



### **Our Services**

Our professionals bring creative, cost-effective solutions to our public- and private sector clients through every phase of a project—from planning and design to construction and inspection services. Our professional services include:

- Highway & Roadway Design
- Construction Management & CEI
- Bridge Design & Inspection
- ITS Management, Design & Operations
- Airport Planning & Design
- Planning & Environmental Studies
- Rail & Transit
- Multi-Modal Planning & Design
- Hydraulics & Drainage Design
- Public-Private Partnership
  (P3) Services
- Design-Build Services
- Public Involvement
- Context Sensitive Solutions
- Utility Coordination & Relocation
- Traffic Engineering & Transportation Planning
- Electrical Design
- Municipal Services

### **Our Firm**

Established in 1944, Lochner is an employee owned and operated engineering firm with 33 offices nationwide. We are listed among ENR's top 500 firms, and have a rich history as an innovator in transportation and infrastructure. Lochner employs more than 600 civil and structural engineers, urban planners, environmental scientists, design technicians, constructional personnel, and support professionals. Our talented team of specialists includes some of the most respected experts in the industry.

#### **Our People**

Our civil and structural engineers, planners, environmental specialists and inspectors bring the state-of-the art expertise and skills to deliver the valuable services our clients need.

### **Our Commitment to Our Clients**

At Lochner, we offer more than just design, planning, construction and inspection services—we become a partner in achieving goals. Working with our team, our clients receive discerning attention to the details that matter most. We work consistently to provide professional services and technical solutions to meet project needs, on schedule and within budget.

#### **Our Offices**

Headquartered in Chicago, Lochner has 33 offices located across the nation. Our Missouri clients are served from our **Kansas City Metro** office.



# **Highway and Roadway Design**

Highway and roadway design–and the planning and construction administration of these projects–make up the backbone of Lochner. As a firm, Lochner has developed the original expressway and bypass plans for more than 30 major cities in the United States. Today, Lochner continues as a well-respected innovator on roadway projects.

Our highway and roadway services include:

- Design studies
- Context sensitive approach
- Right-of-way acquisition services
- Design-build services
- Innovative design and technology
- Environmental analysis and documentation
- Public and agency involvement programs
- Alternative analysis
- Multi-phased maintenance of traffic plans
- Construction plans
- Street and pedestrian lighting
- Traffic modeling and forecasting
- Traffic signal design

"Having worked on projects that involve Lochner's Right-of-Way and Environmental Assessments work, they have performed with the utmost professionalism and integrity while successfully bringing projects to completion."

- Bart Bryant, Chief District Engineer, Kentucky Department of Highway







# **Construction Management and CEI Services**

Lochner offers highly qualified construction experts in contract administration, traffic maintenance, safety and construction engineering and inspection troubleshooting. As our clients' lead representative on the project site, we know that it is our job to ensure approved design satisfaction and the availability of solid field engineering to contractors and construction crews throughout the building process.

Construction management and CEI services include:

- Quality assurance and quality control
- Field inspection and engineering
- Safety, Equal Employment Opportunity (EEO) and Disadvantaged Business Enterprise (DBE) compliance
- Claims analysis
- Materials testing and inspection
- Environmental compliance monitoring

"I want to thank you for taking care of this for us. I have dealt with many engineers on many projects and those that take care of the reimbursements and things are wonderful. It takes so much off my plate and I don't worry about any of it. So thank you for all of your assistance with this. It's been a pleasure working with you."

- Jackie Pangborn, City Administrator, Monroe City, MO

# **Bridge Design & Inspection**

Lochner's nationally integrated staff includes engineers and specialists who offer top-notch structural design expertise, from simple to complex structures, including extensive experience on mega-projects. Our proactive approach, responsiveness to the needs of our clients, and construction engineering experience allow us to bring value-added elements to our projects.

Lochner provides innovative design solutions utilizing new construction techniques, materials and delivery methods to develop efficient, cost effective structural designs. With experience providing services for state and municipal government agencies, railroads, contractors and private developers, Lochner's structural design services include:

- New, rehabilitated and widened highway, railroad and pedestrian bridges, with complex geometry and staging
- Superstructures (steel box and I-girders, steel and concrete arches and prestressed concrete girders)
- Substructures (cantilever and integral abutments, hammerhead and multi-column piers)
- Temporary construction works (shoring, support of excavation and cofferdams)
- Foundations (spread footings, piles and drilled shafts)
- Retaining walls and noise walls
- Culverts and pedestrian underpasses
- Seismic analysis and design
- Accelerated bridge construction techniques
- Overhead sign and signal support structures
- Load rating of existing bridges
- On-call and emergency structural support services
- Routine and special bridge inspections

### **ITS Management, Design and Operations**

Lochner offers Transportation Systems Management & Operations (TSM&O), Intelligent Transportation Systems (ITS), and Advanced Transportation Management Systems (ATMS) services for surface transportation, rail, transit, and aviation clients across the United States. Our broad capabilities in this rapidly growing area of the industry have been a benefit to our clients as we support project development, infrastructure, and technology integration, operational improvements, and system management. Our team's areas of expertise include:

- ATMS
- Connected and automated vehicles
- Fiber optic communications
- HOV facilities
- ITS
- Intermodal transportation hubs
- Lighting
- Policy and planning
- Power and electrical systems
- Reversible lanes

- Signals
- Smart cities
- Smart work zones and maintenance of traffic (MOT)
- Toll facilities and managed lanes
- Traffic forecasting and modeling
- Traffic incident management
- Traffic surveillance & driver information systems
- Traffic and transportation analysis
- TSM&O
- Wireless communications

"Lochner skillfully develops strong working relationships with project stakeholders including cities and UDOT, which ensures that projects move forward efficiently and hurdles are overcome effectively."

> - Shane Marshall, Utah Department of Transportation





# **Planning and Environmental Studies**

Lochner covers the entire planning and environmental spectrum, from long-range planning to concept plans, feasibility studies, as well as National Environmental Policy Act (NEPA) compliance and support for post-NEPA activities during final design and beyond.

Lochner's planning and environmental studies expertise includes:

- Community planning
- Public involvement
- Natural systems analysis
- Physical impact analysis
- Human environment analysis
- Database management and documentation preparation
- Development of permit applications
- Context sensitive solutions and design
- NEPA documentation for FHWA, FTA and FRA
- Program management and oversight
- Rail planning
- Sustainability

"While their technical skills are evident, what sets Lochner designers apart is their commitment to do the right thing for the department, the environment and the public."

> - Rob Wight, Utah Department of Transportation







# Aviation Engineering, Planning, Environmental and Construction

Lochner's knowledgeable aviation staff has a full understanding of airport functions and operations. We have the ability to phase projects and construction services with minimal impact to day-to-day operations. Our work in aviation spans 40 years. We hold engineering and planning experience covering more than 1,000 projects involving nearly every aspect of airport development, including general aviation, basic transport, reliever, commuter, small air carrier and major hubs.

Lochner provides our clients the following aviation services.

- Airport master plans/layout plans
- Airport design
- Construction services
- Environmental services
- Land acquisition
- Fuel facilities
- Maintenance vehicle acquisition

- Navigational aid design
- Hangars and administrative facilities
- Wildlife assessments
- Municipal, state, federal coordination and funding compliance
- Pavement management/ maintenance plans
- Landside design