STRUCTURES, INC.

A STRUCTURAL ENGINEERING FIRM

11414 Gravois Road, Suite 201
St. Louis, Missouri 63126
314-638-6650
www.stlsi.com

"Supporting the Past - Structuring the Future"

Firm Facts:

- **STRUCTURES, INC.** was founded in 2001.
- Firm's Principals:
  - John J. Gruendler, PE, SE
  - Roy E. Jennings, PE, SE
- Our staff has designed, inspected, and rated well over 1,000 bridges and crossroad culverts.
- The firm is licensed in 10 states throughout the Midwest, including Missouri.

Located in south St. Louis County, **STRUCTURES, INC.** is a consulting engineering firm providing structural design and engineering services to the transportation, industrial, commercial, and institutional construction markets. As our tagline suggests, we provide engineering services for facility modifications and rehabilitation/strengthening projects for clients planning to preserve their existing infrastructure as well as for those clients building completely new improvements from the ground up. **STRUCTURES, INC.** is prequalified with MoDOT and listed in MoDOT's Approved Consultant Prequalification List.

STRUCTURES, INC. is a leader in delivering innovative solutions when confronted with complex engineering challenges. Our success is centered on two key principles setting us apart from other engineering firms: a customer-based focus on ***responsive engineering*** and production of truly ***constructible designs*****.**

Responsive Engineering

STRUCTURES, INC. understands that maintaining a project schedule and budget is critical to our client's success. Being responsive means addressing a project from our client's perspective. Being responsive means doing what is right for our clients and making certain we are providing technical knowledge, expertise, and consistency at a fair value.

Constructible Designs

With our field experience, **STRUCTURES, INC.** understands the importance of producing designs that are constructible. So often designs are developed and construction documents are produced that "work on paper" but are difficult, if not impossible, to construct. This typically results in unnecessary hardships for the construction contractor and costly overruns for the owner.

We are often called upon to provide the solution that allows "the square peg to fit into the round hole." We have several on-call contracts with both private and public entities. These ongoing contracts are a testament to our outstanding client responsiveness and the exceptional quality of our work.

Transportation Services:

Structures

- Bridge/Culvert/Retaining Wall Design
- Design of Temporary Earth Retention Structures
- Construction Document Preparation
- Structural Inspections
- Structure Retrofit/Rehabilitation
- Condition & Damage Assessments
- Feasibility Studies
- Peer Reviews

Construction Inspection

- LPA Project Inspection & Documentation
- Shop Drawing Review
- Support of LPA Staff
- Value Engineering (VE) Reviews

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STRUCTURES, INC. was responsible for the design and preparation of construction documents for the following projects:

Project Name	Client	(Spans) Length
Allen Road Bridge*	Jefferson Co., MO	(1) 95 ft
Sycamore Lane Bridge*	Jefferson Co., MO	(1) 65 ft
New Ballwin Rd Bridge*	St. Louis Co., MO	(1) 60 ft
Hudson Drive Bridge*	St. Louis Co., MO	(1) 86 ft
Vorhof Drive Bridge*	St. Louis Co., MO	(1) 86 ft
McDonnell Blvd Bridge*	St. Louis Co., MO	(2) 132 ft
Lambert International Blvd Bridge	City of St. Louis, MO	(3) 126 ft
Tesshire Drive Bridge*	St. Louis Co., MO	(2) 130 ft
Doc Sargent Rd Bridge*	Jefferson Co., MO	(1) 70 ft
Highland Baptist Church Rd Bridge	Jefferson Co., MO	(1) 27 ft
Three Culverts Project	St. Louis Co., MO	(2) 20 ft; (2) 16 ft & (1) 12 ft
Old Halls Ferry Rd Bridge*	St. Louis Co., MO	(1) 50 ft
13th Street Bridge Widening	Jeff. Co./Developer	(3) 180 ft
Old Lemay Ferry Rd Bridge	Jefferson Co., MO	(1) 39 ft
Butcher Branch Rd Bridge*	Jefferson Co., MO	(1) 60 ft
Hanna Rd Bridge*	Valley Park, MO	(1) 75 ft
McDonnell Blvd Bridge Enhancements*	Hazelwood, MO	N.A.
Bella Fontaine Bridges	Great Rivers Greenway	(1) 130 ft; (1) 115 ft & (1) 100 ft

*** Indicates Federally Funded LPA Project - Otherwise Project Funded with Local Funds**

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The following projects are examples of our experience with Local Public Agency bridge projects:

Tesshire Drive Bridge over Gravois Creek
Location: St. Louis County, MO


This project replaces a deteriorated three span bridge in St. Louis County with a new two span structure. **STRUCTURES** was the prime consultant and provided the preliminary and final design for the new prestressed concrete NU-girder bridge. This project was **federally funded** and designed in accordance with the **LPA Manual**.

Old Halls Ferry Rd over Halls Ferry Creek
Location: St. Louis County, MO



This project replaces a deteriorated single span, 85-yr old bridge in St. Louis County. **STRUCTURES** was the prime consultant and provided the preliminary and final design for the new 50-ft single span precast, prestressed spread box beam bridge. This project was **federally funded** and included improvements to the existing reinforced concrete U-channel maintained by the St. Louis MSD.

Doc Sargent Rd over LaBarque Creek
Location: Jefferson County, MO



This project replaces a deficient 2-span box beam bridge with a single span NU-girder bridge. **STRUCTURES** was the prime consultant and provided the preliminary and final design for the new structure. The bulk of the stream flow was concentrated in one of the two spans of the existing bridge, resulting in a hydraulically inefficient bridge opening. The design of the new bridge improved the hydraulics with a more efficient single span bridge. This project was **federally funded** and designed in accordance with the requirements of the **LPA** guidelines.

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Construction Inspection

Structures, Inc. provides Construction Services as needed by the client. These services may include full time inspection, inspection during critical construction operations, shop drawing review, project documentation, responding to requests for information from the Contractor, review of Contractor change order requests, and coordination with and support of the LPA staff. Our staff includes a former Resident Engineer for a local transportation agency as well as an engineer who formerly worked for a Construction Contractor. We understand the importance of promptly responding to inquiries during construction to prevent impacting the construction schedule and to avoid any potential delay claims by the Contractor.

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