



**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.

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Contact Email

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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 **Structures** 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 produced several projects for MoDOT.

General Experience of Firm

QEI's experience includes the planning, design and inspection of highway and pedestrian bridges. This includes the design of new and replacement grade separation and stream crossing structures for interstate highways, expressways, state highways, and local roadways. We have experience working on design-build projects as well as design-bid-build. We have held the role of prime designer and as a sub-consultant. Our recent experience includes on-call, task order contracts, and we pride ourselves on the ability to be flexible and responsive to our clients' needs.

Our planning experience includes the development of bridge hydraulic studies, the sizing of bridge openings, and evaluation of structure options. We have prepared structure type studies for larger structures which included the development of multiple bridge alternates, geometric studies, cost estimates, evaluation of advantages and disadvantages, and recommendations for the final structure type and size.

Our staff is experienced and capable of designing most bridge superstructure types including steel plate girders, steel wide-flange beams, pre-stressed concrete girders, reinforced concrete slabs, and pre-stressed concrete box beams. Our bridge substructure experience includes the design of pile supported foundations, spread footings, and drilled shafts. Our structural staff is also experienced with many software packages, such as: MicroStation, Geopak, STAAD, MDX, MathCad, D-Calc, HEC-RAS, along with others. We have also developed several in-house Excel spreadsheets for use as design tools. We have significant experience in the field evaluation of existing structures, development of bridge condition reports, and the preparation of plans for bridge widening and rehabilitation.

Past Performance

QEI's structural engineers have extensive experience with the design and inspection of highway, pedestrian, and utility structures as well as other structure types. Our portfolio includes performing bridge inspections and rating services. Our bridge inspections are conducted by NBIS trained personnel and can be conducted on typical bridges or major river bridges. Bridge load ratings can be completed on most structure types using ASD, LFD, LRFD, Special Design Vehicle, Legal Loads, and Permit Loads.

Route B over Ten Mile Creek, MoDOT SE District: Preliminary and Final Design for the replacement structure and approach pavement over Ten Mile Creek. Completed a Hydraulic Report for the Ten Mile Creek. The new bridge consists of a three-span spread box beam superstructure with pile cap bents and integral end bents. Structure length is 114' with a 24' clear width, on a 20° skew with Type H barriers. The profile grade was adjusted to accommodate a higher design speed than the existing alignment. Also completed a hydraulic report and conducted hydraulic, topographic and existing right-of-way surveys.



Cave Springs Road over Veterans Memorial Parkway: Preliminary and Final Design for this bridge (A0 as part of a design-build project at I-70 in the St. Louis area. The structure is a buried 3-sided precast concrete arch with a 55' span and 174' width. It has pile supported footings and an MSE skirt wall. The bridge carries 8 lanes of traffic over Memorial Parkway.

Structure Repairs on 5 Bridges over I-70, MoDOT SL District: Preliminary and Final Design for the repair of 5 overhead bridges crossing I-70. Repair work included deck overlays, joint replacements, approach slab repairs and bearing repairs. The bridges involved included were MO-79 over I-70 A4294, NB MO-79 over OR-70 & NSRR A4293, SB MO-79 over OR 70 & NSRR A3896 and Bryan Rd over I-70 A5045.

I-270 North, St. Louis County, MoDOT SL District: Provided full design, plan development and review for two new one span PPC NU Girder bridges as part of this overall design-build project. The bridges carried US-67 NB over Dunn Rd and MO-367 NB over I-270. Both bridges required superelevated superstructures and modified abutment wings to fit the curved roadway geometry.

Improve I-70 Program, Columbia to Kingdom City, MoDOT CN District: Provided full design, plan development and review for both bridges as part of this overall design-build project. Bridge A8950 carries I-70 WB Ramp-2 over Hinkson Creek. It is a new three-span PPC NU Girder bridge on integral end bents and pile bent piers. It is built on a horizontal curve with a length of 208.67'. Bridge A40931 carries Rte 63 NB Ramp 8 over Ramp 3 and Conley Rd. It is an existing four span PPC I-Beam bridge located on a horizontal curve with a length of 272.54'. We widened the bridge by adding two new PPC NU Girders on one side as well as widened end bents and drilled shaft supported interior bents.

Route 94 Bridge Replacements over Smith and Lost Creeks, Warren Co. MO, MoDOT NE District: Preliminary and Final Design Engineering to replace two bridges on Route 94. The Lost Creek Bridge is a 187-foot long 3-span NU-girder structure, and the Smith Creek Bridge is a 128-foot long 2-span NU-girder structure. The substructure of both bridges consisted of pile supported bents with integral end bents. Work included preparing bridge memorandums, hydraulic reports, Type, Size & Location plans, ROW plans, and final roadway and bridge plans and specifications.

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.

Old IL-3 over Miller Creek, SN 002-0037, Alexander County, IDOT District 9: Preliminary and Final Design for this new two-span wide-flange girder bridge on integral abutments and pile supported piers with columns. The bridge is 2-spans, 140.67' long and 28.0' wide. The design required **SPZ-4 seismic loading** and a special pier and abutment design to carry the high seismic loads. Plans were also provided for the adjacent roadway work to tie into the existing roadway.

I-294 (Tri-State Tollway) Mile Long/LaGrange Rd Bridge Replacements, Cook County, IL, Illinois Tollway: Preliminary and Final Design for the replacement of the dual Tollway Structures 191 & 192 (54 span Mile Long Bridges) and 183 & 184 (2 span LaGrange Rd Bridges). The new structures carry 10 lanes of the Tollway over BNSF RR yard, Chicago Sanitary & Ship Canal, Des Plaines River, I&M Canal, CN RR, and LaGrange Rd. QEI developing the Master Plan, Type Size & Location plans for the bridges over LaGrange Road and 4 retaining walls located south of the Canal. The LaGrange Rd bridges were dual non-identical two span 84" California Shape PPC I-beam structures on a curved and flared alignment with MSE style abutments and a 44°skew. The total length was 335' bk-bk abutments with 166' and 161' spans. Due to the curved/flared alignment most beams were a different length. The decks have large flares and a super-elevation transition located on them. The MSE retaining walls were between 300'-1100' in length and up to 38' tall.

Qualifications of Personnel



Mike Cima, PE, SE – *Structures QA/QC*, has over 35 years of experience in transportation-related structure assessment, plan development, inspection, policy development and management. He assists with bridge policy development and training for IDOT. His duties included bridge planning, design, policy development, and review of consultant qualifications.



Robert Whiteside, PE, SE – *Structures Lead*, with over 13 years of experience in civil and structural engineering including extensive experience in transportation-related structures. Project work has included bridge inspections, preparation of bridge condition reports, bridge design and structure rating. As a lead structural engineer and project manager, he has been responsible for the preparation of structure plans for various state and local highways. He has designed concrete and steel bridges, retaining walls, box culverts, and other structures.



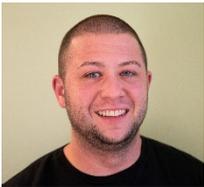
David Booher, PE, SE – Structures Support, has over 40 years of technical and project management experience in the fields of civil and structural engineering with extensive experience in all phases of bridge and structural design including: hydraulics, foundations, substructures, super-structures, rehabilitation, and strengthening of members.



Kevin Ortega, PE – Structures Support, has over 8 years of experience including performing bridge design, evaluating, and rating existing bridge structural conditions; developing repair alternatives; and preparing plans to address deficiencies relating to deterioration as well as preparing plans for new bridge structures.



Zoe Davidson, EI – Structures Support, has 4 years of experience in bridge inspection, design, and rehabilitation across Illinois. Her expertise includes NBIS inspections, scour assessments, structural load ratings using AASHTOWARE BrR, and development of Bridge Condition Reports (BCRs), TS&L plans, and final structure designs.



CJ Stokes, EI – Structures Support, has over 11 years of experience in bridge analysis, bridge condition reports, and preparation of plans for new structures as well as bridge rehabilitation plans. They have participated in several bridge inspections and have NBIS Inspection certification. They are also proficient in field and laboratory testing of concrete aggregates, and soils.



Steve Dulakis, EI – Structures Support, has extensive experience in transportation engineering. His experience includes developing drainage plans, Type, Size, and Location (TS&L) plans, structure hydraulic analysis and design, development of Bridge Condition Reports, and cost estimates.

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 structural staff is also experienced with many software packages, such as: MicroStation, STAAD, MDX, MathCad, D-Calc, HEC-RAS, along with others. We have also developed several in-house Excel spreadsheets for use as design tools.

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

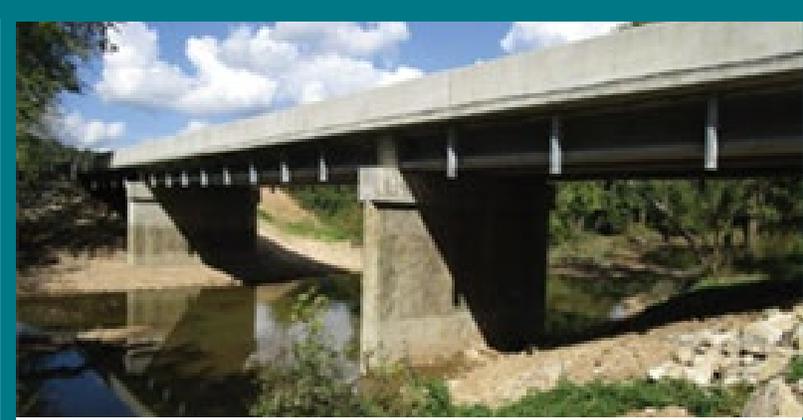
Quigg Engineering Inc. (QEI) has been proudly serving public and private sector clients since 2006 including those located in Missouri when we opened our St. Louis office in 2016. With a team of over 90 professionals across the Midwest, we specialize in a wide range of infrastructure services, including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