



ENGINEERING
RESOURCE ASSOCIATES

PRIMARY CONTACT:

John Mayer, PE, CFM
Project Manager/Principal
3S701 West Avenue, Suite 150
Warrenville, IL 60555
P: 630-393-3060 x1043
jmayer@eraconsultants.com



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TECHNICAL PROPOSAL FOR:

McGinnis Slough Multi-Use Path
Phase I Preliminary Engineering

PREPARED FOR:

Sean Marquez, PE
Village Engineer
Village of Orland Park
14700 S. Ravinia Ave.
Orland Park, IL 60462

DUE:

May 6, 2021 at 11:00 AM

May 6, 2021

Sean Marquez, PE
Village Engineer
Village of Orland Park
14700 S. Ravinia Ave.
Orland Park, IL 60462

Subject: Proposal - McGinnis Slough Multi-Use Path Phase I Preliminary Engineering

Dear Sean:

Engineering Resource Associates, Inc. (ERA) is pleased to submit this proposal for Phase I Preliminary Engineering for McGinnis Slough Multi-Use Path. This proposal has been prepared in accordance with the Request for Proposal (RFP). We have completed a field visit to the project site and have attached our experience on similar assignments. ERA is prequalified with IDOT in **Structures (Highway: Typical), Hydraulic Reports (Waterways: Complex and Typical), Environmental Reports (Assessment & Impacts)**.

ERA is a consulting firm providing civil engineering, structural engineering, hydraulic analysis, environmental science, and surveying services to clients throughout Illinois. 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 include licensed engineers, structural engineers, surveyors, environmental scientists, certified floodplain managers and CAD/GIS specialists.

Our team will be led by John Mayer, PE, CFM, serving as Project Manager and acting as the primary contact for this project. He has over 34 years of experience on federally funded and IDOT administered projects. John has recently served in a similar role on several bike trail projects for the Forest Preserve Districts of DuPage, Will and DeKalb Counties, City of Warrenville, Plainfield Park District, Naperville Park District and Sycamore Park District. The project team assigned to this project has also served the same role in other recent projects. Mr. Mayer also works closely with the stormwater staff at MWRD and has led major Stormwater Master Plan projects for the District.

In addition to Phase I Engineering services, ERA has gone on to provide Land Acquisition, Phase II and Phase III engineering services for most of our recreational trail projects. Therefore, ERA is fully equipped with experienced staff to see this project through to construction and provide the Village with the benefit from the wealth of knowledge, experience, and foresight our team has during the Phase I engineering phase to ensure that the project conforms to the funding and project requirements.

We thank you for considering ERA and look forward to working with the Village of Orland Park on this project. Please contact me at (630)393-3060 x1043 or jmayer@eraconsultants.com if you have any questions or comments.

Sincerely,

ENGINEERING RESOURCE ASSOCIATES, INC.



John Mayer, PE, CFM
Principal/Project Manager

WARRENVILLE

3S701 WEST AVENUE, SUITE 150
WARRENVILLE, IL 60555
P 630.393.3060

CHICAGO

10 SOUTH RIVERSIDE PLAZA, SUITE 875
CHICAGO, IL 60606
P 312.474.7841

CHAMPAIGN

2416 GALEN DRIVE
CHAMPAIGN, IL 61821
P 217.351.6268



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

ENGINEERS | SCIENTISTS | SURVEYORS



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 2020, ERA had gross billings of approximately \$6.2 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.



Orland Park Nature Center

Open Lands of Orland Park, IL



Project Summary

ERA and Upland Design collaborated to create construction documents for the nature center for the Village of Orland Park. The park is an extension of the McGinnis slough and the Mill Creek wetland area, and is located near to downtown Orland Park. Features of the park include indoor and outdoor learning areas, educational signage, walking trails, bioswales, permeable paver patios, an amphitheater area, a native bottom detention basin, a bird-watching gazebo, and a boardwalk. ERA provided civil engineering design for the site, structural design for the amphitheater, and environmental design for the wetland and detention areas. Construction was completed in 2019.

ERA Project Team

John Mayer, PE, CFM | Principal / Project Manager
 Jon Green, PE, CFM | President / Project Director
 Andrew Kustus, PE, CFM | Project Engineer
 Erin Pande, PWS, CFM | Ecological Services Director

Project Reference

Jane Turley, AICP, LA/Senior Planner
 Village of Orland Park
 Phone: (708) 403-6118
 Email: jturley@orlandpark.org

Project Highlights:

- Designed a grading and utilities plan for the trails, gazebo, parking lot, amphitheater, and bioswales.
- Provided hydrologic design and modeling for the native bottom detention basin to meet MWRD requirements, as well as seed and plug mixes for the basin bottom and shoreline.
- Permeable pavers were used throughout the site to reduce runoff, promote infiltration, and provide educational opportunities.
- Created a five-year ecological management plan for the 14-acre wetland area at the northern limits of the park site for the benefit of trail users and bird watchers, as well as the local wildlife.

Project Architect:

Michelle Kelly, ASLA
 Upland Design, Ltd.
 24042 Lockport Street, Suite 200
 Plainfield, IL 60544
 Phone: (815) 254-0091
 Email: mkelly@uplanddesign.com

Completed:

2019

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West Branch DuPage Regional Trail

Forest Preserve District of DuPage County, IL



Project Summary

ERA worked with the Forest Preserve District of DuPage County (lead agency) and the Village of Winfield to provide Phase I, II and III engineering services for a CMAQ/ITEP/DCOE funded 3.5-mile multi-use trail. The crushed aggregate and paved trail extends from West DuPage Woods through high quality uplands, onto low volume local streets and adjacent to the West Branch of the DuPage River. The project included the installation of a prefabricated bridge, retaining walls and 600 feet of boardwalk to avoid environmental conditions within a tight corridor. Construction staging was required to avoid impact to endangered species. The project included a high visibility mid-block crossing, improvements adjacent to a grade school and a regional park. Assisted District with successful funding applications for \$2.2 million project.

ERA Project Team

John Mayer, PE CFM | Principal/Project Manager (Phase I and II)
 Marty Michalisko, PE CFM | Principal/Lead Water Resource Engineer
 Melissa Lange, PE, SE | Structural Engineer
 Brian Dusak, PE | Project Manager (Phase III)
 Erin Pande, PWS, CFM | Ecological Services Director
 Andrew Kustus, PE, CFM | Environmental Engineer
 Ravi Patil | Resident Engineer

Construction Cost: \$2.6 Million

Completed: Construction 2017-2018



Project Highlights:

- 3.3 total miles of trail
- 10 ft trail with aggregate and asphalt paved sections
- 3 sections of boardwalk totaling 600 ft
- 150 ft span prefabricated bridge structure 14 ft wide
- On-street, within R.O.W. and Off-street path sections
- IDOT BLRS design contract
- ERA assisted with the preparation of ITEP, CMAQ, DECO grant applications. The District received \$2.2 Million from CMAQ, ITEP and \$100,000 from DECO.
- Phase I (local), Phase II & III (FHWA) engineering services were provided
- Close coordination with IDOT, FHWA, Winfield Township, School District, Village of Winfield, DuPage County, USACE, IDNR and IEPA were required
- Trail easements required for four parcels

Project Reference:

Kevin Horsfall
 3S580 Naperville Road
 Wheaton, IL 60189
 Phone: (630) 933-7242
 Email: khorsfall@dupageforest.com

IDOT BLRS Reference:

Marilyn Solomon (Phase I)
 Phone: (847) 705-4407

David Herman (Phase II)
 Phone: (847) 705-4487

Jeff Mysliwiec (Phase III)
 Phone: (847) 705-4278

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Great Western Trail - Brickville to Main, Phase I/II/III Engineering Sycamore Park District, IL



Project Summary

ERA provided Phase I and II Engineering for ITEP funded 5300-foot paved multi-use trail. A 2600-foot section extends within State ROW adjacent to a middle school. A 2700-foot section meanders along the South Branch of the Kishwaukee River. The project included floodway and floodplain mitigation and permitting, farmed wetlands, a high visibility midblock intersection crossing, specification to protect identified endangered species. ERA Assisted with securing ITEP funding for the project. The new section of trail provides a safe route for Sycamore Middle School students to walk to school. Portions of the trail are within floodway, IDOT ROW, and farmed wetlands. Phase I engineering included Project Development Report (PDR), and Environmental Survey Request (ESR). Phase II included construction documents and securing Permitting was required through IDNR, USCOE, DSWCD and City of Sycamore.

ERA Project Team

John Mayer, PE, CFM | Principal / Project Manager
Jon Green, PE, CFM | President / Project Director
Andrew Kustus, PE, CFM | Project Engineer
Brian Dusak, PE | Principal / Lead Resident Engineer
Erin Pande, PWS, CFM | Wetland Specialist
Charles Harrison | Resident Engineer

IDOT BLRS Reference:

Steve Chery, Local Roads Engineer (Phase I/II)
Phone: (815) 434-8514 Email: Steve.chery@illinois.gov

Joseph Spika (Phase III)

Phone: 815-434-8477 Email: Joseph.Spika@illinois.gov

Project Highlights:

- 5,300 linear feet of trail
- 10' wide asphalt trail
- Collaborative effort between Park District, School district and City
- Trail improvements within state route ROW
- Part of Great Western Trail Extension plan connecting trails throughout Sycamore
- Assisted the District in successfully applying for ITEP funding

Project Reference:

Daniel Gible
Executive Director
940 East State Street
Sycamore, IL 60178
Phone: (815) 895-3365
DanielG@sycamoreparkdistrict.com

Engineering Fees:

\$45,000 (Phase I)
\$65,000 (Phase II)
\$71,000 (Phase III)

Construction Cost: \$650,000

Completion Date: 2018

Contract No. 87685

Letting Date: April 27, 2018

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Great Western Trail Extension Sycamore Forest Preserve to Old Mill Park Phase I/II/III Engineering Sycamore Park District, IL



Project Summary

ERA provided Phase I, II, and III Engineering for a federally funded 4,100-foot extension of the Great Western Trail from the Sycamore Forest Preserve across the Kishwaukee River towards downtown Sycamore. The project features a 200-foot steel truss pedestrian bridge, two timber bridges, and 130 feet of timber boardwalk. ERA's services included wetland delineation and permitting, topographic survey, floodway and floodplain mitigation and permitting, hydraulic bridge reporting, public involvement coordination, final engineering document preparation, land acquisition services, and construction engineering services. Construction Engineering services included IDOT letting assistance, project coordination, shop drawing review, construction layout, and review of the Regulated Substances Pre-Construction Plan (RSPCP). ERA provided tree removal oversight, pile driving oversight and bearing calculations, abutment and approach slab inspection, timber boardwalk inspection, storm sewer installation, HMA paving, and full site restoration. Phase III documentation included maintenance of a project diary, measuring quantities, material certification, authorizations of contract changes, and monthly progress payments utilizing IDOT's new CMMS documentation software. ERA also assisted in securing federal ITEP funding for this project as well as Phase 1 design approval for a future 2,400-foot trail extension.

ERA Project Team

John Mayer | Project Manager
Andrew Kustus | Project Engineer
Melissa Lange | Structural Engineer
Erin Pande | Wetland Specialist
Brian Dusak | Lead Resident Engineer
Chris Sedlacko | Resident Engineer



Project Highlights:

- 4,100 linear feet of asphalt trail
- 200' steel pedestrian bridge
- 180' timber bridges and boardwalks
- Collaborative effort between Park District, Forest Preserve, City and State
- Part of Great Western Trail Extension connection trails throughout Sycamore

Project Reference:

Jonelle Bailey
Executive Director
940 East State Street
Sycamore, IL 60178
Phone: (815) 895-3365
jonelleb@sycamoreparkdistrict.com

IDOT BLRS Reference:

Steve Chery (Phase I & II)
Local Roads Engineer
Phone: (815) 434-8514
Email: steve.chery@illinois.gov
Kyle Videgar (Phase III)
Area Superintendent
Phone: 815-434-8427
Email: kyle.videgar@illinois.gov

Construction Cost: \$2,107,600

Completion Date: 2021

Contract No. 87730

Item No. 194

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Devon Ave./W. Bartlett Rd. Drainage Swale & Bike Path Replacement

Village of Bartlett, IL



Project Summary

ERA prepared final engineering plans, specifications, and costs for the drainage and bike trail improvements along the south side of Bartlett Road at Devon Avenue. The existing trail had been constructed several feet lower than Bartlett Road and receives a significant amount of its runoff across the trail into a poorly drained swale. The trail was raised to match closer to the roadway elevation, while also accommodating adjacent driveway entrances. Drainage was improved with native bio-swales and culverts. The design followed current ADA guidance for trails, including the modification of the roadway crossing at Devon Avenue. Plans were prepared according to "Invest In Cook" funding. Permits were received from USACE, IDNR, and the Village of Bartlett. We also coordinated with MWRD to design the project in order to determine that no permit was required under the Watershed Management Ordinance.

ERA Project Team

John Mayer, PE, CFM | Principal / Project Manager
 Brian Dusak, PE | Project QA/QC Director and Construction Lead
 Andrew Kustus, PE, CFM | Design Team Lead
 Marty Michalisko, PE, CFM | Water Resource Lead
 Erin Pande, PWS, CFM | Environmental Lead
 Tim Martinek, PLS | Survey Lead

Project Reference:

Robert Allen
 Village Engineer
 Village of Bartlett
 1150 Bittersweet
 Bartlett, Illinois, 60103
 Phone: 630-837-0811
 Email: tisham@vbartlett.org

Construction Cost: \$420,000

Completion Date: Phase I 2018

Construction Date: TBD

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DuPage River Trail Bridge at River Road

Plainfield Park District, IL



Project Summary

ERA provided Phase I and II design engineering and Phase III construction engineering for the DuPage River Trail Bridge at River Road. The project included the design and installation of a 152'-0" bridge over the DuPage River, 750-ft of pedestrian trail, a compensatory storage facility, 350-ft of River Road reconstruction, and miscellaneous signage and other appurtenances.

The Phase I engineering consisted of preparing a Project Development Report (PDR), Categorical Exclusion Group II which included a Bridge Hydraulic Report, Geotechnical Report, environmental assessments and documentation, establish roadway geometrics and the anticipated right-of-way. The floodway jurisdiction is delegated to IDOT for review and approval and the floodplain was reviewed and approved by the Village. Phase II engineering consisted of the Plans, Specifications and Estimates (PS&E). Phase III engineering consisted of the full-time construction observation and documentation. ITEP funding was used in the project requiring implementation of federal procedures.

ERA Project Team

John Mayer, PE, CFM | Principal/Project Manager (Phase I & II)
 Brian Dusak, PE | Project Manager (Phase III)
 Marty Michalisko, PE, CFM | Principal/Water Resource Engineer Lead
 Jennifer Loewenstein, PE, CFM, CPESC | Sr. Water Resource Engineer
 John Frauenhofer, PE, SE | Senior Structural Engineer
 Jacob Wolf, PE | Principal/Structural Engineer
 Andrew Johnson | Resident Engineer
 Chris Sedlacko, PE | Assistant Resident Engineer



Project Highlights:

- 14 ft wide, 150 ft long prefabricated bridge crossing the DuPage River
- Reconstruction of River Road
- Permits secured by USACE, IDNR/OWR, IDOT, IEPA and the Village of Plainfield
- Com-Ed license agreement secured
- Compensatory storage for floodway and floodplain fill
- Federal Funding (ITEP) was used
- IDOT/FHWA coordination

Project Reference:

Jennifer Rooks-Lopez
 Director of Planning and Procurement,
 23729 W. Ottawa Street
 Plainfield, IL 60544
 Phone: (815) 254-6180
rooks-lopez@plainfieldparkdistrict.com

IDOT BLRS Reference:

Marilyn Solomon (Phase I)
 (847) 705-4407
 Kevin Stallworth (Phase II)
 (847) 705-4169
 Babatunde Owolabi (Phase III)
 (847) 705-4752

Engineering Fees:

\$66,000 (Phase II), \$73,000 (Phase III)

Construction Cost: \$803,000

Completion Date: August 2016

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Mack Road Trail Extension

City of Warrenville, IL



Project Summary

The Phase I Engineering for the addition of a proposed bike path along the north side of Mack Road that crosses over the West Branch of the DuPage River. The Phase I Engineering includes an alternative analysis study for three alignments, and a Bridge Condition Report (BCR) to investigate the widening-in-kind improvements required to accommodate the proposed path. Other alternatives included on-street bike lanes, and a bike path along the south side of Mack Road with a prefabricated, pedestrian bridge and a mid-block cross walk. Traffic signal modifications at the IL Route 59 and Mack Road intersection were also analyzed to accommodate the proposed path. The City was awarded STP bridge funds for this project.

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
 Melissa Lange, PE, SE | Structural Engineer Lead
 Nick Varchetto, PE | Roadway Engineer Lead
 Erin Pande, PWS, CFM | Ecological Services Director
 Andrew Kustusich, PE, CFM | Environmental Engineer
 Kristina Kolodziejczyk | Design Engineer

IDOT BLRS Reference: Marilyn Solomon- Phone: (847) 705-4407



Project Highlights:

- Phase I engineering
- Designed bike trail connection to the DuPage County Regional Bike Trail network
- Traffic Signal Modifications
- Widen-in-kind of existing bridge
- Alternative Analysis

Project Reference:

Kristine Hocking, PE, CFM
 Senior Civil Engineer
 City of Warrenville
 3s258 Manning Avenue
 Warrenville, IL 60555
 Phone: (630) 836-3066
 Email: khocking@warrenville.il.us

Construction Cost: \$563,648

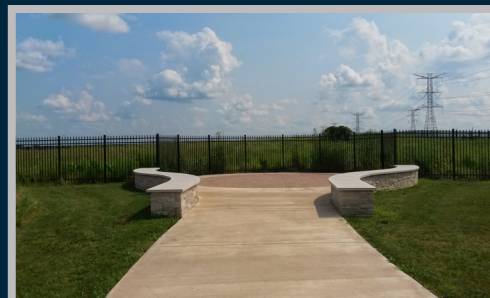
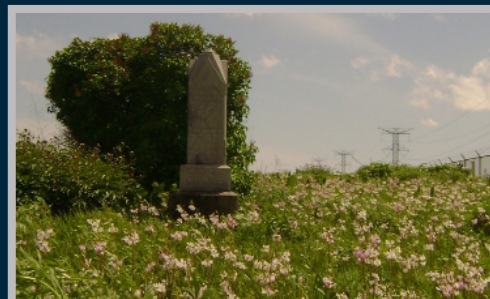
Consultant Fees: \$104,400

Completed: 2017-On-Going

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Vermont Cemetery Native Restoration and Trail Project

Forest Preserve District of Will County, IL



Project Summary

ERA was retained by the Forest Preserve District of Will County for the Vermont Cemetery Access project. ERA's Environmental Services team will provide innovative and low impact design solutions to develop the 24-acre Vermont Cemetery Preserve. The amenities include a trail head parking area, 6,100 ft bicycle trail, native planting plans, and incorporating a variety of best management practices (BMPs) to protect a valuable remnant prairie and to mitigate pollutants from impervious surfaces. The multi-use paved trail extended along a ComEd transmission line corridor adjacent to residential subdivisions. Several residential connections trails were provided. The trail crossed one major collector street and two residential streets. USCOE permitting was required due to the unique Grade A dry-mesic prairie and rare species identified by the Illinois Nature Preserve.

ERA Project Team

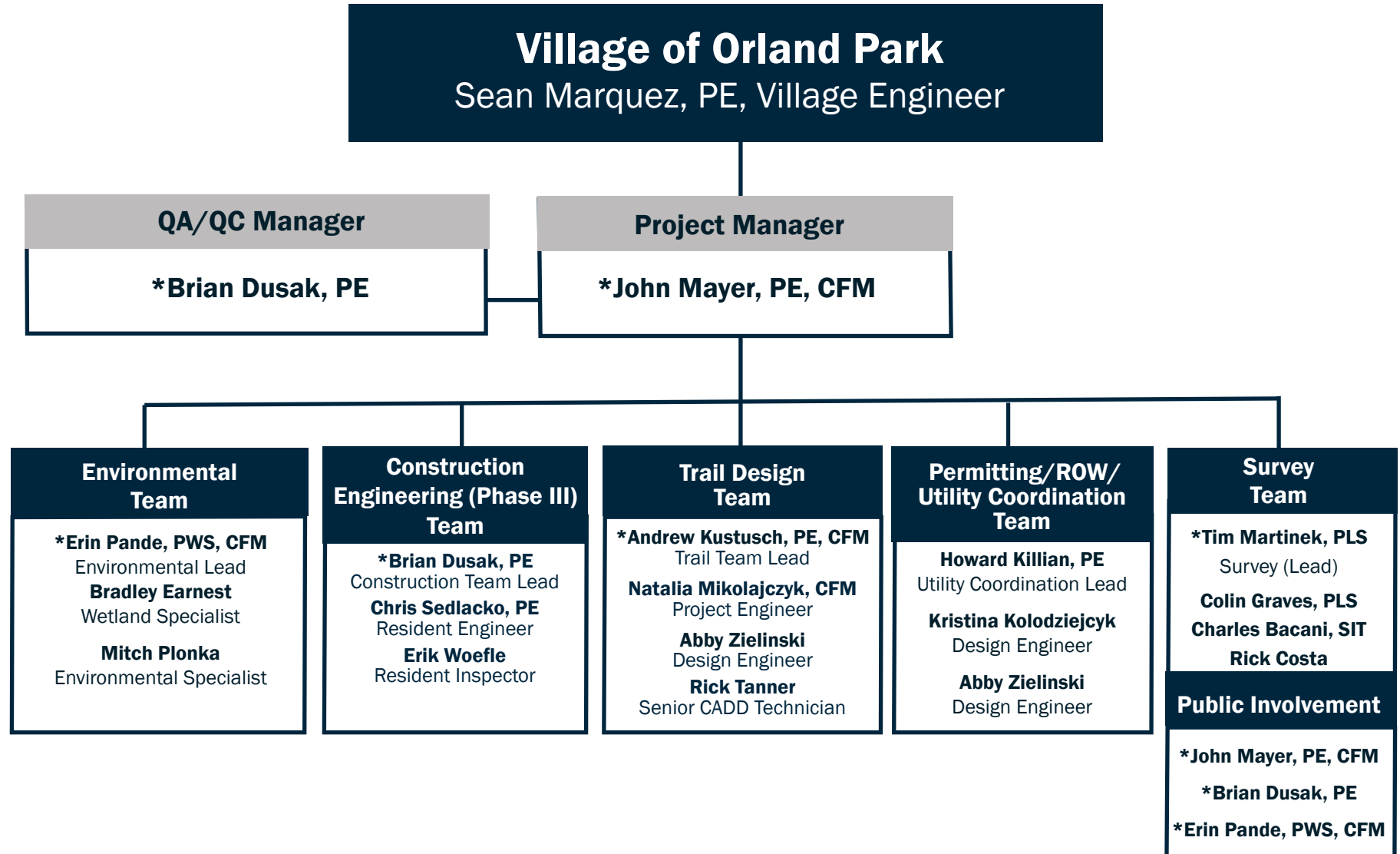
Erin Pande, PWS, CFM | Ecological Services Director/Project Manager
 Rodney Beadle, PE, CFM | Project Director
 John Mayer, PE, CFM | Principal / Senior Project Engineer

Project Highlights:

- Provide innovative and low-impact design solutions to mitigate impacts of new recreational amenities
- Design of a 30-space parking lot
- Construction of a 10-foot-wide, 6,100 ft long asphalt bike trail
- ComEd transmission line corridor.
- Develop native planting plan appropriate for proximity to remnant prairie
- Implement Best Management Practices (BMPs)

Project Reference:

Matt Novander | Project Manager
 Forest Preserve District of Will County
 17540 W. Laraway Road
 Joliet, IL 60433
 Phone: (815) 722-9412
 Email: mnovander@fpdwc.org



* Resumes Included



John Mayer, PE, CFM
Project Manager/Principal

Project Experience:

West Branch DuPage Regional Trail, Forest Preserve District of DuPage County, IL – Project Manager (Phase I and II) for the design and construction of a 17,500-foot bicycle trail to connect the Geneva Spur of the Illinois Prairie Path in Winfield Mounds Forest Preserve through downtown Winfield and to existing trails in West DuPage Woods Forest Preserve. The project included the installation of crushed aggregate and bituminous multi-use trail section, a prefabricated bridge, crossing of High Lake Road, three sections and 600 ft of boardwalk, retaining walls, signage, compensatory floodplain storage and native restoration. ERA assisted the District in securing ITEP/CMAQ funding for the \$2.2 million project.

Sycamore Trail - Brickville to Main, Phase I, II and III, Sycamore Park District, IL – Project Manager (Phase I and II) provided engineering for 5,000 linear feet of improvements to existing trails and new trail design. 2,500 linear feet of trail was widened along Illinois Route 23 (Main Street) between the South Branch of the Kishwaukee River to Maplewood Road. Another 2,500 linear feet of new trail connects an existing trail with an at grade crossing of Brickville Road. Portions of the trail are within floodway, IDOT ROW, and farmed wetlands. The project included ITEP funds.

DuPage River Trail Phase I, II, and III, Plainfield Park District, IL – Project Manager (Phase I and II) assisted the Park District in securing ITEP funding for the project. ERA provided Phase II and III engineering for the 0.75mile trail that included a 150 feet bridge crossing over the DuPage River and a three section box culvert crossing at the West Norman Drain. The project involved permitting for floodplain, floodway, and wetland impacts. Funding was provided through local, state, and federal programs including HPP, ITEP, SAFETEA-LU, and ARRA.

Mack Road Bike Path/Trail Connection, Warrenville, IL – Project Manager for Phase I engineering services for the .36-mile section of a 10-foot-wide bike trail/ multi-use path connection along Mack Road located just east of Illinois Route 59 to the DuPage County Regional Bike Trail network via the West Branch Regional Trail. Improvements for Illinois Route 59 include crosswalk alignments, and traffic signal modifications. The project elements included environmental sensitivity to the forest preserve area, grade limitations, a dog park, and boat launch. The crossing at the West Branch River includes an existing bridge extension. The project is located within the Forest Preserve District of DuPage County (FPDDC) and the Winfield Township District. Surface Transportation Program (STP) Federal funding, FPDDC and City of Warrenville shared the cost for this project.

Vermont Cemetery Access and Trail, Will County, IL – Senior Project Engineer worked on the design of an innovative and low impact solution to improve the 24 acre Vermont Cemetery Preserve. John completed civil engineering for the 30 space parking areas, 10 ft wide, 1 mile long asphalt bicycle trail, vault toilets and incorporating a variety of best management practices (BMPs).



Education/Certifications:

- Bachelor of Science
Civil Engineering
University of Wisconsin –
Milwaukee – 1986
- PE – IL – 062-047345, 1992
- PE – IN – PE10708044
- PE – WI – E27723-6, 2007
- Certified Floodplain Manager
IL - 06-00257
- Kane County Qualified Review
Specialist
- Remote Pilot Certificate

Areas of Expertise:

- Lead projects with various funding sources including: ARRA, ITEP, MFT, 319(h), IGIG, SAFETEA-LU, AASHTO, CMAP, STP, CMAQ, TCM and OSLAD
- Lead Designer for recreational trails, watershed management, transportation, street lighting, downtown streetscape, stormwater and infrastructure projects
- Hydraulics and hydrology design, permitting, and modeling

Years of Experience:

- 34 years, 23 with ERA

ENGINEERS | SCIENTISTS | SURVEYORS



John Mayer, PE, CFM
Project Manager/Principal

Project Experience Continued:

Old Plank Road Trail Phase IV, Forest Preserve District of Will County, IL – Project Manager for survey, design, permit and construction administration of the Old Plank Road Trail Phase IV project. The project extended the existing trail approximately one mile adjacent to residential, commercial and light industrial use. The project required utilizing an abandon railroad bed and pavement sections adjacent to commercial areas. Permitting was required through local agencies. An open parcel of land was converted into a new fully-accessible trail head with amenities including a shelter, privy vault, drinking fountain, kiosk, 15-space parking lot, and storm water detention.

Butterfield Road (IL Route 56) Streetscape Enhancement and Lighting Project, Warrenville, IL – John provided Phase I, II and III engineering services for the street beautification project along IL Route 56 Butterfield Road and Batavia Road, 3800ft. John worked together with Hitchcock Design Group completing project elements including gateway features, enhancements to the Illinois Prairie Path Bike Trail including crossing Batavia road, way finding, LED roadway lighting and LED decorative post top lighting. The project was funded with ITEP funds requiring federal compliance and IDOT review and letting procedures.

Rock Run Corridor Trail Bike Path, Joliet, IL – Project Engineer worked on the construction of a new 4.0 mile bike path extending under an I-80 underpass, through Joliet Junior College property, a CSX railroad crossing and the Joliet Municipal Airport property. The project included the construction of a 100-foot pedestrian bridge requiring floodplain and floodway modeling and compensatory storage.

22nd Street Roadway, Streetscape, Lighting and Beautification, Oak Brook, IL – Project Manager for Phase I, II, III engineering services for beautification and roadway improvements along 3,600 feet section of an unmarked state route. Improvements included planter areas, gateway monumentation, and decorative street lighting conforming to IDOT standards and requirements. He assisted with the award of ITEP funds, while utilizing the Federal Flexible Match Program (FFMP) for the project.

Mid County Trail – Peck Farm Link, Forest Preserve of Kane County, IL – Project Manager for surveying, design engineering, wetland delineations and permitting services for a 110 foot span bridge along a 700 foot bituminous trail located at Fabyan Parkway and Kaneville Road. The trail crosses over Mill Creek. The trail is designed to facilitate bicycle traffic primarily through park district land.

Areas of Expertise Cont'd:

- VillageEngineer Review Consultant
- Actively involved in various watershed groups: DRSCWC, LDRWC, LDGP.
- 10 years experience with traffic signal and street lighting operations and design for over 100 signalized intersections and numerous interconnect systems.

Professional Experience:

- Engineering Resource Associates
Principal / Project Manager
(1998-Present)
- City of Joliet
Civil Engineer/Traffic Engineer
(1987-1998)

Professional Affiliations:

- American Public Works Association Past President - Southwest Branch
- Association of State Floodplain Managers
- Institute of Transportation Engineers
- Illinois Association for Floodplain

ENGINEERS | SCIENTISTS | SURVEYORS



Brian Dusak, PE
QA/QC Manager/Construction
Team Lead

Project Experience:

DuPage River Trail Phase I, II, and III, Plainfield, IL – Project Engineer/Resident Engineer that assisted the Park district in securing ITEP funding for the project. ERA provided Phase II and III engineering for the 0.75mile trail and a 150 feet bridge crossing over the DuPage River three section box culvert crossing at the West Norman Drain. The project involved extensive permitting for floodplain, floodway, and wetland impacts. Funding was provided through local, state, and federal programs including HPP, ITEP, SAFETEA-LU, and ARRA.

West Branch DuPage Regional Trail, Forest Preserve District of DuPage County, IL – Project Engineer for the land surveying, Phase I, II and III engineering of a 17,500-foot bicycle trail to connect the Geneva Spur of the Illinois Prairie Path in Winfield Mounds Forest Preserve. The project included the installation of crushed aggregate and bituminous multi-use trail sections, a prefabricated bridge, crossing of High Lake Road, three sections and 600 ft of boardwalk, retaining walls, signage, compensatory floodplain storage and native restoration. ERA assisted the District in securing 80% CMAQ funding for the \$2.2 million project.

Illinois Prairie Path Geneva Spur and Great Western Trail Connector, West Chicago, IL – Resident Engineer for a 1.25 mile path between the Great Western Trail and Geneva Spur in the City of West Chicago. The shared-use paths were designed in accordance with AASHTO and IDOT requirements. Extensive coordination was required with IDOT and FHWA as funding for this project was received through the Surface Transportation Program (STP).

Naperville Riverwalk Consultant, Naperville, IL – Project Engineer for various improvements along the riverwalk since 2006. Proposals have included reconstruction of sections, signage replacement, structure re-roofing, memorial wall replacement, asset management planning and shoreline restorations. Work includes close coordination with the City's Job Order Contractor (J.O.C.).

Sycamore Trail - Brickville to Main, Phase I, II, and III, Sycamore Park District, IL – Project Manager for the Phase III portion of 5,000 linear feet of improvements to existing trails and a new trail design. 2,500 linear feet of trail was widened along Illinois Route 23 (Main Street) between the South Branch of the Kishwaukee River to Maplewood Road. Another 2,500 linear feet of new trail connects an existing trail with an at grade crossing of Brickville Road. The trail was part of an overall trail plan for the park district, the City of Sycamore, and DeKalb County. Portions of the trail are within floodway, IDOT ROW, and farmed wetlands.



Education/Certifications:

- Bachelor of Science, Civil Engineering
University of Illinois – 2004
- PE - IL - 062-062144, 2009
- Documentation of Contract Quantities Course- December 2016 (16-12224)
- ADA PROWAG Requirements Class

Areas of Expertise:

- Transportation projects including roadway/bridge for design through construction
- Construction engineering for federally funded projects
- IDOT Documentation procedures
- Expert in ADA/PROWAG requirements
- Phase I, II and III engineering of storm sewer improvements, culvert crossing, detention basins, public ROW improvements
- Permitting process of federal, state and local permitting agencies
- Bike trail design by incorporating AASHTO and BDE criteria

Years of Experience:

- 19 years, 19 with ERA

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Brian Dusak, PE
QA/QC Manager/Construction
Team Lead

Project Experience Continued:

Winfield Riverwalk and Winfield Riverwalk Core Center, Winfield, IL – Project Engineer for preliminary and final design engineering services for the construction of a new riverfront recreational facility. Improvements include brick pavers, concrete and asphalt trails, bulkhead walls, naturalized ponds, overlooks, pedestrian bridges, boardwalks, ornamental lighting, signage and gateway structures.

Mack Road Bridge Widening and Replacement, Warrenville, IL - Lead Transportation Engineer for the design of the new roadway approaches for the replacement of the existing four-span bridge over the West Branch of the DuPage River. The roadway was raised 1'-6" to meet the required hydraulic clearance over the river. The new roadway needed to account for the addition of a new bike path on the north side of the roadway. Challenges included maintaining the dog park and the boat launch to the river on the south side. Work included a barrier warrant analysis to determine the guardrail required for the bridge and retaining wall. Project was completed using a full roadway closure using adjacent IDOT routes. Coordination with IDOT District 1 detour committee was required.

Hart Road Bridge Replacement, Lake County Division of Transportation, IL – Lead Transportation Engineer for the design of the new roadway approaches for the replacement of the existing bridge over Flint Creek. The new roadway needed to account for an addition of a new bike path along the east side of the road. Work also included a barrier warrant analysis to determine the embankment slopes and length of guardrail along the corridor. Project was completed using a full roadway closure using adjacent IDOT routes. Coordination with IDOT District 1 detour committee was required.

Illinois Prairie Path Geneva Spur and Great Western Trail Connector, West Chicago, IL – (Phase III Project Manager for the phase I, II and III engineering services) Resident Engineer for (Phase I, II and III) for an STP funded 1.25-mile paved multi-use trail connecting the IPP to the Great Western Trail. Constructed within local collector streets, IL Route 59 ROW and acquired easements from a multi-family complex and a park district. Variance for trail width was approved. Watermain utility adjustments were required.

22nd Street Beautification Project, Oak Brook, IL – Design Engineer for a street beautification corridor project along 0.75 miles of an unmarked IDOT route, namely 22nd Street, and 0.5 miles of York Road located in the Village of Oak Brook. As a subconsultant to Hitchcock Design Group, ERA provided the engineering plans for a new decorative streetlight system, holiday accent lighting, a gateway sign and grading/utility plans for median improvements. The project was funded through the Illinois Transportation Enhancement Program (ITEP) and a local hotel tax over several years.

Professional Experience:

- Engineering Resource Associates
Project Manager /Project Engineer/
Resident Engineer (2004-Present)
- Engineering Resource Associates
Engineering Intern (2002, 2003)

Special Training:

- IDOT Traffic Signal and Street lighting Design
- IDOT ICORS Training

Professional Awards

- American Public Works Association
Chicago Metro Chapter
2014 Donald C. Stone Award for
Excellence in Education

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Andrew Kustusch, PE, CFM

Trail Design Team Lead

Project Experience:

West Branch Regional Trail, Forest Preserve District of DuPage County, Winfield, IL – Project Engineer for Phase I and Phase II engineering design of a 17,500-foot bicycle trail that connects the Geneva Spur of the Illinois Prairie Path to the West Dupage Woods Forest Preserve. The trail traverses through the Winfield Mounds Forest Preserve and downtown Winfield. This project received CMAQ funding. Project responsibilities included data collection, topographic survey, environmental studies, drainage studies, preliminary design, public involvement, cost estimation, preparation of a Project Development Report, right of way acquisition, and preparation of final plans, specifications, and estimates.

DuPage River Trail Phase II / III, Plainfield Park District, IL – Project Engineer for Phase II and III engineering for a 0.75 mile trail and a 150 feet bridge crossing over the DuPage River. The project involved extensive permitting for floodplain, floodway, and wetland impacts, as well as IEPA SWPPP permitting. Andrew also developed the IDOT Preliminary Bridge Design and Hydraulic Report. Funding was provided through local, state, and federal programs including HPP, ITEP, SAFETEA-LU, and ARRA.

Sycamore Trail - Brickville to Main, Phase I, II, and III, Sycamore Park District, IL – Project Engineer that provided environmental and civil engineering services for the 5,000 linear feet of trail improvements north of the downtown Sycamore area. The trail was awarded ITEP funds in 2016. The Phase II trail design involved permitting through the IDNR Office of Water Resources, US Army Corps of Engineers, City of Sycamore, and DeKalb County. The project was let through IDOT District 3 in April 2018, and construction will begin in July 2018. ERA will provide phase III construction engineering for the project as well.

Great Western Trail Extension Phase I, Sycamore Park District, IL – Project Engineer that provided environmental and civil engineering services for the 6,500 linear feet of trail improvements that will extend the current limits of the Great Western Trail to the Park District's Old Mill Park. The Phase I design involved design of drainageway crossings, determination and avoidance of wetland areas, floodplain compensatory storage design, Section 4(f) lands reviews, and identification of easements and ROW required. Segment 1 of the project was awarded ITEP funding in 2018.

Mack Road Trail Extension, Bridge Replacement and Widening, Warrenville, IL – Environmental Engineer for Phase I engineering services for the 0.36-mile section of a 10-foot-wide bike trail/ multi-use path connection along Mack Road located east of Illinois Route 59 to the DuPage County Regional Bike Trail network via the West Branch Regional Trail. The project elements include addressing environmental sensitivity to the high-quality forest preserve area, and grade limitations, and floodplain/flooding mitigation and permitting. The crossing at the West Branch River includes an existing bridge extension with a raised roadway profile to meet hydraulic requirements.



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 Infrastructure
- 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

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Andrew Kustusch, PE, CFM
Trail Design Team Lead

Project Experience Continued:

Nash Recreation Center Parking Lot Improvement Project, Oregon Park District, IL – Project Engineer for the design and construction engineering services for the Nash Recreation Center Parking Lot Improvement Project. This primary facility is the location of the Park District District's Administration Staff, Aquatic Center, recreational courts and classroom programming. The improvements included the construction of a new 25-space parking lot, the total reconstruction of a 58-space lot, new overhead and bollard LED lighting, structural modifications, permeable brick pavers and message board. The project was also permitted through the City of Oregon. The construction phase is planned to commence May 2016.

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. Andrew also designed the stormwater management pollution prevention plan for the site.

Monticello Sports Complex, Monticello, IL – Project Engineer for the development of a detailed outdoor 30-acre multi-sports recreation complex. The complex includes two full size football fields, six various size soccer fields, three various size baseball fields, two basketball courts, one tennis court, one skate park, one playground, one press box/storage/restroom/concession building, paved walking path, paved parking lot(s), shelters with seating and landscaping throughout. Prior to development, the land was utilized for agricultural production. Existing city-owned infrastructure and other utilities are located adjacent to this parcel. Project includes the extension of sanitary and water mains to serve future development west of the complex.

Warrenville Road Bridge, DuPage County DOT, IL – Project Engineer for the Warrenville Road Bridge Replacement over the West Branch of the DuPage River for Phase I (preliminary design) design services. The tasks involved were FEQ analysis, HEC-RAS analysis, Environmental Survey Request (ESR), Preliminary Environmental Site Assessment (PESA), preliminary design assistance, wetland/ riparian impacts, mitigation, permitting assistance including Army Corps individual permit, 401 water quality certification, and IDNR/OWR.

Professional Training (Continued):

- FHWA-NHI-HWY Traffic Noise Course-2018
- ADA PROWAG Requirements Class
- Beyond the Basics Stormwater 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

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Erin Pande, PWS, CFM
Environmental Lead

Project Experience:

Illinois Prairie Path Geneva Spur and Great Western Trail Connector, West Chicago, IL – Ecological Services Director for Phase I, II, and III services for the design and construction of connecting trails to Reed-Keppler Park. The trail connects the Illinois Prairie Path's Geneva Spur to the Great Western Trail. Three parcels required Federal Land Acquisition procedures. Project funded by STP federal funds administered by the State of Illinois.

DuPage River Trail Phase II and III Engineering, Plainfield Park District, IL – Ecological Services Director worked on a mile-long bike path along the DuPage River. Proposed path was completely within the floodplain and floodway of the river. She delineated wetlands within the scope of the project. The path routing was carefully chosen to avoid wetlands and other special management areas. One bridge crossing the DuPage River and two crossing of tributaries were included in this stretch of path. Design included wetland impacts on-site wetland mitigation. She assisted in acquiring all required permits from federal, state and local agencies. ERA continues to perform vegetation monitoring services for this project.

Barth Pond Shoreline Stabilization, Downers Grove, IL – Ecological Services Director for the design of a shore line stabilization, water quality treatment outlet modifications, and an ADA-accessible path around Barth Pond at Patriots Park. The innovative site design remains sensitive to the pond's intended uses for recreational activities and community flood control, and promotes environmental stewardship. An alternate outlet with remote drawdown capabilities was designed to lower pond levels prior to storm events. Project was awarded the APWA Suburban Branch Environmental Project of the Year.

Mid-County Trail Peck Farm Link, Kane County, IL – Ecological Services Director performed wetland delineation, floristic quality assessment, and wetland mitigation design for permitting a bike path and bridge over Mill Creek under Kane County and the USACE jurisdiction.

Broadview Slough Path and Pier, Lombard, IL – Ecological Services Director worked on the construction of a 5-foot-wide pedestrian path, a floating wildlife observation pier and picnic shelter in Broadview Slough. The new path will consist of highly permeable, 100% post-consumer recycled glass. Performed the necessary permitting and wetland work.

West Branch Regional Trail, Forest Preserve District of DuPage County, Winfield, IL – Environmental Lead for Phase I and Phase II engineering design of a 17,500-foot bicycle trail to connect that connects the Geneva Spur of the Illinois Prairie Path to the West DuPage Woods Forest Preserve. The trail traverses through the Winfield Mounds Forest Preserve and downtown Winfield. This project received CMAQ/ITEP/DCOE funds for this 3.5-mile multi-use trail. Close coordination with IDOT, FHWA, Winfield Township, School District, Village of Winfield, DuPage County, USACE, IDNR and IEPA were required.



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:

- 19 years, 16 with ERA

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Erin Pande, PWS, CFM
Environmental Lead

Project Experience Continued:

Bartlett Rd. Drainage and Pathway Improvements, Bartlett, IL – Erin was the environmental lead for final design of the improvements to the multi-use trail and poor drainage areas at Devon Avenue and West Bartlett Road. Previously, stormwater drained through two curb cuts along West Bartlett Road and across the path, creating flooded conditions for trail users, long-term damage to the path, and nuisance ponding for adjacent properties. She was part of the team that designed the relocation of the path closer to the roadway in order to elevate it well above the ponding areas, while still maintaining safe roadway separation. Plans were prepared in accordance with the Invest in Cook program requirements. Erin assisted with permitting through USACE, IDNR EcoCAT, and Village of Bartlett.

DuPage County South Regional Trail, DuPage County, IL – Performed wetland delineation, floristic quality assessment, wildlife evaluation, DuPage County and USACE permitting for wetlands and riparian areas located within the project scope of the bike path.

Illinois Prairie Path, Aurora Branch, DuPage County, IL – Performed wetland delineations, wetland buffer, and riparian area permitting for the replacement of six (6) stormwater conveyance structures along a three-mile stretch of the Illinois Prairie Path near Wheaton for the DuPage County Department of Transportation. The project involved performing floristic, habitat quality, and hydroperiod assessments for each wetland to evaluate and avoid potential direct and indirect wetland impacts.

Stonebridge Trail Bridge, Wheaton, IL – Project Manager completed wetland delineation, design engineering, permitting and construction assistance for the repairs to a bridge and adjacent streambanks. The project involves the banks of Springbrook immediately adjacent to the Stonebridge Trail Bridge where erosion is existing due to the recent large storm events. Erin obtained permit approval through the DuPage County Stormwater Management, City of Wheaton Stormwater Management Permit, USACE Regional Permit #10 Bank Stabilization, Kane/DuPage SWCD sediment erosion control permit and IDNR/OWR Delegation Letter to DuPage County.

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 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

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 Education Committee Chair
- DuPage River Salt Creek Workgroup
- Conservation Foundation
- Illinois Association of Environmental Professionals
- Society of Wetland Scientists

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Timothy Martinek, PLS
Lead Surveyor

Project Experience:

Mack Road Bridge Widening and Replacement, City of Warrenville, IL - Survey Lead for Phase I engineering for the addition of a proposed bike path along the north side of Mack Road that crosses over the West Branch of the DuPage River. Survey included route and hydraulic surveys consisting of waterway opening sketches, critical low openings of adjoining structures, floodplain stream cross sections and streambed profile taken upstream and downstream of the bridge. The topographic survey consisted of centerline of the roadway, edges of pavement, edges of shoulders, visible structures, wetland flags, tree survey, visible utilities and embankment slopes on each side of the structure. Project also included Plat of highways and legals for land acquisition.

Hart Road over Flint Creek Bridge Replacement, Lake County Division of Transportation, IL - Survey Lead for Phase I and II engineering services for the replacement of the Hart Road culvert over Flint Creek with a single-span bridge (SN 049- 3077). The entire culvert is located within the floodplain and the east side of the culvert is within the floodway. Survey included route and hydraulic surveys consisting of waterway opening sketches, critical low openings of adjoining structures, floodplain stream cross sections and streambed profile taken upstream and downstream of the bridge. The topographic survey consisted of centerline of the roadway, edges of pavement, edges of shoulders, visible structures, wetland flags, visible utilities and embankment slopes on each side of the structure. Project also included Plat of highways and legals for land acquisition. The project is locally funded.

Illinois Prairie Path Trailhead, Warrenville, IL - Lead Surveyor that provided Phase I environmental and engineering services for the new trailhead amenities for the Illinois Prairie Path in downtown Warrenville. The Phase I design included completion of a Preliminary Environmental Site Assessment (PESA) for properties adjacent to the project and completion of a Project Development Report (PDR) for design approval. ERA also provided Phase II quality control reviews for the design of the trailhead improvements, which included ADA compliant sidewalks and ramps, a restroom building, a rain garden, signage, and various beautification elements.

Great Western Trail Extension Plan Study, Sycamore Park District, IL - Lead Surveyor for the feasibility study and preliminary plans for the Great Western Trail extension over two locations of the Kishwaukee River and its associated floodplain. Study includes the feasibility of re-using the existing railroad piers and abutments with new prefabricated trusses and boardwalks. The study also includes several alternatives and recommendations with the associated construction cost estimates. Also, in charge of Plats and Legals preparation for Right of Way Acquisition. A total of 7 separate parcels required acquisition.



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:

- 19 years, 4 with ERA

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Timothy Martinek, PLS
Lead Surveyor

Project Experience Continued:

Kishwaukee Valley Road over Rush Creek Culvert Replacement McHenry County Division of Transportation, IL - Survey Lead for Phase I and II engineering services for the replacement of the Kishwaukee Valley Road culvert over A Tributary of Rush Creek (SN 05-3202) with a single-span bridge using federal funds. Survey included route and hydraulic surveys consisting of waterway opening sketches, critical low openings of adjoining structures, floodplain stream cross sections and streambed profile taken upstream and downstream of the bridge. The topographic survey consisted of centerline of the roadway, edges of pavement, edges of shoulders, visible structures, wetland flags, visible utilities and embankment slopes on each side of the structure. Project also included Plat of highways and legals for land acquisition.

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 24 (17 temporary easements, 7 permanent easements) Plats for Land Acquisition for the improvements associated with the reconstruction of the intersection.

Bliss Road Culvert, Kane County DOT, IL - Survey Lead responsible for topographic surveying of existing conditions for the Phase I and Phase II engineering for the replacement of the restrictive culvert on Bliss road servicing Lake Run creek. Survey included route and hydraulic surveys consisting of waterway opening sketches, critical low openings of adjoining structures, floodplain stream cross sections and streambed profile taken upstream and downstream of the bridge. The topographic survey consisted of centerline of the roadway, edges of pavement, edges of shoulders, visible structures, wetland flags, visible utilities and embankment slopes on each side of the structure. Project also included Plat of Highways, legals and land acquisition.

Hobson Mill Culvert Replacement Phase I and II Design Engineering, Naperville, IL - Lead Surveyor responsible for topographic surveying of existing conditions for the phase I and II design services for the replacement of the Hobson Mill Culvert. The existing structure was dual 58" x 36" CMP arches. Survey included route and hydraulic surveys consisting of waterway opening sketches, critical low openings of adjoining structures, floodplain stream cross sections and streambed profile taken upstream and downstream of the bridge. The topographic survey consisted of centerline of the roadway, edges of pavement, edges of shoulders, visible structures, wetland flags, visible utilities and embankment slopes on each side of the structure.

Special Software and Equipment Experience:

- Autodesk AutoCAD Civil 3D
- Autodesk Land Desktop (AutoCAD)
- AutoCAD LT 2015
- 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)
- Smith Engineering Consultants
– A Division of SEC Group, Inc. (2003 – 2007)

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Project Approach

Project Understanding

The Village of Orland Park desires to provide a vital missing link in the existing trail system within and adjacent to the Village. The trail will provide an east to west connection from an existing trailhead on the east side of the Village of Homer Glen that is just west of Will Cook Road to the existing north-south trail along the west side of LaGrange Road in the Village of Orland Park. The desired location for this 3.5-mile multi-use trail connection is along the existing ComEd transmission corridor on land owned by Cook County Forest Preserve, ComEd, Cook County DOT (right of way), Orland Township (right of way), and Village of Homer Glen (right of way). The general alignment of this trail connection was identified in the request for proposal documents.

The trail is directly adjacent to four distinct residential neighborhoods, Cook County Forest Preserve park, the Carl Sandburg High School, and other private property parcels. Impacts to each of these areas will be a primary consideration throughout the development of the trail project.

The path is anticipated to be 10-feet wide and consist of a paved asphalt surface with 2-foot low vegetated buffers on either side of the trail. The proposed improvements include a trail on Cook County Forest Preserve District Property (within ComEd easements), seven to eight mid-block improvement roadway crossings, potential boardwalk or retaining wall areas to avoid wetland impacts, and trail signage.

The project limits include properties owned by ComEd and various public agencies. It is anticipated that an intergovernmental agreement will be established with Cook County Forest Preserve District, Cook County DOT, Orland Township, and Village of Homer Glen that agrees to the general alignment of the trail and defines the maintenance obligations once the trail and trail appurtenances are complete. It is anticipated that the project will require a Section 4f evaluation and de minimis submittal as the project includes Forest Preserve District property. This direction will be verified at the first FHWA coordination meeting. Right-of-way acquisition is not anticipated for this project unless trail sections connecting to residential neighborhoods are required. The approximate limits of the required right-of-way acquisition will be determined during Phase I engineering.

The Village now desires to engage a qualified professional engineering firm to assist in the preparation of the phase I engineering services to obtain design approval through the IDOT District 1 process. Phase II, land acquisition, and Phase III engineering services will be contracted upon successful completion of Phase I engineering and are not included in the Request for Proposal.

Project Key Elements and Innovative Approach

Through visiting the project site and reviewing the request for proposal, several aspects were identified as important to the project and some obstacles and challenges for the construction of a multi-use bike trail along this corridor became evident. In this section, we would like to describe our perspective and insights on the project and discuss how our approach to working with the Village will help reach the optimum solution. The following is a summary of primary project elements and our ideas on how we would approach this project.

Impacts to Adjacent Residential Neighborhoods

1. Disruption from Proposed Trail – Although trails in general improve the overall standard of living and quality of life for a neighborhood, the individuals who reside adjacent to the proposed trail sacrifice the privacy and solitude they once enjoyed to experiencing the disruption of an active trail. This impact should not be ignored or minimized. The opposition to the installation of a trail by the individuals directly impacted can be anticipated. On past projects, ERA has dealt with individuals by listening to their

concerns and being prepared to provide reasonable measures to address their concerns without forfeiting the project intent or budget.

2. **Neighborhood Connectivity** – Good connections to the four district residential neighborhoods is essential to the function and success of the project. The neighborhoods located between South Will Cook Road and Wolf Road have local low volume residential streets that can be used to access the trail. These streets include Sante Fe Trail, Natchez Trail, McCabe Drive and Logan Drive. The residential neighborhood east of Wolf Road may access the trail using a connecting trail off Wilrose Court or from 110th Avenue. The residential neighborhood east of Wolf Road on the south side of 131st Street may have an opportunity to access the trail at the dead end of 104th Avenue. |



Impacts to Environmentally Sensitive Areas

1. **Regulatory Wetland Conditions** – The McGinnis Slough is highly valued for its environmental significance. The Village of Orland Park desires to preserve this natural jewel. The construction of the trail within or near this corridor has the potential for environmental impacts. ERA has frequently addressed similar environmental conditions within our projects. For example, we have used measures such as low impact boardwalks to minimize impacts when avoidance was not an option. On other projects, we have expanded high quality wetland areas to provide additional environmental enhancements. |
2. **Threatened and Endangered Species** – During Phase I Engineering, cultural and biological concerns are identified to anticipate avoidance measures and impacts and to provide a mitigation plan during the construction phase. Oftentimes, the timing or type of construction activity needs to be restricted or proper protective measures need to be put in place to ensure the specific specie is protected. Having been involved in the development of the Orland Park nature Center project, we are familiar with this area and some of the environmental concerns associated with it.
3. **Floodplain/Floodway** – A majority of the trail will be located in the regulatory floodplain/floodway associated with the McGinnis Slough and the Long Run Creek. Therefore, ERA will work to minimize fill within the floodplain and floodway locations of the proposed trail, and properly compensate for lost floodplain storage volume so that flood elevations are not increased as a result of the project.

At-Grade Street Crossings

1. **Wolf Road** – Due to the nature of the volume and speed of the traffic along Wolf Road, special measures will be needed at this location. ERA has constructed various measures in similar locations. Measures include the modification of the trail alignment to orient the trail through a series of curves to slow the trail users speed and cause them to face oncoming traffic. Various pedestrian activated traffic control devices have also been installed along roadways to provide warning to motorists that trail users are present. ERA will review the conditions of Wolf Road and the proposed trail crossing to determine the appropriate measure for this specific location.

2. Will Cook Road – The ComEd corridor is located several hundred feet north of Venetian Way. The grade of the South Will Cook Road and the mid-block crossing condition will make crossing the road a challenge. Other considerations will be to continue the trail along the east side of South Will Cook Road to cross at the south side of Venetian Way. Although this alignment may be the most favorable, the presence of regulatory floodway/floodplain and wetlands may also need to be minimized. ERA has encountered similar challenges and has worked through the permitting and regulatory agencies to determine a viable solution.
3. Local Residential Street Crossings – The trail crossing at various local residential streets will require appropriate signage and maintain proper sight visibility clearances according to the MUTCD and IDOT BDE and BLRS design guidelines.



Utility Coordination

The majority of the trail alignment is located within a utility corridor. Therefore, coordination with ComEd and the various underground utility companies that have transmission pipelines and communication lines is critical to this project. ERA is currently working with the Transmission Division of ComEd on another trail project and is familiar with their stringent requirements. Impacts to public and private utilities at roadway crossings is also an important consideration during the initial planning phases of this project. In addition to a design JULIE, ERA contacts the utility companies to determine the extent of potential conflicts and will meet on site to resolve utility conflict issues.

Soil Conditions

Soil conditions within the project area are known to be very poor. The potential for peat and other soft organic material exists. ERA has worked with various soil conditions to design measures that most effectively provide support to the proposed trail.

ADA Compliance

Multi-use trails need to comply with ADA guidelines. Although the majority of the trail appears to be located along corridors that can meet the ADA guidelines for running slope and cross slope, there are several locations where special consideration will need to be taken. The location approaching each cross street will require additional attention to ensure ADA guidelines are met. Additionally, the trail slope and alignment at South Will Cook Road connection with Venetian Way will require careful evaluation to ensure ADA compliance.



Construction Access

This project will require frequent movement of construction traffic along a narrow corridor for the excavation of existing soils and the



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installation of the proposed trail cross section. Limited constriction access locations exist between Wolf Road and LaGrange Road. This is also the location where the soil conditions may be the worst. ERA will review the need to use low impact constriction equipment and potentially construction mats to reduce the impact of construction activity on the project. As these types of measures can impact project cost, it is important to identify the need for such measures during Phase I Engineering.

Stakeholder/Agency Coordination and Public Involvement

Throughout the Phase I process, consensus and project buy-in will be given a high priority between stakeholders and various governmental agencies. The project team will work closely with the Village of Orland Park, Federal Highway Administration (FHWA), Illinois Department of Transportation (IDOT), Forest Preserve District of Cook County, Cook County DOT, ComEd and other private utilities, Orland Township, private owners along the project corridor, and other interest groups. A public meeting will be held to educate and encourage public input, address questions and concerns, and respond to issues. Our design team routinely provides a high level of coordination and communication on projects. ERA has experienced effective communication through various avenues such as social media and website hosting and these are available to the Village.

Scope of Services

Based on our understanding of the project we have provided a preliminary work plan that we anticipate to complete the project. Our work will conform to IDOT BDE and BLRS documents, IDOT Region 1 (District 1) Bureau of Traffic design standards, MUTCD/ILMUTCD, Public Rights-of-Way Accessibility Guidelines (PROWAG), Illinois State Water Survey regulations, US Army Corps of Engineers regulations, Cook County DOT design standards, MWRD Stormwater Ordinance and Village of Orland Park development requirements. The scope items below are based on the project understanding and the high-level anticipated scope of services outlined in the RFP provided by the Village.

1. **Project Management & QA/QC** - Our project manager, John Mayer, will be the main point of contact with the Village and IDOT to streamline the communication process. John will provide and regularly update the project schedule, monitor the project budget, and oversee communication with utilities and other stakeholders to ensure that the project development report and preliminary engineering plans address all major components of the trail connection. For each deliverable produced for this project and during intermittent internal completion phases, John 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. **Regular Meetings/Coordination** - This task includes the following anticipated meetings:
 - a. Project kick-off meeting with Village (1 meeting)
 - b. Project kick-off meeting with IDOT (1 meeting)
 - c. FHWA coordination meeting (1 meeting)
 - d. Bi-Monthly meetings with Village staff to review progress and discuss relevant issues (6 meetings)
 - e. Stakeholder Meetings (8 meetings anticipated)
 - f. Correspondence with stakeholders, permitting agencies, utility companies, etc.



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3. Data Gathering – This task includes obtaining the best available information related to the project through various outlets. Anticipated data includes:
 - a. Village and County utility atlas maps
 - b. FEMA Flood Insurance Map information
 - c. Cook County flood study information
 - d. Public and private utility atlas information
 - e. Historic aerials
 - f. Archeological Survey data
 - g. ComEd Easement information
 - h. Cook County GIS aerial and topographic information.

4. Wetland Determination/Delineation Report – The wetland determination for the project will review the areas within the proposed project corridor in addition to 100 feet beyond the project limits. If wetlands are found to exist within or near the project area, a wetland delineation will be required. Wetland areas will be staked by pin flag and/or marking tape labeled “wetland” within 50 feet on either side of the project corridor. The wetland determination/delineation task will include preparation of a delineation report containing:
 - a. Army Corps of Engineers (ACOE) data forms;
 - b. Documentation of verification of threatened and endangered species consultation with appropriate federal and state agencies
 - c. Documentation of verification of wetland boundaries through consultation with a Cook County wetland specialist;
 - d. Aerial map exhibit of site showing approximate locations of data sampling points and wetland boundaries;
 - e. Floristic Quality Assessment;
 - f. Identification of off-site wetlands within 100’ of the centerline of the project;

5. Topographic Route Survey & Base Plan – A topographic survey and base plans of existing conditions based on the concept alignment and kickoff meeting will be completed for the project area. The following work is included in this task:
 - a. Topographic survey of observable features providing horizontal and vertical location throughout the project limits;
 - b. Indicate the most current FEMA floodplain/floodway boundary and Cook County flood study boundary for McGinnis Slough and Long Run Creek;
 - c. Identification of wetland boundary markers, if applicable;
 - d. Route survey within the project limits. A 100-foot-wide survey corridor along the preliminary trail alignment is anticipated (Survey does not include Plat work for parcels required by IDOT for Right-of-way Acquisition purposes);
 - e. Preparation of existing conditions plans for the entire surveyed corridor. The existing conditions plans will show topography, observable utility features, isolated tree locations and diameter, limits of dense tree populations, pavement features, floodplain/floodway limits, wetland limits, and additional miscellaneous infrastructure;
 - f. A field verification visit to assist with finalization of the existing conditions plans.

6. Concept Alignment Development – This task includes the preparation of two (2) conceptual alignments for the trail along with a discussion of the benefits and issues with each concept. The Village and Cook County



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Forest Preserve District will review the concept plan. It is anticipated that the preferred concept alignment will be provided to ComEd for initial review as a majority of the trail will be on ComEd property or easements. The preferred concept alignment may also be presented to Cook County DOT for initial feedback of the Wolf Road and Will Cook Road crossings. ERA will continue into the Preliminary Plans, Specifications, and Cost Estimate tasks upon approval or modification of the recommended concept trail alignment.

7. 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 selected preferred concept alignment and associated major features and details, a summary of work completed to date and anticipated timelines, a discussion of the Section 4(f) lands and impacts within the project, 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. This task will be performed prior to beginning the preliminary engineering tasks to incorporate comments into the design.
8. Property Acquisition Identification – ERA will assist the Village in identification of all parcel identification numbers included within the concept trail alignment, identification of property ownership for each parcel, and review available existing easement documents. ERA will also assist the Village in ordering a title search for all properties to determine any encumbrances. ERA will prepare a written summary of the recommended action necessary to acquire the type and size for each parcel. IDOT and FHWA land acquisition procedures shall be followed for securing rights-of-way or easements for this project. ERA will lead in assisting the Village in this process.
9. Environmental Survey Request (ESR) - ERA will prepare the ESR form and create required attachments for submittal and review by IDOT.
 - a. Biological Resources: ERA will support IDOT in the biological resources evaluation. It is assumed that IDOT will conduct the environmental field surveys for all biological resources except trees. ERA will document the results of the survey and calculate the potential impacts. ERA will survey tree locations and diameter within the survey corridor (does not include species identification or condition analysis) and will identify and quantify trees potentially impacted by the project and any required mitigation measures.
 - b. Cultural Resources: ERA will support IDOT in the cultural resources evaluation. It is assumed that IDOT will conduct the environmental field surveys for all cultural resources. ERA will document the results of the survey and calculate the potential impacts. A Phase I Archaeological survey is not anticipated for this project.
 - c. Potential Special Waste: ERA will perform a Level 2 screening for Special Waste. Activities will include reviewing readily available site history information, conducting a field reconnaissance, and reviewing state/federal databases.
 - d. Wetland Impact Evaluation (WIE): If wetland conditions are identified, ERA will utilize the completed wetland delineation report within the project limits to prepare a Wetland Impact Evaluation Form for submittal to IDOT.
10. Preliminary Environmental Site Assessment (PESA) - ERA will conduct a PESA to identify the risk for regulated and natural hazards which may be present within the project corridor and on properties nearby the project limits. An opinion of the risk of existing environmental liabilities will be determined based on a visual inspection of the site, interviews, listed public records, and historical uses of the properties and surrounding area. The PESA will be in accordance with the procedures used by the Illinois State Geological Survey (ISGS)

as outlined in “A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Infrastructure Projects”, 2nd edition. ERA will not perform any soil or groundwater testing for contamination, nor conduct the tasks required in a Preliminary Site Investigation (PSI).

- a. Site Reconnaissance - ERA will conduct site visits to each property within the project limits and document the existing conditions with digital photography and mark the location with GPS coordinates.
 - b. Standard Environmental Record Resource Review - ERA will perform a search of the various Federal, State, and Local lists and databases.
 - c. Natural Features and Hazards Resources Review - ERA will review the natural features like flood plain, wetland, water quality, soil surveys, geological and hydrogeological information to evaluate a project area's likelihood for pollutant migration.
 - d. Final Report - ERA will prepare a report with the findings, conclusions and recommendations based on the research conducted. The report will include a risk finding of either no, low, moderate, or high for the proposed route. The final report will be submitted to the Village and IDOT for their review and use.
11. Section 4(f) Evaluation Report – As portions of the trail will be located on Cook County Forest Preserve District property, a section 4(f) evaluation report will be required to be prepared for these impacted properties. ERA will prepare the section 4(f) evaluation report, which will include a project description, description of the 4(f) regulated resource, description of the use proposed on the property, an avoidance, minimization, and mitigation discussion, a discussion of the public hearing, and associated exhibits.
12. Preliminary Engineering – This task includes the preparation of preliminary engineering plans based upon the findings determined in the above tasks applied to the trail alignment along with other engineering elements requiring preliminary design. These items include:
- a. Preliminary trail alignment plan and profile
 - b. Typical cross section details
 - c. Typical traffic control details
 - d. Special trail feature details
- Elements requiring structural design, or a Preliminary Bridge Design and Hydraulic Report are not anticipated or included in this scope.
13. Cost Opinion Preparation – A preliminary cost opinion based on the preliminary engineering drawings and details will be prepared. This will be completed after the drawings are finalized. The cost opinion will include quantities and unit prices for major items within the project. The cost opinion will be included in the Project Development Report and will be utilized for the grant applications. Land Acquisition, Phase II Engineering, Phase III Engineering, and Construction costs will be included in the cost opinion.
14. Preliminary Development Report (PDR) - This task includes the preparation of a draft and final PDR in conformance with IDOT Bureau of Local Roads and Bridges and FHWA Policies and Procedures requirements. It is anticipated that the PDR will include and/or omit the following elements:
- a. Categorical Exclusion with District 1 review (Central office review is not anticipated)
 - b. Section 4(f) submittal
 - c. Submittal of environmental and archeological sign-off



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- d. Submittal of ESR and PESA
- e. Preliminary Design Concepts and Assessment
- f. Documentation of Public Engagement process
- g. Project Correspondence and Communications
- h. Documentation of agency commitments
- i. Coordination/follow up Phase I Design Approval

Preliminary Bridge Design and Hydraulic Report are not anticipated or included in this scope.

15. Grant Application Assistance – The Village desires to apply for up to three (3) grants to assist with funding final engineering, construction engineering, and/or construction costs. ERA will provide assistance to the Village in completion of the applications and associated attachments and exhibits. ERA will also assist the Village in responses to the agencies administering the grants. The Village anticipates applying to both State and Federal funding sources, which may include: Illinois Transportation Enhancement Program (ITEP); Surface Transportation Program (STP); Congestion Mitigation and Air Quality Improvement Program (CMAQ); Open Space Lands Acquisition Development, and Illinois Bicycle Path Grant Program, among others.

Schedule

ERA has the qualified staff and resources available to fully staff the project for the duration in order to meet this deadline. The work described above will be performed according to the attached schedule. If the project schedule or scope of services changes, ERA has additional staff and resources available to accommodate the project schedule.