ENGINEERING
RESOURCE ASSOCIATES

PRIMARY CONTACT:

Erin Pande, PWS, CFM
Project Manager
3S701 West Avenue, Suite 150
Warrenville, IL 60555
P: 630-393-3060 x1041
epande@eraconsultants.com

TABLE OF CONTENTS:

PROPOSAL FOR:

RFP #21-015 Tinley Creek Streambank Stabilization

PREPARED FOR:

Village of Orland Park
14700 S. Ravinia Ave.
Orland Park, IL 60462

DUE:

March 29, 2021 at 11:00 A.M.

ENGINEERING RESOURCE ASSOCIATES

March 29, 2021

Nicole Merced
Purchasing Coordinator
Village of Orland Park
14700 S. Ravinia Ave.
Orland Park, IL 60462

Subject: Proposal - Tinley Creek Streambank Stabilization

Dear Nicole:

Engineering Resource Associates, Inc. (ERA), is pleased to submit this proposal for the Tinley Creek Streambank Stabilization. This proposal has been prepared in accordance with the request for proposal, addendums 1, 2, and 3, and our experience on similar assignments.

ERA is a civil engineering, structural engineering, environmental science, and land surveying consulting firm with specialized expertise in the analysis, design, and construction of innovative stormwater & environmental solutions. We offer the following advantages on this assignment:

- ERA has developed a unique and proven project team that have worked together in similar roles on past projects. Our team combines ERA's civil and structural engineering, environmental, and permitting experience with American Surveying & Engineering's (a Minority Business Enterprise) land survey expertise.
- ERA currently provides streambank stabilization design services for various communities throughout northeastern Illinois with our expertise both in hydraulic analysis and natural ecosystem functions.
- ERA has designed numerous stream restoration projects with both structural stabilization practices and "soft" stabilization practices. Our experience will allow us to analyze and value engineer previous design plans to develop appropriate erosion solutions.
- ERA also has experience with various stream bypass systems including partial and full diversions with various means of constructions (e.g., sheet pile, bladder, etc.), which will be a critical component of the Tinley Creek project.
- ERA has collaborated with MWRD and all the major stakeholders that may be involved in this project on previous assignments. ERA has previous experience working on a municipal project for which MWRD was a financial partner.

ERA has earned an excellent reputation for our quality of work and our responsiveness to our clients. We appreciate the opportunity to submit this statement of qualifications and we look forward to working with the Village of Orland Park. Please contact me if you have any questions or require additional information at (630) 393-3060, or via email to epande@eraconsultants.com.

Sincerely,
ENGINEERING RESOURCE ASSOCIATES, INC.

Erin Pande, PWS, CFM
Project Manager

ENGINEERING RESOURCE ASSOCIATES

COMPANY PROFILE



Engineering Resource Associates, Inc. (ERA) is a consulting firm providing civil engineering, structural engineering, environmental science and surveying services to clients throughout Illinois, Indiana, Wisconsin, and Colorado. Our diverse clientele includes private development, municipalities, park districts, forest preserves, sanitary districts, county agencies and state agencies. We have more than 30 years of experience identifying and working with a wide variety of local, state and federal funding sources. Our staff of professionals includes licensed engineers, structural engineers, surveyors, environmental scientists, certified floodplain managers and CAD/GIS specialists.

Our firm specializes in providing comprehensive services throughout the planning, design and construction phases of engineering and environmental assignments. The following is a partial listing of the primary types of projects that have successfully been completed by our firm.

Stormwater
Hydrologic & Hydraulic Analyses, Master Plans, Watershed Studies, Ordinance & Guidance Manuals, Storm & Sanitary Modeling, Floodplain Mapping, Stream Restoration, Levee Certification, Civil/Site Plan Reviews, Permitting Assistance &CRS Services

Environmental
Wetland Mitigation & Enhancement, Stream Bank & Shoreline Stabilization, Best Management Practices (BMPs), Natural Area Restoration, NPDES Assistance & Grant Assistance

Parks and Recreation
Riverwalks, Sports Complexes, Golf Courses, Regional Trails & Paths, Community Parks, Open Spaces, Dog Parks, & State Park Improvements

Site Development
Design and Rehabilitation of Municipal Facilities, Education, Healthcare, Commercial and Residential

Transportation
Design & Rehabilitation of Roadways, Parking Facilities, Intersections, Traffic Signals, Lighting, & Streetscape

Utilities
Design & Rehabilitation of Sanitary Sewers, Storm Sewers, Water Mains & Pumping Stations

Construction
Construction Management, Bidding Assistance, Construction Layout, Observation, IDOT Documentation and Construction Administration

Structural
Phase I & Phase II Engineering for Design & Rehabilitation of Highway Bridges, Culverts, Retaining Walls, Dams & NBIS Bridge Inspections

Surveying and Mapping
Topographic Surveys, Boundary Surveys, UAV & Drone Surveys, Construction Layout & Geographic Information Services (GIS) Services

OFFICE LOCATIONS

Warrenville (Corporate Office)
3s701 West Avenue, Suite 150
Warrenville, IL 60555
Phone: (630) 393-3060

Chicago
10 S. Riverside Plaza
Suite 875
Chicago, IL 60606
Phone: (312) 474-7841

Champaign
2416 Galen Drive
Champaign, IL 61821
Phone: (217) 351-6268

Denver
Denver, CO 80209
Phone: (303) 790-9500

ENGINEERS I SCIENTISTS I SURVEYORS

ENGINEERING RESOURCE ASSOCIATES

Operating History

Engineering Resource Associates, Inc.

Number of Years in Business

- 31 – ERA was founded in March 1990

Officers of the Company

- Jon P. Green, PE, CFM – President
- John F. Mayer, PE, CFM – Vice President
- Marty J. Michalisko, PE, CFM – Principal
- Jacob R. Wolf, PE – Principal
- Brian J. Dusak, PE – Principal

Annual Volume of Similar Work

- In 2019, ERA had gross billings of approximately $5.9 million. Nearly 75% ($4,425,000) was performed for municipal clients.

Current Capacity

- Our current staff includes 42 professionals including registered engineers, structural engineers, surveyors, technicians, and environmental scientists. We have been fortunate to maintain a steady workload throughout 2020 and into 2021. However, we fully anticipate having sufficient capacity available to complete this project in accordance with the Village of Orland Park's needs.

Listing of Existing Suits, Claims, or Pending Judgments

- ERA is not involved in any existing suits, claims, or pending judgments.

Village of Orland Park

Khurshid Hoda, Director of Engineering Programs and Services

QA/QC Manager

John Mayer, PE, CFM

Project Manager

***Erin Pande, PWS, CFM**

Subconsultant

American Surveying & Engineering, P.C.
Surveying

Environmental Team

***Andrew Kustusch, PE, CFM**
Environmental Lead

Natalia Mikolajczyk, CFM
Design Engineer

Bradley Earnest
Wetland Specialist

Mitch Plonka
Environmental Scientist

Water Resources Team

***Jennifer Loewenstein, PE, CFM, CPESC**
Lead Water Resource Engineer

Melissa Lange, PE, SE
Structural Engineer

Molly Garrow, PE, CFM
Water Resource Engineer

Michael Maslowski, PE, CFM
Water Resource Engineer

Survey Team

***Tim Martinek, PLS**
Survey Lead

Rick Costa
Surveyor

Rick Tanner
CAD Technician

* Resumes Included

ENGINEERING RESOURCE ASSOCIATES

Andrew Kustusch, PE, CFM
Environmental Lead

Project Experience:

Klein Creek Master Watershed Plan and Streambank Stabilization Project, Carol Stream, IL – Environmental Engineer for the preparation of a 12.7 square mile master watershed plan for the Klein Creek watershed for inclusion in DuPage County's watershed plan addendum. The master plan identified bank stabilization projects along Klein and Thunderbird Creeks along with other water quality improvement projects throughout the watershed. Stabilization practices will include pool-riffle structures, native plantings, root wads, habitat rehabilitation, re-meandering, stream bed restoration, rock outcropping bank stabilization, and wetland creation. ERA assisted in applying for Environmental Protection Agency (EPA) Section 319 funds, which awarded the project $1M in funding in 2020.

Elmhurst Levee Accreditation and Maintenance Improvements, Elmhurst, IL - Environmental Engineer for the levee accreditation under the FEMA Map Modernization Program, as protection for residents from the 100-year flood thereby removing the NFIP floodplain designation and subsequent flood insurance requirement. The levee provides flood protection to about 5,250 residents. Andrew assisted with the re-development of Elmhurst Public Works Maintenance and Operation Plan. Andrew conducted research of the applicable FEMA and USACE regulatory and guidance documents, and coordinated with several FEMA agents to ensure that all requirements were met. Andrew performed a USACE Risk Based Analysis to demonstrate that conditional non-exceedance probability (CNP) is 95% or greater for the 1% annual chance flood in order to receive a variance from the freeboard requirements at two road crossings over Salt Creek. Andrew prepared and submitted certification documents to FEMA.

West Branch River Restoration and Hydraulics Improvements, Warrenville, IL – Environmental Engineer for a 7,000 foot river restoration project between McDowell Grove Dam and Warrenville Grove Dam. The project included an assessment of the stream, remeander of the West Branch, delineation of numerous wetlands, avoidance and minimization and subsequent mitigation and permitting. River restoration included modifications to Mcdowell Grove Dam, riffles, 7,000 linear feet of streambank stabilization and removal of non-native invasive species. Andrew developed the HEC-RAS sediment transport analysis model to determine the appropriate streambed material gradation.

St. Joseph Creek South Stream Corridor Assessment, Downers Grove, IL – Environmental Engineer for a hydrology/hydraulic analysis and stream assessment for the St. Joseph Creek South Branch. Drew performed a field survey and identified areas in the stream that required stabilization, and at the same time identified opportunities to meander the channel and naturalize the floodplain. Drew also delineated the limits of the Waters of the US and wetlands throughout the stream corridor. Design alternatives for the stream improvements included replacement of four culvert crossing, expansion of flood plain storage and development of on-stream detention basins. ERA worked closely with DuPage County to include the recommended projects in their overall EPA watershed plan.

Education/Certifications:

- Master of Science, Environmental Engineering, University of California Berkeley-2012
- Bachelor of Science Civil and Environmental Engineering University of Illinois – 2011
- PE – IL 062-067858 - 2015
- PE - CO 0056328 - 2019
- Certified Floodplain Manger US-19-11230

Areas of Expertise:

- Park Site Development
- Multi-Use Bike Trail Concept Planning and Design
- Floodplain Mgnt and Permitting
- Stormwater Mgnt and Modeling
- Low Impact Green Infastructure
- Streambank Stabilization and Restoration
- Stormwater Ordinance Revision
- Grant Application Assistance

Professional Training:

- FHWA-NHI-NEPA- Course 2017
- Wetland Plant Identification Course, DuPage County Stormwater Mangement

Years of Experience:

- 9 years, 9 with ERA

ENGINEERING RESOURCE ASSOCIATES

Andrew Kustusch, PE, CFM
Environmental Lead

Project Experience Continued:

Oak Meadows Golf Course Preserve Master Plan, Forest Preserve District of DuPage County, IL – Project Engineer that provided environmental and civil engineering services to design water quality, wetland expansion, and stormwater management. Andrew developed the Salt Creek by modifying existing and proposed HEC-RAS hydraulic model and the floodplain compensatory storage areas for permitting. Andrew also aided the design of the native wetland and upland restoration and creation areas onsite, which comprise of 130 acres of the project area. He designed the hydrology control system for 24.6 acres of wetland mitigation as well as 21 best management practice rain gardens and swales throughout the site to treat golf course-related stormwater runoff. He designed the Best Management Practices and stormwater pollution prevention plan for the site.

Fox River Stabilization Project, Batavia, IL – Environmental Engineer that provided preliminary and final engineering design services for the Fox River Bank Restoration and Stabilization Project. ERA analyzed approximately 1,900 linear feet of streambank for deficiencies, from the Peace Bridge north of Wilson Street to Clark Island south of Wilson Street. Drew prepared conceptual alternatives and later, final plans, specifications, and construction cost estimates, along with permit applications through the US Army Corps of Engineers Chicago District, IDNR Office of Water Resources, and Kane-DuPage Soil & Water Conservation District. ERA completed the design through detailed coordination with the City of Batavia and in compliance with all applicable laws, regulations, policies, and the project management plan. The final plan included a combination of stabilization practices along the restoration areas, including limestone outcroppings, rock vanes, cobble outlet protection, and native planting.

Elliott Lake Shoreline and Winfield Creek Streambank Stabilization, Wheaton Park District, IL – Environmental Engineer of the shoreline bank erosion for Elliott Lake including destabilized areas present a water quality problem to the pond due to soil erosion and sedimentation, are attracting undesirable populations of Canada Geese, and are an unattractive nuisance to recreational activity. Drew assisted with IGIG and DPCWQIP grant applications, performed wetland delineation, designed shoreline stabilization practices including naturalized fishing outcroppings and prepared construction documents and permit applications for the project. He also prepared a color rendering of the project and presented the project to the Park District Board for conceptual design approval. Required permits included USACE, DuPage County, City of Wheaton, IDNR-OWR, Kane - DuPage SWCD and IDNR.

Hydrology/Wetland Management Plans at the Point Pleasant Site of the MIddle Fork River Forest Preserve, Champaign County Forest Preserve District, IL- The Champaign County Forest Preserve District (CCFPD) retained ERA to provide engineering and environmental to delineate wetlands, survey the creek and prepare a stream and wetland restoration plan that minimizes excessive water level fluctuation without impacting neighboring parcels. Plans, specifications and cost estimates and bidding assistance will be provided.

Professional Training (Continued):

- FHWA-NHI-HWY Traffic Noise Course-2018
- ADA PROWAG Requirements Class
- Beyond the Basics Sormwater BMP Seminar
- Wetland Delineation Course, Institute for Wetland and Environmental Education
- IEPA Field Sampling Methods

Professional Experience

- Engineering Resource Associates Environmental Engineer (2012-Present)
- Illinois Environmental Protection Agency, Governor's Environmental Corps Intern, (Summer 2011)
- MWH Americas, Inc. Energy and Resource Sustainability Intern, (Summer 2008, 2010)

Professional Affiliations:

- American Public Works Association
- Colorado Association of Floodplain and Stormwater Management
- Illinois Association of Floodplain and Stormwater Management
- DuPage River Salt Creek Workgroup

ENGINEERING RESOURCE ASSOCIATES

Erin Pande, PWS, CFM
Project Manager

Project Experience:

Oak Meadows Golf Course Preserve Master Plan, Addison /Wooddale, IL - Ecological Services Director provided environmental services to address the golf course's unique needs for water quality, wetland expansion, river restoration and stormwater management. Approximately 1.5 miles of Salt Creek was restored; 24.6 acres of wetlands and 105 acres of prairie and woodland were created. Erin also designed the hydrology control system for 24.6 acres of wetland mitigation. The project went out to bid in February 2015 and was substantially completed in the fall 2016. ERA provided phase III construction engineering for the mass grading, bridge structure, wetland and floodplain restoration, BMPs for this project. Required permits included USACE, DuPage County, City of Wooddale, Village of Addison, IDNR-OWR, IEPA, Kane - DuPage SWCD and IHPA. ERA helped secure $2.25 million in EPA IGIG funds.Cardno constructed the restoration aspects of this project.

St. Joseph Creek Streambank Stabilization, Downers Grove, IL – ERA was a subconsultant to Cardno for this design-build project. Cardno completed the design plans and ERA completed the H&H Modeling and acquired permits for this project. Erin was the Project Manager for permitting assistance. The project involved permitting in-stream practices within the floodway. The proposed improvements consisted of various streambank bio-engineering stabilization techniques including: stream barbs, floodplain bench cuts, rootwads, log vanes, cross vanes, minor bank regrading and native plantings.

West Branch River Restoration and Hydraulics Improvements, Warrenville, IL – Ecological Services Director for a 5,750-foot river restoration project between Ferry Road and Warrenville Grove Dam. The project included an assessment of the streambank, delineation of numerous wetlands, avoidance and minimization and subsequent mitigation and permitting. An inundation/ duration analysis was performed for the mitigation areas using FEQ. River restoration included riffles, 7,000 linear feet of streambank stabilization and removal of modifications to McDowell Grove Dam non-native invasive species. ERA assisted in securing $1.4 million in EPA 319h funds. Required permits included USACE, DuPage County, City of Warrenville, IDNR-OWR, IEPA, Kane - DuPage SWCD and IHPA.

Lyman Woods Streambank Stabilization Project, Downers Grove, IL – Ecological Services Director performed assessment of streambanks, erosion identification of areas dominated by non-native invasive species, drain tile survey, wetland delineation, floristic quality and wildlife assessments and inventoried over 3,000 trees. She designed woodland and wetland restoration, bio-engineering and engineering streambank stabilization practices, prepared permitting, cost estimate and bid documents. She continues to provide vegetation monitoring and maintenance oversight for the project. Required permits included USACE, Village of Downers Grove, IDNR-OWR, Kane - DuPage SWCD and IHPA. The project received the Illinois Association of Park Districts (IAPD) Outstanding Conservation Award. J.F. New (now Cardno) constructed this project and ERA performed construction engineering services.

Education/Certifications:

- Bachelor of Arts Major Biology, Environmental Studies & Geology Augustana College – 2001
- Professional Wetland Scientist – #1927
- Certified Floodplain Manager – IL-14-00661
- Lake County Stormwater Mgmt. Comm, Certified Wetland Specialist #C-083
- Kane County Stormwater Mgmt. Qualified Wetland Review Specialist W-049
- McHenry County Certified Wetland Specialist
- Rosgen Level I: Applied Fluvial Geomorphology

Professional Experience:

- Engineering Resource Associates Ecological Services Director/ Environmental Specialist (2004-Present)
- DuPage County Stormwater Management Division Senior Environmental Technician (2001-2004)

Years of Experience:

- 20 years, 17 with ERA

ENGINEERING RESOURCE ASSOCIATES

Erin Pande, PWS, CFM
Project Manager

Project Experience Continued:

Fox River Bank Stabilization Design Services, Batavia, IL – Project Manager and Environmental Lead for the Fox River watershed is 2,658 square miles. The project area of the Fox River stabilization, approximately 1900 linear feet of the western bank (300 feet north of Wilson Street to 1600 feet south of Wilson Street). This bank of the river has experienced significant scour and erosion. Accumulated aggregate has also modified the flow patterns of the Fox River and has caused increased erosion and scour adjacent to the wastewater treatment plant. As a result, the top of the slope has eroded to within about 15-20 ft of the edge of the existing building located at the northwest corner of the Wilson St. Bridge. The erosion threatens buildings, utilities (sanitary sewer) and bike paths along the river as well as natural resources. ERA provided engineering and environmental services for shoreline stabilization. ERA is acquiring permits and preparing contract documents and will provide bidding assistance. Stabilization methods include structural practices and bioengineering practices. Concept plans were prepared that included one hardscape and one landscape concept. Each concept plan included conceptual cost estimates. The adjacent business owners desire a plan that will be aesthetically pleasing that will add some color to the area.

Elmhurst Levee Accreditation and Maintenance Improvements, Elmhurst, IL – Ecological Services Director completed the accreditation of a 7,300-foot-long, 100-year storm flood protection levee. The Scientist assisted with woody vegetation and animal burrow remediation plan and conducted preliminary research of applicable FEMA and USACE regulatory and guidance documents. Developed detailed plan sheets and technical specifications for clearing and grubbing of trees, brush, stumps and roots; animal burrow remediation; earthwork; seeding; and erosion and sediment control measures.

Des Plaines River Bank Stabilization and Drainage Evaluation Project, Lincolnshire, IL – Project Manager for a flood study within the Riverwoods subdivision in the Village of Lincolnshire. The subdivision has experienced recurrent flooding problems in several areas during moderate and severe storm events. These problems have been exacerbated due to the frequency of severe storms passing through the area and erosion of the bank/berm adjacent to the Des Plaines River. ERA is providing engineering services to determine the deficiencies associated with the streambank/berm and H&H modeling of the internal drainage system to identify areas where internal flooding occurs in order to plan and prioritize flood projects accordingly.

Klein Creek Master Watershed Plan and Streambank Stabilization Project, Carol Stream, IL– Ecological Services Director overseeing the development of the Klein & Thunderbird Creek Master Plan for inclusion in the Watershed Plan Addendum. The Master Plan identified streambank stabilization projects along Klein and Thunderbird Creeks along with other water quality improvement projects throughout the 12.7 square mile watershed. She developed public outreach strategies to gauge private property owner interest in the project; quantify public and private benefits; and prepare possible alternatives that allocate costs between public and private entities. Following approval of the Watershed Plan she will assist with applying for outside funding, specifically Illinois Environmental Agency (IEPA) Section 319 funds, DuPage County (DPC) Water Quality Improvement Program (WQIP).

Special Training:

- Freshwater Mussel Workshop, Identification and surveys using the Field Guide to the Freshwater Mussels of Chicago Wilderness
- Applied Fluvial Geomorphology, 2012
- Illinois Soil Classifiers Association - Hydric Soils, 10/2011
- Illinois Soil Classifiers Association Midwest Interim Regional Supplement for Wetland Delineation, 02/2009
- Wetland Training Institute
- Planning, Site Selection and Hydrology Models for Constructed Wetlands, 10/2007
- Biotic Consultants, Inc. Wetland Plant Identification 2000-2010
- Cold Climate Stormwater BMPs 11/2006
- Illinois Hydric Soils, 08/2002
- Institute for Wetland & Env. Education & Research Corps Wetland Delineation Manual, 09/2001

Professional Affiliations:

- Illinois Association of Floodplain and Stormwater Management
- APWA Lake Branch President
- DuPage River Salt Creek Workgroup
- Conservation Foundation
- Illinois Association of Environmental Professionals
- Society of Wetland Scientists

ENGINEERING RESOURCE ASSOCIATES

Jennifer Loewenstein, PE, CFM, CPESC
Water Resource Lead

Project Experience:

Stratton Lock & Dam Improvements, IDNR/HW Lochner, Fox River in McHenry County, IL – Project Engineer for the construction team to design value-engineered improvements for the lock and dam system that controls water elevations for the Chain of Lakes. Provided specialized hydraulic modeling, coordination, and permitting services that significantly reduced the cost and duration of the construction phase. Evaluated the existing and proposed conditions FEQ hydraulic modeling and analyzed several construction alternatives with extensive cofferdams and a temporary bladder dam that enabled the contractor to construct the new outlet gates in a single operation

West Branch River Restoration/Hydraulic Improvements and Watershed Plan, Warrenville, IL – Lead Water Resource Engineer for the 5,750-foot river restoration project between Ferry Road and Warrenville Grove Dam. The watershed area is approximately 100 square miles. Project included stormwater modeling, a bridge analysis, and river restoration to determine the severity and solutions to flooding within the West Branch of the DuPage River Watershed. FEQ hydrologic / hydraulic modeling was used to identify flooding problems and solutions. ERA assisted in securing $1.4 million in EPA 319h funds. Required permits included USACE, DuPage County, City of Warrenville, IDNR-OWR, IEPA, Kane - DuPage SWCD and IHPA.

Oak Meadows Golf Course Preserve Master Plan, Addison/Wood Dale, IL and owned by the Forest Preserve District of DuPage County, IL – Project Engineer provided hydraulic modeling for the removal of inline dams and re-meander of creek along with permitting services to address the 280 acre golf course's unique needs for water quality, wetland expansion, and stormwater management. ERA provided Phase I, II and III engineering services for the golf course and the surrounding preserve, creating a combined ecological and recreational treasure for generations to come. The project required significant permitting coordination between eight governmental bodies.

St. Joseph Creek Watershed Plan, Downers Grove, IL – Lead Water Resource Engineer to develop a DuPage County led Watershed Plan for St. Joseph Creek through three communities: Westmont, Downers Grove, and Lisle. She coordinated stakeholder meetings to determine critical flooding areas within each community in the watershed and formulated projects to reduce the occurrences of structural flooding and roadway closures. She designed and led in the FEQ modeling and analysis of 26 project alternatives. She coordinated with the County to determine the benefit-cost ratio and provided a recommendation of 7 projects throughout the watershed. The Watershed Plan was approved in December 2020 by the County Stormwater Committee and is currently holding public meetings in December 2020.

Elmhurst Levee Accreditation and Maintenance Improvements, Elmhurst, IL – Project Engineer for the accreditation of a 7,300 ft long, 100-year storm flood protection levee. Assisted in obtaining the hydraulic inputs for the design calculations for the structural stability of the levee, freeboard and erosion protection.

Education/Certifications:

- Bachelor of Science
  Civil Engineering
  Valparaiso University – 2004
- PE – IL – 062-062192
- CFM – IL – 08-00448
- Certified Professional in Erosion and Sediment Control #4506
- Kane County Qualified Review Specialist – E-222

Areas of Expertise:

- Federal, State and Local Permitting
- Stormwater Master Plans
- Flood Control Projects
- Stormwater and floodplain modeling experience in many computer programs including FEQ, FEQUTL, WSPRO, HEC-2, HEC-RAS, WSP2, TR-20, WinTR-20, Pond Pack, XPSWMM, Optimizer and HY-8

Special Training:

- Erosion Control Workshops 2010, 2011, 2012, 2015,2018

Years of Experience:

- 17 years, 13 with ERA

ENGINEERING RESOURCE ASSOCIATES

Jennifer Loewenstein, PE, CFM, CPESC
Water Resource Lead

Project Experience Continued:

Crabtree Creek Flood Plain Mapping, DuPage County, IL – Lead Water Resource engineer for the detailed hydrologic and hydraulic analysis of the entire Crabtree Creek reach in Woodridge, Illinois for the remapping of the floodplain and floodway. Full documentation prepared for the Flood Insurance Study updates in DuPage County. The analysis was performed using FEQ modeling and became the hydraulic regulatory model for the updated 2019 FEMA flood insurance rate map for Crabtree Creek.

Lake Ellyn Master Plan, Glen Ellyn, IL –Senior Water Resource Engineer for the stormwater master plan for the Village to address the frequent overtopping and flooding of the Lake Ellyn Dam. She used county FEQ modeling to demonstrate that by increasing flow out of the regional detention facility the Village could provide a significant increase to the level of flood protection to the surrounding area. Modeling showed that downstream ponds and wetlands could handle the increase of flow during frequent storms and that there would be a decrease of flow for large storm events. The Master Plan included a phased construction schedule to address various flooding issues to systematically increase the level of flood protection for the dam itself, downstream residents, school district, park district and public roads.

River Dumoulin Levee Study, Lisle, IL – Project Engineer for the study of the River Dumoulin Levee System, an 11,000 linear foot system of non-accredited levees and adjacent streambanks along the East Branch of the DuPage River and St. Joseph Creek. The project included data collection, detailed inspection, and evaluation of the levees and adjacent streambanks for potential deficiencies from the originally constructed conditions and made recommendations for improvements to protect the structures up to the designed level of protection. Streambank stabilization was also recommended as erosion is threatening to undermine the levees.

St. Joseph Creek April 2013 Flooding Analysis, Downers Grove, IL – Lead Water Resource Engineer for the Village in the analysis of four flood prone areas within the St. Joseph Creek watershed. Analysis included identifying the sources of flooding and reviewing the latest FEQ model. An overall summary of recommendations and general mitigation measures was provided to the Village for incorporation into a report summarizing the findings for the public review.

Crystal Brook Subdivision 2018 C/LOMR, Frankfort, IL – Lead Water Resource Engineer for establishing the floodplain elevations and floodway limits along 2,600 LF of the Zone A designated portion of Tributary A of Hickory Creek. Hydrologic modeling was performed to determine the discharge rates for the 10-, 50-, 100- and 500-year recurrence intervals. A LOMR was prepared for the updated hydrologic and hyrdraulic analysis and a CLOMR was prepared for a proposed dual 9'x9' box culvert crossing at Granton Place. Permitting submittals prepared for FEMA, IDNR-OWR and the Village of Frankfort.

350 Kehoe Blvd Zone A Floodplain LOMR, Carol Stream, IL - Lead Water Resource Engineer for establishing the floodplain elevations for three unstudied Zone A areas. The LOMR established the existing floodplain elevations with detailed hydrologic and hydraulic analysis using WinTR-20 and EPASWMM. Permitting submittals prepared for FEMA and the Village of Carol Stream.

Special Training (CONTINUED):

- 3-Day HEC-RAS Training Course by Vern Bonner May 4-6, 2009 "Using HEC-RAS to ComputeR
- Water Surface Profiles for Floodplains, Bridge and Culvert Hydraulics"
- HEC-RAS Sediment Transport Modeling and Monitoring Workshop March 13, 2012
- IDNR-OWR Floodway Permitting Seminars 2010 & 2017

Professional Experience:

- Engineering Resource Associates Lead Water Resource Engineer (2008-Present)
- Taurus Engineering, LLC Design Engineer, (2004-2008)

Professional Affiliations:

- Illinois Association for Floodplain and Stormwater Management (IAFSM)
- Society of Women Engineers (SWE)

ENGINEERING RESOURCE ASSOCIATES

Timothy Martinek, PLS
Lead Surveyor

Project Experience:

2017-2019 Various Land Surveying Services, Naperville, IL - Land Surveyor in charge of various work orders related to construction layout, boundary surveying, and topographic surveying. Approached projects with desired outcomes in mind to ensure that deliverables meet the project goals. Provided construction layout services related to equipment foundations and fence installations. Performed records research, boundary measurements, and boundary determination for preparing plats and staking of property lines. Coordinated with city staff and supervised field crews related to topographic surveying of existing conditions for future design projects. Communicated with city staff to discuss work scopes and project goals to provide proposals and quality work products in a timely manner.

Park Place of Lombard, 2016, Lombard, IL – Land Surveyor in charge of boundary surveying to determine property lines associated with the creation of a 6 lot residential subdivision. Prepared a final plat of subdivision and provided land surveying services for individual lots within the subdivision. Also in charge of construction phase land surveying services and as-built measurements associated with the development of related site improvements. Performed calculations and preparations related to the layout of: storm sewer, sanitary sewer, water main, residential foundations, driveways, and site grading. Coordinated and scheduled all staking requests in a timely manner.

2017 Roadway Rehabilitation Program Surveying and Drafting Services, Glen Ellyn, IL – Survey Lead for 3,300 feet of route topographic and existing conditions drafting for the Villages 2017 roadway Program. The work was fast tracked, in order for the Village Engineer to complete their design for spring bidding.

2018 CIP Survey and Drafting Services, Glen Ellyn, IL – Survey Lead provided topographic survey and base plan drafting for over 6,300 feet of right-of-way along residential roadway corridors as well as a 38,000-square foot parking lot. The scope of these projects included combinations of street resurfacing, street reconstruction, water main improvements, storm sewer improvements, sidewalk improvements, and parking lot improvements.

87th Street & Woodward Avenue Intersection Improvements, DuPage County Division of Transportation, IL - Land Surveyor in charge of boundary surveying to determine right of way and parcel lines of 15 properties to be affected by a roadway widening and reconstruction project. Also in charge of the preparation of a Plat of Highways for additional right-of-way and easement acquisition needed for the improvements associated with the reconstruction of the intersection.

Education/Certifications:

- Southern Illinois University Illinois IPLSA Sponsored Land Surveying Program, 2001-2003
- Iowa State University, Bachelor of Science Degree, Major: Education - 1999
- PLS - IL - 035-003782

Areas of Expertise:

- Manage field crews and directly oversee their work product
- Performed all necessary legal and boundary research in relation to survey projects
- Coordinate scheduling of crews for design and construction projects
- Strong knowledge in the preparation of survey products from field to finish of large development projects

Years of Experience:

- 20 years, 5 with ERA

ENGINEERING RESOURCE ASSOCIATES

Timothy Martinek, PLS
Lead Surveyor

Project Experience Continued:

St. Joseph Creek South Stream Corridor Assessment, Downers Grove, IL – Survey Lead for a hydrology/hydraulic analysis and stream assessment for the St. Joseph Creek South Branch. ERA identified areas in the stream that required stabilization and identified opportunities to meander the channel and naturalize the floodplain. ERA used XPSWMM modeling to develop design alternatives that would reduce flooding elevations and frequencies through a suburban residential neighborhood. Design alternatives included replacement of four culvert crossing, expansion of flood plain storage and development of on-stream detention basins. ERA worked closely with DuPage County to include the recommended projects in their overall EPA watershed plan. This allows Downers Grove to be eligible for 319 Funding.

Building A Parking Lot Rehabilitation, Kane County Department of Transportation, IL – Survey Lead for the rehabilitation of the 20 year old existing parking lot and implemented ADA improvements adjacent to Building A. Other enhancements included extending the parking lot approximately 50 feet north to the fence line to gain 4-6 additional parking spots.

I-74 Salt Kettle Rest Area Improvements, Illinois Capital Development Board, IL – Survey lead responsible for topographic surveying of the existing conditions for the replacement of a 30 years old septic system for the Salt Kettle Rest Area located a long I-74 just west of Danville, Illinoi. Project included a cost benefit evaluation to rehabilitate existing system or connect to public sanitary system. Project included the design and construction oversight for the installation of a new sanitary 10 gallon lift station, over 10,000ft of forcemain, electrical services upgrade, and the abandonment and restoration of the septic sewage treatment system. Permitting was required through IEPA and Utilities Inc. and coordination was facilitated with adjunct gas station development to save project costs.

Flood Prone Area Studies 2016, Wheaton, IL – Survey Lead for the analysis of three drainage basins referred to as the Wakeman/Cadillac Upland Depression, Thomas Overland Flow Path, and Turf/Countryside/Ranch flood prone area. In total the study covered approximately 300-acres of a primarily residential area. XPSWMM 2D was utilized to perform the hydrologic/hydraulic modeling to better understand how the overflow path operated with the storm sewer system.

Special Software and Equipment Experience:

- Autodesk AutoCAD Civil 3D
- Various Data Collection Devices and Software
- Proficient in use of Leica, Trimble, Topcon and Geodimeter Total Stations
- Proficient in use of Leica, Trimble, and Topcon GPS

Professional Experience:

- Engineering Resource Associates (2016-Present)
- AES Consultants Ltd.(2013-2016)
- TERRA Engineering, Ltd. (2011-2013)
- Robert E. Hamilton Consulting Engineers, Inc. (2008-2011)
- Horizon Consulting Group (2007)
- Cardinal Land Surveying, LLC (2007)
- Smith Engineering Consultants – A Division of SEC Group, Inc. (2003 – 2007)
- Baird and Company Land Surveyors (2000-2003)

Professional Affiliations:

- Illinois Professional Land Surveyors Association
- National Society of Professional Surveyors

ENGINEERING RESOURCE ASSOCIATES

Klein Creek Master Watershed Plan and Streambank Stabilization Project

Village of Carol Stream, IL

Project Summary

The Klein Creek watershed is 12.7 square miles that includes Klein and Thunderbird Creeks. The banks of Klein and Thunderbird Creek have eroded resulting in loss of property, destruction of utility structures, stream and bridge sedimentation and instability of power poles.

Services included preparation of a master watershed plan for the Klein Creek watershed for inclusion in DuPage County's watershed plan addendum for approval by the EPA. The master plan identified bank stabilization projects along Klein and Thunderbird Creek along with other water quality improvement projects throughout the watershed. Stabilization practices included, pool-riffle structures, native plantings, root wads, habitat rehabilitation, re-meandering, stream bed restoration and wetland creation. Following acceptance of the watershed plan by the EPA, ERA assisted in applying for funding, specifically Illinois Environmental Agency (IEPA) Section 319 fund, DuPage County (DPC) Water Quality Improvement Program (WQIP).

The project required the buy in from private property owners and the Park District. ERA developed public outreach strategies to gauge private property owner interest in the project, quantify public and private benefits, and prepare possible alternatives that allocate costs between public and private entities. The project team worked closely with the Village to involve and coordinate with property owners, Park District and other stakeholders.

Section 319 funding was recently awarded for portions of the Klein Creek stabilization. The Village has retained ERA to provide final engineering design and permitting for the streambank stabilization design.

Project Highlights:

- 4 miles of River Assessment
- Sediment Sampling
- Conceptual Plans
- Public vs. Private Benefit Analysis
- Funding Application Assistance

ERA Project Team

Marty Michailsko, PE, CFM
Principal / Project Manager
John Mayer, PE, CFM
Principal /Project Director
Erin Pande, PWS, CFM
Ecological Services Director
Jennifer Loewenstein, PE, CFM, CPESC | Senior Project Engineer
Brian Dusak, PE
Senior Project Engineer
Andrew Kustusch, PE, CFM
Environmental Engineer

Project Reference:

Jim Knudsen, Village Engineer
Village of Carol Stream
500 North Gary Avenue
Carol Stream, IL 60188
Phone: (630) 871-6220
Email: jknudsen@carolstream.org

Construction Cost: TBD

Completion Date: 2022

ENGINEERING RESOURCE ASSOCIATES

St. Joseph Creek South Stream Corridor Assessment

Village of Downers Grove, IL

Project Summary

ERA preformed a hydrologic/hydraulic analysis and stream assessment for the St. Joseph Creek South Branch. ERA identified areas in the stream that required stabilization and identified opportunities to meander the channel and naturalize the floodplain. ERA used XPSWMM modeling to develop design alternatives that would reduce flooding elevations and frequencies through a suburban residential neighborhood. Design alternatives included replacement of four culvert crossing, expansion of flood plain storage and development of on-stream detention basins. ERA worked closely with DuPage County to include the recommended projects in their overall EPA watershed plan. ERA assisted the village on acquiring EPA 319 and DuPage County water quality funds.

ERA Project Team

Marty Michalisko PE, CFM | Principal/Water Resource Project Manager
John Mayer, PE, CFM | Principal/Project Director
Michael Maslowski, PE, CFM | Senior Project Engineer
Erin Pande, PWS, CFM | Ecological Services Director
Andrew Kustusch, PE, CFM | Environmental Engineer
Tim Martinek, PLS | Survey Lead

Project Highlights:

- ERA completed a detailed hydraulic model of the stream
- ERA completed a hydraulic topographic survey of the creek and culvert crossings.
- ERA provided an alternative analysis to improve water quality and reduce flooding.
- ERA is researching and developing grant opportunities and submittals

Project Reference:

John M. Welch, PE, CFM
Assistant Director of Public Works-Engineering
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515
Email: jwelch@downers.us
Phone: 630-434-5494

Completed: 2017

ENGINEERING RESOURCE ASSOCIATES

West Branch DuPage River Watershed Plan and Restoration / Hydraulic Improvements

DuPage County, IL Page 1

ERA was retained by DuPage County to complete the Phase I, Phase II and Phase III design of improvements within the West Branch DuPage River Watershed.

Phase I: ERA prepared an addendum to the 100 square mile West Branch DuPage River Watershed plan. The plan concentrated on 7 miles of stream segment from Roosevelt Road to Fawell Dam. The purpose of the addendum was to identify areas flooded by the 2008 storms and potential solutions to reduce severity and frequency of this flooding. ERA performed complex FEQ and DEC 2 modeling to analyze the flooding and cost/benefit analysis of identified solutions. Phase I identified a combination of improvements including reconstruction of two restrictive bridges. 7,600 LF of flood control berms, 15 AC-FT of additional flood storage, river restoration to improve water quality, flood control wall and pump station.

Phase II: Using the recommendation and FEQ modeling from Phase I ERA designed improvements along a 3 mile reach of the West Branch DuPage River from Warrenville Road to Fawell Dam. Included in the Phase II design were:

- 15 AC-FT of additional flood storage
- 40 + acres of restored hydrology and native planting within River Road Corridor and Mcdowell Grove Forest Preserve
- 7,000 LF of river restoration & streambank stabilization
- Floodwall & pump station to protect a private business
- 3,000 LF of flood protection berm/levee
- Buyout and demolition of a residential property
- Construction of a new shared use parking lot
- Preliminary hydraulic design of Warrenville Road Bridge & river re-meander

Project Assignments:

- ArcGIS Mapping
- Cost/Benefit Analysis
- Secured $1.4M in 319 Funds
- 15 acre-feet of new flood plain storage volume
- Extensive Public Outreach to secure public buy-in
- Coordinated 5 governmental entities to secure IGDS between them.
- FEQ and HEC-RAS stormwater modeling
- Structural components include a flood wall design and preliminary bridge design
- Water quality improvements through river restoration and native planting

Project Reference:

Anthony J. Charlton, PE
Director Economic Development/
Planning - Stormwater Mgt
421 N. County Farm Road,
Wheaton, IL 60187
Phone: (630) 407-6688
anthony.charlton@dupageco.org

Construction Cost: $18.5 Mill
Consulting Fee: $600,000
Completed: 2010-2014

ENGINEERING RESOURCE ASSOCIATES

West Branch DuPage River Watershed Plan and Restoration / Hydraulic Improvements

DuPage County, IL Page 2

Phase III: Following completion of the phase II projects ERA was retained to complete Phase III improvements. Included in the Phase III design were:

- 5 acres of restored hydrology and native planting
- 800 LF of river restoration & streambank stabilization
- Final hydraulic design of Warrenville Road Bridge
- Final design for a new river re-meander
- Buyout and demolition of a commercial property
- Construction of a new parking lot
- Final design of a multi-use path including an underpass
- Re-design of an existing park
- 2nd Avenue Parking Improvements
- 3 Bioinfiltration BMP's along 2nd Avenue

ERA led a team of five governmental agencies that included DuPage County Stormwater, DuPage County DOT, City of Warrenville, Warrenville Park District and the DuPage County Forest Preserve District. Intense coordination was required to complete the projects on-time and under budget. ERA assisted in securing 1.4 million dollars in 319 funds.

ERA Project Team:

Marty J. Michalisko, PE, CFM
Principal / Project Manager
Erin Pande, PWS, CFM
Ecological Services Director
Rodney A. Beadle, PE, CFM
Project Director / Quality Control
Jacob R. Wolf, PE
Principal / Senior Project Engineer
Brian J. Dusak, PE
Project Engineer
Stephen R. Wegner, PE
Project Engineer
Jennifer L. Loewenstein, PE, CFM, CPESC. Project Engineer
Michael G. Maslowski, PE, CFM
Project Engineer
Andrew R. Kustusch, EI, CFM
Project Engineer
Andrew M. Johnson
CAD / GIS Technician

ENGINEERING RESOURCE ASSOCIATES

Oak Meadows Golf Course/ Salt Creek Renovation Project

Forest Preserve District of DuPage County, IL

Project Summary

ERA and the Golf Course Architect, Greg Martin, were selected by the Forest Preserve District of DuPage County to prepare a Master Plan, preliminary engineering and final engineering / construction documents for the renovation of Oak Meadows Golf Course in Addison, IL. The existing golf course was experiencing repetitive damages due to flooding. The proposed improvements include reducing the number of holes from 27 to 18. The reduction in golf course holes allowed for restoration of Salt Creek and the hydrology to the areas immediately adjacent to the creek. Areas where hydrology is reintroduced included 25 acres of new wetland, 107 acres of new native upland restoration, and an additional 35 acre-feet of floodplain storage. Wetland hydrology is controlled via drain tiles and in-line valves within the drainage infrastructure of the course.

The project also included removal of two low-head dam structures in Salt Creek and remeandering the modified baseflow within the existing channel. This project created a natural preserve within the golf course enhancing water quality and ecology along the Salt Creek. ERA worked with multiple jurisdictional agencies to apply for and secure outside funding sources including DuPage River Salt Creek Workgroup, DuPage County Wetland Mitigation Funds, 319 Grant, IGIG, and others. The project was recently awarded $2.25 million in DRSCW/EPA funds. ERA prepared construction documents and specifications for this project. ERA provided phase III construction engineering for the project from 2015 until present. The course re-opened in summer 2017.

ERA Project Team

John Mayer, PE CFM | Principal/Project Manager
Jon Green PE, CFM | President/Project Director
Marty Michalisko, PE CFM | Principal/Lead Water Resource Engineer
Erin Pande, PWS, CFM | Ecological Services Director
Andrew Kustusch, PE, CFM | Environmental Engineer/Resident Inspector
Jennifer Loewenstein, PE, CFM, CPESC | Senior Project Engineer

Project Highlights:

- Creation of 24.6 acres of new wetland
- Creation of 35 acre feet of additional floodplain storage
- Reduction of hole total from 27 to 18 to create the preserve
- Construction a bike trail to link area preserve to regional trail
- Grant Application assistance for IGIG, 319 Program, DuPage County Wetland, TAP and ITEP
- Helped secure $4.88 million in outside funding

Project Reference:

Ed Stevenson, PGA
Executive Director
Forest Preserve District of DuPage County
3S580 Naperville Rd.
Wheaton, IL 60189
Phone: (630) 451-3434
estevenson@dupageforest.com

Construction Cost:

$17 Million

Consulting Fee:

$650,000

Completed: 2017

ENGINEERING RESOURCE ASSOCIATES

Fox River Bank Stabilization Design Services

City of Batavia, IL

Project Summary

The Fox River watershed is 2,658 square miles. The project area of the Fox River stabilization, approximately 1900 linear feet of the western bank (300 feet north of Wilson Street to 1600 feet south of Wilson Street). This bank of the river has experienced significant scour and erosion. Accumulated aggregate has also modified the flow patterns of the Fox River and has caused increased erosion and scour adjacent to the wastewater treatment plant. As a result, the top of the slope has eroded to within about 15-20 ft of the edge of the existing building located at the northwest corner of the Wilson St. Bridge. The erosion threatens buildings, utilities (sanitary sewer) and bike paths along the river as well as natural resources.

Based on the conceptual planning, coordination with adjacent businesses, and selections by City staff. ERA provided final engineering and environmental services for a shoreline stabilization option that included regrading, gabion basket installation, rock toe, and stream barbs, and native planting. The gabion baskets were also designed to allow for an optional limestone outcropping wall, which was ultimately selected during bid reviews. ERA prepared USACE, OWR, and Kane-DuPage SWCD permitting documentation. ERA also provided bidding assistance to the City.

ERA Project Team

Erin Pande, PWS, CFM | Project Manager/Environmental Lead
Jon Green, PE, CFM | President/Project Director
Marty Michalisko PE, CFM | Principal/Stormwater Engineer Lead
Michael Maslowski, PE, CFM | Stormwater Engineer
Brian Dusak, PE | Senior Project Engineer / Design Lead
Melissa Lange, PE, SE | Structural Lead
Andrew Kustusch, PE, CFM | Environmental Engineer
Chris Sedlacko | Design Engineer
Eric Wilde | Design Engineer
Tim Martinek, PLS | Survey Lead

Project Highlights:

- Field reconnaissance design streambank stabilization
- Feasible solution for the western streambank
- Acquired permits and contract documents
- Bidding assistance.

Project Reference:

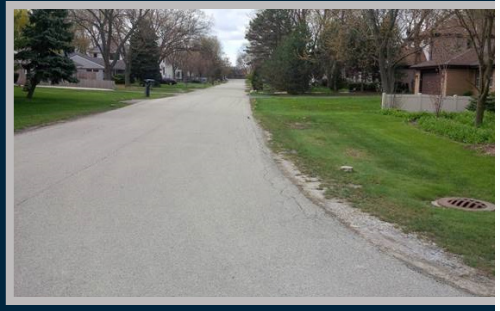
Rahat Bari, PE
Civil Engineer
City of Batavia
Public Works Department
200 North Raddant Road
Batavia, IL 60510
Phone: 630-454-2760
Email: rbari@cityofbatavia.net

Construction Cost: $188,402
Completed: 2018

ENGINEERING RESOURCE ASSOCIATES

Citation Lake Stormwater Improvements in Northfield Township, Illinois

Metropolitan Water Reclamation District of Greater Chicago



Project Summary

ERA had previously worked with MWRD on a stormwater master plan for the Village of Northbrook and surrounding unincorporated areas of Northfield Township. ERA used GIS, EPASWMM, and XPSWMM to determine the extent of flooding within the study area. The Citation Lake Stormwater Improvements project is the implementation of flood mitigation solutions for a 75 acres sub-basin with severe flooding from the stormwater master plan.

For the Citation Lake Stormwater Improvements project, ERA is working with four other sub-consultants to evaluate existing conditions, analyze alternative solutions, and develop the selected solution. Analysis of existing conditions included conducting structural flooding analysis for 2, 5, 10, 25, and 100-year storms at their critical durations. Based on these findings, modifications to increase stormwater conveyance were modeled and alternative solutions were analyzed, including below-roadway storage using concrete chambers or pipes, bioswales parallel to the roadway, property acquisition and construction of detention basins, and modifications to the downstream lake to increase storage capacity. The selected design will be developed and implemented with 30% plans.

ERA Project Team

John Mayer, PE, CFM | Principal / Project Manager
Erin Pande, PWS, CFM | Environmental Services Director
Andrew Kustusch, PE, CFM | Environmental Engineer
Michael Maslowski, PE, CFM | Water Resource Engineer
Jenny Loewenstein, PE, CFM, CPESC | Stormwater Engineer
Gaired Jordan | Stormwater Engineer
Abby Zielinski | Design Engineer

Project Reference:

Khaja Moinuddin
MWRDGC
111 East Erie Street
Chicago, IL 60611-3154
E-mail: MoinuddinK@mwrd.org
Phone: 312-751-3139

ENGINEERING RESOURCE ASSOCIATES

Northbrook Stormwater Pilot Study

Metropolitan Water Reclamation District, IL

Project Highlights:

- Extensive Public Outreach: ERA performed an extensive outreach program with an interactive on line survey that received over 1,000 responses.
- The Study covered 14 square miles
- Optimatics Software was used to evaluate thousands of potential alternatives and converge on the optimal solution.
- Analyzing green infrastructure and its potential role in reducing flooding

Project Summary

ERA was retained by the MWRD to develop a Village-Wide Comprehensive Stormwater Pilot Study for the Village of Northbrook and surrounding unincorporated areas. This project included the analysis of existing flooding causes and a perscription of flood reduction measures.

The watershed study is for a 14 square mile area and includes four tributaries to the Chicago River, Skokie Lagoons and the Des Plaines River. The study used an “outside the box” approach to identify stormwater solutions. Public awareness, social media, and evaluation of public perspectives on flooding were aspects used to derive the flood reduction measures.

The study included the delineation of 3100 subcatchments and the analysis of 50 sub watersheds with an average size of 200 acres. Hydraulic and hydrology analysis was performed for existing conditions using EPASWMM, XPSWMM 2D, and Optimizer software. The study resulted in approximately $517 million of improvements for a 100 year level of protection and approximately $216 million of alternative measures. The flood study evaluated green infrastructure measures, on public and private property, and their role in increasing the potential level of protection.

ERA Project Team

John Mayer, PE, CFM | Principal / Project Manager
Marty Michalisko, PE, CFM | Lead Water Resource Engineer
Jennifer Loewenstein, PE, CFM, CPESC | Sr. Water Resource Engineer
Michael Maslowski, PE, CFM | Water Resource Engineer
Jeff Macke, PE, CFM | Public Outreach Coordinator
Erin Pande, PWS, CFM | Ecological Services Director
Cody Frovarp, M.S. | GIS / Website Coordinator

Project Reference:

Richard Fisher
Senior Civil Engineer
MWRDGC
111 East Erie Street
Chicago, IL 60611-3154
Phone: (312) 751-5479
Email: Fisherr@mwrd.org

Study Cost: $608,000

Completed: 2016-2017

ENGINEERING RESOURCE ASSOCIATES

Project Approach

Project Understanding

There are several stretches of the Tinley Creek streambank located within the Village, generally between 159th Street and 151st Street, that are experiencing high amounts of erosion. In some locations it is beginning to threaten private infrastructure. MWRD previously led an effort to perform streambank stabilization in portions of this area, which ultimately was halted due to a lack of interest from adjacent landowners. Due to rekindled interested by the Village and MWRD and an increase in support from adjacent landowners, the Village now desires to move forward with updates to the previous plan with the assistance of a qualified design team to provide survey, design, permitting, public outreach, easement acquisition, and bidding assistance. It is understood that in general, all aspects of the streambank stabilization will be on private property with no existing Village easements related to Tinley Creek.

Project Key Elements and Innovative Approach

1. **Property Owner Coordination & Easement Acquisition** – The critical aspect of the project is the easement acquisition, which will require close coordination with numerous private property owners (up to fifty-two separate property owners). These segments of Tinley Creek are heavily wooded and steep with limited access. This makes it extremely difficult to maintain the streams and remove debris after or during a flood event. Temporary construction easements will be required to access the creek for construction. However, while the Village's intention is to require property owners to perform their own future maintenance on the improvements, it is recommended that permanent easements along as much of the stream as possible be pursued so that future maintenance can be conducted. The project team will work closely with the Village of Orland Park and property owners while preparing design alternatives and costs to ensure that the needs of the Village and property owners are met.

2. **Streambank Stabilization Alternatives** – Another major component of the project is verification of the previous stabilization plans based both on latest industry best practices for streambank stabilization as well as current stream conditions that will give clues on erosion issues when compared to past conditions. ERA has experience not only designing stabilization projects but also providing Phase III construction observation services on many of the projects. We are then able to verify design aspects or assumptions in the field and make adjustments as necessary on future projects. Therefore, our environmental team has a tested database of streambank stabilization at our disposal. The Village also has concerns about the previous design plans, which utilize regrading and native planting for a majority of the area. While these practices do provide stabilization and a native environmental, they are often best used in conjunction with "harder" practices such as vegetated rock toe. Therefore, we agree with the Village's concern and would take this into account during design.

3. **Planting Plan & Vegetation Clearing** – The Village has also expressed concern that as the stream is heavily-wooded, native seeding may be difficult to establish, creating problematic long-term maintenance and poor slope stability. On many streambank stabilization projects, we propose selective clearing as an initial task during construction for this reason. This will open the streambanks and allow native species to compete against pre-existing vegetation. The clearing work would be carefully detailed, as tree removal is often a contentious subject for homeowners. The tree and brush removals proposed for each property would be clearly shown on the individual property exhibits so that homeowners are included in the clearing discussion. Additionally, as some property owners may ultimately not grant easements, certain properties may remain overgrown and shade the adjacent properties. We have utilized shade-tolerant seed mixes

where removals cannot occur and anticipate using similar seed mixes for these situations. We would also consider the difficulty of establishing native areas with disjointed project areas when determining which properties are critical or not.

4. **Governmental Agency Coordination/Permitting -** ERA will coordinate with the USACE early in the project to determine if modifications to the design are needed to make permitting more streamlined. ERA will coordinate similarly with IDNR Office of Water Resources and MWRD permit division to make them aware of the project and verify permit requirements early on. We will also carefully review previous permit documents to ensure that the appropriate updates are made to the plans and that major revisions to previous approved permits are minimized. The Will-South Cook Soil and Water Conservation District should also be contacted to determine if any additional precautions or construction means and methods to protect water quality are utilized. Our design team was similarly involved in coordination and communication with similar agencies during our West Branch DuPage River Addendum, Phase 1, Phase 2, and Phase 3 work. We met with agencies early in the design process and made modifications based upon their recommendations which significantly reduced the permitting time.

5. **Design Schedule –** While easement acquisition is often the critical path due to differing interests, discussions about specific stabilization practices, discussions about future maintenance, and negotiations related to cost or donations, it is important that the design and permitting work maintain steady progress. We have provided a GANTT chart with this proposal, which has an aggressive but reasonable schedule from project kickoff until bidding. This will be updated and revised as needed to include additional breakout of tasks after project kickoff. Our project manager, Erin Pande, will monitor specific tasks in relation to the original schedule to ensure continuous progress on the project and will provide updated schedules to the Village if any unforeseen events arise.

Work Plan

Based on our understanding of the project we have provided a detailed proposed scope of services that outlines the anticipated tasks necessary to complete the project. The scope items below are a basis for discussion and will be reviewed and finalized with the Village upon selection.

1. **Project Management & QA/QC –** Our project manager, Erin Pande, will be the main point of contact with the Village and MWRD to streamline the communication process. Erin will also track project schedule, project budget, communication with utilities and permit agencies, and communication with our subconsultant to ensure that the entire design process will run smoothly and without significant setbacks. For each deliverable produced for this project and during intermittent internal completion phases, Erin and senior level engineer staff will perform peer reviews of the engineering. Comments will be addressed and followed up for supplemental review. Additionally, other QA/QC tasks will be performed according to ERA's QA/QC procedures.

2. **Progress Meetings and Coordination** – ERA will meet and coordinate with Village staff, MWRD staff, regulatory agencies, homeowners, homeowners' associations, and other project stakeholders throughout the project duration to review progress, gather data and discuss relevant issues. This proposal assumes the following meetings:
    a. One (1) kickoff meeting with Village and MWRD staff to discuss the project, collect and review existing information, discuss the project schedule, and establish a working relationship with all parties.
    b. Monthly progress meetings (6 total) to discuss the project and review the work completed to date. It is anticipated that the meetings will occur in conjunction with deliverable submittals.
    c. Meetings with MWRD (2 total) to discuss stabilization options and preferences after the site reconnaissance and at the 60% plan level.
    d. Meetings with private owners (5 total) to discuss any project concerns and discuss required easements.
    e. Coordination via phone and email will occur between ERA, the Village, MWRD, and various other project stakeholders.

3. **Data Gathering/Review** – Acquire and review relevant background data from various sources including the following items:
    a. The 2014 Baker Plan, specifications, and permit documents;
    b. The 2020 Tinley Creek Streambank Stabilization Memo by CBBEL;
    c. Previous stormwater studies within and adjacent to the project;
    d. As built record drawings from other projects;
    e. Storm, sanitary, and water atlases;
    f. Private utility atlases (electric, telephone, cable);
    g. 2-foot contour mapping from Cook County.

4. **Wetland Delineation** – A previous wetland delineation was prepared by Huff & Huff, Inc. in 2012. The wetland delineation has since expired and will be required to be updated. Additionally, segments of the creek that were not originally included in the project will need to be reviewed for wetland conditions. A wetland delineation will be performed to identify the limits of the regulatory wetlands and Waters of the U.S. within the scope of the project. Methods used for delineating wetland will be in accordance with the U.S. Army Corps of Engineers (Corps) Wetlands Delineation Manual dated 1987 (USACE, 1987) and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region dated September (USACE, 2008). Wetlands will be staked by pin flag and/or marking tape labeled "wetland delineation".

5. **Topographic Survey** – ERA will work with our subconsultant American Surveying & Engineering (a Minority Business Enterprise firm), to perform the topographic survey. As it is anticipated that field conditions have changed significantly since the Baker plan was prepared, this task includes a full topographic survey of Tinley Creek including the previous project areas. Previous features that were surveyed that have not significantly changed may not be resurveyed. The survey will consist of establishing control on the project site. The survey will include cross sections of the stream on 100-foot intervals with additional survey measurements to capture stream geometry as needed. The latitudinal limits will be from 50 feet from top of bank to 50 feet from top of bank. The typical cross section will consist of survey measurements taken at the latitudinal limit, any contour changes between that measurement and the top of bank, the top of bank, the toe of slope, the thalweg, and apparent center of creek. Planimetric features encountered in

the project limits will be located. At structures and roads present in the project limits, the downstream and upstream openings and footprints of the structures will be surveyed. The ponds that are present at the southern end of the project are not included in this survey.

6. **Base Plan Preparation** - Survey and geospatial data will be downloaded and combined with other acquired data including previous electronic files of existing conditions from the Baker plans to produce the base plan. The base plan will show topography, property boundaries, stream cross section locations, stream geometry, structures, utilities, centerline with stationing, and wetland boundaries. The stationing will be prepared to match the original Baker plan stationing.

7. **Field Reconnaissance** - ERA will perform a field reconnaissance of the project areas to review and mark up the existing conditions survey, review and mark up the 2014 Baker plan and the 2020 CBBEL memo, and development new streambank stabilization concepts for the segments added as part of this project. ERA will walk and evaluate the stream segments and immediate adjacent overbank areas. ERA will classify, describe and document (including photographs) erosional areas and GPS the location of significant erosion or other items of concern. Bank erosion, head cuts, riffles, pools, large woody debris, encroachments, etc. will be recorded. ERA will utilize our handheld GPS unit (Promark 120 which gets sub-meter accuracy) to perform the assessment. The collector can take photos, video, voice recordings, ground shots, etc. This data will be in state/plane coordinates and can be imported into the base plan and will be made available to the Village for their GIS staff. ERA will also take three (3) photos per property of the streambank for documentation of streambank conditions and current improvements. ERA will organize and present these photos to the Village for future use.

8. **Concept Plan Development (30%) –** This task includes the preparation of preliminary stabilization options and plans which will include either confirmations of the Baker plan stabilization or recommendations for alternate stabilization methods. The plan will also include stabilization methods for the stream segments not originally included in the scope. Sample details for each stabilization method will be included in the concept plans. This conceptual plan will be utilized to review the options with MWRD in the context of MWRD guidance documents. The Village and MWRD will review the concept plan and ERA will continue into the Preliminary Plans, Specifications, and Cost Estimate task upon approval or modification of the recommended stabilization practices.

9. **Hydrologic/Hydraulic Stream Modeling –** ERA will prepare a hydraulic analysis of the existing and proposed improvements using the existing regulatory HEC-2 model (or a previously-prepared model for the project, if available) and HEC-RAS modeling program for one-dimensional steady flow hydraulics. The hydraulic analysis in HEC-RAS will be used to evaluate the final design for compliance with floodplain and floodway regulations and for review of the stabilization practices proposed. The results of the analysis will be submitted for permit to the Illinois Department of Natural Resources, Office of Water Resources. A CLOMR/LOMR is not anticipated or included in this task, and the regulatory model will not be submitted to FEMA. FEQ modeling is also not anticipated or included in this task.
    a. ERA will create (or update, if available) a hydraulic model for Tinley Creek using the HEC-RAS model and 100-foot interval cross-sections aligning with the existing conditions survey. The hydraulic structures will be added to the model based on the site survey as well. The information from the HEC-2 data file will be used to establish surface water elevations for each station.
    b. ERA will create a final proposed HEC-RAS model which will incorporate the proposed river restoration cross-sectional changes, project cut/fills, and vegetation management improvements.

c. The permitting documentation will be compiled and prepared for submittal to IDNR. This task includes one revision and one resubmittal after receiving regulatory comments.

10. **Preliminary Plans, Specifications and Cost Estimate (60%)** – This task includes the preparation and submittal of preliminary plans, technical specifications, and cost estimates for the proposed improvements. It is anticipated that preliminary plans will include the following sheets:
    a. Cover Sheet with a Site Location Map
    b. General Notes, Legend, and Schedule of Quantities
    c. Overall Existing Conditions Plan
    d. Detailed Existing Conditions (Base Plan) and Demolition Plans
    e. Overall Layout Site Plan & Profile
    f. Detailed Geometric Layout Site Plan & Profile
    g. Grading & Erosion Control and Sedimentation Control Plan
    h. Traffic Control Plan
    i. Planting/Seeding Plan
    j. Detailed Grading Sections
    k. Typical Cross Sections
    l. Construction Details
    m. Structural Plans
    n. Structural Details

    This task also includes preparation and submittal of a 60% Engineer's Opinion of Probable Construction Cost based upon the quantity of materials to construct the project. ERA will assist in Value Engineering of the project if the project is anticipated to exceed the previously prepared budget. The costs will be split based on the funding source for each segment of the stream. It is anticipated that these drawings will be used to apply for the required permits.

11. **Preliminary Property Exhibits** – In conjunction with the 60% plans, specifications, and estimate, ERA will prepare specific exhibits for each property along the streambank stabilization project. This may include as many as fifty-two (52) exhibits for the entire project area. The exhibits will be simplified and expanded views of each property clearly showing the proposed stabilization practices for that property. Photos showing existing erosion areas and samples of the streambank stabilization proposed for the property will be provided for each property as well. ERA will also identify properties for which the stabilization is not critical for the overall condition of the stream and will provide this exhibit to the Village for use during easement discussions.

12. **Preliminary Easement Exhibit Preparation** – In conjunction with the 60% plans, specifications, and estimate, ERA will perform boundary survey for all the parcels for which easements are anticipated to be required. ERA will prepare one easement exhibit and easement legal descriptions for each of the impacted parcels along the channel within the project limits. It is estimated that up to 52 parcels may be impacted and require easement exhibits and easement legal descriptions. The easement exhibits and easement legal descriptions will be prepared for review by the Village of Orland Park.

13. **Operations & Maintenance Plan** – In conjunction with the 60% plans, specifications, and estimate, ERA will prepare and operations and maintenance plan for the streambank stabilization improvements. The plan will include specific details based on stabilization, including schedule for inspections, maintenance schedule, maintenance activities required, and estimated costs on a per-year basis.

14. **Public Meeting** – ERA will participate in a public meeting (1 meeting) to review the project with stakeholders and adjacent residents. The public meeting will include presentation of the overall project plan to date, presentation of specific streambank stabilization options proposed at each site, and a question-and-answer discussion with homeowners. ERA will assist with preparation of the presentation, contact of all project stakeholders, attendance at the meeting, and comment reviews and responses.

15. **Permit Assistance** – ERA will assist in the preparation and submittal of permit applications to the applicable regulatory authorities. The following permits are anticipated:
    a. US Army Corps of Engineers – Update to previous Regional Permits received and applications for new stream segments.
    b. IEPA – 401 Water Quality Certification & Notice of Intent (if necessary)
    c. IDNR – Threatened and endangered species – Update to previous Regional Permits received and applications for new stream segments.
    d. IDNR – Office of Water Resources - Update to previous permits received and applications for new stream segments.
    e. Illinois Historic Preservation Agency (IHPA) – Update to previous signoffs received and submittals for new stream segments.
    f. USFWS Section – Section 7 – Update to previous signoffs received and review for new stream segments.
    g. Will/South Cook Soil and Water Conservation District – Soil Erosion Control (required for USACE permit)
    h. MWRD – WMO Permit (self-permit)
    i. Village of Orland Park – Site grading and general construction (self-permit)

    ERA will provide the Village project manager applications for review and approval prior to submitting to the regulatory agencies. The following tasks are anticipated to acquire the above reference permits:
    a. *Coordination* – We will coordinate with various agencies regarding project regulatory requirements.
    b. *Wetland Delineation Report* – we will preparation a written wetland delineation report containing:
        i. Army Corps of Engineers (USACE) data forms;
        ii. Documentation of verification of threatened and endangered species consultation with appropriate federal and state agencies;
        iii. Aerial map exhibit of site showing approximate locations of data sampling points and wetland boundaries;
        iv. Floristic Quality Assessment to be completed during the growing season;
        v. Identification of off-site wetlands within 100' of the property;
        vi. Copy of soil map; and
        vii. Site photos as necessary to describe wetland and other regulated areas.
    c. *Joint Application* – ERA will prepare an addendum joint permit application form and supporting documentation necessary for submittal to the USACE, IDNR and IEPA.
    d. *Will/South Cook Soil and Water Conservation District* – It is likely that the USACE will delegate

review of sediment erosion control provisions to SWCD. ERA will prepare an Erosion and Sediment Control Plan Review Application and supporting documentation necessary for submittal to SWCD.

e. *Watershed Management Permit* – ERA will prepare a Permit Application and supporting documentation necessary for submittal to Village or Orland Park and MWRD (if necessary).

16. **Final Plans, Specifications and Cost Estimate (90%) –** Following the progress meeting, Value Engineering any of the project elements, and receipt of comments from regulatory agencies, adjacent property owners, the Village, and MWRD, we will revise the drawings, specifications, and estimates accordingly for the proposed improvements. The plans will be signed and sealed by an Illinois registered Professional Engineer. The plans will be used for resubmittal of permit documents. ERA will also provide an anticipated schedule for construction of the proposed improvements for planning by the Village.

17. **Final Property Exhibits** –In conjunction with the 90% plans, specifications, and estimate, ERA will update the specific property exhibits. The exhibits and any updated details will clarify or highlight any revisions to each property based on the reviews after the 60% plan submittals.

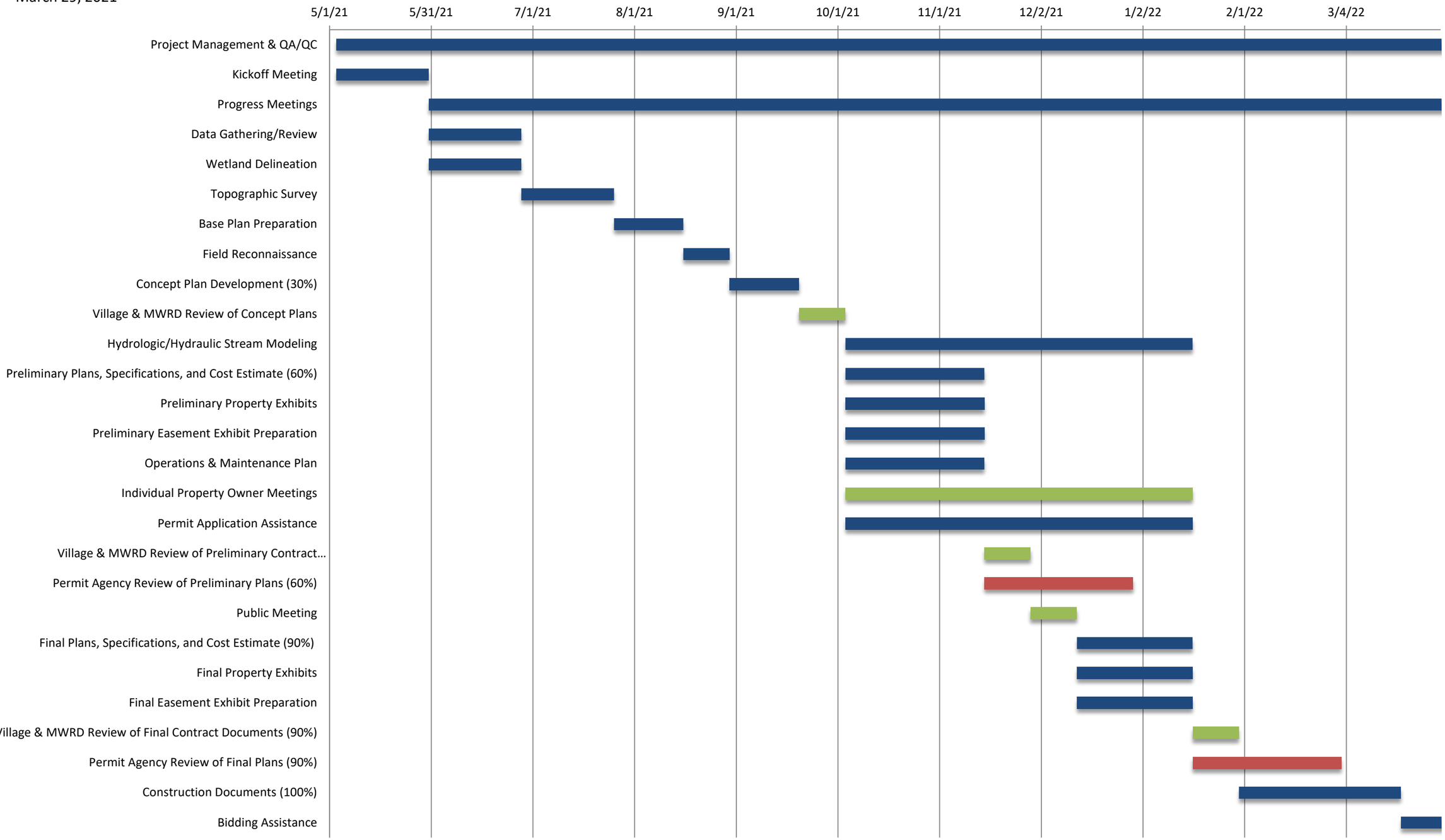
18. **Final Easement Exhibit Preparation** – In conjunction with the 90% plans, specifications, and estimate, ERA will update the easement exhibits and easement legal descriptions for use in conjunction with easement agreement documents to be prepared separately by the Village of Orland Park.

19. **Construction Documents (100%) –** Following receipt of final comments from regulatory agencies, the Village, and MWRD, we will revise the drawings, specifications, and estimates accordingly to be utilized for project bidding. The plans will be signed and sealed by an Illinois registered Professional Engineer. ERA will assist the Village in generation of a scope of services for a construction observation contract for the stabilization work.

20. **Bidding Assistance** – ERA will provide final contract documents in electronic format for distribution and use by the Village. ERA will respond to Village and bidder questions and Requests for Information, as required during the bid phase. We will also review bid information and provide the Village and MWRD with recommendations for contract award.

Prepared by ERA
March 29, 2021

Village of Orland Park, IL - RFP #21-015 - Tinley Creek Streambank Stabilization



REFERENCES

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

Bidder's Name: Engineering Resource Associates, Inc.
(Enter Name of Business Organization)

1. ORGANIZATION: Village of Downers Grove
   ADDRESS: 5101 Walnut Avenue, Downers Grove, IL 60515
   PHONE NUMBER: 630-434-5494
   CONTACT PERSON: John Welch, PE, CFM
   YEAR OF PROJECT: Ongoing

2. ORGANIZATION: City of Batavia
   ADDRESS: 200 North Raddant Road, Batavia, IL 60510
   PHONE NUMBER: 630-454-2760
   CONTACT PERSON: Rahat Bari, PE rbari@cityofbatavia.net
   YEAR OF PROJECT: 2018

3. ORGANIZATION: Metropolitan Water Reclamation District, IL
   ADDRESS: 111 East Erie Street, Chicago, IL 60611-3154
   PHONE NUMBER: 312-751-5479
   CONTACT PERSON: Richard Fisher fisherr@mwrd.org
   YEAR OF PROJECT: 2016-2017

ORLAND PARK
CERTIFICATE OF COMPLIANCE

The undersigned John Mayer, as Vice President
(Enter Name of Person Making Certification) *(Enter Title of Person Making Certification)*

and on behalf of Engineering Resource Associates, 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.#: 36-3686466
(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
_✓_ Corporation Illinois *(State of Incorporation)* May 1, 1990 *(Date of Incorporation)*

2) **ELIGIBILITY TO ENTER INTO PUBLIC CONTRACTS: Yes [✓] 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 [✓] 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 [✓] 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 [✓] 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

John Mayer

Name of Authorized Officer

Vice President

Title

03/24/2021

Date

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 24 DAY OF March, 2021

Signature

John Mayer, Vice President
Printed Name & Title

Authorized to execute agreements for:

Engineering Resource Associates, Inc.
Name of Company