ORLAND PARK

PROPOSAL

TINLEY CREEK
STREAMBANK STABILIZATION

RFP #21-015 | March 29, 2021

Submitted to:
Village of Orland Park, Illinois
Office of the Village Clerk
14700 South Ravinia Avenue, Orland Park, Illinois 60462

Submitted by:
Michael Baker
INTERNATIONAL

Michael Baker INTERNATIONAL MBAKERINTL.COM

200 West Adams Street, Suite 1800 | Chicago, IL 60606 | (312) 707-8770

Section 1 | Cover Letter

March 29, 2021

200 W. Adams Street, Suite 1800
Chicago, IL 60606
p: 312.707.8770

Mr. John Mehalek
Office of the Village Clerk
Village of Orland Park
14700 South Ravinia Avenue
Orland Park, IL 60462

Re: RFP #21-015 Tinley Creek Streambank Stabilization

Dear Mr. Mehalek and Members of the Selection Committee:

Michael Baker International, Inc. (Michael Baker) is pleased to submit this proposal to provide professional engineering services for the Tinley Creek Streambank Stabilization project. We have assembled a team of highly qualified professionals for this exciting opportunity to help deliver this stream restoration project in the Village of Orland Park. Our team's unique talents for this project include the following:

Unique Knowledge of the Project Area and Design Constraints | Our team provided the original streambank stabilization design for Tinley Creek in 2014 and is extremely familiar with the project site and design constraints. Our team will work with the Village and MWRD to design a project that meets MWRD's requirements and minimizes impacts to property owners.

Stream Restoration Experts | With a multi-disciplinary team comprised of local experts, supported by national expertise, our team brings the depth of knowledge required to complete this project successfully on time and within budget.

Experienced Project Manager | Tatiana Papakos, PE, CFM, brings over 20 years of experience in planning, designing, and managing ecosystem restoration projects. In addition, her familiarity with MWRD's design procedures and requirements, as demonstrated on recent streambank stabilization projects with MWRD, will allow us to hit the ground running upon notice-to-proceed.

Budget-Conscious Solutions | We continuously strive to propose cost-effective solutions that stay within the Village of Orland Park's and MWRD's programmed budgets. Our talented engineers maintain a focus on the construction budget throughout the design phase.

We are excited for the opportunity to partner with the Village of Orland Park to develop flood-control solutions in the County where we live, work, and play. We are ready, willing, and able to begin work immediately and appreciate the opportunity to highlight our credentials showing how we can best help the Village achieve their goals on this project.

Sincerely,
Michael Baker International, Inc.

Joseph Catalano, PE| Vice President, Office Executive
312.575.3923 | Joseph.Catalano@mbakerintl.com
Authorized principal of the firm*

Michael Baker INTERNATIONAL MBAKERINTL.COM

200 West Adams Street, Suite 1800 | Chicago, IL 60606 | (312) 707-8770

Section 2 | Qualifications

EXPERIENCE

Michael Baker INTERNATIONAL

Founded in 1940, Michael Baker) has been providing professional architectural/engineering (A/E) services to clients across the country. Michael Baker is a leading global provider of engineering and consulting services that includes transportation, structural, water resources, environmental planning, permitting, public involvement, and construction oversight. We have more than 35 years of water resources experience with both public and private sector clients. Our reputation for excellence ensures repeat clients year after year. ***We are nationally ranked as a top 10 design firm in water/environmental engineering in the U.S. by Engineering News-Record (ENR).***

Michael Baker has been working in the greater Chicago area for over 30 years for clients such as MWRD, CMAP, IDOT, IDNR, northeastern counties, and several municipalities. These services include hydrology and hydraulic analyses, stormwater management, flood control, streambank stabilization analysis and final design, drainage, dam removals, and floodplain mapping services. Our team member's past experience working on rapid response local drainage projects, as well as our recent work for MWRD on streambank stabilization provide us with an intimate knowledge of project goals and requirements. Together, we will work to provide cost-effective stream restoration solutions that mitigate erosion and flood hazards, while maintaining focus on the Village's infrastructure, safety, and residential property impacted by the project. We have a history of successfully managing and delivering projects for MWRD and local municipalities, as highlighted throughout this proposal. Building upon our experience, the Village will benefit from the continuity and proven client loyalty of our leadership team, and our ability to begin work immediately. Orland Park can count on our team to act as a true extension of your staff. We are proud of the services we have provided to our clients on past stream restoration projects and have included reference information in Section 5.

Our water resource services include:

- H&H Modeling
- Storm Drain Facility Design
- Floodplain Management Programs
- Sediment Transport and Fluvial Systems
- Wetlands Creation and Habitat Restoration
- Floodplain Mapping and Risk Assessment
- Streambank Protection
- Erosion Control Programs
- Watershed and Stream Corridor Planning
- Flood Damage Assessment
- Stormwater Quality Control and NPDES Compliance
- Urban Drainage Facilities and Master Planning
- Stream Restoration
- Regional Flood Protection Systems
- Low Impact Development

Subconsultant Team

Our team of subconsultants were selected for their reputation and ability to fully address the performance criteria and anticipated work, as well as their past working relationship with Michael Baker. Our staff have developed strong working relationships with our subconsultants through our history of teaming together. The firms listed below will complement our in-house expertise to provide the Village of Orland Park with a high quality, successful project, completed on time and budget. All of our team members have the technical expertise, available personnel, and a record of performance in their anticipated roles. Our team is comprised of Minority, Women, and Small Business Enterprises (M/W/SBE) that are experts in their fields. We are dedicated to providing our M/W/SBE partners with meaningful roles on this contract.

DB Sterlin Consultants, Inc. (DB Sterlin) | Survey

DB Sterlin is a DBE/MBE-certified firm based in Chicago, Illinois founded in 1997. As a full-service transportation consulting and design firm specializing in surveying, highways, bridges/structures, airports, utilities, railways, tunnels and public sewer and water, they offer consulting services to private and public sectors in a wide range of disciplines: land development, transportation planning, traffic operations, roadway design, structures, water resources, environmental, aviation, and urban redevelopment. For this contract, DB Sterlin will provide land surveying services just as they have throughout the State of Illinois for commercial and residential developments, airports, buildings, highways, bridges, utilities, waterways, and property acquisitions. DB Sterlin field staff consists of experienced, knowledgeable personnel committed to the highest level of accuracy. They have significant experience in performing boundary surveys, topographic surveys, ALTA/ACSM Land Title Surveys, route surveys, construction staking, calculations, and records research for a variety of Federal, State, and Municipal clients including the MWRD. They use state-of-the-art equipment and software for all surveying projects to provide cost effective, accurate and timely services.

Wang Engineering, Inc. (Wang) | Geotechnical Engineering

Established in 1982, Wang specializes in geotechnical engineering, construction inspection, and materials testing services. Over the past 30 years, Wang has provided these services to a wide range of state and federal governments, private, and public sector clients throughout the United States and in several countries overseas. Wang is a certified Disadvantaged Business Enterprise (DBE) in Illinois and is also certified as a Minority Business Enterprise (MBE) by the City of Chicago. For this contract, Wang will provide geotechnical and testing engineering services. Wang is prequalified to provide Geotechnical Engineering to perform Construction Inspection and Quality Assurance Testing services by the Illinois Department of Transportation (IDOT). Their materials testing laboratory is accredited by the American Association of State Highway Transportation Officials (AASHTO) Materials Reference Laboratory (AMRL) and the Concrete and Cement Reference Laboratory (CCRL).

Aqua Vitae | Natural Channel Design

Aqua Vitae, meaning “Water and Life,” was founded in 2014 by Gary Paradoski, who has over 25 years of civil engineering experience. Aqua Vitae specializes in green infrastructure, natural resources, and water quality. Their services include the design of erosion and sediment control, BMPs, green infrastructure, hydrologic and hydraulic studies, water quality modeling and analyses, and sustainable stormwater management. Aqua Vitae’s firm qualifications include GIS analysis, data base creation and management, GIS/GPS mapping, CADD, geography, cartography, spatial analyses, remote sensing, and land surveying for natural resources, infrastructure, and water quality projects. Aqua Vitae is a fast growing company partially due to the Veteran Owned Small Business program of the Illinois Tollway. Mentor-Protégé relationships with large engineering firms has helped Aqua Vitae increase its capacity for design and CAD. In response to new Veteran Set-Aside programs, Aqua Vitae is preparing to expand its capabilities for specific projects for sewage districts. For this contract, Aqua Vitae will provide natural channel design services. Aqua Vitae is familiar with Tinley Creek Streambank Stabilization project, having worked on this project in the past, including designing the natural channel and in-stream structures for stabilization at Tinley Creek. Their experience also includes utility design, stormwater management, stream assessments, watershed planning, landscape and vegetation, asset management, and overall cartographic and map design. Multiple software and tools are utilized in their projects, including MicroStation, AutoCAD, ArcGIS, as well as ArcHydro.

WBK Engineering (WBK) | Environmental Support

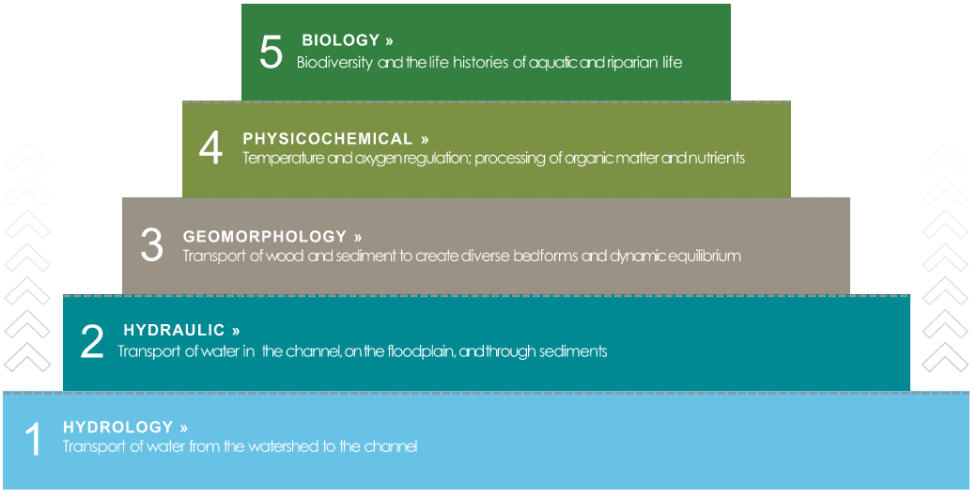
WBK Engineering, LLC is a tribally-owned SBA 8(a) disadvantaged small business, staffed with an experienced group of recognized experts in civil, water resources, transportation and structural engineering and natural resource management. The staff members of WBK are recognized experts in the areas of: Municipal Engineering, Stormwater Management, Flood Mitigation Design and Permitting, Wetland & Environmental Resources Identification, Permitting and Restoration, Transportation & Structural Engineering, Planning of Site Developments for private and municipal clients who desire engineering services that integrate client objectives with the built and natural environments. For this contract, WBK will provide environmental support needed for permitting and planting design for restoration. WBK has provided survey, wetland assessments, engineering design, restoration plans and specifications, permitting, grant application assistance, and construction oversight for many streambank stabilization projects. Improvements have included structural and bio-engineered solutions consisting of gabion walls, vegetated stone toe stabilization, stream barbs, and limestone shelves for fishing and river access. We have worked to restore riverine communities and adjacent wetlands through naturalization of a stream channel. Best management practices (BMP) utilized include bio-swales and rain gardens to improve stormwater quality. WBK has attended public meetings for various projects to provide information on stream stabilization and funding sources to homeowners and stakeholders. WBK also leads the post-construction monitoring, reporting, and permit agency and contractor coordination for the projects to successfully meet performance standards and achieve project sign off.

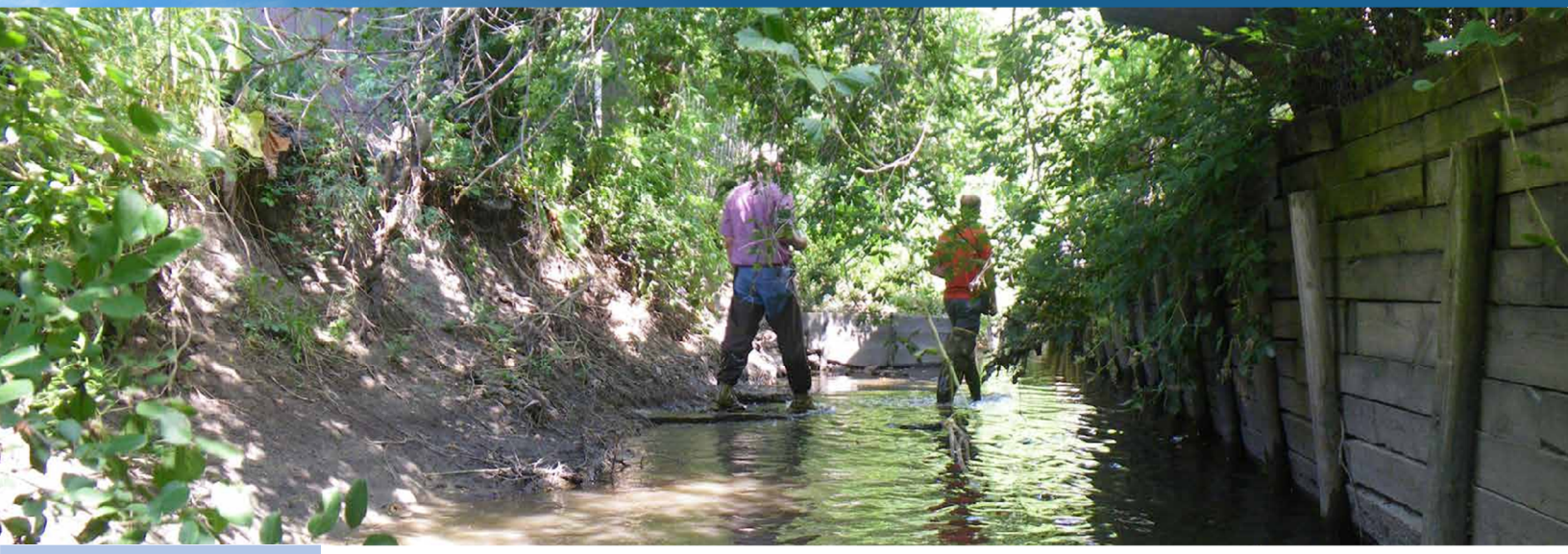
Specialized Experience - Stream Restoration Services

Michael Baker is a national leader in Ecosystem Restoration projects for both urban and rural systems. Our ecosystem restoration expertise covers a broad range of ecosystems including streams, wetlands, riparian/coastal zones, open water systems, meadows, forest, and wildlife habitat. Michael Baker International has restored a variety of habitat types throughout the United States where restoration and other goals, such as recreation, habitat, water quality, and education were obtained.

We have extensive experience with natural channel design and biological stabilization techniques, leading to successful stream and wetlands projects. Completed projects range from ultra-urban to rural settings and have included gravel bed and sand bed systems, ranging in size from small tributaries to large rivers. Our approach integrates conveyance, flood control, floodplain management, water quality, and open space goals. This integration protects developed areas, preserves waterways, and expands public access to wildlife and recreational resources.

Our recent streambank stabilization project experience includes: Midlothian Creek Streambank Stabilization, Calumet Union Drainage Ditch Streambank Stabilization, Tinley Creek Streambank Stabilization, Engineering Feasibility Analysis for Streambank Stabilization, Natural Stream Channel Design and Restoration Program, and Dam Removals and Stream Restoration. These projects are described in detail in the following pages.





Client
Metropolitan Water Reclamation District
111 E. Erie Street
Chicago, IL 60611

Contact
Pedro Ortiz
312.751.3191
ortizp@mwrd.org

Project Duration
2011 - 2014

Key Project Features
Surveying (DB Sterlin)
Geotechnical Analysis (Wang)
Natural Channel Design
Hydraulic Modeling
Sheet, Soldier Pile Design

Tinley Creek Streambank Stabilization Design | Cook County, Illinois

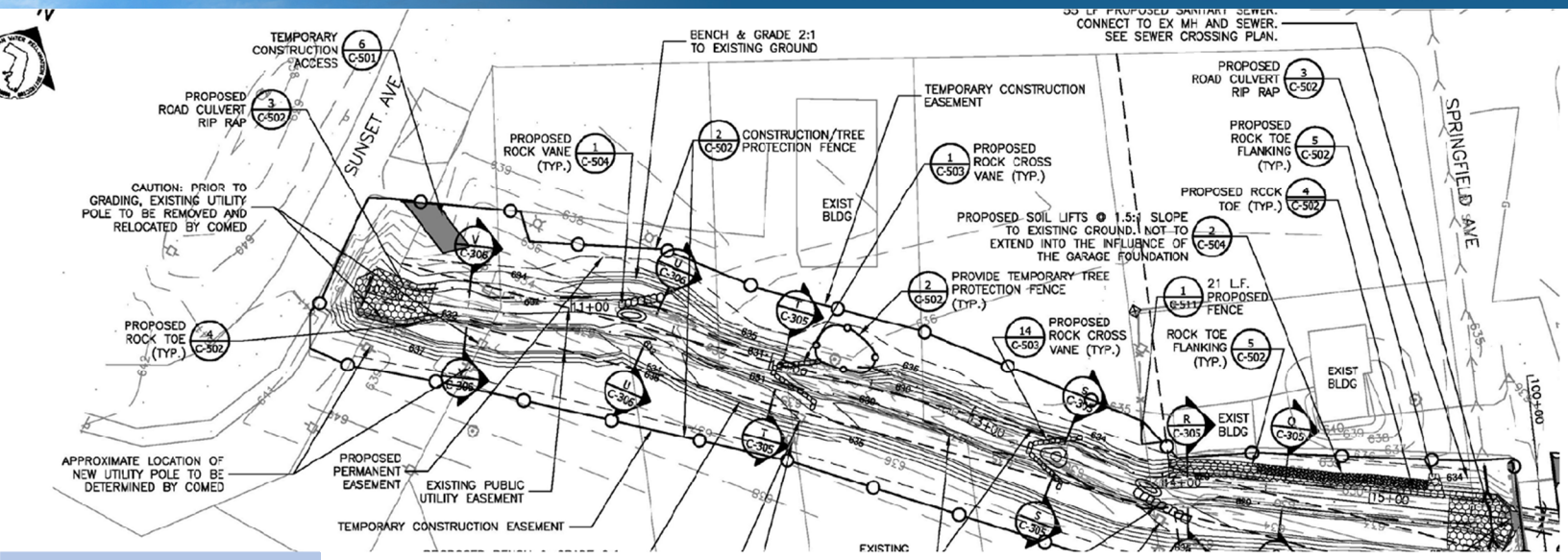
Michael Baker provided final design, specifications, cost estimates, permitting assistance, right-of-way/easement documents, and stakeholder/public meeting outreach for the Tinley Creek streambank stabilization and flood control project located in the Village of Orland Park, IL. The stream segment drains to the Calumet-Sag Channel Watershed and has a contributing area of 3.4 square miles.

Tinley Creek is an urban channel degraded primarily due to bank erosion, loss of riparian vegetation, and watershed hydrology changes that have occurred over time. Flooding issues were also a concern. Approximately 4,500 linear feet of stream segment were analyzed. Stabilization practices consisted mainly of bioengineering and the use of in-stream rock structures that promote bank stability and grade control.

Michael Baker's sub, DB Sterlin, surveyed cross sections; roadway, terrain features (fences, sheds, etc.); utilities; property parcels; datums; ties; and monuments in the project area. Easement documents showing temporary and proposed construction easements were prepared. Michael Baker's sub, Wang, also performed geotechnical investigations to assist in the design of retention walls and establish soil profiles and strength parameters to determine the types of soil for erosion control, suitability of reuse, and presence of unsuitable or contaminated soils.

Michael Baker conducted stream stability analysis and design to determine the bankfull area estimates. Michael Baker collected field data, verified culvert inverts, analyzed bankfull areas at USGS gages, developed supplemental bankfull data points, and developed a vegetation plan. Michael Baker also identified and evaluated off-site drainage runoff locations from adjacent parking, sidewalks, downspouts, and structures for potential effects on the proposed stream bank configuration and updated the HEC-RAS hydraulic model.

Additionally, Michael Baker prepared all required permit documents, including water quality IEIPA) and floodplain permits (IDNR), IHPA and Eand USACE joint permit. As part of the permitting process, an EA that included wetland delineations, a tree survey, and soil contamination testing was prepared.



Client
Metropolitan Water Reclamation District
111 E. Erie Street
Chicago, IL 60611

Contact
Pedro Ortiz
312.751.3191
ortizp@mwrd.org

Project Duration
2012 - 2021

Key Project Features
Surveying (DB Sterlin)
Geotechnical Analysis
Natural Channel Design
Hydraulic Modeling
Culvert, Sheet Pile Design

Calumet Union Drainage Ditch Streambank Stabilization Design | Cook County, Illinois

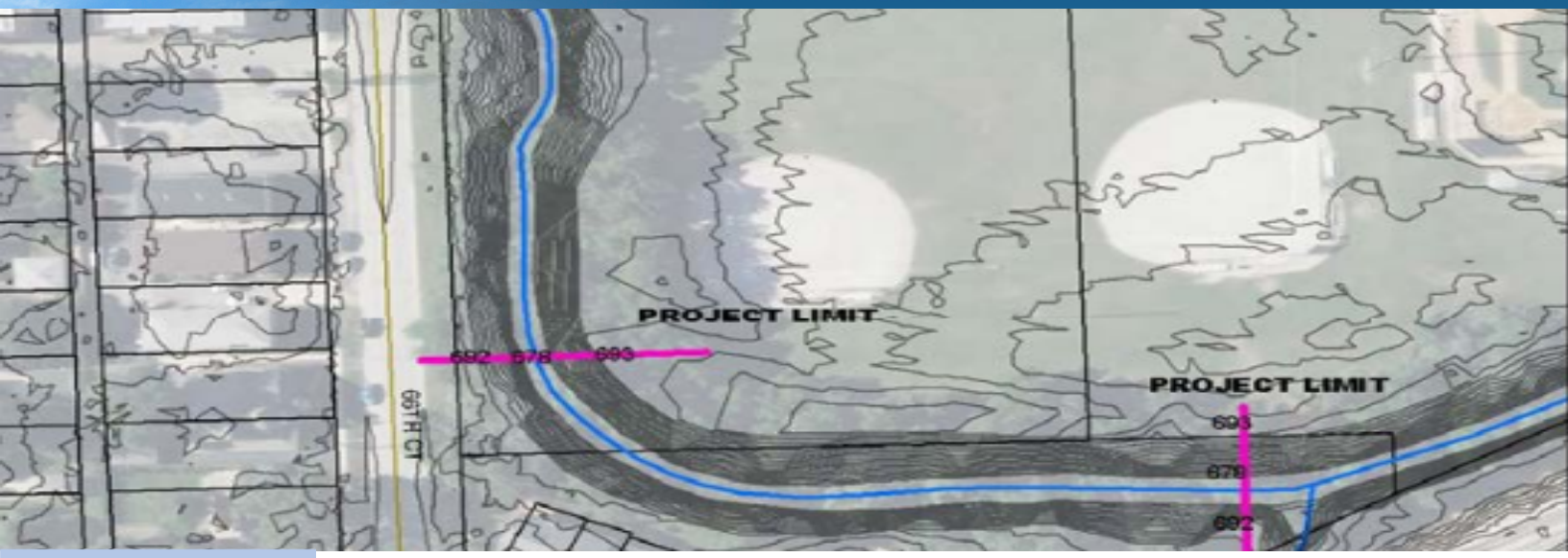
Michael Baker is providing final design, specifications, and permitting assistance for the Calumet Union Drainage Ditch streambank stabilization and flood control project located in Markham, IL and draining to the Little Calumet River Watershed. The project also included providing assistance during the bidding phase; and attending public meetings.

This urban channel is degraded primarily due to channel incision, loss of riparian vegetation, and watershed hydrology changes that have occurred over time. The creek segment between Hamlin Avenue and Central Park Avenue also experiences significant flooding. The length of this project reach is approximately 2,500 linear feet with a contributing area of 0.4 square miles. Stabilization practices consisted mainly of bioengineering and the use of in-stream rock structures that promote bank stability and grade control.

Michael Baker's sub, DB Sterlin, surveyed cross sections; roadway, terrain features (fences, sheds, etc.); utilities; property parcels; datums; ties; and monuments in the project area. Michael Baker also performed geotechnical investigations to establish soil profiles and strength parameters to determine the types of soil for erosion control, suitability of reuse, and presence of unsuitable or contaminated soils.

Michael Baker conducted stream stability analysis and design to determine the bankfull area estimates. Michael Baker collected field data, verified culvert inverts, developed supplemental bankfull data points, and developed a vegetation plan. Michael Baker also identified and evaluated off-site drainage runoff locations from adjacent sidewalks, downspouts, and structures for potential effects on the proposed stream bank configuration and updated the HEC-RAS hydraulic model. The final design deliverables included complete cost, plans, and specifications for construction bidding.

Additionally, Michael Baker prepared an environmental assessment that included wetland delineations, a tree survey, and soil contamination testing and acquired all required permit documents. The permits included IEPA Section 401 water quality certification, IDNR floodplain permits, MWRD sewer permit, and USACE Section 404 joint permit .



Client
Metropolitan Water Reclamation District
111 E. Erie Street
Chicago, IL 60611

Contact
Pedro Ortiz
312.751.3191
ortizp@mwrd.org

Project Duration
2011 - 2019

Key Project Features
Surveying (DB Sterlin)
Natural Channel Design
Hydraulic Modeling

Midlothian Creen Streambank Stabilization Design | Cook County, Illinois

Michael Baker provided final design, specifications, and permitting assistance for the Midlothian Creek streambank stabilization project located in Tinley Creek, IL and draining to the Little Calumet River Watershed. The project also included providing assistance during the bidding phase.

This urban channel is degraded primarily due to channel incision, loss of riparian vegetation, and watershed hydrology changes that have occurred over time. The stream reach is approximately 500 linear feet and has a contributing drainage area of 7.8 square miles. Stabilization practices consist mainly of bioengineering and the use of in-stream rock structures that promote bank stability and grade control. Soil lifts with rock toe protection, rock vanes, and rock cross vanes were some of the streambank stabilization techniques designed.

Michael Baker's sub, DB Sterlin, surveyed cross sections; roadway, terrain features (fences, sheds, etc.); utilities; property parcels; datums; ties; and monuments in the project area. Michael Baker also performed geotechnical investigations to establish soil profiles and strength parameters to determine the types of soil for erosion control, suitability of reuse, and presence of unsuitable or contaminated soils.

Michael Baker conducted stream stability analysis and design to determine the bankfull area estimates. Michael Baker collected field data, verified culvert inverts, developed supplemental bankfull data points, and developed a vegetation plan. Michael Baker also identified and evaluated off-site drainage runoff locations from adjacent sidewalks, downspouts, and structures for potential effects on the proposed stream bank configuration and updated the HEC-RAS hydraulic model. The final design deliverables included complete cost, plans, and specifications for construction bidding.

Additionally, Michael Baker prepared all required permit documents, including water quality and floodplain permits; performed an EA including wetland delineations, a tree survey, and soil contamination testing. The project is currently under construction.

Client
Metropolitan Water Reclamation District
111 E. Erie Street
Chicago, IL 60611

Contact
John Murray
312.751.7918
john.murray@mwrdgc.dst.il.us

Project Duration
2009 - 2011

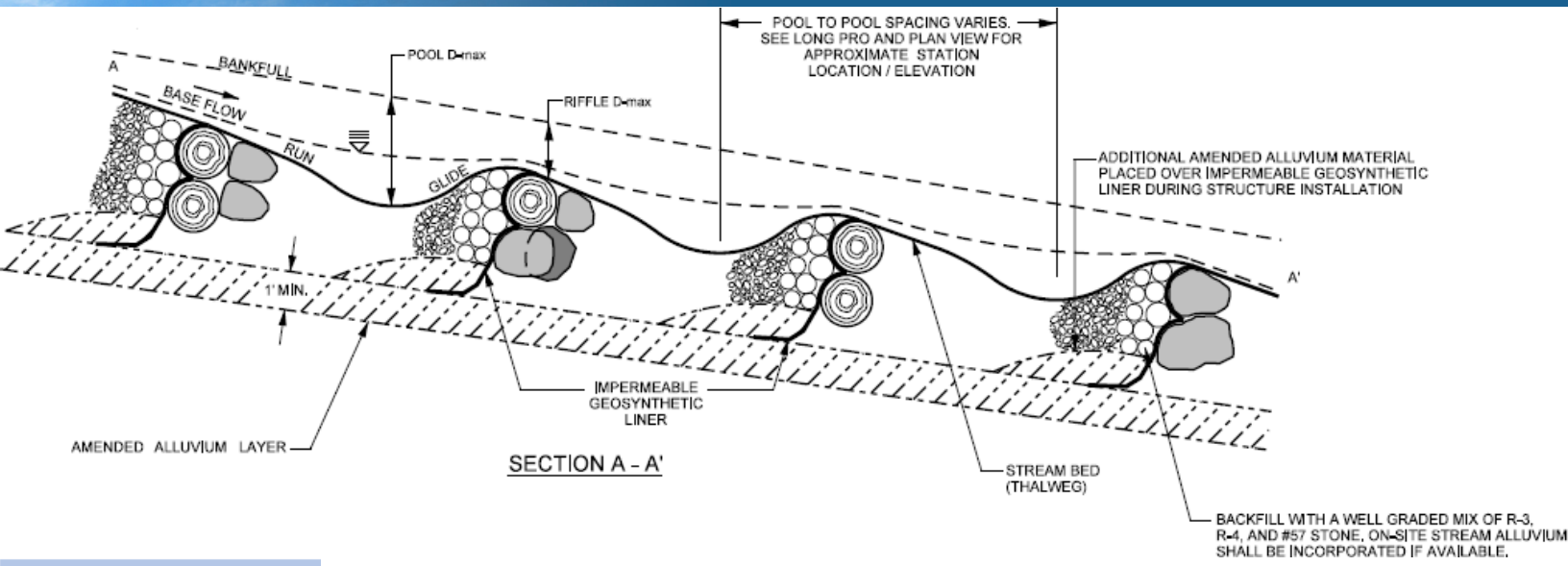
Key Project Features
H&H Analysis
HEC-RAS Modeling
Alternative Evaluation

Streambank Stabilization Engineering Feasibility Analysis | Cook County, Illinois

Michael Baker conducted engineering feasibility analyses of potential streambank stabilization and flood risk reduction solutions identified in DWP developed for two Cook County watersheds to determine if they should be recommended for detailed design and construction under the District's Capital Improvement Program.

Michael Baker evaluated current environmental conditions and identified potential environmental impacts associated with implementation of the identified alternatives. Michael Baker collected additional data to better define physical field conditions, improve H&H modeling, improve characterization of site-specific problems, and identify and evaluate the solutions and alternative approaches provided in the DWPs. Michael Baker conducted a geotechnical investigation and collected sediment from stream bars and banks to evaluate bank stability design. Michael Baker evaluated bioengineering and natural channel design stabilization alternatives to determine if bioengineering was a feasible alternative, either solely or combined with natural channel design and/or hard armoring. The preferred alternative for stabilization of all stream bank erosion was natural channel design.

Michael Baker prepared a report and conceptual plans that document the approach and findings, describe the relative benefits of the alternatives, and provide a recommended approach and associated costs. Michael Baker identified through HEC-RAS unsteady modeling that the floodwall solution recommended in the DWP for a specific reach was not feasible due to potential transfer of flood issues to downstream locations and developed an alternative consisting of a bio-engineered channel and downstream culvert enlargement, which provided the required 100- year flood protection while proving to be sustainable and compliant with the principal of not creating adverse impacts in other reaches of the system.



Client
Confidential

Project Duration
Ongoing

Key Project Features
Cost Estimating
Stream Restoration
Habitat Improvement
H&H Analysis
Natural Channel Design

Natural Stream Channel Design and Restoration Program | Greene and Washington Counties, Pennsylvania

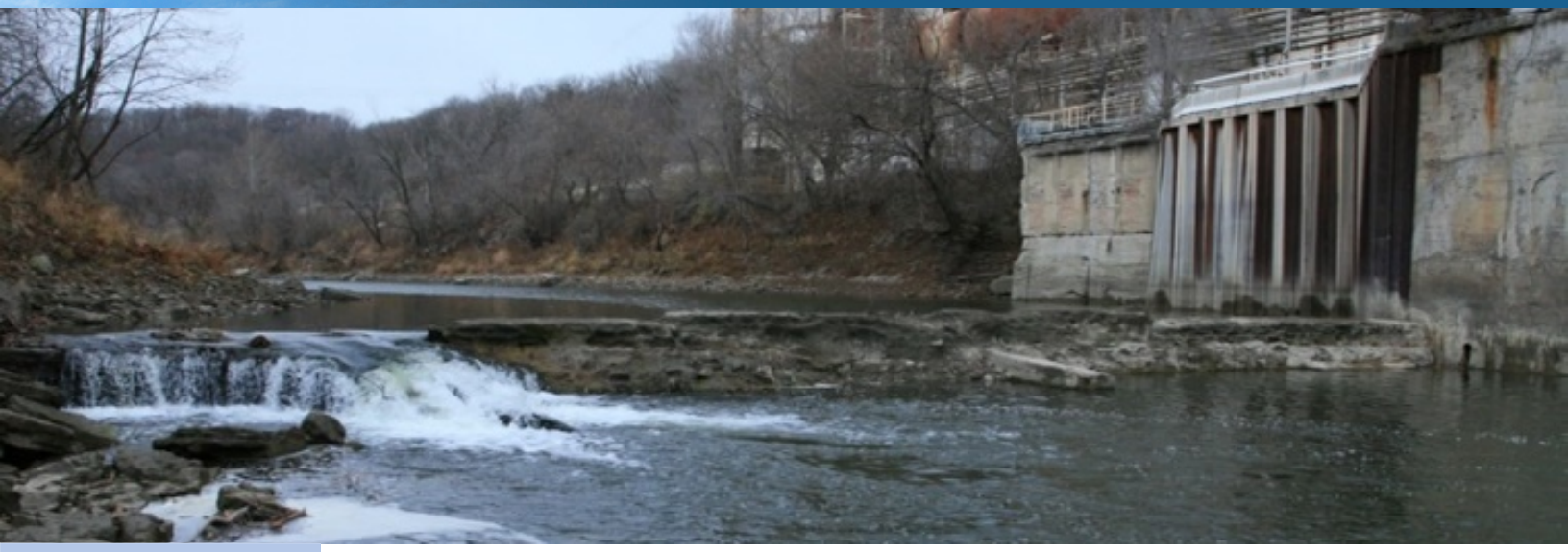
Michael Baker designed and assisted with the construction of multiple stream channel design and restoration projects, outlined in further detail below. These projects mitigated the effects of stream flow loss as a result of mine subsidence by incorporating various impermeable liner designs to prevent infiltration of runoff into the bedrock strata. Additionally, a natural channel design was implemented to establish a stable stream geometry and improve biological habitat.

For all projects where permitting and design was required, portions of the original Department of Environmental Protection (DEP) Coal Mining Activity Permit had to be revised, specifically Module 15. In addition, a U.S. Army Corps of Engineers (USACE) Clean Water Act (CWA) Section 404 Nationwide permit - Nationwide Permit 27 (NWP27) was required and PennDOT Roadway Variance Requests were accepted.

Michael Baker performed site assessments and analysis of all project areas, which included watershed characterization of the drainage areas, surrounding land use, geomorphic setting, soil types, and plant communities. Michael Baker also identified project constraints, including floodplains; confirmed the presence or absence of threatened or endangered species; and developed a detailed topographic survey of the existing stream channels, floodplain, and other riparian features. Additionally, Michael Baker completed a detailed topographic, longitudinal (stream profile), and hydraulic (detailed cross-sections) survey that included location and recording of utilities; inverts of all knickpoints/bedrock grade control and flagged features; tributary ditches of all sizes; existing fences, roads, structures; and trees of significance or larger than 36” diameter.

A hydrologic and hydraulic analysis was then performed to design the hydraulic capacity of the proposed replacement channel, and the bankfull cross section was determined from existing stable riffle cross sections, regional curve information, and watershed assessments. In order to minimize construction costs, native materials, including trees and rock/boulders, were used to construct in-stream structures wherever possible throughout all projects.

Michael Baker prepared construction plans for permitting and construction bidding. They included plan and profile views of the proposed stream, cross sections, detailed typical sections for riffles and pools, in-stream structures and vegetation details, erosion, and sedimentation control notes, plans and details, and a summary of quantities.



Client
Illinois Department of Natural Resources
One Natual Resources Way
Springfield, IL 62702

Contact
Ted Montrey
217.782.4439
Ted.montrey@illinois.gov

Project Duration
Ongoing

Key Project Features
- Hydrological and hydraulic analysis
- Final design and preparation of bid documents
- Environmental sampling and evaluation
- Wetland delineations
- Sediment Analysis
- Cultural Resources Coordination

Dam Removals and Stream Restoration Design Services | Various Locations, Illinois

Under a master agreement with IDNR, Michael Baker is providing planning and design engineering services for the removal of several low-head dams throughout Illinois and stream restoration. Services include design analysis, preparing construction documents, detailed cost estimates, environmental assessments, permitting, bidding support, and engineering during construction support.

50%, 95% and 100% design drawings are currently being prepared for the Vermilion River Dam removal in Oglesby, Illinois, the Riverside Park Dam removal in Springfield, Illinois, and the Color Plant Dam removal in Springfield, Illinois.

A Section 404/401 permit was obtained for the Vermilion River Dam, as well as the local permits for this location. The project also includes coordination with IDNR regarding cultural resources, wetlands, and endangered species and securing CERP (Comprehensive Environmental Review Process) approval.

Wetland delineations and ordinary high-water marks were obtained for seven dam removal projects, including Vermillion River Dam, Wilmington Dam, Riverside Park Dam, Color Plant Dam, Touhy East Bank Dam, Pilcher Park dam and North Aurora Dam.

Design analysis performed as part of the project included topographic surveys, geotechnical investigations, soil and sediment borings, environmental investigation, sediment sampling and analysis, hydraulic analysis, and wetland delineations. Sediment sampling included testing, and analysis for VOCs, SVOCs, PCBs, and metals at several dam locations.

OPERATING HISTORY

Michael Baker is a leading global provider of engineering and consulting services which include planning, engineering, architectural, environmental, construction, program management, and full life cycle support services as well as information technology, communications services, and solutions.

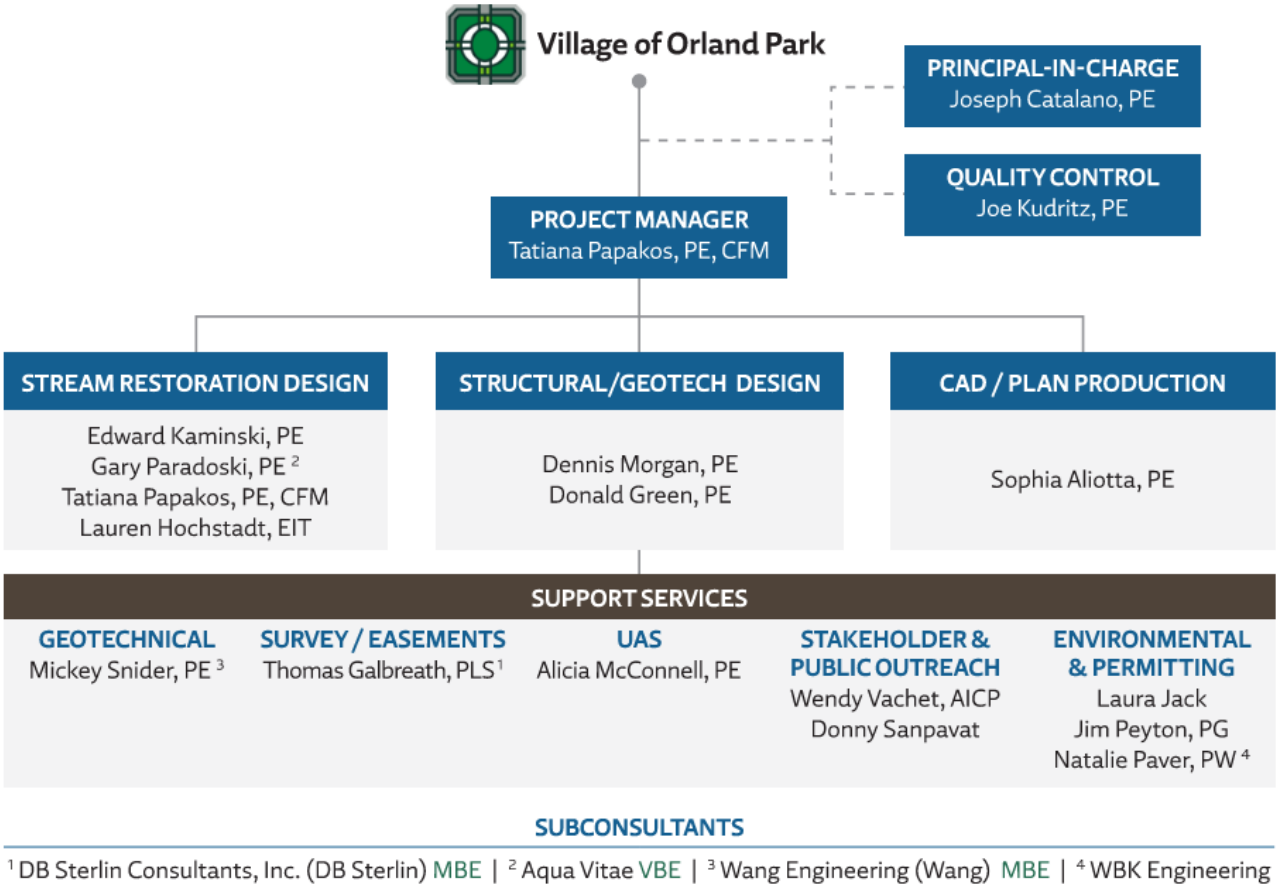
The company provides its comprehensive range of services and solutions in support of U.S. federal, state, and municipal governments, foreign allied governments, and a wide range of commercial clients. Headquartered and incorporated in Pittsburgh, Pennsylvania, Michael Baker has more than 3,000 employees in nearly 100 offices across the U.S., including local offices in Chicago and Peoria.

Engineering News-Record (ENR) magazine consistently ranks Michael Baker in the top 10 percent of the 500 largest U.S. engineering design firms. Locally, we provide a staff of nearly 50 engineers and technical staff in our Chicago office to support this contract. Michael Baker has grown and prospered without losing sight of its primary purpose: Creating value for our clients by delivering innovative and sustainable solutions for infrastructure and the environment.

Michael Baker has a noted history of fiscal responsibility. Since the firm's establishment in 1940, we have demonstrated a responsible approach to financial matters. Our prudent fiscal policies extend beyond corporate finances to the hundreds of millions of dollars in federal, state, and local funds expended on projects planned and designed by Michael Baker. The firm is not experiencing bankruptcy, planned office closures, impending merger, or any conditions that may impede our ability to complete the project.

ORGANIZATION CHART

Michael Baker has assembled a multi-disciplinary team of engineering and technical experts who have gained regional perspective through their work on stream restoration projects throughout the US, balanced with our local presence, which give us full awareness regarding the unique streambank stabilization concerns and needs of the greater Chicago area. Led by Tatiana Papakos, PE, CFM, who has over 20 years of local stream restoration, hydraulics and hydrology experience, our team brings the knowledge and expertise to deliver final design solutions that are uniquely tailored to the needs of Orland Park and the local communities you serve. In the Organizational Chart below, we have illustrated our dedicated project team, highlighting their project specific roles for this contract.



KEY PERSONNEL RESUMES

Full resumes for key personnel listed in the organization chart follow.

Michael Baker INTERNATIONAL

Years of Experience
20

Education
MSCE, Civil Engineering

License & Certifications
Professional Engineer:
Illinois (062-065558)
Indiana (PE11800637)
Florida (62528)
Michigan (6201069296)

Certified Floodplain Manager: Illinois (06-00300)

Tatiana Papakos, PE, CFM | Project Manager

Project Role | As Project Manager, Tatiana will leverage her 20+ years of H&H engineering and project management experience to ensure the project stays on schedule and budget. She has a proven track record in managing ecosystem restoration and flood control projects to successful completion. She will be responsible for project delivery, including quality, schedule, client satisfaction, project scope, and cost.

Tatiana specializes in H&H modeling, stormwater design and studies, floodplain analysis, watershed studies, permitting, BMPs and LID design, TMDL development, and water quality assessments. She has managed the design and construction oversight of several ecosystem restoration projects for the City of Chicago, MWRD, USACE Chicago District, and IDNR. She is proficient in computer modeling such as HEC-RAS, HEC-HMS, ICPR, WinTR-20, StormCAD, Pondpack, SWMM, Hydraflow, HydroCAD, WASP, and BATHTUB, as well as GIS tools including HEC-GeoRAS, HEC-GeoHMS, and Arc-Hydro. She has managed, coordinated, and administered budgets, schedules, and technical activities, including supervision of technical staff, for water resources projects throughout the Chicago area. She provides leadership for timely and cost-effective services that are performed in accordance with high technical standards.

Project Experience |

Streambank Stabilization Design, Chicago, Illinois • MWRD. Project Manager. Michael Baker is providing final design, specifications, and permitting assistance for four streambank stabilization projects within the Chicago area: two located in the Little Calumet River Watershed, and two located in the Calumet-Sag Channel Watershed. Stabilization practices consist mainly of bioengineering and the use of in-stream rock structures that promote bank stability and grade control. The project includes surveying, conduct stream stability analysis and design, identify and evaluate off-site drainage runoff locations, update the HEC-RAS hydraulic model, provide utility coordination, and produce construction bid documents. Additionally, Michael Baker prepared all required water quality and floodplain permits; performed an EA including formal wetland delineations, a tree survey, and soil contamination testing; assist during the bidding phase; and attended public involvement meetings.

Statewide Dam Removal Design Services, Oglesby and Springfield, Illinois • Illinois Department of Natural Resources. Project Manager. Managed the IDNR dam removal projects. Michael Baker is providing planning, design, and bidding support services for the removal of several dams and restoration of the streams. Buzzi Unicem Dam Removal in Oglesby, Illinois, and the Riverside and Color Plant dams in Springfield, Illinois. Michael Baker is providing construction documents and a detailed cost estimate and will obtain all necessary permits for both projects. Sediment grab samples from three locations behind the Buzzi Unicem dam were tested and the results allowed for passive restoration of the river at this location. A Section 404/401 permit is being prepared for this location, as well as a local permit.

KDOT 2020 Structural Services • Kane County Division of Transportation. Drainage Lead. Responsible for the design of the stream restoration, erosion control and scour countermeasures to protect several bridge improvement projects, including modeling and development of construction drawings for the channel work, design of the stream restoration and erosion control and scour countermeasures to protect the bridge.

Indian Ridge Marsh Ecosystem Restoration, Chicago, Illinois • USACE Chicago District. Lead civil engineer for the design, plans and specifications of Indian Ridge Marsh ecosystem restoration. The project included the design of two water level control structures including a roadway crossing, channel improvements, staging areas, trails, boardwalk, and shoreline assessment to restore the habitat and wetland systems, preserved endangered bird species habitat and eliminate roadway flooding. Hydrologic analysis was performed using SWMM and the hydraulic analysis using HEC-RAS. The design of the roadway crossing was based on the IDOT Drainage Manual and included a 6' x 4' concrete box culvert and weir structure for 122nd Street. Coordinated with all permitting agencies and obtained all regulatory permits for this roadway crossing from the Chicago Department of Transportation, Illinois Department of Natural Resources, Office of Water Resources (IDNR/OWR), and other City of Chicago departments. In- charge of the civil design, hydrologic and hydraulic modeling, final construction plans and specifications for the project, and providing engineering support during construction.

Zion-Beach-Ridge Plain Restoration, Illinois State Beach Park & Bluff, Lake County, Illinois • USACE Chicago District. Senior H&H engineer providing technical support and reviews of the PCSWMM and HEC-RAS models and reports. The project seeks to reestablish and naturalize lake plain hydrology with the intent on restoring coastal zone native fish and plant communities. Project tasks included river cross section and structure surveys, storm sewer data collection, and H&H modeling of the rivers and storm sewers draining to Lake Michigan. Stream gage weighting analysis were performed. State Water Survey (SWS) Bulletin 70 was utilized for the rainfall analysis. Critical storm duration and storage routing analyses were performed. Culvert road crossings, bridge, and storm drainage structures were modeled.

Stony Creek Flood Improvements • MWRD. Project Manager. Project Manager. In charge of the flood control design. Michael Baker is providing preliminary engineering design for Stony Creek Flood improvements in the village of Oak Lawn, Illinois, including hydrologic and hydraulic modeling, evaluation of alternatives and 30% design plans and documents for stormwater, detention, and green infrastructure improvements.

New York Rising Community Reconstruction (NYRCR) Program - Chenango River Modeling, New York • New York State. Senior hydraulic modeler and reviewer for the Town of Chenango, which includes modeling of the Chenango River, Castle Creek, and Thomas Creeks. Project tasks include data collection, field verification, hydraulic modeling using HEC-RAS to develop existing conditions, and evaluation of mitigation alternatives. The project Assessed risk and the effectiveness of flood mitigation projects in riverine and coastal areas and supported the hydraulic analysis for several New York communities as part of the New York Rising Community Reconstruction Program for areas affected by Hurricane Irene and Tropical Storm Lee. Communities included Windham, Fulton, Blenheim, Chenango, Wallkill, Middletown, and Blooming Grove.

County-Wide DFIRM and Floodplain Mapping, Scott County, Minnesota • Scott County Natural Resource Department. Project Manager and lead modeler for the floodplain study of 270 square mile Sand Creek watershed, Robert Creek, Credit River and Vermillion River in Scott County, MN. ArcGIS and HEC-GeoRAS were used for pre- and post-processing the river network spatial and 3D data. DEMs were merged with contour and cross section survey data. Tatiana involvement included GIS pre and post-processing data, development and calibration of HEC-HMS and steady HEC-RAS model for the 50 mile Sand Creek River system and other rivers in Scott County to create a county wide FEMA digital Flood Insurance Rate Map (DFIRM) that includes base flood elevations and floodplain zones. Hydrologic analysis involved the use of USGS regression equations and critical duration analysis.

Michael Baker INTERNATIONAL

Years of Experience
30

Education
BSCE, Civil Engineering

License & Certifications
Professional Engineer:
Illinois (062-052701)
Indiana (PE10606537)
Wisconsin (30468-006)

Joseph Catalano, PE | Principal-in-Charge

Project Role | Joe will oversee the contract from an executive level, providing support and guidance to the team. He will have full authority to perform contractual matters and disputes, commit firm resources, and will be ultimately responsible for the quality and timeliness of Michael Baker's performance.

For several years, Joe has applied his engineering, management, and leadership expertise to transportation projects for numerous clients throughout Illinois and the Midwest. Most recently, he was the Consultant Owner's Representative Executive for the Illinois Tollway's $4 billion I-294 Central Tri-State Reconstruction project, an ambitious program that will increase capacity and improve travel reliability over 22 miles of the Illinois Tollway's most-traveled interstate. Prior to that, he served as Director of Engineering for a major engineering firm in Chicago, where he led the operations of a 170-person team, while also planning, directing, and ensuring the success of multiple transportation projects.

Project Experience |

Tri-State Tollway Roadway Reconstruction and Bridge Rehabilitation, Cook County, Illinois • Illinois Tollway. Principal-In-Charge. Principal-in-Charge overseeing project quality and client satisfaction. As part of a joint venture, Michael Baker prepared contract plans, special provisions, cost estimates, and project- related permits for widening and rehabilitating the Tri-State Tollway (I-294) from just west of Wolf Road to the O'Hare Oasis.

I-294 Central Tri-State Reconstruction Project • Illinois Tollway. Consultant Owner's Representative Executive. $4 billion. Owner's Representative Executive for the Illinois Tollway's $4 billion Central Tri-State Tollway Reconstruction and Widening as part of the Tollway's capital program, Move Illinois: The Illinois Tollway Driving the Future. Responsibilities include overseeing day to day operations and a full-time staff of twenty-six engineers as Owner's Representative Executive for the Illinois Toll Highway Authority on a $157 million, 10-year contract.

Move Illinois Capital Improvement Program • Illinois Tollway. Program Manager for the Tollway's $12.1 billion capital program, Move Illinois: The Illinois Tollway Driving the Future. Responsibilities included overseeing day to day operations and a full-time staff of seventy- five engineers as Program Manager to the Illinois Toll Highway Authority on a $70 million multi-year contract.

Annual General Consultant Service, Illinois Tollway System • Illinois Tollway. Program Manager responsible for overseeing engineering services as general consultant to the Illinois Tollway including assistance in developing the annual and multi-year programs, developing a $5.3 billion, 10-year capital improvement plan, planning studies and conceptual designs, assistance in project development activities, assistance in environmental studies, documentation and coordination, support to the Authority's Property Management Division, and special studies and projects as requested by the Authority.

Arsenal Road Construction Inspection Services, Will County, Illinois • Highway Department, Will County. Project Director/Construction Supervisor of a multi-million-dollar reconstruction project in Will County. The project consists of reconstructing a four-lane concrete highway which connects Interstate I-55 and the Intermodal facility at the Joliet Arsenal.

Michael Baker INTERNATIONAL

Years of Experience
13

Education
Graduate Studies, Water Resources and Environmental Engineering
Graduate Studies, Civil Engineering, Water Resources
B.S., Civil Engineering

License & Certifications
Professional Engineer:
Idaho (16329)
Ohio (PE.84193)
Pennsylvania (PE080657)

Joe Kudritz, PE | Quality Control

Project Role | Joe will leverage his 13 years of engineering experience on water resources projects to ensure the highest quality project delivery, with an emphasis on promoting prevention rather than detection. His unique expertise with streambank stabilization projects, combined with a focus on design review metrics will lead to high quality, on time project deliverables. As the quality manager, he will work closely with Tatiana to develop a specific QC plan for this project.

Joe is a civil engineer and has played an integral role on water resource projects related to dam rehabilitation, stormwater management, and stream mitigation. For these projects, Joe has conducted detailed H&H analyses for culvert and bridge replacement projects, stream restoration and mitigation projects, and dam rehabilitation projects. Joe has completed stormwater and drainage studies, performed stormwater calculations, and has designed the stormwater infrastructure layout on transportation and water resource projects.

Project Experience |

Statewide Dam Removal Design Services, Oglesby and, Springfield, Illinois • Illinois Department of Natural Resources. QA/QC Engineer. Responsible for providing QA/QC review of the construction drawings. Michael Baker is providing planning and design services for the Buzzi Unicem Dam Removal in Oglesby, Illinois, and the Riverside and Color Plant dams in Springfield, Illinois. Michael Baker will provide construction documents and a detailed cost estimate and will obtain all necessary permits for both projects. Results of sediment analysis allowed for passive restoration of the river. A Section 404/401 permit is being prepared for this location.

Simpson Creek Highwall, Tipple, and Portals Reclamation, Barbour County, West Virginia • West Virginia Department of Environmental Protection. Civil Associate. Performed hydrologic and hydraulic analysis for several unnamed streams. Tasks on the projects included: sizing the channels, sizing the grouted rock protection, and developing peak flow rates based on the contributing drainage area. Michael Baker provided engineering services for the mine reclamation of Simpson Creek Highwall. Michael Baker's services included site reconnaissance; records review; surveying; subsurface investigation; water sampling and laboratory testing; engineering analysis and design; preparation of construction plans, specifications, and cost estimate; permitting; bidding-phase support; and construction monitoring.

S.R. 268–S.R. 1038 Intersection Realignment, Armstrong County, Pennsylvania • Pennsylvania Department of Transportation, District 10-0. Civil Associate. Responsible for performing the hydraulic and hydrologic analysis for the proposed road alignment and culvert system. Michael Baker provided project management, pavement design, final drainage design, permitting, traffic engineering, geotechnical engineering, stream relocation design, field surveys, and bid and construction phase services and assisting in preparing the structure foundation report for the realignment of the S.R. 268–S.R. 1038 intersection in West Kittanning. The purpose of the project was to eliminate points of conflict within the intersection and enhance motorist safety.

E01870 WO#8, Warsaw Br FD • Pennsylvania Department of Transportation, Central Office. Civil Associate. Responsible for performing the H&H analysis for the proposed bridge and stream relocation project. Responsible for designing the stream relocation and proposed details.

Michael Baker INTERNATIONAL

Years of Experience
17

Education
B.S., Civil Engineering

License & Certifications
Professional Engineer: Illinois (PE077506)

Edward Kaminski, PE | Stream Restoration Design Lead

Project Role | As the design lead, Edward will leverage his extensive experience in all phases of stream restoration projects to provide guidance and assessment at key junctures of project execution.

Ed is a professionally licensed civil engineer with 14 years of experience in stream restoration, environmental permitting, hydrologic and hydraulic design, and construction with water resource related civil engineering projects. He has played an integral role on water resource projects relating to natural channel design, stream restoration, stream bank stabilization, dam rehabilitation, dam removal, stormwater management, site development, and highway infrastructure projects. For these projects he has prepared feasibility studies, geomorphological surveys, watershed assessments, environmental permits, hydrologic and hydraulic reports, flood studies, emergency action plans, and stormwater analyses. He is well versed in the latest hydraulic and hydrologic modeling software including HEC-HMS, HEC-RAS, ArcGIS, Hydraflow Hydrographs; and has developed multiple project specific excel routines programs that utilize historical gage data for flood studies and water supply projects. He has served as the hydrology and hydraulics lead on these projects and was responsible for the technical design aspects regarding water resources and civil engineering.

Project Experience |

EO3692 WO2 Paxton Creek, Harrisburg, Pennsylvania • Pennsylvania Department of Transportation. Senior Engineer, Responsible for the preparation of a natural channel restoration plan for a six-mile section on Paxton Creek. The restoration plan included identifying existing channel impairments and providing recommendations on natural channel stream enhancements that will increase the function of the stream by improving instream habitat, flow diversity, bank stability, floodplain interaction, and bed form diversity. Michael International is conducting a multiphase flow control study of Paxton Creek in support of the Harrisburg Transportation Center Transit-Oriented Development (TOD) Plan. Michael Baker is leading an integrated partnership between PennDOT and the City of Harrisburg to develop a preferred concept design for future of Paxton Creek from Susquehanna Township to its confluence with the Susquehanna River. Michael Baker's assistance identified various flow control measures that will be integrated into the TOD master plan design concepts, and the specific design concept was produced to restore and enhance Paxton Creek and demonstrate the creek's integration into the overall development scheme.

Polen Run Stream Restoration, Greene County, Pennsylvania • Confidential Client. Project Manager. Project Manager. Responsibilities included serving as project manager and water resources lead in charge of the development of permitting and construction documents as well as performing construction engineering services for 5,600 feet of stream restoration on Polen Run which was impacted by mining subsidence. This stream restoration project mitigated the effects of stream flow loss due to mine subsidence by incorporating a bentonite clay channel liner to prevent infiltration of runoff into the bedrock strata. Additionally, the project included a geomorphic site assessment and natural channel design to establish a stable stream geometry and improve biological habitat. For this project Michael Baker developed and evaluated liner alternatives; topographic survey, H&H analysis, and permitting; prepared construction documents, provided construction engineering services. Additionally, Michael Baker performed long term environmental monitoring which included installation and operation of

flow monitoring instruments to evaluate the effectiveness of the restoration project.

Crafts Creek Stream Restoration, Washington County, Pennsylvania • Confidential Client. Civil Engineer. Project Manager. Responsibilities included serving as project manager and water resources lead in charge of the development of permitting and construction documents as well as performing construction engineering services for 3,900 feet of stream restoration on an unnamed tributary to Crafts Creek which was impacted by mining subsidence. This project mitigated the effects of stream flow loss due to mine subsidence by incorporating a bentonite clay channel liner to prevent infiltration of runoff into the bedrock strata. Additionally, the project included a geomorphic site assessment and natural channel design to establish a stable stream geometry and improve biological habitat. For this project Michael Baker developed and evaluated liner alternatives; performed a geomorphic site assessment, topographic survey, hydrologic and hydraulic analysis, and permitting; prepared construction documents, provided construction engineering services and environmental permit compliance monitoring.

Chapman Dam Rehabilitation, Pleasant Township, Pennsylvania • Pennsylvania Department of General Services. Water Resources Engineer. Prepared design and environmental permitting for dam rehabilitation including lakebed dredging, shoreline stabilization, fish habitat improvement, sediment sampling, spillway reconstruction and roller compacted concrete overtopping protection. Michael Baker is performing analyses, providing permitting services, developing designs, and performing construction administration for the rehabilitation of the Chapman Dam, located on the West Branch of Tionesta Creek, within Chapman State Park. Michael Baker is responsible for designing the renovations of the existing spillway and outlet works, addressing stability and seepage concerns with the embankment, and evaluating the dam's compliance with PADEP regulations regarding overtopping protection during the design event.

Brush Run Stream Restoration, Washington County, Pennsylvania • Eighty Four Mining Company. Civil Engineer. Provided construction oversight which included daily contractor monitoring, quality assurance, quality control testing, project scheduling, and other tasks necessary to ensure construction efficiency and installation of a 1,200 feet of stable stream channel and channel liner. Michael Baker provided construction oversight for the restoration of Brush Run Stream. Michael Baker's services included daily contractor monitoring, quality assurance, quality control testing, project scheduling for the installation of a stable stream channel and channel liner. This project mitigated the effects of stream flow loss due to mine subsidence by incorporating a bentonite clay channel liner to prevent infiltration of runoff into the bedrock strata and implemented natural channel design to establish a stable stream geometry and improve biological habitat.

Hicks Creek and Abrahams Creek Flood Mitigation Detailed Feasibility Analysis, Luzerne County, Pennsylvania • Luzerne County Flood Protection Authority. Engineer. Provided cost estimate for several different pipe alignment alternatives. Michael Baker is performing a feasibility study of options to alleviate residential and commercial flooding in the Hicks Creek and Abrahams Creek watersheds. Michael Baker's tasks include conducting flood investigations, developing dynamic hydrologic and hydraulic models of the watersheds, and performing the preliminary design of a recommended alternative to mitigate the stormwater flows in the watersheds.

Kent Run Stream Restoration, Greene County, Pennsylvania • Confidential Client. Project Manager. Michael Baker prepared the natural channel design and permitting. Responsibilities included serving as project manager in charge of the development of permitting and construction documents for a 3,300 feet of stream restoration Kent Run which was impacted by mining subsidence. The goal of the project is to mitigate the effects of stream flow loss as a result of mine subsidence by incorporating a geosynthetic clay channel liner to prevent infiltration of runoff into the bedrock strata. Additionally, the project included a geomorphic site assessment and natural channel design to establish a stable stream geometry and improve biological habitat. For this project Michael Baker developed and evaluated liner alternatives, topographic survey, H&H analysis, permitting; and prepared construction documents.

Aqua Vitae

Years of Experience
30

Education
B.S., Civil Engineering

License & Certifications
Professional Engineer: Colorado, Illinois, Iowa, Kansas, Michigan, Missouri, Mississippi, Texas, Wisconsin

Certified Professional in Erosion & Sediment Control (7657)

Lake County Designated Erosion Control Inspector

Gary Paradoski, PE, CPESC | Stream Restoration Design

Project Role | Gary designed the streambank stabilization for Tinley Creek under Michael Baker's former employer. He knows all the details and constrains for the site and will provide continuity to the updated design • Gary is President of Aqua Vitae. His duties encompass design and oversight of natural resources, infrastructure, and water quality projects. Aspects of these projects include underground utilities, stream stabilization and ecosystem restoration, Best Management Practices (BMPs), hydrologic & hydraulic studies, water quality monitoring & analyses, erosion & sediment control, and sustainable storm water management. Gary has nearly 30 years of experience in land surveying, field studies, acquiring and administering permits, preparation of construction documents and specifications, and construction observation. He engages the public and stakeholders regarding sustainable engineering practices, including low-impact development (LID) and agricultural nutrient management.

Project Experience |

Streambank Stabilization for Tinley Creek, Midlothian Creek and Calumet Union Drainage Ditch, Cook County, Illinois • MWRD. Project Manager and Lead Designer. MWRD conducted comprehensive watershed management planning throughout Cook County to determine where streams are threatening infrastructure and risking neighborhood flooding. As a result, they proceeded with natural channel design for stream bank stabilization and flood risk reduction within numerous reaches that are at highest risk. Aqua Vitae conducted design for three urban streams that meander through residential communities within Orland Park, Tinley Park, and Markham, Illinois. • Natural channel design techniques combined with traditional engineering approaches to provide holistic and cost- effective solutions. The project areas consist of highly degraded habitat and eroded banks. It was particularly challenging to identify the effective discharges given the dynamics of the watershed, which includes highly impervious areas, floodplain encroachments, and disconnected open space/Forest Preserves. • Gary worked in collaboration with multiple other firms to conduct site assessments, wetland/WOUS delineations, and soils analyses. The team designed bioengineering techniques such as cross-vanes, rock vanes, and encapsulated soil lifts. Retaining walls and other traditional engineering measures were included in the design. Existing structures and drainage easements posed significant site constraints. The team also prepared temporary easements for construction access and long-term maintenance. • For permitting, the team conducted pre-application meetings with USACE, IDNR, and local municipalities. As a result of preliminary coordination, the projects were permitted through the USACE 404 Regional Permit Program to streamline the schedule and minimize costs.

Milwaukee River Watershed Study, Town of Fredonia - Milwaukee River, Milwaukee River North, and Village of Newburg - Milwaukee River East Branch • Milwaukee Metropolitan Sewerage District (MMSD). Lead GIS Analyst/Modeler. The MMSD contracted an ecology-focused team to prepare an EPA 319 Nine Key Element Watershed Management Plan for 73 square miles in Eastern Wisconsin. The plan was developed to help communities meet eligibility requirements for state and federal grants by satisfying the EPA's nine key element criteria. In addition, the plan was structured to provide guidance for prioritizing cost-effective areas and practices that reduce pollutant loads in streams while restoring water quality and recreational use of the waterways. • For the plan, Aqua Vitae utilized cutting edge GIS mapping and modeling techniques to guide thorough but strategic field investigation efforts and to prioritize parcels, resulting in a graphic-rich, easy to understand, comprehensive watershed plan. In addition to mapping and modeling, Aqua Vitae delivered an organized GIS database, EPA's STEPL, and a GIS-based EVAAL.

Michael Baker INTERNATIONAL

Years of Experience
3

Education
B.S., Civil Engineering

License & Certifications
Engineer-in-Traning
Illinois (061.040167)

Lauren Hochstadt, EIT | H&H Modeler

Project Role | Lauren is a Civil Associate with experience in floodplain and floodway analysis using HEC-RAS, analyzing alternatives to reduce flooding, modeling proposed stormwater infrastructure improvements using XP-SWMM and HydroCAD, conducting weekly and storm event inspections for various projects under the ILR10 regulations throughout the Chicagoland region, designing site grading plans to comply with detention and compensatory storage requirements, and assisting with permitting through MWRD, USACE, IDNR, and FEMA.

Project Experience |

Stormwater Master Planning, Cook County, Illinois • MWRD. Civil Associate. Prepared reports to address urban flooding using holistic solutions for three Individual Study Profiles in separate sewer areas. Reviewed existing stormwater infrastructure and stormwater master plans/studies to identify whether the plans fulfilled the general SMP goals. Responsible for using GIS data including Cook County topo, socio- economic status, municipal boundaries, land use data, and drainage boundaries to create report figures and analyze flood problem areas. Mapped and analyzed previously recorded stormwater flooding areas from sources including DWPs, municipalities, and residential complaints to identify specific flood problem areas. Classified identified flood problem areas into 1 of 6 categories and proposed planning-level suggestions to reduce flooding.

Williston Basin Tributary Area Drainage Analysis • City of Wheaton, Wheaton, Illinois. Design Engineer. Responsible for XP-SWMM drainage analysis for a watershed with significant depressional storage areas. The analysis determined the area of inundation for several storm events and identified which existing residential structures were at risk for flooding. Responsible for calculations as well assisting with modeling various stormwater alternatives.

Fairmont Central Drainage Improvements • Will County Land Use Department, Lockport, Illinois. Provided master planning services for stormwater management for the Fairmont South Area, approximately 165 acres. This area had severe flooding, so a multi-year plan was prepared which phased the improvements over six years to accommodate the County's anticipated grant funding. Responsible for quantity calculations and estimates, XP- SWMM modeling and plan preparation in MicroStation.

NS Tyrone, PA Br. PT-220.75 • Norfolk Southern Corporation. Civil Associate. Responsible for incorporating 1-foot county contours and survey data to update an existing conditions HEC-RAS model of the River. Also responsible for modeling and analyzing the river under proposed conditions and assisting the project manager with creating a H&H analysis report.

Van Horn Allen Rd Improvements • City of Woodhaven, Michigan. Civil Associate. Responsible for delineating drainage basins; performing hydrologic calculations such as runoff curve number and time of concentration; and routing flows through a system of roadside ditches, culverts, and storm sewers. Also created and analyzed a HydroCAD model of the existing and proposed detention system.

Lake Forest Bank Stabilization • East Skokie Drainage District, Lake Forest, Illinois. Prioritized required stabilization needs for one linear mile of eroding streambanks on the Skokie River. Responsible for creating and analyzing cross sections of the river, making exhibits in AutoCAD, and assisting with permit submittals.

Michael Baker INTERNATIONAL

Years of Experience
20

Education
B.S.E., Civil and Structural Engineering

License & Certifications
Professional Engineer:
Illinois (062.059183)
Indiana (PE10910424)
Ohio (PE.82204)
Structural Engineer:
Illinois (081006506)

Dennis Morgan, PE, SE | Structural Engineer

Project Role | Dennis is experienced in complex bridge design, major river bridge inspection, and bridge load ratings. He has experience in the design of structural steel, prestressed concrete, steel arch bridges, and reinforced concrete. Dennis has performed dozens of complex bridge designs and major river bridge inspections throughout the Midwest.

Project Experience |

2001/2005 City of Chicago Streetscape Program, Chicago, Illinois • Chicago Department of Transportation. Engineer. Responsible for the design and plans, specifications, and cost estimates of precast and Stainless-steel decorative walls and associated drilled shaft foundations. Michael Baker provided construction program management and construction engineering services to bring the individual projects to fruition. The projects, located throughout the City ranged in construction cost from $100,000 to $4,000,000.

Ellsworth Park Boat Ramp, City of Danville, Illinois • City of Danville Park Department. Engineer. Assisted in the design of a sheet pile retaining wall. Michael Baker performed HEC-RAS modeling, permitting, site civil development services, retaining wall design, and bank erosion control design, developed bid documents, and prepared a cost estimate for the construction of a Boat Access to the Vermillion River in southern Illinois, for the City of Danville.

Route 56 (Butterfield Road), Route 59 to Naperville Road (PTB 108/Item 38), Wheaton/Warrenville, DuPage County, Illinois • Illinois Department of Transportation. Engineer. Responsible for identification and calculation of drainage areas for the Location Drainage Study. Michael Baker provided preliminary engineering services (Phase I) for a 6.2-mile section of add-lanes reconstruction which included accident, capacity, and geometric studies as well as full environmental studies including mitigation efforts in hazardous waste, 4(f) property, and wetlands. A full replacement of a bridge over a regional water feature as well as two culverts and extensive retaining wall.

S.R. 28, East Ohio Street Improvement Project, Allegheny County, Pennsylvania • Pennsylvania Department of Transportation, District 11-0. Michael Baker provided comprehensive engineering and environmental services to upgrade a 2-mile, four-lane section of S.R. 28 between the Chestnut Street Ramps and the Millvale Interchange to a limited-access expressway. The project included the addition of median barrier on S.R. 28, a grade-separated interchange at 31st Street, and new southbound on and off ramps at 40th Street to allow continuous mainline flow. Project challenges included minimizing hillside impacts, maintaining railroad capacity, constructing within a tight corridor, and accommodating historic structures, while enhancing safety, improving traffic flow, and coordinating with multiple stakeholders with diverse needs. Michael Baker's services included project management; environmental compliance services; value engineering; roadway, bridge, interchange, retaining wall, and multiuse trail design; utility coordination and relocation design; stormwater management design; aesthetic design; complex construction sequencing and traffic control plans; intelligent transportation system design; and construction consultation.

Michael Baker INTERNATIONAL

Years of Experience
43

Education
M.S., Civil Engineering

License & Certifications
Professional Engineer:
Pennsylvania (PE034330E)
West Virginia (016118)

Donald Green, PE | Geotechnical Engineer

Project Role | Don has experience in geotechnical engineering, foundation and retaining wall design, planning, laboratory and field investigations, preparation of plans and specifications, and project supervision and management. He has spent the majority of his career performing foundation engineering for structures both on land and water. Don is an NHI certified instructor for FHWA teaching LRFD substructure design. He has provided expert testimony for various geotechnical matters. Don serves as a geotechnical/structural reviewer for FEMA for CLOMR/LOMR submissions for coastal and riverine levees, dikes, floodwalls, seawalls, quay walls, relieving platforms, anchored bulkheads, and revetments.

Project Experience |

Mission Reach Ecosystem Project Design, Engineering, and Environmental Services, San Antonio, Texas • San Antonio River Authority. Geotechnical Engineer. Responsible for design of a soil nail wall and a geotechnical assessment to maintain cut slope stability and erosion control for temporary channels to divert 200 cfs low flow along the San Antonio River. Michael Baker is providing design, engineering, and environmental protection services for the Mission Reach Ecosystem Restoration and Recreation Project. The multi-phase, multi-year channel reconstruction project will implement fish and wildlife restoration activities and construct recreational features along and within the southern eight miles of the San Antonio River. Michael Baker is designing care of water plans for use during construction, developing an environmental management plan, and providing technical support for the installation and establishment of restoration measures, including establishment of native plants and vegetation.

Homeville Road Channel Wall Failure, West Mifflin Borough, Allegheny County, Pennsylvania • Allegheny County Department of Public Works. Structural Designer. Provided design oversight and consultation for the geotechnical engineering design. Michael Baker was retained to provide plans and specifications for remediation of the approximately 148-foot-long, 10-foot-high composite concrete, brick, and block failed retaining wall located south of Homeville Road (a.k.a. Green Springs Avenue) in West Mifflin Borough, Allegheny County, Pennsylvania.

Recut the Channel for the Long Run Watershed, Allegheny County, Pennsylvania • Pennsylvania Department of General Services and Pennsylvania Department of Environmental Protection. Project Manager. Professional responsible for preparation of plans, specifications and cost estimates, review of Contractor submittals, and Quality Assurance during construction to implement a $4 million flood protection improvement project. This project involved redesign of the existing stream channel, habitat improvement, a CLOMR and LOMR, and flood wall construction.

Flood Walls for Channel Rehabilitation, Stonycreek River, Johnstown, Pennsylvania • Mosites Construction Company. Project Manager. Responsible for value engineering (VE) designs for $2 million of wall construction. Successfully developed and presented design concepts for Corps' acceptance, completed structural design, and prepared construction plans for VE review and acceptance. This VE project involved replacement of a 14-foot high gravity wall with a new anchored flood wall, modification of a CIP concrete facing to eliminate wall batter and improve constructability, and structural modification of anchored flood walls to eliminate temporary shoring and minimize slope disturbance.

Michael Baker INTERNATIONAL

Years of Experience
7

Education
B.S.E., Civil and Environmental Engineering

License & Certifications
Professional Engineer: Illinois (062.072109)

Sophia Aliotta, PE | CAD/Plan Production

Project Role | Sophia is a civil associate with several years of experience as a design engineer for site civil and stormwater management projects, including site layout design, site grading, stormwater detention and storm sewer systems design, green infrastructure, and permitting. She also specializes in the design of all civil utilities including sewer, watermain, sanitary sewer, telecommunication, fiber optic, and natural gas routing. She has a strong background in AutoCAD, MicroStation, and GEOPAK and is well versed with Civil 3D and XPSWMM.

Project Experience |

I-70 Pavement Replacement RFP0170408C Des. No. 1592433 • WSP USA Inc. Civil Associate. Responsible for developing typical sections for maintenance of traffic design plans. As a subconsultant to WSP, Michael Baker is providing management, coordination, and design services to produce contract documents to INDOT for an added travel lane on I-70 from Ronald Reagan Parkway west to SR 267. Used HydroCAD for the detention analysis and HY-8 for the culvert hydraulic analysis.

IL Route 43 (Harlem Avenue) from 63rd Street to 65th Street Phase I Study (CREATE Project GS1), Cook County, Illinois • Illinois Department of Transportation. Civil Associate. Responsible for developing existing drainage plans (EDP) for the location drainage study (LDS) per IDOT requirements. Michael Baker is conducting a comprehensive engineering and environmental study for improvements to Harlem Avenue (IL 43) between 63rd Street and 65th Street, including an Environmental Assessment and investigation of grade-separating the Belt Railway of Chicago at two existing at-grade crossings. This project is the Chicago Region Environmental and Transportation Efficiency (CREATE) Program Project GS1.

Runway 9C-27C and Associated Taxiways • Chicago Department of Aviation. Civil Associate. This project consisted of a new runway and parallel taxiways as part of the O'Hare Modernization Program. Sophia assisted with the design of sub-drain removal and replacement and erosion control recommendations. Additionally, she assisted with grading design using OpenRoads technology and developing quantities.

Chicago Bus Maintenance Facility • Greyhound Lines, Inc. Civil Associate. This project sought to develop a new 45,000 SF bus maintenance facility to service Greyhound Lines. Located on the south side of Chicago, and bordered by Chicago Junction Railway, the site presented numerous challenges to grading, stormwater detention, and utility design. Sophia was responsible for the 5-acre site design including grading and development of proposed surface in Civil 3D, stormwater design in compliance with the City of Chicago Stormwater Regulations, pavement marking and signage with consideration for ADA requirements.

Juniper Park • Chicago Park District. Project Engineer. This project consisted of improvements to an existing 8,500 SF park on Chicago's north side. The project updated an existing mulch playground area to be a rubberized play surface with upgraded play equipment, multiple play areas, and a splash pad with new water features. Sophia served as project engineer for Juniper Park and was responsible for managing client interactions, ensuring other disciplines' work was coordinated and met project requirements, establishing a QAQC schedule and ensuring deadlines were met. She also led the drainage and grading design, coordinated with CDWM to ensure requirements were met, and prepared plans and specifications. She developed cost estimates and reviewed shop drawings, answered RFIs, and performed frequent site visits during construction.

Wang Engineering

Years of Experience
24

Education
M.S., Geotechnical Engineering
B.S., Civil Engineering

License & Certifications
Professional Engineer: Illinois (062-058045)

Mickey Snider, PE | Geotechnical

Project Role | 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; EAs; 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.

Project Experience |

Regional Water System Improvement and Expansion • Oak Lawn, Illinois. Project Manager responsible for coordination with the Client, coordination of geotechnical investigations and laboratory testing programs, and the writing and preparation of geotechnical reports and design analyses in support of the Regional Water System Expansion. The project includes greater than 16 miles of re-routed, 60-inch diameter water main servicing up to 7 separate communities on the southwest side of Chicago. Wang has performed the subsurface explorations and laboratory testing, with future geotechnical engineering analysis and design to provide recommendations for both cut-and-cover and trenchless technology installation of water mains. The investigation includes coordination with the individual communities, forest preserve districts, and utility corridor managers, drilling and sampling of 90 soil borings and the installation of 25 groundwater monitoring wells. Samples were also taken at selected boreholes for environmental laboratory testing.

IDOT District One Various/Various Geotechnical Engineering Services. Senior Geotechnical Engineer on the 2006, 2008, 2010 and 2011 contracts, responsible for coordination with the Client, coordination of geotechnical investigations and laboratory testing programs and the writing and preparation of geotechnical reports and analyses.

Circle Interchange Project • Cook County, Illinois. Senior Geotechnical Engineer responsible for geotechnical analyses, laboratory testing programs and recommendations for individual structures along the reconstruction of the City of Chicago Circle Interchange Project. Wang is performing the subsurface exploration, laboratory testing and geotechnical engineering analyses to provide recommendations for the design and construction of bridges, retaining walls, and roadway sections.

O'Hare Joint Use Rental Car and Public Parking Structure • O'Hare International Airport, Chicago. Senior Geotechnical Engineer responsible for coordination of geotechnical investigations and laboratory testing programs and the preparation of geotechnical reports and analyses. Wang performed the subsurface exploration, laboratory testing, and geotechnical evaluations for the design and construction of the 300,000 square foot Joint Use Rental Car facility at O'Hare International Airport. The analysis and recommendation options include drilled shafts belled within the hardpan layer, supported at the top of sound bedrock, and socketed into the bedrock. The subsurface exploration consisted of 50 soil borings drilled within the proposed structure footprint with the majority extending up to 20 feet into bedrock.

DBS

Years of Experience
40

License & Certifications
Professional Land Surveyor:
Illinois (35003134)

Thomas Galbreath, PLS | Surveying

Project Role | Thomas has over 40 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.

Project Experience |

Lower Des Plaines River Watershed • Metropolitan Water Reclamation District of Greater Chicago. Survey Manager. Supervised and coordinated survey work for the survey of 26 tributaries. This project consisted of over 2,000 channel cross sections and the field measurement of over 400 drainage structures. RTK GPS methods were used to establish horizontal and vertical control referenced to the continuous operating reference stations. Detailed sketches and field measurements were performed for drainage structures. QA/ QC procedures were used to check all field data. The project consisted of collection of topographic and other physical data to support the development of H&H models for the evaluation of streams and waterways located within the Lower Des Plaines Watershed.

Calumet Sag Channel Survey • Metropolitan Water Reclamation District of Greater Chicago. Project Manager. Responsibilities included coordinating and supervising survey crews completing fieldwork for general topographic surveys, preparing parcel plats, and strip of ROW maps. The project consisted of a boundary survey along the Calumet Sag Channel, recovering sections corners, property corners, right of way markers and all other pertinent boundary evidence along the 2-mile corridor for the boundary analysis of properties owned by the MWRDGC.

Streambank Stabilization Projects • Metropolitan Water Reclamation District of Greater Chicago. Project Manager. Responsibilities included coordinating and supervising survey crews completing fieldwork for development of hydraulic models for the preparations of plats of easements. The project involved performing a survey to compile the information necessary to determine and obtain permanent and temporary easements. The properties were located in Tinley Park, Orland Park and Markham, Illinois and included 76 residential properties, 3 commercial properties and a railroad right of way.

Various Parks ALTA Surveys • Chicago Park District. Survey Manager. Responsible for field planning, existing records analysis, boundary analysis, geometric calculations, and preparation of ALTA/ACSM Land Title Surveys for the improvements of four parks including Union Park, Stanton Park, Park 543 (Printers Row) and Liquid Dynamics Park located in the City of Chicago. The work consisted of providing site surveys, including ALTA surveys, for each park. The survey involved adjacent parkways, park boundaries, legal descriptions, square footage, acreage of parcels, identification of underlying PIN numbers, sidewalks, curb cuts, building, structures, all recorded easements, restrictions, buildings set back lines, vacated streets, alleys and ROWs.

Wood Street R-90-114-14 • Illinois Department of Transportation. Survey Department Manager. Responsible for the preparation and completion of a Final Plat of Highway utilized for acquisition for new IDOT ROW and temporary easements for the Wood Street, Harvey, Illinois project. The field surveying work included reconnaissance and location of ROW monuments, property corners, occupation lines and other boundary evidence in order to re- establish or establish Wood Street center line alignment/stationing and existing ROW. This project included 100 temporary easements and 100 right of way takes. The office work involved boundary analysis, writing of legal descriptions, Land Title Commitment review and area, owner and station offset table creation. Stringent QA/QC techniques were used before the final release of the Plat, as well as libraries and genealogical/historical society records.

Michael Baker INTERNATIONAL

Years of Experience
13

Education
B.S., Civil Engineering

License & Certifications
Professional Engineer:
Illinois (062.071300)
Wisconsin (43416-6)

Alicia McConnell, PE, sUAS | UAS Program Manager

Project Role | Since early 2018, Alicia has been leading the UAS program at Michael Baker. She oversees 31 pilots across the nation that perform UAS-based missions including surveying and mapping, bridge inspections, communication tower inspections, construction inspection and monitoring, disaster assessments, building façade inspections, roof inspections, and thermal analyses. She is also a certified Part 107 UAS pilot with significant experience in bridge inspections. With a background in civil engineering and as a licensed private pilot with a passion for general aviation, Alicia's' experience has been well-suited to lead the UAS program to operate and integrate UAS into civil engineering applications safely and successfully.

Project Experience |

2018 Ohio River Fracture Critical Inspections, Newport, Kentucky, and Cincinnati, Ohio • Kentucky Transportation Cabinet. UAS Pilot. As a UAS Pilot and sensor operator, responsibilities included the collection of high quality UAS imagery and data to provide to the client for structural health monitoring. Michael Baker performed a routine and fracture critical inspection of the Daniel Carter Beard Bridge (Big Mac), which carries I-471 between Newport, Kentucky, and Cincinnati, Ohio, using hands-on rope access techniques. To supplement the data collected by the rope access team, the Falcon 8+ octo-rotor airframe was deployed to inspect the vertical cables and various other components. The efficiency of the UAS provided inspectors with accurate scans while minimizing time required on rope.

IH 43 Crowbar Drive to CTH I Construction Management Services, Waukesha County, Wisconsin • Wisconsin Department of Transportation. UAS Pilot. UAS was used to take construction progress photos. Part 107 certified pilot that performed the flights. Michael Baker provided construction management and inspection services for structure reconstruction and repair work for six bridges along IH 43 in Waukesha County. Michael Baker's services included material and quality verification inspection, review of contractor submittals, responses to requests for information, preparation of contractor payments, preparation of contract modifications, and stakeholder and nearby project coordination. Michael Baker's responsibilities also included project controls documentation, completing issue tracking with requests for price, design issue notices, work authorization forms, and regular over/under reporting to communicate project funding status.

McClugage Bridge Construction Phase Services, Peoria, Illinois • Illinois Department of Transportation. UAS Pilot. During a flood event, provided UAS imagery and video to the client to record water elevations and existing flood conditions surrounding the McClugage Bridge. Michael Baker is providing engineering support as part of a joint venture team constructing the McClugage Bridge, which crosses the Illinois River and connects Peoria and East Peoria. The project will replace the one-mile eastbound truss structure with a tied arch structure and include 23 spans and 22 piers. Eastbound U.S 150 will also be realigned with the new bridge. As part of the project, Michael Baker is providing construction management and inspection, and teaming with Bradley University's Civil Engineering Department to provide opportunities for the next generation of engineers to experience unique construction operations.

Michael Baker INTERNATIONAL

Years of Experience
27

Education
M.S., Urban Studies
B.S., Environmental Science/Management/Public Affairs

License & Certifications
American Institute of Certified Planners (161894)

Wendy Vachet, AICP | Stakeholder and Public Outreach

Project Role | Wendy serves as the Environmental Group Manager in Michael Baker's Chicago, Illinois office. She is a senior project manager and planning practitioner specializing in integrated planning solutions for data-driven, informed decision-making and has extensive experience with multidiscipline technical teams, integrated analyses, and stakeholder and community engagement for transportation, land use, and environmental projects. She has broad experience working with interdisciplinary teams. She provides project and program management, technical support, and strategy development on myriad complex and often controversial projects ranging from transportation infrastructure development initiatives, including Environmental Assessments (EA) and Environmental Impact Statements (EIS) under the National Environmental Policy Act (NEPA) to compatible land use for military installations and operations. Wendy is a member of the American Planning Association and the American Institute of Certified Planners. She holds an appointment to the National Academy of Sciences (NAS) Transportation Research Board (TRB) Military Transportation Committee (AT035) and the Transportation for Military Communities sub- committee.

Project Experience |

Berwyn Stormwater Management Plan, City of Berwyn, Illinois • CMAP. Planner. Planner lead responsible for assisting CMAP with public outreach, environmental concerns, and planning level stormwater analysis for the development of a stormwater master plan for the City of Berwyn. The plan identified areas at high risk of urban flooding and summarized the challenges, improvements, potential solutions, costs for construction and maintenance, community wide recommendations, and developed three conceptual designs for the priority areas. The plan also identified potential financing strategies and capital grant opportunities to fund these improvements. The project included coordination, stakeholder engagement, stormwater analysis, key recommendations, stormwater concept drawings for priority areas, preparation of the stormwater management plan, and implementation guidelines.

Appalachian Corridor H Environmental Impact Statement, Appalachian Highlands Region, Elkins, West Virginia • West Virginia Department of Transportation, Division of Highways. Project Manager. Responsible for daily project management; client, sub-consultant, and agency coordination; public involvement; and directing staff. Responsible for directing the project effort; presenting study results to West Virginia Department of Highways (WVDOH) as well as all Agency and Public Workshops and Hearings; and preparing the DEIS, SDEIS, FEIS, and ROD. Significantly involved in the preparation of all technical reports and public information materials including website content, presentations, and meeting materials.

Annual Environmental Services, Chicago, Illinois • Republic Engineered Steels, Inc. Environmental Scientist. Provided environmental documentation and fieldwork support. Michael Baker provided annual environmental services relating to air, water, and hazardous waste. Wastewater monitoring and report preparation was performed in accordance with the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Sewage and Waste Control Ordinance. The Hazardous Waste Generators Report which accounts for all hazardous wastes generated onsite, and tracks the wastes through final disposal, was prepared as required by IEPA.

Phase I Environmental Site Assessment, Michigan • Confidential Client. Environmental Scientist. Provided environmental documentation and project support. Michael Baker performed a Phase I Environmental Site Assessment for a new facility in Michigan. The site assessment was performed in general accordance with the American Society for Testing and Materials (ASTM) E 1527-94, "Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process." The assessment included several components. A site reconnaissance and interviews with local agencies concerning current and past environmental conditions.

Michael Baker INTERNATIONAL

Years of Experience
15

Education
MSc, Environmental Engineering

BSc, Environmental Science/Applied Computer Science

M.B.A., Business Administration

Yodsanan (Donny) Sanpavat | GIS Specialist

Project Role | Donny is an Environmental Scientist and GIS associate responsible for environmental management tasks and managing data associated with Geographic Information System (GIS) infrastructure development. His tasks include providing support for both GIS/CAD mapping and the development of visualization tools, air and water RECRA, CERCLA, and NEPA samplings. He has completed a variety of environmental projects compliance monitoring, operations and maintenance, data management, and mapping. Previously, Donny provided analytical support for Michael Baker's administration of the Federal Emergency Management Agency's (FEMA) Multi-Hazard Flood Map Modernization program. Michael Baker directs the planning, development, and maintenance of the program collection and delivery system; serves as program manager; disseminates information to the user community; and promotes communications initiatives.

Project Experience |

Berwyn Stormwater Management Plan, City of Berwyn, Illinois • CMAP. GIT Technician. GIS and data management lead supporting the planning level stormwater analysis for the development of a stormwater master plan for the City of Berwyn. The plan identified areas at high risk of urban flooding and summarized the challenges, improvements, potential solutions, costs for construction and maintenance, community wide recommendations, and developed three conceptual designs for the priority areas. The plan also identified potential financing strategies and capital grant opportunities to fund these improvements. The project included coordination, stakeholder engagement, stormwater analysis, key recommendations, stormwater concept drawings for priority areas, preparation of the stormwater management plan, and implementation guidelines.

Stormwater Planning Assistance, Illinois • CMAP. GIT Associate. Provided GIS mapping and data management to support the planning level stormwater analysis. Working with CMAP, Michael Baker assisted in analyzing the challenges of stormwater management, identifying local flooding issues, and developing solutions using spatial data and GIS tools, including flow path modeling and spatial analysis for prioritizing flood impacted areas. Michael Baker's approach to this project was used in future stormwater studies to determine stormwater management strategies for priority catchments in several communities in Cook County, including Maine Township, Northfield Township, Sauk Village and Calumet Park.

District 1 Phase I Bridge Replacements (PTB 160/Item 4), Chicago, Illinois • Illinois Department of Transportation. Environmental Associate. Responsible for GIS mapping and reports. Michael Baker is providing Phase I engineering for complete superstructure replacements of Old Orchard Road over I-94 (S.N. 016-0823) and Montrose Avenue over I-90/I-94 and the Chicago Transit Authority's (CTA) Blue Line (S.N. 016-0852).

IL Route 43 (Harlem Avenue) from 63rd Street to 65th Street Phase I Study (CREATE Project GS1), Cook County, Illinois • Illinois Department of Transportation. Environmental Associate. Responsible for GIS mapping. Michael Baker is conducting a comprehensive engineering and environmental study for improvements to Harlem Avenue (IL 43) between 63rd Street and 65th Street, including an Environmental Assessment and investigation of grade- separating the Belt Railway of Chicago at two existing at-grade crossings. This project is the Chicago Region Environmental and Transportation Efficiency (CREATE) Program Project GS1.

Streambank Stabilization Design, Chicago, Illinois • Metropolitan Water Reclamation District (MWRD) of Greater Chicago. GIT Associate. Responsibilities included mapping projects and providing GIS support. Michael Baker is providing final design, specifications, and permitting assistance for four streambank stabilization projects within the Chicago area: two located in the Little Calumet River Watershed, and two located in the Calumet-Sag Channel Watershed.

Michael Baker INTERNATIONAL

Years of Experience
7

Education
B.S., Environmental Management

License & Certifications
USACE Wetland Delineator Certification
NEPA Training, Indiana

Laura Jack | Wetlands/Permitting

Project Role | Laura has several years of experience working as an environmental lead on transportation projects. She has worked on numerous IDOT projects coordinating with IDOT through Environmental Survey Requests, Wetland Impact Evaluations, Preliminary Environmental Site Assessments, and Preliminary Site Investigations. As an environmental lead, she conducts initial project reviews for T&E species using USFWS IPaC and IDNR EcoCAT. Laura has conducted over 100 wetland delineations in Illinois, Indiana, and Michigan in accordance with the United States Army Corps of Engineers 1987 Wetland Delineation Manual and applicable Supplements. Laura has prepared USACE Nationwide, Regional, and Individual 404 permits, Illinois Environmental Protection Agency (IEPA) 401 Water Quality permits, County Stormwater Ordinance permits, and Illinois Department of Natural Resources Office of Water Quality permits. Laura will utilize her previous experience to help build the environmental schedule into the overall schedule, identify environmental concerns throughout Phase II, coordinate with the necessary agencies, conduct a wetland delineation, and prepare any required permits.

Project Experience |

Task Order #2, I-64 EB • Indiana Department of Transportation. Environmental Scientist. Provided oversight for the environmental documentation for the project. Prepared the 404/401 permit application and assisted in the Construction in a Floodway and Rule 5 permit applications.

S.R. 145 Fleming Creek • Indiana Department of Transportation. Environmental Scientist. Prepared the Categorical Exclusion Level 1 documentation. Conducted a field investigation and prepared a Waters Report. Acquired the 404/401 Nationwide Permits for the project. Worked with the District to "right size" the scope to a preventative maintenance thin deck overlay and repair project reducing costs from $460,000 to $215,000.

U.S. 50 Improvements, Seymour, Indiana • Indiana Department of Transportation. Environmental Scientist. Prepared the Categorical Exclusion Level 3 documentation. Also prepared a USACE 404 Regional and IDEM 401 Individual permit applications for the project. Michael Baker provided engineering and environmental services for a 1.35-mile section of US 50. Michael Baker's services included roadway design, pavement design, utility coordination, environmental services, and permitting. The project is in an urban setting with numerous commercial drives, traffic signals, and turn lanes.

WBK Engineering, LLC, Aurora, Illinois, Senior Environmental Specialist, March 2017 - February 2019. Responsible for leading environmental efforts on feasibility studies, stream restoration, wetland mitigation, transportation projects, and private development projects. Performed wetland delineations in accordance with the United States Army Corps of Engineers (USACE) and Floristic Quality Assessments (FQAs) in Illinois & Michigan. Prepared and submit permits (Stormwater, 404, 401, etc.) to necessary agencies including Counties, Michigan Department of Environmental Quality (MDEQ), Illinois Environmental Protection Agency (IEPA), and USACE. Conducted initial project reviews for Threatened & Endangered species using the United States Fish and Wildlife Service (USFWS) IPaC and the Illinois Department of Natural Resources (IDNR) EcoCAT.

Michael Baker INTERNATIONAL

Years of Experience
37

Education
B.A., Geology

License & Certifications
Professional Geologist:
Illinois (196000994)
Indiana (1876)

Jim Peyton, PG | Environmental

Project Role | Jim is a senior geologist in the site characterization section of Michael Baker's Chicago, Illinois regional office. He has completed a variety of environmental projects in areas ranging from investigation to remediation, construction oversight, and environmental impact assessment/planning. His project focus has included soil, sediment, surface water, air, and groundwater quality issues (from investigation to remediation), solid and hazardous waste management, environmental issues surrounding real estate transactions, construction management, underground storage tank closures, state voluntary cleanup programs, RCRA and CERCLA sites, and transportation related environmental impact assessments under the National Environmental Policy Act (NEPA) and/or state DOT guidelines.

Project Experience |

Phase I ESA Metal Forging Plant, Chicago, Illinois • McGuire Woods LLP. Environmental Reviewer. Michael Baker conducted a Phase I environmental site assessment (ESA) for a 22-acre metal forging plant site slated for redevelopment. Michael Baker performed the ESA according to American Society of Testing Materials (ASTM) and U.S. Environmental Protection Agency (USEPA) "All Appropriate Inquiry" (AAI) guidelines. Michael Baker researched numerous prior environmental reports; reviewed a comprehensive environmental database, historical Sanborn maps, and aerial photographs; filed State, Federal, and local Freedom of Information Act (FOIA) requests; conducted interviews with local officials and property owners; performed an extensive site reconnaissance; documented recognized environmental conditions (REC); produced site maps; and developed a final report.

860 North Lake Street and Lake Street Beach Phase I, Gary, Indiana • City of Gary. Environmental Project Manager. Responsible for final technical review of Phase I ESA.

Bike Path Property Assessment, Confidential Location • Confidential Steel Client. Senior Geologist/Project Manager. Responsible for oversight of composite surface soil sampling, data evaluation and reporting. Surface soil screening for potential conversion of unused facility property for part of a community bike path.

Former Lehigh Cement Facility Phase I Assessments, Phase II Investigations, Remedial Alternatives Estimates, Buffington Harbor, Indiana • The Majestic Star Casino, LLC. Environmental Project Manager, Senior Geologist. Phase I ESA for a 400-acre site. Responsible for performing regulatory reviews, conducting property inspections, performing data analysis, making regulatory recommendations, and preparing reports. Responsible for Phase II investigation, oversight of investigation, data evaluation, agency negotiations, and reporting.

Environmental Site Assessment for Proposed Lakefront Development, Confidential Location, Indiana • Confidential Steel Client. Geologist, Task Manager. Multi-pathway assessment of 122-acres lakefront development. Field team leader responsible for conducting soil, waste, sediment, surface water and groundwater, and geotechnical sampling, aquifer testing, work plan generation, and report writing.

WBK engineering

Years of Experience
16

Education
B.A., Biology

License & Certifications
Professional Wetland Specialist (2275)
Qualified Wetland Review Specialist, Kane County (W-068)
Certified Wetland Specialist, McHenry County
Certified Wetland Specialist, Lake County (C-138)

Natalie Paver, PWS | Environmental

Project Role | Natalie has 16 years of experience and is responsible for conducting on-site floristic studies, evaluations, and preparing maintenance and monitoring reports; on-site soil investigations and assessments, soil interpretation records and reports and soil maps; preparing wetland delineation reports, functional assessments, mitigation plans, and other environmental compliance/permitting documents; assisting with stream, wetland and wildlife habitat assessments and delineations; preparing environmental resource assessments; monitoring of sediment and erosion control on project sites; and construction and native landscape observation and management.

Project Experience |

Mallard Lake Forest Preserve Riverbank and Channel Restoration and Stabilization, DuPage County, Illinois.
The project involved the stabilization of the West Branch of the DuPage River within Mallard Lake Forest Preserve at a closed landfill site. In addition to stabilization, a portion of the channel was relocated away from the landfill. Natalie was responsible for the wetland assessment, threatened and endangered species consultations, and permitting through the USACE and DuPage County. She assisted the FPDDC with the mussel survey. Natalie prepared landscape plans and specifications for the project, and manages the post-construction maintenance and monitoring of the project for the permit requirements.

St. Joseph's Creek Stream Stabilization, Westmont, Illinois. This project involved the stabilization of 2,100 linear feet of St. Joseph Creek streambank through a residential area. Natalie assisted with the preparation of planting plans and permit submittals, including coordination with the Village of Westmont, DuPage County Stormwater Management, and US Army Corps of Engineers. She provided construction oversight for planting and seeding operations and maintained communication with the contractor. Natalie was responsible for the post-construction monitoring, reporting, and permit agency coordination for project sign-off.

Woods of Fox Glen Norton Creek Tributary Streambank Stabilization, St. Charles, Illinois. The project area within a tributary of Norton Creek between Fox Glen Drive and the St. Charles Country Club had significant erosion and channel degradation resulting in unstable slopes. WBK completed the design for stabilization of the stream and Natalie lead the wetland permitting and agency coordination for the project. She completed the post-construction monitoring and reporting and oversight of the contractor management efforts for the City of St. Charles.

Spring Brook No. 1 Creek & Wetland Restoration, Forest Preserve District of DuPage County, Illinois. Natalie leads the wetland permitting and landscape design for the project. The Phase I project included trail improvements, bridge replacement, pedestrian bridge, new channel alignment, habitat improvement, erosion control, landscaping and planting, and all necessary appurtenances. Natalie prepared the permit submittals and coordinated with the following permit agencies: US Army Corps of Engineers and the DuPage County Stormwater Management division. Phase II of the project includes the removal of a dam, restoration of the stream that was previously impoundment, new channel alignment, habitat improvement, bridge replacement, and landscape planting. Natalie assisted in writing the mitigation document, preparation permit submittals, and landscaping plans. Natalie currently performs the floristic monitoring inventories and assessments and compiles all the monitoring and maintenance data for the annual reports.

Michael Baker INTERNATIONAL MBAKERINTL.COM

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Section 3 | Technical Proposal

PROJECT UNDERSTANDING AND APPROACH

The Village of Orland Park is requesting proposals from qualified firms for the development of final plans, specifications, and estimates (PS&E) for Tinley Creek Streambank Stabilization Project. The project will address significant bank erosion at Tinley Creek caused by urbanization, loss of riparian vegetation, and watershed hydrology changes that have occurred over time.

Michael Baker is very familiar with Tinley Creek, in particular the segments within the Village of Orland Park. We have studied this stream since 2009 when we conducted a feasibility analysis to determine if Tinley Creek should be recommended for detailed design and construction under MWRD's Capital Improvement Program. For this stream, we looked at potential streambank stabilization and flood risk reduction solutions identified in the detailed watershed plan (DWP) for Calumet-Sag Channel, conducted a geotechnical investigation and collected sediment from stream bars and banks to evaluate bank stability design. Based on that analysis, natural channel design was the method recommended for stabilization and flood protection at Tinley Creek. In 2011, Michael Baker started working on the preliminary and final design for the stream stabilization of two segments with a total length of 0.8 miles. The final design, completed in 2014 included bioengineering solutions (soil lifts and rock toe) as well as in-stream structures (rock vanes, rock cross vanes, J-hook vanes) and retaining walls.

We understand the Village is increasing the total length of stream to be stabilized by 0.75 miles within the Village's boundaries, which includes the creek from 151st at the north end of the stream to 162th Street and Laurel Drive at the south end of the stream. Based on our site visit, the new stream segments that are being added to this project have similar erosion issues than the two segments previously designed by us. Our familiarity with the stream and understanding of the erosion issues at hand, give us an edge to get started on the design from the very beginning.

In addition, we know how important it is for the Village to obtain concurrence on the design from MWRD. Michael Baker and our Project Manager, Tatiana Papakos have worked with MWRD on multiple streambank stabilization projects and understand their policies and requirements. We also understand that the success of this project depends on getting the property owners to understand the benefits and impacts of the project on their own property. That is why we have assembled a team of experts that will cover all angles from public and stakeholder outreach, to UAS (unmanned aerial system) with a true imagery and video record of existing conditions, to GIS exhibits of proposed improvements, to easement plats and documents from a professional land surveyor. We have developed a project approach that addresses in detail these critical issues and will provide the Village of Orland Park with construction documents of high quality to successfully build the project. Our approach is described below.

Task 1 | Project Management & Coordination

Tatiana Papakos will be the project manager and single point of contact. Tatiana's philosophy for managing successful projects starts with establishing a project management plan (PMP) at the project onset. The PMP is a project specific document will define the communication, risk factors, contract requirements, quality assurance and quality control guidelines.

Beginning with a complete and thorough understanding of the project and the Village's goals, her management approach focuses on establishing communication/ coordination, scope, schedule, budget, invoicing, and

quality control protocols specific to the project. Tatiana will proactively monitor project scope, schedule, and budget and will communicate any identified potential changes with the Village Project Manager. Effective project management is Tatiana's top priority to ensure the Village of Orland Park's overall satisfaction with the project.

Michael Baker proposes to have a kickoff meeting at the onset of the project to layout the project schedule, budget and invoicing requirements, communication strategy, quality assurance and quality control process, and gather available data.

A monthly project management meeting with the Village will be held to report on project progress. In addition, internal meetings will also be held among the different disciplines to coordinate project activities. Tatiana will coordinate throughout the duration of the project with the Village and MWRD, as needed. Michael Baker's project delivery process is shown below.

Task 2 | Data Review & Collection

Our team will review the previous design and available reports. We have access not only to the reports but also background information for the geotechnical, structural, waste characterization, utility conflicts, sediment analysis, bank stabilization analysis, and hydrologic and hydraulic analyses we conducted during the original design. In addition, we will collect any recent information available for Tinley Creek.

Michael Baker will conduct field visits to confirm existing conditions and/or update them based on changes that have occurred since 2014. Prior to any field visit, we will coordinate with the Village and obtain authorization from the residents for site access. Our team will walk the stream to assess the development of the creek over time. This site assessment information will be used to calculate the size, shape, and frequency of instream structures and bank stabilization measures using sound engineering principles that have been exhaustively tested and detailed in the federal government's USDA NRCS National Engineering Handbook Part 654. Streams are dynamic and respond to changes throughout their watershed. So, it's important to understand their stability given current and potential future changes.

The site assessment and topographic data will also help update the bankfull widths of the original segments and determine bankfull widths for the new segments. There are indicators where benches have formed that tell us what the bankfull width is trying to be. We'll use bankfull and channel width to verify/determine spacing of in-stream structures.

Michael Baker's surveyor for this project, DB Sterlin, will update and collect new topographic survey. DB Sterlin conducted the original survey in 2012 and have the base files to easily and cost-effectively revise the survey data for the stream segments in the original design and survey the new stream segments. The topographic will include establishing horizontal and vertical controls, performing roadway and utility surveys, locating flagged utilities, flagged wetlands, and marked geotechnical borings.

Collection of cross-section data is necessary to accurately model the new stream segments for Tinley Creek. A detailed hydraulic survey of the channel is critical to include the channel thalweg, shape, bank elevations, and channel bed material. DB Sterlin will provide the hydraulic survey assuming cross section taken every 200

feet on the new stream segments. This data has already been collected for the original stream segments and will be verified or revised based on changed conditions once the topographic survey has been updated.

DB Sterlin will also perform a property survey for the properties to be impacted by the project. It is anticipated that approximately 50 residential properties and 2 commercial properties will be impacted by the project. This survey will be based on a boundary analysis and contain required information to determine and obtain permanent and temporary easements. It is assumed that title commitments for the 52 properties will be provided by the Village.

To assist the team in creating a photographic record of current conditions, Michael Baker proposes to utilize unmanned aerial systems (UAS) to collect photos and video of the stream and document each property location. This method will efficiently capture the existing condition of the stream while informing the design team of problematic areas along the creek banks.

Michael Baker has been implementing UAS into engineering applications since 2015 and has learned the value that UAS can add to small footprint projects like this one. Michael Baker's UAS capabilities range from technical applications like surveying and mapping, volumetric calculations, bridge and tower inspections, and digital surface creation to interactive 360-degree panoramic photos, marketing videos, and strategic progress photos to capture the lifecycle of a construction project or similar activity. The value of this wide range of experience is evident in the products we are able to provide to our clients that are a tailored solution to their needs. UAS provides unparalleled access and versatility in difficult access locations while collecting more relevant project data than most traditional methods.

An example of the data that UAS provides is shown in the figure above. The UAS's GPS location is recorded and displayed in a map view (right) alongside the video of the creek (left).

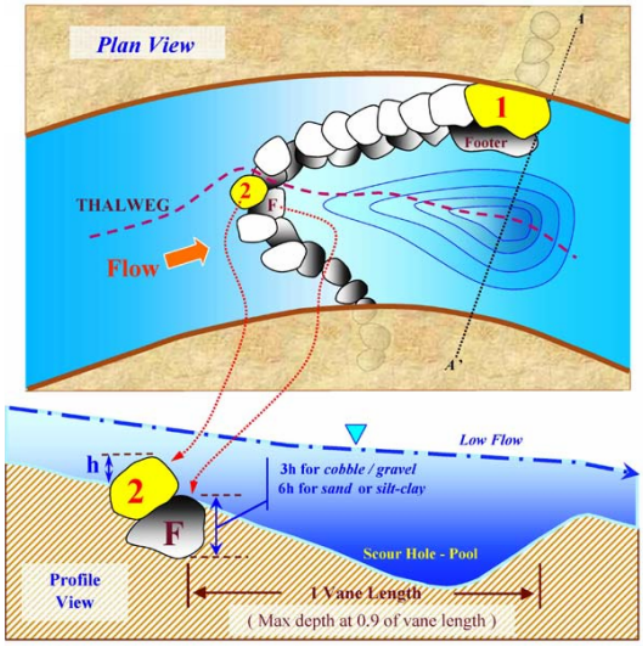
The UAS work can only be completed with permission of the property owners, which will be coordinated as part of Michael Baker and the Village's correspondence to them about the project.

Our subconsultant Wang will perform a geotechnical analysis for the new stream segments that where not part of Michael Baker's original design and may need a retention wall. We have assumed that approximately 8 borings up to a depth of 20 feet below existing grade will be needed. Soil testing will include natural moisture content, Atterberg limits, and particle size distribution. In addition, Wang will analyze soil samples for chemical testing for clean construction or demolition debris (CCDD) to characterize the soil for proper disposal. A geophysical survey using GPR will also be conducted to located utilities.

Task 3 | Streambank Stabilization, 30% Design

Our subconsultant Aqua Vitae (Gary Paradoski), will work closely with our streambank stabilization staff on the natural channel design. Gary is extremely familiar with Tinley Creek as he led the original streambank stabilization design while he was working at Michael Baker and directed all the site investigations and design elements.

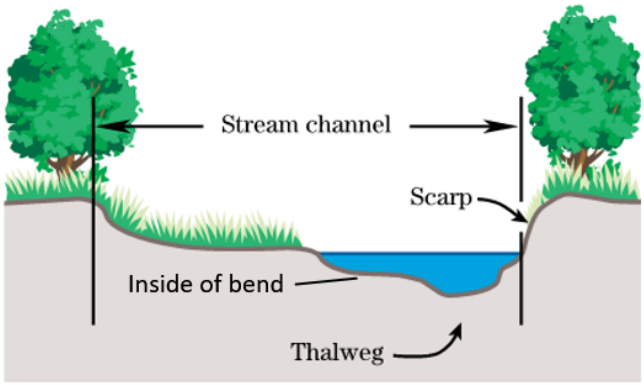
Michael Baker's original design addressed all streambank erosion concerns that were underway in 2014 through a combination of practices that work in conjunction with each other. The in-stream structures used in the original design (rock vanes, rock cross vanes, j-hook vanes) are used to divert stream flow away from the eroded slope and towards the center of the stream. The figure on the next page illustrates a typical cross vane with redirected flow path to the center of the stream.



This allows sediment from upstream to deposit and shifts the thalweg away from the banks. Correct spacing of vanes will maintain or flatten the creek bed slope and reduce velocities. Soil lifts and rock toe are used to stabilize steep slopes. These natural channel design techniques will be re-evaluated to determine if they still apply under the current bank conditions.

Additional streambank treatments such as bank grading focused on addressing erosion are included in the original design. Bank grading is the optimal stream bank stabilization solution for many reasons. First, it reduces high flow velocities and helps maintain or reduce the flood elevation. Second, it allows the residents to engage and enjoy their creek by creating safe conditions for access. Third, bank grading allows vegetation to grow, which improves habitat and meets the USACE permit conditions. Bank grading occurs above the normal water level where velocities are significantly lower and seed/plugs can quickly become established. This is done successfully and routinely on many IDOT and Tollway stream crossings throughout the entire region and is widely accepted and encouraged by the USACE. Furthermore, the use of native vegetation for bank cover has a high tolerance for road salts and captures pollutants to help improve the water quality of the creek.

CBBEL's Tinley Creek Memo dated July 30, 2020 recommends adding toe scour protection such as riprap or coir logs to all areas where stabilization is being proposed. Rock Toe is used only on the outside of bends, which is where velocities are higher and erosion occurs along stream banks. Erosion does not happen along the inside of bends since velocities are significantly lower there and benches or bars form there (as shown in the figure below). Rock toe on the inside of a bend exacerbates the erosion problem since it speeds up and pushes higher velocities toward the outside.



Coir Logs and Staking are insufficient for toe stabilization since they cannot withstand scour velocities and quickly break down from exposure to creek flows. Coir logs are routinely used within ditches since they can be shaped to function like cross-vanes within the ditch "channel"; however, coir logs fail when used longitudinally as stream bank toe stabilization.

Based on our site visit, portions of the new stream segments will require retention walls, which could be gabion walls, sheet pile walls, or soldier pile walls. Our multi-disciplinary team has geotechnical and structural engineering experts that will design the most appropriate wall type for each application. Retaining Walls were used in the original design to meet the MWRD criteria for protecting infrastructure within a certain distance from the stream banks. Walls speed up stream velocities and deflect energy onto the adjacent properties and downstream, which is why the USACE limits the length of walls allowed for a permit. Retaining walls are very costly too and were limited in the original design to maintain construction budget.

Michael Baker will perform a structural evaluation of current conditions including field review, review of surveyed conditions, constructability evaluation of previously designed walls for any changed conditions,

and coordination with hydraulic and civil engineers to determine the required plan locations and top and bottom retaining wall profiles based on current conditions.

It is assumed that the current conditions within the limits of the previously designed retaining walls have not changed significantly and the existing designs and dimensions are still valid. The 2014 Structural Plans were designed in accordance with 2012 AASHTO LRFD Bridge Design Specifications. Designs will be verified and updated against the current 2020 AASHTO LRFD Bridge Design Specifications. Reinforcement detailing and retaining wall quantities will be updated and incorporated into the plans.

CBBEL's Tinley Creek Memo indicates that additional retaining walls are required within the original stream segments and new retaining walls will be required within the new stream segments as well, based on a Tinley Creek field evaluation performed by CBBEL. A total of 2 new retaining walls and 4 new gabion walls are proposed. Structural Design, plans and details for the 6 new walls will be performed by Michael Baker.

Deliverables under this task include 30% design plans. The 30% design plans for the project will include: general sheets, civil plans, and structural plans.

Task 4 | Streambank Stabilization, 60% Design

Michael Baker will address comments provided on the 30% design submittal and will prepare 60% design plans, specification, and construction cost. The 60% design plans for the project will include: general sheets, civil plans, landscaping plans, and structural plans.

Easement documents will be prepared by our subconsultant and professional land surveyor DB Sterlin. It is assumed that approximately 52 properties will be impacted by the project. Drawings will be prepared for each of the 52 properties depicting standard legal property survey information and showing the permanent, temporary, and construction easement boundaries required for the project. The information will be included in a basic exhibit, unstamped drawings (one per property) which indicate limits and bearings of the easements, property lines, and related information to be shared with the property owners. In addition, plats of easements that can be used to execute easement agreements will be produced for each property. The easement agreements will be produced and executed by the village of Orland Park.

Michael Baker will identify properties that are not critical to the success of the project and will work with the Village to obtain agreement from the property owners that have properties critical to the project.

Task 5 | Streambank Stabilization, 90% Design

Michael Baker will address comments provided on the 60% design submittal and will prepare 90% design plans, specification, construction cost, and construction schedule. The 90% design plans for the project will include: general sheets, civil plans, landscaping plans, and structural plans, and details.

Michael Baker will prepare an annual operation and maintenance cost of the stream improvements over a 20-year period.

Task 6 | Stakeholder and Public Outreach

Public involvement and outreach are key elements in understanding how the project will impact the community directly and what is their response. Michael Baker will prepare for and attend a public meeting hosted by the Village. We will prepare and mail meeting invitation letters, prepare a power point presentation, and prepare the exhibits for each property showing the project impacts and easements. We will prepare for and attend up to 5 meetings with the property owners and/or homeowner associations to explain the project impacts and discuss the temporary and permanent easements that affect their property. Our subconsultant DB Sterlin will prepare the required easement documents (under Task 2 and 4). We will work closely with the Village to make sure the residents' concerns are addressed, and they clearly understand the changes to their property as a result of the project.

Task 7 | Permitting

Michael Baker worked with MWRD during the original design and secured the required permits for the project including USACE 404 joint permit, IEPA 401 certification, IDNR, and MWRD WMO permit. Most of these permits

have expired and/or will need to be modified to include design updates and proposed work on new stream segments. Michael Baker and its subconsultant WBK will review the original plans and permits and work together to prepare the required permit applications and secure the permits. Each site will be assessed to ensure that the proposed solution does not adversely affect wetlands, threatened or endangered species (TES). The National Wetlands Inventory and TES data obtained from the USFWS will be used as a preliminary assessment. In addition, we'll use supplemental data with more detail from MWRD for wetlands and TES obtained during the original design. Any permits required for implementation will be determined during the 30% design phase and Illinois DNR and USACE will be contacted to ensure that the sites are permitted properly.

Michael Baker and our team partner, WBK, will perform the wetland delineation, TES determination, EcoCAT, USFWS Section 7 consultation, permit requirement assessment, IHPA cultural review, Will South Cook Soil and Water Conservation District (SWCD) soil erosion and sediment control (SESC), prepare maintenance and monitoring plan per permit requirements for wetlands and buffer restoration, provide mitigation bank assistance if needed, prepare the MWRD WMO permit application, and attend up to four meetings with the regulatory agencies.

We have assumed the project can be permitted under the USACE Regional Permit 10 for Bank Stabilization with less than 500-feet of structural stabilization (no limit on biotechnical stabilization). If the Regional Permit Program expires before the permit is received (April 2022), then we anticipate the project can be permitted under a Letter of Permission (LOP) with less than 1 acre of wetland and waters impacts. Both the Regional Permit and LOP have no limits on biotechnical stabilization, but impacts will need to be under 1-acre of wetland or waters of the US.

The following permitting fee estimates are included in our proposal: $125 for the IDNR EcoCAT $5,000 for the SWCD SESC review and inspection fees, and $4,350 for the MWRD permit.

The Michael Baker team prepared an environmental analysis to determine soil contamination as part of the original design. The results of the analytical sampling determined that no contamination was encountered. For the new stream segments, Michael Baker will conduct analytical sampling to characterize the soil for proper disposal. This will be performed at the same time as the geotechnical analysis.

Task 8 | Bidding Support

Michael Baker will prepare a final plan, specifications, and construction cost estimate (PS&E) package that will be used by the Village to solicit bids for construction of the project. We will provide bidding support by preparing the invitation for bids, reviewing the bids, responding to bidder questions, and providing addendum support.

Task 9 | Construction Engineering & Observation Services

Michael Baker will prepare a scope of work for providing construction engineering support and observation services.

PROJECT SCHEDULE

We understand the importance of meeting the deliverable deadlines, and our reputable team is dedicated to meeting each task milestone for all assignments. Our full-service team of experts has the ability to be flexible and available so that we can deliver the project within the Village of Orland Park's timeline. Michael Baker has prepared the project schedule shown below. The schedule is based on the scope of work provided in the RFP and in this proposal. Keeping track of the schedule will allow us to update and regularly monitor project progress, costs, labor, and define critical path tasks. As the project progresses, if any schedule changes are anticipated, we will promptly notify the Village and submit an updated detailed Project Schedule.

NUMBER	TASK	START	END	DAYS
1	Task 1: Project Management and Coordination			
1.1	Notice to Proceed	Mon 5/3/21	Mon 5/3/21	1
1.2	Kick-off Meeting	Mon 5/10/21	Mon 5/10/21	1
1.3	Progress/Coordination Meetings	Mon 6/1/21	Sun 11/30/22	540
2	Task 2: Data Review and Collection			
2.1	Review existing design	Tue 5/11/21	Tue 5/25/21	10
2.2	Data collection	Tue 5/11/21	Fri 6/18/21	30
2.3	Field visits	Mon 5/24/21	Fri 5/28/21	2
2.4	Topographic survey	Tue 6/1/21	Fri 6/4/21	4
2.5	Photographic/video record - UAS	Mon 11/22/21	Fri 11/26/21	5
2.6	Geotechnical investigation	Mon 6/7/21	Fri 6/11/21	5
2.7	Utility locations	Mon 6/7/21	Fri 6/11/21	5
3	Task 3: Streambank Stabilization 30% Design			
3.1	H&H Modeling	Mon 6/21/21	Fri 7/16/21	20
3.2	Natural Channel Design	Thu 7/1/21	Fri 9/17/21	60
3.3	Structural Design	Mon 6/21/21	Fri 7/30/21	30
3.4	30% design deliverable	Mon 8/2/21	Fri 10/22/21	60
4	Task 4: Streambank Stabilization 60% Design			
4.1	Easement Documents	Mon 9/20/21	Fri 12/31/21	70
4.2	Construction Cost	Mon 10/25/21	Thu 11/25/21	20
4.3	60% design deliverable	Mon 10/25/21	Fri 12/31/21	50
5	Task 5: Streambank Stabilization 90% Design			
5.1	Construction Cost	Mon 1/3/22	Fri 1/28/22	20
5.2	90% design deliverable	Mon 1/3/22	Fri 1/28/22	20
6	Task 6: Stakeholder and Public Outreach			
6.1	Public Meeting	Mon 1/3/22	Fri 1/7/22	5
6.2	Public Outreach with Individual Owners	Mon 1/10/22	Fri 2/25/22	35
7	Task 7: Permitting			
7.1	Permitting	Mon 1/3/22	Mon 3/28/22	90
8	Task 8: Bidding Support			
8.1	Final PS&E package	Mon 2/28/22	Fri 3/18/22	15
8.2	Bidding Process (Review Bids, Questions, Addendums)	Mon 3/21/22	Fri 4/15/22	20
9	Task 9: Construction Engineering & Observation Support			
9.1	Scope for construction engineering & observation services	Mon 2/28/22	Fri 3/18/22	15

Michael Baker INTERNATIONAL MBAKERINTL.COM

200 West Adams Street, Suite 1800 | Chicago, IL 60606 | (312) 707-8770

Section 4 | Professional Fee

PROFESSIONAL FEE

As requested in the Addendum, the proposed fee is submitted in a separate document.

Michael Baker INTERNATIONAL MBAKERINTL.COM

200 West Adams Street, Suite 1800 | Chicago, IL 60606 | (312) 707-8770

Section 5 | Forms

ORLAND PARK

CERTIFICATE OF COMPLIANCE

The undersigned Joseph Catalano, P.E., as Vice President, Office Executive
(Enter Name of Person Making Certification) *(Enter Title of Person Making Certification)*

and on behalf of Michael Baker International, Inc., certifies that:
(Enter Name of Business Organization)

1) BUSINESS ORGANIZATION:

The Proposer is authorized to do business in Illinois: Yes [X] No [ ]

Federal Employer I.D.#: 25-1228638
(or Social Security # if a sole proprietor or individual)

The form of business organization of the Proposer is (*check one*):

___ Sole Proprietor
___ Independent Contractor *(Individual)*
___ Partnership
___ LLC
_X_ Corporation Pennsylvania *(State of Incorporation)* 4/28/1972 *(Date of Incorporation)*

2) ELIGIBILITY TO ENTER INTO PUBLIC CONTRACTS: Yes [X] No [ ]

The Proposer is eligible to enter into public contracts, and is not barred from contracting with any unit of state or local government as a result of a violation of either Section 33E-3, or 33E-4 of the Illinois Criminal Code, or of any similar offense of "Bid-rigging" or "Bid-rotating" of any state or of the United States.

3) SEXUAL HARRASSMENT POLICY: Yes [X] No [ ]

Please be advised that Public Act 87-1257, effective July 1, 1993, 775 ILCS 5/2-105 (A) has been amended to provide that every party to a public contract must have a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105 (A) (4) and includes, at a minimum, the following information: (I) the illegality of sexual harassment; (II) the definition of sexual harassment under State law; (III) a description of sexual harassment, utilizing examples; (IV) the vendor's internal complaint process including penalties; (V) the legal recourse, investigative and complaint process available through the Department of Human Rights (the "Department") and the Human Rights Commission (the "Commission"); (VI) directions on how to contact the Department and Commission; and (VII) protection against retaliation as provided by Section 6-101 of the Act. (Illinois Human Rights Act). (emphasis added). Pursuant to 775 ILCS 5/1-103 (M) (2002), a "public contract" includes "...every contract to which the State, any of its political subdivisions or any municipal corporation is a party."

4) EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE: Yes [X] No [ ]

During the performance of this Project, Proposer agrees to comply with the "Illinois Human Rights Act", 775 ILCS Title 5 and the Rules and Regulations of the Illinois Department of Human Rights published at 44 Illinois Administrative Code Section 750, et seq. The

Proposer shall: (I) not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, or physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; (II) examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization; (III) ensure all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, or physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; (IV) send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Vendor's obligations under the Illinois Human Rights Act and Department's Rules and Regulations for Public Contract; (V) submit reports as required by the Department's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and Department's Rules and Regulations for Public Contracts; (VI) permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and Department's Rules and Regulations for Public Contracts; and (VII) include verbatim or by reference the provisions of this Equal Employment Opportunity Clause in every subcontract it awards under which any portion of this Agreement obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as the other provisions of this Agreement, the Proposer will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the Proposer will not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations. Subcontract" means any agreement, arrangement or understanding, written or otherwise, between the Proposer and any person under which any portion of the Proposer's obligations under one or more public contracts is performed, undertaken or assumed; the term "subcontract", however, shall not include any agreement, arrangement or understanding in which the parties stand in the relationship of an employer and an employee, or between a Proposer or other organization and its customers. In the event of the Proposer's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Human Right Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights the Proposer may be declared non-responsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and this agreement may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulation.

5) TAX CERTIFICATION: Yes [X] No [ ]

Contractor is current in the payment of any tax administered by the Illinois Department of Revenue, or if it is: (a) it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the appropriate Revenue Act; or (b) it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.

6) AUTHORIZATION & SIGNATURE:

I certify that I am authorized to execute this Certificate of Compliance on behalf of the Contractor set forth on the Proposal, that I have personal knowledge of all the information set forth herein and that all statements, representations, that the Proposal is genuine and not collusive, and information provided in or with this Certificate are true and accurate. The undersigned, having become familiar with the Project specified, proposes to provide and furnish all of the labor, materials, necessary tools, expendable equipment and all utility and transportation services necessary to perform and complete in a workmanlike manner all of the work required for the Project.

ACKNOWLEDGED AND AGREED TO:

Signature of Authorized Officer

Joseph Catalano, P.E.

Name of Authorized Officer

Vice President, Office Executive

Title

March 29, 2021

Date

REFERENCES

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

Bidder's Name: Michael Baker International, Inc.
(Enter Name of Business Organization)

1. ORGANIZATION Metropolitan Water Reclamation District
   ADDRESS 111 E. Erie Street Chicago, IL 60611
   PHONE NUMBER (312) 751-3191
   CONTACT PERSON Pedro Ortiz, PE
   YEAR OF PROJECT 2011 - 2021

2. ORGANIZATION Metropolitan Water Reclamation District
   ADDRESS 111 E. Erie Street Chicago, IL 60611
   PHONE NUMBER (312) 751-7918
   CONTACT PERSON John Murray, PE
   YEAR OF PROJECT 2019 - 2021

3. ORGANIZATION Illinois Department of Natural Resources
   ADDRESS One Natural Resources Way, Springfield, IL 62702
   PHONE NUMBER (217) 782-4439
   CONTACT PERSON Ted Montrey, PE
   YEAR OF PROJECT 2018 - 2021

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 LIABILITY (Umbrella-Follow Form Policy)
$2,000,000 – Each Occurrence
$2,000,000 – Aggregate
EXCESS MUST COVER: General Liability, Automobile Liability, Workers Compensation

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 to be 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 28 DAY OF March, 2021

Joseph Catalano
Signature

Joseph Catalano, PE
Vice President, Office Executive
Printed Name & Title

Authorized to execute agreements for:

Michael Baker International, Inc.
Name of Company

CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY) 08/27/2020

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
Aon Risk Services Central, Inc.
Pittsburgh PA Office
EQT Plaza ~ Suite 2700
625 Liberty Avenue
Pittsburgh PA 15222-3110 USA

CONTACT NAME:
PHONE (A/C. No. Ext): (866) 283-7122 **FAX (A/C. No.):** (800) 363-0105
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A:	American Casualty Co. of Reading PA	20427
INSURER B:	Transportation Insurance Co.	20494
INSURER C:	Continental Casualty Company	20443
INSURER D:	Allied World National Assurance Company	10690
INSURER E:	Allied World Surplus Lines Insurance Co	24319
INSURER F:		

INSURED
Michael Baker International, Inc
200 West Adams Street, Suite 2800
Chicago IL 60606 USA

COVERAGES **CERTIFICATE NUMBER:** 570083687969 **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. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X COMMERCIAL GENERAL LIABILITY			6078988730	08/30/2020	08/30/2021	EACH OCCURRENCE	$2,000,000
	CLAIMS-MADE X OCCUR			General Liability				
B				6079257181	08/30/2020	08/30/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
				20-21 Stop Gap (US)			MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$4,000,000
	POLICY X PRO-JECT X LOC						PRODUCTS - COMP/OP AGG	$4,000,000
	OTHER:							
C	AUTOMOBILE LIABILITY			BUA 6078988680	08/30/2020	08/30/2021	COMBINED SINGLE LIMIT (Ea accident)	$2,000,000
	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)	
D	X UMBRELLA LIAB X OCCUR			03124809	08/30/2020	08/30/2021	EACH OCCURRENCE	$10,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$10,000,000
	DED X RETENTION $10,000							
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			WC6078988713	08/30/2020	08/30/2021	X PER STATUTE OTH-ER	
	ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N / A		AOS				
B	(Mandatory in NH)			WC6078988727	08/30/2020	08/30/2021	E.L. EACH ACCIDENT	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below			WI			E.L. DISEASE-EA EMPLOYEE	$1,000,000
							E.L. DISEASE-POLICY LIMIT	$1,000,000
E	E&O-PL-Primary			03124806	08/30/2020	08/30/2021	Per Claim	$5,000,000
				Claims Made			Aggregate	$5,000,000
				SIR applies per policy terms & conditions				

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

CERTIFICATE HOLDER

Michael Baker International, Inc.
200 W. Adams Street, Suite 2800
Chicago IL 60606 USA

CANCELLATION

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

Aon Risk Services Central, Inc.

Holder Identifier :

Certificate No : 570083687969

AGENCY CUSTOMER ID: 570000027699
LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY	NAMED INSURED
Aon Risk Services Central, Inc.	Michael Baker International, Inc
POLICY NUMBER: See Certificate Number: 570083687969	
CARRIER: See Certificate Number: 570083687969 / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

ADDITIONAL POLICIES If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
	WORKERS COMPENSATION							
A		N/A		WC6078988694 CA	08/30/2020	08/30/2021		

Michael Baker INTERNATIONAL MBAKERINTL.COM

200 West Adams Street, Suite 1800 | Chicago, IL 60606 | (312) 707-8770

Section 6 | Other Documents

ADDENDUM ACKNOWLEDGMENTS

Michael Baker acknowledges receipt of the full set of contract documents and Addendums 1, 2 and 3. Michael Baker's proposal is a firm offer for a period of at least 120 days and we will comply with all terms of the Request for Proposal.

PROPOSED CONTRACT MODIFICATIONS

Michael Baker would like to propose the following contract modifications:

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GENERAL TERMS AND CONDITIONS

Assignment

The successful Proposer shall not assign the work of this Project without the prior written approval of the Village.

Award

Award of the contract is subject to Village Board approval. The Village award will be made within ninety (90) days after the date of the proposal opening, or any mutually agreed extension thereof.

Compliance with Laws

The Proposer shall at all times observe and comply with all laws, ordinances and regulations of the federal, state, local and Village governments, which may in any manner affect the preparation of proposals or the performance of the Contract. Proposer hereby agrees that it will comply with all requirements of the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq., including the provision dealing with sexual harassment and that if awarded the Contract will not engage in any prohibited form of discrimination in employment as defined in that Act and will require that its subcontractors agree to the same restrictions. Proposers and all subcontractors shall comply with all requirements of the Act and of the Rules of the Illinois Department of Human Rights with regard to posting information on employees' rights under the Act. Proposers are also required to comply with all applicable federal laws, state laws and regulations regarding minimum wages, limit on payment to minors, minimum fair wage standards for minors, payment of wage due employees, and health and safety of employees. Proposers are required to pay employees all rightful salaries, medical benefits, pension and social security benefits pursuant to applicable labor agreements and federal and state statutes and to further require withholdings and deposits therefore.

Confidentiality

As a unit of local government, the Village is subject to the Illinois Freedom of Information Act (FOIA) or 5 ILCS 140/1, et. seq. as amended. Therefore, after award of the Contract, responses, documents, and materials submitted by the Proposer in response to this RFP will be made available for public inspection in accordance FOIA, unless otherwise determined by the Village Manager. Based upon the public nature of these RFPs, where applicable, a Proposer must inform the Village, in writing, of the exact materials in the offer which it claims are exempt from disclosure pursuant to FOIA.

Contract

Actual work cannot begin until the Village issues a written Notice to Proceed to the successful Proposer. In order to receive said Notice, the successful Proposer shall submit to the Village for its approval all the necessary contracts, bonds, and insurance. Village approval of the contracts, bonds, and insurance shall be evidenced by its issuance of the signed contract by the Village and

the Notice to Proceed. The Village reserves the right to terminate the relationship with the successful Proposer if these documents are not submitted to and approved by the Village within ten (10) days of notice of proposal award. *Section III* includes a sample standard contract, subject to modifications, that the successful Proposer will be required to enter into with the Village within ten (10) business days of notice of proposal award (hereinafter referred to as the "Contract"). This Contract will be satisfied upon completion, inspection, acceptance, and final payment for the work performed. Certain provisions of the Contract shall survive the expiration or termination of the Contract.

Incurred Costs

The Village will not be liable in any way for costs incurred by Proposers in replying to this RFP.

Indemnification

The successful Proposer shall indemnify, defend and hold harmless the Village, its trustees, officers, directors, officials, agents, employees, representatives and assigns, from lawsuits, actions, costs (including attorney's fees), claims or liability of any character, incurred due to the ~~alleged~~ negligence of the Proposer, brought because of any injuries or damages received or sustained by any person, persons or property on account of any act or omission, neglect or misconduct of said Proposer, its officers, agents and/or employees and for ~~arising out of, or in performance of any of the Contract provisions, including and~~ claims or amounts recovered for any infringements of patent, trademark or copyright; or from any claims or amounts arising or recovered under the "Worker's Compensation Act: or any other law, ordinance, order or decree. In connection with any such claims, lawsuits, actions or liabilities, the Village, its trustees, officers, directors, officials, agents, employees, representatives and their assigns shall have the right to defense counsel of their choice. ~~The Proposer shall be solely liable for all costs of such defense and for all expenses, fees, judgments, settlements and all other costs arising out of such claims, lawsuits, actions or liabilities.~~

The Proposer shall not make any settlement or compromise of a lawsuit or claim, or fail to pursue any available avenue of appeal of any adverse judgment, without the approval of the Village and any other indemnified party. The Village ~~or any other indemnified party,~~ in its or their sole discretion, shall have the option of being represented by its or their own counsel. If this option is exercised, then the Proposer shall promptly reimburse the Village or other indemnified party, upon written demand, for any expenses, including but not limited to court costs, reasonable attorneys' and witnesses' fees and other expenses of litigation incurred by the Village or other indemnified party in connection therewith.

Insurance

The successful Proposer shall produce and maintain for the term of the Contract, and any renewals or extensions thereof, the various insurance coverage requirements as stated on the enclosed Insurance Requirements certification in *Section III* of this RFP. Proposers must sign and submit with the proposal, the Insurance Requirements in *Section III* of this RFP, as recognition of the insurance coverages and amounts that will be required to be in place before the commencement of any work by the successful Proposer. By signing this form, Proposers certify

that in the event the Proposer does not already have the required insurance coverages in place, the Proposer has checked with their insurance carrier and verified that the coverages and endorsements requested will be able to be obtained by the Proposer within ten (10) days after the date of the Notice of Award of the Contract. Certified copies of policies evidencing required insurance coverage and all certificates of insurance in connection therewith shall be furnished to the Village at its request prior to commencement of any work. All such policies shall name the Village as an additional insured and shall provide that the policy may not be terminated or canceled without at least thirty (30) days advance written notice to the Village, or, except upon prior written approval of the Village, materially changed. Proposers have the sole responsibility of verifying that the coverages and endorsements will be available for purchase and that they have made any and all inquiries necessary to satisfy this requirement and fully inform themselves in regards to any additional policy premiums the successful Proposer may incur as a result of obtaining said required coverage's. Proposers also represent that they have taken the insurance requirements into account and at Proposers' sole discretion, has factored this into the proposal prices submitted. The successful Proposer is solely and entirely responsible for the payment of policy premiums and in no event will the Village be obligated to incur any additional expense, nor will the Village increase the amount of the Contract above the amount proposal, as a result of any expense the successful Proposer may incur to satisfy the obligations required herein.

Length of Contract

The terms and conditions of the services contract herein shall be mutually agreed upon by both the Village and the selected proposer.

Negotiations

The Village reserves the right to negotiate specifications, terms and conditions which may be necessary or appropriate to the accomplishment of the purpose of this Project. The Village may require the entire proposal be made an integral part of the resulting contract. This implies that all responses, supplemental, and other submissions provided by the Proposer during discussions or negotiations will be held by the Village as contractually binding on the successful Proposer.

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SAMPLE AGREEMENT

(Contract for Services)

This Contract is made this xx day of month, 20xx by and between the VILLAGE OF ORLAND PARK (hereinafter referred to as the "VILLAGE") and _____ (hereinafter referred to as the "CONTRACTOR").

WITNESSETH

In consideration of the promises and covenants made herein by the VILLAGE and the CONTRACTOR (hereinafter referred to collectively as the "PARTIES"), the PARTIES agree as follows:

SECTION 1: THE CONTRACT DOCUMENTS: This Contract shall include the following documents (hereinafter referred to as the "CONTRACT DOCUMENTS") however this Contract takes precedence and controls over any contrary provision in any of the CONTRACT DOCUMENTS. The Contract, including the CONTRACT DOCUMENTS, expresses the entire agreement between the PARTIES and where it modifies, adds to or deletes provisions in other CONTRACT DOCUMENTS, the Contract's provisions shall prevail. Provisions in the CONTRACT DOCUMENTS unmodified by this Contract shall be in full force and effect in their unaltered condition.

The Request for Proposals #xx-xxx issued month day, 20xx
The Instructions to Proposers
This Contract
The Proposal submitted month day, 20xx, to the extent it does not conflict with this contract
Certificate of Compliance
Certificates of insurance

SECTION 2: SCOPE OF THE WORK AND PAYMENT: The CONTRACTOR agrees to provide labor, equipment and materials necessary to provide the services as described in the CONTRACT DOCUMENTS and further described below:

(hereinafter referred to as the "WORK") and the VILLAGE agrees to pay the CONTRACTOR pursuant to the provisions of the Local Government Prompt Payment Act (50 ILCS 505/1 *et seq.*) the following amount for performance of the described services:
_____ and No/100 ($_____) Dollars.

SECTION 3: ASSIGNMENT: CONTRACTOR shall not assign the duties and obligations involved in the performance of the WORK which is the subject matter of this Contract without the written consent of the VILLAGE.

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SECTION 4: TERM OF THE CONTRACT: This Contract shall commence on the date of its execution. The WORK shall commence upon receipt of a Notice to Proceed and continue expeditiously for_____[*days*] [*months*] [*years*] from that date. This Contract shall terminate upon completion of the WORK or_____[year(s)][month(s)], whichever occurs first, but may be terminated by either of the PARTIES for default upon failure to cure after ten (10) days prior written notice of said default from the aggrieved PARTY. The VILLAGE, for its convenience, may terminate this Contract with thirty (30) days prior written notice.

SECTION 5: INDEMNIFICATION AND INSURANCE: The CONTRACTOR shall indemnify, defend and hold harmless the VILLAGE, its trustees, officers, officials, directors, agents, employees and representatives and assigns, from lawsuits, actions, costs (including attorneys' fees), claims or liability of any character, incurred due to the ~~alleged~~ negligence of the CONTRACTOR, brought because of any injuries or damages received or sustained by any person, persons or property on account of any act or omission, neglect or misconduct of said CONTRACTOR, its officers, officials, agents and/or employees ~~arising out of, or in performance of any of the provisions of the CONTRACT DOCUMENTS~~, including any claims or amounts recovered for any infringements of patent, trademark or copyright; or from any claims or amounts arising or recovered under the "Worker's Compensation Act" or any other law, ordinance, order or decree. In connection with any such claims, lawsuits, actions or liabilities, the VILLAGE, its trustees, officers, directors, officials, agents, employees, representatives and their assigns shall have the right to defense counsel of their choice. ~~The CONTRACTOR shall be solely liable for all costs of such defense and for all expenses, fees, judgments, settlements and all other costs arising out of such claims, lawsuits, actions or liabilities.~~

The Contractor shall not make any settlement or compromise of a lawsuit or claim, or fail to pursue any available avenue of appeal of any adverse judgment, without the approval of the Village and any other indemnified party. The Village or any other indemnified party, in its or their sole discretion, shall have the option of being represented by its or their own counsel. If this option is exercised, then the Contractor shall promptly reimburse the Village or other indemnified party, upon written demand, for any expenses, including but not limited to court costs, reasonable attorneys' and witnesses' fees and other expenses of litigation incurred by the Village or other indemnified party in connection therewith.

The indemnification obligation under this paragraph shall ~~not be limited~~ not exceed the total fee for Contractor's services rendered in the project ~~in any way by any limitations on the amount or type of damages, compensation or benefits payable by or for the benefit of Subcontractor or any indemnities under any Worker's Compensation Act, Occupational Disease Act, Disability Benefits Act, or any other employee benefits act. The Subcontractor further agrees to waive any and all liability limitations based upon the Worker's Compensation Act court interpretations or otherwise.~~

Execution of this Contract by the VILLAGE is contingent upon receipt of Insurance Certificates provided by the CONTRACTOR in compliance with the CONTRACT DOCUMENTS.

SECTION 6: COMPLIANCE WITH LAWS: CONTRACTOR agrees to comply with all federal, state and local laws, ordinances, statutes, rules and regulations including but not limited to the Illinois Human Rights Act as follows: CONTRACTOR hereby agrees that this contract shall

be performed in compliance with all requirements of the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq., and that the CONTRACTOR and its subcontractors shall not engage in any prohibited form of discrimination in employment as defined in that Act and shall maintain a sexual harassment policy as the Act requires. The CONTRACTOR shall maintain, and requirethat its subcontractors maintain, policies of equal employment opportunity which shall prohibit discrimination against any employee or applicant for employment on the basis of race, religion, color, sex, national origin, ancestry, citizenship status, age, marital status, physical or mental disability unrelated to the individual's ability to perform the essential functions of the job, association with a person with a disability, or unfavorable discharge from military service. CONTRACTOR and all subcontractors shall comply with all requirements of the Act and of the Rules of the Illinois Department of Human Rights with regard to posting information on employees' rights under the Act. CONTRACTOR and all subcontractors shall place appropriate statements identifying their companies as equal opportunity employers in all advertisements for workers to be employed in work to be performed under this contract.

The CONTRACTOR shall obtain all necessary local and state licenses and/or permits that may be required for performance of the WORK and provide those licenses to the VILLAGE prior to commencement of the WORK.

SECTION 7: NOTICE: Where notice is required by the CONTRACT DOCUMENTS it shall be considered received if it is delivered in person, sent by registered United States mail, return receipt requested, delivered by messenger or mail service with a signed receipt, sent by facsimile or e-mail with an acknowledgment of receipt, to the following:

To the VILLAGE:	To the CONTRACTOR:
Village of Orland Park	
14700 South Ravinia Avenue	
Orland Park, Illinois 60462	
Telephone:	Telephone:
Facsimile:	Facsimile:
e-mail:	e-mail:

or to such other person or persons or to such other address or addresses as may be provided by either party to the other party.

SECTION 8: STANDARD OF SERVICE: Services shall be rendered to the highest professional standards to meet ~~or exceed~~ those standards met by others providing the same or similar services in the Chicagoland area. Sufficient competent personnel shall be provided who with supervision shall complete the services required within the time allowed for performance. The CONTRACTOR'S personnel shall, at all times present a neat appearance and shall be trained to handle all contact with Village residents or Village employees in a respectful manner. At the request of the Village Manager or a designee, the CONTRACTOR shall replace any incompetent, abusive or disorderly person in its employ.

SECTION 9: PAYMENTS TO OTHER PARTIES: The CONTRACTOR shall not obligate the VILLAGE to make payments to third parties or make promises or representations to third parties on behalf of the VILLAGE without prior written approval of the Village Manager or a designee.

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SECTION 10: COMPLIANCE: CONTRACTOR shall comply with all of the requirements of the Contract Documents, including, but not limited to, the Illinois Prevailing Wage Act where applicable and all other applicable local, state and federal statutes, ordinances, codes, rules and regulations.

SECTION 11: FREEDOM OF INFORMATION ACT COMPLIANCE: The Illinois Freedom of Information Act (FOIA) has been amended and effective January 1, 2010. This amendment adds a new provision to Section 7 of the Act which applies to public records in the possession of a party with whom the Village of Orland Park has contracted. The Village of Orland Park will have only a very short period of time from receipt of a FOIA request to comply with the request, and there is a significant amount of work required to process a request including collating and reviewing the information.

The undersigned acknowledges the requirements of FOIA and agrees to comply with all requests made by the Village of Orland Park for public records (as that term is defined by Section 2(c) of FOIA) in the undersigned's possession and to provide the requested public records to the Village of Orland Park within two (2) business days of the request being made by the Village of Orland Park. The undersigned agrees to indemnify and hold harmless the Village of Orland Park from all claims, costs, penalty, losses and injuries (including but not limited to, attorney's fees, other professional fees, court costs and/or arbitration or other dispute resolution costs) arising out of or relating to its failure to provide the public records to the Village of Orland Park under this agreement.

SECTION 12: LAW AND VENUE: The laws of the State of Illinois shall govern this Contract and venue for legal disputes shall be Cook County, Illinois.

SECTION 13: MODIFICATION: This Contract may be modified only by a written amendment signed by both PARTIES.

SECTION 14: COUNTERPARTS: This Contract may be executed in two (2) or more counterparts, each of which taken together, shall constitute one and the same instrument.

This Contract shall become effective on the date first shown herein and upon execution by duly authorized agents of the parties.

FOR: THE VILLAGE	FOR: THE CONTRACTOR
By:_____	By:_____
Print Name: George Koczwara	Print Name: _____
Its: Village Manager	Its: _____
Date:_____	Date: _____