



# Contents

1. Executive Summary
  - Mission Statement
  - Engineering
  - Architecture
  - Construction Management
2. Certifications and Pre-qualifications
3. Representative Experience
4. Key Personnel
5. Computer & CADD Equipment





# Executive Summary

## ***Mission Statement***

*Our objective is to create engineering and architecture career and business opportunities in advancing infrastructure development of our community.*

## **Engineering Services**

SDI – Engineering department is dedicated to serving the engineering, and design needs of government and public agencies, industrial office and residential facilities. We have developed through the years wide-ranging working relationships with several agencies, companies and individuals. These include the Capital Development Board of the State of Illinois, the Illinois Department of Transportation, the Illinois State Toll Highway Authority, the Metropolitan Water Reclamation District of Greater Chicago, and the Chicago Public School System and numerous businesses.

Our specialties include engineering design for buildings, highways, interchanges, roadways and bridges, parking facilities, site plans, and site development. Our expertise extends to drainage and lighting design, communications and security systems.

We are also fully experienced in field investigations and studies, the preparation of reports, budgets, estimates, and contract documents, and are prepared to work with our clients on identifying problem situations and recommending practical solutions.



# Executive Summary

## Architecture Services

SDI – Architecture department is dedicated to providing clients with solutions to their building needs that are economical, functional and aesthetically pleasing. We do this while maintaining control of a project's schedule, cost, construction and design.

Private and government sectors have relied on SDI Architects to meet their physical and functional needs in a variety of projects. Our work has included homes, office buildings, warehouses, and facilities for banking, educational, health, food processing, transportation, light and heavy industrial functions, computer and employee facilities.

Our services have ranged from design and contract document preparation to construction support and have included renovation, remodeling and expansion as well as new building designs.

## Survey Services

SDI – Survey department is dedicated to providing Land and Route Survey services to clients. We provide measurements, calculations, and field work to produce topographic surveys using the latest data collection techniques and instruments. Additionally, SDI provides courthouse record searches, boundary determination, writing descriptions of specific parcels of land and the installation and restoration of monuments



# Executive Summary

## Construction Management Services

Few owners possess the time, capability or total in-house staff capacity to follow through on the many phases of a construction project while simultaneously maintaining the normal flow of their primary business activity. Sensing this void in the corporate structure and the opportunity to serve our design-build capability, SDI Construction Management was established.

We are a firm with proven capabilities and a track record of success in providing complete construction service, which often involves bringing to life our engineering group's innovative designs. Among the services we provide as construction managers are:

- Value Engineering
- Screen Bidders
- Analyze Bids
- Select Contractors
- Prepare Contracts
- Purchase Materials
- Prepare Construction Schedule
- Supervise Construction
- Prepare Progress Reports
- Administer Change Orders
- Approve Progress Pay-outs
- Process Loan Draws
- Approve Final Payment





# Certifications & Pre-qualifications

## Certification

Structure Designs, Incorporated (SDI) is an Illinois company incorporated in 1994 and has always maintained a good standing. SDI is certified as a consultant (MBE/DBE) by the following agencies:

- Illinois Department Of Transportation - pre-qualifications
- Illinois Unified Certification Program – DBE
- Illinois Capital Development Board, CDB
- Illinois Department of Central Management Services, CMS
- METRA
- Metropolitan Water Reclamation District of Greater Chicago, MWRDGC
- U.S. Small Business Administration – SDB Certification
- City of Chicago, MBE Certification
- County of Cook, MBE Certification

See the following pages for Pre-qualification letters and certificates.



## SEFC PREQUALIFICATIONS FOR STRUCTURE DESIGNS, INC.

| CATEGORY  | STATUS |
|---|--------|
| Highways - Roads and Streets                                    | X      |
| Location Design Studies - Reconstruction/Major Rehabilitation   | X      |
| Special Services - Electrical Engineering                       | X      |
| Highways - Freeways   | X      |
| Hydraulic Reports - Waterways: Typical                          | X      |
| Structures - Highway: Simple                                    | X      |
| Special Studies - Pump Stations                                 | X      |
| Special Services - Surveying                                    | X      |
| Structures - Railroad   | A      |
| Special Services - Construction Inspection                      | X      |
| Structures - Highway: Typical                                   | X      |
| Location Design Studies - Rehabilitation                        | X      |
| Hydraulic Reports - Pump Stations                               | X      |
| Special Studies - Traffic Signals                               | X      |
| Special Studies - Safety  | X      |
| Special Services - Mechanical                                   | X      |
| Special Services - Landscape Architecture                       | X      |
| Special Studies - Traffic Studies                               | X      |
| Location Design Studies - New Construction/Major Reconstruction | X      |
| Special Studies - Location Drainage                             | X      |
| Special Studies - Feasibility                                   | X      |

|   |  |
|---|--|
| X | PREQUALIFIED   |
| A | YOU INDICATED "IN-HOUSE" CAPABILITY IN THESE AREA OF THE "SEFC" BUT WE FOUND NO DETAILED INFORMATION AS REQUESTED ON WHICH TO BASE OUR EVALUATION. |
| P | PENDING FUTHER REVIEW  |
| S | PREQUALIFIED, BUT WILL NOT ACCEPT STATEMENTS OF INTEREST   |
| L | LOSS OF PREQUALIFICATION   |



# Illinois Department of Transportation

## Structure Designs, Incorporated

is hereby certified as a

### **Disadvantaged Business Enterprise**

This certificate is valid under current firm ownership and operational control only and supercedes any authorization or listing previously issued.

Ann L. Schneider  
Secretary  
Illinois Department of Transportation

Debra A. Clark  
Acting Bureau Chief  
Bureau of Small Business Enterprises

Effective the 7<sup>th</sup> day of March 2012





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Stewart A. Munoz  
Miles W. Beatty, III  
Anthony J. Garippo

September 21, 2012

## **LETTER OF PREQUALIFICATION**

Structure Designs, Incorporated  
309 W Washington Street, Suite 325  
Chicago, IL 60606

Congratulations! The Capital Development Board is pleased to announce that your firm has successfully completed the professional design firm prequalification process. Your prequalification is valid in the respective trade(s) listed below and will remain in effect until September 30, 2014.

**Civil Engineer  
Electrical Engineer  
Mechanical Engineer  
Structural Engineer  
Land Surveying**

**Firm ID Number is 0029565**

All correspondence between your firm and the Capital Development Board should reference your firm name exactly as it appears in this letter.

Firms are required to notify CDB within 10 business days of ANY material changes to the information contained in the prequalification application. If any of the conditions in the application are violated by the firm within the time of this notification, prequalification of the firm will be rescinded. Renewal letters are mailed out approximately 60 days prior to a firm's expiration. It is the responsibility of each firm to ensure that prequalification is renewed.

Please review this notification carefully and contact Jim Dautel at 217/782-1383 if you have any questions. Visit our website at [www.cdb.state.il.us](http://www.cdb.state.il.us).

We look forward to a long and successful relationship with your firm.

Sincerely,

CAPITAL DEVELOPMENT BOARD

Jim Dautel  
A/E Prequalification

A handwritten signature in dark ink, appearing to read "Jim Dautel".

Wm. G. Stratton Building  
401 South Spring Street  
Third floor  
Springfield, Illinois  
62706-4050

James R. Thompson Center  
100 West Randolph Street  
Suite 14-600  
Chicago, Illinois 60601-3283

Dunn-Richmond Economic  
Development Center  
150 East Pleasant Hill Road  
Carbondale, Illinois 62901

IDOT Dist # 3 Hdqtrs  
2<sup>nd</sup> Floor  
700 E. Norris Drive  
Ottawa, Illinois 61350

217.782.2864  
217.524.0565 FAX  
217.524.4449 TTD  
[www.cdb.state.il.us](http://www.cdb.state.il.us)





DEPARTMENT OF PROCUREMENT SERVICES  
CITY OF CHICAGO

JUN 28 2013

Olufemi Oladeinde  
Structure Designs, Incorporated  
309 West Washington Street, Suite 325  
Chicago, IL 60606

Dear Mr. Oladeinde:

We are pleased to inform you that **Structure Designs, Incorporated** has been re-certified as a **Minority Business Enterprise ("MBE")** by the City of Chicago ("City"). This **MBE** certification is valid until **10/01/2016** however your firm's certification must be re-validated annually. In the past the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. As a consequence, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 days** before your annual anniversary date.

It is now your responsibility to check the City's certification directory and verify your certification status. As a condition of continued certification during the five-year period stated above, you must file an annual No-Change Affidavit. Your firm's **annual No-Change Affidavit** is due by **10/01/2014** and **10/01/2015**. Please remember, you have an affirmative duty to file your No-Change Affidavit **60 days** prior to the date of expiration. Failure to file your annual No-Change Affidavit may result in the suspension or rescission of your certification.

Your firm's five year certification will expire on **10/01/2016**. You have an affirmative duty to file for recertification **60 days** prior to the date of the five year anniversary date. Therefore, you must file for recertification by **08/01/2016**.

It is important to note that you also have an ongoing affirmative duty to notify the City of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification **within 10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims," of the Municipal Code of Chicago.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a **MBE** if you fail to:

- File your annual No-Change Affidavit within the required time period;

- Provide financial or other records requested pursuant to an audit within the required time period;
- Notify the City of any changes affecting your firm's certification within **10 days** of such change; or
- File your recertification within the required time period.

Please be reminded of your contractual obligation to cooperate with the City with respect to any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the City's Inspector General at [chicagoinspectorgeneral.org](http://chicagoinspectorgeneral.org), or 866-IG-TIPLINE (866-448-4754).

Be advised that if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. In addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the City by falsely representing the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000 and not more than \$10,000 or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

**NAICS Code(s):**

**NAICS 541330 - Civil Engineering Services**

**NAICS 541330 - Electrical Engineering Services**

**NAICS 541330 - Engineering Services**

**NAICS 541330 - Environmental Engineering Services**

**NAICS 541330 - Mechanical Engineering Services**

**NAICS 541340 - Blueprint Drafting Services**

**NAICS 541350 - Inspection Services, Building or Home**

Your firm's participation on City contracts will be credited only toward Minority Business Enterprise goals in your area(s) of specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority and Women-Owned Business Enterprise (MBE/WBE) Program.

Sincerely,



Jamie L. Rhee  
Chief Procurement Officer

JLR/si

THE BOARD OF COMMISSIONERS

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COOK COUNTY  
OFFICE OF CONTRACT COMPLIANCE

LAVERNE HALL  
DIRECTOR

118 North Clark Street, Room 1020  
Chicago, Illinois 60602-1304  
TEL (312) 603-5502  
FAX (312) 603-4547

January 9, 2012

Olufemi Oladeinde, President  
Structure Designs, Inc.  
309 W. Washington St., Suite 325  
Chicago IL, 60606

Dear Mr. Oladeinde:

Congratulations. We are pleased to inform you that **Structure Designs, Inc.** will maintain its certification as a **MBE (6)** by Cook County Government. This **MBE (6)** Certification must be revalidated annually.

**Please use the enclosed Certificate of Certification as validation of your Cook County MBE status and area of specialty.**

As a condition of continued Certification during this three (3) year period, you must file a **"No-Change Affidavit"** within **sixty (60) business days** prior to the date of annual expiration. A processing fee of \$50.00, payable to Cook County Department of Revenue is required with the No-Change Affidavit. Failure to file this Affidavit shall result in the termination of your Certification. You must notify Cook County Government's Office of Contract Compliance within ten (10) days of any change in ownership or control or any other matters or facts affecting your firm's eligibility for Certification.

Your firm's participation on Cook County contracts will be credited toward **MBE (6)** goals in your area(s) of specialty. While your participation on Cook County contracts is not limited to your area of specialty, credit toward **MBE (6)** goals will only be recognized for work done in the specialty category.

Thank you for your continued interest in Cook County Government's Minority and Women Business Enterprise Programs.

Sincerely,

Laverne Hall  
Director  
LH/ss

Revised January 5, 2012



Printed on Recycled Paper



November 1, 2012

Olufemi Oladeinde  
Structure Designs Inc  
309 W Washington Street  
Suite 325  
Chicago, IL 60606-3212

Certification Term Expires: March 5, 2013

Dear Business Owner:

Re: MBE Recognition Certification Approval  
(IL UCP)(IDOT)

Congratulations! After reviewing the information that you supplied, we are pleased to inform you that your firm has been granted certification as a Minority Business Enterprise (MBE) under the Business Enterprise Program for Minorities, Females, and Persons with Disabilities.

BEP accepts the Illinois Unified Certification Program's (IL UCP)(IDOT) certification regarding your business status. This outside certification is in effect with the State of Illinois as long as it is valid with the IDOT IL UCP.

At least 60 days prior to the anniversary day of your certification, you will be notified by BEP to update your certification as a condition of continued certification. In addition, should any changes occur in ownership and/or control of the business or other changes affecting the firm's operations, you are required to notify BEP within two weeks. Failure to notify our office of changes will result in decertification of your firm.

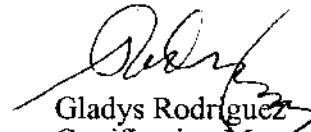
Please be advised, while this certification does not guarantee you will receive a State contract, it does assure your firm the opportunity to participate in the State's procurement process. Your firm's participation on State contracts will be credited only toward Minority Business Enterprise (MBE) goals in your area(s) of specialty. Your firm's name will appear in the State's Directory as a certified vendor with the Business Enterprise Program (BEP) in the specialty area(s) of:

SERVICES, ARCHITECTURAL  
SERVICES, DRAFTING  
SERVICES, ENGINEERS - CIVIL  
SERVICES, ENGINEERS - ELECTRICAL  
SERVICES, ENGINEERS STRUCTURAL  
SERVICES, ENGINEERS - TRAFFIC  
SERVICES, SURVEYING

Please visit our website at [www.sell2.illinois.gov](http://www.sell2.illinois.gov) to obtain information about current and upcoming procurement opportunities, contracts, forms, and also to register to receive email alerts when the State is preparing to purchase a product or service you may provide.

Thank you for your participation in the Business Enterprise Program (BEP). We welcome your participation and wish you continued success.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gladys Rodriguez', is written over the printed name.

Gladys Rodriguez  
Certification Manager  
Business Enterprise Program

(L19MBE)



## Protecting Our Water Environment



### Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

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April 17, 2012

Olufemi Oladeinde

**Structure Designs, Inc.**

309 W. Washington Street, Suite 325

Chicago, IL 60606

Vendor Number: **5010377**

**Dear Olufemi Oladeinde:**

We are in receipt of your City of Chicago Certification material as a Protected Class Enterprise ("PCE").

The result of our review concludes that **Structure Designs, Inc.** is certified as a **MBE** eligible to fulfill **MBE** requirements on Metropolitan Water Reclamation District of Greater Chicago ("District") contracts. Your firm is certified as of **April 17, 2012**.

It is your firm's obligation to apply for re-certification no later than **October 1, 2013**. Re-certification may be revoked if it is determined that your firm is involved in bidding irregularities, contract fraud or misrepresentation of your firm's PCE status. *An additional in-depth review will be made if your company is listed as Protected Class Enterprise on a bid document to fulfill Affirmative Action goals at the District.*

Your firm will be listed in the online edition of the District's Protected Class Enterprise Directory (MWRD.Org - "Search Vendor List"). As with the City of Chicago Certification Program, your specialty area will be shown as:

**Civil Engineering Services; Electrical Engineering Services; Engineering Services; Environmental Engineering Services; Blueprint Drafting Services; Inspection Services (building or home); Surveying and Mapping (except Geophysical) Services; Structural Engineering; Civil Engineering; Electrical Engineering; Engineer Services, Professional; General Construction: Management, Scheduling, Cost Estimation - Engineering; Inspecting, General/Engineering; Inspecting, Structural/Engineering; Mechanical Engineering; Testing and Monitoring Services for Air, Gas, and Water**

As a certified PCE, it is your obligation to promptly notify this office in writing of any changes or circumstances that affect your ability to meet ownership, size requirements and/or control of your firm. The notice must take the form of a notarized affidavit sworn to by the owner and provided within 30 days of the change. The District reserves the right to commence actions to revoke your firm's certification if this notification is not made.

**Illinois law requires that all corporations secure a Certification of Authority from the Illinois Secretary of State prior to doing business in the State.**

If you have any questions regarding PCE certification or District business opportunities, please contact me at 312-751-4035.

Sincerely,

Thomas J. Savage  
Program Administrator  
Affirmative Action

TJS:ps



# Representative Experience

- **Transportation Facilities**
- **Public Facilities & Structures**
- **Buildings**
- **Construction Management & Engineering**



**STRUCTURE DESIGNS, INCORPORATED**

# Transportation Facilities

## Representative Experience:

### Illinois Department of Transportation, District 1

#### **Phase II engineering services for the additional lanes and bridge replacement to US 45 (LaGrange Rd.) from 131st Street to 179th Street, Cook County, IL.**

The scope of work consists of reconstruction and widening the existing four-lane roadway with a mountable median to a six-lane roadway with a landscaped barrier median and enclosed storm sewer system. The project consisted of geometric modifications to 15 signalized intersections and improvements to intersection capacity and efficiency, improvements to cross streets to provide the required geometrics to meet current design criteria and to accommodate the future traffic volumes. The tasks included preparation of contract plans, specifications, and estimates. Included in this are preparing roadway plans, TS&L plans, structure plans, geotechnical borings, investigation & analyses, supplemental surveys, drainage & utility investigation, detour route plan and all applicable permits. A major improvement task was to raise the roadway profile at the Metra Bridge / Southwest Highway Bridge underpass. This project is designated as a Suburban Strategic Regional Arterial (SRA) with a function of serving many communities in western Cook County and central Will County and provides access to many commercial, industrial and recreational areas from the Kankakee-Will County Line to the Wisconsin State Line. It also provides direct access to Interstate 80 (I-80), Interstate 55 (I-55), Interstate 290 (I-290), Interstate 190 (I-190), O'Hare Airport and Midway Airport.

#### **Phase I/II, I-80 from Grundy County Line to US 30, Will County, IL**

Phase I/II engineering services were performed for work associated with the improvement of I-80 from west of the Grundy County line to US 30, a distance of approximately 15 miles. The Phase I studies

# Transportation Facilities

## Representative Experience:

considered long range as well as interim improvement needs of I-80. Long range improvement included additional lanes (from two lanes to three lanes in each direction) while interim improvement needs included rehabilitation of I-80. Phase II work focused on interim improvement needs of I-80. Phase I included evaluating the geometrics for safety and capacity (existing as well as projected), complete inspections and reports for the mainline and overhead bridges (including truss bridges), data collection, preparation of base maps and mosaics, supplemental ground survey, crash analysis, traffic counts and projections, traffic studies including Intersection and Interchange Design Studies, traffic management analysis, drainage studies, cost estimates, financial planning, and all other work necessary to complete the Phase I. Public involvement was achieved following the Department's Context Sensitive Solutions (CSS) policy. Phase II work included roadway and interstate roadway rehabilitation plan preparation, structure work (including bridge rehabilitation and/or reconstruction), intersection improvements and geometric modifications, addition of lighting or lighting improvements, signing improvements, pavement markings, drainage improvements, surveillance items, geotechnical studies and any other work required to complete the project. There were several stages of work and multiple construction contracts required to complete the project.

### **Phase I Studies for Various Intersections, Various Counties, IL**

Phase I engineering services for the improvement of up to 4 locations as follows (Categorical Exclusion):

- Margaret Street at Ridge Road, Homewood, Cook County
- US20 (Grant Highway) at Prospect Avenue, Marengo, McHenry Co.
- US30 at Heggs Street, Plainfield, Will County





# Transportation Facilities

## Representative Experience:

- Belmont Avenue at Oriole Avenue, Elmwood Park, Cook County  
The scope of work was for preliminary engineering, environmental studies and preparation of Project Reports. The tasks included collection of data, preparation of base maps and mosaics, geometric studies, accident analysis, capacity analysis including intersection design studies (IDS), drainage studies including Hydraulic Reports, cost estimates, public involvement and all other related work necessary to complete the various Phase I studies and tasks.

### **Value Engineering Projects, Various Routes, Various Counties**

Phase II engineering services were performed in several work orders under a blanket agreement on various projects throughout the District for use primarily on phase I and phase II projects. The work included written report of Value Engineering (VE) Studies. The team consisted of a multi-disciplined VE project team which was led by a certified value engineer specialist who has experience in roadway and bridge design. Techniques were developed for good alternatives to proposed project design, and a large and creative list which shows potential solutions to items identified in the Investigation and Analysis phases was generated. The VE team was structured with appropriate expertise to evaluate the major problem areas anticipated within a project. The VE team also had experience in construction cost estimating and cost-benefit analysis. Micro-station was used to develop, analyze, and propose modifications to the projects. The VE team developed the work plan of the steps, methodology, criteria, timing, and deliverables for the projects. The VE team leader coordinated with IDOT on specific needs for each particular project to be studied. The SDI VE team developed the Value Engineering Report which also included the step by step record of the VE analysis.



# Transportation Facilities

## Representative Experience:

### **Golf Road (IL Rte. 58) at Des Plaines River Road (U.S. 45), Cook County, Illinois**

Design services for preparation of TS&L and structural plans for the removal and replacement of the existing 3 span-continuous composite steel beam bridge carrying Illinois Route 58 over the Des Plaines River and the retaining walls within the project. The Roadway design includes the improvement, widening and resurfacing of the intersection of Illinois Route 58 and US Route 45 to provide dual left turn lanes on Golf Road and right turn lanes on all four legs. Design work also includes Traffic signals, lighting plans and other miscellaneous items required in completing the project.

### **Pershing Road over Dan Ryan Expressway, Chicago Cook County, Illinois**

Design services for preparation of Bridge Condition Report, TS&L plan, structure reports, and plans, specifications, and estimates of the bridge/roadway project. Removal and replacement of continuous five span composite steel beam bridge superstructure with a back to back of abutment length of 297'-6". Resurfacing of approach roadways. Removal and replacement of lighting above bridge deck and below deck for I-90/94 interstate highway below. Improvements to traffic signalization.

### **US Route 6 Upgrade/Widening (Phase I) – Will County, Illinois.**

Design services for preparation of Phase I design which included metric surveying, digitizing, preliminary roadway and bridge plans, and project report for the widening, upgrading and realignment of US Route 6 for a distance of 11 miles. The roadway and structures were being widened from two to four lanes. The work also included alignment



# Transportation Facilities

## Representative Experience:

studies; complex environmental assessment (ECAD); Location Drainage Study; Geometrics; IDS's; hydraulic studies; wetland delineation; ROW plans; public hearings and extensive coordination with outside agencies. The bridges within the project are; US Route 6 Over I-55, a dual two span bridge structure with a composite welded steel plate girders; US Route 6 Over Rock Run Creek, a single span reinforced concrete tee beam bridge on closed concrete abutments; and US Route 6 Over Illinois & Michigan Canal, a three span dual bridge structure with composite steel beams.

### **FAP Route 307, IL 64 Over C&NW and EJ&E Railroad at Powis Road, West Chicago – Du Page County, Illinois**

Design Engineering services for structure analysis, assessment, and design for bridge rehabilitation. Cost effective, structurally sound repair design and widening of existing substructure. The rehabilitation was to widen the two existing 10 foot lanes to 12 feet in both directions and the addition of left turn lanes at the intersection of North Avenue and Powis Road. Rehabilitation also included the design of storm sewers, signage, striping, erosion control and maintenance of traffic.

### **Central Avenue over Grand Avenue and the Soo Line R.R - Cook County, Illinois**

Design Engineering services for the replacement of bridge deck, rehabilitation of the substructure and superstructure, rehabilitation of existing retaining walls, redesign of the roadway vertical geometry and clearances, improvement of intersections including re-alignment and channelization at each end of the structure. Project Report, Location Drainage Study, and Bridge Condition Report.



# Transportation Facilities

## Representative Experience:

### **US 14 (IL120 to Lake Ave.), Woodstock, McHenry County, IL**

Roadway design, PCC base widening & improvement NPDES stormwater permit submittal, drainage and detention facilities, barrier warrant analysis, maintenance of traffic, signing & striping, land acquisition, utilities, quantities and cross sections. South Street over US14 - four span concrete bridge replacement.

### **F.A.U Route 2843, Dixie Highway over Cal-Union Ditch Bridge Structure No 016-0074, IDOT-District One, Cook County, IL**

SDI performed the scope of engineering services which included quality control, check (QA/QC), on the PS&E for the removal and replacement of Dixie Highway bridge over Cal union Ditch. The existing structure is a two span concrete slab with close abutments and the south abutment carries twin cell box culvert which will be maintained. The new bridge structure will be a single span composite wide flange steel beam with a span of 18.2 m. The total length of improvement is 143 m which includes approach roadway widening and resurfacing.

### **F.A.U Rte 2820, Governors Highway over Butterfield Creek Bridge. Structure No 016- 2679 – IDOT District one, Cook County, IL**

SDI performed the quality control check (QA/QC) on the superstructure, substructure and foundation for the removal of existing 4-barrel box culvert and the replacement with a single span – 1372mm PPC 1-Beam bridge structure with integral abutments. Existing ditches were regarded within the project limits. New approach slabs were constructed and existing pavement was milled and resurfaced.



# Transportation Facilities

## Representative Experience:

### Illinois Department of Transportation, District 2

#### **Phase I/II Engineering Services for Structure Removal, Replacement and/or Rehabilitation, Winnebago and Stephenson Counties**

- **IL 70 over the South Branch of Otter Creek (S.N. 101-0086),  
Durand.** Phase I and II engineering services for the preparation of  
Location/Design Report and final contract plans, for the removal  
and replacement of the structure
- **Meridian Rd over US 20 (S.N. 101-0096), Rockford.** Phase II  
PS&E for the rehabilitation of the structure.
- **US 20 over the Chicago, Central and Pacific (CC&P) Railroad  
(S.N. 089-0003), Eleroy.** Phase II PS&E for the removal and  
replacement of the structure.

The project also included the review of Phase I Design Report so as to assess the need of a proposed turn lane as well as proposed profile adjustments. An addendum to the Phase I Design Report was issued. The scope of work for these projects included preparation of Location/Design Reports, traffic management, analysis, cost estimate, cross sections, accident analysis, type, size and location drawings, proposed right-of-way plats, contract plans including roadway plans, geometrics, drainage plans, and traffic signal plans, drainage system design, special details, special provisions, quantities and cost estimates, and pick-up field surveys.

#### **Airport Road from 3<sup>rd</sup> Street, Milan to 27<sup>th</sup> Street - Rock Island County, Illinois**

Design of major structures; Bridges over Mill Creek, Box Culvert over an unnamed stream east of I-280 interchange, the I-280 dual structures over Airport Road and the extension of a box culvert on I-280. SN 081-0146, 0147, 0148.



# Transportation Facilities

## Representative Experience:

### **Phase I/II work for various projects on a work order basis**

Phase I and/or II engineering services for various projects under several Work orders under a blanket agreement that was negotiated and authorized by the Department.

These Work Orders included roadway surface patching and resurfacing, bridge repair, bridge rehabilitation, bridge replacement, widening and resurfacing, and new roadway projects.

- The Phase I scope of work included route surveys, hydraulic surveys, hydraulic analyses, geometric studies, and preparing Project Reports (Categorical Exclusion), data collection, development of alignment alternatives, cost estimates, traffic management analysis, accident analyses, type, size and location (TS&L) drawings, structure plans, and producing the Project Report.
- The Phase II scope of work included route surveys, land surveys, hydraulic analyses, geometric studies, and preparation of type, size and location (TS&L) structure plans, roadway plans, and any other related work to complete final plans, special provisions and estimates.

### **IL 75 over Rock Run Creek, Stephenson County, Illinois**

Design services for structural engineering of the design of proposed triple box culvert.

### **Pecatonica Road over Ditch, Winnebago County, Illinois**

Design services for structural engineering of the design of proposed triple box culvert.

# Transportation Facilities

## Representative Experience:

### Illinois Department of Transportation, District 3

#### **U.S. 20 over Grove Creek, Winnebago County, Illinois**

Design services for structural engineering of the design for proposed dual bridge replacement.

#### **IL 70 over the Pecatonica River, Winnebago County, Illinois.**

Design services for structural engineering of proposed bridge replacement

#### **FAP 319 (Prairie Parkway) From South of IL 71 to North of the BNSF Railroad - Kendall County**

Performed Retaining Wall Type Studies, Type Size and Location plans for the Retaining Walls and the preparation of Plans, Specifications and Estimates for:

- Retaining Wall at US34 from Station 11+00 to 19+50
- Prairie Parkway over Rob Roy Creek- Triple Barrel Cast-In-Place Concrete Box Culvert (Station 3285+02)
- IL 71 over Hollenbeck Creek Tributary – Double Barrel Concrete Box Culvert extension (Station 29+13.61).

#### **Phase I/II work for various projects on a work order basis**

##### **• U.S.51 (Center Str.) over Conrail RR, Ottawa, LaSalle County.**

PS&E - rehabilitation of an eight span composite steel beam bridge.

##### **• TR155 over I-55, Frontage Road & ICG RR., Grundy County.**

PS&E - four span bridge rehabilitation - removal and replacement of asphalt overlay, expansion joint systems, extension of deck drains, repair cracks in the substructure elements and increase the height of the pier crashwalls to meet current design criteria.



# Transportation Facilities

## Representative Experience:

- **IL 115 from SN 046-0106/Herscher to Irwin Rd., Kankakee Cty.**  
Route survey, pavement resurfacing, pavement marking designs, and traffic control.
- **IL 115 from IL 9 / Paxton to IL 54 at Roberts, Ford County.**  
Route survey, pavement resurfacing and marking designs, traffic control, and intersection traffic signal design.
- **US45/52 (Convent Street) & Larry Power Road, Kankakee Cty.**  
Intersection traffic signalization design
- **IL 9 & Covell Road / Jolly Lake Road, McLean County**  
Intersection geometry and Traffic signal design
- **IL 23 & Etna Road, La Salle County**  
Intersection traffic signalization design
- **Mc Hugh Road At U.S. 34 (FAP Route 591), Kendall County**  
Intersection traffic signalization design
- **Kendall Point Drive & U.S.34, Kendall County**  
Intersection geometry and Traffic signal design
- **Bridge Condition Report, I-55 Structures, Grundy County**
- **Asbestos Testing - Bridge Deck Samples, District wide.**

## Illinois Department of Transportation, District 4

### **FAP 317 (US 24), Structures over Big Sister Creek and Little Sister Creek, Fulton County**

Phase I/II engineering services was performed for the preparation of Project Reports and contract plans for the removal and replacement of Structures on US 24 over Big Sister Creek (S.N. 029-0017) and Little Sister Creek (S.N. 029-0018). SDI prepared the Bridge Condition & Hydraulic Reports (including hydraulic calculation using both WSPRO and HEC-RAS computer softwares), Structure Geotechnical Reports (including performing soil borings and analysis), conducting route and



# Transportation Facilities

## Representative Experience:

land surveys (including a full hydraulic survey), performing simple environmental assessments, preparing a Structure Report, and preparing type, size, and location (TS&L) drawings for the replacement structures. SDI also performed data collection, cost estimates, traffic management analysis, accident analysis, inspection of existing structures to determine staging possibilities, and other related work and exhibits to produce the Project Reports. SDI obtained the survey data to prepare plats and legal descriptions for additional right-of-way. Work for the final contract plans and documents included drainage studies, bridge and roadway plans, traffic control plans and other tasks to complete the phase II scope.

### **FAS 253 (IL 251) over Sandy Creek, Section 68 BR-1, Marshall Cty.**

Phase II engineering services for the removal and replacement of existing bridge structure (S.N. 062-0002). SDI performed the design of TS&L plans, wrote Plan Development Outline and the engineering of the final Plans, Specifications and Estimate.

**Illinois State Toll Highway  
Authority  
Downers Grove, Illinois.**

### **Tri-State Tollway (I-294) M.P.30 (Roosevelt Road) to M.P.32.5 (St. Charles Road) and M.P.33.8 - Bridge Rehabilitation**

Phase II engineering services for the preparation of contract plans and specifications and project permits for the proposed bridge rehabilitation on the Tri-State Tollway between M.P. 30 (Roosevelt Road) and M.P. 32.5 (St. Charles Road) and M.P. 33.8. The scope of work included rehabilitation of existing bridges, erosion control for all construction zones, landscaping and soil erosion/sedimentation control measures, pavement markings, delineators and signage for the contract limits, barrier warrant analysis and installation of guardrail, anchors and



# Transportation Facilities

## Representative Experience:

terminals, maintenance of traffic plans, and protection and relocation of utilities. The structures that were included are Bridge 209, 209CD & 210: I-88 under I-294, and four three mainline bridges. The scope of work included performing design tasks on Freeways, Highway Structures (Typical), Location drainage, Traffic Studies, Safety Studies, Feasibility Studies, Reconstruction/Major Rehabilitation and Route Survey.

### **Ronald Reagan Memorial Tollway Reconstruction and Add Lane, M.P. 131.0 (Finley Road) to M.P. 137.3 (Route 83)**

Phase II engineering services for the preparation of plans, specifications and estimates. The scope of work is for the rehabilitation, and add lane reconfiguration and resurfacing of the toll highway. Work also includes preparing the applicable permits for the construction. The toll highway rehabilitation also includes bridge rehabilitation and ramp pavements. Scope of work also includes erosion control, landscaping and soil erosion/sedimentation control measures in accordance with the Tollway's Environmental Studies manual, pavement markings, delineators and signage, barrier warrant analysis, roadway lighting, maintenance of traffic, and rehabilitation of cross road structures. Environmental issues were coordinated with the Illinois Tollway in regards to ACOE, IEPA, NPDES, IDNR-OWR. Additional tasks included Biological Resource Review, Wetland Delineation, Cultural Resource investigation, Stream/Water Quality Investigation, Tree Survey, Special Waste Assessment, Noise Analysis and Protection and / or relocation of utilities.

# Transportation Facilities

## Representative Experience:

### **Devon Avenue Interchange on I-294 Tri-State Tollway Cook County, Illinois.**

Project involved the design of a half single point urban diamond interchange which included the design of an unattended toll collection plaza on an exit ramp, the design of bridge structure and its clearance over Devon Avenue and the design of Retaining Walls with heights over 21 feet. Also included in the project were land acquisition for additional R.O.W., design of Sign Structures, maintenance of traffic, and the design of the super-elevated highway cross section.

The Devon Avenue interchange is a completely new interchange in which additional land acquisition would be required for the embankments of the new ramps. The ramps would serve as entrance and exit for the Tri-State and Devon Avenue traffic. The difficulty involved in acquiring additional land led to the option of designing retaining walls to hold the high embankment of the Tri-State.

The Devon Avenue interchange consist of four new retaining walls of varying lengths and heights. The retaining walls at the highest point will measure 28.5 feet above grade. Roadway design, Interchange Design Study, barrier warrant analysis, grading, signing & striping, drainage and detention facilities, erosion control, NPDES stormwater permit submittal, utilities, and quantities.

### **Tri-State Tollway I-294, Toll Plaza 29, I-PASS Widening Design, Cook County, Illinois.**

Roadway design, PCC base widening & improvement, barrier warrant analysis, traffic capacity analysis, drainage and detention facilities, maintenance of traffic, lighting, plaza reconstruction, signing & striping, utilities, quantities and cross sections.



# Transportation Facilities

## Representative Experience:

### **Northwest Tollway (I-90) from Mile Posts 8.7 to 15.2**

#### **Cook County, Illinois**

DSE services of study, design and preparation of contract plans and documents for drainage improvements. Work included inspection of drainage structures and analysis, ditch repair, Right-Of-Way identification and alignment, utility impact, Barrier Warrant, Field Survey, wetland delineation and permit, 404 and NPDES permits.

### **North-South I-355 Toll highway south extension**

#### **Homer Township, Illinois.**

DSE services for the design of new bridge structure of Illinois Route 7 over new toll highway, ramp-toll plaza lanes, islands, canopy, control building, and PCC pavement joints. The project was a 12 mile southern extension of I-355 from I-55 to I-80. It included 3 lane (each way) mainline roadway with full diamond interchange and 2 unattended toll collection facilities at IL Rte. 7. The IL Rte. 7 bridge over the mainline is a 2-span bridge with approximately 220 feet deck length between the integral abutments. The concrete deck is 80 feet wide and supported on 60 inch PPC Bulb-Tee beams. The scope of work also included improvements to IL Rte. 7 and providing new access roads, a closed drainage system, detention pond, box culvert designs, channel modifications to Fiddymment Creek, flood plain encroachment analysis, intersection design study and signalization at four locations, maintenance of traffic, pavement markings and signage, surveys and utility coordination.



# Transportation Facilities

## Representative Experience:

### **Cook County Highway Department**

#### **88<sup>th</sup> Avenue - From 87<sup>th</sup> Str. to 79<sup>th</sup> Str. - Cook County, Illinois**

Engineering design services for part "A" Engineering Services for Preparation of an Abbreviated Project Report for the widening, and reconstruction of a portion of 88<sup>th</sup> Avenue from 87<sup>th</sup> Street to 79<sup>th</sup> Street in Justice, IL. Work included environmental studies (biological and cultural), wetland technical report, drainage study, geometric studies, accident analysis, Traffic maintenance analysis, intersection design studies, pavement inspection/analysis, aerial mosaics, survey, database compilation, review and evaluation.

### **Du Page County Division of Transportation**

#### **Ferry Road (Prospect Avenue to IL Rte. 59), DuPage County, IL**

Engineering design services for roadway design, grade separation bridge over railroad, pedestrian / equestrian bridge over highway, Intersection Design Study, grading, drainage and detention facilities, and erosion control. Stormwater Permit Development, barrier warrant analysis, maintenance of traffic, signing & striping, land acquisition, utilities, quantities and cross sections.

### **City of Chicago Department of Transportation,**

#### **New Street Construction – South Area, Project 2, No. B-3-325**

Engineering design services for the improvement of eight WPA street sections to current City of Chicago residential street standards. The scope of work included the design of the pavement reconstruction, drainage improvement and curb and gutter. Design included preparation of engineering plans, special provisions and specifications, estimates and quantities for the following streets:

- 1) W. 118<sup>th</sup> Street from S. Bell Avenue to S. Church Street
- 2) W. 117<sup>th</sup> Place from S. Bell Avenue to S. Longwood Drive



# Transportation Facilities

## Representative Experience:

- 3) W. 117<sup>th</sup> Street from S. Longwood Drive to S. Church Street
- 4) W. 116<sup>th</sup> Place from S. Bell Avenue to S. Longwood Drive
- 5) W. 116<sup>th</sup> Street from S. Bell Avenue to S. Longwood Drive
- 6) W. 116<sup>th</sup> Place from S. Bell Avenue to S. Western Avenue
- 7) W. 114<sup>th</sup> Street from S. Oakley Avenue to S. Western Avenue
- 8) W. 106<sup>th</sup> Street from S. California Avenue to S. Talman Avenue

### **New Streets Program, No. U-1-044**

The scope of work is to provide complete field surveys, utility plans, cross sections, earthwork details, structural designs, quantities, estimates and specifications for the following streets:

- 1) S. Lawndale Avenue from W 108<sup>th</sup> Street to W 107<sup>th</sup> Street
- 2) S Springfield Avenue from W 111<sup>th</sup> Street to W 110<sup>th</sup> Street
- 3) W. 110<sup>th</sup> Street from S. Springfield Avenue to S. Hamlin Avenue
- 4) W. 109<sup>th</sup> Street from S. Ridgeway Avenue to S. Lawndale Ave.
- 5) W. 107<sup>th</sup> Street from S. Harding Avenue to S Springfield Avenue
- 6) S Harding Avenue from W 110<sup>th</sup> Street to W 109<sup>th</sup> Street
- 7) W. 108<sup>th</sup> Street from S. Hamlin Avenue to S. Ridgeway Avenue
- 8) S Spaulding Avenue from W. 105<sup>th</sup> Street to W. 104<sup>th</sup> Street.



# Public Facilities & Structures

## Representative Experience:

### **Metropolitan Water Reclamation District of Greater Chicago**

#### **Stickney Water Reclamation Plant – Contract 09-176-3P**

##### **New Sludge Thickening Facilities**

Engineering design services for the new Sludge Thickening Facilities. Scope of work included preparation of contract documents for the construction of a new gravity belt sludge thickening facility for Northside and Waste Activated Sludge, and a new primary sludge concentration facility utilizing gravity tanks, including feed pumps, polymer conditioning, odor control, wet and dry wells, relocation of the drain line from the Pre- and Post- Digestion Centrifuge Facilities, design of a new electrical substation, and support during the bidding process. Scope of work included structural designs, analysis, specifications and probable construction cost estimate. SDI also assisted in miscellaneous CAD work for electrical and mechanical designs by AECOM. The following building facilities were designed by SDI:

- Gravity Thickening Support Building
- Pre-digestion Centrifuge Building floor slabs
- Existing Concentration Tank
- Battery Room - Plasti-Fab Building
- BioRem filter tanks

#### **Sludge Disposal Building – Demolition and Rehabilitation of P&BH and Coarse Screen Building - Contract 01-198-AD**

Engineering services for plans, specifications and estimates on miscellaneous civil, structural and architectural design and inspection services. Additional tasks also included shop drawing reviews, requests for proposals, and requests for information for contracts in construction.



# Public Facilities & Structures

## Representative Experience:

### Illinois Department of Transportation, District 1

#### **Indoor Air Quality (IAQ) Evaluation of laboratory mechanical systems for Stickney, Calumet, and Egan Water Reclamation Plants, Cook County - Contract 08-RFP-15**

Evaluation of the existing mechanical system of the laboratories of the three Water Reclamation Plants were performed to establish compliance with relevant codes, publications, or professional practices and highlight areas of non-compliance with recommendation for improvement. The evaluation included ventilation, filtration, room pressure, and rate of air combustion requirements. As-built drawings and technical data of the facilities were also reviewed and a written report was produced. The scope of work included performing design tasks of Electrical Engineering, Mechanical Engineering, Structural and Civil Engineering and Architecture.

#### **Pump Station No. 26 Rehabilitation (Roosevelt Rd. at Union Ave.) - Cook County, Illinois**

Design services for engineering to prepare pump station report, develop plans, specifications and estimates, and support construction inquiries. Work was done in accordance with the Bureau of Electrical Operation's "Pump Station General Scope Requirements" and "Guidelines for Pump Station design" documents. Work included study of various options for rehabilitation, review pump operations and limitations, evaluate code compliance of mechanical systems providing ventilation and heating, hydraulic calculation, recommendation of type of pump, evaluate ComEd's electrical feeds, evaluate pump control scheme and SCADA system, evaluate compliance lighting and ground system and obtain proposals from electrical and control equipment vendors. Work also included design of all structural supports to equipment and a major expansion of the pump station site. Retaining



# Public Facilities & Structures

## Representative Experience:

### **Capital Development Board of Illinois & Illinois Department of Natural Resources**

walls of up to 15 feet height above grade were designed to hold the earth fill that is required for the site expansion.

#### **Yellow-Head Marsh Dam Culverts-Moraine Hills State Park McHenry County, IL**

Drainage and Hydraulic designs for the replacement of Culverts at Moraine Hills State Park, 1,690-acre natural area near McHenry, IL. Scope of work included hydraulic design of corrugated metal pipe culverts, water level control structures including dams, sluice gates, and weirs, culvert extensions, storm water inlet and pipes. The work also included the design of the reconstruction of cross sections, base, and asphalt pavement for cross roads and bike trails.

### **Metropolitan Railroad of Northern Illinois (METRA)**

#### **Midlothian, Fox River Grove, and Joliet commuter parking lots, Will County, IL**

Renovation and rehabilitation of eight railroad bridges for METRA (Metropolitan Railroad of Northern Illinois), and the design and construction management for the Midlothian, Fox River Grove, and Joliet commuter parking lots, including design of storm sewers connecting to existing City lines or to detention/settling ponds, and the permit process for IDOT, Division of Water Resources, for the bridge crossing the North Branch of the Chicago River.

#### **METRA projects, various locations, Illinois**

Preparation of design plans and construction specifications for METRA commuter parking lots at city and suburban stations. Scope of work included optimal parking layouts; pavement cross section design as defined by traffic volume, axle frequencies, and subgrade drainage and grading for storm runoff; compliance with regulations by IDOT Division



# Public Facilities & Structures

## Representative Experience:

of Water Resources for site improvements within floodway; planting plans to satisfy landscape requirements stipulated by owner; and coordination of utility lines to eliminate dimensional conflicts.

### **Oak Forest Enclosed Pedestrian Over-pass and Ramp METRA Project 2462 – Oak Forest, Cook County, Illinois.**

New pedestrian over-pass and ramp linking the parking lot at Waverly Avenue / Cicero Avenue to the METRA train platform.

SDI performed the structural engineering review of the shop drawings for the steel structure of the 104'-9" span pedestrian overpass over Cicero Avenue and the steel railings of the access ramp.

## **City of Des Plaines**

### **Des Plaines/Golf Road – Relocation of Water main Pipe at Golf Road, City of Des Plaines – Cook County, IL**

Manager / Civil Engineer for the construction plans of a 12 inch diameter water main pipe attached to the Golf Road over Des Plaines River bridge and below the roadway approaches of the Des Plaines River Road and Golf Road intersection. Work also included providing details of timing of water main switch-over during construction, the use of tapping valves and sleeves, valve vaults, trench backfilling, existing water main removal, ductile iron fitting, water main insulation, ductile iron bends, and pressure test and disinfecting of the water main.

## **Village of Addison Du Page County, Illinois**

### **Fence & Landscaping at I-290 & IL Rte. 83**

Project Manager for the design engineering and construction documents for the construction of a sightscreen fence and landscaping along the Eisenhower Expressway at the IL Rte. 83 southbound on ramp. The length of the fence is 3200 feet.



# Construction Management & Engineering

Representative Experience:

**Illinois Department of  
Transportation, District 1**

## **I-94/90 (Dan Ryan Expressway), Overhead Structures, Chicago, Cook County, Illinois**

Construction Engineering services which included review of design plans and contract documents, construction layout and staking, construction inspection, records maintenance, documentation, maintenance of survey and ROW monuments, materials inspection and testing, review and submit pay estimates and RFD's, change orders, monitoring of maintenance of traffic, monitoring of project cost and contractor schedules, and other construction engineering services. Also provided engineering services in structural, drainage and roadway design analysis. Roadway approach reconstruction, superstructure replacement and substructure rehabilitation for the following bridge structures over the Dan Ryan Expressway:

- I-94 at 47th Street
- I-94 at 69th Street (4 lanes)
- I-94 at Martin Luther King Drive
- I-94 at State Street and CTA

## **FAI-290 (Eisenhower Expressway) Rehabilitation from Illinois Route 56 (Butterfield Road) to I-90/94, Night-Time Paving**

Provide Phase III engineering services for bridge repair (joint repair, approach slab repair, minimum deck slab repair, and repositioning bearings) for mainline bridges I-290 over Illinois Route 56, 1-88, Hillside Road, Addison Creek, Des Plaines River and Central Avenue. Project included pavement rehabilitation for 15 miles of FAI-290 (Eisenhower Expressway) from Illinois Route 56 (Butterfield Road) to I-90/94 (night-time paving), including surveillance, detector loop replacement, sign panel replacement. Scope of work included providing construction inspection services for all construction layout and staking, resident engineering,



**STRUCTURE DESIGNS, INCORPORATED**



# Construction Management & Engineering

## Representative Experience:

**Illinois State Toll Highway  
Authority  
Downers Grove, Illinois**

material testing, construction administration, maintenance of all survey and ROW monuments, recordkeeping and documentation, pay estimates and change order submission forms.

### **Bridge Reconstruction and Widening, Jane Addams Memorial Tollway, M.P. 50.1 over C&NW Railroad, Kane County, Illinois**

Provide Phase III engineering services for bridge reconstruction and widening of the existing I-90 bridge over the C&NW Railroad. The 3-span bridge is to be replaced by a new structure with a single span. Scope of work included on-site inspection, reviewing the layout of contract plans, processing design changes, managing geotechnical inspection and testing, preparing records, maintaining documentation, and coordinating with the Corridor Manager for pay estimates. Structure Designs, Inc. All project communications were maintained via the Tollway's web-based management system, Proliance. The construction management, material inspection and testing, IDR's, and all other necessary documentation was performed in accordance with the Tollway's CM manual.

### **Roadway and bridge rehabilitation on the Northwest Tollway from Mile Posts 69.9 to 79.3.**

Construction Management and resident engineering for bridge reconstruction and rehabilitation. The project contained 4 overpass bridges and two mainline bridges.

### **Sound abatement wall installation on the I-294 Tri-State Tollway widening. Cook County, Illinois.**

Construction Management and resident engineering services which included structural inspection of precast concrete sound abatement wall installation and caisson foundation construction.



**STRUCTURE DESIGNS, INCORPORATED**



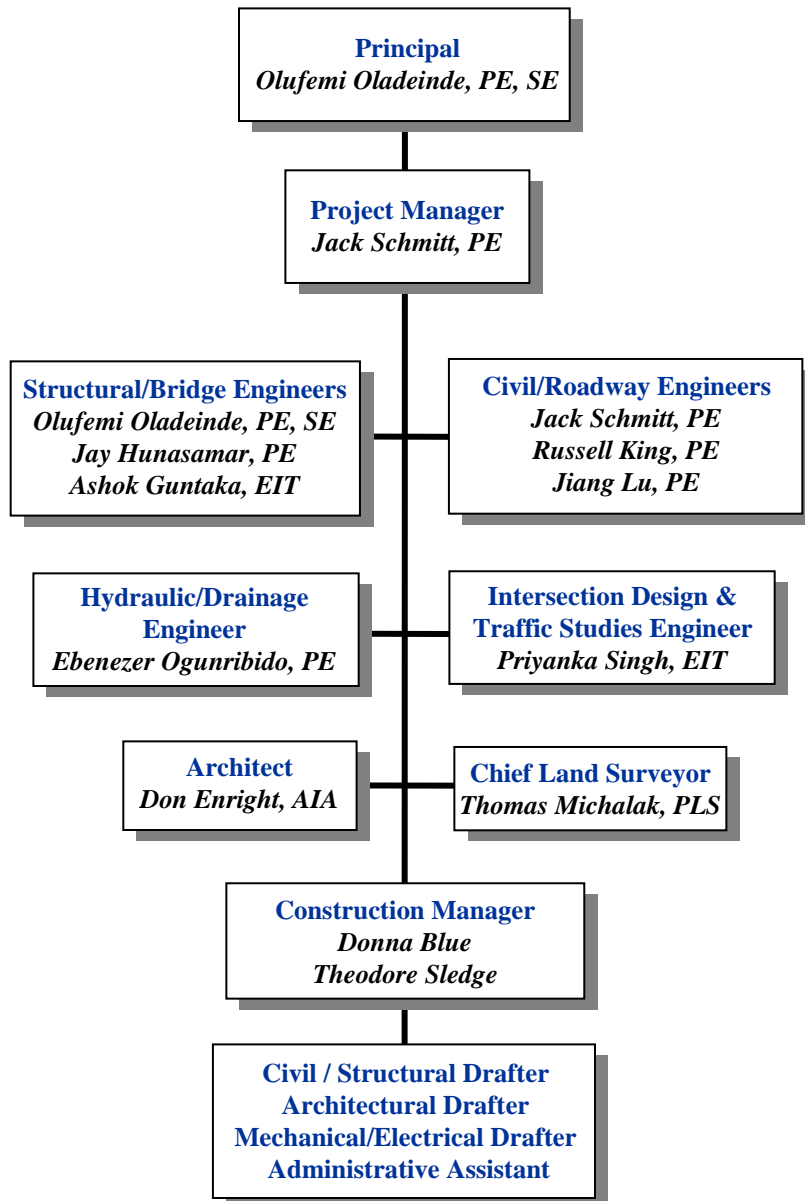
# Key Personnel

## Professionals:

- Licensed Structural Engineers
- Registered Professional Engineers
- Civil Engineers
- Land Surveyors
- Architects
- Mechanical Engineers
- Construction Managers
- Designers &
- Drafters



ORGANIZATIONAL CHART  
ENGINEERING STAFF



# Olufemi A. Oladeinde, P.E., S.E.

## President

## Experience

### Education:

Bachelor of Architecture,  
(Structures), University of Illinois,  
Chicago, 1987

Masters in Civil Engineering,  
(Structural Engineering),  
University of Detroit,  
Detroit, Michigan, 1989

### Registrations:

Licensed Structural Engineer:  
Illinois-No. 081-005196 - 1994

Licensed Professional Engineer:  
Illinois-No. 062-053701 – 2000  
Indiana-No. PE19300118 - 1993  
Iowa-No. 16575 - 2003  
Ohio-No. E-67819 – 2003

### Certification:

Capital Development Board  
Project Manager for  
Architects/Engineers

### Associations:

American Institute of Steel  
Construction  
Structural Engineers Association  
of Illinois  
American Society of Civil  
Engineers

Mr. Oladeinde has over 25 years of continuous transportation engineering experience in civil and structural projects. As a manager he was responsible for project management, budget, quality control/assurance of Phase I, II and III - design and construction engineering of all highway projects.

As a project structural engineer, he has performed detailed structural inspections of highway bridges, Bridge Condition Reports, TS&L plans, Plan Development Outlines, bridge structural design for Seismic Performance Category B and service loads. He has developed structural plans for major and complex bridges, box culverts, retaining walls, and other roadway structures.

As a project civil engineer, he has conducted Phase I feasibility studies for reports. He has also developed, maintained and administered policies governing design and preparation of plans and specifications of highway designs, road and street horizontal and vertical geometry, pavement designs and drainage designs.

Mr. Oladeinde was the project manager/structural engineer for the following bridge and roadway projects:

### Illinois Department of Transportation

- Phase I Studies for Various Intersections, Various Counties, Region 1/District 1
- FAP 317 (US 24), Structures over Big Sister Creek and Little Sister Creek, Fulton County, Illinois
- Various Value Engineering Projects, Various Routes, Various Counties, Region One, District One for the following structures:
  - i) IL 53 over East Branch of the DuPage River, DuPage County, IL
  - ii) IL 53 over Great Western Trail, DuPage County, IL
  - iii) I-57 over 143rd Street and Railroads, SN016-0058 (NB) & SN016-0059 (SB), Dixmoor, IL
  - iv) I-57 over Western Avenue / Dixie Highway, SN016-0056 (NB) & SN016-0057 (SB), Dixmoor, IL
  - v) I-57 over IL 83 (147th Street), SN016-0054 (NB) & SN016-0055 (SB), Posen, IL
  - vi) I-57 over 149th St., SN016-1051 (NB) & SN016-1012 (SB), Posen, IL
  - vii) I-294 over 147th Street, 129 (SN016-9861) (NB) & 130 (SN016-9860) (SB), Posen, IL
  - viii) I-57 over I-294 Tri State Tollway SN016-1096 (SB) & SN016-1097 (NB), Markham, IL
  - ix) Kedzie Avenue over F.A.I. Route 57, 016-2126, Markham, IL
- FA 55 (IL 70) over the South Branch of Otter Creek, Winnebago County, IL
- Meridian Road over FAP 301 (US 20), Winnebago County, IL
- Various Phase I/II Projects, Various Routes & Counties, Region 2/District 2
- FAS 253 (IL 251) over Sandy Creek, Section 68 BR-1, Marshall County, IL
- FAP 319 (Prairie Parkway) From South of IL 71 to North of the BNSF Railroad – (numerous structures), Kendall County, IL
- Golf Road (IL Rte. 58) at Des Plaines River Road (U.S. 45) – Cook County, IL
- Phases I and II work for various projects on a work order basis for District 3.
- U.S. 51 (Center Street) over Conrail RR, Ottawa, LaSalle County, Illinois



# Olufemi A. Oladeinde, P.E., S.E.

## President

## Experience

Cont'd.

- Pershing Road over Dan Ryan Expressway, Chicago – Cook County, Illinois
- US Route 6 Upgrade/Widening (Phase I) – Will County, Illinois
- Airport Road from 3<sup>rd</sup> Street, Milan to 27<sup>th</sup> Street - Rock Island County, Illinois
- US 14 (IL 120 to Lake Avenue), Woodstock - McHenry County, Illinois
- Central Avenue Over Grand Avenue and the Soo Line R.R - Cook County, IL
- IL 64 Over C&NW and EJ&E Railroad - Du Page County, Illinois
- Pump Station No. 26 Rehab. (Roosevelt Rd. at Union Ave) - Cook County, IL
- F.A.U. Route 2843, Dixie Highway over Cal-Union Ditch Bridge
- F.A.U. Route 2820, Governors Highway over Butterfield Creek Bridge
- I-94/90 (Dan Ryan Expressway), Overhead Structures, Chicago, IL
  - i) I-94 at 47th Street
  - ii) I-94 at 69th Street (4 lanes)
  - iii) I-94 at Martin Luther King Drive
  - iv) I-94 at State Street and CTA
- IL 75 over Rock Run Creek, Stephenson County, Illinois
- Pecatonica Road over Ditch, Winnebago County, Illinois
- U.S. 20 over Grove Creek, Winnebago County, , Illinois
- IL 70 over the Pecatonica River, Winnebago County, Illinois.
- TR155 over I-55, Frontage Road & ICG RR., Grundy County, Illinois
- IL 115 from Herscher to Irwin Rd., Kankakee Cty, Illinois
- IL 115 from IL 9 / Paxton to IL 54 at Roberts, Ford County, Illinois
- US45/52 (Convent Street) & Larry Power Road, Kankakee Cty, Illinois
- IL 9 & Covell Road / Jolly Lake Road, McLean County, Illinois
- IL 23 & Etna Road, La Salle County, Illinois
- Mc Hugh Road At U.S. 34 (FAP Route 591), Kendall County, Illinois
- Kendall Point Drive & U.S.34, Kendall County, Illinois
- Bridge Condition Report, I-55 Structures, Grundy County, Illinois
- US Rte. 24 over Burlington Northern RR, Fulton Cty., Illinois.
- IL Rte. 100 over Hill Creek, Pike County, Illinois.
- IL Rte. 123 over Clary Creek, Menard County, Illinois.
- IL Rte. 127 over Conrail Railroad, Bond County, Illinois.
- IL Rte. 160 / 177 over Queens Lake Branch, Clinton County, Illinois
- IL Rte. 143 over Norfolk Southern Railroad, Madison County, Illinois
- IL Rte. 156 over Prairie Du Long Creek (SN 067-0039), Monroe County, IL

### **Illinois State Toll Highway Authority**

- Tri-State Tollway (I-294) M.P.30 (Roosevelt Road) to M.P.32.5 (St. Charles Road) and M.P.33.8 - Bridge Rehabilitation
- Ronald Reagan Memorial Tollway (I-88) reconstruction and add lane from Finley Road to Route 83, Mile Post 131.0 to 137.3
- Northwest Tollway (I-90) from Mile Posts 8.7 to 15.2 – Cook County, IL
- Devon Avenue Interchange on I-294 Tri-State Tollway - Cook Cty., IL
- Tri-State Tollway, Plaza 29, I-PASS Widening Design, Cook Cty., IL
- Tri-State Tollway I-Pass Study - Cook County, Illinois
- North-South I-355 Toll Highway South Ext. - Homer Township, Illinois
- Northwest Tollway from Mile Posts 69.9 to 79.3 – Illinois



# Olufemi A. Oladeinde, P.E., S.E.

## President

## Experience

Cont'd.

### **Cook County Highway Department**

- 88<sup>th</sup> Avenue - 87<sup>th</sup> Str. to 79<sup>th</sup> Str. - Cook County, Illinois

### **Du Page County Division of Transportation**

- Ferry Road (Prospect Avenue to IL Rte. 59) - Du Page County, Illinois

### **Forest Preserve District of Cook County, Illinois**

- Des Plaines River Bicycle Trail Feasibility Study - Cook County, Illinois
- Tinley Creek Bicycle Trail / North Loop Completion - Cook County, Illinois

### **City of Chicago Department of Transportation, IL**

- Madison Street over Union Station Tracks, SN 016-6265, Chicago, IL
- South Torrence Avenue Vertical Lift Bridge over Calumet River, Chicago, IL
- Cermak Road over Chicago River, Bascule Bridge Rehabilitation, Chicago, IL
- Lawndale Avenue and 107th Str. Sewer Junction Chamber - Cook County, IL
- New Street Construction – South Area, Project 2 - Cook County, Illinois
  - i) W. 118<sup>th</sup> Street from S. Bell Avenue to S. Church Street
  - ii) W. 117<sup>th</sup> Place from S. Bell Avenue to S. Longwood Drive
  - iii) W. 117<sup>th</sup> Street from S. Longwood Drive to S. Church Street
  - iv) W. 116<sup>th</sup> Place from S. Bell Avenue to S. Longwood Drive
  - v) W. 116<sup>th</sup> Street from S. Bell Avenue to S. Longwood Drive
  - vi) W. 116<sup>th</sup> Place from S. Bell Avenue to S. Western Avenue
  - vii) W. 114<sup>th</sup> Street from S. Oakley Avenue to S. Western Avenue
  - viii) W. 106<sup>th</sup> Street from S. California Avenue to S. Talman Avenue

### **Metropolitan Railroad of Northern Illinois (METRA)**

- Metra Ashburn Staton #8126 – New station building design, Chicago, IL
- Metra Worth Staton – New station building design, Village of Worth, IL
- Oak Forest Enclosed Pedestrian Over-pass and Ramp  
METRA Project 2462 – Oak Forest, Cook County, Illinois.  
New pedestrian over-pass and ramp linking the parking lot at Waverly Avenue / Cicero Avenue to the METRA train platform.  
Structural engineering review of the steel structure of the 104'-9" span pedestrian overpass over Cicero Avenue.
- Renovation and Rehabilitation of Eight Railroad Bridges - Will County, Illinois
- Various Projects – Illinois

### **Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)**

- New Sludge Thickening Facilities at Stickney WRP, design services for:
  - i) Gravity Thickening Support Building
  - ii) Plasti-Fab Building
  - iii) Pre-Digestion Centrifuge Building
  - iv) BioRem filter tanks
- Sludge Disposal Building – Demolition and Rehabilitation of P&BH and coarse Screen Building. Structural and Architectural Engineering services.
- Indoor Air Quality Evaluation of laboratory mechanical systems for Stickney, Calumet, and Egan Water Reclamation Plants





# Olufemi A. Oladeinde, P.E., S.E.

## President

## Experience

Cont'd.

### **Capital Development Board**

- Yellow Head Marsh Dam Culverts, Moraine Hills State Park, McHenry County, Illinois: Replacing six culverts and reconstructing the cross section, base and asphalt pavement, fences and dam's embankment.
- Chicago State University - New Child Care Center, Chicago, Illinois
- Du Quoin Police Radio Tower, Du Quoin, Illinois

### **Plainfield Township Park District**

- Du Page River Bike Trail

### **City of Des Plaines**

- Des Plaines/Golf Road – Watermain Pipe Relocation, Des Plaines, Illinois

### **Village of Addison**

- Fence & Landscaping at I-290 & IL Rte. 83, Du Page County, Illinois

### **Vandalia Correction Center, Fayette County, Illinois**

- Sewer tank and filter screen structural support.

### **National Steel Corporation Midwest Division Portage , Indiana**

- Overhead Crane Runway Girders, Portage, Indiana.

### **Rockwell International Company, Centralia, IL**

- Crane girder structural support design

### **Housing Authority of the City of Milwaukee**

- Hillside Family Resource Center, Milwaukee, Wisconsin

### **Indiana Department of Transportation**

- I-80 / I-94 at Indianapolis Boulevard Interchange Hammond, Indiana
  - i) Ramp I over Indianapolis Boulevard
  - ii) Ramp G over Abandoned R.R.
  - iii) Ramp B over Abandoned R.R.
  - iv) Ramp J over Indianapolis Boulevard
- I-80 / I-94 at Kennedy Avenue Interchange, Hammond, Indiana
  - i) Ramp J over Kennedy Avenue
  - ii) Ramp I over I-80
  - iii) Kennedy Avenue over I-80
  - iv) I-80 over Conrail & IHB R.R.
  - v) Ramp I over Ramp F & F-PR & Kennedy Avenue
- I-80 / I-94 at Calumet Avenue - Multiple structures, Lake County, Indiana
- Burr Street over I-80 / I-94, Lake County, Indiana.
- Interstate 69 over Penna Railroad, Allen County, Indiana.
- State Road 1 over Whitewater River, Wayne County, Indiana.
- Interstate 69 over US Rte. 24, Allen County, Indiana.
- S.R. 25 over Wabash River, Cass County, Indiana.
- US Rte. 231 over Wea Creek and Elliot Ditch, Tippecanoe County, Indiana



# Olufemi A. Oladeinde, P.E., S.E.

## President

## Experience

Cont'd.

### **Sam's Club / Wal-Mart, Calumet City, Illinois**

Project manager of engineering design for the site development of a new Wal-Mart Store. Grading, Drainage, Parking layout, Utilities, Landscaping / Irrigation, Environmental, and Storm Water Pollution Prevention.

### **Greenfield – Center Township Fire Department**

- Greenfield Fire Station, New Road, Greenfield, Indiana.

### **M.S.D. of Washington Township**

- Fox Hill Elementary School, Indianapolis, Indiana.

### **Hamilton County Court House**

- Elevated Parking Garage, Hamilton, Indiana

### **Other Projects**

- Palos Park Restaurants - Park Management - 8101 W 123<sup>rd</sup>, Palos Park, IL
- Chicago Radiation Oncology - Jackson Park Hospital & Medical Center, IL
- Victory Outreach Church – 2809 West 59<sup>th</sup> Street, Chicago, IL
- Sunnyland Sanitary District, 2430 Burbank St., Joliet, IL
- AT & T Building Addition, 1000 Commerce Drive, Oak Brook, IL
- Straford Memorial SDA Church, Chicago, Cook County, IL
- Kenny's Ribs and Chicken and Dusties Southern Style Buffet, Matteson, IL
- Bronzeville Loft Apartments - 50 E 26<sup>th</sup> Street, Chicago, IL
- Super 8 Motel - 12808 S. Ashland, Calumet Park, IL
- Lutheran Church of the Holy Spirit, 135 West 115<sup>th</sup> Street, Chicago, IL
- Mt. Calvary Baptist Church - 1259 West 111<sup>th</sup> Street, Chicago, Illinois
- Sewer Builders Supply - 9001 South Green Street, Chicago, Illinois
- Gast Monument Office Studio & Workshop, 1900 Peterson, Chicago, IL
- 311 North Aberdeen Building Renovation, Chicago, Illinois
- Rogovine Residence – 930 S. Dunlop Ave., Forest Park, Illinois
- Evergreen Tower – 1, Building Addition, Chicago, Illinois
- David Samuel Store, Forest Park, Illinois



# Jack Schmitt, P.E.

## Project Manager

### Experience

### Education

B.S. Civil Engineering  
Illinois Institute of Technology  
Chicago, IL

Master's of Engineering  
Management  
Midwest College of Engineering

### Registration:

Licensed Professional Engineer:  
Illinois-No. 062-036929  
Indiana-#19800474  
Wisconsin- 39868006

### Certifications:

Documentation of Contract  
Quantities: IDOT, 08-0630

IDOT ICORS Training: 2010

GSA SIP version 7- 2010

Federal Contractor / Level 1-  
2010

Associate Value Specialist:  
Certificate 200701089

Primavera Training- 2006

Proliance Training- 2006 and  
2013

### Associations:

Illinois Society of Professional  
Engineers

Legislative and Continuing  
Education Committees

Member of the Society of  
American Value Engineers

American Society of Civil  
Engineers

Mr. Schmitt has over 35 years of experience in the design and management of transportation projects. He has served as Project Manager on major projects in both the public and private sectors for institutional, commercial and government clients. His experience covers the planning, design and constructability review of a wide range of roadway, controlled-access highway projects, as well as infrastructure improvements. He was an instructor of Transportation topics for the ISPE PE Review series, including Surveying and Construction Layout for 25 years, has published "Plans, Special Provisions and Contract Plan Reviews" and is a contributor of test problems for the NCEES licensing examination board. He specializes in providing plan reviews of infrastructure projects to identify anomalies that may need to be addressed in order to avoid construction delays or change orders.

His experience and accomplishments include the following:

- Project compliance to appropriate client standards
- Quality Assurance Manager for design and construction services.
- Managed three \$1 million construction inspection contracts with IDOT and one for ISTHA (using Proliance).
- Wrote Quality Assurance plans for over 25 separate projects.
- Wrote the Quality Plan and ensured all documentation complied with ISTHA requirements as Quality Manager for Design Section Engineer Services on the I-90 / I-39 interchange.
- Supervised the preparation of all roadway and drainage plans as Project Engineer for the Kingery Interchange Reconstruction.
- Managed QA/QC plan review for all roadway and drainage plans for I-70 / I-55 / I-64.
- Coordinated surveys by sub-consultant and all Phase I and II engineering services as Project Manager for the Madison Street Reconstruction.
- Project Manager – construction inspection services for the Illinois Tollway, design of roadways in McHenry County, concept design and preliminary engineering for a pedestrian walkway bridge over the UPRR in Wheaton.
- Drafted a design manual for Nebraska DOT.
- Managed design efforts, Environmental Impact Assessment and Quality Assurance programs for the North-South Tollway.

### Relevant Engineering Projects:

#### **Quality Manager for ISTHA Construction Contracts:**

•I-05-7707 and 7708 (I-355 North-South Tollway extension); •RR-06-5379 (I-90 Northwest Tollway Patching); •I-05-7718 (ISTHA Telecommunication Towers); •RR-06-5600 (ISTHA M-7 Salt Dome Replacement); •I-06-5461 and 5462 (I-88 Widening and Reconstruction) RR-06-9958 (ISTHA DeKalb Data Center); •I-07-5234, 5235, 5236 and 5237 (I-94 Tollway Reconstruction in Lake County); •RR-07-5535 (ISTHA Sign Construction); •RR-06-9962 (ISTHA Signing Upon Request); •RR-06-5383 (ISTHA Central Administration Parking Lot Reconstruction); •RR-08-5548 (ISTHA Bridge and Culvert Repairs); •RR-08-5552 (ISTHA Concrete Pavement Repairs); •RR-08-9972 (ISTHA RTMS Installation); RR-08-5561 (ISTHA Sign Fabrication and



STRUCTURE DESIGNS, INCORPORATED

# Jack Schmitt, P.E.

## Project Manager

Installation); •RR-09-5582 (Fox River Bridge Reconstruction). Filed all documentation in Proliance.

### **Project Manager for ISTHA Construction Projects:**

•RR-04-5210 (Signing Modifications System-Wide); •RR-06-9962 (System-Wide Signing Upon Request); •RR-08-5548 (Bridge and Culvert Repairs); •RR-08-5552 (Concrete Pavement Repairs); •RR-08-9972 (RTMS Installation). Filed all documentation in Proliance.

### **Project Manager for IDOT Construction Services:**

•Construction Services Upon Request for Pavement Coring; •DuPage County Road and Bridge Reconstruction; •Will County Road Resurfacing; •Lockport Road and Bridge Reconstruction; •Golf Road Resurfacing; •95th Street Resurfacing; •Burnham Avenue Resurfacing; •IL Route 53 Resurfacing; •I-55 at IL Route 129 Reconstruction; •Dan Ryan Expressway Reconstruction; •31st Street/ Cicero Avenue Bridge and Roadway reconstruction.

### **I-90 / I-39 controlled-access highway interchange, #I-06-5447- ISTHA**

Quality Manager for Design Section Engineer Services on the I-90 and I-39 are multi-lane expressways. I-90 is a toll highway at the interchange. The project included the reconstruction of the ramp from east-bound I-90 to south-bound I-39 and the ramp from north-bound I-39 to westbound I-90. The construction work included traffic control, paving, lighting and restoration. Duties include personally writing the Quality Plan that defines all technical review activities, ensuring all documentation is in compliance with the ISTHA requirements and the scope of services.

### **FAP 317 (US 24), Structures over Big Sister Creek and Little Sister Creek, Fulton County, IL - IDOT**

Project Manager for Phase II engineering for the preparation of Final Contract plans for the removal and replacement of Structures on US 24 over Big Sister Creek and Little Sister Creek and approach roadway. Project included preparing Project Reports, Bridge Condition & Hydraulic Reports, Structure Geotechnical Reports, conducting route and land surveys, full hydraulic survey, environmental assessments, accident analysis, traffic management analysis plan, inspection of existing structures to determine staging possibilities, plats and legal descriptions of additional right-of-way, Structure Report, Type, Size & Location (TS&L) drawings for the replacement structures, performing drainage studies, preparing bridge and roadway plans and preparing traffic control plans.

### **US Route 20 (Lake Street) Reconstruction – IDOT**

Project Manager: The project included traffic staging for the removal of the existing pavement, construction of sub-surface drainage, waterman relocation, traffic signals, pavement markings and restoration of parking lots adjacent to Lake Street. Coordinated topographic surveys, reviewed survey controls, alignment, ties and ROW documents.



# Hunasamar Jayaswamy, P.E.

## Project Engineer

### Experience

Mr. Jayaswamy has over 30 years of engineering experience, 28 years of which are in CDOT, IDOT and MDOT projects, involving the layout and design of substructure and superstructure details for several multi-span bridges. He also has extensive knowledge and experience in the design of bridges, highways and railroad structures and building components. In addition, his experience includes Bridge Condition Inspection and Contract Construction Inspection.

### Education

B.S. Civil Engineering,  
Mysore University, Bangalore,  
India.

### Registration

Licensed Professional Engineer:  
Illinois-No. 062-040806 – 1997

#### Illinois Department of Transportation

FAS 253 (IL 251) over Sandy Creek, Section 68 BR-1, Marshall County

Phase II construction plans and associated documents for the reconstruction of the structure carrying IL 251 over Sandy Creek (SN 062-0002) in Marshall County. Design of TS&L plans, wrote Plan Development Outline and the engineering of the Plans, Specifications and Estimate final plans. The new bridge is a 77'-0" back to back of abutment, single span composite W33 Steel Beam Bridge. Also part of the design team responsible for the design of the approach roadway which included raising the vertical profile by 2'-0", roadway cross sections design and the ditch profile improvement.

IL 70 over South Branch of Otter Creek, Durand, Winnebago County, IL

Phase I and II engineering of the removal and replacement of existing structure (SN 101-0191). Part of the design team for Bridge Condition Report, and the Type Size and Location plans. The existing structure was a PPC deck beam bridge. The replacement structure is a two span concrete slab bridge. To improve the hydraulic behavior of the bridge opening of the creek the center station of the bridge is to be shifted northward so that the center pier is relocated out of the creek flow and positioned on the north bank of the creek.

**Meridian Rd over US 20 (S.N. 101-0096), Rockford.**

Project Engineer for Phase II PS&E for the rehabilitation of the structure.

#### Illinois State Toll Highway Authority

**I-294 Bridge No. 209 and 210 Over I-88 – North and Southbound**

Responsible for the Bridge Condition Report the existing Bridge No. 209 & 210 over I-88. The existing bridge is a four span composite steel beam bridge measuring approximately 500 feet back to back of abutments. The first and third piers and partly supported on separate concrete bents that span across two roadway ramps one level below I-88 which is itself one level below I-294. The bridge was inspected by methods of hammer sounding and chain drag on the bridge deck.

Design of Bartlett Road Bridge over Fletcher creek in Memphis, TN.

Design of O' Hare Modernization Project.

Design of platform, towers and trusses for conveying coal and lime to the hoppers in the design of new power plants.

Worked for Various types of Retaining Walls for Intersection of two Inter-State Highways ( I -55 and I-75 ) at St. Louis.

Review of Shop Drawings for Rehabilitation of Sky way bridge in Chicago.

Responsible for Reconstruction of two bridges on I-80. Responsible for the structural design of ramps and retaining walls at Metra Central Station.

Design of Substructure and Superstructure for Raymond Road Bridge over I-88. Existing 4 Span Pre-stressed beam bridge has been replaced with 3 Span Pre-stressed beam bridge, to allow for widening of I-88.

Responsible for design of Bridges and underground structures of the Metro Airport, Detroit.

Design ( Structural part ) of Wyndotte Waste water Treatment Plant.



# Hunasamar Jayaswamy, P.E.

## Project Engineer

Design of Fire Station for the City of Detroit.

Design of Central Avenue Bridge over North Branch of Chicago River. Responsible for the design of abutments, piers and superstructure.

Design of Oakton Street Bridge over Des Plaines River. Responsible for the design of substructure and superstructure.

Design of Deck slabs over retaining walls for the Kennedy Expressway Reconstruction Project.

Franklin Street Bridge and approaches over Illinois river at Peoria, Illinois (called Robert H. Michael Bridge). This is a major bridge with mid-span of 365 ft. and end spans of 180 ft. Four spans of 108 ft. for the Approaches. Design and detailing substructures for both steel and concrete alternates. Design and detailing of concrete deck for the full length of the bridge. Improvements to the existing substructures of the bridges for the roads leading to approaches. This Bridge got merit award in 1994.

Designed the 6th Street Bridge over Jefferson Avenue in Detroit, Michigan. This is a seven span bridge with three spans on a curve of 100' radius. This 6th Street Bridge was later awarded "The Number one Winner" in the Elevated Highway Category in 1986 by AISC. Rehabilitation project of a 17 span bridge at Ogden over Cicero, Chicago, Illinois.

Design of Washington Blvd. Viaduct over Union Railway tracks adjacent to Bascule Bridge over Chicago River. Deck Structure for the Washington Blvd. Below Northwestern train tracks.

Inspection of 7 Bridges over Eden Expressway in Cook County.

Responsible for the design of superstructure and substructure and other details for various bridges in I-270 in Madison and Claire Counties in Illinois. Bridges are of multiple spans, both straight and curve.





# Thomas Michalak, PLS

## Land Surveyor

### Experience

Mr. Michalak possesses over 26 years of experience in the field of survey. A highly skilled Professional Land Surveyor with strong interpersonal and administrative skills, a reputation of excellence capable of taking a project from start to finish

### Education:

B.S. Construction Technology  
Purdue University, 1990

A.A.S. Civil Engineering  
Technology  
Purdue University, 1987

A.A.S. Architectural Technology  
Purdue University, 1986

### Registration:

Professional Land Surveyor:

Illinois-No. 35-003340 - 2001

Indiana-No. 20700047 - 2006

### Skills and Experience

- Experienced performing professional services such as ALTA / ACSM Land Title Surveys, Boundary, Topographic, Condominium, Subdivision and Hydrographic Surveys, Dedications, Vacations, Annexations, Easements, Legal Descriptions and Monument Records.
- Recorded such surveys in Cook, DuPage and Will counties in Illinois and Lake County Indiana.
- Experienced performing construction services in civil, industrial, commercial and residential settings, preparation of construction calculations and field layout, record surveys for anchor bolts, plumbness, utility and grading surveys, volumetric and monitoring surveys.
- Proactive at seeking out project leads and developing client relationships.
- Experienced at contract review, team coordination, project safety review, mentoring.
- Directed survey crews and technicians to generate in excess of \$1.1M in survey fees in multiple years.
- Supervised up to 8 crews a day working on my projects.
- Transportation Worker Identity Card holder.
- Skilled and experienced at reading plans, specifications, estimating project scope / fee and proposal preparation.
- Skilled and experienced in performing project safety reviews and implementation of a project safety plan.
- Proficient in the use of AutoCAD Land Desktop, EaglePoint, Microsoft Office products.
- Experienced in the use of modern survey instrumentation: total stations, GPS equipment, laser scanners.
- Experienced in client specific billing processes and collections in facilitating projects and attaining operational goals.

### Professional Achievements

- QA/QC PLS/PM Citgo Lemont Refinery ULSD Unit, \$750M addition, \$1.5M survey fees.
- PLS/PM Citgo Lemont Refinery Capital Improvements, \$1M annual budget.
- PLS/PM Harrah's Horseshoe Casino, \$750K survey fees.
- PLS/PM BP North America Operation Canadian Crude \$3B expansion.
- Awarded Plat Contest winner, ALTA Surveys 2009 Illinois Land Surveyors Conference.

### Relevant Survey Projects:

#### **Land and Route Surveying for Highways**

- FAP 317 (US 24) over Big Sister & Little Sister Creeks, Fulton County, IL
- Illinois Route 47, Huntley, IL.
- Cook County Highway 133 West Bartlett Rd. IL





# Thomas Michalak, PLS

## Land Surveyor (Cont'd.)

- DuPage County Highway 3 Ferry Road, IL
- DuPage County Highway 18 Munger Road, IL
- I-69, Ft. Wayne, IN.
- Indiana State Route 10, Newton County, IN.
- George Lake Trail Pedestrian Bridges, Hammond, IN.

### **Land Surveying services for Building & High Rise Construction:**

- Super Target, Warrenville, IL.
- Super Target, Chicago, IL.
- Amerisuites, Vernon Hills, IL.
- Target-Kohl's, Glenview, IL.
- WFL Warehouse, Romeoville, IL.
- Children's Memorial Hospital, Chicago, IL.
- Chicago Theological Seminary, UIC - Chicago, IL.
- Navistar Corporate Headquarters, Warrenville, IL.
- Cornerstone 1 & 2, Warrenville, IL.
- La Quinta Inn and Suites Downtown Chicago, IL

### **Land Surveying for Land Development**

- Indiana Harbor Confined Disposal Facility, East Chicago, IN.
- Cantera Development - Warrenville, IL.
- Brewster Creek - Bartlett, IL
- Leighlinbridge Subdivision, Manhattan, IL.
- Crossroads Business Park - Plainfield IL.
- Lakewood Subdivision - Bartlett, IL
- The Village of Huntley, IL.
- Silver-Leaf Subdivisions Unit 1 & 2 - St. John, IN.
- Woodland Hills Subdivision - Crown Point, IN.

### **Large Scale Surveys**

- Poplar Creek Music Theater, Hoffman Estates, IL.
- Barat College, Lake Forest, IL.
- Anderson Consulting Campus
- Allstate Corporate Campus, Hoffman Estates, IL.
- Capital Health, 225 ac. Waukegan, IL.
- Proposed big box retail site, 240 ac. Matteson, IL.
- Proposed big box retail site, 60 ac. Monee, IL.
- Highland Grove Shopping Center, Highland, IN.
- Woodridge Shopping Center, Woodridge, IL.



# Ebenezer A. Ogunribido, P.E.

## Hydraulic / Drainage Engineer

### Experience

### Education

B. Sc., Mechanical Engineering,  
Tennessee Technological  
University, Cookeville,  
Tennessee, U S A, 1974

Master of Mechanical  
Engineering, Illinois Institute of  
Technology, Chicago, 1980

### Registration

Licensed Professional Engineer:  
Illinois-No 062- 038307 – 1997

1. Illinois, March 1980
2. Registered Professional  
Mechanical Engineer  
(COREN), Nigeria,  
February 1983

Mr. Ogunribido has over 29 years of experience as an Engineer in the areas of project management. He has worked in numerous highway projects. The highway design experience includes project management and QA/QC review for drainage system design and roadway pavement design. He also has extensive experience in supervision of road construction engineering management.

### Relevant Projects:

#### Tri-State Tollway (I-294) M.P.30 (Roosevelt Road) to M.P.32.5 (St. Charles Road) and M.P.33.8 - Bridge Rehabilitation, Cook County

##### Drainage Engineer:

Engineering services for the preparation of contract plans and specifications and project permits for the proposed bridge rehabilitation on the Tri-State Tollway between M.P. 30 (Roosevelt Road) and M.P. 32.5 (St. Charles Road) and M.P. 33.8. The scope of work included rehabilitation of existing bridges, erosion control for all construction zones, landscaping and soil erosion/sedimentation control measures, pavement markings, delineators and signage for the contract limits, barrier warrant analysis and installation of guardrail, anchors and terminals, maintenance of traffic plans, and protection and relocation of utilities. The structures that were included are Bridge 209, 209CD & 210: I-88 under I-294, and four three mainline bridges. The scope of work included performing design tasks on Freeways, Highway Structures (Typical), Location drainage, Traffic Studies, Safety Studies, Feasibility Studies, Reconstruction/Major Rehabilitation and Route Survey.

#### New Sludge Thickening Facilities at Stickney WRP

##### Drainage Engineer & Project Manager:

Four sludge streams designed at the Stickney Water Reclamation Plant (WRP) as follows:

1. Primary sludge from the Southwest Preliminary Settling Tanks (PREL)
2. Waste activated sludge (WAS)
3. Primary sludge from the West Side Imhoff Tanks (Imhoff Sludge)
4. Combined primary sludge and WAS from the North Side WRP (NS Sludge)

The Design Criteria Document (DCD) were as follows:

- The existing Sludge Control Building and the existing Sludge Concentration Tanks will be modified to create wet and dry wells for handling North Side sludge and WAS streams.
- The sludge mixing chamber at the existing Sludge Concentration Tanks will be modified to separate the NS Sludge from WAS.
- Centrifugal pumps will be provided in new dry wells (former Sludge Concentration Tanks) for the NS Sludge and WAS.

#### Yellow-Head Marsh Dam Culverts-Moraine Hills State Park, McHenry County, IL Department of Natural Resources and Capital Development Board of Illinois

##### Senior Civil Engineer:

Drainage and Hydraulic designs for the replacement of Culverts at Moraine Hills State Park, 1,690-acre natural area near McHenry, IL. Work included hydraulic design of corrugated metal pipe culverts, water level control structures, culvert extensions, storm water inlet and pipes. Also responsible for the design of the reconstruction of cross sections, base, and asphalt pavement.

#### Pump Station No. 26 Rehabilitation (Roosevelt Rd. at Union Ave.), Chicago, IL

##### Hydraulic / Drainage Engineer:

Preparation of pump station report, develop plans, specifications and estimates, and support construction inquiries. Work was done in accordance with the Bureau of Electrical Operation's



# Ebenezer A. Ogunribido, P.E.

## Hydraulic / Drainage Engineer

### Experience (cont'd)

"Pump Station General Scope Requirements" and "Guidelines for Pump Station design" documents. Work included study of various options for rehabilitation, review pump operations and limitations, evaluate code compliance of mechanical systems providing ventilation and heating, hydraulic calculation, recommendation of type of pump.

#### Indoor Air Quality (IAQ) Evaluation of laboratory mechanical systems for Stickney, Calumet, and Egan Water Reclamation Plants, Cook County, IL

Mechanical Engineer:

Evaluation of the existing mechanical system of the laboratories of the three Water Reclamation Plants were performed to establish compliance with relevant codes, publications, or professional practices and highlight areas of non-compliance with recommendation for improvement.

#### North Frontage Road Resurfacing, CCHD – Maywood, Illinois

Project Manager for the preparation of design plans and contract documents for the resurfacing of 1.25 miles of roadway along the Eisenhower Expressway in Maywood, Illinois.

#### 87<sup>th</sup> Street and Greenwood Intersection Improvements, CDOT – Chicago, Illinois

Project Manager for final design services for the reconstruction of the intersection located on the south side of Chicago at 87<sup>th</sup> and Greenwood Avenue. The project area includes medium to heavy industrial businesses as well as newer commercial and retail development. Work included topographic survey; hydraulic analysis; roadway plan/drainage; pavement markings; traffic maintenance plan; geotechnical investigations and report; and design documents.

#### Western Avenue Road Reconstruction, CCHD – Chicago, Illinois

Project Manager for design plans and contract documents for a two-mile segment (Devon-Howard Ave.) of a 5-mile arterial street resurfacing project. Also completed pavement markings for all 5 miles.

#### COOK COUNTY HIGHWAY DEPARTMENT

Project Engineer / supervision of all asphalt and concrete plants located in South of Cook County. Responsible for scheduling inspectors to various manufacturing plants, construction materials quality assurance and control, and documentation. Projects include:

- i) Landwehr Road resurfacing, Village of Glenview and Northbrook
- ii) Ashland Avenue (77<sup>th</sup> St to 95<sup>th</sup> St, 95<sup>th</sup> St to 77<sup>th</sup> St, 79<sup>th</sup> St to 39<sup>th</sup> St) resurfacing
- iii) Francisco Avenue (Broadway to 131st Street) reconstruction
- iv) Wolf Road (Harrison Street to St. Charles Road)
- v) Western Avenue (104<sup>th</sup> Street to 115<sup>th</sup> Street) resurfacing
- vi) Roberts Road (79<sup>th</sup> Street to Archer Road) resurfacing
- vii) West Fullerton Avenue (Narragansett Avenue to Sacramento Avenue) resurfacing
- viii) 108<sup>th</sup> Avenue (153<sup>rd</sup> Street to 143<sup>rd</sup> Street) reconstruction
- ix) Olympian Way/Kedzie Ave. (Governors Hwy to Route 30) reconstr. and resurfacing
- x) 138th Street at Halsted Avenue widening and channelization

#### O'Hare International Airport Terminal 6, CDOA – Chicago, Illinois

Project Manager for the preparation of preliminary roadway design plans for arrival and departure roadways and a temporary roadway bridge for the planned 743,000 square foot airport terminal. Work involved 6 temporary roadways with a total length of 4,830 lineal feet and ranging in width from 13 to 56 feet; 7 ramps totaling 7,518 lineal feet; lower and upper level roadways totaling 9,775 lineal feet, and lane extensions for Balmoral Avenue (1913 lineal feet) and Bessie Coleman Drive.



# Jiang Lu, P.E.

## Civil Engineer

### Experience

### Education

M.S. in Civil Engineering  
University of Akron  
Akron, OH 1993

B.Sc. in Civil Engineering  
Beijing Institute of Civil  
Engineering  
Beijing, China 1982

### Registrations

Licensed Professional Engineer  
Wisconsin-No. 35519-006

Mr. Lu possesses over twenty six years of experience in the field of Civil/Transportation and Drainage engineering. He has worked on several highway projects. His highway design experience includes drainage system design, Hydraulic design, highway geometric, roadway pavement design and plans/specifications/estimates preparation,. He is an advanced user of MicroStation and GeoPak softwares.

- Roadway/highway design engineer: Geometry-horizontal and vertical layout, typical cross-section design, intersection/interchange design, pavement design-rigid and flexible pavement thickness calculation, MOT design-work zone traffic control plan and analysis, drainage calculations and grading layout, pavement marking design, traffic signs design, erosion control and landscaping. Drafting, Quantity, schedule and cost estimates
- Drainage design engineer: Drainage study and hydraulic report, hydrology, floodplain encroachment, channel and ditch design, culvert hydraulic calculation, bridge hydraulic calculation and analysis, inlet and storm sewer calculations and design, detention storage calculation and design. Drafting, Quantity, schedule and cost estimates
- Site development design engineer: Site inspection, parking lot design, site geometry design, utility layout, grading and drainage design. Drafting, Quantity and cost estimates.

### Relevant Projects:

#### **Yellow-Head Marsh Dam Culverts-Moraine Hills State Park, McHenry County, IL**

#### **Department of Natural Resources and Capital Development Board of Illinois Drainage Engineer:**

Drainage and Hydraulic designs for the replacement of Culverts at Moraine Hills State Park, 1,690-acre natural area near McHenry, IL. Work included hydraulic design of corrugated metal pipe culverts, water level control structures, culvert extensions, storm water inlet and pipes. Also responsible for the design of the reconstruction of cross sections, base, and asphalt pavement.

#### **Ronald Reagan Memorial Tollway (I-88) Reconstruction and Add Lane, M.P. 131.0 (Finley Road) to M.P 137.3 (Route 83)**

#### **Civil Engineer:**

Phase II Engineering services for the preparation of contract plans and specifications related permits for the proposed rehabilitation, reconfiguration and resurfacing project on the Ronald Reagan Memorial Tollway between Mile Post 131.0 (Finley Road) to Mile Post 137.3 (Route 83) in DuPage County, Illinois.

#### **Phase II Various Bridge Projects, Various Counties, IL**

#### **Civil / Drainage Engineer:**

Phase II Engineering services for the preparation of bridge and approach roadway rehabilitation plans for twenty five structures within the IDOT District 2. The scope of work consisted of preparing complete set of contract plans, special provisions, Summary of Quantities sheet and Bill of Materials for various



rehabilitation projects. Other work orders also included assisting in the completion of various contract plans for the District. The various rehabilitation included bridge overlay replacement, expansion joint replacement, deck drain modification, construction staging, and miscellaneous repairs to superstructure and substructure elements.

### **FAS 1317 (IL 113), Structure over Wiley Creek, Kankakee County, IL FAS 338 (US 45), Structure over Louis Creek, Iroquois County, IL**

Hydraulic/Drainage Engineer:

Phase II Engineering services for the preparation of two separate sets of contract plans, specifications and estimates for the two structures and the approach roadways. Tasks also included field surveys, preparing type, size and location (TS&L) drawings and the final plans. The two structures that were involved are as follows:

- Removal and replacement of the existing structure (S.N. 046-0074) over Wiley Creek on IL 113. The scope included the realignment of the intersection at 3000 Road.
- Removal and replacement of the existing structure (S.N. 038-0043) on US 45 over Louis Creek.

### **IL 43 (FAP 348), Over I-94 Spur, Cook County, IL**

Civil Engineer:

Phase II Engineering services for the preparation of contract plans, specifications, and estimates for the removal and replacement of the bridge deck of S.N. 016-0305. A TS&L plan was also prepared. The roadway cross-section was designed for 2-12 ft. lanes in each direction and a concrete barrier median, 16 ft. wide. The approach roadway was resurfaced for a distance of 140 ft. on the south side of the bridge, and 280 ft. on the north side of the bridge. The scope of work also consisted of the approach slabs and pavement, the aluminum handrail, the reconstruction of abutment backwalls, the replacement of the bearings, repair and seal the beam ends and substructure, the replacement of the deck drains, the rehabilitation of the slopes under the approach spans, and the rehabilitation of a retaining wall. The profile grade of the roadway was also improved.

### **IL 53 (FAP 846) over Prairie Creek, Will County**

Hydraulic/Drainage Engineer:

Phase II Engineering services was performed for the preparation of contract plans, special provisions and estimates for the removal and replacement of the three span superstructures carrying IL 53 bridges over Prairie Creek and the approach roadway. The project included the removal and replacement and widening of the superstructures for the northbound structure to provide two 12 feet wide lanes with a six feet wide inside shoulder and 10 feet wide outside shoulders. The southbound bridge proposed scope is also superstructure removal and replacement and widening to provide two 12 feet wide lanes with a six feet wide inside shoulder and 10 feet wide outside shoulders. The two structures are as follows:

- S.N. 099-0090 (Northbound structure)
- S.N. 099-0242 (Southbound structure)



The proposed approach roadway cross sections for both the northbound and southbound bridges consisted of two 12 feet wide lanes with a six feet wide inside shoulder and 10 feet wide outside shoulders. The roadway was milled and resurfaced for a distance of approximately 300 feet from either side of the structures. The tasks included the preparation of type, size and location plans, roadway design, traffic staging plans, complete ground survey, erosion control plans and all other highway related work to complete the project.

### **135<sup>th</sup> St. (FAU 1596) Over Tinley Creek & IL 83 (FAU 2937) Over North Creek, Cook County**

Hydraulic/Drainage Engineer:

Phase II engineering services for the preparation of contract plans, special provisions and estimates for the structure replacement of 135<sup>th</sup> Street over Tinley Creek and IL 83 over North Creek. The scope of work included the preparation of contract plans, specifications and estimates, including type, size and location and structure plans, detour plans for:

135<sup>th</sup> St. (FAU 1596) over Tinley Creek, S.N. 016-2715 - A one span, 8.84 m structure. The deck carries one 3.66 m through traffic lane and 3.05 m shoulder in each direction. The total out to out width is 14.02 m. The existing approaches consist of one 3.66 m lane and 2.44 m gravel shoulder in each direction. The improvement consisted of the removal and replacement of the entire structure. The new structure was constructed with a higher profile than the existing structure. The pavement and approach slabs on both sides of the bridge were removed and replaced. Retaining walls were constructed on both sides of the roadway in order to minimize fill and impacts to the Forest Preserve.

IL 83 (FAU 2937) over North Creek, S.N. 016-2727 - The existing approach roadway consists of one 3.6 m lane in each direction and 3 m aggregate shoulders. The improvement consisted of the removal and replacement of the entire structure. The new structure was constructed with a higher profile than the existing structure. The pavement and approach slabs on both sides of the bridge were removed and replaced. The existing bicycle path that crosses IL 83 at grade, 39 m south of the bridge, was reconstructed to meet the new profile. Retaining walls were constructed at three locations along IL 83 in order to minimize fill and impacts to the Forest Preserve.

### Softwares & Other Skills:

- MicroStation and AutoCAD
- Roadway Geometry by: GEOPAK
- Drainage Calculations by: HEC-1, TR-20, WSPRO, HEC-RAS, HY-8, HY-22 and FHWA spreadsheets
- Design by: AASHTO geometry design manual, MUTCD standards, FHWA-HEC22 manual, IDOT BDE & drainage manual





# Ashok Guntaka, EIT

## Civil Engineer

### Experience

Mr. Guntaka possesses over four years of experience in the field of civil engineering and structural engineering. He has worked on several highway projects and building projects. The highway design experience includes highway geometric, plan preparation, drainage system design, roadway pavement design, and highway bridges. He is an advanced user of MicroStation and GeoPak softwares.

### Education

Masters in Civil Engineering  
Southern Illinois University  
Edwardsville, IL

B.Sc. in Civil Engineering  
Nagarjuna University Guntur, India

### Registration

Engineer in Training  
Michigan, 2009

### Structure Designs, Inc:

Civil Engineer for following projects:

#### **FAS 253 (IL 251) over Sandy Creek, Section 68 BR-1, Marshall County**

Phase II construction plans and associated documents for the reconstruction of the structure carrying IL 251 over Sandy Creek (SN 062-0002) in Marshall County. Design of TS&L plans, wrote Plan Development Outline and the engineering of the Plans, Specifications and Estimate final plans. The new bridge is a 77'-0" back to back of abutment, single span composite W33 Steel Beam Bridge. Also part of the design team responsible for the design of the approach roadway which included raising the vertical profile by 2'-0", roadway cross sections design and the ditch profile improvement.

#### **IL 70 over South Branch of Otter Creek, Durand, Winnebago County, IL**

Phase I and II engineering of the removal and replacement of existing structure (SN 101-0191). Part of the design team for Bridge Condition Report, and the Type Size and Location plans. The existing structure was a PPC deck beam bridge. The replacement structure is a two span concrete slab bridge. To improve the hydraulic behavior of the bridge opening of the creek the center station of the bridge is to be shifted northward so that the center pier is relocated out of the creek flow and positioned on the north bank of the creek.

#### **FAP 319 (Prairie Parkway) From South of IL 71 to North of the BNSF Railroad, Kendall County - IDOT - Region Two/District Three**

Performed Retaining Wall Type Studies, Type Size and Location plans for the Retaining Walls and the preparation of Plans, Specifications and Estimates.

- Retaining Wall at US34 from Station 11+00 to 19+50
- Prairie Parkway over Rob Roy Creek- Triple Barrel Cast-In-Place Concrete Box Culvert (Station 3285+02)
- IL 71 over Hollenbeck Creek Tributary – Double Barrel Concrete Box Culvert extension (Station 29+13.61)

#### **Ronald Reagan Memorial Tollway (I-88) Reconstruction and Add Lane, M.P. 131.0 (Finley Road) to M.P 137.3 (Route 83)**

Phase II engineering services for the preparation of contract plans and specifications related permits for the proposed rehabilitation, reconfiguration and resurfacing project on the Ronald Reagan Memorial Tollway between Mile Post 131.0 (Finley Road) to Mile Post 137.3 (Route 83) in DuPage County, Illinois.





# Priyanka Singh, EIT

## Traffic Engineer

### Experience

#### Education

M.S. in Civil Engineering  
(Transportation &  
Infrastructure Systems)  
Purdue University – West  
Lafayette, IN - 2004

B.Sc. in Civil Engineering  
S. V. National Institute of  
Technology  
Surat, India - 2000

#### Registrations

Engineering Intern (EI) –  
Ohio

Ms. Singh possesses over five years of experience in the field of Civil/Transportation engineering. She has worked on several highway projects. Her highway design experience includes traffic engineering and transportation planning, traffic impact studies, interchange modification studies, internal circulation studies, and traffic signal design. Her accomplishment includes the following:

- Developed comprehensive matrix system for traffic projects.
- Performed comprehensive traffic studies for multiple projects to identify infrastructure improvements.
- Used technological tools in traffic simulation to provide higher level of service (LOS).
- Developed multi-media presentations of real-world traffic simulations to promote clients' vision.
- Cost-reducing measures and effective quality control by implementing VBA for traffic analysis.

#### Relevant Projects:

**FAP 317 (US 24), Structures over Big Sister Creek and Little Sister Creek, Fulton County, IL**  
Traffic Engineer services for preparation of a Project Report. Performed traffic management analysis, accident analysis, Traffic Studies, Safety Studies, Inter section Details (Stop-Signs, turning radii), Traffic Management Analysis (TMA) to investigate alternative traffic control applications, the impact traffic will have on facilities in the vicinity and the cost of various alternatives. The alternatives include staged construction, road closure and an on-site detour run-around.

#### **SR 725 & I-75 Interchange, Montgomery County, Ohio**

Traffic engineer for the Interchange Modification Study for the evaluation of a second right turn lane from the existing SR 725 westbound approach at the signalized intersection of I-75 northbound ramp, near the Dayton Mall. Was responsible for all traffic analyses using HCS and preparing a comprehensive report for ODOT documenting all assumptions, results and recommendations.

#### **Stewart Street Bridge, Dayton, Ohio**

Project engineer for traffic assessment of the proposed replacement of the existing four-lane bridge structure across the Great Miami River in the City of Dayton, Montgomery County, Ohio, with a new six-lane bridge, between Patterson Boulevard and Edwin C. Moses Boulevard. This study addressed City of Dayton's traffic concerns for event management and vehicle detection/surveillance technology. The study proposed the use of overhead changeable lane usage signs for normal traffic operations and during special events. Responsibilities also included the design of traffic signals at the two approaches to the bridge. The design incorporated the video surveillance to allow city officials to monitor and control the entire Stewart Street corridor.

#### **Meijer, Inc., Village of Canal Winchester, Ohio**

Traffic Engineer for a traffic impact study of the proposed Meijer development located in the Village of Canal Winchester, Fairfield County, Ohio to identify impacts and level of service (LOS) of off-site access and traffic control improvements required to service the project. Annual growth rate for traffic projections was estimated based on land use data from six (6) traffic analysis zones (TAZ) provided by Mid-Ohio Regional Planning Commission (MORPC). This study required the coordination with the Village of Canal Winchester, Fairfield County Engineer, Ohio Department of Transportation (ODOT), and Violet Township.

#### **Castleton Square Mall, Indianapolis, Indiana**

Project Engineer for internal circulation study for the Castleton Square Mall in northeastern



# Priyanka Singh, EIT

## Traffic Engineer

Indianapolis, Indiana. Traffic analysis was performed to determine the delay experienced by motorists and queue formation at two (2) internal intersections. Microscopic simulation using SimTraffic and VISSIM software was also performed as part of this study. Responsibilities also included the design of the proposed traffic signal, in coordination with the City of Indianapolis. Also provided design specifications to local contractors.

### Gateway Logistics Center, Indiana

Project Engineer for traffic impact study for the proposed warehouse site for the Gateway Logistics Center located at the northwest quadrant of Interstate 70 (I-70) and State Road 39 (SR 39) in Hendricks County, Indiana. The proposed development consisted of approximately 13 million square feet of warehouse, with an additional 375,000 square feet of retail development. Traffic analyses were performed to identify off-site roadway improvements that will be required to mitigate potential degradation of the existing road network.

### Wal-Mart, Tiffin, Ohio

Project Engineer for a traffic impact study for the proposed development to identify level of service of off-site access and traffic control improvements required to service the project. This included capacity analysis using SYNCHRO, signal warrant analysis and auxiliary lane warrants at the intersections in the study area. The study was based on a comparative assessment of build versus no-build option.

### Mercy Hospital Campus, Seneca County, Ohio

Project Engineer for a traffic impact study for the Mercy Hospital campus site located in Hopewell Township, Seneca County, Ohio. The study evaluated the traffic impacts of two different site access alternatives of the proposed development on the surrounding roadway system. Conceptual construction costs for each alternative were also estimated based on the recommendations. Was also responsible for the design of the proposed traffic signal at the hospital entrance.

### Great Miami Boulevard Connector (Renaissance Plan) Dayton, Ohio

Project Engineer for a comprehensive traffic study for the Great Miami Boulevard Connector in Dayton, Ohio, which will eventually become a new industrial parkway/gateway into a planned revitalized urban neighborhood. The study evaluated existing roadway network from Main Street to West Riverview Forest Avenue, including the impacts of the I-75 reconstruction in Downtown Dayton. Extensive vehicle routings and trip assignments were done to address proposed road closure.

### Roundabouts - Summit Mall, City of Fairlawn, Ohio

Project Engineer for internal circulation study performed to determine the feasibility of the proposed roundabouts at the Summit Mall in the City of Fairlawn, Summit County, Ohio. Operational analysis was performed to determine the impacts of vehicle backup at the existing signalized intersection on the performance of the proposed roundabouts. Microscopic simulation of the proposed layout was performed using VISSIM software to determine the impact of queue formation. 3D AVI recording of the simulation was also prepared for visual representation of the operating conditions of the proposed roundabouts.

### Softwares & Other Skills:

- HCS, Synchro, SimTraffic, PC Warrants, VISSIM and RODEL Design
- MicroStation and AutoCAD





# Computer & CADD Equipment

## Specialized Computer Softwares used for projects:

- I. **MDX – Curved & Straight Steel Bridge Design & rating**
- II. **RISA 2D**
- III. **Dcalc**
- IV. **Bentley GEOPAK:**
  - Civil Engineering Suite 2004 Edition
  - InRoads Suite 2004 Edition
  - PowerCivil 2004 Edition
  - Site 2004 Edition
  - Bridge 2004 Edition
  - PowerRebar 2004 Edition
  - Structural 2004 Edition
  - Architecture 2004 Edition
  - PowerSurvey 2004 Edition
  - Survey 2004 Edition
  - Building Electrical Systems 2004 Edition
  - Building Mechanical Systems (HVAC & Plumbing), 2004 Edition
  - HVAC 2004 Edition (Mechanical Systems)
  - Parametric Cell Studio 2004 Edition
- V. **MicroStation V8 & Civil Extension 2004 Edition**
- VI. **AutoCAD**
- VII. **GuidSign**
- VIII. **AutoTurn**
- IX. **HCS+T7F**

