# Oates Associates, Inc.



#### Firm Overview

Since we opened our doors nearly forty years ago, we have worked on projects large and small. Because of our dedication to building a capable team of engineers and technicians who are passionate about serving our community, we have built a reputation for doing great work and completing assignments on time and on budget.

From transportation to building infrastructure, Oates Associates has you covered. Our professionals are experts in their field, and are immersed in every project they take on, no matter the size. We build trusted partnerships with our clients that is based on integrity and responsiveness.

### **Contact Information**

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40 years
OPERATING IN THE MIDWEST

45 employees
WHO ARE PART OF THE OATES FAMILY

26 engineers
WHO ARE LICENSED PROFESSIONALS

400+ bridges
DESIGNED BY OATES

1,000s of miles
OF ROADWAY AND SIDEWALK IMPROVEMENTS

100+ miles
OF TRAILS



# **Services**

# **Transportation Engineering**

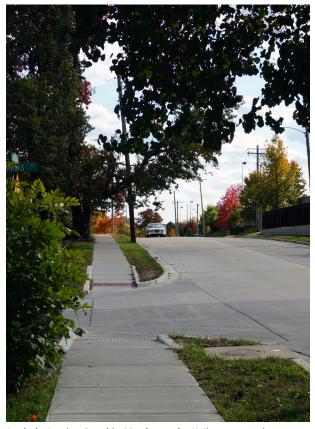
At Oates, our team of transportation engineers works with agencies, municipalities, neighborhoods and developers to creatively craft solutions and genuinely build consensus. We offer creative yet realistic solutions on a variety of scales from local street reconstructions to full development of interstate highway systems. Further, Oates is fluent in the design requirements of federally funded transportation projects, having completed over 40 federally funded roadway projects in the last five years.

- Local Streets
- Interstates and Interchanges
- Corridor / Alignment Studies
- Transportation Planning
- Intersection Design
- ADA Compliance Assessments & Design
- · Storm Water Drainage Analysis & Design
- Hydraulic Studies
- Utility Coordination
- Public Coordination

# Pedestrian Facilities / ADA Compliance

At Oates, we have the depth of pedestrian and bicycle facility experience to create an amenity that enhances the vehicular corridor. Our experience extends from ADA Transition Plans and bicycle master planning to facility design to construction. Many of our roadway projects involve upgrading pedestrian facilities to meet the current ADA requirements. Oates Associates understands that accessible design is a dynamic process that must be followed closely to comply with the most current design and construction guidelines and recommendations.

- ADA Transition Plans
- ADA Compliance Assessments & Design
- Streetscapes
- ADA Construction Inspection
- Pedestrian Signals
- Parking Lots



Laclede Station Road in Maplewood - Civil, survey and construction observation and testing services were provided for this MoDOT LPA assignment involving new concrete pavement, new sidewalks, and 12 ADA compliant curb ramps.

### **Trails**

Our transportation services are all encompassing to create a safe passage for all users - motorists, cyclists, and pedestrians. Our staff has developed considerable experience in the design of bicycle / multi-use trails in a variety of settings, from roadway facilities to state parks to college campuses to cross-county trails on abandoned rail lines or river levees. We have designed over 100 miles of bike trails and greenways, including onstreet and off-street connections.

- Bicycle Master Plans
- ADA Compliance Assessments & Design
- Multi-use Paths
- On-Road Facilities
- Recreational Trails



# **Traffic Engineering**

We help communities develop and implement specific solutions that solve today's traffic challenges. Our staff includes 3 Professional Traffic Operations Engineers with the technical expertise in evaluating current and projected traffic conditions and executing improvements. For traffic studies, we work with the various interest groups to gather data on event-driven peaks and enlist their cooperation in developing operational solutions to meet these challenges. To complete traffic studies, our engineers are proficient in using Highway Capacity software, Synchro, VISUM, and Nu-Metrics traffic counters. We also routinely perform manual traffic counts to supplement automated counts and help evaluate turning movement patterns.

- Trip Generation Studies
- Traffic and Capacity Analysis
- Intersection and Traffic Signal Design
- Roundabouts
- Traffic Calming
- Control Warrants
- Intersection Modifications / Reconstructions



Lake Saint Louis Boulevard / I-70 Roundabout in Lake Saint Louis - Screenshot of a traffic simulation video Oates prepared to help citizens visualize traffic flow. This MoDOT LPA project converts the interchange to a 6-legged roundabout.



**Box Culvert at the Community Park in Wildwood** - A floodplain analysis of Bonhomme Creek was performed to determine the opening and length of a 3-sided precast concrete box culvert. The culvert is under the main roadway, which connects users to passive and active sections of the park.

# Structural Engineering - Bridges

Our structural design staff has significant experience in bridge / box culvert design and retaining walls as well as building structures. They have designed over 200 bridges in the last 20 years, from box culverts for small stream crossings to major interstate interchange structures and from rehabilitations and replacements to new structures.

Hydraulic design for new bridges and replacements is performed in-house by experienced hydraulic engineers that are familiar with the permitting requirements outlined by the Corps of Engineers and the Department of Natural Resources. We complete the required permit documentation, such as the 404 / 401 permits as well as the "No-Rise Certification" required by the governing agencies.

- Steel Beam Bridges
- Prestressed Concrete Bridges
- Curved Girder Bridges
- Concrete Slab Bridges
- Pedestrian Bridges
- Box Culverts
- Deep Foundations
- Shallow Foundations
- Hydraulic Modeling



#### Stormwater

We have extensive experience in the design of stormwater management systems and NPDES permit compliance. We have successfully completed projects with a wide range of complexity and unique design features. We provide sustainable solutions and develop realistic ideas that work. When designing improvements, our engineers consider initial and long term maintenance costs as well as the impact improvements have on the drainage facilities.

- Storm Sewer Design
- Culvert Analysis
- Ditch Capacity Analysis
- Inventory & Assessment
- Hydraulic Modeling
- Sustainable Solutions



Stormwater Improvements for the Metropolitan St. Louis Sewer District - Residents in Warson Woods and Glendale were experiencing storm water flooding issues, as shown above. Oates provided survey and easement preparation services, detailed hydraulic and hydrologic design, and prepared the necessary plans and specifications for stormwater improvements at six locations.

# **Structural Engineering - Buildings**

We provide structural engineering design for a variety of buildings and building types, creatively adapting the structural components to the design. From initial grid and column spacing to the final construction drawings, our structural engineering experts assist our clients with engineering support for full facility development. We have provided structural design from new multi-million dollar facilities to building additions.

- Building Inspections
- Building Structural Systems
- Forensic Investigations
- Foundations
- Fall Protection

## Site Design

Our engineers work collaboratively together with architects to create site plans and designs that are as pleasantly interactive as they are efficient. Solutions that create great community places that become part of their surroundings rather than intrude on them. We have completed site design for many buildings, for sites up to 1,500 acres, and for parking lot improvements affecting over 10,000 spaces in over 100 locations.

- Site Layout / Design
- Parking Facility Planning / Design
- Stormwater Management
- Wastewater Management
- Utility Design
- ADA Assessments & Design

# **Survey Services**

Survey is the cornerstone on which all successful projects are built. The surveyor's ability to accurately and efficiently collect the field data and transfer it to the design plans and/or right-of-way documents is instrumental in maintaining a project schedule. Our surveying services complement our design, right-of-way and construction inspection. Our in-house survey staff assists our designers by providing the initial topographic and property survey. Boundary surveys, ROW plats and easements are prepared by experienced staff.

- Control
- Route
- Topographic
- Right-of-Way
- Hydraulic
- ALTA
- Boundary
- Subdivision
- Construction Staking

# **Construction Engineering Services**

Our construction engineering services are tailored to fit our client's needs on each project. Our roles on construction projects have ranged from resident engineering and full construction observation to part-time inspection and testing.

- Shop Drawing Reviews
- Coordination and Progress Meetings
- Construction Observation
- Material Testing
- Utility Coordination
- Federal documentation

