



**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:

Thouvenot, Wade & Moerchen, Inc.

Firm Contact Name:

Adam Rutz, PE, SE

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Address:

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Columbia, MO 65201

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**



CONSULTING ENGINEERING  
GEOSPATIAL SERVICES

THOUVENOT, WADE, & MOERCHEN, INC.

COLUMBIA BRANCH OFFICE  
3316 LEMONE INDUSTRIAL BOULEVARD, SUITE 2  
COLUMBIA, MO 65201  
573.442.6474  
TWM-INC.COM

December 12, 2025

Missouri's Local Program  
LPAoncall@modot.mo.gov

**Re: Letter of Interest for 2026–2029 On-Call Professional Services, Structures**

Dear Members of the Selection Committee:

TWM is pleased to submit our interest in pre-qualification with Missouri's Local Program and to be considered for the LPA on-call list. Our team brings decades of proven experience delivering bridge and structural engineering solutions for local agencies, DOTs and contractors across Missouri, Illinois, and Tennessee. For over 79 years, TWM has provided **Exceptional Service. Nothing Less.**

**GENERAL EXPERIENCE OF FIRM**

TWM has completed extensive work for numerous LPAs, gaining an understanding of standards, policies, and engineering procedures. Our structural group has experience in bridge design, rehabilitation and repairs, bridge inspections and load ratings, and hydraulic analysis, as well as plan preparation, permitting, and preparation of bidding documents. We have designed more than 50 new bridges and rehabilitated over 20 for state and local clients in the last decade. Supported by our in-house geospatial team of licensed land surveyors and field crews, TWM also provides topographic, boundary, and right-of-way surveys that ensure accurate, efficient data collection to support each phase of design.

Our approach emphasizes communication, problem-solving, and real-world construction considerations. Using advanced technologies such as terrestrial laser scanning, mobile LiDAR, and UAV photogrammetry, we capture and integrate precise field data to inform design decisions. Whether we are evaluating alternatives or advancing plans under tight schedules, TWM consistently provides reliable, high-quality support that moves projects from concept to construction.

**PAST PERFORMANCE**



**MoDOT On-Call—J5P3560 Route 54 over Neighorn Creek**

TWM provided hydraulics and preliminary bridge design for the replacement structure. In coordination with MoDOT, we evaluated multiple configurations and determined hydraulic conditions allowed for a lower low beam elevation, leading to the selection of a single-span NU-53 girder bridge. Deliverables included the TS&L, bridge memorandum, hydraulic report, preliminary cost estimates, and bridge sounding request, with MoDOT completing the final design.

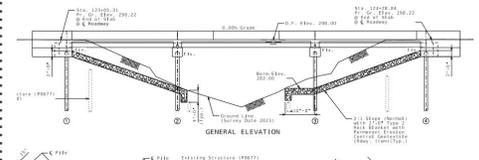
**Funding** | Federal, State  
**Owner** | MoDOT Bridge Division  
**Reference** | Travis Stump, Structural Hydraulic & Preliminary Design Engineer, 573.522.8716  
**Cost** | \$805,000 (est)  
**Timeline** | 2024 (design); 2025 (constr)  
**Team** | Adam Rutz, PE, SE; Chris Kuester, PE, CFM; Jessica Noble, PE (with MoDOT)



**J6P3288 Route 21 Pavement Improvements & Bridge Rehabilitation**

TWM developed final bridge rehab plans for 11 bridges along Route 21. We performed a site visit with MoDOT to confirm the project scope, which consists of a bridge re-deck, bridge deck overlays, joint replacements, and various other structural repairs. We also prepared Bridge Memorandums and construction cost estimates, and allowed two different biddable alternatives for the overlays per MoDOT's request.

**Funding** | Federal, State  
**Owner** | MoDOT St. Louis District  
**Reference** | Stuart McNeil, PE Project Manager, 314.453.5042  
**Cost** | \$33.4 million (est)  
**Timeline** | 2022 (design); 2023 (constr)  
**Team** | Adam Rutz, PE, SE; Matt Joost, PE, SE; Cole Johnson, EI; Josh Saunders, PLS



**Ripley County Bridges: Route 142, Route W (JSE0031, J9S3685, J9S3817, & J9S3848)**

TWM provided hydraulic design, right-of-way plan design, and preliminary and final roadway and bridge design. All three bridge structures were designed using rolled steel beam sections and simple for-dead-load/continuous-for-live-load (SD-CL) construction methods. Due to excessively soft soils, the culvert was designed with pile-supported footings to eliminate the grade raise that would have been required with a bridge.

**Funding** | Federal, State  
**Owner** | MoDOT Southeast District  
**Reference** | Pete Berry, Transportation Project Manager, 417.469.6242  
**Cost** | \$4,249,000 (est)  
**Timeline** | 2024 (design)  
**Team** | Adam Rutz, PE, SE; Brandon Poiter, PE, SE; Chris Kuester, PE, CFM; Joseph Esker, EI; Cole Johnson, EI; Josh Saunders, PLS



4.7 MoDOT Performance Rating

### J613288 I-70 & I-44 Pedestrian Bridges

TWM developed solutions for the replacement of two pedestrian bridges and worked as a team with two sub-consultant DBE firms. TWM led the preparation of final bridge and roadway design and plans, deliverables, traffic control, cost estimates, and quantities. Enhancements included ADA accessible ramps and increasing vertical clearance to comply with MoDOT policy. TWM also provided some construction and bid phase services.

**Funding** | Federal, State

**Owner** | MoDOT

**Reference** | Michele Atkinson, PE, Structural Bridge Liaison, 573.522.2371

**Cost** | \$2,258,600 (est); \$2,543,061 (act)

**Timeline** | 2018 (design/constr)

**Team** | Matt Joost, PE, SE; Adam Rutz, PE, SE; Brandon Poiter, PE, SE



### J5S3242 Route A over Third Creek (Gasconade County) & J5S3250 Route D over Mistaken Creek (Osage County)

Provided preliminary and final bridge design, hydraulics, and plan preparation for conceptual, right-of-way, and final PS&E of these bridge replacement projects. Route A was a multiple-span prestressed concrete I-girder bridge that was lengthened 20' to widen the creek channel and address erosion issues. Route D used prestressed concrete spread box beams, reducing structure depth for improved hydraulics.

**Funding** | Federal, State

**Owner** | MoDOT Central District

**Reference** | Bill Dunn, PE, MoDOT Structural Liaison Engineer, 573.751.2920

**Cost** | \$1,584,900 (est); \$1,613,511 (act)

**Timeline** | 2019 (design); 2020 (constr)

**Team** | Adam Rutz, PE, SE; Matt Joost, PE, SE; Brandon Poiter, PE, SE; Josh Saunders, PLS



### J913310—A22652 Beam Impact Repairs

Working with Capital Paving and Construction, LLC, TWM completed the survey and structural engineering for the repair of a girder struck by a dump truck. TWM's Geospatial Group performed a 3D laser scan of the bridge to help determine the limits of damage. This improved worker safety by minimizing onsite time and reducing exposure to the adjacent interstate traffic. TWM structural engineers prepared calculations and repair plans to restore the existing girder capacity.

**Funding** | Federal, State

**Owner** | MoDOT Southeast District

**Reference** | Tim Schmidt, Structures Division Manager, 573.635.6229

**Cost** | Undisclosed

**Timeline** | 2020 (design/constr)

**Team** | Adam Rutz, PE, SE; Brandon Poiter, PE, SE

## QUALIFICATIONS OF PERSONNEL

**Adam Rutz, PE, SE, will serve as Project Manager.** His experience in designing and managing structural projects throughout the Midwest means you get the expertise needed to guide bridge design projects from concept to final design.

Adam will be supported by a full team of local TWM engineers and technical staff. TWM's staff has extensive bridge design experience that includes hydraulic analysis, preliminary design, cost estimating, final design, and plan development. The breadth and depth of experience among our key staff are shown below.



### Adam Rutz, PE, SE | Project Manager & Lead Structural Engineer | 17 Years Experience

Adam has extensive bridge design experience across a wide range of superstructure and foundation types. Well-versed in MoDOT

policies, he draws on his construction management background to oversee bridge projects, focusing on constructability and cost efficiency.



### Matt Joost, PE, SE | Senior Structural Engineer & QA/QC | 20 Years Experience

Matt's experience in hydraulics, roadway layout, and structural design makes him well-suited for planning transportation projects

with structures. He evaluates hydraulic, geometric, and structural constraints to provide solutions and identifies adjustments that can reduce costs.



### Brandon Poiter, PE, SE | Structural Engineer 27 Years Experience

Brandon has been involved in a broad range of transportation structure projects. His experience includes the planning and design

of structures ranging from simple pre-stressed concrete deck beam structures to curved welded steel plate girder bridges.



### Jessica Noble, PE | Structural Engineer 12 Years Experience

Jessica works in-depth on bridge design, cost estimating, and quality control. With her extensive experience, she has contributed

to a wide range of complex projects, and has earned a reputation for leadership, communication skills, and attention to detail.



**Cole Johnson, EI | Design Engineer  
4 Years Experience**

Cole designs new bridges and rehabilitates existing ones. He has a strong knowledge of bridge detailing and structural drawings.

He also has experience with water and sewage treatment facilities, including concrete tank structures.



**Chris Kuester, PE, CFM | Lead Hydraulics Engineer | 12 Years Experience**

Chris has experience in hydrologic and hydraulic analysis, with a strong focus on bridge and culvert replacement projects in

regulatory floodways and floodplains. He specializes in H&H modeling, storm sewer design, stormwater detention, and low-impact development.



**Joseph Esker, EI | Design Engineer  
4 Years Experience**

Joseph has experience in design and detailing of various bridge replacements and one bridge re-deck, and design and drafting

of substructure units. He also works on other structural projects including retaining walls, drilled piers, and temporary soil retention systems.



**Josh Saunders, PLS | Lead Surveyor | 16 Years Experience**

Josh has experience in general construction, topographic surveying, boundary calculations, 3D high-definition laser scanning, and record

research. His responsibilities include estimating, record research, preparation of legal descriptions, QA/QC of client deliverables, and reviewing title work.

**FAMILIARITY & CAPABILITY**

TWM has extensive experience delivering federally funded projects and is fully familiar with the requirements, documentation, and compliance measures necessary to meet federal and local agency standards. Our team has completed numerous bridge repair, rehabilitation, and replacement projects, including the preparation of bridge memoranda, cost estimates, design layouts, workday studies, design exception requests, and full plan sets. We have also developed bridge deck surveys, inspection reports, and rehabilitation recommendations for agencies in other states, further strengthening our technical approach and adaptability.

Working side-by-side with our in-house geospatial group, we collect the precise field data needed to support engineering decisions. Our surveyors perform boundary, topographic, and right-of-way surveys using modern tools such as 3D laser scanning, photogrammetry, and UAV imagery. The result is accurate, dependable information that integrates directly into our designs and allows issues to be identified early. With this combined expertise, TWM delivers practical, constructible, and cost-effective bridge solutions that move smoothly from concept to construction.

**ACCESSIBILITY**

TWM has a strong track record, as both prime and sub-consultant, of responsive, reliable service to our clients. Our team structure ensures that experienced staff are available to address questions, resolve issues, and keep work moving. We emphasize open and timely communication through direct access to project engineers and via virtual meeting platforms such as Zoom and Teams. This commitment to accessibility allows us to work closely and collaboratively with staff, adapting to project needs and providing dependable support throughout each phase of the assignment.

**WHY CHOOSE TWM?**



**Experienced Staff & Technical Competence** | A 15-person structural team with 9 Professional Engineers and 6 Structural Engineers, supported by more than 35 survey crews and 16 licensed geospatial professionals, providing specialized expertise and dependable accuracy for every assignment.



**Broad Range of Bridge Expertise** | Proven capabilities in repair, rehabilitation, replacement, and pedestrian structures, supported by extensive municipal and DOT project experience.



**Centrally Located Columbia Office** | Our Columbia team provides immediate, accessible support to local public agencies across Missouri, ensuring responsiveness and efficient coordination.



**Fast, Practical & Innovative Solutions** | TWM is accustomed to quick-turn, field-driven problem solving through contractor support work, delivering buildable, cost-effective solutions aligned with real-world construction needs.

We're committed to delivering quality projects, and it's our mission to provide **Exceptional Service. Nothing Less.**

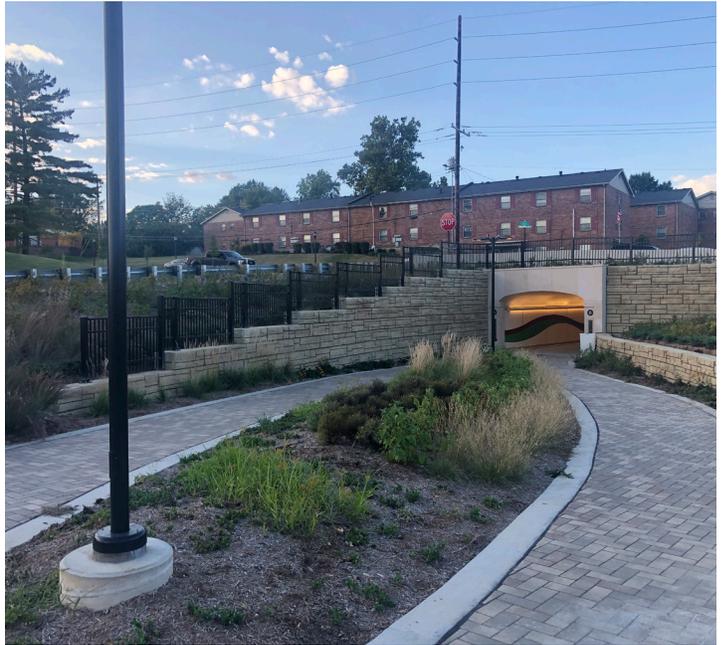
Respectfully,

**TWM, Inc.**

Adam Rutz, PE, SE  
Project Manager  
573.442.6474 | arutz@twm-inc.com



Structural • Survey/Geospatial • Transportation • Land Development • Water Infrastructure



**our core competencies:** TWM, Inc. is a 100% employee-owned firm that specializes in civil and structural engineering and geospatial services. Over the last 79 years, we have successfully completed projects for government agencies throughout Missouri, Illinois, the Midwest and beyond, including:

DOTs | Municipalities | Counties | Federal | Military | Transit Districts  
St. Louis Metropolitan Sewer District | Parks & Recreation Departments

As a full-service engineering consultant, TWM prides itself on being able to provide a broad range of design projects and related services. TWM has diversified into five primary disciplines:

- Structural
- Survey/Geospatial
- Transportation
- Land Development
- Water Infrastructure

We have a long history of serving both private and public sector clients. Those clients and the communities we have served can attest to our focus on the details, our commitment to project schedules, and our passion in solving problems. We care about being a trusted partner on your projects and getting the job done right.

**EXCEPTIONAL SERVICE. NOTHING LESS**

**TWM-INC.COM**



## range of capabilities

At TWM, we have the resources of a larger firm and the personalized customer service of a small, family-oriented firm working for local communities. With 9 office locations in 3 states, our firm is an ideal size—large enough to take on major projects but small enough to respond to your needs quickly.

We're capable of providing a **broad range of design projects** and related services for nearly any type of project, including:

- Bridges, retaining walls, large structures, and buildings
- Land surveying, GIS, mapping, reality capture data collection, and engineered layout
- Roadways, highways, and streetscapes
- Trails, sidewalks, multi-modal and pedestrian facilities
- Traffic engineering analysis, traffic studies, and signal design
- Construction inspection services
- Recreational, commercial, industrial, institutional, and residential sites
- Municipal engineering/consulting
- Water distribution, water systems, and treatment
- Wastewater collection and treatment systems
- Stormwater management
- Video inspection of pipes and culverts and air testing

## by the numbers

160+ total employees, including:

- 40 licensed PEs
- 7 licensed SEs
- 2 PTOEs
- 15 engineers in training
- 5 construction inspectors
- 16 licensed land surveyors
- 7 surveyors in training
- 37 simultaneous survey crews
- 8 FAA Part 107 Certified Remote Pilots
- 7 terrestrial LiDAR scanners
- 5 UAVs (drones)
- 1 mobile LiDAR unit
- 1 NavVis wearable mobile mapping unit



## EXCEPTIONAL SERVICE. NOTHING LESS.

That's our mission statement and our promise to you. Our success is built upon a solid reputation for getting the job done right. We are particularly proud that we retain approximately 95% of our customers' business. Our resolution of challenges is what sets us apart, and based on our level of repeat business, we think our clients agree.

### company data

- Self-Certified Small Business
- 100% ESOP-owned
- 11 states in which TWM & TWM engineers hold licenses: MO, IL, TN, KY, AR, IN, GA, FL, TX, MN, MT
- 11 states in which TWM and TWM licensed land surveyors hold licenses: MO, IL, TN, KY, AR, IN, GA, FL, WI, OR, CA

### corporate headquarters

4940 Old Collinsville Road  
Swansea, IL 62226  
618.624.4488

### office locations

#### MO:

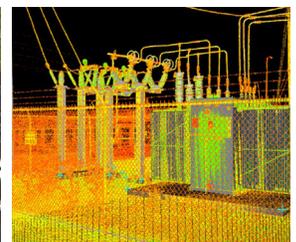
St. Louis  
Columbia

#### IL:

Swansea (HQ)  
Peoria  
Decatur  
Glen Carbon  
Columbia

#### TN:

Franklin  
Chattanooga



**roadway design**

Our transportation group focuses on the movement of people and goods—providing safe, convenient, and economical solutions. Our designs bring innovative solutions to reduce congestion and minimize future maintenance costs. We have the staff, tools, and resources to solve a myriad of transportation engineering problems you face. Our roadway expertise includes:

- New alignments
- Reconstruction and widening projects on interstates
- Rural and urban highways
- Local streets and bridges
- Bike trails and sidewalks
- Multi-modal enhancements

Cognizant that our clients always have budgets to meet, we strive for solutions that not only work, but also work smart.

**J6S1718/B/C Route 100 (Manchester Road) Rehabilitation**

TWM completed a detailed conceptual design in under three months, and then designed preliminary plans, right-of-way plans, and final plans, specifications, and estimate. Key elements included access management improvements, new pavement and resurfacing, ADA-compliant pedestrian facilities, and drainage/traffic signal upgrades.



4.9 MoDOT Performance Rating

**J6P3242/B Route 21 Roadway Modifications & Intersection Improvements**

In an effort to increase overall safety by reducing left turn lane conflicts, TWM designed southbound left-turn lanes at three intersections. Scope included roadway widening for new left turn lane, full depth shoulders, traffic control, right-of-way plans, guardrail analysis, AutoTURN analysis, entrance design, public involvement, hydraulic analysis, and drainage structures.



**J6S3375 Route 30 Slide Repair**

Scope included repair of a failing fill slope along the eastbound lanes, west of Ottomeyer Road. Services were needed after two slide locations began to move. TWM’s team performed a geotechnical assessment and produced a design to excavate the failed material and construct a rock wedge slope repair and under drain installation to mitigate the slope failure. Guardrail calculations were completed for replacement of the guardrail at the top of the slope.



**trails & sidewalks**

TWM’s engineers have unique expertise in bike trails, shared-use paths, and shared-use structures as well as ADA-compliant sidewalks and curb ramps. Our firm is considered one of the top pedestrian and bikeway trail planning and design firms serving southern Illinois and Missouri. Whether it’s for work or play, our trails are designed with aesthetics, functionality, and cost-effectiveness in mind.

**Grant’s Trail Pedestrian Bridge Replacement**

TWM repaired and replaced three box culvert structures and two pedestrian bridges that were failing. Five locations were analyzed for repairs, and plans, specifications, and estimates were developed. Designs included replacement at one location with dual 24” culverts, three locations with large box culverts and one location of a new pedestrian bridge and trail realignment. Slope stabilization was implemented to reduce erosion of the creek sides.



**Pardee Road & Elmont Lane New Sidewalks**

This project consisted of adding sidewalks to city streets to connect neighborhoods with nearby elementary schools. Our sidewalk design looked at ways to minimize disturbance to adjacent landowners, such as reducing widths of the pedestrian path across a driveway or eliminating the tree lawn for short stretches. Public engagement was conducted early in plan development to guide layout and locations.





## structures

We focus on delivering bridge designs that are cost-effective, safe, easily constructible, and durable. Our typical projects include:

- Repair and rehabilitation
- Box culverts and wingwalls
- Deck and superstructure replacements
- Deck overlays
- Load ratings and bridge condition reports (BCR)
- “Signature” pedestrian bridges
- Rails-to-trails conversion of old bridges
- Foundations for pre-fabricated trusses
- Pedestrian accommodations on roadway bridges
- Inspections

### J553242 Route A over Third Creek (Gasconade County) & Route D over Mistaken Creek (Osage County)

TWM provided preliminary and final bridge design, hydraulics, and plan preparation for conceptual, right-of-way and final PS&E of these bridge replacement projects. Route A was a multiple-span prestressed concrete I-girder bridge that was lengthened 20’ to widen the creek channel and address erosion issues. Route D used prestressed concrete spread box beams, reducing structure depth for improved hydraulics.



### J6P3288 Route 21 Pavement Improvements, ADA, & Bridge Rehabilitation

TWM is developing final bridge rehab plans for 11 bridges along Route 21. TWM performed a site visit with MoDOT to confirm the project scope, which consists of a bridge re-deck, bridge deck overlays, joint replacements, and various other structural repairs.

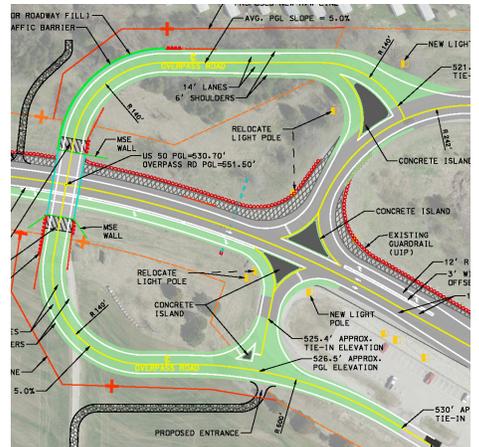


## traffic engineering

With two PTOs on staff, our traffic engineering team brings decades of experience to help communities enhance mobility, improve safety, and support sustainable growth. We combine advanced data analysis, practical design standards, and local expertise to deliver comprehensive traffic solutions—from signal timing and roadway geometry to pedestrian safety and corridor planning.

### J6P2350 Safety Improvements Study at U.S. Route 50/Route AT

As one of the short-listed teams invited to provide safety improvements for the MoDOT “Road to Saving Lives” Design-Build project, TWM conducted a traffic study and reviewed the viability of five intersection configurations. TWM authored a conceptual study report to record the findings and recommend a preferred option. Our team analyzed the geometry of each concept based on traffic modeling, explored the cost and methodology of building each option, and reviewed utility and environmental impacts.



## construction inspection

Our services put experts on-site and include engineered layout, construction observation, utility coordination, documentation of materials and quantities, daily record keeping of construction activity, documentation of contractor compliance with plans and specifications, and the processing of pay requests and change orders.

### MetroBikeLink Trail System Extension

TWM has provided on-going design and construction phase services to the St. Clair County Transit District (SCCTD). Under a Master Agreement, TWM has designed 16 miles of the MetroBikeLink Trail from Fairview Heights Station to Scott AFB Station. Services include construction observation of contractor’s work, daily log of progress, coordination with METRO for JHA’s and track allocation meetings, real-time checks on asphalt paving for thickness and proper placement, and staking verification.

