

## GENERAL EXPERIENCE

Currently, our firm employees more than 700 construction inspectors, geotechnical engineers, material testing and laboratory technicians, surveyors, engineers, engineers-in-training, scientists, and planners. Our ability to utilize resources from other offices around the Midwest results in a cost savings for our clients.

Olsson has a long-term history of successfully inspecting transportation projects in Missouri. These projects have included major roadway, highway, bridge, utility relocations and design projects. Staff members on our Construction Services team are familiar with the funding process, standards, and procedures. We also know MoDOT staff members and know how to work together to best accomplish projects.

Additional qualifications we can offer you include the following:

- **Standards.** Our geotechnical team is very familiar with all aspects of MoDOT's manual and current AASHTO standards. In fact, we use a very similar methodology for site investigations on all of our projects.
- **Drill Rigs.** Our drilling operations include three drill rigs – a CM 45, a CME 55, and a CME 75 (and ready access to a CME 550 ATV rig and two additional truck-mounted rigs through a subcontractor). This allows us to complete borings using straight augers, hollow stem augers, rotary drilling, and rock coring methods. The drill rigs have the ability to perform both undisturbed Shelby tube sampling, split-spoon sampling, and have automatic hammers for split-spoon sampling.
- **Laboratories.** Olsson operates an AASHTO certified-laboratory in Kansas and Nebraska, offering capabilities to perform all the necessary testing for both roadway and bridge geotechnical design across the state, in-house. That results in no additional time or money spent on subconsulting your testing needs.

## PAST PERFORMANCE

### U.S. Highway 169 in Johnson County between I-35 and 175th Street, KDOT On-Call – Olathe, Kansas

This 3-mile-long project involved the removal and replacement of concrete pavement and curb and gutter. Olsson responsibilities include all required on-site concrete testing per KDOT QA/QC guidelines, flexural and compressive test specimens, and testing and construction inspection for concrete pavement, curb, and storm sewer structures. Unique challenges associated with this project

included heavy vehicle traffic and congestion and traffic control in the project area.



**127th Street Bridge over I-35, City of Olathe, Kansas** Olsson Associates provided project management, construction engineering, and construction inspection services for the City of Olathe, Kansas, for this federal aid project. The project scope

involved the construction of twin five-span concrete girder bridges over Interstate 35 and the Burlington Northern Santa Fe (BNSF) railroad tracks (including 1,540 linear feet of 6-foot and 7-foot diameter drilled shafts), 38,000 square feet of MSE retaining walls, 79,000 cubic yards of excavation and grading, 3,500 linear feet of RCP storm sewer and associated storm structures, 8,250 linear feet of water main, over one mile of combined asphalt and concrete pavement, street lighting, and traffic signals. The project was completed in May 2007 at a construction cost of \$21 million. This project was recently awarded the 2006 APWA Project of the Year in the \$10- to \$100-Million category.

### Wyandotte Avenue Bridge, City of DeSoto, Kansas

Olsson provided construction engineering and inspection services for Johnson County, Kansas, for this KDOT administered project. This project involved deck rehabilitation for the Kansas River Crossing located near DeSoto, Kansas. Items of work included deck milling and patching, parapet patching, the addition of a new guardrail, and silica fume deck overlay.

**Nall Avenue – 67th to Martway Mission, Kansas** The Nall Avenue Improvement project consists of reconstructing and reconfiguring 5,000 feet of Nall Avenue between 67th Street and Martway Street in the cities of Mission and Prairie Village, Kansas. The scope of work includes demolishing the existing roadway, completing 26,000 CY of excavation and grading, installing 87 storm sewer structures, installing 5,300 LF of storm sewer pipe, installing 5,300 SY of sidewalk, installing 13,300 LF of curb & gutter, installing 26,000 SY of asphaltic concrete pavement, making sanitary sewer modifications, designing pavement markings, designing traffic signals, designing lighting and sodding. Olsson provided the construction administration, construction inspection, and materials testing for the City of Mission on this project.

### Metcalf/Shawnee Mission Parkway Transit Inspection

**Johnson County, Kansas** Johnson County Transit, in partnership with the Kansas City Area Transportation Authority (KCATA), retained Olsson Associates to complete all design related services for the project, including all transit bus stop locations; transit centers; geometric improvements; BRT improvements, including Transit Signal Priority (TSP); queue jumps; and pedestrian improvements. Olsson

15

construction  
managers

11

geotechnical  
engineers

8

drilling  
technicians

20

technicians

assisted with the bank demolition located at 5251 Johnson Drive. Olsson performed survey work, construction observation, and special inspections and material testing. Olsson's responsibilities included helping the contractor obtain permits, coordinating inspections with private utility companies, and performing post asbestos remediation inspection. Demolition of the structure was overseen by Olsson's Construction Observation team. The Special Inspections and Materials Testing team conducted compaction testing of the backfill and performed erosion control.



**12th Street Viaduct Kansas City, Missouri** The 2000 Biennial Bridge Inspection report determined that the 12th Street Viaduct was structurally deficient. The viaduct, which dates back to 1915, crosses over tracks used by three railroads. The bridge had been rehabilitated in 1965, but was again need attention. Olsson Associates was the lead construction engineer and assistant construction observer for the project. Olsson's services included the following:

- Pre-construction reviews of plans, quantities, and specifications
- Daily construction inspection and documentation
- Daily construction administration and coordination with the City of Kansas City, Missouri, the contractor, and affected business and property owners
- Post-construction activities to ensure the project's completion and acceptance by the city

**Wyandotte Street Bridge Replacement Kansas City, Missouri** Olsson Associates provided construction engineering and inspection services for Johnson County, Kansas, for this project administered through the Kansas Department of Transportation. The project involved deck rehabilitation for a Kansas River crossing near DeSoto, Kansas. Work on the bridge deck included deck milling and patching, parapet patching, adding a new guard rail, and adding a silica fume deck overlay.

**Depot Street Maryville, Missouri** The City of Maryville selected Olsson Associates to prepare concept design through final design plans and construction inspection for improvements along South Depot Street just south of Highway 46 (First Street), which continues south to East South Avenue, approximately 4,000 feet. The design also included roadway storm drainage and two main culvert crossings, one of which was a double 10-foot by nine-foot reinforced concrete box. Olsson provided geotechnical exploration, including soil test boring and soil and groundwaters sampling, and all construction observation services.

**Joplin Mercy Hospital Exterior Roads Joplin, Missouri** Olsson Associates was hired by MoDOT to perform an analysis of traffic operations and design for the influence area of the planned new interchange on Interstate 44 to provide new access to County Road 190 and the Crossroads Industrial Park. Olsson performed all of the traffic modeling, projections, operations analysis, design, and construction inspection and material testing for the new interchange, intersections, and roundabout.

## PERSONNEL

### **Curt Mader, PE - Construction Services Team**

**Leader/Project Manager** Curt has more than 28 years of experience in heavy highway/civil inspection and construction management of departments of transportation, municipal, and private construction projects in the state of Kansas. His duties include overall management of construction projects, financial and personnel management, and business development. His experience includes concrete and asphalt pavements, treated and untreated subgrades, reinforced concrete construction, multi-span bridge construction, traffic signal and fiber optic systems installation, stormwater and sanitary sewer systems, and construction materials testing (aggregate, concrete, asphalt, and soils).

**Gary Bellus - Senior Construction Inspector** Gary has more than 29 years of experience working on major infrastructure and municipal projects in the state of Missouri. His areas of expertise include bridges, asphalt and concrete pavement, materials testing, project supervision, and project management.

**Jay E. Ellis - Senior Construction Inspector** Jay has more than 40 years of experience on major infrastructure projects in the state of Missouri. His areas of expertise include bridge construction observation and project management. Through his previous employment, Jay brings firsthand experience working with MoDOT. His areas of experience include: construction inspection of structures and roadways, materials testing, and project management.

**Bob Caulfield - Senior Construction Inspector** Bob has over 20 years of experience in construction inspection and oversight services. His experience includes inspection of transportation projects involving roadways, water, sanitary sewers, storm sewers, as well as waterline and sewer line testing to ensure City compliance.

**Ray Silva - Construction Inspector** Ray has over 21 years of experience in construction inspection and oversight services. Some of Ray's responsibilities include inspection of transportation projects involving roadways, water, sanitary sewers, storm sewers, as well as waterline and sewer line testing to ensure City compliance. Ray is a MoDOT certified construction inspector.



**Warren Zeller, PE - Construction Inspector**

Warren has more than 26 years of construction design and oversight experience. He comes to Olsson Associates after working for MoDOT in positions including Geotechnical Engineer, District Materials Engineer and District Bridge Engineer. His responsibilities have included oversight of the Geotechnical Testing Lab in Jefferson City Missouri, the Kansas City Districts Materials Department and the Kansas City Districts repair/remediation/replacement Bridge program, this also included general structural inspection of over 1400 structures on a two year cycle.



**Dallas Carlisle - Construction Inspector**

Dallas is a NICET level IV construction engineering technologist and has experience spanning over 40 years. His areas of involvement include roadway grading, storm, sanitary sewer, wastewater treatment plant construction, water main and elevated water storage installations, and heavy highway and bridge construction. He's also been involved in railroad and airport modifications and construction, and multiple story building erection. Dallas' experience as a department manager involved proposal submittals, contract negotiations, verification of construction pay requests, project and manpower scheduling, and associated duties. Previous activities also included managing a construction materials laboratory involving the sampling and testing of construction materials.



**Jessie Howald - Construction Inspector**

Jessie served MoDOT for 36 years. Jessie worked in District 3 for 20 years, providing

design and special inspection services. After that time, Jessie was promoted to Senior Construction Inspector for District 8. His responsibilities included tracking all materials and material inspection reports; tracking contractor payroll information; performing daily inspection and developing inspection reports; and computing final quantities on projects.

**Tim Robins - Construction Inspector** Tim has experience in construction design, inspection, and oversight. His experience includes working as a laborer, welder, equipment operator, surveyor and an assistant superintendent for a construction company in the Springfield area. Tim has worked as a structural engineer designing and inspecting structural steel, masonry, concrete and timber structures. For the last year, Tim has worked for Olsson Associates performing special

inspections and testing a variety of construction materials including soils, reinforced concrete, structural masonry, and asphalt concrete.

**FAMILIARITY/CAPABILITY**

Our firm has provided consulting services to more than 30 projects for the Missouri Department of Transportation, and, we have worked on countless projects that required MoDOT coordination. We also employ two former MoDOT employees, including one who served as a district engineer for more than 20 years. These employees have a unique insight into MoDOT policies and procedures and know the MoDOT staff members so we know who to go to for information.

**ACCESSIBILITY**

Olsson Associates has 24 offices across the Midwest, including offices in Kansas, Missouri, Oklahoma, Iowa, Nebraska, Colorado, and Arizona. These offices include all of our disciplines.

**WORK DIVERSITY**

Olsson Associates' diversity initiatives are applicable – but not limited – to our practices and policies on recruitment and selection; compensation and benefits; professional development and training; promotions; transfers; social and recreational programs; layoffs; terminations; and the ongoing development of a work environment built on the premise of gender and diversity equity that encourages and enforces the following:

- Respectful communication and cooperation between all employees
- Teamwork and employee participation, permitting the representation of all groups and employee perspectives
- Work/life balance through flexible work schedules to accommodate employees' varying needs
- Employer and employee contributions to the communities we serve to promote a greater understanding and respect for diversity
- All employees of Olsson Associates have a responsibility to treat others with dignity and respect at all times. All employees are expected to exhibit conduct that reflects inclusion during work, at work functions on or off the work site, and at all other company-sponsored and participative events.
- Any employee found to have exhibited any inappropriate conduct or behavior against others may be subject to disciplinary action.

# FIRM OVERVIEW

John Olsson started Olsson Associates in 1956 on the ideals of passion, innovation, and creativity. But he realized he couldn't do it alone. Working with others was critical to his success and today, that collaborative spirit is still at the core of Olsson Associates.

We know that how we work together makes the difference in the solutions we deliver. We're more than a company of individuals; we're a team of problem solvers. We see problems as opportunities for creativity. The process of finding the right answer is different for every client and every project. This idea of collaboration affects how we think, act, and work as a team. It means we're able to uncover what works best, balancing each client's unique needs along the way.

Ideal collaboration means communicating what works, what doesn't, and what might. Combining our fresh approach with our technical expertise, we're able to look at projects and our clients' needs from all angles. And, in coming up with collaborative solutions, everyone comes out ahead. We challenge ourselves to continually solve problems in new ways and, in doing so, our clients become a part of a unique process in which they've been able to realize more from their budgets and other resources.

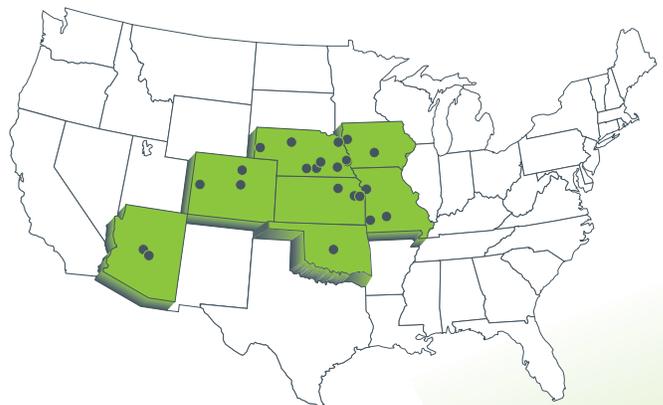
Olsson Associates offers airport consulting, automation and technology, civil engineering, community consulting, construction observation, environmental, GIS, intelligent transportation systems, land development, landscape architecture, mapping, mechanical/electrical/fire protection, power electrical, specialty lighting, structural, surveying, traffic, transportation, urban planning and design, water resources, geotechnical/materials testing, water/wastewater services.

Our firm employs more than 700 staff members, including professional engineers, engineers-in-training, registered landscape architects, registered land surveyors, professional planners and designers, scientists, and support staff made up of highly trained technical personnel with broad experience in all phases of engineering design and construction phase services.

Engineering News Record ranks Olsson Associates as one of the top 500 design firms in the United States. We attribute this to our emphasis on ideal collaboration, and we strive to see that these values become evident when you work with any of our staff. We work hard to provide excellent engineering, surveying, and sciences work to clients of all sizes throughout the United States.



Olsson Associates has 24 offices across the Midwest, including offices in Missouri, Oklahoma, Iowa, Nebraska, Colorado, and Arizona.



# CONSTRUCTION SERVICES |



Our construction services include project administration and observation, project documentation, submittal review, design support, shop drawing review, and materials testing.

Olsson assigns a team of technically qualified personnel who are certified for your specific project's requirements.

### Private

- Industrial Development
- Commercial Development
- Railroads
- Residential Development
- Security Enhancement Improvements

### Public

- Water and Wastewater Treatment Facilities
- Roadways and Bridges
- Power Generation Plants and Distribution Lines
- Sanitary Sewers, Line Installation, and Pumping Stations
- Storm Sewer Line Installations and Facilities
- Water Distribution Main Systems, Wells, and Storage Facilities
- Freeway Management Systems (FMS)
- Intelligent Transportation Systems (ITS)
- Traffic Signals/Highway Lighting Systems

- Parks/Ball Field/Sports Complex Lighting
- Airport Facility Improvements and Developments
- Security Enhancement Improvements

### Certifications

- American Concrete Institute (ACI) Concrete Field Testing
- Troxler Certification
- Kansas Department of Transportation
- Nebraska Department of Roads
- Iowa Department of Transportation
- National Institute of Certified Engineering Technicians (NICET)
- International Municipal Signal Association (IMSA)
- HAZWOPER 40-Hour Certification
- Federal Bridge Inspection Certification
- OSHA 10-Hour Certifications



Whether it's a multistory office building, a new residential development, an industrial facility, a highway, a dam, or a sewer system, our clients need to know everything about the project site, the construction materials, and how both might affect their project and its end users.

We offer a wide variety of investigative services, including deep or shallow foundations, slope stability analysis, lagoon and landfill investigations, elevated and at-grade water tower and tank structures, dam structures, and other earth retention structures. Our experienced staff members can provide complete quality control testing services for earthwork, concrete construction, and footing inspections. We also offer in-house and field laboratory testing, as well as environmental testing.

**investigation and design**

- Shallow and Deep Foundations
- Slope Stability Studies
- Commercial, Industrial, and Residential Developments
- Utility and Treatment Plant Infrastructure
- Industrial Facilities
- Rail and Roadway Embankments, Bridge Foundations, and Pavement Design
- Dams and Embankments
- Elevated and At-Grade Towers and Tanks
- Lagoon Investigations
- Soldier Pile, Tangent Pile, and Secant Pile Wall Design
- Soil Nail and MSE Retaining Wall Design
- Geotechnical Forensic Studies
- Instrumentation Design and Installation

**laboratory testing services**

AMRL and CCRL Accredited, USACE Certified

**Asphalt Laboratory Services**

- Extraction/Gradation
- Theoretical Mass Specific Gravity (MSG) Rice Method
- Marshal

**Concrete Laboratory Services**

- Concrete Cylinder Breaks
- Mortar Cube Breaks
- Grout Prism Breaks
- Masonry Block Breaks
- Masonry Absorption
- Flexure Strength
- Concrete Shrinkage/Swell

**Non-Destructive Testing Services**

- Macroetch
- Magnetic Particle
- Ultrasonic
- Liquid Dye Penetrant

**Soil Laboratory Services**

- Soil Classification
- Standard/Modified Proctor
- Relative Density
- Unconfined Compression
- One-Dimensional Consolidation
- Consolidated-Undrained Triaxial
- Flex-Wall Permeability
- California Bearing Ratio (CBR)
- LA Abrasion
- Grain Size Analysis (Sieve and Hydrometer)
- Atterberg Limits
- Dispersion
- Corrosivity/Organic Content
- Direct Shear

**drilling**

- Continuous Flight Solid and Hollow Stem Auger Drilling
- Environmental Drilling
- Rock Coring
- Continuous Sampling
- Packer Tests
- Monitoring Well and Piezometer Installation
- Rotary Wash



Our Special Inspections/Material Testing team will visit your project to provide field testing services, such as nuclear density tests during subgrade preparations and mass grading; concrete testing for roadway, commercial, and industrial projects; welding and high-strength bolt inspections; inspections of structural steel members; and fireproofing inspections.

**soils/aggregate (AASHTO-accredited)**

- Nuclear Density Testing
- Sand Cone Testing
- Dynamic Cone Penetrometer (DCP) Testing
- Sampling and Laboratory Testing
- Standard/Modified Proctors
- Fly Ash/Lime Proctors
- Grain Size Sieve Analysis
- Relative Density
- Hydrometers
- LA Abrasion
- Sieve Analysis

**concrete testing services**

- Fluid Concrete Testing (ACI)
  - Air, Slump, Temperature, Casting Cylinders
- Unit Weight and Concrete Beams
  - Slump, Temperature, Air Content, Unit Weight, Casting Beams and Cylinders
- Reinforcing Steel Inspections (ICC)
- Post Tension Cable Inspections
- Coring and Sampling
- Swiss Hammer (Rebound Hammer)
- Vapor Emissions Testing
- Relative Humidity Testing
- Reinforcing Steel Locating (Rebar Location)
- Floor Flatness

**asphalt laboratory services**

- Reducing Samples
- Max Specific Gravity
- Quantitative Extraction of Bituminous
- Bulk Specific Gravity
- Density of Bituminous
- Percent Air Voids
- Mechanical Size Analysis

**laboratory certifications**

- AASHTO R18
- U.S. Army Corps of Engineers

**masonry**

- Masonry Construction Inspection (ICC)
- Block Prism Testing
- Masonry Block Strength/Absorption Testing
- Grout and Mortar Sampling and Testing

**structural steel field testing**

- Skidmore Willhelm - Bolt Testing
- Visual Inspections
- Ultrasonic Testing
- Magnetic Particle Testing
- Liquid Dye Penetrant Testing
- Radiographic Testing
- Writing Welding Procedures
- Writing Bolting Procedures
- Certification of Welders
- Developing Quality Control Manuals
- Installing Quality Control Manuals
- Shop Inspections

**certifications**

- American Concrete Institute (ACI) Concrete Field Testing
- Troxler Certification
- Kansas Department of Transportation
- Nebraska Department of Roads
- Iowa Department of Transportation
- National Institute of Certified Engineering Technicians (NICET)
- HAZWAPER 40-hour Certification
- International Code Council (ICC): Soils, Reinforced Concrete, Sprayed-Applied Fire Proofing, and Structural Masonry, Bolts, & Welds
- AST Tank Inspector
- Certified Welding Inspector (CWI)

