book that included a summary of the analysis, identification of trends and hot spots, observations of potential causes, and recommended countermeasures to address deficiencies and mitigate crash problems. QEI has subsequently updated the crash validation data with additional crash data through the year 2022. QEI also assisted with the evaluation of conceptual design alternatives for the portion of the NDLSL corridor between and surrounding the junctions with Montrose Avenue, Wilson Avenue, and Lawrence Avenue. QEI prepared a detailed analysis of historical crash data, and prepared crash prediction models for the "no-build" alternative and 12 different conceptual design alternatives, utilizing the Enhanced Interchange Safety Analysis Tool (ISATe). The results of these models were utilized as one of the factors to help narrow down the set of design alternatives to be carried forward for further consideration. Also specifically assisted with the analysis and preparation of the various crash data reports and led the development of the ISATe crash prediction models. QEI also conducted traffic signal warrant reviews for 45 intersections, collected various traffic volume data, and other planning, design, survey, and public involvement tasks.



In-House Traffic Studies, Chicago Department of Transportation: QEI completed traffic studies at various intersections or corridors around the city. These studies are initiated by local officials (Aldermen) and are usually requested to address speeding, pedestrian safety, or other traffic issues. The studies consist of reviewing the crash history, evaluating roadway geometries, and assessing possible traffic calming measures to address the specified issues. A letter is then written and

sent to the ward including the study's finding and recommended traffic calming measures. A phase I concept is then developed if the Alderman decides to fund the recommendations. Aside from studies, QEI reviewed ordinances for the Committee on Pedestrian and Traffic Safety as well as creating phase I concepts for miscellaneous requests that come to the Traffic Studies Team.

Martin Luther King Jr. Drive and South Grand Avenue Safety Improvements, City of Springfield: QEI is performing preliminary and final design for roadway improvements to repurpose existing traffic lanes through a road diet to modify four lanes existing into a three - lane section and add bike lanes. QEI performed topographic surveys and traffic studies to prepare Phase I design for the project development report. Additional services included exhibit preparation and public meetings for the project. Intersection Design studies for two signalized intersections were prepared for district approval. Safety studies and ADA improvements were made. The Project Development Report for the project was prepared for district review and approval. Phase II plans specifications and estimates are being prepared for construction of the project.



Interstate 55 Reconstruction, Toronto Road to Sherman Boulevard/Business 55, Sangamon County, IL, IDOT District 6:



The overall proposed project includes adding lanes to the I-55 and I-72 mainlines, reconstruction of the interchanges along I-55/I-72 from Sixth Street to Sangamon Avenue, and modifications to interchanges adjacent to those being reconstructed to accommodate for the additional lanes along I-55/I-72. QEI was tasked with the compilation and writing of the narrative for an Access Justification Report (AJR) that covered the entire study corridor. QEI developed an origin-destination study based on license plate survey data obtained from a third party and conducted a safety study of the entire corridor. The safety study consisted of compiling and analyzing historical

crash data, recommending countermeasures to improve safety, and crash prediction modeling of the recommended alternatives to estimate changes in expected crash types and severities based on the proposed geometrics and roadside safety features. QEI also completed conceptual staging plans for numerous segments, conceptual signing plans for the entire corridor, and Intersection Design Studies (IDS) for three intersections adjacent to corridor interchanges.

I-57 at IL 17 Interchange Reconstruction, IDOT District 3: The project consisted of performing reconstruction of the existing I-57 at IL 17 interchange in Kankakee and reconfiguring into a new Single Point Urban Interchange (SPUI) in its place. The project allows for the future six lane section of I-57 through this area. IL 17 is also being widened to accommodate additional turn lanes and will have pedestrian and bicycle accommodations added. QEI developed permanent and temporary traffic signal plans with pedestrian accommodations, maintenance of traffic (MOT) plans, erosion and sediment control plans, landscaping plans, signing and sign structure plans and details, and updated the traffic management plan (TMP).

Various Safety Assessment Projects, Various Locations, IDOT District 1: QEI prepared traffic engineering studies and accident studies for various locations throughout District One including crash analysis of 2017 Five Percent Segments. This analysis consisted of summarizing key crash statistics and trends for each segment, providing recommendations for potential countermeasures, and providing estimated costs and anticipated impediments to their implementation. In one task, QEI updated recommendations for pedestrian safety improvements at over 300 signalized intersections in District One. Previous crash totals and scores were updated to include the latest six years of available data. At each intersection, the existing conditions were reviewed, and recommendations were updated for improvements such as new or upgraded ADA curb ramps, continental-style crosswalks, sidewalks, signage, and pedestrian traffic signals.

Traffic Engineering Services, Illinois Tollway: QEI provides ITS and traffic engineering services as a subconsultant to the Tollway Traffic Engineer on an as needed basis. Services can include a wide range of traffic and planning studies including work on long term traffic capacity, traffic operations, mobility planning, roadway extensions, multi-modal transit projects, user surveys, new project feasibility, and facility and fleet needs assessments.

IL 43 (Harlem Avenue) between 63rd and 65th Street, Cook County, IL, IDOT District 1: QEI developed the Traffic Management Plan as part of preliminary engineering and environmental studies to improve IL 43 (Harlem Ave.) in the

vicinity of 63rd and 65th Streets. The proposed improvement is to replace the at-grade intersection of IL 43 and 65th Street and adjacent railroad crossing of 65th Street with a new elevated intersection structure that would eliminate the grade crossing of the railroad. QEI developed traffic analysis models in Synchro for proposed staging plans to determine expected traffic delays and queues during each stage of construction and coordinated with the design team to make changes to the geometric design and/or staging to mitigate the delays and queues.

Qualifications of Personnel



Bridget Barrett, PE, PTOE, RSP1 has experience in the areas of Intelligent Transportation Systems (ITS), transportation modeling and planning, and traffic engineering. She has assisted with the development of corridor strategic plans for ITS projects including architecture specification, technology identification and assessment, and Concept of Operations preparation and is leading efforts related to connected vehicles. She has performed traffic simulation modeling and operational analysis of urban and freeway facilities, traffic signal warrant analysis, and traffic signal timing and design.



Seth Johnson, PE, PTOE, RSP1 has extensive professional experience in the areas of corridor/safety studies, transportation engineering, traffic operations analysis and modeling, traffic data collection, and Intelligent Transportation Systems (ITS) planning and design.



Jameel Ahmed, PE has over 30 years of experience and is very well versed in traffic studies and traffic signal design including detection system and interconnect system. He is experienced in preparation of existing traffic signals and proposed traffic signals, pedestrian signals along with modernization of the existing signal system.



Jason Tinti, EIT is a young professional enrolled as an Illinois Engineer Intern studying and working towards acquiring PE licensure. He has experience with phase I traffic studies, geometric review, and public engagement.

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. We are proficient in variety of different software packages including Synchro / SimTraffic, Highway Capacity Software (HCS) and Interactive Highway Safety Design Model (IHSDM) along with utilizing the Highway Safety Manual as required. We also utilize MoDOT’s YouTube training videos to keep our staff up to date on different engineering 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

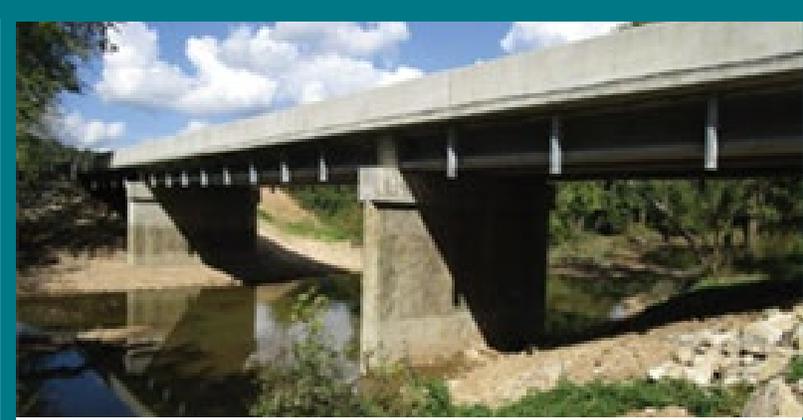
Quigg Engineering Inc. (QEI) has been proudly serving public and private sector clients since 2006 including those located in Missouri when we opened our St. Louis office in 2016. With a team of over 90 professionals across the Midwest, we specialize in a wide range of infrastructure services, including 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.