

STATEMENT OF QUALIFICATIONS

Bridge Design & Inspection **Road** Design & Inspection

INDIANA

ADDRESS

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WHY JSE?

What sets JSE apart is our proven ability to effectively provide cost efficient designs and engineering solutions on a multitude of transportation projects.

In the past 40+ years, JSE has excelled in our ability to provide transportation design solutions for complex road and bridge construction projects. Our experienced professional engineers are known for providing innovative and cost effective designs that benefit our clients and contractors through improved construction time efficiencies and reduced construction material costs. JSE's ability to provide exceptional design solutions is confirmed by our numerous national and local engineering achievement awards. Additionally, our superior design efforts have been recognized in numerous professional publications.



LEO SPAANS, PE CEO - Founder - Chairman

OUR COMPANY

JSE specializes in providing transportation design engineering for complex bridge and road construction projects.

ABOUT US

Janssen & Spaans Engineering, Inc. (JSE) provides engineering excellence for government agencies, contractors and consultants on transportation projects throughout the United States, and abroad. We are prequalified to perform consulting services in 28 U.S. States with registered PE's in 40 states. JSE's experienced transportation staff includes registered professional engineers, registered structural engineers, licensed surveyors and certified construction inspectors.

WHO WE ARE

- Transportation Design Consultant Firm
- Founded in 1978, incorporated in 1991
- Innovation, Design Solutions
- DB and P3 Experience
- Lead Designer
- Technical Advisor
- Sub-Consultant to Contractor on Specialty Bridges
- Construction Engineering
- Final Design Services on \$12.0 Billion of Construction
- Proven, Winning Strategy and Results
- In-House Independent QC Group with formal QC/ QA protocol
- Roundtable Constructability Reviews of our designs

Our Mission

To bring our clients, owners and stake holders innovative design solutions that produce projects that are safe, cost effective and superior in design.

JANSSEN & SPAANS

LEADERSHIP TEAM

Lead by an excellent leadership team and a very experienced staff, JSE continues to grow in the transportation and structural engineering industry. Working in an energized environment we continue to look for value engineering and cost effective ideas that will benefit our clients.



CHAIRMAN, LEO SPAANS, PE, SE

42 years with numerous types of complex and non-complex bridge structures.

PRESIDENT, ABE SWIDAN, PE

34 years with numerous types of complex and non-complex road transportation projects.

VICE PRESIDENT, MARVIN BURNS, PE

41 years experience with construction engineering, bridge design and extensive on-site experience.

VICE PRESIDENT, BOB GRAY, PE

36 years professional experience in the planning, design and management of major transportation projects.

VICE PRESIDENT, BRIAN SLAGLE, PE, SE

23 years experience designing complex bridges including a number of design build and value engineering projects.

OUR SERVICES

JSE offers a comprehensive range of professional consulting services with our main focus on transportation projects. We have registered Professional Engineers experienced in all aspects of roadway design, bridge design, specialty structural services, construction engineering, inspection services, and survey and right of way services. Some of our main services types include:

- Design-Build (DB)
- Public-Private Partnership (P3)
- Construction Engineering (CE) Value Engineering (VE)
- Bridge Inspections (BI)
- Construction Inspections (CI)

- Independent Design Check & Peer Review

60% SUCCESSFUL ON DESIGN-**BUILD PROJECTS WHEN** SHORT LISTED

JSE has the unique ability to provide both experienced design engineers and construction engineers to deliver services for DB and P3 projects. JSE has led the design efforts and provided construction engineering services for over 30 DB and P3 projects and pursuits with a construction cost of over \$10 billion.

JSE SERVICE LIST

The strong interface between contractors, our road designers, bridge designers and construction engineers has made JSE standout from our competition. Below are some of the transportation and structural engineering we provide to our clients.

Transportation Engineering

- ✓ Road Design

Structural Engineering

- ✓ Construction Engineering (Falsework and Shoring, Bridge Demolition
- ✓ Construction Sequencing & Erection, Cofferdams
- ✓ Construction Inspection (Road and Bridge)

OFFICE LOCATIONS

JSE's headquarters is located in historic Fort Harrison on the North East side of Indianapolis, Indiana.

HEADQUARTERS

• Indianapolis, Indiana

US BRANCH OFFICES

- Columbus, Indiana
- Chicago, Illinois
- Cape Coral, Florida
- Miami, Florida

OUTSIDE THE US

• Montréal, Québec



BRIDGE DESIGN & INSPECTION

COUNTYWIDE BRIDGE INSPECTIONS



Benton County * Carroll County * Crawford County Delaware County Hendricks County Huntington County Jackson County Johnson County LaGrange County Lawrence County Madison County Marion County Martin County Noble County

119
116
80
195
249
110
186
161
58
127
220
537
45
60

110
76
175
39
158
97

2,918 Total Countywide Bridge Inspections

*Ongoing Inspections

INDIANA TOLL ROAD (73 mi.) This

project required 68 bridges to be inspected in order to generate a durability report, serving as the scope document for which final plans were developed. All structures were required to meet minimum perform<u>ance</u> criteria defined by the owner. Postconstruction, JSE performed the biannual inspection and load rating of all 68 bridges included in this project.



GREENBELT GOLF COURSE BRIDGE OVER HAW CREEK

Location:

Columbus, Indiana

Owner: City of Columbus

Client:

Columbus Parks & Recreation Department & FEMA Construction Cost: \$162,000

Work Type: Bridge Design & Inspection

Completion Date: 2011



Project Description

JSE provided design and construction inspection for the bridge replacement over Haw Creek. The previous bridge was destroyed in the 2008 Flood. JSE worked with the City of Columbus, Columbus Parks & Recreation Department and FEMA to replace the golf cart bridge over Haw Creek.

CRAWFORD COUNTY BRIDGE 45 HISTORIC BRIDGE REHABILITATION

Location: Alton, Indiana

Owner: Crawford County Client: INDOT

Construction Cost: \$766,000 Work Type: Bridge Construction Inspection Completion Date: 2009



Project Description

JSE provided design and construction inspection services for the rehabilitation of Bridge 45 in Alton, IN. The project was funded through the Transportation Enhancement program. The project involved restoration of a historic 5-span, single lane truss bridge. The project included reconstruction of the approach roadways. JSE provided inspection for the cleaning and painting, structural repairs, layout, approach reconstruction, installation of new railing and new timber bridge deck.

MEDORA COVERED BRIDGE OVER EAST FORK OF WHITE RIVER REHABILITATION

Location: Medora, Indiana

Owner: INDOT **Client:** Jackson County

Construction Cost: \$1.3 Million Work Type: Bridge Construction Inspection Completion Date: 2011



Project Description

JSE provided inspection services for the rehabilitation of the Medora Covered Bridge in Jackson County. It is the longest historic covered bridge remaining in the United States, spanning a total of 430 feet and was built in 1875.

It has previously carried US 50 and SR 235 over the East Fork of White River. The project included structural repairs to the burr arches and trusses, new wood siding, new cedar shake shingle roof, repair and replacement of portions of the timber floor, reconstruction of one abutment, and reconstruction of both HMA approaches.

Work on the project was carefully controlled to meet Section 106 historic considerations because of its' historical importance.

JAMES COVERED BRIDGE REHABILITATION

Location:

Owner:

INDOT

Jennings County, Indiana

Jennings County

Client:

Construction Cost: \$411,432

Work Type: Bridge Construction Inspection Completion Date: 2014



Project Description

The James Covered Bridge Rehabilitation Project was inspected by Janssen and Spaans Engineering. The rehabilitation project was not only completed ahead of schedule but was also completed well under budget allowing a percentage of the unused funds to be returned to the Jennings County Highway Department for use on other projects.

The James Covered Bridge Rehabilitation Project consisted of lower chord structural repairs to the historical landmark as well as the replacement of the wearing surfaces of the bridge. The roof, siding, and bridge deck were in desperate need of being replaced and were addressed during the project. The installation of timber guardrail along each end of the bridge brought the safety standards up to date for the structure and were accompanied by updated traffic signs as per the MUTCD manual. Timber curbs were also installed on each side of the bridge deck as a protective safety measure for the traveling public. The James Covered Bridge will not only continue to serve as an important historical Indiana landmark but has also been successfully preserved for the citizens and future generations of Jennings County.

MERIDIAN STREET BRIDGE OVER WHITE RIVER

Location: Indianapolis, Indiana

Owner:

INDOT

Client: City of Indianapolis DPW

\$7 Million

Work Type: Bridge Construction Inspection

Construction Cost:

Completion Date: 2012



Project Description

JSE performed the inspection and rehabilitation plans for the Meridian Street Bridge over White River in Indianapolis. The bridge is a 700'-long under-fill arch. JSE found that the arch and east spandrel wall had heavy deterioration and requires replacement. The inspection included corrosion analysis, calculating corrosion rates, chloride analysis and petrography tests. Rehab plans consisted of replacement of east spandrel wall, portion of the archering, new bridge deck, and hand rails.

In all, JSE proposed many innovative engineering and construction technique solutions. The rehabilitation of the Meridian St. bridge is an excellent example of innovatively applied techniques, materials, and equipment. From the initial design to final construction, this team used out-of-the-box thinking to achieve a cost-effective result.

ARRA BRIDGE INSPECTIONS FEDERAL-AID BRIDGE REHABILITATIONS

Location: Indianapolis, Indiana **Client:** City of Indianapolis DPW

Owner: INDOT **Construction Cost:** \$1.9 Million Work Type: Bridge Construction Inspection

Completion Date: 2010



Project Description

In 2010, JSE was selected by DPW to provide Construction Engineering/Inspection services for six federal aid bridge rehabilitation projects. The six projects were combined into two contracts let by INDOT.

The first bridge rehab inspection contract was 21st St over Big Eagle Creek and Holt Road over Big Eagle Creek.

The second contract included four projects: Country Club Road over Cox Ditch and Bridgeport Road over Shiloh Ditch, Salem Creek, and Little White Lick Creek.



ROAD DESIGN & INSPECTION

25

THOMPSON & FIVE POINTS ROAD ROUNDABOUT DESIGN

Location: Indianapolis, Indiana

Owner: INDOT **Client:** City of Indianapolis DPW

Construction Cost: \$1.1 Million Work Type: Road Design

Completion Date: 2015



Project Description

JSE recently under contract with the City of Indianapolis designed a new roundabout at the intersection of Five Points Road and Thompson Road on the southeast side of Indianapolis. The existing four-way stop controlled intersection is operating at a very poor level of service with motorists experiencing significant delays.

The single lane roundabout will improve safety and relieve congestion. The configuration of the existing intersection and surrounding properties presented many challenges. JSE investigated numerous alternatives to determine the best location for the roundabout that produced the least impacts while remaining cost effective. JSE produced a traffic report defining the levels of service, R/W impacts and construction costs for each alternate.

JSE responsibilities include: survey, road design, traffic analysis, drainage design, environmental services, right-of-way services, and utility coordination.

CR 200N & 900E ROUNDABOUT DESIGN

Location: Avon, Indiana

Owner: INDOT Client: Hendricks County

Construction Cost: \$1.5 Million Work Type: Road Design

Completion Date: 2011



Project Description

JSE was the Design Engineer for the newest Avon Roundabout at CR 900E and CR 200N intersection. The project was initiated by Hendricks County, but was taken over by the Town of Avon when the area was annexed.

The dual lane roundabout has single lane approach roadways with dual and single lane entries. No reported collisions have occurred since the intersection opened on May 27, 2011, and the roundabout has been reported to be "working wonderfully."

11TH ST. / LINDSEY ST. / BROWN ST. ROUNDABOUT DESIGN

Location: Columbus, Indiana

Owner: INDOT **Client:** City of Columbus

Construction Cost: \$1.5 Million Work Type: Road Design

Completion Date: 2008



Project Description

JSE provided the design services for this \$1.5 million modern roundabout project for the City of Columbus. The project was initiated by the City to provide a new intersection between four high volume urban arterial streets, where the traffic pattern was changing due to one of the streets changing over from a 1-way exit leg to a 2-way leg.

The inscribed circle measures 175', and the pavement is 35' wide in the circle. A railroad crossing is located on one of the streets, within 275' of the center, and an automatic signal has been installed on one of the entry legs to prevent clogging of the roundabout during times when the crossing is blocked by train traffic.

A multi-phase traffic maintenance plan was prepared, and the project was constructed during one construction season, with a minimum of disruption to traffic flowing through the area during the construction.

4TH ST. RECONSTRUCTION STREETSCAPE DESIGN

Location: Columbus, Indiana

Owner: INDOT **Client:** City of Columbus

\$2.1 Million

Construction Cost:

Work Type:

Road Design & Construction Inspection Completion Date: 2012



Project Description

JSE lead the civil design efforts for the reconstruction of two blocks of 4th Street, between Jackson Street and Franklin Street in downtown Columbus, Indiana. This \$2.1 million project was constructed in 2012 with JSE providing full time construction inspection.

Working together with REA and City officials, JSE provided the technical expertise to incorporate urban landscape features to transform these two blocks into a pedestrian friendly environment capable of supporting street fair activities.

The design included a reverse crown to provide street drainage in the middle of the street as well as street paving materials to delineate between vehicular and pedestrian areas. In addition, power bollards, decorative street lighting and gates were incorporated into the design to support the street vendors and control vehicular traffic.

CARR HILL ROAD RECONSTRUCTION

Location: Columbus, Indiana

Owner: INDOT **Client:** City of Columbus

Construction Cost: \$1.6 Million Work Type: Road Construction Inspection Completion Date: 2014



Project Description

Janssen and Spaans provided Construction Engineering services for the \$1.6 million reconstruction of Carr Hill Road located in Columbus, IN.

The three reviews were conducted on this contract by INDOT and the FHWA: Erosion & Sediment Control Compliance Assessment Program review, American Disabilities Act Work Zone Safety Compliance Assessment Program review, and Core and Work Zone Safety & Mobility Compliance Assessment Program review. All three reviews that were conducted achieved extremely high marks and verbal praise by the FHWA representatives. The findings during the reviews for this contract were referred to by the FHWA as "textbook execution" of the rules and regulations set forth by the FHWA.

The work was completed ahead of schedule while encountering many unforeseen challenges relating to on site soil conditions, emergency vehicular traffic, as well as unknown utilities that existed within the limits of the work. Despite the extensive challenges encountered throughout the construction of this project, the work was completed in the allotted time set forth by INDOT.

ROCKY FORD ROAD, PH. I & II RECONSTRUCTION

Location: Columbus, Indiana

Owner: INDOT Client: City of Columbus

Construction Cost: \$4.1 Million Work Type: Road Construction Inspection Completion Date: 2018



Project Description

JSE provided inspection services for this Federal Aid LPA road reconstruction and added travel lanes project located on the north side of Columbus. The project consisted of replacing approximate 1.5 miles of existing two-lane asphalt road with a four-lane roadway with turn lanes at major intersections. Intersection improvements included the installation of turn lanes and the removal and replacement of an existing bridge approach.

Additional improvements included construction of an asphalt recreational path, installation of a new storm sewer system and replacement of numerous drive and street approaches. JSE provided daily onsite inspection, project management, contractor oversight, prepared pay estimates, change orders and all associated documentation.

The Columbus City Engineer was very impressed and pleased with the Construction Engineering services that were provided during this project. The Mayor of Columbus, Mr. Fred Armstrong, publically acknowledged the quality of Construction Engineering services that were provided by our firm during his speech at the ribbon cutting ceremony for the Rocky Ford Road project.



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