



**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:

Farnsworth Group, Inc.

Firm Contact Name:

Will Mardaus, SE, PE

Contact Email
Address:

wmardaus@F-W.com

Firm's Mailing Address:

20 Allen Ave, Suite 200, Webster Groves, MO 63119

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**

Letter of Interest - MoDOT LPA On-Call Structure Design Services 2026-2029

1 / General Experience of the Firm

Farnsworth Group, Inc. traces its origins back to the 1890's, when its predecessor firms provided land surveying and drainage services in Central Illinois. Today, with offices nationwide, including two offices in Missouri (Webster Groves and St. Charles), we are a multi-discipline leader in all facets of engineering, survey, and technical consulting. As an Architectural Record Top 300 Design Firm and an Engineering News Record Top 500 Design Firm, we can offer over 600 engineers, architects, surveyors, technicians, and support personnel providing our clients with full service design capabilities. *Farnsworth Group is listed on MoDOT's Approved Consultant Prequalification List.*

Our Metro St. Louis offices, with a combined staff of 110, have served both public and private sector clients for over 60 years by providing a full range of transportation, land surveying, architectural, civil, mechanical, electrical, plumbing, structural, and oil & gas services. Will Mardauss, SE, PE, will serve as the Project Manager for MoDOT LPA structure design projects. Will is our Chief Structural Engineer with more than 15+ years of experience in transportation structures, building structures, industrial structures, environmental structures, parking structures, wind resource structures, forensic structural engineering, and structural inspection

Farnsworth Group has been providing structure design services for more than 50 years. Our Structural Bridge Group has served hundreds of state, federal, and municipal clients throughout the Midwest who have come to recognize us as their most trusted advisor. Our team works as an extension of your staff, working side-by-side developing solutions that best meets your needs.

Farnsworth Group project managers provide excellent project execution due to our client focused approach. Our staff can mobilize on short notice with the required expertise to address MoDOT LPA's needs for on-call structure design services. Farnsworth Group has 16 structural engineers and designers, backed by a full-service team of transportation, civil, surveyors, and technicians. In addition, we have working relationships with a number of MoDOT DBE certified subconsultants such as EFK Moen, Access Engineering, and Kaskaskia Engineering Group that add value and complement our team.

BRIDGE DESIGN SERVICES:

- Bridge Bridge Design:
 - Replacement
 - Reconstruction
 - Rehabilitation
 - Deck Rehabilitation/Repair
 - Rails/Transitions
- Railroad Bridge Design
- Box Culvert Design
- Retaining Wall Design
- Foundation Design
- Complex Analysis Methods - Finite Element Modeling/Analysis
- Load Rating Analysis
- Bridge Condition Reports
- Type, Size, and Location Studies
- Hydraulic Analysis
- Scour Evaluation/Remediation
- Construction Cost Estimating
- Value Engineering
- Retaining Walls

ON-CALL EXPERIENCE

Farnsworth Group has a proven track record of providing timely and responsive on-call engineering services.

A sample of our on-call, indefinite delivery (IDIQ) and master service agreement (MSA) clients we are currently working with include:

- Missouri Division of Facilities Management Design and Construction - PACE Program (15 projects)
- Metropolitan St. Louis Sewer District Engineering & Surveying On-Call (8 projects)
- Illinois Dept. of Transportation (IDOT) Transportation Engineering On-Call District 3, 4, 6, 8, 9 (230 projects)
- University of Illinois Urbana-Champaign Civil, Structural, Architecture On-Call Contracts (43 projects)
- U.S. Air Force Academy A/E On-Call (Subconsultant to HB&A) (9 projects)

2 / Past Performance

Echo Bluff State Park, Wheeler Bridge over Sinking Creek, Shannon County, Missouri

Located on 458 acres in the heart of the unique natural beauty of the Missouri Ozark Mountains, the new Echo Bluff State Park is the complete, quintessential Ozarks destination. Farnsworth Group was selected as the prime A/E firm to carefully transform this beautiful, heavily-wooded, yet rugged land into the State's signature state park.

The bridge design team completed hydraulic modeling and structural design of the bridge in four months. The superstructure consists of a four-span bridge with four composite plate girders supporting an 8 ½" concrete deck. The deck carries two, 12'-0" vehicular lanes and a 7'-0" multi-use lane. The specialty barriers on the deck are TL-3 crashworthy with a decorative 7" thick stone veneer, stone caps, and timber railings. The majority of the substructure is clad with a decorative 7" thick stone veneer. The bridge length is 456'-0" back-to-back of end bents and the bridge width is 35'-10". Farnsworth Group provided complete engineering services including surveys; floodplain modeling; and preparation of contracts plans, specifications, and estimates.

Various/Various Phase I/II, IDOT, Location Varies

Farnsworth Group currently holds (and has previously held) several district-wide contracts to perform various preliminary and final design engineering services at various locations. The projects include roadway patching and resurfacing, bridge repair, bridge rehabilitation, bridge replacement, roadway widening and resurfacing, roadway reconstruction, and design of new roadway alignments. Preliminary engineering services for these Various/Various projects have included preparing Bridge Condition and Hydraulic Reports; conducting route surveys; Project Reports; traffic management analyses; drainage studies; Type, Size, and Location (TS&L) drawings; bridge plans; value engineering; and 3D modeling. Final design engineering services have included completing drainage design, preparing bridge & roadway plans, preparing traffic control plans, special provisions, cost estimates, and any other work necessary to complete final contract plans and documents. The Districts consistently rate our performance as "Good" and "Excellent," with cooperation, coordination, and initiative rated highly.

Illinois Route 3 Over TRRA Railroad, St. Clair County, Illinois

This project involved a new/relocated IL Route 3 in connection with the new Stan Musial Veterans Memorial Bridge. These dual bridges run over two (2) future spur tracks for the Terminal Railroad Association (TRRA) Railroad. Engineering services included surveying; type, size, and location drawings; and preparation of contract plans, specifications, and estimates.

Murdoch Ave. Bridge & Roadway Reconstruction, Webster Groves, Missouri

As a vital interstate connector between the City of Webster Groves and Interstate Highway 44, the Murdoch Ave. Bridge was in need of reconstruction over the BNSF Railway. The project location for the bridge was tightly confined to the south by the I-44 westbound on-ramp and to the north by Frisco Avenue and a large building. Compounding these horizontal constraints was the requirement by BNSF and MoDOT to increase the clearance to at least 22'-0" from the existing 20'-10". Together these constraints challenged the design team to find a unique solution that was not only cost-effective, but also minimized shutdown time. Through a series of meetings with the City of Webster Groves, MoDOT, and BNSF, the design team gained consensus for the use of precast concrete, flat-top, 3-sided bridge section. These precast sections allowed for the thinnest bridge deck to maximize vertical clearance. Considerable time was spent developing the appropriate crest and sag vertical curves road profile over the bridge while at the same time minimizing the impact to surrounding roads.



3 / Qualifications of Personnel

Will Mardaus, SE, PE - CHIEF STRUCTURAL ENGINEER

Mr. Mardaus has 15+ years of experience in structural engineering for transportation and infrastructure projects. His expertise includes bridge design, deep foundations, and 3D modeling. He has worked on complex structures for major agencies and has experience in inspection, load rating, and rehabilitation.

- Various/Various Phase I/II, IDOT, Location Varies
- Illinois Tollway Load Rating for Post-Tensioned Segmental Bridge Ramps I-355 over I-88

David Pellizzari, SE, PE - SR. STRUCTURAL ENGINEERING MANAGER

Mr. Pellizzari has over 30 years of successful experience in transportation infrastructure programs and contracts, including significant interstate highway engineering projects and major complex facilities. He has been responsible for overall management, product delivery, scheduling, and implementation of total quality management procedures.

- Various/Various Phase I/II, IDOT, Location Varies

Vincent Tabor, SE, PE - STRUCTURAL ENGINEERING MANAGER

Mr. Tabor is a Structural Engineering Manager within the transportation group. Vincent has over 24 years of structural design experience with previous employers and is new to Farnsworth Group. His technical experience includes design of box culverts, bridges, noise abatement walls, retaining walls, and overhead sign structures.

- Various/Various Phase I/II, IDOT, Location Varies
- The Park at New Melle Lakes, St. Charles, MO

Dustin Sweet, PE, SE, LEED AP - STRUCTURAL ENGINEERING MANAGER

Mr. Sweet has 19 years of experience in structural engineering design, including architectural, industrial, environmental, transportation, and energy projects. Engineering duties include structural design and contract document preparation for buildings, earth retention systems, industrial equipment supports, bridges, and other structural applications.

4 / Familiarity and Capability

Farnsworth Group understands that the project funding type can greatly impact a project's planning, design scope, and construction implementation schedule. Our team's extensive experience with all funding types, including Federal, State, MFT, BUILD, TIGER, EDA, DCEO, TARP, HSIP, and general funding, allows us to quickly recognize the advantages and disadvantages for each funding type in the planning process and identify critical path items to produce high quality plan documents as efficiently as possible. Below we have listed a selection of projects that involved federal funding. We have a proven track record of completing projects within or under budget.

PROJECT NAME / LOCATION	PROJECT TYPE	FUNDING SOURCE
County Road 19 B / Shannon County, MO	Relocation	Federal/State
County Road 19 - 250 / Shannon County, MO	Reconstruction	Federal/State
Murdoch Avenue Bridge & Road / Webster Groves, MO	Reconstruction/Signals	Federal/Local
South Main Street / St. Charles, MO	Reconstruction (Historic)	Federal/Local
Hanley Road / St. Charles, MO	Widening/Reconstruction	Federal/Local
South Elm Avenue at I-44 / St. Charles, MO	Rehabilitation/Enhancement	Federal/Local

5 / Accessibility

Farnsworth Group has built many long-standing relationships with our clients by providing quality design with a strong emphasis of getting things completed on-time and on-budget. We believe the best demonstration of our past performance is through the testimonies of our clients. Below is a quote regarding our bridge design team on a recent project.

"The park has proven to be a premier destination... This success was not possible without strong collaborative teamwork between our team and the dedicated Farnsworth Group team. Together, they accepted this extraordinary challenge and made a personal commitment to its success, overcoming every hurdle along the way." - Michael Qutami, PE, Section Leader / Project Management - Facilities Management, State of Missouri

6 / Diversity

Farnsworth Group believes in the importance and value of a diverse workforce, for the benefit of both the projects we undertake and the communities where those projects are located. Through the leadership of our President and CEO, Mrs. Karen Jensen, PE, over 30% of our current total workforce is either minority or female. Farnsworth Group shares the commitment of MoDOT in supporting diversity in our workforce and teaming with M/W/DBE partners on our projects.

FIRM OVERVIEW

Farnsworth Group, Inc. traces its origins back to the 1890's, when its predecessor firms provided land surveying and drainage services in Central Illinois. Today, with offices nationwide and including two offices in Missouri (Webster Groves and St. Charles) we are a multi-discipline leader in all facets of engineering, survey, and technical consulting. As an Architectural Record Top 300 Design Firm and an Engineering News Record Top 500 Design Firm, we can offer over 600 engineers, architects, surveyors, technicians, and support personnel providing our clients with full service design capabilities. Registrations are held throughout the continental United States.

ST. LOUIS AREA TEAM

Farnsworth Group works with communities throughout the St. Louis Metropolitan area, county engineers, and Missouri/Illinois Departments of Transportation on a multitude of transportation and building projects. Our expertise includes conceptual planning, feasibility studies, preliminary designs, ROW plans, final PS&E designs and construction inspection. We also offer Professional Traffic Operations Engineer (PTOE) services such as traffic studies, traffic signals, intersection analysis and geometrics, ADA accessible route planning, crossing signals, and traffic control plans.

PROFESSIONAL SERVICE CAPABILITIES INCLUDE, BUT ARE NOT LIMITED TO:

- Civil/Structural
- Bridge Design
- Transportation Engineering
- Utility Coordination
- Land Development
- Land Surveying
- GIS/Mapping
- Stormwater Management
- Hydrology/Hydraulics
- Architecture
- Landscape Architecture
- Municipal Engineering
- Interior Design
- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Commissioning
- LEED Consulting
- Energy and Utilities Engineering
- Water System Engineering
- Wastewater System Engineering
- Railroad Services
- Historic Preservation
- Referendum Services
- Grant Assistance
- Administrative Services



Ranked #216 in the Top 500
Design Firms by
Engineering News Record

600+
Staff Nationwide
110
Metro St. Louis Staff

CONTACT

Ryan Uebinger, PE
Principal
314.962.7900
ruebinger@f-w.com

www.f-w.com



Echo Bluff State Park - Full Service A/E / Shannon County, MO

MODOT LPA CATEGORIES: ROADWAY DESIGN, TRAILS & SIDEWALKS, STRUCTURES, ENVIRONMENTAL

Farnsworth Group was selected as the prime A/E firm to transform the former site of a hippie music fest into one of the nation’s newest state parks. Located in Southern Missouri in the heart of the Missouri Ozarks, Echo Bluff State Park opened to the public after a very aggressive design and construction schedule. The park centers around the beautiful Echo Bluff and the meandering Sinking Creek, located at the bluff bottom. The site includes a contemporary rustic lodge, cabins, amphitheater, bluff-top event pavilion, 60 full-service RV camp sites, maintenance building, restrooms, and walk-in primitive camp sites. The design features a signature 456-foot-long vehicular and pedestrian bridge, 13,350 linear feet of the new paved roadway, multi-purpose paved walkways, hiking/biking trails, zero-discharge wastewater facilities and landscaping. Farnsworth Group worked closely with Missouri State Parks and the Governor’s Office on this signature project.



Edgar Road Left Turn Lane / Webster Groves, MO

MODOT LPA CATEGORIES: ROADWAY DESIGN, TRAFFIC ENGINEERING & TEAP

Farnsworth Group was selected to design the new Edgar Road left turn lane on Webster University’s campus. The purpose of the project was twofold. First, to accommodate the increasing number of left turners utilizing the new parking garage on Garden Ave. Second, to decrease congestion and improve both vehicular and pedestrian safety.



Orange Prairie Road / Peoria, IL

MODOT CATEGORIES: CONSTRUCTION INSPECTION, STRUCTURES, ROADWAY DESIGN, TRAFFIC ENGINEERING AND TEAP

Phase I planning, Phase II design, and Phase III construction services for the 2.5 mile extension of Orange Prairie Road between US 150 (War Memorial Drive) and the intersection of IL 91 and Grange Hall Road (CH D-32), including the completion of an Environmental Assessment Report. This project was completed on an extreme fast track schedule.

Murdoch Avenue Bridge Reconstruction / Webster Groves, MO

MODOT CATEGORIES: STRUCTURES, ROADWAY DESIGN

Constructed in 1930, the existing concrete bridge over the BNSF Railway tracks had deteriorated to become structurally insufficient as well as deficient in vertical clearance over the tracks. As a vital connector between the City and Interstate Highway 44, the City took action to secure federal matching funds through the BRM program administered by MoDOT. Farnsworth Group was chosen through a QBS process to provide engineering services for the new replacement bridge.



Egyptian Trail Reconstruction & Utilities Coordination / Monee, IL

MODOT CATEGORIES: CONSTRUCTION INSPECTION, ROADWAY DESIGN, TRAFFIC ENGINEERING & TEAP

Farnsworth Group provided detailed design and construction inspection for the Egyptian Trail reconstruction in Monee, IL. The project consisted of a complete reconstruction of an approximate 0.7-mile-long stretch of Egyptian Trail, including ROW acquisition, pavement and storm sewer removal, new storm sewer, curb and gutter, sidewalk, full depth HMA pavement, construction of a new roundabout, street lighting, and pavement markings. The project was federally funded with the Village sharing in the cost. (80% federal funds / 20% local). In addition to design services, Farnsworth Group provided utility coordination services including identification of potential conflicts, review of relocation plans, and permitting recommendations to the Village.

The utilities involved included natural gas, power, water, and three (3) telecommunications providers. During the construction observation phase of the project, Farnsworth Group coordinated the relocation of utilities in conflict. This included on-site inspections and coordination meetings with the Village and required utility representatives.



Historic Murray Baker Bridge Lighting / Peoria, IL

MODOT LPA CATEGORIES: HISTORIC PRESERVATION

When the Illinois Department of Transportation announced plans to replace the deck of the Murray Baker Bridge, the City of Peoria saw an opportunity to light the exterior structure and span of this iconic bridge that crosses the Illinois River. Farnsworth Group conducted public presentations and public meetings to gain stakeholder and community input on various decorative lighting options and opportunities. Following concept development, Farnsworth Group's electrical engineers designed plans including luminare and mounting details, wiring diagrams and controller cabinets for the exterior lighting system. The bridge structure is now illuminated in bright white while the deck lighting can display a variety of color options. The Murray Baker can now be seen through numerous points of Peoria and East Peoria, contributes to civic pride, and shines brightly as one of the iconic structures in Central Illinois.



2021 Missouri Historic Preservation Award Winner

Thunderbird Lodge Historic Preservation / DeSoto, MO

MODOT CATEGORIES: HISTORIC PRESERVATION

Farnsworth Group led the renovation of the historic Thunderbird Lodge at Washington State Park. This structure was constructed 1930s and is on the National Register of Historic Places. The preservation of the building includes a new wood shake roof, historic replica windows, historic replica doors, new flooring, wall coverings, and ADA upgrades. Additionally, site grading and drainage were taken into consideration to help limit future flooding of the facility.



Camelback Historic Bridge / Normal, IL

MODOT CATEGORIES: HISTORIC PRESERVATION, STRUCTURES

Camelback Bridge is a historic wooden bridge that arches over the Constitution Trail in Normal, IL. Farnsworth Group has been providing historic preservation services for this bridge since 2000. We have designed conceptual plans for landscaping improvements, seating in a new shelter, bike storage facilities, and restoration of damaged areas. Most recently, we are providing bridge inspection engineering services, plans, specifications, and estimates for structural repairs of the bridge using local funds.