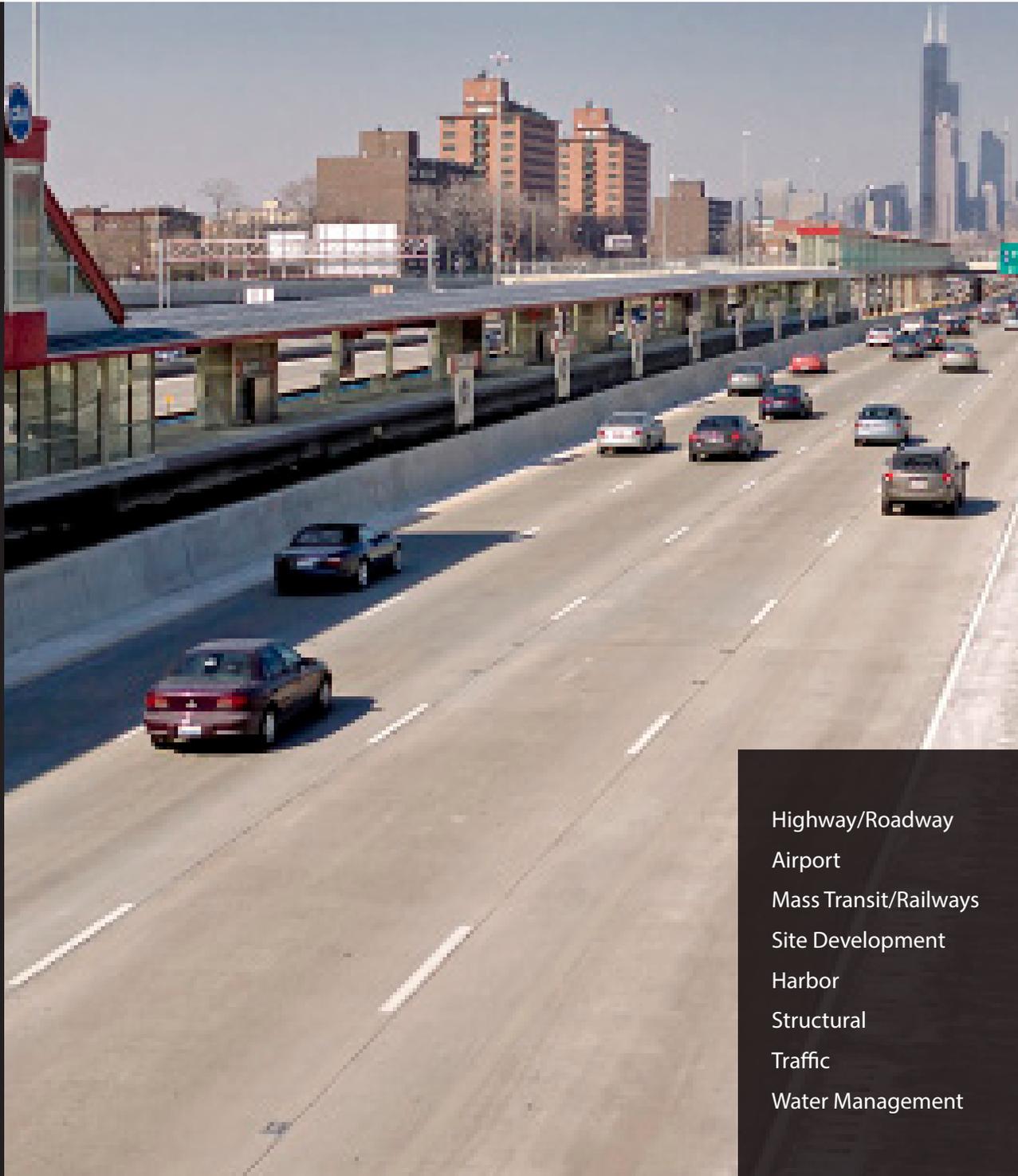


Statement of

# QUALIFICATIONS



INFRASTRUCTURE  
ENGINEERING TRANSFORMED



Highway/Roadway  
Airport  
Mass Transit/Railways  
Site Development  
Harbor  
Structural  
Traffic  
Water Management

## THE FIRM

Infrastructure Engineering, Inc. (IEI) is one of the leading consulting engineering firms in the Midwest since 1986. Serving public and private organizations, IEI focuses on the delivery of design engineering, program management, and construction engineering and inspection services in the following areas:

- Airport
- Highway/Roadway
- Site Development
- Traffic
- Harbor
- Mass Transit/Railroad
- Structural
- Water Management

IEI cultivates various types of engineering projects from conception and planning through implementation. Our goal is to create sustainable infrastructure necessary to build and connect communities, improve quality of life and encourage economic development - all in harmony with the existing natural environment. As a certified MBE and DBE firm, there are many ways that IEI can add value to your project.

## PARTNERING TOGETHER

With 30 years of infrastructure expertise, IEI has demonstrated our ability to deliver projects as a prime consultant, subconsultant, and joint venture partner. Due to our relationships and quality project delivery, agencies and consultants repeatedly select IEI as a partner.



▲ Wacker Drive Viaduct Reconstruction, CDOT, Chicago, IL IEI led a team of multiple firms to manage the relocation of several public and private utilities.



▲ O'Hare South Airfield Drainage Design, CDA, Chicago, IL



▲ 35th Street Station, Structural Design for Metra, Chicago, IL

Cover Image: Construction Management Services CTA, Dan Ryan Red Line, Chicago, IL

# OUR SERVICES

## Design Engineering

- Transportation Studies
- Roadway Phase I and II
- Railroad Design
- Site Development
- Drainage Studies and Hydraulic Modeling
- Erosion Control
- Traffic Engineering
- Pavement Design
- Earthwork Balancing and Computation
- Water and Wastewater Design
- Utilities Relocation Design
- Structural Design for Buildings, Bridges and Harbors
- Tunnels and Culverts
- Retaining Walls and Underground Junction Chambers
- Permitting

## Construction Engineering and Inspection

- Schedule and Budget Evaluations
- Construction Observation
- Value Engineering
- Constructability Reviews
- Project Scheduling and Permitting
- Quality Assurance/Quality Control
- Monitoring and Coordinating Daily Construction Activities

## Program Management

- Design Management
- Construction Management
- Project Management
- Policies and Procedures Management
- Program Controls
- Cost Control
- Program Progress Reporting
- Capital Cost Estimating
- Document Management
- Construction Claims Prevention and Management



▲ Bridge Construction, Phase III Services  
Chicago, IL



▲ Veterans Memorial Tollway, Roadway Resurfacing and Bridge Rehabilitation, Chicago, IL



## SITE DEVELOPMENT

IEI has expert site development capabilities encompassing LEED design for a broad range of facilities including public buildings, parks, schools, healthcare facilities, libraries, community centers, parking and transit/transportation facilities. The engineering elements of our site development services for civil and structural engineering include access roadways, driveways, sidewalks, roads, bike paths, pedestrian bridges, parking, pavement marking and signage, demolition, grading, paving, sanitary and storm sewer systems, water mains, utility coordination (gas, electric, telephone, cable, etc.), stormwater detention/retention basins, water quality, wetlands, flood water management (floodplains), and structures such as culverts, retaining walls and bridges.



◀ **Maggie Daley Park;** Chicago Park District - Chicago Park District created a multi-functional park on 25-acres along the northern edge of Grant Park. North Grant Park transformed the sites of Daley Bicentennial Plaza into a single continuous public landscape that operates at a variety of scales. IEI provided civil and structural engineering services for the park.

**School Campus Park Reconstruction;** Chicago Public Schools - provided civil engineering services for various Campus Park projects throughout Chicago. This project involved standards development, AOR services and development of construction documents, peer review services for all on Campus Park projects, cost estimating, and use of sustainable design techniques (LEED).

**Chicago Riverwalk;** Chicago Department of Transportation - providing civil engineering services for the Chicago Riverwalk, which will connect the Lakefront to the West Loop and create a destination which will uniquely blend cultural, recreational and commercial amenities along the Chicago River. It includes engineering planning and design services for the ADA accessible Riverwalk, an assessment of the navigational traffic on the Main Branch of the Chicago River, and an evaluation of the impact of the build-out on the waterway system.



**Altgeld Gardens/Murray Homes Redevelopment;** Chicago Housing Authority - provided civil engineering services for the renovation and redevelopment of 160 acres of the Altgeld Garden/Murray Homes Complex, including renovation of 162 separate buildings and construction of 7 new laundry buildings. 20% of the renovated units are ADA accessible.

**Hawthorne Warehouse Parking Lot & Entrance Control;** Cook County - the Hawthorne Warehouse building is 475,000 square feet, located on an 18-acre plot of land and is being converted to a records storage facility for the County Clerk, Clerk of the Circuit Court, and the Bureau of Health. IEI was selected as the prime consultant to resurface approximately 220,000 square feet of the parking lot and to create about 500 parking spaces.

**40th Street and Osterman Beach Houses;** Chicago Park District - IEI was the civil engineer for the architect led team for the new lake front facilities that combine the prototype functions of public restroom facilities, a lifeguard station, and a concession area with sustainable design measures while achieving "LEED Silver" certification. Both the Lakefront Comfort Stations won Mayor Daley's Greenworks Award 2010 for Sustainable Innovation in the Built Environment.

**Athletic Fields;** Metropolitan School District of Lawrence Township - Two artificial football field designs and inspections were completed for this aggressive, fast-track project ahead of schedule. ▼



**Champaign Public Library;** City of Champaign - IEI's responsibilities consisted of two construction phases, with multiple design package submittals. During Phase I, IEI provided civil engineering services for the design of the south parking lot and new library. During Phase II, the existing library was demolished to make way for expansion of the temporary parking lot to serve as the library's permanent parking lot. For this project, IEI produced schematic design, design development and construction documents.



## CAPITAL DEVELOPMENT BOARD EXPERIENCE

IEI has a longstanding relationship with the Capital Development Board. Our experience encompasses LEED design for a broad range of facilities including public buildings, parks, schools, healthcare facilities, libraries, community centers, parking and transit/transportation facilities. The engineering elements of our site development services for civil and structural engineering include driveways, sidewalks, roads, retaining walls, pedestrian bridges, bike paths, pedestrian bridges, parking, pavement marking and signage, demolition, grading, paving, sanitary and storm sewer systems, water mains, utility coordination (gas, electric, telephone, cable, etc.) and stormwater detention/retention systems.

**321-110-067 Ludeman Developmental Center: Capital Development Board** - IEI's scope is to provide the civil design consistent with the project scope for Ludeman Developmental Center. This includes construction plans, project manual, cost estimate, monthly progress reports and coordination meetings. IEI's scope also includes construction observation, site visit reports and project close-out.

**102-341-006 Various Improvements at the Mazonia-Braidwood State Fish & Wildlife Area;** Capital Development Board - Through the CDB QBS process, IEI was selected to provide civil engineering services for this project. IEI will coordinate with DNR, CDB, Essex Township, Kankakee County, US Army Corps and the sub-consultants. IEI will provide exhibits to ILDNR for their grant package. IEI will provide Schematic and Final Construction Documents, which will include site/paving plan, grading/drainage plan, striping plan and sediment and erosion control plan for the parking lots, roadway and the boat launches. IEI will also provide schematic and final estimates of quantities and cost estimate and final specifications. IEI's structural team will provide support design for a concrete abutment for the one ADA floating dock.

**546-261-006 Peoria Armory Upgrade;** Peoria County, IL - IEI was selected to provide civil engineering services to CDB, DMA and AASF. IEI's scope of services included design development, schematic design, final contract documents, bid review, and construction administration. Contract documents included construction plans, specifications, estimate of cost and erosion and sediment control plans for Illinois Environmental Protection Agency (IEPA) National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI).



**102-419-079 Pere Marquette State Park;** Chicago, IL - IEI's scope included leading the civil site elements of the analysis and providing structural analysis and recommendations after the architect identifies buildings with structural deficiencies. IEI was responsible for the assessment, reporting and improvement recommendations for the following items: internal roadways, parking opportunities, ADA ramp and sidewalk, drainage issues, erosion control issues, identifying water main deficiencies, sanitary sewer and lateral deficiencies, septic system needs and site impacts. IEI also provided structural recommendations for structures that the architect identifies as deficient. This project scope included an assessment phase, recommendations phase, and a final report phase. ▼



**546-260-022 Peoria Armory Upgrade Site Roads and Drainage** - Peoria County, IL - IEI was selected to provide civil engineering services to CDB, DMA and AASF. IEI's scope of services included design development, schematic design, final contract documents, bid review, and construction administration. Contract documents included construction plans, specifications, estimate of cost and erosion and sediment control plans for Illinois Environmental Protection Agency (IEPA) National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI).

**201-3030-007 Heidecke Lake Boat Ramp;** Morris, IL - IEI's scope included the development of proposed condition plan, pavement and utilities demolition plan, and construction specifications. In addition to design services, IEI also provided construction administration services that include bidding documentation preparation, change order processing, construction observation, contractor pay request processing, punch list preparation, and final close-out documents and inspection for substantial completion.

**102-350-502 North Point Marina;** Winthrop Harbor, IL - IEI's scope included the development of existing conditions plan, pavement and utilities demolition plan, and construction specifications. In addition to design services, IEI also provided construction administration services that include bidding documentation preparation, change order processing, construction observation, contractor pay request processing, punch list preparation, and final close-out documents and inspection for substantial completion.



## TRAFFIC

IEI offers broad, proven experience for Phase I and Phase II engineering studies in the geometric design of roadway segments and intersections, and traffic signal warrant studies and design. IEI also has experience in bicycle path design, pedestrian studies, highway capacity analysis, traffic impact studies with trip generation and traffic modeling, and corridor traffic system analysis and programming. Field collection of traffic data includes utilizing TRAX Apollyon mechanical tube counters and JAMAR hand held manual intersection count boards. IEI's modeling capabilities include individual intersection analysis, or full system/corridor analysis.



**Georgia Street Improvements from Capitol Avenue to Pennsylvania Street;** Indiana Department of Public Works - IEI was the Lead Traffic Engineer for the project team, responsible for the design of traffic signals, maintenance of traffic, signing, pavement markings and traffic coordination between the design team and regulatory agencies for traffic control and approval. In addition, IEI provided the structural design for several of the design elements.

**Evanston Central Street Improvements;** City of Evanston - lead designer for streetscape improvements that includes an analysis of the existing traffic, roadway, sidewalks and ADA and pedestrian access along this commercial district on Central Street from Hartrey Avenue to Eastwood Avenue and Green Bay Road from Isabella Street to Central Street.

**PBC Traffic Engineering Study;** Public Building Commission of Chicago – providing traffic impact studies including traffic counts, traffic analysis, traffic impact statements and testimony for various site developments and building additions on a task order contract.

**On-Call Traffic Engineering;** City of Indianapolis - providing traffic signal warrant analysis, traffic signal design, traffic count data, and traffic analysis for roadway diet and safety improvement projects as both a Prime Consultant and as a Sub-Consultant on multiple teams.

**IDOT Traffic Signals;** Illinois Department of Transportation - IEI has won several traffic signal projects as a prime consultant from IDOT at various locations in District 1. IEI prepared plans, estimates and special provisions for tasks that included interconnect design, traffic signal modification and installation plans, cost estimating, specifications, and coordination with utility companies for power service locations.

**Damen-Elston-Fullerton Phase I Engineering Study and Analysis;** Chicago Department of Transportation - performed a traffic analysis of three alternates showing capacity data, proposed geometrics of the corridor area and auto turn movements. IEI also provided the client with a proposed traffic signal layout as well as traffic modeling of the projected traffic volumes.

**I-65 Added Travel Lane, Design/Build, Signing Plans;** Indiana Department of Transportation - provided design support for the development of signing plans for the entire 13 mile corridor. IEI conducted extensive and time sensitive coordination with INDOT Traffic Group to meet the design/build schedule for the project.

**Indiana Convention Center Expansion Traffic Engineering;** Indiana Department of Transportation - provided traffic engineering for the INDOT portion of the Indiana Convention Center Expansion.



## WATER MANAGEMENT

IEI provides services for hydrology/hydraulic analysis for highway, railroad, commercial, institutional and residential site improvements. IEI's experience includes site and structural design of wastewater facilities and drainage sewers. IEI's experience also includes watershed hydrology, river and floodplain hydraulics, drainage design, stormwater systems and preparation of Hydrology/Hydraulics Analysis Reports. IEI also has expertise in technical writing of Watershed Management Ordinance and Technical Guidance Manual preparation.

**Paxton Stormwater Conveyance Sewer;** City of Omaha - providing design, coordination and overall project support for the Paxton Stormwater Conveyance Sewer Project.

**O'Hare Modernization Program, South Airfield Drainage;** Chicago Department of Aviation - as part of the lead engineering team for the drainage design of the South Airfield at the O'Hare airport, IEI is providing civil and structural design services, and QA/QC services for the construction work.

**US 31 Added Travel Lanes Improvement;** Indiana Department of Transportation - performing a Location Drainage Study for a one-mile section of US 31 corridor around 191st St. interchange and the affected local roads. IEI is also providing a Hydraulic Report and HEC RAS hydraulic modeling for Jones Ditch and Lindley Ditch that is passing under US 31.

**Various Projects;** Chicago Department of Water Management - IEI has two task order contracts and is providing sewer design and construction engineering for water main.

**Greater Peoria Sanitary District Project;** Greater Peoria Sanitary District - The project scope consists of sewer repairs and modifications using excavation methods, the installation of cured-in-place pipe and manhole repairs.

**Streambank Stabilization Projects;** Metropolitan Water Reclamation District - performed preliminary engineering for streambank stabilization and channel capacity enhancement for Tinley Creek, I & M Canal Tributary D and Calumet-Sag Tributary C sites.

**Coffin Golf Course Erosion and Flood Control;** Indianapolis Parks and Recreation - IEI was responsible for the design of the reconstruction and stabilization of eroded and undermined banks along the White River.

**17th Street and Livingston Avenue Stormwater Improvements;** Indianapolis Department of Public Works - Stormwater Engineer for the project team, responsible for the design and production of hybrid ditch design, Storm Sewer Design and Erosion Control Plans.

**US 31 Drainage;** Indiana Department of Transportation - provided preliminary drainage field work for the 13 mile segment of the US 31 corridor, which included identification/verification of all outlet points and break points along the corridor.

**Calumet Sag Watershed Study;** Metropolitan Water Reclamation District of Greater Chicago - IEI provided engineering support services for the Calumet Sag Watershed Study including data collection, field reconnaissance, and hydraulic modeling. ▶



## COMMUNITY INVOLVEMENT

At IEI, we believe in supporting the communities where we live and work. As part of our corporate commitment, our firm members become personally involved by working with local, regional and national governments, charitable organizations, and schools. As a firm, we create and partner with charitable organizations geared towards addressing social and economic issues in the neighborhoods we serve.

**Infrastructure Engineering Foundation (IEF)** - Created by Michael Sutton with the vision of extending love and charity to children who have limited means by providing programs and events that promote good health, positive experiences, and build solid foundations for growth.

**National Organization of Minority Engineers** - The National Organization of Minority Engineers (NOME) was founded by Michael Sutton to promote the advancement of minority owned and operated engineering firms through education and advocacy.

**Christmas in the 9th Ward** - IEI, along with other community leaders, sponsors an annual holiday event benefiting underprivileged children and their families in Chicago's 9th Ward by providing Christmas gifts, fun and entertainment for over 300 families.

**The Heart of Christmas** - IEI sponsors an annual holiday toy giveaway along with a visit from Santa, entertainment, and holiday cheer for over 200 children in Peoria.

**Women's Christmas Event for Dove Recovery House** - In Indianapolis, IEI sponsors a Christmas event for Dove Recovery, an organization that helps women with substance abuse or addiction become sober and self-sufficient.

**SENSE School Food Pantry** - IEI funded a food pantry for the Southeast Neighborhood School of Excellence (SENSE), a primary school in Indianapolis.

**Education Outreach** - We share our passion for engineering with students, and encourage the pursuit of science, math, and technology through mentoring, internships, and annual scholarships, focusing on under-served communities. The following are universities and colleges where IEI has funded scholarships and provided internships to students:

- ▶ Northwestern University
  - ▶ University of Illinois, Chicago
  - ▶ Chicago State University
  - ▶ Illinois Community College
  - ▶ Purdue University
- ▶ Internships - Each summer, IEI offers internships to high school and college students studying to be engineers, accountants, and marketing and HR professionals.



# LOCATIONS

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