Village of Orland Park

82nd Avenue Multi-Use Path (135th Street to 151st Street) Phase I – Preliminary Engineering

RFP 82nd Avenue Multi-Use Path from 135th Street to 151st Street, Phase I Preliminary Engineering

May 14, 2021

Jacobs

Challenging today.
Reinventing tomorrow.

Table of Contents

1. Cover Letter

Jacobs

Challenging today.
Reinventing tomorrow.

525 West Monroe
Suite 1600
Chicago, IL 60661
United States
T +1.312.251.3000
F +1.312.251.3015
www.jacobs.com

May 14, 2021

Village of Orland Park
14700 Ravinia Ave,
Orland Park, IL 60462
ATTN: Sean Marquez and Nicole Merced

Subject: Proposal for 82nd Avenue Multi-Use Path from 135th Street to 151st Street, Phase I Preliminary Engineering

Dear Mr. Marquez and Ms. Merced,

Thank you for the opportunity to submit the enclosed proposal for Phase I engineering services for a multi-use path on 82nd Avenue from 135th Street to 151st Street. Our proposed staff for this project is 100% local that have delivered similar projects and that bring the experience and valuable lessons learned.

This project is an exciting opportunity to make key active transportation connections within the Village of Orland Park and provide residents with a safe and reliable transportation option. The existing conditions along 82nd Avenue are characterized by interrupted sections of concrete sidewalk and asphalt path, lack of safe pedestrian crossing zones, non-compliant ADA crossings and open ditches on both sides of 82nd Avenue that are constantly clogged and that prevent safe crossing of 82nd Avenue. In addition, the limited east-west zones for pedestrian crossing prevent residents from safely accessing Prairie Elementary School, Wedgewood Estates & Commons Parks, Sandbox Pre-School, and the Silver Lakes Country club.

To address your needs, we will offer the Village of Orland Park a unique team to provide fast development and approval of Phase I Engineering services, a feasible and constructible design, and experienced experts for grant applications:

- **An Experienced Project Manager** – our Project Manager, **Marla Kindred P.E**, will lead our team and respond to your needs. Marla uses her experience as an IDOT Phase I Project Manager in District One and Bicycle Coordinator to deliver Phase I studies efficiently and in compliance with federal and state funding requirements.
- **Proven ability to develop complete streets design solutions** – We have proven that we can balance the needs of all users and help our clients reach consensus with stakeholders through our experience on projects such as Milwaukee Avenue from Logan to Belmont and Streets for Cycling for the Chicago Department of Transportation (CDOT), which implemented over five miles of road diets and had parking impacts in seven separate corridors.
- **Grant Application -** We have delivered successful grant proposals for local government and state agency clients across Chicagoland including IDOT's IL 83 (147th St) Reconstruction Project in Cook County that resulted in a $10.438 M award (approximately 50% of the total project costs).
- **Agency Coordination –** Our team has successfully coordinated with regulatory agencies, such as MWRD, and utility companies for permit and design approvals in complex areas on the Elgin-O'Hare corridor as both the Phase I Tiered EIS delivery team and Phase II Design Corridor Manager. We have developed a proven comprehensive program of outreach activities to engage key stakeholders and the public in developing project solutions and making decisions.

May 14, 2021

Subject: Proposal for 82nd Avenue Multi-Use Path from 135th Street to 151st Street, Phase I Preliminary Engineering

We are committed to providing services to the Village in accordance with the terms and conditions within our master contract, the project as described in the Task Order Proposal Request.

We look forward to using our team's collective Phase I preliminary engineering, environmental coordination, and stakeholder outreach experience to deliver this connective project. Should you have any questions, feel free to contact me by phone at (708) 238-5366 or email at marco.loureiro@jacobs.com.

Sincerely

Jacobs Engineering Group Inc.
Marco Loureiro, PE
Vice President, Director of Operations People & Places Solutions MN/IL/WI/IA

1. Is there a desire by the Village to increase the size of the culvert under 82nd Avenue at Tinley Creek?

   Village Response: 82nd Avenue is under the jurisdiction of Cook County Department of Transportation and Highways (CCDOTH). The Village would look to have the most efficient and low maintenance type of installation for the creek crossing but ultimately CCDOTH will decide what is acceptable.

The question and answer period for this bid is closed. **The RFP submission deadline remains May 14, 2021 not later than 11:00 A.M.**

Proposers are required to acknowledge receipt of any Addendum by signing the Addendum and including it with the RFP submission.

I read and hereby acknowledge this addendum as of the date shown below.

Business Name: Jacobs Engineering Group Inc.

Name of Authorized Signee: Marco Loureiro

Signature of Authorized Signee: 

Title: VP, Director of Operations People & Places Solutions MN/IA/WI/IL Date: May 12, 2021

2. Operating History

Jacobs Challenging today. Reinventing tomorrow.

Operating History

Jacobs Engineering Group Inc. (Jacobs) is a multidisciplinary firm offering a full range of professional engineering services to meet the pre-construction, construction, and post-construction phase needs of the Village of Orland Park. Since our company's founding by Joseph J. Jacobs in 1947, we have gradually evolved from a one-man engineering firm to the publicly traded Fortune 500 company we are today, positioning ourselves as one of the world's premier professional services firms. In continuous operation for the past 74 years, Jacobs currently has approximately 52,000 employees in more than 400 offices worldwide.

Local Firm with a Global Reach

> *"At Jacobs we embrace diverse perspectives and collaborate to make a positive impact in our communities. I take pride in being an Orland Park resident for the past 16 years and living nearby the project area. My children attended Prairie Elementary School and Sandbox Pre-School & Childcare. Many times they asked me to ride their bicycles to Wedgewood Commons Park and to the 7-Eleven at the corner of 82nd Avenue and 143rd Street. As a parent I never felt safe letting them go alone due to the unsafe conditions crossing 82nd Avenue. The Jacobs team and I look forward to make this project a reality and reshape our community in a positive way."*
>
> **Marco Loureiro, PE, Orland Park Resident**
> **Vice President**
> **Jacobs**

Jacobs currently has two Chicago offices. Locally, we employ a staff of nearly 300 engineers, architects, project managers, construction managers and other specialists and support staff. Several of our employees work, live and play in Orland Park.

Through the years we have built a long of list of clients across Chicagoland and its surrounding communities. In addition to the Village of Orland Park, we have worked with CDOT, Illinois Department of Transportation (IDOT), Illinois Tollway, Chicago Department of Water Management, Chicago Public Schools, Chicago Department of Aviation, and Chicago Transit Authority, among others. Through our 50+ year history delivering some of Chicago's largest, most high-profile and complex design and construction programs, we have built long-lasting relationships with local clients, civic leaders, design and contracting firms, permitting authorities, and other agencies involved in design and construction, local professional associations, community organizations, and many communities.

Outside of the office, we are committed to the cultural value of the city we call home. We proudly support our local community and the STEM industry by volunteering with organizations such as the North Grand High School STEM program, Pritzker College Prep, and the Greater Chicago Food Depository.

We understand the objectives of the planned 82nd multi-use path improvements and the potential challenges the project presents. We have the knowledge and experience to help you successfully deliver the project on time and within budget.

We offer:

- A strategic transportation practice that supports a wide range of clients in their goals to link communities more effectively, improve economic prosperity, enhance user experience, and deliver complex programs of work sustainably and sensitively.
- A long history working for the Cook County Department of Transportation and Highways, IDOT and MWRD which will be required for the advancement and timely completion of this contract.
- A skilled local team of Phase I/II engineers and experts across the country that can bring innovative ideas.
- The capacity and availability of staff to meet your schedule needs.

THE VALUE WE BRING

We measure the value we bring to clients every day.

JacobsValue+ is a methodology used to foster and capture ideas to reduce costs, followed by adoption and implementation of the cost-saving measures.

Since 2018, we've documented more than $6 billion in client savings through the program.

Financial Stability

With $13.5 billion in revenues in FY20, we attribute our successful growth and ongoing expansion to our relationship-based approach – with most of our work derived from long-term partnerships with clients. As a result of our sound business philosophy, we are prospering in diverse markets worldwide. Jacobs is a Corporation and our annual reports can be found online at https://invest.jacobs.com/investors.

Earning Client Loyalty is our Goal

Our focus on building long-term client relationships has helped Jacobs become one of the largest and most diverse providers of technical, professional, and construction services, including all aspects of architecture, engineering and construction, operations and maintenance, as well as scientific and specialty consulting.

More than 95 percent of our work is repeat business, a testament to the satisfaction of our clients. We get to know our customers' businesses intimately and partner with them to help them achieve their objectives. That commitment to our clients helps us win their most challenging and meaningful projects, allowing us to attract and retain the industry's top talent.

3. Project Understanding

Jacobs

Challenging today.
Reinventing tomorrow.

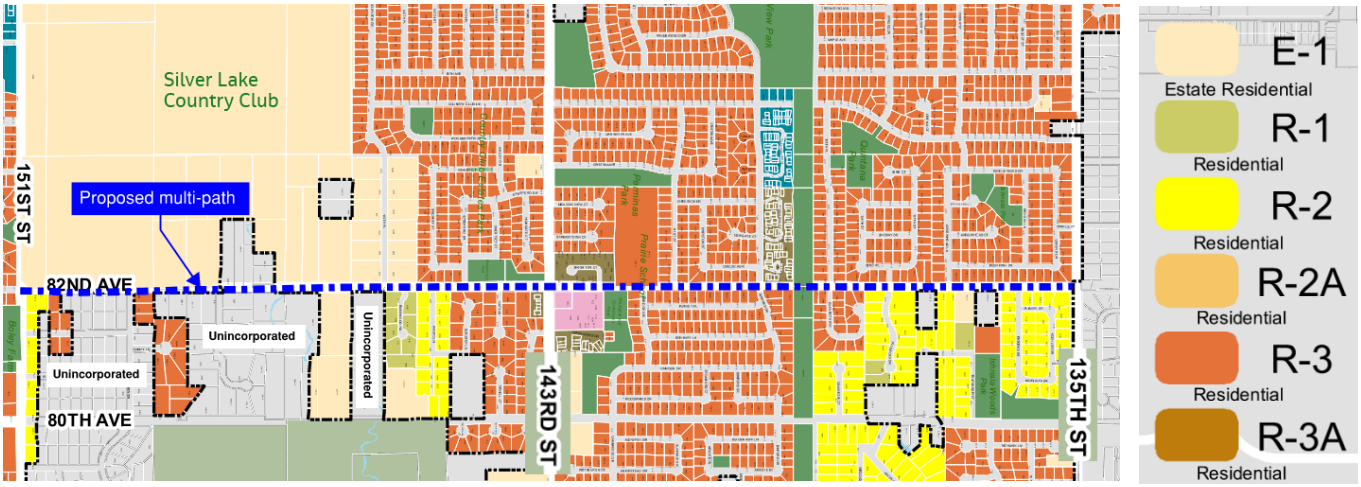
Project Understanding

The proposed north-south multi-use path along 82nd Avenue extends approximately two miles from 151st Street at the south terminus to 135th Street at the north terminus. All three roadways – 82nd Avenue, 151st Street, and 135th Street – are under the jurisdiction of Cook County Department of Transportation and Highways (CCDOTH). Prioritizing transportation alternatives such as walking and bicycling is one of five policy priorities described in the Connecting Cook County Long Range Transportation Plan.

A multi-use path along 82nd Avenue affords:

- **Safe facility for pedestrians and cyclists along the length of the corridor.** Currently there are interrupted sections of sidewalks and paths south of 145th Place and north of Uxbridge Drive; lacking connectivity to key destinations and missing safe connections to the Colonial Park Trail.
- **Safe and comfortable crossings of 82nd Avenue.** There is a one-mile gap between the crossing at 151st Street and 42nd Avenue; no marked crossing north of the Colonial Park Trail; no marked crossing at major cross streets such as 151st Street and 135th Street.
- **Resilient facility.** Following heavy rain events excessive water prevents users from accessing the path on the east side of 82nd Avenue between 151st Street and 143rd Street, preventing residences on the east side from accessing Wedgewood Estates Park.
- **Barrier-free facility.** Designed from the onset with all users in mind.
- **Accommodations of all uses.** Important utilities traverse the corridor, coordination with agencies to accommodate all uses.

The 82nd Avenue corridor provides a vital connection between adjacent residences and neighborhood destinations such as Prairie Elementary School, Sandbox Preschool, shopping centers, local businesses and recreation. Upon completion, the 82nd Avenue multi-use path will provide a safe and active connection for residences to the Tinley Park Forest Preserve and Trail System, the east-west Colonial Park Trail, the Silver Lake County Club, neighborhood schools and businesses.



The existing conditions are characterized by interrupted sections of concrete sidewalk and asphalt path, particularly south of 145th Place and north of Uxbridge Drive (just north of 143rd Street) where there are very few areas with existing sidewalk. This condition prevents continuous north-south flow for pedestrians and bicyclists unless users walk in the grass or use the roadway shoulders of 82nd Avenue. Because 82nd Avenue 8,000 to 9,000 vehicles per weekday north of 143rd Street and approximately 13,500 vehicles per day south of 143rd Street, walking or biking along the roadway can create an uncomfortable and unsafe condition for people walking and biking.

The existing conditions are also characterized by a lack of east-west pedestrian-crossings. Currently, there is a one-mile gap between marked crosswalks from 151st Street to 143rd Street, and no marked crossings of 82nd Avenue in the half-mile north of the crossing for the Colonial Park Trail at 138th Place/Elizabeth Avenue. There are also no pedestrian crossing signals at the intersections of 82nd Avenue with 151st Street or 135th Street.

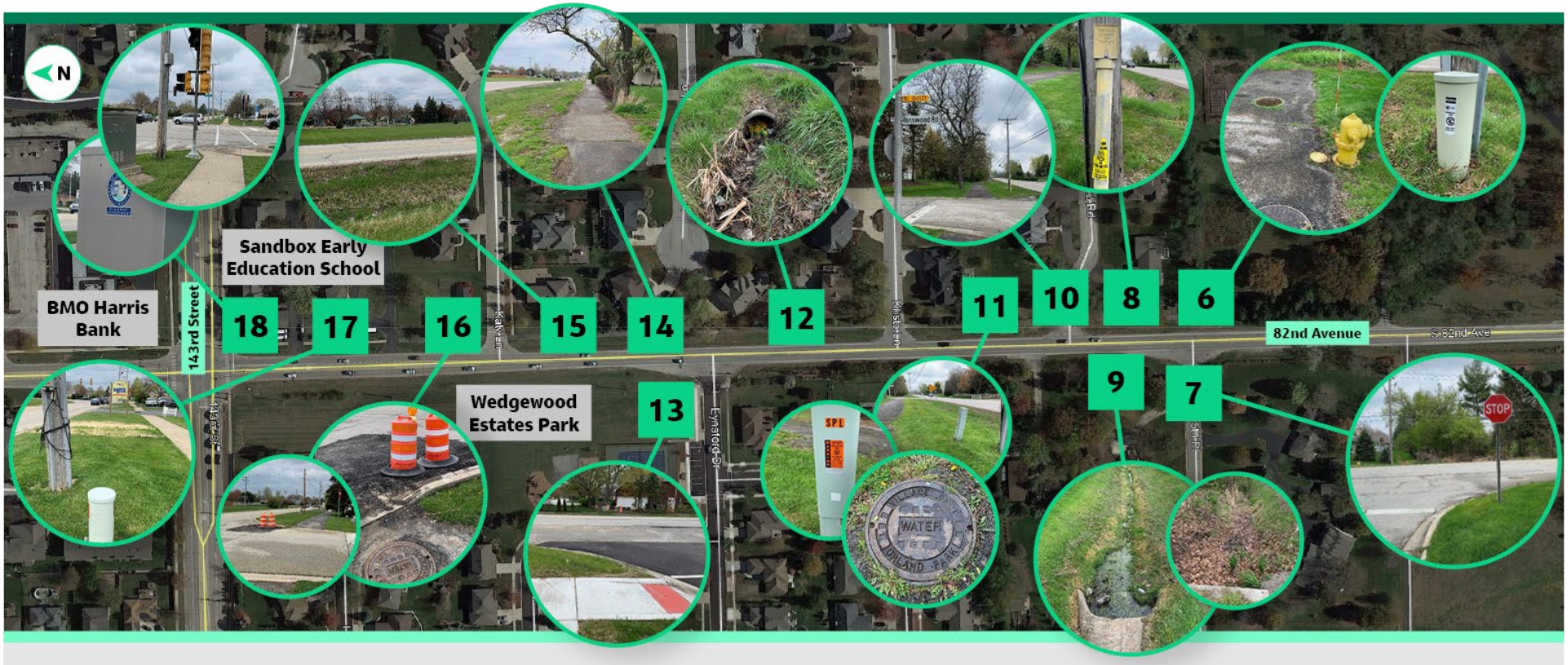
At the south end of the corridor, between 151st and 143rd Streets, there are open ditches on each side of 82nd Avenue that get regularly flooded during rain events and hold stagnant water due to the clogged concrete pipes below private driveways. This creates unsafe conditions for users who attempt to cross 82nd Avenue to reach the existing path on the east side of 82nd Avenue. In addition, residents on the east side of 82nd Avenue cannot easily access Wedgewood Estates Park playground and tennis courts on the west side. An existing single barrel culvert conveys Tinley Creek under 82nd Avenue will require inspection and likely an extension due to the added width of the proposed multi-use path.

The existing east path is marked by several driveway crossings through the unincorporated residential section of Orland Park (south of 143rd Street). Additionally, the crossing streets are non-ADA compliant and lack openings for east-west pedestrian crossing flow. There are also several utility lines and electrical poles along the existing and proposed multi-use path alignment. Through a preliminary site investigation, the following utilities have been identified that will require coordination during the preliminary engineering phase: AT&T underground cables, Nicor gas lines, water and storm drainage utility lines, traffic signal cabinets, and fire hydrants. The existing right-of-way appears to be adequate to construct the trail, although easements may be needed from ComEd for the area under the overhead transmission lines along the Colonial Park Trail.

The Exhibit 1 on the following pages outline current conditions explained above.

Exhibit 1

1. East side of 82nd Avenue looking north. There are several private properties between 151st Street and Basswood Drive that abut 82nd Avenue and that will require right-of-way and easement requirements for the proposed path.
2. East side of 82nd Avenue looking north. The existing ditch extends from 151st Street to Silver Lake Drive. The existing concrete pipes located at the private driveway crossings are mostly clogged which creates stagnant water accumulation at several locations.
3. Intersection of 82nd Avenue and Forestview Drive. No ADA compliant crossing at this location, clogged ditch, poor drainage, and electrical lines along the potential path alignment.
4. Looking east across the entrance of Silver Lake Country Club. This area will present several challenges that will include relocation of traffic signs, relocation of the utility cabinets, electrical power lines and poles, and the existing underground drainage structure.
5. Looking north near Tinley Creek. There is a sharp drop in elevation between the roadway and the area adjacent to the creek. The new path will require roadway widening at this location, ground elevation adjustments and widening of the creek structure.



6 The existing path ends just south of Basswood Drive. There are several utility lines along this location which include water, a fire hydrant and AT&T cable lines.

7 Southwest corner at the intersection of 82nd Avenue and 145th Place. There are no ADA compliant corners at this location and no safe crossing zones for residents along 145th Place to cross 82nd Avenue.

8 There is an existing Nicor gas line along the existing path which will require coordination during the preliminary and final engineering services for this contract.

9 Existing ditch on the west side of 82nd Avenue looking north. The existing ditches on both sides of 82nd Avenue prevent pedestrians from safely crossing 82nd Avenue east-west. Also clogging is prevalent at several locations.

10 Existing path looking south at the intersection of 82nd Avenue and Basswood Road. There is no ADA compliant crossing at this location and at other locations along the path. The multi-use path final design will require the design of ADA compliant crossings.

11 Existing path looking south near the intersection of 82nd Avenue and Basswood Drive. Note the existing Village of Orland Park Water line and the AT&T line along the path.

12 Existing ditch along the east side of 82nd Avenue between 143rd and Basswood Road. This ditch prevents safe access across 82nd Avenue for pedestrians crossing east-west and during raining periods it retains water due to trash accumulation at several crossing points.

13 Northwest corner of Eynsford Drive and 82nd Avenue looking east. Residents on the west side of 82nd Avenue have no safe crossing zones to the east side.

14 Existing path on the east side of 82nd Avenue looking north. The existing sidewalk shows heavy deterioration and abuts a ditch along the roadway that prevents pedestrians from safely crossing 82nd Avenue east-west.

15 East side of 82nd Avenue looking west across Wedgewood Estates Park. Residents that live on the east side of 82nd do not have a safe crossing zone to the park's playground.

16 Intersection of 82nd Avenue and Katy Lane looking north. No ADA compliant crossings and water utility on the north side.

17 Looking north along 82nd Avenue near Sandbox Early Care School. AT&T underground cables are present at this location.

18 Southeast corner of 82nd Avenue and 143rd Street looking north. No ADA compliant crossing at this location, water utility line, and a signal cabinet from Cook County Department of Transportation and Highways.

19 82nd Avenue just north of 143rd Street looking north. An existing open ditch exists along this section. The open ditch retains stagnant water due to clogging at several locations and it prevents safe pedestrian crossing from east-west. Wedgewood Commons Park, located near this area on the east side of 82nd Avenue, is underused by residents due to a lack of safe access for children.

20 82nd Avenue and Brighton Court intersection looking west. Brighton Court is a No Outlet area and pedestrians have no immediate access to the east of 82nd Avenue. To safely cross east pedestrians must walk north to the safe crossing zone at Prairie Elementary School or south at the 143rd Street intersection.

21 Cook County Department of Transportation and Highways traffic signal cabinet and underground ducts.

22 School crossing at Prairie Elementary School. The crossing is non-ADA compliant. The next signalized pedestrian crossing zone is about half mile north from this location at Elizabeth Avenue.

23 82nd Avenue intersection at Uxbridge Drive. The user path ends at this intersection and pedestrians have no safe access further north.

24 A petroleum and gas pipeline are located just south of the Orland Bikeway path near the electrical powerlines.

25 The Orland Bikeway path looking north. The new multi-use path will need to create a connection to this existing path and address drainage issues caused by the open ditch.

26 The Nicor Station 276 will abut the proposed multi-use path. Extensive coordination with Nicor will be required as underground gas lines intersect and run parallel to the proposed multi-use path.

27 82nd Avenue at the intersection with Elizabeth Avenue. There is a safe crossing zone at this location and the intersection is ADA compliant. However, the north extension of the Orland Bikeway path ends at this location. There is no safe access north for pedestrians beyond this point.

28 82nd Avenue at the intersection with Pickens Drive looking south. There is no pedestrian path at this location. The new multi-user path will require an ADA compliant crossing, and coordination with residents and local utility companies.

29 Open ditch crossing underneath 82nd Avenue east-west. Drainage improvements will be required at this location to accommodate the proposed multi-use path.

30 Looking north along 82nd Avenue near the intersection at 135th Street. The new multi-user path will require drainage improvements at this location to address the open ditch that runs parallel to 82nd Avenue.

4. Project Approach

Jacobs

Challenging today.
Reinventing tomorrow.

Project Approach

Project Management Approach

The key to a successful project is for the team to start with a complete understanding of the project requirements, challenges, and opportunities for improvement. This knowledge is then blended with innovative design and phasing/constructability analysis to produce an infrastructure that fits the overall community context. Based upon experience and past Lessons Learned, our team will improve upon precedents. We will evaluate past and new innovative concepts to help achieve better constructability, simplify long-term maintenance, and minimize future maintenance costs.

Project Manager, **Marla Kindred**, brings unparalleled experience as an IDOT District One Project Manager on bicycle and ADA focused Phase I studies, and intimately understands the IDOT and FHWA Phase I approval process. While with the District, she was responsible for obtaining Phase I design approval for the first protected bicycle lane on a State of Illinois route on Clybourn Avenue. In order to be implemented quickly and minimize costs, the final design was a retrofit utilizing existing drainage and curb structures. Marla coordinated with FHWA on innovative bicycle design treatments and received FHWA approvals to use bicycle signals and green pavement markings to improve bicycle visibility at intersections. As the IDOT District One Bicycle Coordinator, Marla also developed a Bicycle and Pedestrian Accommodations Feasibility Study to inventory and analyze IDOT's existing active transportation network and provide design guidance and tools to aid IDOT engineers in successfully accommodating active transportation in rural, suburban and urban environments.

Early coordination with stakeholder agencies is essential to maintain a Phase I project's schedule and budget. Marla will ensure that our team mobilizes quickly at Notice to Proceed (NTP) to begin data collection and stakeholder engagement. We will utilize our relevant experience working on similar projects to complete this project on an accelerated delivery schedule. For the project to maintain a tight preliminary engineering and design schedule, the design team will work closely with the Village's project manager. We will develop and maintain a schedule for key submittals, permitting, stakeholder coordination, and key project deliverables. Upon NTP, we will engage our key leads to work on early action items, including the following documents:

- Preliminary Engineering and Design Schedule
- Transportation System Performance Report (TSPR)
- Stakeholder Involvement Plan (SIP)
- Permitting Plan and Schedule
- Quality Management Plan

Managing Schedule and Budget Risk

At Jacobs, we do things right. Our ability to deliver projects on-time and on-budget is key to our success.

We will meet with the Village to clearly define scope and establish schedule expectations. It is important that everyone on the team shares a common understanding of objectives and expectations. Based on our experience, a successful project begins with a strong foundation based on the implementation of solid management procedures and a solid system of quality checks and balances. Project management and quality assurance working together is imperative in advancing a project.

We will collaborate with the Village to identify potential "schedule busters" which are items based on our collective experience that can delay a project. These can include conformity to local or regional planning regulations, agency reviews, permitting, utilities, environmental constraints, and stakeholder issues. We will work with the Village to identify these risks and develop mitigation measures to minimize the impact of schedule delays.

Key risks are also identified to understand the potential impacts to the project. Next, we create a Critical Path Method (CPM) schedule and work backwards from the desired end date to identify what activities can be compressed or performed concurrently to mitigate schedule risk. During delivery, any potential issues are addressed during the team weekly meetings, and if necessary, presented to the Village for additional input and resolution.

Continuous Monitoring

We will monitor the progress and budget of the project through a Work Breakdown Structure (WBS) assigned to individual disciplines for each task order. Each design discipline will post charges to their individual WBS codes that are tracked by Jacobs' project control tool, Ecosys. The Project Manager will have access to weekly and monthly reports, schedule, and cost data generated by Ecosys. The actual costs incurred on the project are then compared to the planned baseline. Our PM Marla Kindred and the discipline leads will meet regularly to discuss any deviations from the plan and prepare action plans when necessary to correct these deviations.

Predictable Delivery

Our approach to design execution will focus on best practices and past Lessons Learned. We believe that successful project delivery is based upon team integration, transparency, and timely collaboration among all team members.

Our team will utilize a multi-pronged and transparent communication approach that will provide the Village of Orland Park visibility into our design process. During the preliminary engineering and design phase, we plan to share our ideas and innovations, and seek the Village's input prior to major decisions. As part of our approach, we will implement the following methodology for predictable delivery:

1. **Project Manager, Marla Kindred**. She will report directly to the Village of Orland Park regarding our team progress, design issues, and upcoming milestones and deliverables. As part of our project delivery approach, we will also conduct an expectation survey with the Village's staff. This is our internal process to identify, capture, and communicate the Village's expectations for successful project team performance. Upon completion of the expectation survey, Marla will share the results with our design leads, and establish a delivery framework to meet the Village's goals.
2. **Bi-Monthly Meetings**. Based on previous Lessons Learned, we will host meetings twice a month to confirm that we provide the Village of Orland Park with an integrated design. The scheduled meetings will also serve to monitor progress and discuss upcoming project deliverables, design, and constructability challenges.
3. **Design Document Management**. We will use Bentley Systems' ProjectWise software for document management and file sharing between Jacobs, all subconsultants, and Village staff.
4. **Geometric and Drainage Workshop Meetings**. We will host two design workshop meetings to discuss all aspects of the proposed multi-use path design, recommended drainage and culvert improvements, stakeholder requirements, and right-of-way requirements.
5. **Long Lead Approvals and Permits Tracking Matrix**. Long lead items such as permitting coordination and reviews can significantly impact on-time project delivery. We will engage our Lead Agency Coordinator, Sarah Archer, early in the preliminary engineering process to develop a tracking matrix for all required permits and identify if any permits are tied to the project delivery critical-path.

Preliminary Engineering and Design Technical Approach

We will mobilize and initiate Phase I activities quickly to begin the vital process of environmental and stakeholder coordination. Our team's vast experience with environmental coordination will ensure timely evaluation and documentation of environmental issues and solutions. The proposed work is anticipated to be processed as a Categorical Exclusion which will need to be verified through FHWA and IDOT during a monthly coordination meeting.

Stakeholder Engagement and Public Participation

Our team is well-versed in coordinating and facilitating all aspects of public and community meetings. We bring that knowledge to this project and will administer a public meeting after one of the selected design milestones, as well as meet with local community organizations such as the Orland Park Area Chamber of Commerce, Chicago Southland Chamber of Commerce and appointed officials to share project information. A component of our outreach strategy will involve coordination with local bicycle and pedestrian groups, nature activists, and healthy lifestyle advocacy groups. A comprehensive stakeholder database including these key area businesses, advocacy groups, and residents will be compiled with key information to aid in project communication efforts with those closely related to the project. The database will be continuously updated to detail all public interactions to recount for historical reference and proper documentation.

With over 20 years of experience specializing in developing, implementing, and maintaining effective public involvement plans, **Carla Mykytiuk** is well-experienced in stakeholder engagement and public involvement efforts for IDOT projects, such as the IDOT led I-74 Iowa-Illinois Corridor Study EIS, Elgin O'Hare West Bypass (EOWB) Tiered EIS, and currently the Illinois Route 3 Connector Project.

IDOT, I-74 Iowa-Illinois Corridor Study

Project definition and alternatives selection begin by building credibility with the public and reaching consensus among community stakeholders. With this in mind, we have developed a comprehensive program of outreach activities to engage the public in developing project solutions and making decisions. Elements of a successful public involvement program are not limited to dissemination of information but truly set the stage for full participation by stakeholders.

To facilitate open communication with project stakeholders, Jacobs offers outreach services, including:

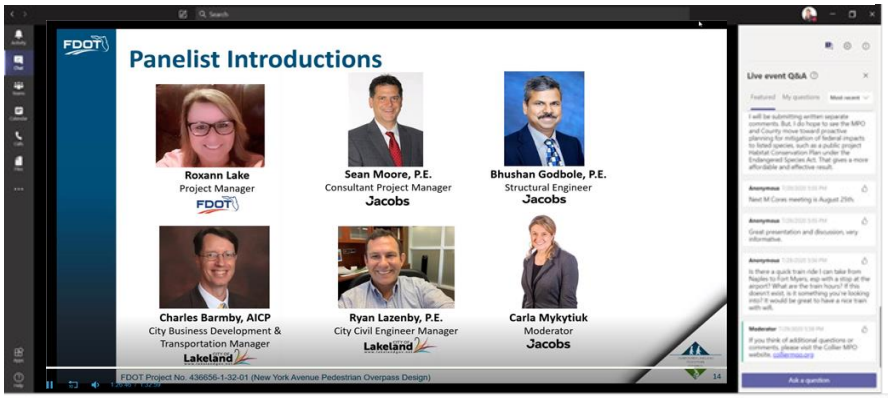
- Stakeholder identification
- Agency coordination
- One-on-one outreach with individuals and small-groups
- Neighborhood gatherings
- Public open houses
- Speakers bureau presentations
- Print and electronic newsletters
- Project websites, hosted by the Village or Jacobs
- Outreach to citizens for whom English is a second language

A Stakeholder Involvement Plan (SIP) will be delivered to the Village early in the project life cycle which will describe a combination of targeted engagement strategies, collateral materials, and touch points with FHWA, IDOT, CCDOTH, local and resource agencies, and the public to gain stakeholder input and progress the project to Phase I design approval.

Innovative Methods for Inclusive Engagement

The current COVID-19 pandemic has limited or halted the traditional face-to-face engagement methods. Our team has been successful in creating customized virtual meeting spaces to gather feedback efficiently and inclusively so any public involvement event can be done virtually and not affect the project timeline. Jacobs has hosted and moderated interactive public events via Zoom, Microsoft Teams, and GoToWebinar, which are all particularly useful for small group meetings and may be well-suited for agency coordination and other advocacy group meetings.

Virtual public meeting held through MS Teams with Carla Mykytiuk as moderator to ensure project schedules stay on track in the changing COVID-19 climate.



Our team is adaptable to changing circumstances and prepared to offer in-person or virtual public meetings as circumstances allow. Understanding not all stakeholders will have easy access to the internet and won't necessarily learn about the project online or have a desire to participate in project events virtually, we will ensure the Stakeholder Involvement Plan offers alternatives to virtual engagement and methods to participate that don't require a computer. As

ConceptStation exhibit prepared by Marla Kindred for the Laraway Road PEL study helps the public visualize the future conditions at Laraway Road and IL Route 53 in Joliet, IL.

CDC and Cook County guidelines allow, we recommend holding an in-person public information meeting. However, all meeting materials will be posted online and means for electronic comment submittal will be provided for those unable to make an in-person meeting.

Visualizations Support Outreach Activities

In addition to preparing preliminary plans in MicroStation, we are recommending introducing Bentley's OpenRoads ConceptStation software. ConceptStation utilizes 3D modeling and engineering sketching capabilities in the concept design phase of transportation projects. ConceptStation generates photo-realistic images that help the public and stakeholders visualize the multi-use path in the landscape. Images are easily exported in format that can be incorporated into presentations and other stakeholder materials, providing a glimpse into the future user experience. This leads to enhanced public engagement and feedback for sharing of ideas, constraints and solutions for the corridor.

Through a CMAP led Planning and Environmental Linkage (PEL) study of the at-grade Union Pacific Railroad crossing at Laraway Road in Joliet, **Marla Kindred** successfully delivered five grade separation alternatives for the railroad crossing along with three intersection alternatives for the Laraway Road and IL Route 53 location using ConceptStation. The exhibits created have been used in public involvement materials as well as presentation materials to FHWA and IDOT through the Bureau of Local Roads coordination.

Preliminary Engineering Services

A key to this project's success will be coordinating regularly with FHWA, IDOT, Cook County Department of Transportation and Highways (CCDOTH) and the Metropolitan Water Reclamation District of Greater Chicago (MWRD). By meeting regularly with IDOT Local Roads and FHWA, we will be able to collaboratively achieve consensus on a preferred mutually acceptable, implementable solution that meets Federal Funding requirements. 82nd Avenue is under CCDOTH jurisdiction and County staff will be regularly engaged to provide input on design and potential roadway improvements. Coordination with the CCDOTH will also provide an opportunity to deliver on the active transportation goals set in the Connecting Cook County Long Range Plan while avoiding impacts to existing lands and facilities. Tinley Creek is under the jurisdiction of MWRD and will have valuable input on design solutions and environmental considerations which will need to be coordinated early. Our team has experience working with and receiving approvals for designs involving MWRD lands during the Elgin-O'Hare West Bypass Tiered EIS and will capitalize on our experience with timely processing of permit requests and responses. A hydraulic analysis of Tinley Creek will not be included as part of this Phase I study.

Phase I Key deliverables will include:

- ✓ Transportation System Performance Report (TSPR)
- ✓ Stakeholder Involvement Plan (SIP)
- ✓ Culvert Condition Memo
- ✓ Environmental Analysis and Documentation
- ✓ Hydraulics Report
- ✓ Project Development Report
- ✓ Preliminary Design Plans and Right-of-Way Requirements
- ✓ Cost Estimates

Data Collection and Existing Conditions

At the onset of the project, we will perform a comprehensive data collection effort and analysis of existing and future conditions, including an assessment of the environment and travel along the corridor. The results will be documented in a unique report referred to as a Transportation System Performance Report (TSPR). The technical analysis documented in the TSPR will be used to identify design criteria and establish the methodology for design of the multi-use path. The TSPR will aid the Village in making quick, informed decisions on design variations during the Phase I study and provide the context necessary to seamlessly progress the project into Phase II design.

Environmental Coordination and NEPA Documentation

We anticipate this project being processed as a Categorical Exclusion under the National Environmental Policy Act (NEPA). Our environmental team will meet early in the study with FHWA and IDOT-Bureau of Design and Environment (BDE) to confirm the environmental class of action, as well as prioritize submittal of the Environmental Survey Request (ESR) to initiate wetlands, cultural and special waste studies to avoid project schedule delays.

Jill Kramer brings extensive Phase I experience including expertise in NEPA regulatory analysis, grant writing, environmental documentation, and public approval processes. Upon NTP, Jill will coordinate with the Village to introduce the multi-use path project at an FHWA & IDOT BDE monthly coordination meeting to begin the NEPA process and facilitate timely approval of the Phase I Project Development Report.

Just south of the Tinley Creek crossing, Christ Lutheran Cemetery is located on the west side of 82nd Avenue. Careful analysis of the right-of-way in this area is required to avoid or minimized any impact to the cemetery. If the multi-use path alignment cannot avoid the cemetery, our team has experience coordinating land acquisition in challenging circumstances. Jacobs delivered a Phase I roadway expansion study for IDOT along US 30 in Plainfield. The surrounding land uses included Lake Renwick Nature Preserve, considered off-limits for land acquisition, and the Plainfield Township Cemetery. The project team worked directly with the Cemetery staff to design a roadway improvement alternative which would acquire land from the cemetery, but not require relocation of graves or negatively affect Cemetery site operations.

In areas with heavy tree cover close to the existing right-of-way line, we recommend performing a tree survey to evaluate the impacts of potential tree removal to the environment. **Karen Munson** is an environmental biologist with expertise in environmental field surveys, wetland mitigation, and threatened and endangered species habitat assessments.

Early coordination with regulatory, local, and utility agencies is essential

Utility conflicts resulting in relocations can greatly increase both construction costs and schedules. It is vital that Phase I studies coordinate with utility agencies with a Subsurface Utility Engineering (SUE) survey to accurately determine their existing layouts and coordination requirements. Providing accurate utility information and mitigation plans will save time and money during Phase II design and construction.

Jacobs approach to regulatory and utility coordination

- ✓ Start coordination early
- ✓ Clear, consistent communication
- ✓ Understand agency processes and requirements
- ✓ Provide innovative, flexible solutions to utility conflicts
- ✓ Obtain permits and design approvals early

The following utility lines or facilities are located on 82nd Avenue and require coordination to determine their existing alignments and possible conflicts:

- Commonwealth Edison Co. (ComEd)
- Nicor Gas
- AT&T
- Village of Orland Park Public Works Department
- Petroleum and gas pipelines
- Overhead electrical poles

Our Agency Coordination Lead, **Sarah Archer,** has served as the Intergovernmental Agreements Lead for the Elgin-O'Hare Western Access project and is highly skilled in agency coordination including intergovernmental agreements and regulatory agency permits. She is well organized and quick to respond to coordinating agencies to ensure timely resolutions.

Existing Drainage System Analysis and Proposed Drainage Solutions

The 82nd Avenue corridor contains open ditches on each side of the roadway. These ditches, especially between 151st and 143rd Streets, regularly flood during rain events due to clogged concrete pipes below private driveways creating unsafe crossing conditions for pedestrian and bicycle users. Our drainage team, led by **Kenneth Gomez**, will evaluate the existing drainage system, outlet locations, and local watersheds to identify drainage problem areas.

Drainage Design Criteria Considerations:

- ✓ Permitting and local agencies criteria and input
- ✓ Existing and anticipated right-of-way
- ✓ Additional pavement width
- ✓ Analysis of existing flow conditions

Using appropriate design criteria as identified in IDOT's BDE Manual, our team will develop design alternatives for potential drainage solutions to be coordinated with the Village and stakeholder agencies. Due to the history of flooding in the corridor, converting the open drainage system to a curbed, closed drainage system should be evaluated in the Phase I study. An open drainage system provides environmental and maintenance benefits when efficiently designed for the anticipated rainfall amounts. However, increasing the capacity of the open drainage system along 82nd Avenue may require additional land acquisition needs through the project limits. On the other hand, converting to a closed drainage system may affect a number of drainage systems downstream but can maintain the existing right-of-way.

Upon selecting a recommended drainage alternative, our team will produce a hydraulic memo with accompanying plans to document the alternatives evaluated during preliminary engineering, recommended design details and guidance to transition into Phase II design.

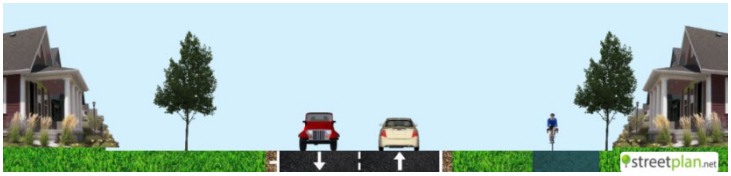
Identifying a Proposed Multi-use Path Alignment

Using the design criteria, environmental analysis and stakeholder input, we will analyze the existing bicycle and pedestrian facilities and right-of-way to identify a preliminary multi-use path alignment. We will also determine the required typical cross-sections for the path based on the IDOT BDE Manual, IDOT Complete Streets and FHWA bicycle facility guidance. Our

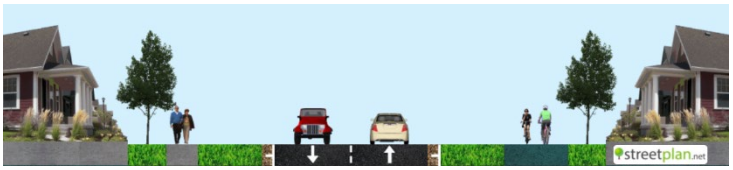
team will coordinate each of these decisions with the Village and lead a geometrics workshop to collaborate with Village staff on alternative solutions and design variations prior to stakeholder involvement regarding design.

In locations where existing sidewalk is present, we will connect to those facilities and utilize the footprint to stay within the existing right-of-way when possible to minimize impact to property owners. Near the southern project terminus, the roadway is lined by sensitive environmental features to the west and residential homes on the east. Right-of-way impacts are anticipated in this area to accommodate a multi-use path. A careful review of the right-of-way from the existing sidewalk terminus at Uxbridge Drive north to 135th Street will also be required to determine impacts to the property owners and trees. Once the alignment and cross-sections are finalized, we will determine the ROW requirements and reach out to any property owners where we'll need to acquire ROW or easements.

Below are cross-sectional representations of potential solutions through the 82nd Avenue corridor:



Residential Land Use with Multi-use Path



Residential Land Use with Multi-use Path and Sidewalk

Improved Access to Key Destinations

Potential Right-of-way Impacts to Residents to Avoid Sensitive Environmental Features

Improved Pedestrian and Bicycle User Access

In order to maximize the transportation, community, and environmental benefits of the proposed multi-use path, users must be able to easily access the facility and connect to key destinations along the corridor. These destinations include Silver Lake Country Club, Wedgewood Estates Park, Sandbox Pre-School & Childcare, Prairie Elementary School, and the east-west Colonial Park Trail. In the existing conditions, local residents must cross two lanes of traffic and open ditches without ADA compliant facilities in order to reach the existing sidewalk. Safe, reliable, ADA compliant crossings need to be implemented at key locations along the entirety of 82nd Avenue to encourage local use and increase community connectivity.

Project Management Experience on ADA Focus Projects
Marla Kindred was project manager for a $8.5 million effort consisting of six Phase I contracts to bring ADA ramps to compliance in IDOT District One in concurrence with IDOT's ADA Transition Plan and will ensure Public Rights-of-way Accessibility Guidelines (PROWAG) requirements are met throughout the project. Marla is experienced in coordination with FHWA and IDOT BDE to process maximum extent practicable (MEP) forms and receive approval on Phase I ADA designs.

Project Engineer, **Katelyn Bleach, PE**, excels in designing innovative active transportation facilities. Katelyn has delivered unique solutions to provide ADA accommodations in complex pedestrian locations for the Chicago Department of Transportation (CDOT). She led the design for ADA, grading, and drainage accommodations in Fulton Market where businesses adjacent to sidewalk facilities are elevated 2-3 feet above the pedestrian zone. Katelyn also worked on the federally-funded Safe Routes to School program focused on improving pedestrian safety and access to Chicago Public Schools by re-designing roadway signage and pedestrian facilities.

Project Delivery

The preferred multi-use path alignment will be the basis for the Phase I preliminary plan set including plan view, profile, cross-sections and typical cross-section views. A Project Development Report (PDR) will document the design decisions made during the Phase I process. This includes environmental documentation, right-of-way constraints and coordination items with stakeholder agencies and regulatory agencies. These plans and report will allow seamless transition into the Phase II design engineering process.

Culvert Inspection and Extension

It is critical that we begin our work by inspecting the existing single barrel culvert conveying Tinley Creek under 82nd Avenue. There is a sharp elevation drop at the creek crossing that will require roadway widening due to the added width of the proposed multi-use path and, at a minimum, the culvert to be extended. Any work being done over Tinley Creek will require extensive coordination with MWRD. It is important to understand the culvert condition first to determine whether the proposed multi-use path implementation will require a culvert extension or full culvert removal and replacement. We have structures staff ready to perform the culvert inspection and develop a culvert condition report, if needed (however, if it is single cell, no report is needed) as soon as the survey is complete. Our structures lead, **Jennifer Drake, PE, SE,** has over two decades of experience in structures related to transportation including culverts. In addition to leading a culvert design for a Cook County project, she currently manages an IDOT contract for 120 culvert load ratings.

Upon selection of the final culvert improvement type and alignment, we will provide a TS&L (although a TS&L will not be required if the culvert is single cell) with preliminary approach roadway plans for the selected preferred alternative that is acceptable to the Village of Orland Park, CCDOTH, regulatory agencies and other stakeholders.

Preparing the Phase I Plan for Implementation

Grant Writing

Marie Glynn, PE is our team's Grant Assistance Lead with extensive experience writing grants including IDOT's IL 83 (147th St) Reconstruction Project in Cook County that resulted in a $10.438 M award (approximately 50% of the total project costs). We have delivered successful grant proposals for local government and state agency clients across Chicagoland and the nation on a wide variety of transportation, water, and other infrastructure grant programs. We are familiar with local, state, and federal grant opportunities for utility, transportation, sustainability/resilience, and congestion management projects, and we have experience identifying appropriate funding opportunities for communities to pursue to implement important major capital improvements. Our Subject Matter Experts include **grant writers, economic and financial consultants, senior engineering staff, grant management support staff, and client deliverable solutions.** The grant proposal team and effort are scaled based on the requirements of the grant program and level of client engagement. At a high-level the process involves the following steps:

Illinois Tollway Elgin O'Hare Western Access
Jacobs is assisting DuPage and Cook Counties with identifying potential local, state, and federal funding sources and application materials to meet the $300 million local project contribution. To date, more than $125 million has been secured in federal Congestion Mitigation and Air Quality improvement grant monies.

- Identify grant funding opportunity, and determine eligibility
- Assemble our team based on the notice of funding opportunity requirements
- Develop a grant application compliance matrix of requirements and deadlines from the notice of funding availability/grant program notice
- Assign staff and client responsibilities (many times clients need to register for the grant program before submitting an application)
- Prepare grant application materials, soliciting feedback from the client as the narrative takes shape
- Quality control review of application materials
- Distribute final grant application materials to the client for submittal per the instruction included in the notice of funding availability/grant program notice

Below is a summary of Successful Grant Applications Authored by Chicago Staff.

Grant Program	Project	Award
CMAQ FY 2014-2018	Grade Crossing – Touhy Avenue at the Union Pacific Railroad	$23.3M
CMAQ FY 2014-2018	Elmhurst Road and Touhy Avenue intersection improvements	$11.5M
CMAQ 2016-2020	I-294 at IL 64 (North Avenue)	$29.5M
CMAQ 2016-2020	Pace bus-on-shoulder operations on Edens Expressway	$10M
CMAQ 2018-2022	I-294 to and from Franklin Avenue/ Green Street	$19M
TIGER III	IL 83 (147th Street) Reconstruction Project	$10.4M

Cost Estimating

Srikanth Panguluri, PE, PTOE has over 20 years of experience in roadway design and delivering Phase I transportation studies. During his career, Srikanth served as a Project Management Consultant in the IDOT District One Bureau of Programming functioning as an extension of the District staff for 10 years. He has worked closely with IDOT and Illinois Tollway cost estimators to develop preliminary engineering, design phase engineering and construction phase cost estimates. Using this experience, Srikanth will work closely with the technical leads to develop quality cost estimates for Phase II engineering, Phase III construction observation and construction based on the recommended proposed improvements.

Srikanth will follow the Association for the Advancement of Cost Engineering (AACE) recommended practices to deliver an appropriately detailed construction cost estimate for the Village, including design elements such as utility relocation, right-of-way acquisition and engineering costs. Class 3 cost estimates contain semi-detailed unit costs with assembly level line items to provide an expected accuracy range of -20% to +30% of the final construction cost. This is the standard method for preliminary construction cost estimating and is recommended to be used for budget allocation and funding purposes. Various cost analyses can be developed to support grant applications and potential funding streams, including cost participation amongst stakeholder agencies (FHWA, IDOT, CCDOTH).

Advancing to Final Design

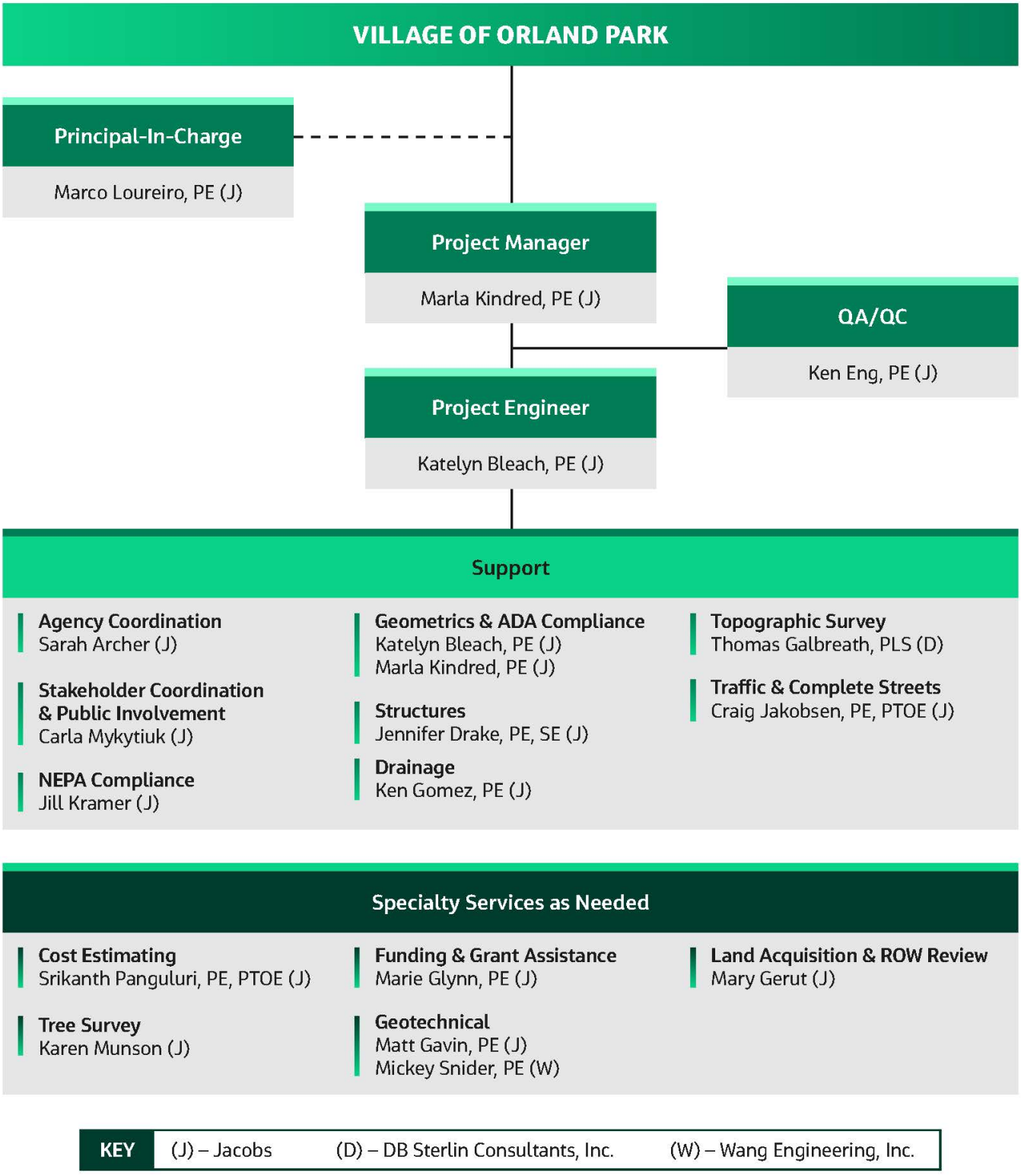
Following completion of the Phase I Study, we are readily available to move this project onto the next step. We have a team of Phase II designers that consistently prepare high-quality construction contract documents and specifications. We look forward to building our foundation as a team the Village of Orland Park can rely on for innovative, resilient, and high-quality transportation solutions.

5. Organizational Chart

Jacobs

Challenging today.
Reinventing tomorrow.

Organizational Chart



KEY	(J) – Jacobs	(D) – DB Sterlin Consultants, Inc.	(W) – Wang Engineering, Inc.

6. Personnel Resumes

Jacobs

Challenging today.
Reinventing tomorrow.

Marla Kindred, PE

PROJECT MANAGER | GEOMETRICS & ADA COMPLIANCE

Marla joined the transportation engineering staff at Jacobs in 2017 with her previous years of work being at the Illinois Department of Transportation in District One. Marla spent most of her years at IDOT in the Bureau of Programming where she focused on Phase I preliminary engineering design first as a project engineer and later as a project manager. She served as the IDOT District One Bicycle Coordinator and brings her experience with bicycle and pedestrian accommodations into each project design. Marla has experience in preparing NEPA documents, geometric design, ADA coordination, plan preparation, preliminary cost estimates, environmental coordination and traffic management plans.

Areas of Expertise

- Phase I Preliminary Design
- Innovative Bicycle Accommodations
- ADA Compliance
- Bentley OpenRoads ConceptStation

Relevant Project Experience

Elgin O'Hare Western Access (EOWA) Design Corridor Manager (DCM), Illinois State Toll Highway Authority (ISTHA), Cook County, IL, 2019 to Present. *Design Corridor Managing Engineer.* A major coordination effort to complete multiple projects within the design development phase for the Elgin O'Hare Western Access (EOWA) Project. I-490 is a new toll road that is planned to be constructed generally along the west side of O'Hare Airport and will connect I-90 with the Tri-State Tollway (I-294) in Cook County. The I-490 construction is a part of the Illinois Tollway's EOWA Project which includes widening the existing Elgin-O'Hare Expressway (Illinois Route 390), extending Illinois Route 390 from Meacham Road to York Road.

Marla supports the design management effort by coordinating all bridge and track design submittals with 3 rail agencies in the project area, coordinating utility permits for railroad crossings, reviewing plan sets, maintaining master CADD and GIS files, and assists with coordinating and facilitating consistent design approaches and technical details among multiple design section engineers.

Grade Crossing Feasibility Study, CMAP, City of Joliet, 2019 to Present. *Transportation Project Engineer.* The Grade Crossing Study includes performing Planning and Environmental Linkage (PEL) Studies at at-grade railroad crossing locations within the greater Chicagoland Area. By using the PEL process, the project team is working with local and regional agencies and stakeholders to identify existing and future needs, prepare a draft Purpose and Need, develop and evaluate a full suite of alternatives, and determine which should be carried forward to a future Phase I Study. The process identifies stakeholder interest, potential impacts and programmable costs, potential alternative funding streams, and other key issues to be considered as part of future Phase I studies.

Marla' supports the engineering design development and evaluation process. She analyzes the existing traffic and safety conditions of each at-grade railroad crossing location and develops appropriate design criteria to identify and evaluate alternative multimodal solutions. Marla uses Bentley OpenRoads ConceptStation to develop and

EDUCATION/QUALIFICATIONS

B.S., Civil Engineering, Texas A&M University, 2011

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer:
IL (No. 062-067574)

MEMBERSHIPS AND AFFILIATIONS

Illinois Association of Highway Engineers
WTS Greater Chicago Chapter

OTHER

- Years in Industry: 10 years

analyze grade separation alternatives and produce photo-realistic visualizations. The visualizations included roadway, transit, bicycle, pedestrian and environmental features to provide a snapshot or video of the proposed condition to the public.

Tri-County Access, Cook, Lake and McHenry Counties, Illinois State Toll Highway Authority (ISTHA), IL, 2017 to 2019. *Project Engineer.* A Phase I study of alternative transportation solutions for the project area which includes Northern Cook, Northern DuPage, Lake, Eastern McHenry and Southern Kenosha Counties. The study process worked towards completing an Environmental Impact Statement (EIS) which analyzed transportation solutions including multimodal implementation, expansion of existing roadway and transit facilities, and constructing new roadway and transit facilities.

Marla provided technical support in the alternatives development process which included freeway planning, arterial expansion design, substantial coordination with stakeholders and local agencies, traffic and environmental analysis, development of multimodal treatments and report writing. Due to the controversial nature of the study, one-on-one meetings with local transportation agencies were conducted to facilitate meaningful discussion of the study's alternatives. Marla presented the study's goals and the alternatives development process during these one-on-one meetings and collaborated with the local agencies to understand their transportation needs and desires and incorporate those discussions into the alternatives to be considered.

Clybourn Avenue Protected Bicycle Lane and Pilot Study, Illinois Department of Transportation, Chicago, IL, 2013 to 2017. *Project Engineer and IDOT District One Bicycle Coordinator.* A joint partnership with the Illinois Department of Transportation and the City of Chicago Department of Transportation to design and construct the first protected bicycle lane on a State of Illinois route. The final design was a retrofit utilizing existing drainage and curb structures and adding a 3-foot wide median between the vehicle path and bicycle path. Parking was accommodated on one side of the street while 7.5-foot bicycle paths were accommodated on both sides of the street. Bicycle signals, green pavement markings and aesthetic treatments, such as stamped concrete and tree planting, were included in the design to reduce crashes and improve the user experience. A 3-year pilot study was initiated post-construction to determine the long-term benefits of the protected bicycle lane.

Marla was responsible for the Phase I development including coordination with IDOT and CDOT staff, geometric design and FHWA correspondence regarding innovative bicycle design treatments along the corridor. The Phase I plans were developed in concurrence with the Complete Streets policy and stakeholder participation to provide increased transportation options and balanced infrastructure for roadway users along the corridor. Marla was responsible for obtaining approval of the Phase I design and Project Report from the IDOT Bureau of Design and Environment (BDE) and FHWA. She also managed the accompanying pilot study.

ADA Curb Ramp Retrofit Improvement, Illinois Department of Transportation, Central and North Cook, DuPage, Kane, Lake, McHenry and Will Counties, IL, 2015 to 2017. *Project Manager.* An $8.5 million effort consisting of six Phase I contracts to bring ADA ramps to compliance in IDOT District One in concurrence with IDOT's ADA Transition Plan. The effort focused on locations that had been resurfaced between 2012 and 2014 by redesigning each curb ramp to meet the standards provided in the Public Rights-of-way Accessibility Guidelines (PROWAG) with minimal impact to the traveled way. Marla managed these contracts to ensure timely completion and provided technical assistance and review to verify each curb ramp met the PROWAG standards. She coordinated the improvements with the IDOT BDE and FHWA to provide proper documentation of approved designs, maximum extent practicable (MEP) forms and Phase I Project Reports.

Bicycle and Pedestrian Accommodations Feasibility Study, Illinois Department of Transportation, District One, IL, 2014 to 2017. *Project Engineer and IDOT District One Bicycle Coordinator*. A feasibility study of 19 innovative bicycle and pedestrian facilities to determine appropriate uses for each facility. Matrices were created for engineers to choose an applicable facility type based on project-based specifications. Field studies, surveys and coordination with five state DOTs were utilized in the final study. Marla was a part of the initial project team that developed the study's structure and goals. She was responsible for reviewing the study and coordinating with the IDOT Bureau of Design and Environment and IDOT Bureau of Safety. The study was published in December 2019 and can be found on the IDOT Trails, Paths & Streets site as a guide for IDOT engineers to design bicycle and pedestrian facilities.

U.S Route 34 at Joliet Ave, Illinois Department of Transportation, Lyons, IL, Cook County, 2016 to 2017. *Project Engineer*. A Phase I project to improvement the safety and operations of the US Route 34 at Joliet Avenue intersection by adding left-turn lanes on US 34 and upgraded bicycle and pedestrian facilities. Marla was responsible for the Phase I preliminary engineering design which included geometric design, environmental coordination, estimating preliminary cost, determining land acquisition needs and developing a traffic management plan. This location had many sensitive environmental features including the historic Hofmann Tower and Des Plaines River. The US 34 corridor also had limited right-of-way to accommodate the added left-turn lane. Marla developed alternatives for the intersection improvement that avoided impacting the sensitive environmental features and reduced the improvement footprint to minimize right-of-way impacts to the stakeholders within the project limits.

Katelyn Bleach, PE

PROJECT ENGINEER | GEOMETRICS & ADA COMPLIANCE

Katelyn is a transportation engineer working on roadway, traffic, and streetscape design engineering projects. She has experience preparing PS&E documents, 3D modeling, and quantity calculations as well as design-build packages. In addition, she has participated in leading public involvement efforts with key clients and interagency coordination efforts. She has led numerous ADA design efforts and has attended ACEC IL's IDOT ADA Training Seminar. Katelyn is proficient in industry software such as Microstation, Geopak SS4, AutoCAD, Synchro and Excel.

Areas of Expertise

- Streetscape Grading
- ADA Design for Crosswalks, Sidewalks and Shared Use Paths
- Curbless, Flexible Street Design

Relevant Project Experience

Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3). Phase II Engineering Services, Illinois State Toll Highway Authority, Cook County, IL, 2018 to Present. *Transportation Engineer.* Jacobs is preparing Phase II contract plans and specifications for the reconstruction of the Tri-State Tollway between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3) in Cook County, Illinois. The project includes full roadway reconstruction and widening, including redesign of the I-294, I-88, & I-290 system interchanges and reconstruction/rehabilitation of almost 30 bridges and nearly 20 retaining walls. Our careful coordination with the Design Corridor Manager has successfully developed design plans that provide the Illinois Tollway with a high-value solution through a complex corridor with many stakeholders, an aggressive design schedule, while simultaneously limiting disruptions to Tollway customers. We are also ensuring that all parties' needs are met with minimum financial impact to our client, including railroads, IDOT, the DuPage Water Commission, local municipalities, and several large utilities that cannot be relocated. As a member of the roadway design team, Katelyn is responsible for 3D modeling of the corridor for use in cross section preparation, earthwork calculations, and geometric plan preparation. This effort includes coordinating with the all the discipline teams to ensure the 3D model accurately reflects the design.

Fulton Market Streetscape Design, Chicago Department of Transportation, Ogden Avenue to Halsted Street, Chicago, IL, 2014 to Present. *Civil Engineer.* The streetscape design includes a flexible street design to facilitate loading activities, and unique solutions to provide ADA access to businesses adjacent to sidewalks that are elevated 2 to 3 feet to facilitate direct loading at tailgate level. The project includes a public outreach program, coordination with key stakeholders such as elected officials, community activists, and other public agencies. Construction Cost: $9M. Responsible for design plan preparation and estimation for the Gateway Arch under a constrained schedule. Additionally, she is responsible for civil improvements for both streetscape and pedestrian safety improvements along Fulton Street, between Ogden Avenue and Halsted Street. Katelyn led the design for all ADA, grading, and drainage in both Sections I & II. Additionally, Katelyn has lead tasks such as truck turning analysis, signal design at Ogden, and coordination with active developers on the street.

EDUCATION/QUALIFICATIONS

B.S., Civil Engineering, Marquette University, 2013

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: IL, (No. 062- 068491)

MEMBERSHIPS AND AFFILIATIONS

Institute of Transportation Engineers (ITE), Director of Operations, IL Section

Women in Transportation Seminar (WTS)

OTHER

- Years in Industry: 8 years

Sauganash Gateway Identifier, Chicago Department of Transportation, Chicago, IL, 2018 to Present. *Project Engineer.* The Sauganash Gateway is a community identification project located on Peterson Avenue at the entrance to the Sauganash community. Given a narrow pedestrian path and adjacent to an office complex this gateway is a unique design challenge. Jacobs is responsible for the structural and civil improvements related to the gateway, as well as design validation. Katelyn is responsible for all civil design and improvements associated with the gateway, as well as coordinating the location of the foundations with any utility conflicts.

Morgan Street Streetscape, Chicago Department of Transportation, Chicago, IL, 2014 to 2016. *Transportation Engineer.* This Chicago Department of Transportation project includes streetscape improvements on Morgan Street between 31st Street and 35th Street. The project includes a vault investigation and design of vault backfilling or reconstruction where applicable. Other improvements include new sidewalk and ADA ramps, new striped and stamped crosswalks, reconstructed curb and gutter, catch basin upgrades or replacements as required, limited resurfacing, new trees in tree pits with grates, site furnishings, including bike racks, benches, and waste containers, and Gateway style decorative street and pedestrian light poles. The project includes the conduct of a public open house, and coordination with key stakeholders such as elected officials, community activists, and other public agencies. Katelyn was responsible for ADA design and geometric improvements, as well as plan, specification and estimate work associated with the 60%, 90% and final submittal.

Streets for Cycling 2020 Plan, Chicago Department of Transportation, Chicago, IL, 2011. *Transportation Engineer.* Chicago's Streets for Cycling 2020 Plan recommends a 645-mile network of roadways for innovative bikeway treatments, with the goal of making all Chicagoans feel safe bicycling on the city's streets. Jacobs teamed with Sam Schwartz Engineering to plan the future bikeway network by identifying gaps in the existing bicycle system, opportunities for improvement, and implementation challenges. Katelyn aided in the planning stages of the bike routes, including Synchro phasing and data collection for route determination.

Safe Routes to School / High School, Chicago Department of Transportation, Chicago, IL, 2013 to 2017. *Transportation Engineer.* This federally-funded project involves improved roadway signage and pedestrian facilities adjacent to Chicago Public Schools in an effort to encourage students to walk or bike to school. Examples of some improvement plans are installation of count-down pedestrian heads, pedestrian refuge islands, landscaping parkway buffer zones to provide separation from adjacent traffic, and pedestrian crosswalk improvements. Public outreach activities included formal public meetings at three schools, public open houses at seven schools, and two listening sessions at local school council or parent-teacher service organization meetings. Katelyn provided field work services for verification of existing site conditions. She helped prepare signage and pavement marking plans and signal re-timing for pedestrian count down signals.

Marco Loureiro, PE

PRINCIPAL-IN-CHARGE

As Vice President and Director of Operations, Marco is primarily responsible for managing the overall operation of the Chicago office that includes financial performance as well as business development. As Principal-in-Charge (PIC) on projects, he is responsible for prioritizing staff assignments and providing the project staff as promised in the statement of interest. As PIC he also performs the client satisfaction survey and serves as the point of contact when clients need executive engagement.

Marco's experience includes the design and analysis of complex structures, and the management of large-scale structural projects including several Design-Build projects. His experience includes high profile projects ranging from the design of complex elevated pedestrian structures to multi-mile highways in suburban settings. Marco has worked on the design of signature structures across the U.S. Marco's experience encompasses all aspects of project development ranging from Phase I preliminary design through construction support.

Areas of Expertise

- Design Build
- Cable Stayed, Suspension, Arch, Prestressed, Box girder Bridges
- Quality Management
- Midas Civil 3D modeling

Relevant Project Experience

Oakwood Boulevard Viaduct over Metra / ICRR, Chicago Department of Transportation, Chicago, IL, 2015 to Present. *Senior Structural Engineer.* The existing 250' long structure was constructed in the mid-1920s and spans four tracks of the Metra Electric District and two tracks of the Canadian National Railway (the former ICRR). The historic importance of the viaduct is recognized by its inclusion on the IDOT Historic Bridge Survey. The proposed replacement structure improves horizontal and vertical clearances over the tracks with a new two span structure and incorporates a balustrade railing to reflect the historic appearance of the original. Phase II services include development of an updated ESR due to revised access road locations, bridge inspection to confirm field conditions from the TS&L, involvement in the Illinois Historic Preservation Agency HAER report and updated PESA/PSI environmental reports, assistance with the Lakefront Protection Ordinance application process, coordination with CDOT, Department of Water Management, Chicago Park District and other interested and involved parties, coordination of four subconsultants, and preparation of final construction documents. Phase III design services will be provided, including answering submittals and RFIs from the Contractor and field meetings. Responsibilities included quality control of final plans and specifications during Phase II engineering services. Marco is also responsible in assisting with Phase III services with submittal reviews and answering to RFIs.

CTA Red-Purple Modernization Program Design-Build, Chicago Transit Authority, Chicago, IL, 2019 to Present. *Design-Build Coordinator.* The Red and Purple Modernization (RPM) program is a $1.3B design-build project for complete replacement of a 9.6-mile corridor stretch of track that was built close to a century ago. This project will rebuild four stations and all the tracks and support structures for more than a mile adjacent to the stations. The project will also construct a Red-

EDUCATION/QUALIFICATIONS

M.B.A., Finance, Saint Xavier University, 2008

M.S., Civil Engineering, Structures and Materials, University of Iowa, 1999

B.S., Civil Engineering, University of Iowa, 1996

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: IL (No. 062-061860)

MEMBERSHIPS AND AFFILIATIONS

American Society of Civil Engineers

American Council of Engineering Companies

OTHER

- Years in Industry: 22 years

Purple Bypass north of Belmont station trains to modernize the century old Clark Junction where Red, Purple and Brown line trains intersect. Marco is the Design-Build Coordinator on behalf of Chicago Transit Authority. Marco's responsibilities include the oversight of the Design-Build team's design packages, adherence to baseline schedule, project control and coordination of permit applications and design packages, and staff management.

I-80: Grundy County Line to US 30, Illinois Department of Transportation, Will County, IL, 2011 to 2015. *Structural Engineer.* Phase I planning and Phase II design services on 15 miles of I-80. Structural services involved the inspection of 43 bridges, including the twin 780-foot continuous cantilever truss bridges over the Des Plaines River. Services also include the preparation of Bridge Condition Reports (BCR), fatigue evaluation and load rating of various structures, and the preparation of plans and specifications for interim design improvements required for the bridges to perform their function for the next 15-20 years. Challenges included delivery of Phase I services, including inspections, BCRs and Type Study documentation on compressed schedule. I-80 is a major cross-country route with growing congestion, poorly functioning interchanges and more than 35 bridges. Phase I planning focused on the rehabilitation of roads and bridges in the interim improvements phase, while considering long range improvements to ultimately reconstruct I-80 and possibly widen the interstate to three lanes in each direction. Marco provided technical expertise in the type study concept for the replacement of the twin 780-foot continuous cantilever truss bridge over Des Plaines River.

I-90 Phase I Study, Illinois Department of Transportation, Chicago, IL, 2012 to 2013. *Lead Structural Engineer.* Phase I planning for improvements to I90. Developed bridge condition report documentation, proposed bridge alternatives for the CTA Pedestrian Bridge over I-90 and verified the structural feasibility of proposed alternatives and cost estimates. The I-90 study included the analysis of existing expressway deficiencies and development of the proposed add-lane improvement. Preliminary engineering studies quantified the proposed geometry and preliminary construction costs. The proposed improvement was anticipated to provide an additional travel lane to the outside in both directions on the existing alignment and a barrier separation between the eastbound I-90 and I-190 traffic from the interchange to east of Cumberland Avenue. Managed project staff and provided overall quality control on project deliverables.

Tri-State Tollway Roadway Widening and Reconstruction, Illinois State Toll Highway Authority, Cook County, IL, 2005. *Structural Engineer.* Phase II design services for the mainline roadway widening and reconstruction of the Tri-State Tollway (I-294) from north of Touhy Avenue to Dempster Street. The bridges carried four lanes of traffic supported by a steel I-plate girder composite superstructure on a 60 degrees skew. Responsible for the structural analysis and design of the Algonquin Street Bridges (northbound and southbound).

I-80/I-94/IL-394 Kingery-Borman Expressway Reconstruction, Illinois State Toll Highway Authority, Chicago, IL, 2005. *Structural Engineer.* Final design and plan preparation for the reconstruction of IL Route 394/I-94 between Thornton-Lansing Road and 159th Street. The design services included 10 bridge structures, retaining walls and high mast light tower foundations. Was responsible for the structural analysis and design of 680 feet long horizontally curved six-span steel girder structure (EB I-94) over Thorn Creek supported by an 80 feet long integral steel bent near the structure midspan.

Kenneth Eng, PE

QA/QC

Ken is a licensed Professional Engineer and Civil Engineer with more than 30 years of experience in highway design and planning with the Illinois Department of Transportation (IDOT) District One office. He started at IDOT as a Civil Engineer and progressed to Consultant Project Manager, Consultant Expressway Unit Head, Plan Preparation Section Chief, and most recently, Bureau Chief of Design for the last six years prior to joining Jacobs in 2020. Ken led, managed, supervised and was responsible for District One's multi-million dollar highways design program. An expert in highway design, Ken is committed to providing high quality service to deliver world class infrastructure projects.

Areas of Expertise

- SME IDOT design, contract plan preparation, procurement, policies, procedures, and programs
- QA/QC

Relevant Project Experience

US 6 (159th Street) at US 45 (LaGrange Road) Intersection Reconstruction, IDOT District One, IDOT, Orland Park, IL, 2001 - 2005. *Project Manager.* The proposed scope of work for the project involved the reconstruction of the US 6 at US 45 intersection to provide for additional through and turn lanes and was needed to improve highway operations. The work included pavement widening and reconstruction, sidewalk construction, traffic signal and street lighting upgrades, maintenance of traffic, structural designs for required retaining walls and drainage improvements within the project limits. IDOT Phase II consultant project manager and the responsibilities included project management to deliver the contract plans, specifications and estimates to letting, project coordination with the local agency, utility coordination and the development of the intergovernmental agreement for the project.

IL 64 (North Avenue) from Kautz Road to IL 59 and over Union Pacific Railroad, Roadway Widening and Reconstruction, Highway Bridge Widening and Replacement, IDOT District One; St. Charles and West Chicago, IL, 2006 - 2014. *Project Manager.* The project scope of work for the project involved the reconstruction of the IL 64 from Kautz Road to IL 59 and was needed to improve highway capacity and traffic operations. The project included roadway widening and pavement reconstruction to provide for a third traffic lane with the landscaped median, widening and replacement of the IL 64 bridge over the UP Railroad, traffic signal upgrades, new highway lighting installed and the installation of a new closed drainage system within the project limits. The construction cost of the project was $38 million. IDOT Phase II consultant project manager and the responsibilities included project management to deliver the contract plans, specifications and estimates to letting, project coordination with DuPage County DOT, DuPage Airport, FAA, and local agencies, railroad coordination, permit coordination with the US Army Corps of Engineers, utility coordination and the development of the intergovernmental agreement for the project.

US 20 at Allen Road and Brier Hill Road Intersection Re-Alignment and Roadway Reconstruction, IDOT District One; Allen's Corner, IL, 2012 - 2016. *Project Manager.* The proposed scope of work for the project involved the realignment and reconstruction of the US 20 at Brier Hill Road /Allen Road intersection and was

EDUCATION/QUALIFICATIONS

B.S., Civil Engineering, University of Illinois, Urbana-Champaign, 1989

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: Illinois, (No. 062- 048871)

FHWA Pavement Preservation: Integrating Pavement Management

IDOT Understanding Engineering

MEMBERSHIPS AND AFFILIATIONS

Illinois Association of Highway Engineers

OTHER

- Years in Industry: 30+ years

needed to improve highway operations and traffic safety. The work included pavement widening and reconstruction for channelization, maintenance of traffic plans and drainage improvements within the project limits. The construction cost was $5.2 million. IDOT Phase II Consultant project manager and the responsibilities included project management to deliver contract plans, specifications and estimates to letting, project coordination with local agencies, utility and railroad coordination, development of the maintenance of traffic for the project and coordination with the US Army Corps of Engineers.

IL 64 at IL 47 Intersection Widening and Reconstruction, Dryland Bridge Construction, IDOT District One, Lily Lake, IL, 2008 - 2014. *Project Manager.* The proposed scope of work for the project involved the reconstruction of the intersection of IL 64 at IL 47 and was needed to improve highway operations. The work included reconstruction of IL 64 at a high elevation to minimize flooding, drainage improvements, soil improvements, traffic signal installation, dryland bridge and retaining wall construction. The construction cost was $5.1 million. IDOT Phase II consultant project manager and the responsibilities included project management to deliver the contract plans, specifications and estimates to letting, project coordination with the local agencies, permit coordination with the US Army Corps of Engineers, utility coordination and the development of the proposed detour plans.

US 20 at IL 47/IL72 (North and South Junctions) Intersection Widening and Resurfacing for Channelization; Pingree Grove, IL; IDOT District One; IDOT Phase II, 2012 – 2015. *Project Manager.* The proposed scope of work for the project involved the widening and resurfacing of two intersections (US 20 at IL 47/IL72 North Junction and US 20 at L 47/IL 72 South Junction) to provide channelization and was needed to improve highway operations/ the work included pavement widening and resurfacing, traffic signal installation at each intersection, bridge replacement over Tyler Creek and drainage improvements within the project limits. The construction cost was $9.2 million. IDOT Phase II Consultant project manager and the responsibilities included project management to deliver two separate sets of contract plans, specifications and estimates to letting, project coordination with local agencies, utility and railroad coordination, development of the maintenance of traffic for the project and coordination with the US Army Corps of Engineers.

Interstate 94 (Edens Expressway) from Lake Cook Road to Interstate 90 (Kennedy Expressway) Interstate Resurfacing with Drainage Improvements, IDOT District One; Various Municipalities in North Cook County, IL, 2005 - 2009. *Project Manager.* The project scope of work involved the resurfacing of I-94 (Edens Expressway) from Lake Cook Road to I-90 to address maintenance and drainage issues. The work included roadway resurfacing and drainage improvements within the project limits. The construction cost of the project was $42.8 million. IDOT Phase II Consultant project manager and the responsibilities included project management to deliver the contract plans, specifications and estimates to letting, project coordination with local agencies, utility coordination and the development of the maintenance of traffic plans.

Sarah Archer

AGENCY COORDINATION

Sarah is an environmental planner responsible for supporting large multidisciplinary Environmental Impact Statements and other environmental studies for major transportation projects. She currently leads the intergovernmental agreement task for the Elgin O'Hare Western Access project and is knowledgeable in the requirements and development of agreements, including cost, maintenance and jurisdictional responsibilities. She has also been a key player in extensive agency coordination efforts with a variety of agencies (railroads, municipalities, etc.) and has experience in public involvement and other project management activities.

Areas of Expertise

- Knowledgeable in intergovernmental agreement requirements and content, including the preparation and negotiations with a variety of agencies
- Experience in preparing environmental documentation for NEPA projects including Environmental Impact Statements (EISs) and Environmental Assessments (EAs)
- Experience with public involvement activities and environmental resource studies

Relevant Project Experience

Elgin O'Hare Western Access, Illinois Tollway, Cook and DuPage Counties, Illinois, November 2011 - Current. *Intergovernmental Agreements Lead/Planner.* This project is being implemented by the Illinois Tollway and includes the rehabilitation and widening of the existing Elgin O'Hare Expressway, the extension of the Elgin O'Hare Expressway east along Thorndale Avenue to the York Road to be known in its entirety as Illinois Route 390 (IL 390), and construction of a new, all-electronic toll road around the western border of O'Hare Airport linking the Jane Addams Memorial Tollway (I-90) and the Tri-State Tollway (I-294). Construction of the project requires intergovernmental agreements with numerous parties, such as railroads, counties, municipalities, special districts, and regulatory agencies. Sarah leads the intergovernmental agreement effort for the design and construction of the project. She manages the schedule, packaging, and coordination effort associated with the pursuit of the agreements and provides support to the client on negotiations. She is involved in design phase coordination efforts associated with the intergovernmental agreement responsibilities. She also participated in the development of the project's aesthetic commitments for roadway, structural and landscaping features and developed a cost menu for potential upgrades to be considered by others for the project.

Elgin O'Hare West Bypass, Illinois Department of Transportation, Cook and DuPage Counties, Illinois, September 2009 – December 2012. Environmental Planner/Project Support. The Phase I effort of this regionally and nationally significant project was completed by IDOT and included the preparation of preliminary engineering and environmental studies for the comprehensive transportation system improvement project. The project included the state's first tiered Environmental Impact Statement (EIS). Sarah had an active role in supporting the preparation of the Tier One and Tier Two Draft and Final EISs, including agency/public coordination, document editing and research. She was also involved in the stakeholder involvement process for a multitude of communities affected by the project outcome. Additional tasks included support of Governor Pat Quinn's Elgin-

EDUCATION/QUALIFICATIONS

B.A., Interdisciplinary Studies, Michigan State University, 2004

OTHER

- Years in Industry: 13 years

O'Hare West Bypass Advisory Council; completion of various engineering documentation including the Combined Design Report and associated studies (transit, bicycle and pedestrian, etc.), as well as support for various Master and Concept Plan reports.

Tri-County Access, Illinois Tollway, Lake, Cook and McHenry Counties, Illinois, 10/2017 to 9/2019, *Deputy Environmental Lead.* The Tri-County Access project focused on evaluating the existing and future transportation needs in a 1,000 square mile area within Lake County, eastern McHenry County, and northern Cook County in Illinois. The study analyzed the area's travel patterns, transportation needs, and developed potential solutions to alleviate and address those issues. The study also included extensive environmental analysis of existing conditions and potential impacts. Sarah was responsible for the management and support of the Tri-County Access project environmental effort. The preparation of the Environmental Impact Statement to date has included early planning studies, field verification, documentation of the affected environment, and the development of potential alternative corridors. She has played a key role in regulatory resource agency coordination, subconsultant management, data analysis and collection, project schedule and document management. She helped to develop and write the project's Purpose and Need statement and is responsible for writing and other technical reviews.

Illinois Route 3 Connector, Illinois Department of Transportation, District 8, Madison, Illinois, February 2014 – August 2018. *Planner.* This project involves a new roadway to address mobility, accessibility, and safety concerns in the East St. Louis area. At-grade railroad crossings along with large traffic generators, such as the Gateway Motorsports Park, create mobility and safety concerns throughout the year and especially on event days. Sarah has taken an active role in the preparation of the Environmental Assessment required for this project.

I-70 West, Mountain Corridor Programmatic Environmental Impact Statement, Colorado Department of Transportation, Jefferson and Garfield Counties, Colorado, 2011. *Planner.* Project to streamline the I-70 West Mountain Corridor EIS into a concise and reader-friendly Tier One programmatic document. The project studies multi-modal transportation improvements in the I-70 mountain corridor between Jefferson and Garfield Counties in Colorado. Sarah participated in writing the geological hazards portion of the document.

Carla Mykytiuk

STAKEHOLDER COORDINATION & PUBLIC INVOLVEMENT

Carla has over 20 years of experience as an environmental planner and public involvement specialist knowledgeable in developing, implementing, and maintaining effective public involvement plans and multifaceted public relations and communication strategies for transportation project. She has led and participated in successful programs to gain community input and support for large and controversial transportation projects. Carla possesses a keen understanding of community outreach needs and effective approaches to meeting them, gained from assignments on major highway projects, including planning and environmental studies. Her involvement in these projects includes substantial public involvement efforts including writing newsletters and news releases, coordinating, and participating in small group meetings, public hearings, and agency coordination both in-person and virtually. In addition, Carla has extensive experience supporting large multidisciplinary Environmental Impact Statements, Environmental Assessments, and other environmental studies for major transportation projects.

Areas of Expertise

- Public Involvement
- Stakeholder Engagement
- Environmental Planning

Relevant Project Experience

Planning and Environmental Linkages Study for CMAP's Grade Crossing Feasibility Study, Chicago Metropolitan Agency for Planning, Chicagoland Area, IL, 2020 to Present, *Public Involvement Lead.* This project will evaluate up to five high priority highway-rail grade crossings in the Chicago metropolitan area. The PEL studies assess existing conditions and future needs, consider technical analyses and stakeholder input in the development of a draft purpose and need statement, develop preliminary alternatives, eliminate unreasonable alternatives, establish a transportation footprint to evaluate impacts and prepare programmatic costs, recommend alternatives to be carried forward into a future NEPA study, develop programmatic cost estimates, and assess funding strategies for advancing the project. The PEL process also provides an opportunity to develop interest in a project needs and potential solutions, as well as develop and empower local champions to advance future NEPA studies. The current ongoing railroad grade crossing study is at Laraway Road crossing UP Railroad in Joliet, IL. We are providing virtual engagement for this location via a Bang the Table virtual platform, which has included an online survey, interactive mapping, and a visual presentation. A virtual public meeting was held via Zoom.

US Route 30, Phase 1 Study, Illinois Department of Transportation, Plainfield, IL, 2010 to 2012. *Environmental Planner* The project provided an improved transportation facility along approximately 2 miles of U.S. Route 30 (U.S. 30) between Interstate 55 (I-55) and Illinois Route 59 (IL 59) in the Village of Plainfield, City of Joliet, Plainfield Township in Will County, Illinois. The improvements included a multi-use path, widening the two-lane urban arterial facility to a five-lane section in addition to improvements at three signalized intersections and six un-signalized intersections. The project has a construction value of approximately $38 million.

EDUCATION/QUALIFICATIONS

M.P.A., Public Administration, University of Massachusetts, 1996

B.S., Psychology/Sociology, University of Maryland, 1992

OTHER

- Years in Industry: 20 years

Carla's tasks included collecting noise analysis data in the field, accident analysis and developing an environmental assessment document on the preferred alternative.

Illinois Route 3 Connector Project, Illinois Department of Transportation, District 8, Madison, IL, 2012 to Present. *Involvement Lead/ Environmental Planner.* This project involves a new roadway to address mobility, accessibility, and safety concerns in the East St. Louis area. At-grade railroad crossings along with large traffic generators, create mobility and safety concerns throughout the year. Carla assisted with preparation of the Environmental Assessment, including participating in the noise study. Public outreach activities include creation of and coordination with the Community Advisory Group (CAG); coordination with elected officials at the local, state, and federal levels; and newsletters, a project website, and public meetings. Also assists with development and updating the Stakeholder Involvement Plan.

Elgin O'Hare West Bypass (EOWB) Tiered Environmental Impact Statement (EIS), Illinois Department of Transportation, Chicago, IL, 2008 to 2012. *Public Involvement/ Environmental Planner.* Jacobs led the delivery of the EOWB Tiered EIS, the first tiered EIS process for a major highway project in Illinois. Tier One was jointly led by the FHWA and IDOT; FAA and the Illinois Tollway joined as co-lead agencies for Tier Two. The firm's responsibilities included: conducting a comprehensive analysis of transportation needs and multi modal solutions across a 127-square-mile study area; preparing environmental studies required for approval of the Tier One EIS/Record of Decision (June 2010) and Tier Two EIS/Record of Decision (December 2012); conducting a broad stakeholder involvement program to facilitate public input and to secure consensus on a selected alternative; supporting leadership with preparation of the EOWB Advisory Council's Final Report to Governor (July 2011) which assessed the overall economic benefits of the EOWB and the adjoining O'Hare Modernization Program and established the framework for project funding, financing and implementation. The Tier Two EIS selected alternative includes improving, extending, and converting the Elgin O'Hare Expressway to a toll road (the IL 390 Tollway), constructing a new West Bypass toll road (the I-490 Tollway), numerous new access controlled and improved interchanges (including four major freeway-to-freeway interchanges and 13 service interchanges), more than 200 miles of transit improvements, and bike and pedestrian facilities.

Responsible for public outreach activities such as open house public meetings and small group meetings. Wrote newsletters and fact sheets, prepared meeting materials and participated in various public and stakeholder meetings. Additional tasks included research on financing options for the $3.6B project and completion of various engineering documentation and reports. Reviewed and documented regionally and locally adopted bike plans, existing and proposed bikeways, significant points of interest within communities, natural and manmade barriers, and gaps in the nonmotorized system.

I-74 Iowa-Illinois Corridor Study EIS, IDOT and Iowa DOT, Moline, IL, Bettendorf, and Davenport, IA, 2001 to 2005, *Public Involvement/Environmental.* Project included Phase I studies of improvements to and widening of the I-74 corridor through the Quad Cities and the replacement of the existing bridges carrying I-74 over the Mississippi River. Using a CSS approach, stakeholders influenced the inclusion of a bicycle/ pedestrian trail on the new bridge after being involved in a meaningful public outreach process.

Carla conducted research and wrote the technical memorandum on bike/pedestrian issues in the project area, Bike/Pedestrian Paths in Interstate Right of Way. Involved in the creation and distribution of project newsletters and brochures, the coordination of public meetings, hearings, and small group meetings, maintenance of the project website.

Jill Kramer

NEPA COMPLIANCE

Jill is an environmental planner and regulatory affairs specialist responsible for supporting large multi-disciplinary Environmental Impact Statements (EISs), and environmental and resource studies for transportation and natural resource projects. Jill's 29 years of experience brings together the requirements of environmental documentation with a thorough understanding of natural resource issues, project funding and public involvement techniques. Jill has led many environmental studies and public involvement efforts, many involving extensive public involvement, complex environmental issues, economic analysis, and rigorous environmental documentation. She has been responsible for leading environmental studies and public involvement efforts for a full range of transportation project.

Jill's experience with large multi-disciplinary EISs includes preparing financial and project management plans to demonstrate to the Federal Highway Administration (FHWA) that project costs have been estimated as accurately and meticulously as possible, risks have been carefully considered and mitigated, financing requirements and strategies have been clearly defined, and the implementation of the project delivery has been carefully planned.

Additionally, Jill has experience preparing long-range transportation plans, corridor plans, and grant applications for major federal and Illinois state grant programs.

EDUCATION/QUALIFICATIONS

Master of Urban Planning and Policy, University of Illinois, Chicago

B.S., Environmental Economics and Policy (fka Political Economy of Natural Resources), University of California, Berkeley

MEMBERSHIPS AND AFFILIATIONS

American Planning Association

OTHER

- Years in Industry: 29 years

Areas of Expertise

- Experienced environmental planner with over 25 years' experience completing NEPA, environmental and transportation-related studies
- Experienced in environmental documentation, including environmental impact statements (EISs) and environmental assessments (EAs)
- Experienced in environmental and transportation resource studies, specializing in the following analyses: socioeconomic and demographic trends, community studies, land use, and indirect and cumulative impacts
- Experienced in public involvement, including small group meetings, public hearings, newsletters, press kits, public websites, and project management web sites
- Experienced in grant writing, including FASTLANE, Congestion Mitigation and Air Quality Grants (CMAQ), Transportation Investment Generating Economic Recovery (TIGER) Grants, and other discretionary funding programs
- Experienced in regulatory compliance at the federal, state, and local level for various environmental permits and compliance reports

Relevant Project Experience

Elgin O'Hare Western Access Project (EOWA), Illinois Tollway, DuPage and Cook Counties, Illinois, 2011 to Present. *Major Project Lead.* The EOWA Project consists of construction of a new, all-electronic Tollway around the western border of O'Hare International Airport, linking the Jane Addams Memorial Tollway (I-90) and the Tri-State Tollway (I-294), as well as extending the Elgin O'Hare Expressway east along Thorndale Avenue to O'Hare and rehabilitating and widening the existing Elgin O'Hare Expressway from Illinois Route 19 to Meacham/Medinah Road. The estimated $3.4-billion-dollar project is considered a Major Project by FHWA, which is "a project with a total estimated cost of $500 million or more that is receiving financial

assistance." For federal funding to be authorized for the financing of the project, the Illinois Tollway must demonstrate to FHWA that the project has been carefully planned. The project is anticipated to complete in 2026.

As the Major Project Lead, Jill has developed the required financial and project management plans for federal funding to be released for the project. The effort began with the initial Cost Estimate Review as part of the Tier Two EIS, followed by preparations of the draft Project Management Plan, which documented the roles and responsibilities of the partner agencies, as well as the procedures and processes that will result in the project's successful completion from NEPA documentation through implementation. The final Project Management Plan was submitted to FHWA within 90 days of issuing the Record of Decision. The Initial Financial Plan was completed following a second Cost Estimate Review and prior to the beginning of construction. The Financial Plan will continue to be updated annually until the project is complete. Major Project documents are important for illustrating the process and building public trust and confidence in this large infrastructure project, that the project will be completed on time, within budget and of high quality.

Additionally, Jill is assisting DuPage County with identifying potential local, state, and federal funding sources and application materials to meet the $300 million local project contribution. Grant applications to date include the Transportation Investment Generating Economic Recovery (TIGER Discretionary Grant program), Congestion Mitigation and Air Quality Improvement Program (CMAQ), and Illinois Transportation Enhancement Program (ITEP). As of Q4 2017, more than $125 million has been secured in federal grant monies.

US Route 30, Phase 1 Study, Illinois Department of Transportation, Plainfield, IL, 2010 to 2012. Environmental Planner. The project provided an improved transportation facility along approximately 2 miles of U.S. Route 30 (U.S. 30) between Interstate 55 (I-55) and Illinois Route 59 (IL 59) in the Village of Plainfield, City of Joliet, Plainfield Township in Will County, Illinois. The improvements included a multi-use path, widening the two-lane urban arterial facility to a five-lane section in addition to improvements at three signalized intersections and six un-signalized intersections. The project has a construction value of approximately $38 million. Jill contributed to the development of the NEPA document. A portion of the highway improvement is adjacent to a residential historic district, Lake Renwick Preserve, and the Plainfield Township Cemetery. The project team undertook a very proactive and collaborative approach, engaging key staff from the Forest Preserve District of Will County, the cemetery, the Village of Plainfield and others. Through extensive discussions, meetings, workshops and negotiations, the team developed several features and measures which ultimately led to project completion and construction. Jill was responsible for assessing land use impacts, parking impacts, right-of-way requirements and displacements, as well as contributing to the preparation of the environmental document.

Planning and Environmental Linkages (PEL) Study, Laraway Road Grade Crossing Feasibility Study, Chicago Metropolitan Agency for Planning, Joliet, Illinois, January 2020 to present. *Environmental Lead.* The Chicago Metropolitan Agency for Planning is evaluating the feasibility of improving a grade crossing entering the Union Pacific Joliet Intermodal Terminal in Joliet, Illinois, using a Planning and Environmental Linkages process such that information developed can be utilized in future NEPA studies. The PEL process will involve early coordination with federal, state, and local governments, preparation of a PEL questionnaire and PEL Report. Jill prepared the memorandum documenting the purpose and need statement, the memorandum documenting the recommendation of alternatives to the carried forward and evaluated in future NEPA studies, issues of potential concern, and a description of the environmental setting early resource and regulatory agency coordination.

Jennifer Drake, PE, SE

STRUCTURES

Jennifer is a Project Manager and Structural Engineer with a focus on bridge design. Her experience encompasses all aspects of highway bridge design and rehabilitation, from Phase I through construction support for typical to complex highway structures in addition to rail and pedestrian bridge structures. She has served as Project Manager for bridge replacements and bridge rehabilitations, element level inspections, and load rating projects.

Jennifer has experience with various software and CAD programs including Midas, STAAD, LPile, CONSPAN, MDX, STAAD and Microstation. She also has experience using various design specifications, including those of AASHTO, ACI, AISC and AREMA.

Areas of Expertise

- Curved and skewed steel bridges
- Pedestrian bridges
- Design Build
- Prestressed bridges
- Steel arch bridges

Relevant Project Experience

Culvert Load Ratings, Illinois Department of Transportation ,Multiple Locations in Illinois, March 2021 to Present. *Project Manager.* Jacobs is responsible for load ratings for up to 120 culverts in various locations throughout Illinois using AASHTOWare BrR software and hand calculations. The culverts vary in length, skew and number of cells. The packages contain ratings, rating packages, spreadsheets, IDOT Structural Load Rating Summary (SLRS) forms and written summaries. Jennifer is the Project Manager coordinating the work with the client, sealing the load ratings, and delivering the ratings.

Center Street over Calumet Union Drainage Ditch, Cook County, Cook County, IL, January 2014 to April 2014. *Structural Project Manager.* The culvert is to be replaced utilizing staged construction and temporary pavement. Scope included preparing cost estimates and reviewing alternate slab thicknesses. Prepared a TS&L, contract plans and specifications for a double box culvert replacement project.

Tri-State Tollway Roadway Reconstruction: Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3), Illinois State Toll Highway Authority, Cook and DuPage Counties, IL, September 2015 to Present. *Structural Engineer of Record.* Jacobs is the prime consultant providing Phase II engineering services required for the roadway reconstruction of the Tri-State Tollway between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3) in Cook County, Illinois. Jacobs personnel are responsible for the preparation of contract plans and specifications for proposed roadway and reconstruction improvements including reconstruction/rehabilitation of nearly 30 bridges and 20 retaining walls. Several of the bridges on the project involve difficult geometry and complex construction staging requirements. Structural Engineer of Record for ten of the bridges for the Jacobs structural team. Project responsibilities include checking, review, design and detailing to complete the PSE bid documents.

EDUCATION/QUALIFICATIONS

M.S., Civil Engineering, University of Illinois, 2004

B.S., Civil Engineering, Washington University, 2000

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: IL (No. 062-058295

Structural Engineer: IL (No. 081-006520)

Professional Engineer: TX (No.100909)

Professional Engineer: OH (No. 79932)

Professional Engineer: IA (No. P26558)

Professional Engineer: MN (No. 48517)

MEMBERSHIPS AND AFFILIATIONS

Women's Transportation Seminar (WTS)

ACEC-IL/IDOT Bridge Committee

OTHER

- Years in Industry: 20 years

Oakwood Boulevard Viaduct over Metra / ICRR, Chicago Department of Transportation, Chicago, IL, June 2014 to March 2020. *Project Manager.* The existing 250' long structure was constructed in the mid-1920s and spans four tracks of the Metra Electric District and two tracks of the Canadian National Railway (the former ICRR). The historic importance of the viaduct is recognized by its inclusion on the IDOT Historic Bridge Survey. The proposed replacement structure improves horizontal and vertical clearances over the tracks with a new two span structure and incorporates a balustrade railing to reflect the historic appearance of the original. Phase II services include development of an updated ESR due to revised access road locations, bridge inspection to confirm field conditions from the TS&L, involvement in the Illinois Historic Preservation Agency HAER report and updated PESA/PSI environmental reports, assistance with the Lakefront Protection Ordinance application process, coordination with CDOT, Department of Water Management, Chicago Park District and other interested and involved parties, coordination of four subconsultants, and preparation of final construction documents. Phase III design services will be provided, including answering submittals and RFIs from the Contractor and field meetings. Responsibilities include Phase II engineering services (plans, specifications, and estimates) for the design of the reconstruction of the Oakwood Boulevard viaduct. She also led all coordination with CDOT, IDOT, the Chicago Park District, CN Railroad, Metra, four subconsultants, and the internal project team including structural and civil engineering services.

US 20 Phase I Study: West of Randall Road to East of Shales Parkway, Illinois Department of Transportation, Kane and Cook Counties, IL, June 2014 to 2019. *Structural Project Engineer.* Development of six Bridge Condition Reports along the US 20 corridor. Once the BCRs were submitted, IDOT requested that the Jacobs team prepare pre-TS&L plans for a proposed bridge over the Fox River. Responsible for creating and reviewing Bridge Condition Reports for six bridges. Reviewed Bridge Inspection Reports filled out internally, top and bottom of deck and substructure condition surveys, itemized cost estimates and proposed cross-sections for several options. Assisting with geometric layout of five options for the Fox River bridge crossing and development of pre-TS&L plans.

I-90 Jane Addams Memorial Highway Reconstruction, Illinois State Toll Highway Authority, Kane and Boone Counties, IL, 2012 to 2014. *Project Manager.* Oversaw the preparation of contract plans, specifications, estimates and project-related permits for three bridges along the proposed Jane Addams Memorial Tollway Reconstruction. This assignment included replacing the original I-90 bridge over US-20 (M.P. 42.3, Project I-12-4078), which was originally built in 1957. The proposed wider structure has a single 120' long span plate girder superstructure. Scope of services included maintenance of traffic, structural, roadway, and electrical plans. The US 20 bridge presented geometric challenges with a high skew, yet the team met the Tollway's desire for integral abutments and MSE walls. Additionally, the project schedule necessitated an early steel contract for the eastbound portion of I-90 in order to complete the construction in less than three months. Construction support included reviewing erection procedures, shop drawings, and responding to RFIs. US 20 bridge and associated roadway reconstruction. Cost: $5M. Jennifer acted as Project Manager and Structural Engineer of Record for the I-90 Bridge over US 20 and led the structural team to prepare TS&L plans and a bid package including final plans and provided construction support. Her responsibilities included structural steel design and review, substructure review, and overall quality control review. Construction support included reviewing erection procedures, shop drawings, and responding to RFIs. She also provided structural engineering design support for the I-90 bridge over Mosquito Creek and I-90 over Coon Creek.

Kenneth Gomez, PE

DRAINAGE

Ken is a Civil Engineer with broad design experience in civil engineering including municipal services, land development, hydraulic modeling, cost estimation, contract quantities, and specification book and plan preparations. Ken also has experience in construction observation of a watermain and sewer project and submittal review and response. He is proficient in using MicroStation, AutoCAD Civil 3D, SUDA, XPSWMM, StormCAD CivilStorm, HY-8, FHWA Hydraulic Toolbox, and Hydraflow for design projects. Currently, Ken is working with the civil group on the design of civil highway engineering projects. Ken stays involved with the local ASCE chapters and currently acts as the Social Media Chair for the Illinois Section.

Areas of Expertise

- Roadway/Highway Drainage Design
- ADA Design

Relevant Project Experience

Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St Charles Road (M.P. 32.3) Phase II Engineering Services, Illinois State Toll Highway Authority, Cook and DuPage Counties, IL, 2018 to Present. *Civil Engineer/Drainage Engineer.* Phase II engineering services for the preparation of contract plans and specifications for the proposed roadway reconstruction of the Tri State Tollway between Roosevelt Road and St. Charles Road. The roadway design includes widening and roadway reconstruction, interchange reconfiguration of the I-290, I-88 and St. Charles interchanges as well as new drainage structures and modification of the existing drainage system, erosion control for all construction zones and landscaping, pavement marking and signing, barrier warrant analysis, roadway lighting, and maintenance of traffic plans. The corridor includes 30 bridge structures, 25 of which are complete bridge replacements, and more than 20 retaining and noise abatement walls. Responsibilities include acting as the drainage discipline lead coordinating between disciplines and subconsultants, plan preparation, quantity and cost estimates, and specification preparation.

Tri-State Tollway Roadway Study: 95th Street to Balmoral Avenue Master Planning and Central Tri-State Design Corridor Manager, Illinois State Toll Highway Authority, Cook and DuPage Counties, IL, 2016 to 2017. *Civil/Drainage Engineer.* Preparation of the Master Plan Document and 30% Engineering Studies for the reconstruction of the Central Tri-State Tollway corridor. The project studied improvements that included mainline pavement reconstruction, crossroad/bridge modifications, interchange improvements, utility impacts, maintenance of traffic concepts, design and construction packaging, and potential revenue enhancements. Cost: $1.68B. Responsibilities included assisting with drainage design in the design section from Cermak Road to North Avenue.

Woodlands Phase III, Village of Hinsdale, Hinsdale, IL, 2015 to 2016. *Staff Engineer.* The project included water main and sewer improvements, rain garden design, bid/construction document preparation, and permitting services for the Woodlands subdivision. Was responsible for assisting in the design of water main and storm sewer, and quantities. Worked as a liaison with utility companies.

EDUCATION/QUALIFICATIONS

B.S., Civil Engineering, University of Illinois, 2013

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: IL (No. 062.069562)

IDOT Documentation of Contract Quantities Illinois Department of Transportation, 5-0183

MEMBERSHIPS AND AFFILIATIONS

Social Media Chair, Illinois Section - American Society of Civil Engineers (IS-ASCE)

Member, American Society of Civil Engineers (ASCE)

OTHER

- Years in Industry: 8 years

Oak Street over BNSF, Village of Hinsdale, Hinsdale, IL, 2013 to 2014. *Staff Engineer.* The project scope included removing the existing five-span steel and wood bridge, replacing it with a three-span continuous steel plate girder bridge, and roadway improvements. Was responsible for assisting in the design of water main, storm sewer, sidewalk, construction staging, and quantities. Worked as a liaison with utility companies.

MDW Terminal Parking Garage Expansion, Chicago Department of Aviation, Chicago, IL, 2016 to 2019. *Civil Engineer.* Expansion of the terminal parking garage project, which will add a minimum of 1,400 parking spaces for terminal daily and hourly parking. The parking facility extended over the existing Chicago Transit Authority (CTA) rail yard, adding a level of complexity to the project. Ancillary projects include modernization of the existing parking facility and elevators, modification of the entrance plaza and airport-wide PARCS upgrades, rehabilitation of Kilpatrick Avenue and installation of an underground storm detention system. The project required extensive coordination with MDW staff, CTA, FAA and other stakeholders. Responsibilities included plan preparation, exhibit generation, and utility conflict identification.

Laraway Campus Water & Sanitary Extension, Will County Public Building Commission, Joliet, IL, 2015 to 2016. *Staff Engineer.* The project included construction engineering/observation services for construction of water main, sanitary sewer, force main, and a lift station. Was responsible for construction observation, quantities, weekly reports, and acting as the main liaison with the contractor.

Will County 2013-2014 Phase II Management, Will County Division of Transportation, Will County, IL, 2013 to 2014. *Staff Engineer.* The contract included engineering, technical, engineering management, project control, administrative services and other assigned tasks necessary to assist the WCDH in the completion and closeout of Build Will Multi-Year Transportation Program projects. Was responsible for producing exhibits, cost estimates, updating plan sets, and updating specification books.

Yorkville Christian School, John & Michelle Stewart, Yorkville, IL,2013 to 2014. *Staff Engineer.* The project scope included civil engineering and landscape architecture services for a proposed school site. Was responsible for producing the stormwater management report, exhibits, permits, cost estimates, and updating plan sets in accordance with City standards.

Craig Jakobsen, PE, PTOE

TRAFFIC & COMPLETE STREETS

Craig is a transportation engineer with experience in traffic engineering, pedestrian safety improvement design, bike lane design, traffic impact studies, traffic signal operations, roadway geometrics, and freeway operations. He works hard with all stakeholders to engineer solutions that are practical, safe, and innovative. Craig's major focus has been on developing traffic solutions that exemplify walkable, bikeable, and livable streets. His disciplined and resourceful approach to projects makes him a dependable engineer capable of delivering sophisticated design solutions. By leveraging his experience with traffic issues large and small with his interest in creating efficient design solutions, Craig is able to find answers that work for all users.

Areas of Expertise

- Complete Streets design
- Pedestrian safety improvements
- Bike facility design
- Traffic operations
- Roadway geometrics

Relevant Project Experience

Complex Intersection Framework Plan, Chicago Department of Transportation, Chicago, IL, 2020 to Present. *Project Manager.* The City of Chicago has many Complex Intersections which create an outsized negative impact on traffic in the city. A Complex Intersection is defined as one that meets one or more of the following (A) has more than four legs, (B) is closely spaced with another intersection, (C) has roadways at extreme angels, or (D) is closely spaced with an at-grade rail crossing. Jacobs was the prime consultant chosen to develop plans to recommend improvements for pedestrians, cyclists, transit, general traffic, and more for 100 of these intersections. Our project's tasks are to (1) Identify all the intersections in the city that meet the complex criteria; (2) Prioritize them based on factors such as safety, traffic volumes, and others; and (3) Recommend concept designs for the top 100 of these intersections. Jacobs also was responsible for developing design alternatives and leading community outreach for the Devon-Caldwell-Central-Lehigh cluster of intersections in the Edgebrook neighborhood. Craig is the Project Manager for this project and is responsible for overseeing all aspects of the projects design. Craig guided a team of data analysts in identifying and prioritizing the Complex Intersections that would be studied in more detail in the latter part of the project. This involved collecting traffic, safety, and demographic data for each intersection and then developing a prioritization algorithm to weight each factor separately. Once we created a prioritized list, that list was reviewed manually with guidance from CDOT to determine which intersections should be studied. After the list of 100 intersections for study was determined, Craig developed concept plans for many of the intersections while also overseeing the other designers responsible for the remaining intersections. Concept plans varied by intersection but generally included (1) evaluating intersection geometry, observing traffic operations in-person, and reviewing traffic counts and safety data to identify intersection issues; (2) developing recommendations that would address these issues in a multi-modal way. Each design sought to improve pedestrian safety and comfort, bicyclist safety and comfort, and

EDUCATION/QUALIFICATIONS

M.S., Transportation Engineering, University of Illinois at Urbana-Champaign, 2012

B.S., Civil Engineering, Washington University in St. Louis, 2011

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: IL (No. 062-067985)

Professional Traffic Operations Engineer: IL (No. 4235)

MEMBERSHIPS AND AFFILIATIONS

Association of Pedestrian and Bicycle Professionals (APBP), Chicagoland Chapter, Co-Founder and Board Member

OTHER

- Years in Industry: 9 years

traffic safety and operations while considering future development and ways to activate space.

Chicago Streets for Cycling Phase VIII, Chicago Department of Transportation, Chicago, IL, 2020 to Present. *Transportation Engineer.* Jacobs is providing design support of protected bike lanes, buffered bike lanes, and neighborhood greenways on various corridors in the City of Chicago. This project involves modifying existing roadway cross-sections to implement enhanced bicycle facilities. Projects include treatments such as implementing road diets, removing parking, upgrading existing bike facilities, and designing new bike facilities. Craig provided transportation and traffic engineering services to complete the design of 43rd Street, Halsted to Oakenwald in the city of Chicago. She assisted in the design of bike lanes including analysis of alternatives, identification of locations for pedestrian improvements, and other geometric considerations.

Milwaukee Avenue / Logan Square Phase I and II, Chicago Department of Transportation, Chicago, IL, 2017 to Present. *Project Engineer.* Jacobs is completing final engineering design services for a 1.3-mile segment of Milwaukee Avenue between Logan Boulevard and Belmont Avenue, including the roadways surrounding historic Logan Square. The scope includes reevaluating a previous Phase I study from 2003 to incorporate more complete streets elements, and a once-in-a-generation opportunity to redesign Logan Square. Craig is serving as the Design Engineer for this major design project including concept development, geometric design, and traffic analysis. Craig assisted in the development of several design alternatives to improve the safety, accessibility, and traffic operations in and around the Square. Jacobs used extensive public feedback and an advanced origin-destination trip analysis using Streetlight, Inc. data to inform the design decisions for this project. The Logan Square redesign will create new and larger public spaces by realigning Kedzie Avenue adjacent to the CTA Blue Line terminal while new protected bike lanes and crosswalks will provide accessibility throughout the Square. Overall the design will help re-invigorate the Square by making it more welcoming to pedestrians, bicyclists, transit users, and drivers for years to come. Craig's responsibilities included concept development, traffic signal design, roadway geometrics design, grading and drainage design, and preparation of final construction plans. We are currently finalizing construction plans to be submitted later this year.

Elgin-O'Hare Bicycle and Pedestrian Plan, Chicago Metropolitan Agency for Planning (CMAP) and DuPage County Division of Transportation, DuPage and Cook Counties, IL, 2016 to 2017. *Project Engineer/Data Analyst.* Jacobs was subconsultant to Alta Planning + Design for a plan recommending a network of bicycle and pedestrian facilities in a 30 square-mile area of Chicago's northwest suburbs. Craig and the Jacobs team created a prioritization formula to score potential bike routes based on a variety of project goals. The formula ranked bike projects based on factors such as density, crash frequency, connections to origins and destinations, network connectivity, and social equity. Priority scores were then combined with constructability to create a final prioritization model. Data was analyzed and prioritization scores were displayed using ArcGIS.

Thomas Galbreath, PLS

TOPOGRAPHIC SURVEY

Mr. Galbreath has 42 years of experience in the practice of land surveying and is currently the manager of the Survey Department. His experience includes transportation design, control surveys, construction layout and quality control, land acquisition, hydrographic surveys, aerial photogrammetry, and ground control. He is also experienced in complex boundary and ALTA/ACSM land title surveys and is particularly versed in boundary analysis and retracement survey work, including chain of title analysis through records research at State, County, and Township offices as well as libraries and genealogical/historical society records. He is proficient in utilizing and planning GPS control networks, photogrammetry identification, astronomy observations, topography, boundary and wetland delineation, reduction and management of the field data and quality control techniques.

Areas of Expertise

- Project Manager Project Land Surveyor
- Alta Survey Preparation of Plat of Highways Legal Descriptions Land Acquisition Right-of-Way
- Permanent and Temporary Easements, Alta Surveys, Topographic Surveys, Boundary Surveys, Hydraulic Survey
- GIS Mapping

Relevant Project Experience

Job No. C-91-004-15, IL 171 (Archer Ave), Illinois Department of Transportation, Illinois. *Survey Manager*. Supervised field crew and performed all QA/QC for the improvement of IL 171 (Archer Ave): 47th St. to 55th St. Bridge Complex at I-55. The survey work included performing cross sections on a daily basis for earth quantities and checking contractor construction layout for the roadway, ramps and bridge reconstruction. The overall project consisted of two contracts. First contract involved the improvement of IL 171 SB from north of the IL 171. Archer Rd. intersection to 44th Street. Second contract included the improvement of the IL 171 SB over I-55 structure and the IL 171 SB to I-55 NB Ramp E over I-55 structure. Improvements included the construction of the proposed SB IL 171 Ramp to NB I-55 structure over I-55, bridge approach pavement connectors, and removal of the existing structures, guardrail improvements, TSC relocation on I-55, sign replacement, and lighting.

North Milwaukee Avenue, Chicago Department of Transportation, Milwaukee, WI. *Survey Manager.* Coordinated and supervised survey crews for full topographic survey and cross sections for the improvements of North Milwaukee Avenue. A full topographic survey of the project limits was performed and included the mainline as well as side streets. The work included locating all above-ground features within the project limits (trees, signs, fences, gates, signs, fire hydrants, edge of pavement and shoulder, sidewalks, curbs, driveways etc.). Furthermore, the work included cross-sections at 50 feet intervals for North Milwaukee Avenue in addition to intersecting crossroads and Alleys. An ADA ramp survey was also performed at designated intersections for the aid of ADA design according to the Chicago Department of Transportation specifications. Right of way monuments found during the collection of data were analyzed, along with supporting documents for a right of way solution for the mainline. A best fit solution for the centerline of pavement for intersecting crossroads was also performed.

EDUCATION/QUALIFICATIONS

Real Estate, College of DuPage 1989 - 1992, License Managing Real Estate

No Degree, Computer Science, Broker Waubansee College,1993 - 1996

REGISTRATIONS/ CERTIFICATIONS

Professional Land Surveyor: Illinois (No. 35003134)

Professional Land Surveyor Wisconsin (No. 2379)

OTHER

- Years in Industry: 27 years

Ashland Avenue Improvement over Pershing Road, Chicago Department of Transportation, Chicago, IL. *Survey Manager.* Coordinated, supervised and performed QA/QC for this project that consisted of a full topographic survey and cross sections for the improvement of Ashland Avenue extending from 37th Street to 39th Street and intersecting crossroads within the project limits. Underground utility details survey was conducted for each sewer manhole and water valve vault collected during data collection. This survey also included establishing the centerline and profile of the existing ramps and taking cross-sections. The over-all project consisted of the removal of flyover ramps and the reconfiguration of Ashland Street to accommodate the reconfigured traffic flow.

Pershing Road, Chicago Department of Transportation, Chicago, IL. *Survey Manager.* Coordinated, supervised and performed QA/QC for this project that consisted of a full topographic survey and cross sections for the improvement of Pershing Road and intersecting crossroads within the project limits. The length of the project was approximately 10,560 linear feet from right of way to right of way. Minor crossroads were surveyed 100 feet each direction of the mainline and major crossroads were survey 500 feet each direction of the mainline. Underground utility details survey was conducted for each sewer manhole and water valve vault collected during data collection. Bridge details that included location of piers, abutments and low steel was performed. This survey also included establishing the right of way of the mainline and crossroads from found monuments, evidence of occupation together with supporting documents.

West Kinzie Avenue Improvements, Chicago Department of Transportation, Chicago. *Survey Manager*. Coordinated and supervised survey crews for full topographic survey and cross sections for the improvements of West Kinzie Avenue. A full topographic survey of the project limits was performed and included the mainline as well as the intersections at Ogden Avenue and Des Plaines. The work included location of all above-ground features within the project limits (trees, signs, fences, gates, signs, fire hydrants, edge of pavement and shoulder, sidewalks, curbs, driveways etc.). Also, the work included cross-sections at 50 feet intervals for 5,600 feet of roadway in addition to intersecting crossroads and Alleys. An ADA ramp survey was also performed at designated intersections for the aid of ADA design according to the Chicago Department of Transportation specifications. Finally, a boundary survey was performed which included documentation research, occupancy analysis, boundary discrepancies resolution and the creation of a Plat of Survey.

Srikanth Panguluri, PE, PTOE

COST ESTIMATING

Srikanth is a senior project engineer in the Chicago office specializing in Phase I engineering including cost estimations, roadway design, traffic and safety studies, and freeway feasibility studies. Some of the projects he has worked include serving as a Project Management Consultant in the IDOT District 1 serving as an extension of the District staff for 10 years, leading and conducting traffic and safety studies ranging from intersection studies to state wide services, conducted traffic studies for over 200 interchanges, lead Bus on Shoulders studies on all IDOT Expressways in Chicagoland, served as a project management consultant for a managed lane project, preliminary engineering on complex interchanges, feasibility studies on interstate corridors, design of new construction of freeway, reconstruction of concrete pavement in an urban arterial, and bituminous overlay over existing concrete pavement in a rural area, intersection improvements in urban environments.

Areas of Expertise

- 22 years of experience in Roadway design, traffic operations and highway safety engineering
- Specialized in Planning and design of freeway and local roadway systems, and Highway safety studies
- Evaluated numerous planning studies ranging from local streets projects to complex interchanges and lead the cost estimate development for the studies.
- Vice-Chair ASCE T&DI Streets and Highway Operations Committee
- TRB Committee member on Managed Lanes (ACP 35)

Relevant Project Experience

US Route 30, Phase 1 Study, Illinois Department of Transportation, Plainfield, IL, 2010 to 2012. *Task Manager.* The project provided an improved transportation facility along approximately 2 miles of U.S. Route 30 (U.S. 30) between Interstate 55 (I-55) and Illinois Route 59 (IL 59) in the Village of Plainfield, City of Joliet, Plainfield Township in Will County, Illinois. The improvements included a multi-use path, widening the two-lane urban arterial facility to a five-lane section in addition to improvements at three signalized intersections and six un-signalized intersections. The project has a construction value of approximately $38 million. Role included providing reviews of the cost estimate development, conducting the tasks of traffic and safety operations for the study corridor. Developed the peak hour traffic data for existing, 2030 no build, and recommended; conducted Intersection design studies for three signalized intersections, conducted signal warrant analyses applying MUTCD. Safety studies included evaluation of the historical crash data in the corridor in addition to the application of the highway safety manual.

Vision for the Northeastern Illinois Expressways, Chicago Metropolitan Agency for Planning, Chicago, IL, 2018- 2019, *Project Engineer.* The vision is multijurisdictional, multimodal plan to guide future capital investments, coordinate transportation operations, address growing freight congestion, and identify public transit options for expressway system. The vision will identify new investments and strategies to manage traffic with cutting-edge technologies, focusing on opportunities to enhance the condition and performance of the expressway system rather than proposing significant expansion. The vision will identify key implementation steps, including

EDUCATION/QUALIFICATIONS

M.S., Civil Engineering, Michigan Technological University, 1998

B.S., Civil Engineering, Osmania University, 1997

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer:

IL: (No. 062-060406)

MI: (No. 6201049213)

MEMBERSHIPS AND AFFILIATIONS

PTOE, Institute of Transportation Engineers

OTHER

- Years in Industry: 22 years

new policy, legislation and strategies needed to advance the recommendations. Srikanth was responsible for developing the engineering concept alternatives for various interchange improvements, developing the concept alternatives at few interchanges, and development of the various cost analyses including the recommended improvement cost of approximately $50B.

IL Route 3 Connector, Illinois Department of Transportation, St. Clair and Madison Counties, IL, 2017 to Present. *Roadway Designer.* The Phase I study involves providing a new roadway that addresses mobility, accessibility and safety concerns in the area bounded by Route 3, Route 203 and Eagle Park Drive in the cities of East St. Louis, Madison, Fairmont City and Brooklyn. Numerous at-grade railroad crossings along with large traffic generators such as the Gateway International Racetrack create mobility and safety concerns in the area throughout the year and especially on "event" days. Led the roadway design development including plans, profiles, and cross sections for the corridor including a new grade separation over the railroad, provides senior quality reviews and development of the cost estimate for the proposed improvements.

Grade Crossing Feasibility Study, CMAP, December 2019 to Present. *Project Engineer.* The Grade Crossing Study includes performing Planning and Environmental Linkage (PEL) Studies at at-grade railroad crossing locations within the greater Chicagoland Area. By using the PEL process, the project team is working with local and regional agencies and stakeholders to identify existing and future needs, prepare a draft Purpose and Need, develop and evaluate a full suite of alternatives, and determine which should be carried forward to a future Phase I Study. The first grade separation study location was on Laraway Road crossing UP railroad in Joliet, IL. Srikanth led the engineering and traffic operations analyses, and has conducted the costs estimates for the project alternatives to be carried forward at $43M to $56M.

Tri-County Access, Cook, Lake and McHenry Counties, IL, Illinois State Toll Highway Authority (ISTHA) , Sept. 2017 to Dec. 2019. *Project Engineer.* A Phase I study of alternative transportation solutions for the project area which includes Northern Cook, Northern DuPage, Lake, Eastern McHenry and Southern Kenosha Counties. The study process worked towards completing an Environmental Impact Statement (EIS) which analyzed transportation solutions including multimodal implementation, expansion of existing roadway and transit facilities, and constructing new roadway and transit facilities. Srikanth led and conducted multi-billion dollar costs estimates (ranges from $4.9B to $8.6B) for the entire corridor improvement areas including various corridors of reconstruction, new construction and widening of the various facility types in the study area.

Project Engineer; Elgin O'Hare West Bypass Project; Illinois Department of Transportation; Chicago, Illinois); August 2006 – December 2012. The $3.4 billion project is considering over 60 miles of roadway improvements, including construction of the new Elgin-O'Hare Extension and West Bypass with a new westerly multimodal transportation gateway to O'Hare International Airport, over 200 miles of complementary transit improvements, and complementary bike and pedestrian system improvements. The project was conducted in conformance with Context Sensitive Solutions principles through the aid of an extensive stakeholder involvement program that provides an opportunity for effective input from the 27 involved communities, multiple agencies, stakeholder groups and the public at large. As a sub-task manager, evaluated the geometric feasibility of several interchange layouts, developed the plan and profiles for the majority of the roadway improvements including three new system interchanges, and six service interchanges. In addition, was responsible for developing cost estimate methodologies and supported conducting the overall cost estimate of $3.4B.

Karen Munson

TREE SURVEY

Karen has over 17 years of experience in environmental consulting, working on a variety of ecological and environmental projects. She has served as project manager on numerous environmental permitting projects and is a certified Project Management Professional (PMP). She has assisted clients with federal, state and local environmental permitting and Endangered Species Act compliance for many transportation and natural gas pipeline projects located in the Midwest, including Illinois, Indiana, Iowa and Wisconsin. Karen has also served as lead field biologist for wetland delineations, stream characterizations, wetland monitoring activities, and threatened and endangered species habitat assessments.

Areas of Expertise

- Proficient in AgenaRisk
- Displays intermediate-level skills in Stata Statistical Software

Relevant Project Experience

Clinton River Bridge Project, Union Pacific Railroad (UPRR), Clinton, IA and Whiteside County, IL, 2017 to Present. *Project Manager.* Reconstruction of a railroad bridge over the Mississippi River at an Iowa/Illinois location since project startup in March 2017. Revenue is currently near $1.5 million. In addition to invoicing and budget management, responsibilities include managing and coordinating multiple subcontractors, environmental and cultural field surveys, NEPA document preparation, and multiple interrelated permitting efforts including a USCG Bridge Permit, individual CWA 404 and 401 permits, and state and federal endangered species take incidental take authorizations. Karen is serving as the Project Manager for environmental permitting. She is also responsible for coordinating and facilitating meetings, preparing agendas, and presenting materials. She serves as the key point of contact for the client.

Tri-County Access Project, Illinois Tollway, Lake, Cook, and McHenry Counties, IL, 2017 to Present. *Natural Resources Lead.* Environmental study that is being completed in compliance with NEPA requirements and will eventually result in an Environmental Impact Statement. Karen currently serves as the Natural Resources Lead. Her responsibilities include coordinating field surveys for biological/threatened and endangered species, wetlands and waterbodies, water quality and floodplains for an initial range of alternatives. Her responsibilities also include preparing NEPA documentation and attending public meetings with local, state, and federal natural resource agencies.

Boone 2865.55 Bridge Project, UPRR, Dennison, IA, 2017 to Present. *Project Manager.* Reconstruction of a railroad bridge over the East Boyer River in Iowa since project startup in April 2017. Karen's responsibilities include coordinating environmental field surveys, cultural resource surveys and Section 106 consultation, determining authorization under U.S. Army Corps of Engineers (USACE) Nationwide Permit Program and joint permit application submittal for nationwide permit authorization from the USACE Rock Island District, 408 Alteration Request from USACE Omaha District, and state and federal endangered species consultations. She is also responsible for coordinating and facilitating meetings with UPRR and agencies and preparing agendas and presentations.

EDUCATION/QUALIFICATIONS

M.S., Environmental Science and Policy, University of Chicago Irving B. Harris School of Public Policy, 2011

B.S., Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign, 2003

REGISTRATIONS/ CERTIFICATIONS

Certified Sustainability Manager, Everblue Training Institute

Certified Energy Manager in Training, The Association of Energy Engineers

Project Management Professional, Project Management Institute

MEMBERSHIPS AND AFFILIATIONS

Project Management Institute

OTHER

- Years in Industry: 17 years

Wapsi River Bridge Project, UPRR, Wheatland, IA, 2019 to Present. *Project Manager.* Reconstruction of a railroad bridge over the Wapsipinicon River in Iowa since project startup in March 2017. Karen's responsibilities include coordinating environmental field surveys, cultural resource surveys and Section 106 consultation, determining authorization under U.S. Army Corps of Engineers (USACE) Nationwide Permit Program and joint permit application submittal for nationwide permit authorization from the USACE Rock Island District, as well as state and federal endangered species consultations. Karen is coordinating a mussel survey and fish habitat assessment. She is also responsible for facilitating meetings with UPRR and agencies and preparing agendas and presentations. She serves as the key point of contact for the client.

Proviso Yard, UPRR, Northlake, IL, 2005 to 2016. *Project Manager.* Karen's responsibilities included the management and completion of environmental field work, delineation of jurisdictional waters, cultural resource evaluations and Section 106 consultation, joint permit application or individual permit application submittal to the USACE Chicago District, and state and federal endangered species consultations. She was also responsible for attending design review meetings, maintaining the permit tracking system (PTS) for both projects, tracking project status, schedule, and budget, and was a key point of contact for the client.

Salem Yard Access Road, UPRR, Salem, IL, 2015 to 2016. *Biologist.* Karen served as a biologist with responsibilities for conducting wetland and waterbody delineations and habitat assessments and preparing technical reports. Additional duties included completing desktop permit reviews and delivering worker environmental awareness training for the ornate box turtle. Also attended on-site design review meetings, prepared a pre-construction notification to the USACE for Nationwide Permit 14 authorization from USACE St. Louis District, and prepared an All Permits Issued (API) document.

FAA Regulatory Support, UPRR, Various Locations, 2014 to 2015. *Project Manager/Senior Technical Reviewer.* Karen was responsible for evaluating FAA requirements associated with construction crane use at various UPRR bridge replacement projects located throughout the U.S.

Numerous Pipeline Update Projects, Confidential Natural Gas Client, Illinois and Iowa, 2014 o 2017. *Project Manager.* Karen's responsibilities included the management and completion of environmental field work, delineation of jurisdictional waters, cultural resource surveys and Section 106 consultation, determination of authorization under USACE Nationwide Permit Program or joint permit application submittal for regional permit authorization from the USACE Chicago, Rock Island or St. Louis Districts, state and federal endangered species consultation, and county floodplain permit applications. Karen is also responsible for tracking project status, schedule, and budget, and is a key point of contact for the client.

Lateral Project, Confidential Natural Gas Client, Illinois, 2017. *Project Manager.* Karen served as Project Manager responsible for subcontractor oversight for the completion Indiana bat and northern long-eared bat mist-netting surveys within the project area, as well as coordination with the U.S. Fish and Wildlife Service (USFWS) regarding threatened and endangered species.

Preparation of Compliance Plans, SunCoke Energy, Inc., Illinois, 2009. *Project Manager.* Karen served as the Project Manager, Project Lead, and Primary Contact for the client for the duration of the project. She also served as the Technical Lead for the completion of the Storm Water Pollution Prevention Plan (SWPPP); spill prevention, control, and countermeasure (SPCC) plan; and National Pollutant Discharge Elimination System (NPDES) permit application for this industrial facility in Illinois.

Marie Glynn, PE

EDUCATION/QUALIFICATIONS

B.S., Civil Engineering, Michigan State University, 1992

REGISTRATIONS/ CERTIFICATIONS

Licensed Professional Engineer: Illinois (No. 062.054037)

MEMBERSHIPS AND AFFILIATIONS

ACEC Member

OTHER

- Years in Industry: 29 years

FUNDING & GRANT ASSISTANCE

Marie has a multidisciplinary technical background including experience in all aspects of preliminary and final highway and roadway design, traffic and safetyanalyses, multifaceted agency coordination, stakeholder engagement, and NEPA studies. She has extensive experience working with IDOT, the IllinoisTollway, and state DOTs throughout the Midwest. She has also served as project manager and deputy project manager for IDOT Phase I/II and Illinois Tollway Projects. In addition, she is experienced with cost estimating, alternatives analysis, grant writing, and FHWA Major Project documentation.

Marie specializes in highway planning with an emphasis in complex interchange design. She has 26 years of increasingly challenging assignmentsthroughout the Midwest region. Her design and management experience in multi-modal transportation engineering, final design, design contract coordination, and agency coordination are assets in determining what is the appropriate information to be included in a grant application. In addition, she is experienced with, traffic operations, environmental studies,construction staging, bid packaging, noise abatement, wetlands mitigation, cost estimating, alternatives analysis, grant writing, and FHWA Major Project documentation.

Areas of Expertise

- Almost 30 years of experience in transportation engineering including final design, planning, and project management.
- Strong communication and group facilitation skills
- Developed and evaluated alternatives for 125+ interchange locations for complex urban and rural geographies across the Midwest.
- Performed Phase I interchange planning for multiple agencies throughout the Midwest region.
- Prepared final design signing and permanent marking plans for more than 10 projects, including the I-74 Reconstruction Project in Peoria, where the signing task engineering fee totaled over $2 million dollars.
- Participated in multiple transportation research projects led by Jacobs. Most notably, NCHRP Report 480, “A Guide to Best Practices for Achieving Context Sensitive Solutions.

Relevant Project Experience

Project Management, Illinois Department of Transportation, Various Locations, 2008 to Present. *Project Manager | Lead Engineer*. Jacobs has provided professional services, technical engineering support, and facilitated agency coordination in conjunction with Phase I engineering service assignments throughout District One since 2008. The total contract value for these services is $8.4 Million, broken out into work orders. Approximately $1.4 Million in fee is remaining. As components of the projects, Jacobs has managed or facilitated for IDOT engineering designs and evaluations, performed travel demand modeling, operational and safety analyses, traffic and revenue forecasts, and grant applications.

Serving in a multi-disciplinary role, Marie has represented the District as project manager, strategic advisor, regulatory agency coordinator, technical designer, lead

reviewer, as well as a NEPA process expert. Acting on behalf of the District, she has provided consistent leadership and technical support in managing some of the most controversial projects in the region.

She prepared on behalf of IDOT, a TIGER III grant application for the IL 83 (147th St) Reconstruction Project in Cook County that resulted in a $10.438 M award (approximately 50% of the total project costs). Marie prepared all documentation for District 1 required to administer the grant award. This includes the grant agreement and the TIGER Discretionary Grant Performance Report Summaries which have been submitted annually since 2011. She has also assisted other consulting firms, as requested by IDOT, in the preparation and review of additional TIGER Grant and CMAQ Grant submissions.

Grade Crossing Feasibility Study, Chicago Metropolitan Agency for Planning, Chicago, IL, 2020-Current. *Project Manager*. The Grade Crossing Study includes performing Planning and Environmental Linkage (PEL) Studies at up to five locations within the greater Chicagoland Area. By using the PEL process, working with local and regional agencies and stakeholders to identify existing and future needs, prepare a draft Purpose and Need, develop and evaluate a full suite of alternatives, and determine which should be carried forward to a future Phase I Study. The process identifies stakeholder interest, potential impacts and programmable costs, potential alternative funding streams, and other key issues to be considered as part of future Phase I studies. Marie's role is to manage day to day operations as well as coordinate within IDOT D1, BDE, and FHWA to support processing of first PEL study in District 1. As an engineer, Ms. Glynn also works directly with team of engineers with regards to engineering design development and evaluation.

Elgin O'Hare West Bypass Project, Illinois Department of Transportation, Cook County, Illinois, 2009 to 2012. *Deputy Quality Manager.* Responsible for the development and implementation of a risk-based quality management plan for the +$3 billion project to ensure delivery of a quality project to the client. Plan includes a quality process built into the project to provide day-to-day oversight of project work, milestones, and deliverable reviews. At the beginning and throughout project, risks are identified to determine areas of special attention and QA/QC activities are tracked and documented.

Vision for Northeastern Illinois Expressway System, Chicago Metropolitan Agency for Planning, Chicago, IL, 2017-2019. *Engineering Support*. The Vision is a multi-jurisdictional, multi-modal project for metropolitan Chicago's expressway system. The Vision guides future capital investments of the partner agencies, IDOT and ISTHA, coordinate transportation operations of the region's transportation service providers, address growing freight congestion, and provide public transit options for the existing expressway system. Responsible for engineering concept development and analysis, participating in stakeholder engagement (Joint Agency Meetings and FHWA/BDE Coordination meetings), as well as day-to-day engineering coordination of the project. The Vision is anticipated to be published in Winter 2020.

Mary Gerut, AICP

LAND ACQUISITION & ROW REVIEW

Mary is a right of way/land acquisition specialist, urban and environmental planner and project manager in Jacobs Chicago Office. She is experienced in the management of federalized land acquisition processes under Eminent Domain, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA). She is also experienced in preparing California environmental impacts reports (EIR), environmental impacts statements (EIS), related California Environmental Quality Act/National Environmental Policy Act documents, and other environmental services related to urban planning, utility and energy projects, water use development projects, and infrastructure projects. She supports community involvement element of projects, particularly Superfund projects and transportation projects, in the task lead role. Familiar with legal research, Mary has provided legal support and perspective for projects that require special federal or state legality resolution.

Areas of Expertise

- Specializes in the assembly and management of right of way teams to ensure that land is acquired and owner/occupants are relocated in a legal and timely manner.
- Specializes in the management of federalized land acquisition processes under Eminent Domain, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA).
- Specializes in the administration and preparation of environmental documentation in accordance with California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA)
- Experienced in Federal Highway Administration/Illinois Department of Transportation Right of Way Certification required for Federal-funded projects
- Experienced in Interstate Commerce Commission petition for railroad / roadway crossings
- Experienced in program planning and project organization
- Experienced in public information/outreach and group facilitation
- 9 years' experience in Land Acquisition Management role
- 5 years' experience in Project Manager role
- 15 years' experience in Deputy/Assistant Project Manager roles

Relevant Project Experience

Interstate 190 Environmental Impact Statement Re-evaluation, Illinois Department of Transportation, IL, 2020 to Present. *Right of Way Specialist/Planner.* To support the Environmental Impact Statement (EIS) Reevaluation for design refinements of Interstate 190 (I-190), Mary prepared right-of-way (ROW) exhibits to compare with additional property required. An existing ROW Map was prepared with creation of a GIS-linked database to further support the environmental impact analyses. This map included underlying parcel or roadway ownership, parcel data and any available easement information. Upon completion of design refinements to Interstate 190, a proposed ROW map was developed to support environmental analyses of additional ROW needed to accommodate the improvements. Mary provided oversight of the GIS database created to support this effort and supported IDOT by identifying potential property owners where land acquisition was required.

EDUCATION/QUALIFICATIONS

Right of Way Professional candidate, International Right of Way Association

Master of Urban and Environmental Planning, Arizona State University, 2006

B.A., Human Biology, Stanford University, 2001

MEMBERSHIPS AND AFFILIATIONS

American Institute of Certified Planners | American Planning Association

International Right of Way Association

OTHER

- Years in Industry: 20 years

Master Plan for Illinois International Port District, Chicago Metropolitan Agency for Planning, IL, 2019 to Present. *Land Services/Planner*. Mary delineated existing parcels owned by the Illinois International Port District (IIPD) to support a plan indicating recommended property/parcel acquisitions for the IIPD. The final Port Layout Plan incorporated the culmination of the visioning, analysis, market assessment and other elements that were developed in the initial phase of the project. The final IIPD Layout Plan considered businesses and development, recreation opportunities, community connectivity, environmental and resiliency considerations as applicable.

Elgin – O'Hare Western Access Project, Illinois State Toll Highway Authority, IL, 2012 to Present. *Land Acquisition Program Manager/Public Involvement Event Planner*. Mary developed and managed the land acquisition component of this project (overall land acquisition budget $372 million) by daily tracking of parcels requiring acquisition, including oversight of surveyors, appraisers, review appraisers, negotiators, and relocation agents. Policies and procedures recommended by Mary were adopted as Tollway land acquisition best practices and utilized by subsequent programs and projects. At the EOWA project's completion, over 550 parcels covering over 1,300 acres will be acquired involving multiple acquiring agencies (local municipalities, counties, Illinois Department of Transportation), multiple railroads, and O'Hare International Airport (City of Chicago and Federal Aviation Administration). Mary facilitated monthly land acquisition coordination meetings from 2012 through 2018 between the Illinois Tollway and IDOT to ensure land was transferred successfully and on schedule to the Tollway, including parcels acquired by IDOT using Federal funding.

Mary managed successful EOWA construction contract applications to receive Right of Way Certification from IDOT, as required to receive federal grant funding (Congestion Mitigation and Air Quality (CMAQ) grant funding on behalf of Cook County Department of Transportation and Highways. Mary also coordinated the land acquisition components for railroad cooperative agreements as well as reviews and approval by the Interstate Commerce Commission for new grade crossings over railroads.

As an event planner, Mary arranged for a large (200+ attendee) public informational Open House to discuss the client's land acquisition and relocation policies, which was later modeled by Illinois Tollway subsequent projects as land acquisition best practices. Mary also orchestrated a 2-day Outdoor Advertising Workshop for public and private individuals interested in understanding the complexities of billboards and their impacts on projects.

Martin 230 kV Bus Extension Project Siting Study and Proponent's Environmental Assessment (PEA), Pacific Gas and Electric, San Francisco, California, 2017 to 2018. *Deputy Project Manager/Senior Technical Reviewer*. Drafted portions of the project Siting Study and provided senior review of the PEA project description chapter and impact analyses for Population/Housing, Recreation, Noise, and Land Use sections. Assisted the PM in handling the administrative component of this fast-track project by managing both subconsultants and the internal Jacobs team. Updated client style guide for project and drafted project instructions per the Jacobs Project Execution Plan/Quality Management Plan.

Matthew Gavin, PE

GEOTECHNICAL

Matt has over 20 years of engineering experience working on a range of geotechnical, civil, and environmental engineering projects. Geotechnical design experience includes slope stability, embankment and structure settlements, driven and drilled deep foundations, shallow foundations, retaining walls, dams and levees, liquefaction potential, and ground improvement. Mr. Gavin has geotechnical design experience with various transportation, water, environmental, and commercial projects, including various Illinois DOT and Illinois Tollway projects.

Matt has design experience on numerous environmental design and construction projects, including solid and hazardous waste landfills, surface impoundment closures, CCR impoundment closures, sediment dredging and dewatering, and soil and groundwater remediation. He has served as task or project manager for several projects. Selected representative project experience is summarized below.

Areas of Expertise

- Over 20 years of experience as an engineer and manager supporting a wide range of geotechnical and environmental engineering projects.
- Performs and manages traditional geotechnical engineering investigations, design, and construction services, including shallow and deep foundations, retaining walls, settlement and slope stability evaluations, waste containment unit designs, and reservoir designs.
- Leads geotechnical investigations and design for numerous structure and roadway geotechnical reports (SGRs and RGRs) for Illinois Tollway and Illinois DOT projects.
- Leads geotechnical investigations and design for commercial nuclear energy combined operating license applications (COLA) and coal combustion residuals (CCR) impoundment closure projects.

Relevant Project Experience

Elgin-O'Hare Western Access (EOWA) Program, Illinois State Toll Highway Authority (ISTHA), Illinois, 2013 to Present. *Geotechnical Engineer.* The EOWA program includes both Design Section Engineer (DSE) geotechnical design support and Design Corridor Manager (DCM) support. Current scope of DSE geotechnical design includes 8 retaining walls, 5 bridges, and roadway improvements for the rebuilding and widening of the Tri-State Tollway (I-294) from south of North Avenue to Wolf road. Scope includes coordination of the geotechnical investigation program, design, and preparation of 11 SGRs and 3 RGRs. DCM support includes coordination of the geotechnical investigation and earthwork management data among the numerous DSEs working on the EOWA program.

Roadway and Structure Design, Elgin-O'Hare Western Access (EOWA) Program, Illinois Department of Transportation (IDOT), Illinois, 2010 to 2014. *Geotechnical Engineer.* The project included geotechnical subsurface investigations for 3 bridges and 3 retaining walls in the I-290 interchange area of the EOWA corridor, including SGR preparation, contract document preparation, and engineering services during construction. The scope also included managing a geotechnical engineering subconsultant to design a pile supported embankment (PSE) supporting a portion of IL 53 across a peat deposit and the associated roadway geotechnical report (RGR).

EDUCATION/QUALIFICATIONS

M.S., Civil and Environmental Engineering/Environmental Geotechnics, University of Wisconsin, Madison, 1997

B.S., Civil and Environmental Engineering, University of Wisconsin, Madison, 1995

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer: Illinois (No. 062-056650)

MEMBERSHIPS AND AFFILIATIONS

American Society of Civil Engineers

OTHER

- Years in Industry: 24 years

Work was performed under an IDOT contract in support of Illinois Tollway administered construction contracts. Served as the project lead geotechnical engineer and an Illinois engineer of record.

Zinc Residuals Consolidation and Site Restorations, United States Environmental Protection agency (USEPA), Illinois, 2015 to Present. *Geotechnical Engineer and Illinois Engineer of Record.* The projects include remediation of zinc-contaminated residential and commercial properties at three former production facilities in Illinois. Scope includes site investigations (environmental and geotechnical), delineation of excavation extents, consolidation cell design, contract document preparation, and services during construction. Construction at one site began in 2017. Serving as the project lead geotechnical engineer and the Illinois engineer of record.

Flood Control Projects, Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), Chicago, Illinois, 2013 to 2015. *Geotechnical Engineer.* The project included flood control improvements at several sites in the Chicago area, including construction of shallow retention basins and berms, a small dam, erosion restoration and armoring, etc. Served as the project lead geotechnical engineer.

Geotechnical design support, Various State Departments of Transportation (DOT), Various Locations, 2010 to Present. *Geotechnical Engineer.* Ongoing geotechnical design and senior technical review for various retaining wall and bridge projects, including MSE walls, SPL walls (with and without tiebacks), and shallow and deep foundations for projects in Virginia, Wisconsin, Iowa, and Illinois. Served as a project geotechnical engineer and senior technical reviewer.

Wet-Weather Reservoir (WWR) and Treatment Facility, Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), Lemont, Illinois, 2010 to 2015. *Geotechnical Engineer.* The project included a 5 million gallon wet-weather reservoir (WWR) constructed in dolomite bedrock, including extensive rock blasting and excavation and rock anchors for uplift resistance. WWR subsurface investigations included rock coring, hydraulic packer and geophysical surveys, and laboratory testing. Scope included design for the WWR and supporting treatment facilities, contract document preparation, and services during construction. Construction completed in 2015. Served as the project geotechnical engineer and the Illinois engineer of record.

Phase I Corridor Study, IDOT, Illinois, 2005 to 2007. *Geotechnical Engineer.* Performed a review of Phase I alternative alignments for potential geotechnical engineering complications. The project is located in an area of geotechnical and environmental sensitivity along the Illinois River, with numerous documented landslides and mine subsidence problems. Responsibilities included compilation and review of subsurface information provided by the ISGS, and preparation of alignment recommendations. Prepared the Phase II structure geotechnical report for a railroad viaduct.

Mickey Snider, PE

GEOTECHNICAL

Mickey has served as consultant, design engineer, and research assistant on geotechnical engineering, municipal environmental management and roadway engineering projects including shallow foundations, pile and drilled shaft (deep) foundations, earth retention and retaining walls, slope stability, settlement analyses, bridge abutments and cofferdam analysis; extensive laboratory testing education and experience including consolidated-undrained triaxial, one-dimensional consolidation, and direct shear testing; geotechnical field investigations including the installation of driven piles, drilled shafts, and stone column ground improvements; research, instrumentation and analysis of geodynamic blasting and construction vibrations and structural response; environmental assessments; cost-effective management solutions; and roadway geometry design. He is familiar with standards, specifications, and practices of various transportation agencies in both Illinois and Indiana.

Relevant Project Experience

Subsurface Exploration and Geotechnical Engineering Design for the Illinois Route 53 Timber Pile and Geosynthetic-Reinforced Embankment System along the Elgin O'Hare Western Access, DuPage County, Illinois. *Senior Geotechnical Engineer.* Mickey serves as a Senior Geotechnical Engineer responsible for geotechnical analyses, laboratory testing programs and design for the installation of a piled embankment along IL 53. The piled embankment design included timber pile design and geosynthetic-supported load transfer platform to support the roadway over peat and soft clay.

Subsurface Exploration and Geotechnical Engineering Analysis and Design of Ground Improvement along Hart Road at US Route 14 and Randall Road, Lake and McHenry Counties, Illinois. *Senior Geotechnical Engineer.* Mickey serves as a Senior Geotechnical Engineer responsible for geotechnical analyses, laboratory testing programs and design of ground improvement programs at two roadway expansion projects over soft and compressible soils. Wang has performed the subsurface exploration, laboratory testing and geotechnical engineering analyses to provide the design for prefabricated vertical drains (PVDs) and geogrid-reinforced slopes along the Hart Road embankment expansion into an adjoining wetland. Along Randall Road in McHenry County, two MSE retaining walls through areas of peat soils are constructed above timber piling and geosynthetic-reinforced load transfer platforms.

Subsurface Exploration and Geotechnical Engineering Analysis and Recommendations for the Burlington Northern and Santa Fe Railroad Bridge over Interstate 294, Cook County, Illinois. *Senior Geotechnical Engineer.* Mickey serves as a Senior Geotechnical Engineer responsible for geotechnical analyses, laboratory testing programs and design recommendations for the replacement of the BNSF Bridge over Interstate 294 along the Central Tri-State Tollway. The rail bridge replacement will involve the construction of a shoofly embankment, track, and bridge to maintain rail traffic at all times. The shoofly embankment stretches over an area of peat deposit that will be supported by timber piling and geosynthetic-reinforced load transfer platforms. The improvements require four temporary retaining walls and three permanent retaining walls, as well as culvert replacements and pipe-jacking for replacement of storm management lines.

EDUCATION/QUALIFICATIONS

M.S., Geotechnical Engineering, Northwestern University, Evanston, IL, 2003

B.S., Civil Engineering, Valparaiso University, Valparaiso, IN, 1997

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer (PE):

Illinois (No. 062-058045)

Indiana (No. 10607136)

ACEC Future Leaders in Illinois Conference Series

Great Lakes Geotechnical and Geo-environmental Conferences

Geo-Institute Congress, Denver, CO,

Durham Geo-Slope Indicator Inclinometer Course

MEMBERSHIPS AND AFFILIATIONS

ACEC-Illinois Bridge Committee Member; Liaison Group

ASCE–American Society of Civil Engineers

Geo Institute of ASCE

Subsurface Exploration and Geotechnical Engineering Design for MSE Retaining Walls on Timber Pile-Support Load Transfer Platform along Randall Road, McHenry County, Illinois. *Senior Geotechnical Engineer.* Mickey serves as a Senior Geotechnical Engineer responsible for geotechnical analyses, laboratory testing programs and design for the construction of two, 14-foot high MSE walls through wetlands containing deposits of peat and soft clay. The MSE walls, designed to support the widening of Randall Road, are being constructed above timber piles topped with concrete caps a three foot thick load transfer platform. Wang's design included timber pile sizing and length, as well as the design of geogrid reinforcement and load transfer platform thickness required for the transfer of retaining wall loads to competent soils 35 to 40 feet below the roadway elevation.

Geotechnical Engineering and Design Services, Dynamic Compaction and Prefabricated Vertical Drains for Uncontrolled Fill along the CN/EJ&E Railroad Embankment, Gary-Chicago International Airport, Chicago. *Senior Geotechnical Engineer.* Mickey served as the Senior Geotechnical Engineer responsible for coordination of geotechnical investigations and laboratory testing programs, the preparation of geotechnical reports, and the design of dynamic compaction and prefabricated vertical drain ground improvements for the construction of a 25-foot tall rail embankment over construction debris and miscellaneous dump fill. Wang performed the subsurface exploration, laboratory testing, and geotechnical design for the design and construction of the 1,500 foot long embankment and adjoining rail bridge facilitating the re-route of the rail line around a proposed runway lengthening. The design included the dynamic compaction of the dump fill to minimize embankment deformation and PVD design for construction of spread footing abutments floating 40-feet above soft lake plain clays. The subsurface exploration consisted of SPT soil borings, CPT soundings, in-situ pressure meter testing, and test pits. The deepest borings and soundings extended up to 120 feet below grade. Final settlement monitoring showed movements less than the design requirements.

7. Relevant Experience

Jacobs

Challenging today.
Reinventing tomorrow.

Elgin O'Hare – West Bypass: Tier Two Bicycle/Pedestrian Accommodations

COOK COUNTY, ILLINOIS

Jacobs

Client: Illinois Department of Transportation District One/Illinois Tollway

Dates: 2010 to 2012

Reference Information:

John Baczek
Illinois Department of Transportation, District 1
201 West Center Court
Schaumburg, IL 60196-1096
T: (847) 705 4000

Project Description

RELEVANCE TO THIS PROJECT

- ✓ Multi-Use Path
- ✓ Major stakeholder and agency coordination
- ✓ Secured more than $125M in CMAQ grants

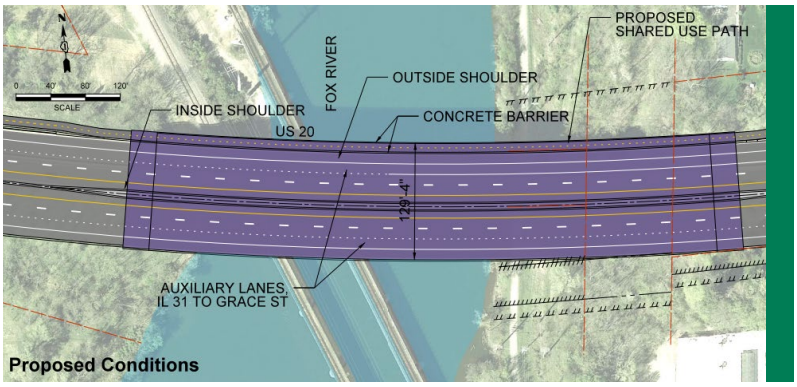
Bicycle and pedestrian accommodations were an integral part of the project the Elgin O'Hare-West Bypass (EOWB) tiered Environmental Impact Statement (EIS). The first tier, Tier One, conceptually defined the location and layout of the proposed bicycle and pedestrian improvements based on stakeholder involvement and the analysis of the regional and community bicycle and pedestrian network to identify gaps in the system and opportunities to provide better connectivity and continuity. Tier Two focused on feasibility and refinements for the facilities to be located within the planned roadway improvements. Our team performed a warrant analysis and travel needs assessment, including considerations for traffic operation, facility type, stakeholder involvement, and connecting existing and planned improvements. Extensive coordination with stakeholders included: Cook County, DuPage County, Hanover Park, Schaumburg, Roselle, Itasca, Elk Grove Village, Wood Dale, Bensenville, Franklin Park, Des Plaines, Active Transportation Alliance. The bicycle and pedestrian plan included 15 miles of shared use paths and almost two miles of sidewalk. Project was completed using the following codes and standards: Illinois Highway Code (605 ILCS 5/4-220), IDOT Complete Streets Policy, IDOT Bureau of Design and Environment Manual Chapter 17, Bicycle and Pedestrian Accommodations. Our team also assisted DuPage and Cook Counties with identifying potential local, state, and federal funding sources and application materials to meet the $300 million local project contribution. To date more than $125 million has been secured in federal Congestion Mitigation and Air Quality (CMAQ) improvement grant monies.

Key Personnel Involved

- Marie Glynn – Deputy Quality Manager
- Srikanth Panguluri – Transportation Engineer
- Mary Gerut – Land Acquisition
- Carla Mykytiuk – Public Involvement & Environmental Planner
- Matt Gavin – Geotechnical
- Jill Kramer - Grant Writer
- Sarah Archer – Intergovernmental Agreements

US 20 Phase I Study (West of Randall Road to East of Shales Parkway)

ELGIN, ILLINOIS



Client: Illinois Department of Transportation

Dates: 2011 to 2020

Reference Information:

Lori Brown
Illinois Department of Transportation, District 1
201 West Center Court
Schaumburg, IL 60196
847.705.4477

Project Description

RELEVANCE TO THIS PROJECT
- ✓ Multi-Use Path
- ✓ Major stakeholder and agency coordination

The US 20 project consisted of Phase I engineering services and environmental studies to resurface, rehabilitate, and restore approximately 5.7 miles of US 20 south of downtown Elgin from west of Randall Road to east of Shales Parkway, with an omission at the McLean Boulevard Interchange due to recent reconstruction. This project also included an advance breakout project for the IL 31 Bridge over US 20. The US 20 project as well as the IL 31 breakout project were both processed as Categorical Exclusions with separate Project Development Reports.

The Phase I study was conducted based on IDOT's procedures for a 3R project, but with additional stakeholder outreach following IDOT's Context Sensitive Solutions (CSS) process. Representatives from the City of Elgin are among key project stakeholders. The City's interests in the project include storm sewer separation, emergency access, safety, mobility, new land development along the US 20 corridor, and enhancement of community cohesion. The main design elements of the project included:

- Reconstruction of the Fox River Bridge with the addition of auxiliary lanes, full shoulders, and a 10-foot wide barrier-separated multi-use path.
- Reconstruction of the IL 31 Bridge over US 20 and approach widening
- Bridge maintenance at four additional locations (Raymond St, St. Charles St, Liberty St, and Poplar Creek. Bridge conditions reports were prepared for all six structures.
- Roadway resurfacing in the remainder of the US 20 corridor
- New Restricted Crossing U-Turn Intersection (RCUT) at Longcommon Parkway/Weld Road
- New right turn lane at Nesler Road
- Drainage and sewer improvements
- Noise barriers where feasible, reasonable, and desired by stakeholders

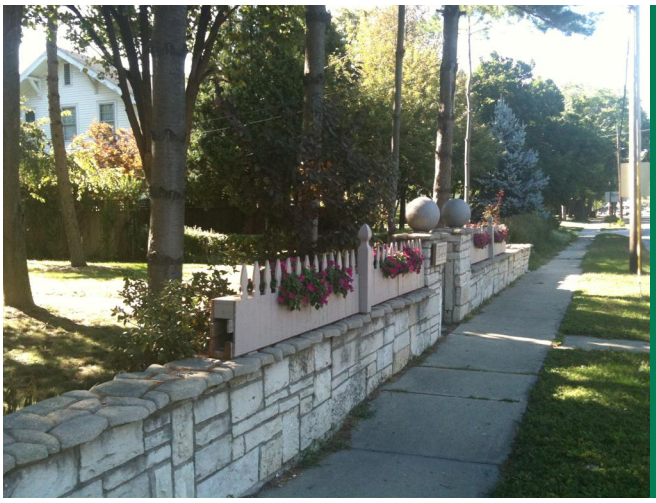
Jacobs coordinated the environmental clearance with FHWA and completed two Section 4(f) documents in coordination the City of Elgin Parks and Recreation Department and the Kane County Forest Preserve District regarding temporary construction impacts in Marie Groelich Park and on the Fox River Trail, respectively. We also coordinated with the US Army Corps of Engineers regarding temporary construction impacts to the Fox River and with Metra regarding bridge clearance over their railroad tracks.

Key Personnel Involved

- Jennifer Drake –Structural Engineering
- Carla Mykytiuk – Stakeholder Outreach

Design Report & Environmental Assessment, US 30 (I-55 to IL 59), Will County, IL

WILL COUNTY, ILLINOIS



Client: Illinois Department of Transportation

Dates: 2013 to 2015

Reference Information:

Steve Schilke, PE
IDOT Project Manager
Bureau of Programming
201 West Center Court
Chicago, IL 60602
Schaumburg, IL 60196-1096
T: (847) 705 4125

Project Description

Jacobs served as prime consultant and environmental lead for preparing a Phase I Study and Environmental Assessment for widening and improving US 30 in Plainfield. In a previous generation, this project had stalled repeatedly due to extensive stakeholder and environmental issues. The project team, working collaboratively with IDOT, the Forest Preserve District of Will County (FPDWC), Plainfield Township Cemetery, and numerous other stakeholders managed to find solutions to tough challenges.

RELEVANCE TO THIS PROJECT

- ✓ Multi-Use Path
- ✓ Sensitive environmental features
- ✓ Major stakeholder and agency coordination
- ✓ Categorical Exclusion Project Development Report

The US 30 project was a Phase I preliminary engineering study of corridor improvements in the Village of Plainfield, City of Joliet, Plainfield Township, Will County, Illinois. The project consisted of widening two miles of US 30, improving operational efficiency, optimizing intersection capacity, and providing community connectivity with a sidewalk and multi-use path. The process included development of alternate alignments, Intersection Design Studies, accident analysis, structure replacement, drainage improvements, and ROW analysis.

Through the stakeholder coordination effort, several local agency plans, advocacy groups and community members identified a need for active transportation accommodations along US 30. The project team designed a 10 foot multi-use path on the southwest side of the roadway from the West Frontage Road to Renwick Road and an eight-foot multi-use path on the southwest side of the roadway from Renwick Road to Union Street to meet IDOT design standards for multi-use paths.

Temporary easements were needed from the Mobil gas station on the western corner of the intersection in order to construct the proposed widening, multi-use path and to reconstruct the existing driveways. During the project study, coordination was conducted with the owner of this gas station to assess implications of the proposed improvement on this facility.

One of the greatest challenges for improving this section of roadway was the significant environmental considerations and constraints. US 30 between Renwick Road and IL 59 was the most heavily constrained, with only a 50-foot width of existing right-of-way and significant environmental features on both sides that limited IDOT's ability to expand the roadway. On the northeastern side of US 30 is the Lake Renwick Nature Preserve, considered the best and highest use, and strictly off-limits for use by the project. On the other side of US 30 is the Plainfield Township Cemetery, another land use that is typically very challenging for IDOT to acquire for improvements. The project team worked directly with the Cemetery staff to design a roadway improvement alternative which would acquire land from the cemetery, but not require relocation of graves or negatively affect Cemetery site operations.

Yet another challenge historically faced by the project was the nature preserve, run by the Forest Preserve of Will County (FPDWC), contained a heron rookery which is an environmentally sensitive site. There was great concern that any construction along US 30 would upset the bird population that lived and bred there. Historically, the FPDWC had also not wanted to accept US 30 roadway runoff, concerned that the runoff from cars and would be injurious to the heron population.

The project team undertook a very proactive and collaborative approach, engaging key staff from the FPDWC, the cemetery, the Village of Plainfield and others. Through extensive discussions, meetings, workshops and negotiations, the team developed several features and measures which ultimately led to project completion and construction.

Through these activities, and other efforts to proactively address environmental issues, the project team and IDOT successfully demonstrated that environmental impacts had been minimized to the extent that FHWA agreed to allow completion of the project to be downgraded from an Environmental Assessment to a Categorical Exclusion II. Design approval was achieved in May 2012.

The preferred alternative included constructing a five-lane urban section with curb and gutter between I-55 and Renwick Road, and constructing a three-lane urban section with curb and gutter between Renwick Road and IL Route 59.

In the course of the project, we successfully completed numerous work tasks, including traffic counts, analyses and reports; field surveys; environmental survey request; crash report; Phase I plans, profiles and cross sections; intersection design studies; public hearing; location drainage study; project report; noise analysis and report; tree surveys; detour analyses and coordination.

Key Personnel Involved:

- Srikanth Panguluri – Engineer
- Carla Mykytiuk – Environmental Planner
- Jill Kramer – Environmental Planner

Milwaukee Avenue, Logan Boulevard to Belmont Avenue – Phase I and II

CHICAGO, IL

Client: Chicago Department of Transportation

Dates: Phase I: 2017 to 2020
Phase II: 2020 to 2021 (est.)

Reference Information:
Nathan Roseberry
2 North LaSalle Street, Suite 900
Chicago, IL 60602
T: (312) 744-5936

Project Description

RELEVANCE TO THIS PROJECT
- ✓ Complete Streets Policy
- ✓ Multimodal Solutions
- ✓ Major stakeholder and agency coordination

CDOT completed a Phase I Project Development Report (PDR) for eight miles of Milwaukee Avenue from Grand Avenue to Jefferson Park in 2003, an Addendum to the PDR in 2006, and has since reconstructed four segments of Milwaukee Avenue moving from northwest to southeast. However, in the time since the PDR and its Addendum were approved, CDOT has adopted a more concentrated focus on developing complete streets design solutions that consider the needs of all roadway users. Simultaneously, in 2012, a group of Logan Square neighborhood residents began reimagining the design of the streets surrounding the Square and referred to their design as the Bicentennial Improvements Plan.

CDOT selected Jacobs to reevaluate the previous Phase I study for a 1.3-mile segment of Milwaukee Avenue between Logan Boulevard and Belmont Avenue, including a once-in-a-generation opportunity to redesign the roadways surrounding Logan Square. We began by meeting with local elected officials, assembling a project study group (PSG) comprised of key local stakeholders, collecting data, and hosting a public meeting to discuss existing conditions in the study area. The data collection effort included a unique origin-destination study using data from mobile devices provided by Streetlight, and multiple parking observations on different days and times to analyze utilization.

Jacobs developed four concepts for the design of Logan Square and two for Milwaukee Avenue that were presented at a second PSG and Public Meeting. The Logan Square design concepts included the following:

- **Concept 1**, Spot Improvements – Involves minor changes to improve lane balancing and add bike lanes in key areas, but general traffic patterns remain the same.
- **Concept 2**, Traffic Oval – Re-routes Milwaukee Avenue around the Square and Kedzie Avenue to the west of the existing Logan Square Blue Line CTA rail station similar to the design proposed by the resident-generated Bicentennial Improvement Plan. The reconfiguration of the transit terminal would create a large new public plaza adjacent to businesses and restaurants on the east side of Kedzie Avenue. Separated bike lanes would go around the outside of the Square.
- **Concept 3**, Trip Match – Changes streets on the west and south sides of the Square to two-way traffic and the roadway on the north side of the square to park space. The two-way operations create more direct paths for some origin-destination pairs. It also maintains Kedzie Avenue to east of the CTA terminal and Milwaukee Avenue through Logan Square.
- **Concept 4**, The Bend – Similar to Concept 3, but "bends" Milwaukee Avenue around the north and east sides of the square instead of going through the Square to create one larger public green space instead of two separate spaces. Concept 4 also realigns Kedzie Avenue to the west of the CTA station to create a new public space between the Blue

Line entrance and businesses along the east side of Kedzie Avenue. The streets on the west and south sides of the Square to are converted to two-way traffic with separated bike lanes.

The Milwaukee Avenue design concepts included one option for additional complete streets improvements such as dashed bike lanes and curb extensions to improve pedestrian crossings, and one option that would narrow the roadway and remove parking to provide fully separated bike lanes. Bus stops were reorganized and consolidated to improve travel speeds.

Solutions/Outcome

All concepts were compared for impacts on public spaces, historic integrity, pedestrians, bicyclists, transit users, traffic operations, parking supply, and constructability. Concepts 2 and 4 were advanced for further analysis due to their ability to meet the community's goal of a single park space. Concept 4 was selected as the recommended alternative because of superior pedestrian access and traffic operations compared to Concept 2.

The dashed bike lanes were recommended for Milwaukee Avenue due to concerns from businesses about removing parking on one side of the street and the practical difficulty of removing metered parking spaces given the City's contract with a private vendor.

Subconsultants/Delivery Partners

- DB Sterlin, Topographic Survey
- Wang Engineering, Geotechnical Analysis

Key Personnel Involved

- Craig Jakobsen - Lead Civil Engineer

Safe Routes to School / Safe Routes to High School

CHICAGO, IL

Client: Chicago Department of Transportation

Dates: 2007 to 2017

Reference Information: Kali Griffin
Chicago Department of Transportation
2 North LaSalle Street, Suite 820
Chicago, IL 60602
T: (312) 744-4608

Project Description

This planning and design project for the Chicago Department of Transportation (CDOT) was to improve pedestrian safety for ten school campuses located throughout the City of Chicago. The project implements improvements recommended in the pilot Safe Routes to School (SRTS) study, a previous CDOT project done by Jacobs that developed local SRTS program policies and procedures. SRTS projects are designed to increase the health and safety of children and the community, while decreasing vehicular traffic and pollution by accommodating safe, non-motorized travel or travel by transit.

RELEVANCE TO THIS PROJECT

- ✓ Pedestrian Safety
- ✓ Major stakeholder and agency coordination
- ✓ Categorical Exclusion Project Development Report

Challenges

The ten campuses included Lane Technical High School, the most populated school in Chicago with 4,500 students; Kelly High School, the second most populated; Amundsen and Marshall High Schools, both are adjacent to a park or large recreational facility and are co-located with an elementary school; Roberto Clemente High School located in an eight story building adjacent to two busy streets, and five other schools located in equally challenging urban environments.

Solutions/Outcome

Planning activities included preparation of a Categorical Exclusion project development report and execution of a public outreach program. Public outreach activities included initial meetings with school administrators, followed by meetings with the elected Local School Council (of parents), Parent Teacher Student Organizations, and elected officials. This outreach included a bi-lingual component oriented towards educating and informing schools with a significant Hispanic population.

Design activities included field observations to assess the existing walking, bicycling, and general traffic environment, topographic survey of selected segments of streets, traffic signal timing analysis, and preparation of contract plans, specifications, and cost estimates. Improvements needed to be coordinated with recently announced school closings, and a Safety Zone program, which would eventually deploy automated speed enforcement cameras (ASEC) at 300 schools and parks throughout Chicago. The design of the signage and pavement marking array for this project emulated the design used for the Safety Zone project, facilitating the possible future conversion of Safe Routes to School/Safe Routes to High School implemented improvements to include Safety Zone ASEC measures.

Subconsultants/Delivery Partners

- DB Sterlin Consultants, Incorporated (D/MBE), Civil Engineering Services

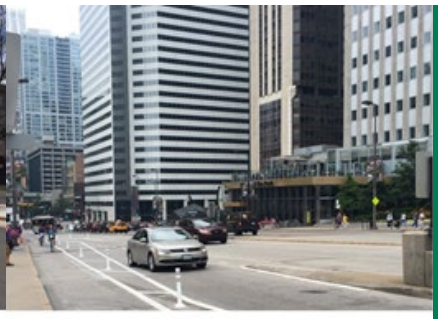
Key Personnel Involved

- Katelyn Bleach – Transportation Engineer

Streets for Cycling Phase I and II Engineering

CHICAGO, IL

Refuge Island and Buffered Bike Lane on Vincennes Ave at Westcott School



Upper Randolph Street Protected Bike Lane

Client: Chicago Department of Transportation

Dates: 2013 to 2016

Reference Information: Chicago Department of Transportation
2 North LaSalle Street, Suite 900
Chicago, IL 60602
David Smith: (312) 742-7620
Malihe Samadi: (312) 742-3847

Project Description

Jacobs worked with the Chicago Department of Transportation (CDOT) to design 35 miles of innovative bicycle facilities in 29 corridors. The projects included a mix of barrier-protected bike lanes and buffered bike lanes. A total of 29.2 miles of bike lanes designed by Jacobs' team have been installed.

RELEVANCE TO THIS PROJECT

- ✓ Innovative bicycle facilities
- ✓ CMAQ grant funding
- ✓ Categorical Exclusion Project Development Report

Tasks for each corridor typically included field data collection, conceptual design, traffic analysis, crash analysis, stakeholder outreach, and final design. The roadway cross-section available for each street was evaluated and balanced for all modes of transportation. Several corridors included "road diets" or the removal of on-street parking. Opportunities to enhance pedestrian safety and transit access were included through the installation of pedestrian refuge medians, curb extensions, high visibility crosswalks, and signal timing modifications.

Solutions/Outcome

The team's first installed design (Oct. 2013) was a combination of buffered and protected bike lanes on State Street from 18th Street to 26th Street. This Spoke Route project includes a road diet to reduce the number of lanes in each direction from two to one, but also maximize the retention of on-street parking based on coordination with the local Alderman and businesses. In less than one year, bicycle traffic increased by a factor of 2.5.

Congestion Mitigation and Air Quality (CMAQ) funds were used to construct several corridors. Those corridors were processed as Categorical Exclusions under the National Environmental Policy Act (NEPA). A Project Development Report, including several Intersection Design Studies (IDSs), was prepared for the project and approved by the Illinois Department of Transportation (IDOT).

Jacobs also worked with CDOT to create a methodology for prioritizing future bikeway projects based on factors such as network connectivity, crash history, proximity to important destinations (e.g., transit, schools, parks, libraries, retail, and employment centers), feasibility of implementation, community and political support, and social equity. The prioritization methodology and resulting priority ratings were presented at a series of Community Advisory Group and public meetings. Recommendations were finalized based on public input.

Subconsultants/Delivery Partners

- DB Sterlin Consultants

Key Personnel Involved

- Craig Jakobsen - Project Engineer

8. Proposed Fee

Jacobs

Challenging today.
Reinventing tomorrow.

Fee Proposal

Below is the fee breakdown and total hours we anticipate it will take to complete this contract.

Total Cost of Phase I Study	$347,605
Unit Cost of Additional Stakeholder Meeting	$3,900

Fee Breakdown	Bill Hours	Cost
Data Collection	90 Hrs	$5,104
Surveying (to be completed by DB Sterlin)	N/A	$60,835
Geotechnical Borings (to be completed by Wang Engineering)	N/A	$12,599
Environmental Data, Coordination, Inventory and Analysis	200 Hrs	$14,473
Culvert Inspection and Condition Report	34 Hrs	$3,796
Drainage Studies	174 Hrs	$10,420
Geometric Studies	872 Hrs	$48,663
Crash and Safety Analysis	12 Hrs	$673
Transportation Management Plan	20 Hrs	$1,142
Public Involvement	380 Hrs	$23,251
Meetings/Coordination	96 Hrs	$5,662
Funding	40 Hrs	$4,461
Draft Project Development Report	102 Hrs	$5,870
Final Project Development Report	76 Hrs	$4,893
Administration	300 Hrs	$14,932
QA/QC	40 Hrs	$5,172

9. Required Forms

Jacobs

Challenging today.
Reinventing tomorrow.

PROPOSAL SUMMARY SHEET

82nd Avenue Multi-Use Path from 135th Street to 151st Street

Phase I Preliminary Engineering

Business Name: Jacobs Engineering Group Inc.

Street Address: 525 W. Monroe, Ste. 1600

City, State, Zip: Chicago, IL. 60661

Contact Name: Marco Loureiro

Title: Vice President, Director of Operations People & Places Solutions MN/IA/WI/IL

Phone: 708.238.5366 Fax: 312.251.3015

E-Mail address: Marco.Loureiro@jacobs.com

Price Proposal

PROPOSAL TOTAL (On an hourly not to exceed fee basis) $ 347,605.00

AUTHORIZATION & SIGNATURE

Name of Authorized Signee: Marco Loureiro

Signature of Authorized Signee: _____

Title: Vice President, Director of Operations People & Places Solutions MN/IA/WI/IL

Date: May 12, 2021

REFERENCES

Provide three (3) references for which your organization has performed similar work.

Bidder's Name: Jacobs Engineering Group Inc.
(Enter Name of Business Organization)

1. ORGANIZATION: IDOT / Elgin-O'Hare West Bypass
   ADDRESS: 201 West Center Court, Schaumburg, IL 60196
   PHONE NUMBER: 847.705.4000
   CONTACT PERSON: John Bacek
   YEAR OF PROJECT: 2009-2012

2. ORGANIZATION: IDOT / US 30 Study
   ADDRESS: 201 West Center Court, Schaumburg, IL 60196
   PHONE NUMBER: 847.636.2343
   CONTACT PERSON: Steve Schilke
   YEAR OF PROJECT: 2010-2012

3. ORGANIZATION: IDOT / US 20 Phase I Study
   ADDRESS: 201 West Center Court, Schaumburg, IL 60196
   PHONE NUMBER: 847.705.4477
   CONTACT PERSON: Lori Brown
   YEAR OF PROJECT: 2011-2020

ORLAND PARK

INSURANCE REQUIREMENTS

Please submit a policy Specimen Certificate of Insurance showing bidder's current coverage's

WORKERS COMPENSATION & EMPLOYER LIABILITY
Workers' Compensation – Statutory Limits
Employers' Liability
$1,000,000 – Each Accident $1,000,000 – Policy Limit
$1,000,000 – Each Employee
Waiver of Subrogation in favor of the Village of Orland Park

AUTOMOBILE LIABILITY
$1,000,000 – Combined Single Limit

GENERAL LIABILITY (Occurrence basis)
$1,000,000 – Each Occurrence $2,000,000 – General Aggregate Limit
$1,000,000 – Personal & Advertising Injury
$2,000,000 – Products/Completed Operations Aggregate
Primary Additional Insured Endorsement & Waiver of Subrogation in favor of the Village of Orland Park

PROFESSIONAL LIABILITY
$1,000,000 Limit - Claims Made Form, Indicate Retroactive Date & Deductible

EXCESS PROFESSIONAL LIABILITY (Umbrella-Follow Form Policy)
$1,000,000 – Each Occurrence
$1,000,000 – Aggregate
EXCESS MUST COVER: Professional liability

Any insurance policies providing the coverages required of the Consultant, excluding Professional Liability, shall be specifically endorsed to identify "The Village of Orland Park, and their respective officers, trustees, directors, officials, employees, agents, representatives and assigns as Additional Insureds on a primary/non-contributory basis with respect to all claims arising out of operations by or on behalf of the named insured." If the named insureds have other applicable insurance coverage, that coverage shall be deemed tobe on an excess or contingent basis. The policies shall also contain a Waiver of Subrogation in favor of the Additional Insureds in regards to General Liability and Workers Compensation coverages. The certificate of insurance shall also state this information on its face. Any insurance company providing coverage must hold an A VII rating according to Best's Key Rating Guide. Permitting the contractor, or any subcontractor, to proceed with any work prior to our receipt of the foregoing certificate and endorsement, however, shall not be a waiver of the contractor's obligation to provide all of the above insurance.

Proposer agrees that prior to any commencement of work to furnish evidence of Insurance coverage providing for at minimum the coverages and limits described above directly to the Village of Orland Park, Nicole Merced, Purchasing Coordinator, 14700 S. Ravinia Avenue, Orland Park, IL 60462. Failure to provide this evidence in the time frame specified and prior to beginning of work may result in the termination of the Village's relationship with the contractor.

ACCEPTED & AGREED THIS _13__ DAY OF __May_____, 20_21

_____
Signature

Marco Loureiro, VP, Director of Operations
People & Places Solutions, MN/IA/WI/IN
_____
Printed Name & Title

Authorized to execute agreements for:
Jacobs Engineering Group Inc.
_____
Name of Company

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/25/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER LIC #0437153 1-212-948-1306 Marsh Risk & Insurance Services CIRTS_Support@jacobs.com 633 W. Fifth Street Los Angeles, CA 90071	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): 1-212-948-1306 E-MAIL ADDRESS:
INSURED Jacobs Engineering Group Inc. C/O Global Risk Management 1000 Wilshire Blvd., Suite 2100 Los Angeles, CA 90017	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : ACE AMER INS CO — 22667 INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 59591406 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			HDO G71452694	07/01/20	07/01/21	EACH OCCURRENCE	$ 2,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
	X CONTRACTUAL LIABILITY						MED EXP (Any one person)	$ 5,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 2,000,000
	X POLICY PRO-JECT LOC						GENERAL AGGREGATE	$ 2,000,000
	OTHER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
A	AUTOMOBILE LIABILITY			ISA H25307306	07/01/20	07/01/21	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WCU C67460340 (OHIO Only)	07/01/20	07/01/21	X PER STATUTE OTH-ER	
A	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N	N / A		SCF C67460388 (WI)	07/01/20	07/01/21	E.L. EACH ACCIDENT	$ 1,000,000
A	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WLR C67460303 (AOS)	07/01/20	07/01/21	E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	PROFESSIONAL LIABILITY "CLAIMS MADE"			EON G21655065 011	07/01/20	07/01/21	PER CLAIM/PER AGG AGGREGATE DEFENSE INCLUDED	5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: EVIDENCE OF COVERAGE ONLY. *$2,000,000 SIR FOR STATE OF: OHIO. *THIS IS A SAMPLE CERTIFICATE ONLY*. THE ACTUAL CERTIFICATE FOR THE PROPOSED PROJECT WILL COMPLY WITH THE TERMS AND CONDITIONS NEGOTIATED IN THE FINAL CONTRACT, CONSISTENT WITH POLICY TERMS AND CONDITIONS.

CERTIFICATE HOLDER	CANCELLATION
Jacobs Engineering Group Inc. 1999 Bryan Street, Suite 1200 Dallas, TX 75201 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE

Contact:

Marco Loureiro, PE
708.238.5366
Marco.Loureiro@jacobs.com

Jacobs Engineering Group Inc.
525 W. Monroe, Suite 1600
Chicago, IL. 60661

Jacobs

Challenging today.
Reinventing tomorrow.