

**Statement of Qualifications
for
Professional Engineering
Services for the Completion
of a 3rd Party Alternative
Analysis for
Farmdale Creek
Trunk Sewer**

**Due September 8, 2021, at
4:00 p.m.**

CONTACT:
David Clark, P.E.
753 Windsor
Charleston, IL 61920
dclark@esiltd.com
217.348.1900



Municipal Engineering

Structural Engineering

Transportation Engineering

Water/Wastewater Engineering

Construction Engineering

Civil/Site Engineering

Environmental Services

Natural Resources

Stormwater Management



ESI Consultants, Ltd.
Excellence, Service, Integrity

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ESI Consultants, Ltd.
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September 7, 2021

Mr. Dennis Carr, P.E.
City of Washington
301 Walnut Street
Washington, IL 61571

**Re: Request for Qualifications – Professional Engineering Services for the Completion of a 3rd Party
Alternative Analysis for Farmdale Creek Trunk Sewer**

To Mr. Carr:

ESI Consultants is pleased to submit our Statement of Qualifications to provide Professional Engineering Services for the Completion of a 3rd Party Alternative Analysis for Farmdale Creek Trunk Sewer. We are confident that ESI Consultants, an experienced and award-winning consultant firm, has both the necessary qualifications and the multi—disciplined experience that will make our partnership a success. ESI represents **Excellence, Service and Integrity** in everything we do.

We sincerely appreciate your time and thoughtful consideration in review of our Proposal. I look forward to discussing this opportunity with you further and how ESI Consultants, Ltd. can be a valuable extension of your team. Should any questions, comments or concerns arise from our Proposal, please do not hesitate to contact me, at (217) 348-1900 / e-mail at dclark@esiltd.com.

Sincerely,
ESI CONSULTANTS, LTD.

David Clark, P.E.
Vice President



Request for Qualifications No. 18-RFP-23
PROFESSIONAL ENGINEERING SERVICES FOR THE COMPLETION OF a 3rd PARTY
ALTERNATIVE ANALYSIS FOR FARMDALE CREEK TRUNK SEWER

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LOCATION:

753 Windsor Road
Charleston, IL 61920
Phone: 217.348.1900

CONTACT:

David Clark, P.E.
217.348.1900
dclark@esiltd.com

AWARD WINNING SERVICE:

- APWA Public Works
Project of they Year:
Emerson / Ridge / Green
Bay Road
Reconfiguration (Design
& Construction)
- ACEC Engineering
Excellence Award: Archer
Road and Streetscape,
Long Grove (Design,
Construction)

CLIENT SATISFACTION:

"...I can attest that ESI's determination and cooperation exceeded our expectations for the project as a whole. The enthusiasm and dedication displayed throughout this entire project is second only to the exceptional quality of work produced by the ESI team..."

Sat Nagar City of
Evanston

FIRM INTRODUCTION

ESI Consultants, Ltd. (ESI) has provided award winning design and construction engineering services to numerous public, federal, and private agencies throughout Illinois. We pride ourselves in the quality and punctuality of our work, which is reflected in our award-winning projects and our many repeat clients.

We are an S-type Corporation, established on January 31st, 2003 with our corporate office located in Naperville, Illinois. We have also established offices in Chicago, Illinois; Charleston, Illinois; and Hammond, Indiana.

We are professionally licensed to do business in Illinois under license # 187.003685-0014035.002531 for Professional Engineering, and Structural Engineering.

STORMWATER & MASTER PLAN EXPERIENCE

- Stormwater Master Plan, Long Grove
- Regional Detention Facility, Westmont
- Conservancy Stormwater Master Plan, Gilberts
- On-Call Drainage Studies, DuPage County
- Drainage Design – M-8 Tollway Maintenance Facility, ISTHA (Aurora, IL)
- Centennial & Northview Park Stormwater Management, Lemont
- Stormwater Development Reviews, Westmont
- Stormwater Master Plans, Rantoul (PM XP)
- SW Master Plan, Mount Prospect (PM XP)

STAFF EXPERIENCE

- Gray Street Sanitary Sewer Replacement, St. Charles, IL
- Moline Foundry Sanitary Sewer Replacement, St. Charles, IL
- Wastewater System Improvements for Wasco Sanitary District, Wasco, IL
- Wellington Estates, Drainage, Stormwater Management Distribution System
- Pasadena Drive Storm Sewer Bypass, Kane County, IL
- Maple Avenue & Carpenter Street Storm Sewer Replacement, Downers Grove, IL

KEY ADVANTAGES

Our resident expert, Anthony Malone, P.E., has a wide range of abilities that will benefit the City of Washington and ensure that the best alternative is selected. Mr. Malone has experience in key elements such as stormwater master planning, permitting, stormwater management design, hydraulic analysis, flood plain management, green infrastructure and public coordination and outreach. He has a proven track record of great relationships with clients, residents, and administrators; you have a proven engineering leader working as your advocate.

Anthony Malone, PE Project Manager

- 35+ Years of Experience
- USACE – Flood Control Section Chief
- Expertise in hydraulic modeling with HEC-RAS and HEC-geoRAS
- Expert Testimony Experience in Stormwater/Drainage
- Lake County Stormwater Mgmt. Commission
- Kane County Qualified Engineer Review Specialist

Brandt Zentner, CFM Drainage Engineer

- 20+ Years of Experience
- Certified Floodplain Manager
- Stormwater Mgmt. & Hydrologic Modeling for dozens of subdivisions & projects
- Successful roadway projects:
 - DuPage Co. On-Call Drainage/Stormwater Contract
 - Stormwater Master Plan, Long Grove

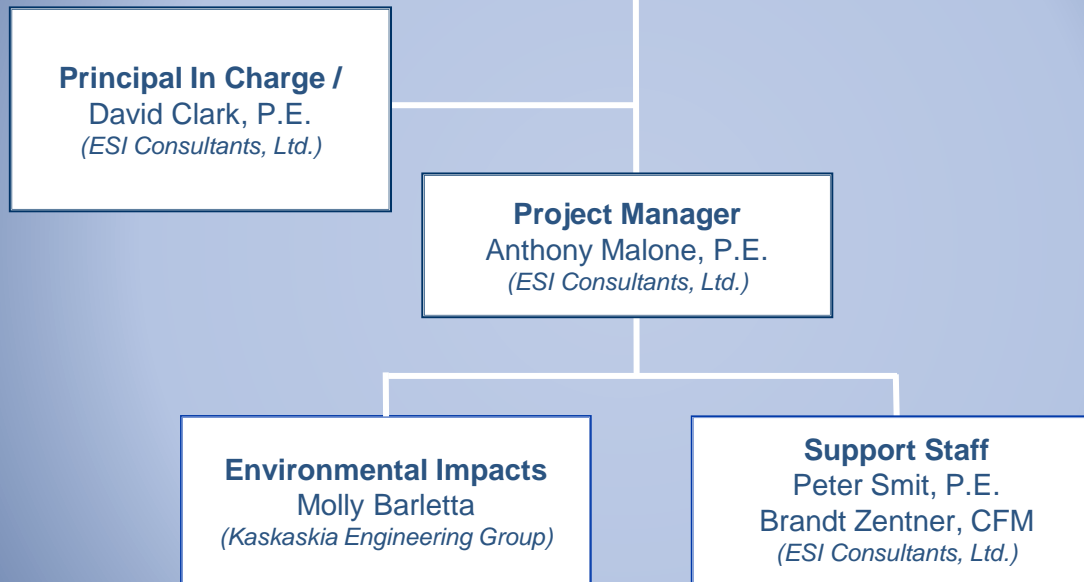
Molly Barletta Environmental

- 20+ Years of Experience
- Phase 1 ESA experience for
- Proficient with Wetland delineations and determinations
- Successful projects:
 - Cal-Sag Tributary C, Brehm Township and Midlothian – ESA, delineation, and permitting



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Professional Engineering Services for 3rd Party Alternative Analysis for Farmdale Creek Trunk Sewer





Anthony Malone, P.E. Project Manager

Mr. Malone has over 35 years of experience involving municipal, water and wastewater projects in design and construction. He is responsible for the management and design of projects as a senior manager. Mr. Malone's vast background and experience in several areas of civil engineering is a major asset on any project.

Education:

University of Illinois at
Urbana-Champaign
*Master of Science, Civil
Engineering*
Major: Structures

University of Illinois at
Urbana-Champaign
*Bachelor of Science,
Agricultural Engineering*
Major: Structures

Registration &

Certifications:

Professional Engineer, Illinois
Iowa, Wisconsin & Indiana

Selected Continuing

Education:

Lake County Stormwater
Management Commission
Enforcement Officer
Kane County Qualified
Engineer Review Specialist

Selected Project Experience

Plan Review for the City of Geneva- Reviewed final engineering plans for the development of the Lincoln Square residential subdivision. The review included the stormwater management plans, specifications and calculations for a 48 lot single family residential development on 15 acres. The stormwater system consisted of two existing wet ponds and a new enclosed drainage system.

Plan Review for the Village of Orland Park- Reviewed Preliminary plans for the redevelopment of the Andrew Corporation Parcel. This parcel was subdivided into single family and multi-family residential lots. Although an existing wet detention area was proposed to be used, existing wetlands were proposed to be destroyed and therefore required mitigation. This was achieved on the project site.

DuPage DOT Stormwater Engineering Study – Meyers Road, DuPage County, Illinois – *Project Manager* for the drainage analysis of an existing storm sewer system along Meyers Road in the Village of Oak Brook Terrace.

Highlights: XP-SWMM modeling; construction plans, specifications, and estimates; DuPage County permitting; stormwater management design

Master Stormwater Plan and Modeling – North Avenue and County Line Road, Northlake, IL - The award winning project included designing proposed drainage systems to address flooding problems in the area and to upgrade the current storm sewers, preparing construction plans, specifications and preparing and securing MWRD, DuPage & Cook Counties, State and Federal permits for the project. In addition to planning studies and design services, preliminary construction plans were also completed. The total drainage area tributary to the location is over 1,300 acres. Five (5) new detention ponds were designed to mitigate flood risk and drainage impact due to proposed roadway improvements. Two (2) stormwater reservoirs (Doyle Reservoir and Lower Elmhurst Reservoir), three (3) pump stations and the neighborhood infrastructure were involved. HEC-HMS, XPSWMM, and StormCAD were used for hydrologic and hydraulic design and analysis.

The Conservancy Stormwater Management Plan, Gilberts, IL - This project involved the analysis of over 900 acres of land to be developed as part of the Conservancy Development in Gilberts, Illinois. ESI was contracted to analyze the Kishwaukee River and its tributaries in its existing condition and proposed condition after development. ESI was to locate areas for detention and compensatory storage in excess of 450 acre-feet over nine different proposed neighborhoods. Special management areas included wetlands, flood plain, floodway, and a turtle conservation area. In order to provide this analysis, HEC-RAS and HEC-1 modeling software were used to model the river flood profile during the 10-year and 100-year events.

Regional Detention Facility, Gilberts, Illinois- The project included a watershed model and design of a 106 acre-foot detention facility design. The facility was located within the floodplain and therefore to meet the County Stormwater Ordinance required the detention to occur either above the base flood elevation or outside the floodplain. The developer and Village decided to accept the design of the detention provided above the base flood elevation. Therefore a significant berm/dam was required to support the hydraulic pressure.



Carl Sandburg High School Improvements, Orland Park, Illinois- The project included additional parking in order to improve parking and bus operations. Also included were enclosed walkways in three locations to aid the passage of students from various areas of the building especially during inclement weather. A significant part of these projects was the application and coordination with MWRD to obtain the stormwater permits.

Pasadena Drive Stormwater Sewer Bypass, Kane County, IL - The Pasadena Drive community is a single family residential subdivision in unincorporated Montgomery located north of Baseline Road. As this area was frequently flooded by the passing of stormwater runoff through the area, the County assisted the residents via a Cost-Share program using a CDB grant. Approximately 3,250 lineal feet of 30" and 36" RCP was constructed. In addition, an existing 12" drain pipe through the subdivision was removed so the new pipe could be constructed. Service laterals to some of the dwellings were replaced and backflow preventers were installed on some of the laterals/sump lines.

First Street Redevelopment Improvements, City of St. Charles – Project Manager responsible for the oversight of \$5 million of water, wastewater improvements and street reconstruction being designed and constructed as part of a five block redevelopment area within a tax increment financing district. The project included the replacement of approximately 2,800 lineal feet of 8 to 36-inch DIP and PVC gravity sanitary sewer, 2,200 lineal feet of 4 to 10-inch DIP water main and 3,000 lineal feet of 12 to 36-inch RCP storm sewer pipe and 2,400 lineal feet of concrete electric duct bank. A major component of the project included the coordination between the utility companies, Illinois Department of Transportation, City staff and other consultants and developer's team. Permitting from the Illinois Department of Transportation and the Illinois Environmental Protection Agency was required for this project.

Gray Street Sanitary Sewer Replacement, St. Charles, IL – Project Manager and designer for the replacement of 2,400 lineal feet of gravity sanitary sewer main ranging in size from 8 to 21 inches in diameter within Gray Street. It was required that the sewer remain in operation during construction. The construction cost was approximately \$500,000.

Moline Foundry Sanitary Sewer Replacement, St. Charles, IL - Project Manager and designer for the replacement of 3,000 lineal feet of the sanitary sewer main ranging in size from 12 to 18 inches in diameter within the former Moline Foundry area. This site was a Brownfield that was being cleaned up and redeveloped. As a part of the project, the City was responsible to reroute the sanitary sewers that went through the area because of the new development layout and to reduce the flow to some pipes that were over capacity.

Lake Street Water and Sewer Extensions, Village of Roselle, IL- Project Manager responsible for the design and permit improvements consisting of approximately 1,050 lineal feet of 8-inch gravity sewer and 125 lineal feet of water main. Each extension included a bore and jack of Lake Street which is under the jurisdiction of the Illinois Department of Transportation. In addition to applying for permits from IDOT, permits were also required from the Illinois Environmental Protection Agency. Construction documents including drawings and project manual were prepared for the Village to use in bidding and constructing the project.

71st and Hague Sanitary Sewer Barrett Law Improvements, City of Indianapolis, Indiana - , Designer for the 71st and Hague sanitary sewer Barrett Law improvements included servicing an established residential area in which the septic systems had failed. The project included designing a gravity sewer system that could serve as many of the dwelling in this sloping area. Those dwellings that could not be served by this system required the design of individual grinder stations to lift the wastewater to the gravity system. The Barrett Law gave a municipality to assess the residents to cover the costs associated with these improvements. Therefore, a spreadsheet was prepared that calculated the estimated costs under various alternatives for the property owners.

Western Service Area of Riviera Beach, Florida – Project Manager and designer responsible for the preparation of the study, preliminary and final engineering plans for the wastewater collection and transmission system to serve the western service area of Riviera Beach, Florida. This area included an existing industrial park as well as area recently annexed into the City's boundaries. The project included the design and construction of gravity sewers within each street of the industrial park and stubs to the right of way lines, two smaller lift stations and forcemains to serve the area and a regional station to pump the wastewater to the interceptor sewer which flowed to the regional wastewater plant.

Brandt Zentner, CPESC, CFM Hydraulics/Hydrology



Education:

University of Illinois, Urbana
- Champaign
Bachelor of Science, Civil
Engineering

Registration & Certifications:

Certified Professional in
Erosion and Sediment
Control
Certified Floodplain Manager
Designated Erosion Control
Inspector, (Lake County)

Selected Continuing Education:

IAFSM:

- Floodplain Management and Letters of Map Revision
- Stormwater Utilities in Illinois
- Same Problem-Different Solutions-Working Across Disciplines to Solve Floodplain and Stormwater Problems
- Stormwater Regulations, Best Management Practices, Dams

ASFPM:

- Hydraulic Reports for IDOT Bridges over Water Crossings Seminar
- Basic HEC-RAS Seminar



Mr. Zentner is a Civil Engineer with over 20 years of experience involving water resources engineering project analysis, design, construction management and land development. He has extensive experience and knowledge in performing the following hydrologic and hydraulic engineering tasks: land use characterization, floodplain/floodway delineation, compensatory storage determination, steady state analysis, unsteady flow sewer analysis, combined sewer outflow characterization, and water quality monitoring.

Selected Project Involvement

Aurora Township Drainage Study, Kane County, Illinois – Services included drainage study and analysis of the Golfview area in the vicinity of Jericho Road in Aurora Township in Kane County, Illinois. This included calculations that determined the amount of runoff generated in the drainage area and determined the size of the discharge pipe required to serve the area. Based on these findings, ESI gave recommendations of a scope required toward addressing the flooding issues. As a Project Engineer, he performed hydrologic analysis and report preparation.

DuPage County On-Call Drainage Engineering, Meyers Road, Oak Brook Terrace, IL – Under contract to provide on-call drainage engineering services for the DuPage County Department of Transportation, Work Order #1 – Meyers Road Drainage Study was tasked in early 2016. The purpose of the project was to analyze the existing system and provide alternatives to alleviate surface flooding to neighboring properties that had occurred since a previous road reconstruction and storm sewer extension. This project included the analysis of overland flooding and surcharging storm sewers, site investigation, hydraulic modeling, and drainage report. An XP-SWMM model was created to determine the hydraulic capacity and efficiency of the existing storm sewer system and the origin of the flooding issues experienced along Meyers Road. Once the existing model was calibrated, the XP-SWMM model was altered to analyze over 18 alternatives to determine what pipe configuration, size and routing could be used to provide a 10-, 25-, 50-, and 100- year level of service for the surrounding properties. Based on the results of the analysis, three recommended alternatives were presented to the County.

Menards, Long Grove, Illinois – Project under IDOT, ACOE, Lake County, and The Village of Long Grove jurisdiction. Project included the expansion of the IL Route 53 at the intersection of Lake Cook Rd. This development of a 50 acre site will include a Menards, and outlots. This project consisted of the site improvement, lighting, landscaping, fire protection, detention, storm water analysis, and permit coordination. The project required an individual ACOE permit for wetlands as well as numerous other permits. An additional aspect of this site is the 2 miles of offsite sanitary sewer that was constructed along Village of Long Grove streets. Mr. Zentner acted as Resident Engineer dealing with the daily interactions between residents and construction personnel, and inspecting construction activities including sediment and erosion control. The review coordinated with other agencies, the Village of Long Grove for the roadway portion, Lake County Public Health and the Forest Preserve adjacent to the site, the IEPA and the USACOE. The location of the off-site sanitary sewer was altered to minimize impacts to forest preserve property, mapped wetlands, and floodplain. It also included the evaluation of a recapture agreement for the sewer and potential adjacent property owners that may choose to connect to the new sewer line.

Sunset Groves Development, Long Grove, Illinois – Resident Engineer for this project which included review and oversight of a commercial development near the intersection of IL Route 83 and Aptakisic Road. Services provided include soil erosion and sediment control inspections, oversight and inspection of storm sewer installation, water main installation, sanitary sewer force main installation and sanitary sewer installation and testing. Other services include documentation of construction progress for review and approval of Letter of Credit reductions.

Water System Improvements for Historic Downtown Long Grove & Illinois Route 83 Properties. Field Engineer for site and building construction phase of a new water treatment facility in Long Grove. The project included the construction of two deep Galesville wells, a 2,000 square foot water treatment plant, and an at-grade cast-in-place concrete water storage reservoir. The water treatment plant included ion exchange equipment, a pumping system that could produce 1,900 gpm, and a hydro pneumatic tank. The building was constructed with precast concrete tilt-up walls and a gable truss roof system. The exterior surface of the concrete walls was formed with an architectural liner for the appearance of brick and stone construction. The building footprint was required to be very small and the booster pump system also had to be designed with an extremely small footprint. Services included compliance inspections and observations of contractor's work, documentation of progress, preparation of pay requests and change orders and preparation of record drawings.

Riverfront Viability Study, North Aurora, Illinois – The Village is using this viability study to assess the ability to restore portions of the Fox River frontage and provide a location for residence to congregate and enjoy this natural resource. His duties as Project Engineer included the confirmation of flood plain and floodway limits by preparing a HEC-2 model of the river profile to determine what effects the proposed improvements would have on the river, site inventory and evaluation, analysis of findings and plan recommendations and preparation of report.

Stormwater Management Study, Gilberts, Illinois – This project consisted of the preparation of hydrological and hydraulic studies for the watershed and waterway to Tyler Creek, which consisted of an area of 1,033 acres. These studies were used to convince the COE of the improvements that needed to be made to return the wetland to its previous condition. ESI prepared a hydrologic analysis and recommended improvements to the detention facility required to meet this current ordinance.

Various Watershed Studies/Drainage Studies

Computed hydrologic input parameters for FEQ unsteady flow models and for tributary areas input into developed TR-20 hydrologic models to determine peak runoff rates. Extended regulatory HEC-2 hydraulic models through study areas. Input storm event rainfall distributions into the TR-20 hydrologic models and calibrated the to the reported high water elevations with the HEC-2 hydraulic models. Developed possible flood mitigation measures based on the design storm events for the following developments:

- Central Manufacturing District of St. Charles
- Main Stem Kress Creek and Tributaries 1-5 of Kress Creek, DuPage County, Illinois.
- Des Plaines Stormwater Master Plan.
- Twin Orchard Country Club.
- Mokena Park of Commerce.
- Pasquinelli Creekside Development.
- Newberry Estates.
- Swanson Lake Street Property.
- Misty Pine Development.
- Lake County Nippersink Forest Preserve Hydrologic and Hydraulic Study.
- Wind Point Subdivision.

Stormwater Management

Performed calculations and developed hydrologic modeling and hydraulic modeling to determine required and provided detention storage volume, depressional storage volume, floodplain fill volume and compensatory storage volume in support of the a Stormwater Management Permit for the following projects:

- Lakewood Grove Subdivision, Phase 1/2, Lakewood Homes
- Lakewood Orchard Subdivision, Phase 1 & 2, Lakewood Homes
- Cherry Hills Golf Course Redevelopment Project, Homewood-Flossmoor Park District
- Minooka International Center South, Catellus Development
- Folker Estates Subdivision, Raycorp, Inc.
- Fountain Hills Subdivision, Distinctive Homes, Inc.
- Home Depot in Carol Stream
- Newberry Estates, KDC Consultants
- Ball Seed Horticultural Property, Planning Resources, Inc.
- Fountain View Road and Town Center Parking Lot, Carol Stream
- Martin Avenue Siphon Sewer Replacement, Naperville
- Woodhill Crossings Business Park, Bridge Development Partners, Village of Woodridge
- Willow Walk Subdivision, the Ryland Group, Lockport
- Country Lakes Park, Naperville Park District, Naperville

David Clark, P.E. Project Principal



Education:

University of Illinois – Urbana-Champaign
Bachelor of Science Civil Engineering

Registration & Certifications:

Professional Engineer: Illinois, Indiana

Professional Associations:

Illinois Association of Highway Engineers

Committees:

IDOT: District 4 and District 5 Diversity Council Chairman, Warranty Specification and Guidelines Committee Member, Total Quality Management for Materials Certification Initiative Leader, Materials Certification Training Team, Pavement Management Committee Member, Work Zone Safety and Safety Council Committee Member, District 5 Strategic Planning Manager

Publications:

IDOT: District 4 and District 5 Public Awareness Manual, Materials Certification Training Manual

Awards:

District 4 Engineer of the Year 1999
Secretary's Pin 1999
Illinois First Pin 1999
Partnering Award 2002
Partnering Award 2003



Mr. Clark has over 42 years of state government, transportation and civil engineering experience. Mr. Clark is currently responsible for managing and directing ESI's Charleston Office transportation and municipal engineering service projects. His experience is in design and construction management of large-scale transportation infrastructure projects, public involvement management, partnering facilitation and transportation planning and design.

Selected Project Involvement

IL 294/ IL 64 Phase II, Northlake, Illinois- The existing I-294/I-290/Illinois Route 64 interchange is a complex intertwining of two Interstate expressways (I-294 and I-290), two strategic regional arterials (IL Route 64 and US Route 20) and several frontage roads. There are numerous bridges, underpasses, ramps, connector roads, and traffic signals that facilitate the movement of traffic along and between the various routes. Currently, I-294 traffic exiting southbound onto North Avenue via I-290 can only exit in the westbound direction. Vehicles that want to travel eastbound on North Avenue frequently take the westbound exit and then turn south into a residential neighborhood. These vehicles use residential streets to circle around and head back eastbound on North Avenue. This traffic movement has created safety concerns in the local Elmhurst neighborhood. It is also suboptimal for the commercial and residential vehicles that want efficient access to businesses and homes east of I-294 in municipalities like Northlake, Melrose Park, and Elmwood Park. The project involves the preparation of Phase II Design services for use in letting and constructing the project.

Village of Marissa Engineering Services, St. Clair County, Illinois - Conducting plan and development review, and construction observation services on the Islands of Waterside Development for the Village of Marissa. This project will be completed in two phases over several years. Phase I is a 950+ acre site which will convert an existing strip mine area into new residential subdivision in Marissa. The subdivision will support approximately 750 home sites, restaurants, retail site, club house, and park sites. These facilities will all be interconnected through a series of multi-use pathways, marinas, streets to provide for ease of access to all facilities in the development. Reviews include residential subdivisions, commercial developments, roadways, stormwater drainage, sanitary sewer, storm sewer, potable water systems, construction observation services and other miscellaneous portions of the project. Key issues address includes compliance with Village Codes, Storm Water Management review and coordination with regulatory agencies. Other issues addressed include geometrics, pavement design, landscaping, lighting, septic systems; lift stations, wetlands and natural resources.

Long Grove Commons Development, Long Grove, Illinois - Review of all plans, specifications, plats and all other documents associated with the approval process for the retail development in accordance with Village ordinances. This also included the review of proposed on and off-site sanitary sewer installation for the development.

Menards Development, Long Grove, Illinois - This is a 45+ acre retail development for Menards and contains several outlots for future development opportunities. This project consisted of the review of the site improvement, lighting, landscaping, fire protection, detention, stormwater analysis, permit coordination with all governing agencies involved with the project. The project also includes over a mile of off-site sewer to serve the project.

Menards Off-site Sewer, Long Grove, Illinois - The review consisted of over a mile of offsite sanitary sewer; both gravity and force main sewer to service the new Menards retail development. The review coordinated with other agencies, namely the Village of Long Grove for the roadway portion, Lake County Public Health and the Forest Preserve adjacent to the

site. It also included the evaluation of a recapture agreement for the sewer and potential adjacent property owners that may chose to hook onto the new sewer line.

Menards / Long Grove Soccer Park, Long Grove, Illinois- As part of the Menard development excess property will be used to construct a soccer park for the Village Park District. Preliminary planning has been completed to develop a proposed layout for the park. The park had to be designed around several wetlands and their buffer areas. The final layout incorporated three soccer fields, parking, walking paths and a service area for the park.

Eastgate Residential Development, Long Grove, Illinois - This residential development included the review of site plans for roadway, drainage, detention, community subdivision sanitary septic system and other site plan attributes. This project also required coordination with other agencies for stormwater, wetlands, conservancy areas and other environmental issues.

Sanctuary Creek Subdivision, Long Grove, Illinois - This is a 16 acre residential development. There are 31 units (single family structures and duplexes) planned for this development. The review consisted of plat and site plan reviews for roadway, water, sanitary, stormwater, general drainage and other miscellaneous reviews. The site also required coordination with other agencies for compliance with wetlands, wetland buffers, scenic corridors and other environmental issues.

Ponds of Skycrest Subdivision, long Grove, Illinois - This re-subdivision of the development converted a five lot subdivision to three lots due to changes required for wetlands, wetland buffers, conservancy areas. It required considerable coordination with the Lake County Stormwater Management Commission and other governing agencies to gain final approval of the development.

Miscellaneous Review Services, Village of Long Grove, Illinois - Responsible for review and monitoring of all development activities in the Village. This ranges from single family home construction to large retail developments. These duties consist of reviewing all development plans to ensure they comply with current Village Ordinances, from sewer, septic, water, wells, erosion control, stormwater management, streets and much more.

Village of Bement 2015 Wastewater Study, Bement, IL - The Village of Bement had been experiencing flooding and some residents had experienced basement backups during heavy rainfall events. A wastewater study was conducted to determine if the existing sewer lines and pump stations were adequate to handle the higher flow rates. The study concluded the existing infrastructure was sized properly to handle the flows, but it was determined that there appears to be a high level infiltration and inflow entering the system which would be a potential cause of the issues that have occurred. The report recommended that an I/I Study be conducted to determine where the infiltration and inflow was coming from.

Peter Smit, P.E. Support Staff



Education:

University of Illinois at
Urbana-Champaign

Master of Science - Civil &
Environmental Engineering

Master of Architecture -
Structures Option

Bachelor of Science -
Architectural Studies

Registration &

Certifications:

Professional Engineer: IL



Mr. Smit has over 7 years of experience on transportation design and construction projects. His experience on civil design and construction engineering projects include work on bridges, roadways, lighting, traffic signals and transit facilities.

Selected Project Involvement

IL 64 at I-294/I-290 Phase II, Northlake, IL - Phase I & II engineering services were provided for this federally funded project (CMAQ) that included over 5 miles of local roadway work as well as the addition of a new exit ramp from southbound I-294. The existing I-294/I-290/Illinois Route 64 interchange is a complex intertwining of two Interstate expressways (I-294 and I-290), two strategic regional arterials (IL Route 64 and US Route 20) and several frontage roads. There are numerous bridges, underpasses, ramps, connector roads, and traffic signals that facilitate the movement of traffic along and between the various routes. Critical issues include local agency and key business coordination, land acquisition support, coordination between IDOT, ISTHA, Cook County and DuPage County as well as Northlake and Elmhurst. Major design issues included significant drainage improvements to address severe localized flooding, staging for multiple structures, access control modifications and overall maintenance of traffic for this highly congested corridor.

Kings Drive Reconstruction & Storm Sewer Replacement, Bolingbrook, IL - Phase I study and Phase II design for the reconstruction, widening and extension of Kings Road from Rodeo Drive to Remington Boulevard in the City of Bolingbrook. The scope of the improvement included widening the roadway from a 2-lane (one lane in each direction) cross-section to a 2-lane cross section with grassy median and on-street bicycle accommodations. Project also included drainage analysis and design of a closed drainage system, storm sewer replacement, sidewalk, and street lighting. Extensive coordination between the City of Bolingbrook, Will County, Bolingbrook Golf Club, adjacent land developers and the designers for a proposed roundabout at the north project limit was required.

US Route 6 at I-55 East Frontage Road, Channahon, IL - Planning and design engineering services for the intersection improvement of US Route 6 at the East I-55 Frontage Road at Illinois Route 6 including the installation of traffic signals, street lighting, drainage facilities, and water main relocation. The work included intersection design studies, drainage studies, geotechnical investigation and the preparation of contract plans and specifications. The project required coordination with IDOT to secure permitting.

TR 137 over Polecat Creek, Coles County, IL - Design Engineer on the Phase I and II planning and design services for the replacement of the structure carrying TR 137 over Polecat Creek in Coles County, IL. Services include: survey for horizontal and vertical control, cross-sections and drainage topography, hydraulic analysis and report to size the structure opening, roadway profile correction to eliminate ramp over bridge and final structure/roadway plans.

CH5 over Hurricane Creek, Coles County Highway Department, Coles County, IL - Design Engineer providing Planning and Design services for the bridge and box culvert replacements carrying CH 5 (Hutton Rd) over Hurricane Creek in Coles County, west of Hutton. The work included providing survey, geotechnical, hydraulic analysis services for the planning portion of the project. Design services included completing structural and roadway design, and contract specifications for a local agency letting.

IL-43 (Harlem Ave) over MWRDGC RR (PTB 163-13), Cook County, IL - Staff Engineer providing Phase II on the project which included designing a replacement for the northbound bridge including a soldier pile soil retention system. Services included development of preliminary and

final GP&E sheets for the TS&L, conceptual design of soldier pile soil retention system, and general QAQC for the project.

Lawrenceville Sidewalk Extension Phase I and II, Lawrenceville, IL - This project consisted of preparing a conceptual plan for extending the sidewalk along the south side of West Haven Road from the Lawrenceville County Hospital to Lexington Street. There was no existing sidewalk in this area and pedestrians were walking in the roadway. The final plan was to connect with the existing sidewalk at the hospital and extend it down to Lexington Street. This included new sidewalk along the south side of the road, removing and replacing existing driveway entrance, and constructing them to meet all the current ADA standards. Services included the development of construction plans and specifications, securing a permit from IDOT, and bidding the project. The project is using all local funding.

Isabella Street Bridge Rehabilitation, Evanston, IL - Design Engineer providing Phase I and II design services for the rehabilitation of the Isabella Street Bridge over the North Shore Channel. The existing bridge is a two lane, three span, PPC I-Beam and concrete deck panel structure with a concrete overlay. The proposed improvements include scarification and patching of the existing deck overlay, reconstruction of the bridge joints, rehabilitation of the approach pavements and miscellaneous substructure and bridge rail repairs.

IL 53 at N. River Road, Intersection Improvements, Wilmington, IL - Staff Engineer providing Phase I and II engineering services for the City of Wilmington for the widening and installation of traffic signals at the intersection of River Road and IL Route 53. The scope of the improvement included widening of the existing River Road three lane cross section to provide a five lane cross section at the intersection of IL Route 53 (one right turn lane, two left turn lanes and two receiving lanes). Auxiliary lanes were also proposed along IL Route 53 including left and free flow right turn lanes to River Road and an acceleration lane for northbound IL Route 53. The project design used the latest 3-D modeling software. The project required coordination with the Federal Highway Administration (FHWA), Illinois Department of Transportation (IDOT), Will County, and the City of Wilmington for permitting related to roadway improvements.

M-8 Tollway Maintenance Facility, Naperville, IL - Design engineering services were provided for the Tollway's new M-8 Maintenance Facility. ESI provided extensive drainage services, constructability review and lighting & electrical services for the facility which is located in Naperville, Illinois. These services included storm sewer design, water quality and detention basin design, and lighting analysis and design.

Milwaukee Avenue Streetscape, Niles, IL - ESI was contracted by the Village of Niles to provide Phase 1 design engineering services for the analysis, design and upgrade of shared-use path, sidewalk, and ROW features along Milwaukee Avenue from Monroe Street to Greenwood Avenue. Sidewalk and shared-use path was out of ADA compliance in numerous locations along the 2.3-mile, mostly commercial/business, corridor. As part of the project ADA ramp design details were required for each ramp to ensure proper design and accessibility. Significant public coordination with local businesses and stakeholders was also required to ensure that the project meets and exceeds the expectations of not only the Village, but local businesses and residents.

Macomb Armory Lighting, Macomb, IL - ESI Consultants, Ltd. provided site lighting and electrical design for the 5.8 acre Armory site in Macomb, Illinois. The work included retrofitting the exterior building lighting with new energy efficient LED lighting fixtures, replacing the existing parking lot and fuel island light poles and fixtures with new LED fixtures and addition of new lighting for the expanded parking area that included foundations, poles and LED fixtures. Services included development of site photometrics to determine proper lighting levels and fixture layout, circuiting of the building and site lighting and development of pole and foundation details.

I-55 Weigh Stations, Bolingbrook, IL The project included the design and preparation of construction plans specifications and estimates for the replacement of windows and doors at the Northbound and Southbound Weigh Station facilities along I-55 in Will County. Site work improvements included repairs to sidewalks and installation of new ADA accessible walkways to facilitate access to the buildings from the truck parking areas. The project also included an investigation and repairs to the septic system electrical and pumps for the northbound station.

Molly Barletta

Senior Environmental Scientist/Planner



Education

- Fontbonne University, Master of Business Administration, 2009
- Iowa State University, Bachelor of Science - Community and Regional Planning, 2000

Registrations & Certifications

- RABQSA EMS ISO 14001 Certified

Affiliations & Continuing Education

- American Planning Association (APA)
- Transportation Engineer's Association of Metropolitan St. Louis (TEAM)
- Women's Transportation Seminar (WTS)
- NEPA Refresher 2015
- NEPA and Transportation Decision Making 2013 (NHI)
- NEPA and Transportation Decision Making 2013 (FHWA)
- NEPA and the INDOT Transportation Decision Making Process 2013
- Environmental Management Systems Lead Auditor Training 2011
- Creating and Editing Parcels in ArcGIS 2006
- Managing Environmental and Project Development Process 2004
- Categorical Exclusion Training 2001

Professional Summary

Ms. Barletta joined Kaskaskia Engineering Group, LLC (KEG) in 2013 and has over 18 years of experience in transportation, military, and environmental planning for urban, regional, municipal, and federal agencies; land development; and mixed use projects. She has significant experience in managing, writing, and reviewing National Environmental Policy Act (NEPA) documents; evaluating government planning-related documents and reports; comprehensive knowledge of business development, project budgeting, contracts, design development, and quality control; client presentations and stakeholder mediation with federal government and military clients; and possesses the ability to translate information, develop insights, and work alongside clients at project sites.

Project Experience

Calumet-Sag Tributary C, Chicago Metropolitan Water Reclamation District - Senior Environmental Scientist - Provided environmental support services for the preparation of a permit review memo summarizing regulatory requirements for the project, permit agency coordination and meetings; and conducting a Phase I ESA, including soil sampling and Phase 1 Report summarizing the data. Ms. Barletta assisted in a site reconnaissance for the ESA and a data collection visit to delineate waters of the U.S., as well as QA/QC of the Ecological Review Report, which documented wetlands, endangered and threatened species, and cultural resources within the project area.

IL 47 North Improvement Study (CE II), Kane/Kendall Counties, IL - Project Manager - Responsible for preparation of an CE II for improvements to a 6.5-mile stretch of IL Route 47 from Kennedy Road north of Yorkville to Cross Street in Sugar Grove, Illinois. The improvements are necessary to accommodate local and regional planning efforts and to address existing deficiencies. Specifically, Ms. Barletta is responsible for addressing impacts to cultural resources, floodplains, air quality, and prime farmland. Impacts will be addressed via a Section 4(f)/De Minimis Evaluation for the cultural resources, coordination with USDA to complete the AD-1006 for impacts to prime farmland, and the development of exhibits depicting sensitive areas and receptors for impacts to floodplains and air quality, respectively.

IL 83 and IL 137 Phase I Services, Lake County, IL - Project Manager - Responsible for the preparation of an Environmental Assessment for the improvement of IL 83 from IL 132 to IL 120 and IL 137 from IL 83 to Peterson Road in Lake County, Illinois, to accommodate existing and projected 2040 travel demands throughout the project limits. Specific duties include the collection, compilation, review, and evaluation of environmental data into a project database; development of the feasible alternatives analysis matrix and resulting build alternative comprehensive impacts; and drafting the Environmental Assessment utilizing IDOT CSS/Public Involvement techniques.

Edens Spur-Roadway and Bridge Reconstruction, Northbrook, IL - Senior Environmental Scientist - Provided environmental documentation services in support of the rehabilitation of mainline pavement on I-94 (Edens Spur) and the associated Frontage Road, and deck replacement/rehabilitation or full replacement of six bridges in Northbrook, IL. Since the project was under the jurisdiction of the Tri-State Tollway, all Tollway manuals, standards, and specifications were used on this project. Ms. Barletta's tasks included assisting in the successful completion of the Tollway's ESIS-Parts I and II, wetland delineation report and permitting, and landscaping and erosion control plans. Additionally, Ms. Barletta's tasks included leading the successful completion and approval of the project's Preliminary Environmental Site Assessment (PESA), which included the analysis of 50 potential sites with recognized environmental conditions.

Client:
Village of Westmont

Dates:
2016-Present

Contact:
Noriel Noriega
Asst. Director of Public Works
(630) 981-6295
nnoriega@westmont.il.gov

STORMWATER REVIEW SERVICES

WESTMONT, ILLINOIS

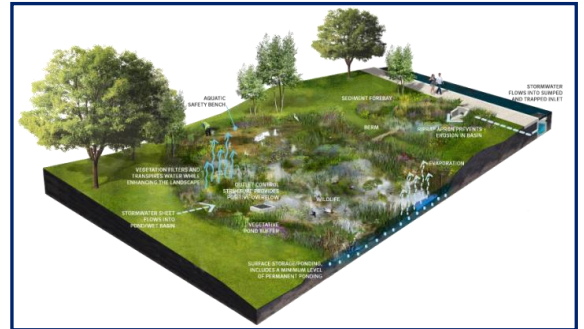
ESI provides stormwater permit review services on behalf of the Village of Westmont for compliance with the DuPage County Stormwater ordinance. This includes review of all development plans submitted to the Village requiring a DuPage County stormwater review and permitting. Since 2004, the project team has processed over 300 stormwater permit applications for the Village. Permit reviews include review of developer plans for compliance with the Village and County stormwater ordinance, identification of special management areas including floodplains and wetlands, review of the adequacy of the design to meet the technical requirements of the Village and County, assessment of site BMPs and stormwater management, public involvement and direction to the developers in how to effectively manage floodplain and wetlands issues.



CASS AVENUE REGIONAL STORMWATER DETENTION BASIN

WESTMONT, ILLINOIS

ESI was contracted by the Village of Westmont to provide Phase 1 and 2 (and subsequently Phase 3) engineering services for the creation of a regional detention facility along Cass Avenue in the Village of Westmont. The Village owns several adjacent parcels of land that are approximately 4.4 acres in total area. The proposed basin will be a wetland bottom basin and provide water quality and detention storage for future developments within the Village. As part of this project ESI performed hydraulic analysis and modelling using XP-SWMM software, best management practice design, green infrastructure, sub-contractor coordination, preparation of construction plans, specifications, cost estimates, wetland mitigation, permitting, and parking lot design. ESI is currently provided Phase III construction engineering.



Client:
Village of Westmont

Dates:
2016-Present

Contact:
Noriel Noriega
Asst. Director of Public Works
(630) 981-6295
nnoriega@westmont.il.gov

YORK ROAD - STORMWATER PRELIMINARY & FINAL DESIGN

DUPAGE COUNTY, ILLINOIS

Under contract to provide on-call drainage engineering services for DuPage County Department of Transportation. DuPage County was receiving complaints regarding the impact of flooding caused by an existing ditch during moderate storm events. As part of this project the County desired to re-route the ditch into a storm sewer system located around the perimeter of the property. In order for the improvement to be allowed hydraulic analysis had to be performed in order to ensure that the time of concentration, peak runoff, and runoff volume were not increased downstream. XP-SWMM modeling software was used during this project. Once all stake-holders agreed to the solution, Phase II plans, specifications, and estimates will be prepared for bidding purposes. Our responsibilities included analyzing the sub-basin, hydraulic calculations, drainage design, public involvement, and creating cost effective solutions to the problem.

Client:
DuPage Co. Div. of
Transportation

Dates:
2016-2017

Contact:
Paul Krueger
Chief Highway Engineer
(630) 407-6914
Paul.krueger@dupageco.org

Client:
DuPage Co. Div. of
Transportation

Dates:
2016-2017

Contact:
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MEYERS ROAD - DRAINAGE ASSESSMENT

DUPAGE COUNTY, ILLINOIS

Under contract to provide on-call drainage engineering services for DuPage County Department of Transportation. Successfully completed the Meyers Road Drainage Study which included analysis of overland flooding and surcharging storm sewers, site investigation and drainage report. Site survey was performed and an XP-SWMM model was created to determine the hydraulic capacity and efficiency of the existing storm sewer and the origin of the flooding issues experienced along Meyers Road. Over 18 alternatives were modeled, with 3 recommended alternatives presented to the County. Our responsibilities included analyzing the sub-basin, identifying the deficiency and creating cost effective solutions to the problem.

CENTENNIAL PARK ROAD, CONNECTIVITY AND DRAINAGE

LEMONT, ILLINOIS

Planning, Design and Construction Engineering services were provided for this federally funded (Safe Routes to Schools) project. ESI was charged with developing a network of paths to connect the many facilities of Lemont Park District's Centennial Park. This comprehensive recreation facility provides many different recreation activities spread out over 75 acres including the Centennial Community Center; outdoor pool; lighted baseball fields; tennis courts; basketball courts; soccer fields; picnic areas; running path; a butterfly garden; "The CORE" (Fitness and Aquatic Facility); "Miracle Field" (a totally handicap accessible ball field), a Skate Park and maintenance building. The project included extending bicycle paths, adding new walking paths and multi-use paths, improving ADA access and developing the parks overall internal connectivity between facilities.



Key issues addressed included safety improvements for pedestrian access including creation of on street parking and drop off zones, relocation of a bicycle / multiuse path to enhance traffic calming and improve safety, implementation of a streetscape standard with landscaping, ADA improvements, decorative energy efficient lighting and pockets parks within the park setting. The project also included enhancements to the parking areas and drainage improvements for the areas around the baseball fields and soccer fields.

The project incorporated the relocation of the entrance in order to accommodate a boulevard concept along with the installation of walking trails, lighting, a drop-off lane, a left turn lane, and parking lot alterations as well as solving the drainage problems. Working with the Park District, Village and IDOT, Safe Routes to School Funds (SRF) were re-allocated to this project to allow for additional safety benefits such as improved lighting, loading zone drop off for the pre-school and relocation of the multi-use path to minimize conflicts with the busy entrance.

Client:
Lemont Park District

Dates:
2012-2017

Contact:
Louise Egofski
Executive Director
(630) 257-6787 x3010
Louise-egofski@
lemontparkdistrict.org

EXPERIENCE AND REFERENCES

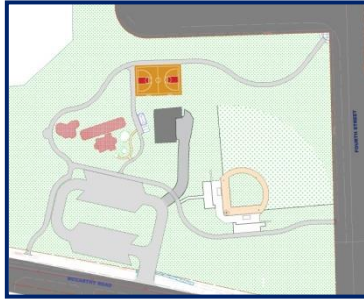
Client:
Lemont Park District

Dates:
2015-2017

Contact:
Louise Egofski
Executive Director
(630) 257-6787 x3010
Louise-egofski@
lemontparkdistrict.org

NORTHVIEW PARK DRAINAGE IMPROVEMENTS LEMONT, ILLINOIS

The 5.69 acre Northview Park project included creating site development plans for the proposed park improvements. The improvements included new playground facilities, restrooms, parking lot, detention facility, watermain and sewer system. The proposed storm sewer system and detention facility were designed to meet the MWRD WMO requirements. A permeable parking lot was used to provide the required volume control storage. Hydrologic analyses were performed using HEC-HMS hydrologic model. StormCAD was used for the proposed storm sewer analysis.



STORMWATER MASTER PLAN & VILLAGE ENGINEERING SERVICES LONG GROVE, ILLINOIS

Through 2014 ESI served as the Village Engineer for Long Grove. As Village Engineer ESI was responsible for stormwater management design, flood mitigation and assessment, planning design and construction reviews related to residential and commercial subdivisions/developments for compliance with Development Code and Lake County Stormwater Management Commission regulations, transportation engineering, and general on-call engineering services. Key issues included development and updating of NPDES Phase 2 Compliance plans, evaluation of Village flooding issues, review of budgets, traffic evaluation, downtown streetscape planning, coordination with various other agencies (IDOT, SMC, LCDH, LCPW, LCDOT, etc), design and construction of the Village's pavement maintenance program including development of a modified pavement management system, and biannual bridge inspections. Also directed miscellaneous engineering design projects including utility improvements, streambank stabilization, surveys and plat preparation and restoration of the Robert Parker Coffin Covered Bridge.



Client:
Village of Long Grove

Dates:
2005-2014

Contact:
David Lothspeich
Village Manager
(847) 634-9440
dlothspeich@longgroveil.gov

GENEVA ROAD - ON-CALL STORMWATER / DRAINAGE ENGINEERING DUPAGE COUNTY, ILLINOIS

Under contract to provide on-call drainage engineering services for DuPage County Department of Transportation. A property along Geneva Road in DuPage County complained of significant flooding during intense rain events. As part of this project the County desired have ESI study the condition and capacity of the existing system. Our responsibilities included analyzing the sub-basin, hydraulic calculations, drainage analysis, and creating cost effective solutions to the problem.

Client:
DuPage Co. Div. of
Transportation

Dates:
2017-2018

Contact:
Paul Krueger
Chief Highway Engineer
(630) 407-6914
Paul.krueger@dupageco.org

EXPERIENCE AND REFERENCES

CROWN ESTATES – DRAINAGE STUDY

DUPAGE COUNTY, ILLINOIS

Client:
DuPage Co. Div. of
Transportation

Dates:
2015

Contact:
Paul Krueger
Chief Highway Engineer
(630) 407-6914
Paul.krueger@dupageco.org

ESI Consultants, Ltd., was retained by DuPage County to investigate a portion of the existing storm sewer system in the Crown Estates subdivision. The scope of the drainage study was to investigate the flooding causes and recommend potential solutions for a new outlet connection for the Victory Parkway storm sewer. The storm sewer system consisted of three branches. They tied to the same outfall and discharged into a ditch which eventually emptied into Addison Creek. The total drainage area was approximately 83.5 acres in size primarily consisting of single-family houses, schoolyards and buildings.

Hydraulic models were developed to analyze both the existing storm sewer system and proposed drainage improvements. The existing drainage problems were identified by the drainage study and 3 alternative solutions were proposed to address the flooding problems. The proposed solutions increased the storm sewer system capacity by constructing a new 54" storm sewer branch and a new outlet structure at its outfall to the ditch. ESI was awarded the contract by DuPage County to design the proposed drainage solution.



NORTH AVENUE AT COUNTY LINE ROAD / I-294 / I-290, DRAINAGE IMPROVEMENTS

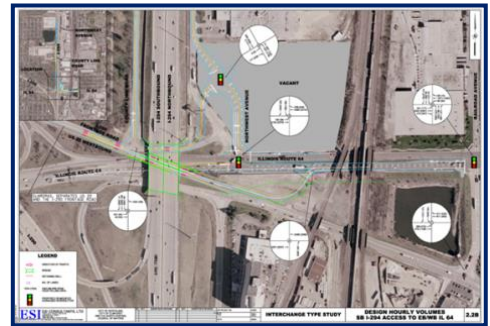
NORTHLAKE, ILLINOIS

Client:
City of Northlake

Dates:
2011-Present

Contact:
Jeffrey Sherwin
Mayor
(708) 343-8700
northlakemayor@comcast.net

This Award Winning project included development of Phase 2 plans, specifications and cost estimates for this federally funded project (CMAQ) that included over 5 miles of local roadway work as well as the addition of a new exit ramp from southbound I-294. Significant drainage improvements were required to address serious stormwater issues: five proposed detention basins providing over 20 acre-feet of detention; bio-swales, infiltration basins and furrows for water quality; and a re-designed and re-located outfall into Doyle Reservoir.



Problem: Severe localized flooding is experienced along North Avenue at a railroad bridge crossing. This flooding causes North Avenue, a major arterial, to shut down and has a domino effect on the adjacent roadway system. Urbanization has caused little open space to be available for the improvements necessary to significantly improve the situation.

Solution: Through coordination with IDOT, the Illinois Tollway, Cook County, Northlake, and Elmhurst a project plan was put in place to utilize the interchange infields to propose adequate detention, and construct an upgraded storm sewer system with up to 72-inch diameter pipes, to provide a 50-year level of protection to the roadway. ESI Consultants used XP-SWMM and StormCAD to finalize the design. In addition, by adding bio-swales and water quality furrows, MWRDs detention and water quality requirements are met and exceeded as part of this project.

EXPERIENCE AND REFERENCES

Client:
City of St. Charles

Dates:
2006-2011

Contact:
Christopher Tiedt*
(847)931-6124

*Mr. Tiedt now works for
the City of Elgin

FIRST STREET REDEVELOPMENT

ST. CHARLES, ILLINOIS

This was a five block redevelopment project within a tax increment financing district. This redevelopment project is adjacent to the Fox River in the downtown area. Much of the project was located within the 100 year floodplain limits and therefore compensatory storage was required. This volume was provided in a nearby park area owned by the City. As a part of this project, a riverwalk along the river was proposed.



As two major overland flow routes for hundreds of upstream residential areas were being blocked, it was important to determine additional routes for this runoff that would not negatively impact the new or existing businesses along the river. This appears to have been successfully performed as flooding has not been an issue during the large storm events that have occurred over the last few years.

STORMWATER MANAGEMENT IMPROVEMENTS-MATTOON ARMORY

MATTOON, ILLINOIS

The Armory parking areas were flat and had few, small drainage pipes. The on-site drainage system connected to the undersized drainage system in the public street system owned by the City of Mattoon. During larger rain events, it was common for water to enter the armory. This project included the design of a new stormwater management system that included a dry detention basin to reduce the rate of discharge into the City's system and a drainage system sized to collect as much water from the parking areas as possible. The size of the pipes was restricted because of the limited elevation difference from the City's drainage system and the site elevations. The stormwater management system was designed in accordance with the City ordinances.

In addition to the drainage system in the parking lots, the project included the design of a pipe system to collect the water from the downspouts on the armory and connect them to the new drainage system.

This project also included the reconstruction and construction of parking areas for military and personnel vehicles.

STORMWATER MANAGEMENT IMPROVEMENTS-PARIS ARMORY

PARIS, ILLINOIS

The Department of Military Affairs renovated a previous work camp facility into a military facility for storing and maintaining military vehicles. As a part of this project, ESI designed a stormwater management system that included a swale/ditch system to channel the sheet flow from the impervious areas and direct the runoff to the dry detention facility. The site was extremely flat and the drainage was very poor in the surrounding area. It was discovered that previously shallow depressional areas had been created on the site to accept runoff from the public road system, which added to the standing water on the facility.

KINGS DRIVE RECONSTRUCTION

BOLINGBROOK, ILLINOIS

Design engineering services were provided for the widening and reconstruction of Kings Road from Rodeo Drive to Remington Boulevard in Bolingbrook, a length of approximately 9,000 feet. The project included reconfiguring a two-lane, 20 foot wide roadway into a three-lane roadway, with one lane (including four foot bike lane) in each direction, a 15 foot raised

Client:
Capitol Development Board

Dates:
2015

Contact:
John Begue
(217) 524-4208
John.begue@illinois.gov

Client:
Capitol Development Board

Dates:
2015

Contact:
Matt Williams
(217) 524-0028
Matthew.williams@illinois.gov

EXPERIENCE AND REFERENCES

Client:
Village of Bolingbrook

Dates:
2016-2017

Contact:
Tom Pawlowicz
(630) 226-8851
tpawlowicz@bolingbrook.com

median, curb & gutter, closed drainage system, roadway lighting, and sidewalks. Project also included topographic survey and public coordination. On the north project limit the improvement will intersect with a roundabout intersection at Kings Road and Rodeo Drive. The design had to incorporate future development of the farmland to the east to a highly industrial and commercial land-use. This was incorporated into the traffic study and the drainage design.

A portion of the roadway is located within the Zone A flood plain. Special care to ensure that no net fill within the flood plain was proposed or that proper cut was incorporated into the design had to be taken due to the Special Management Area. Adjacent wetland associated with a detention pond was also located within the project limits. Significant coordination with relevant agencies was performed as part of this project.

A traffic study was performed to assess the feasibility of proposing a roundabout at the new Remington Boulevard/Kings Road intersection. Significant stakeholder coordination with the adjacent Bolingbrook Golf Club was required to ensure a successful design project and construction staging.

MENARD'S OFF-SITE SANITARY SEWER & ROADWAY LONG GROVE, ILLINOIS

The Menards site development includes an off-site sanitary sewer, and associated roadway improvements proposed for the Menards development at the intersection of Illinois Route 53 and Lake Cook Road in the Village of Long Grove. A sanitary sewer requirement was determined to run down the village streets adjacent to the development site for approximately 3.5 miles. Review, permitting, and coordination were required with multiple agencies involved. Due to the sewer design requirement, the project also required considerable roadway design and construction engineering. Wetland conservancy district issues exist along the entire length of the project making environmental coordination a big factor.

The site development itself had considerable water, sanitary, and storm sewer lines for servicing the Menards retail store facility and several out lots on the site. The site contains detention to handle the site stormwater. At the same time, a fire protection system was designed for the site and the adjacent park facility. Coordinating agencies were Lake County Stormwater Management Commission, Long Grove Fire District, and the Village of Long Grove thus ensuring all issues were addressed properly.



Client:
Village of Long Grove

Dates:
2005-2013

Contact:
David Lothspeich
Village Manager
(847) 634-9440
dlothspeich@longgroveil.gov

THE CONSERVANCY STORMWATER MANAGEMENT PROJECT GILBERTS, ILLINOIS

This project involved the analysis of over 900 acres of land to be developed as part of the Conservancy Development in Gilberts, Illinois. ESI was contracted to analyze the Kishwaukee River and its tributaries in its existing condition and proposed condition after development. ESI was to locate areas for detention and compensatory storage in excess of 450 acre-feet over nine different proposed neighborhoods. Special management areas included wetlands, flood plain, floodway, and a turtle conservation area.

In order to provide this analysis, HEC-RAS and HEC-1 modeling software was used to model the river flood profile during the 10-year and 100-year events.

Client:
Gilberts Development LLC

Dates:
2017-Present

Contact:
George Kanagin
Owner
(847) 514-5475
gkhawk9757@aol.com