PROPOSAL FOR

PROFESSIONAL ENGINEERING & DESIGN SERVICES 2023 & 2024 FLOOD DAMAGES

CITY OF DULUTH | RFP Number 25-99163

FEBRUARY 14, 2025

AMI

Consulting Engineers P.A.

APPENDIX A - PROPOSAL COVER SHEET
CITY OF DULUTH
RFP# 25-99163

Bidder Information:	
Bidder Name	**AMI Consulting Engineers, PA**
Mailing Address	**91 Main Street Superior, WI 54880**
Contact Person	**Chad W. Scott, PE - Principal**
Contact Person's Phone Number	**(715) 718-2193 ext. 12**
Contact Person's E-Mail Address	**chad.scott@amiengineers.com**
Federal ID Number	FEIN: 65-1266816
Authorized Signature	
Title	**Chad W. Scott, PE**

February 14, 2025

AMI
Consulting Engineers P.A.

City of Duluth
ATTN: Purchasing Division
City Hall, Room 120
411 West 1st Street
Duluth, MN 55802

Re: REQUEST FOR PROPOSALS FOR PROFESSIONAL ENGINEERING & DESIGN SERVICES - 2023 & 2024 FLOOD DAMAGES - RFP NUMBER 25-99163

Dear City of Duluth Purchasing Team,

AMI Consulting Engineers, PA (AMI) is pleased to submit this response to the **2023 & 2024 Flood Damages RFP**, issued on January 1, 2025, for Professional Engineering & Design Services. As a local firm headquartered in the Twin Ports, with offices in Superior, Wisconsin; Saint Paul, Minnesota; and Pensacola, Florida, AMI has a longstanding partnership with the City of Duluth, successfully delivering numerous engineering projects throughout the region. Our deep regional expertise and comprehensive engineering services position us well to support the City's efforts to address flood-related damages effectively.

Our priority is to provide efficient, high-quality solutions that support the City from project inception through final closeout. **AMI understands the complexities of FEMA and state-funded projects and brings the flexibility, responsiveness, and technical expertise necessary to navigate them successfully**. By working collaboratively and transparently, we will align our approach with the City's goals, ensuring cost-effective, compliant, and resilient outcomes. Recognizing that these are the City's projects, we highly value your expertise and insights and will engage actively to ensure seamless communication and integration of input.

While FEMA funding provides significant benefits, it also introduces additional design and reporting requirements. **AMI has a proven track record of delivering FEMA-compliant services for the City and other communities across the U.S.** Throughout project development and implementation, we will ensure all required reporting is accurate and timely and that each phase remains within the FEMA- and state-approved scope. Should out-of-scope needs arise, we will clearly identify them and seek City approval before proceeding.

To deliver these projects seamlessly, AMI has assembled a highly qualified, specialized team with a proven history of success in Duluth and surrounding communities. Our expertise spans concept development, design, construction administration, and final closeout. With a focus on efficiency, compliance, and resilience, we provide cost-effective, well-documented, and stakeholder-engaged solutions that align with the City's goals and funding requirements.

AMI's integrated team of experts specializes in civil, geotechnical, water resource, and structural engineering, as well as environmental permitting, construction administration, and community development. Our collaborative and detail-oriented project management approach ensures flexibility and responsiveness to meet the City's needs.

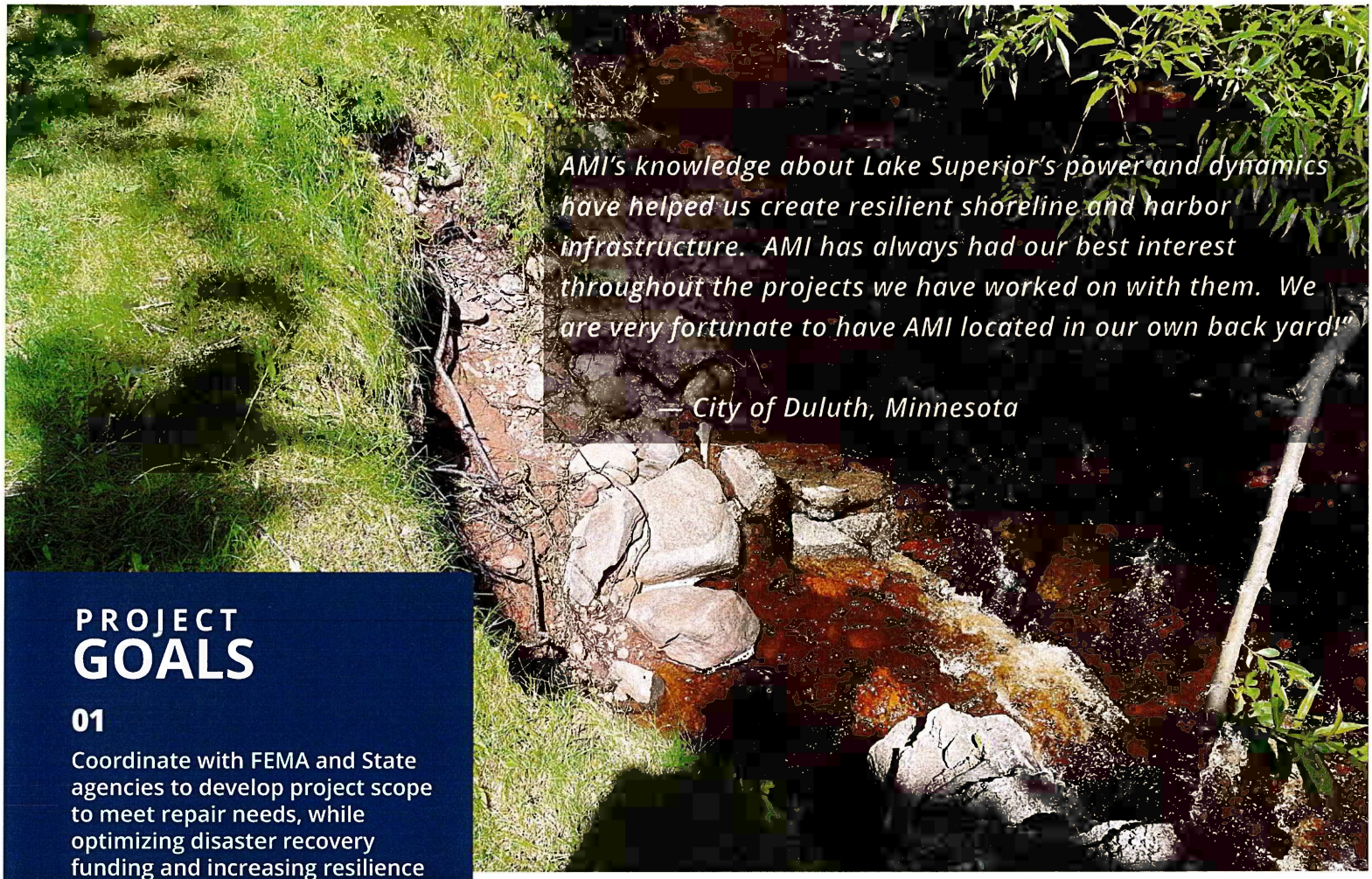
We acknowledge receipt of addenda one through three. Per the RFP, we have attached these documents to our proposal.

Thank you for considering AMI for this opportunity. We value our continued relationship with the City of Duluth and look forward to supporting you on this project. If you have any questions, please do not hesitate to reach out.

Respectfully Submitted,

Shanna Saarela-Schultz, PMP, PWS
Project Manager
AMI Consulting Engineers, PA

Zac Morris, PE
Principal-in-Charge
AMI Consulting Engineers, PA



AMI's knowledge about Lake Superior's power and dynamics have helped us create resilient shoreline and harbor infrastructure. AMI has always had our best interest throughout the projects we have worked on with them. We are very fortunate to have AMI located in our own back yard!"

— City of Duluth, Minnesota

PROJECT GOALS

01

Coordinate with FEMA and State agencies to develop project scope to meet repair needs, while optimizing disaster recovery funding and increasing resilience to future flood damage.

02

Develop appropriately scaled construction documents to facilitate a streamlined procurement process and ensure accessibility for small and specialty construction firms to bid.

03

Ensure seamless construction through field oversight and documentation of project activities to ensure quality, compliance, and adherence to FEMA and State requirements.

04

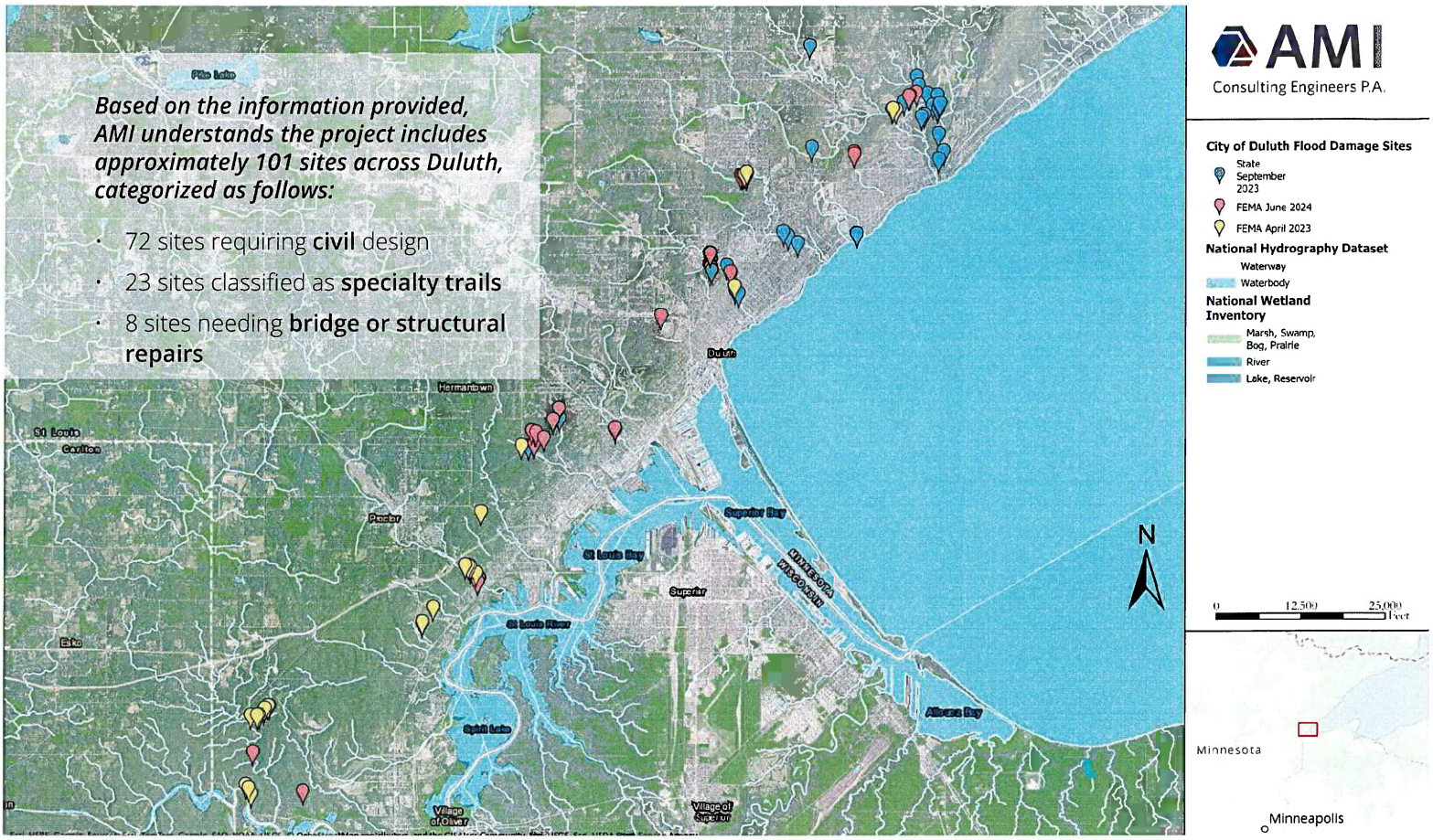
Develop a documentation repository for the projects to show compliance with FEMA and State Disaster processes to make responding to future audits simple and effortless.

PROJECT UNDERSTANDING

It is AMI's understanding that the City of Duluth (City) recreational infrastructure has been damaged due to three major flood events spanning 2023 and 2024. These disasters—FEMA Disaster 4722 (April 2023), a State-declared disaster (September 2023), and FEMA Disaster 4797 (June 2024)—resulted in damage to various trails, culverts, boardwalks, and bridges due to high-velocity water flow. Observed damage and the estimated repair scopes, provided by the City, vary widely by site and range in complexity.

To address the damage, the City is seeking a consulting firm with expertise in professional design and engineering services to support the full project lifecycle—from preliminary survey through construction administration. This includes the development of biddable construction documents, construction survey and layout, permitting, cost estimating, and engineering oversight during the construction phase. Given the involvement of FEMA and State Disaster funding processes, the selected firm must possess direct experience successfully navigating these agency frameworks to ensure funding compliance and eligibility.

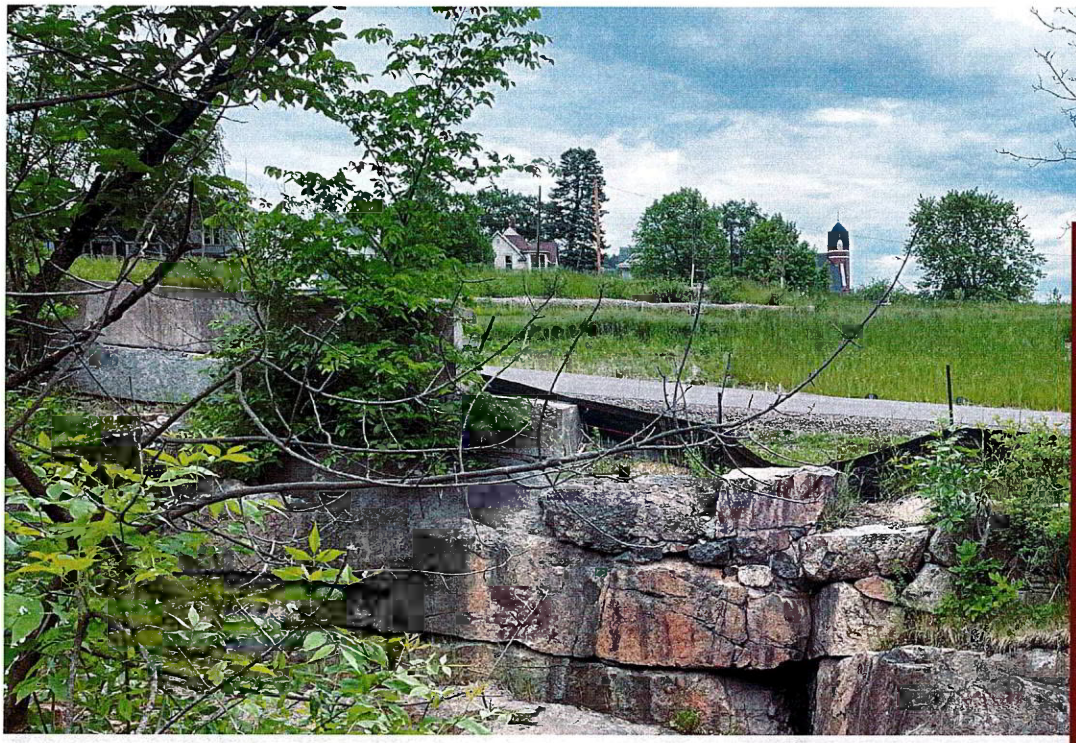
The City has conducted an initial damage assessment and created a geo-referenced photo inventory. Along with maps and GPS-tagged locations, this data provides a foundation for planning and design efforts. AMI will leverage this information to refine the project scope, develop cost-effective, resilient solutions, and coordinate with FEMA, state agencies, and other stakeholders to facilitate approvals and funding.



Several sites have damage from multiple flood events, requiring detailed design documentation, organized cost estimates, and material/labor cost tracking to comply with FEMA and State Disaster Funding processes. Additionally, some locations require multiple repairs, necessitating careful organization to ensure each funding source is properly applied.

Along with being the City's lead for all the funding organization, AMI will be required to:

- Follow City policies and procedures, including review schedule expectations at 30%, 60%, 90%, and 99%.
- Develop initial base designs and cost estimates for repairing sites to pre-event conditions.
- Coordinate with FEMA representatives to obtain approval for base designs and costs prior to advancing repair designs.
- Collaborate with the City to design hazard mitigation and improvements to prevent future flood damage.
- Obtain necessary environmental permits and approvals, coordinating with permitting agencies for sites affecting natural or cultural resources.
- Support early public engagement to secure community buy-in and ensure timely project completion.
- Prepare final plans and bid specifications that comply with FEMA procurement processes and clearly define damage locations, repair scopes, and mitigation measures.
- Group projects into bid packages to increase eligibility for small and specialty construction firms, where possible.
- Schedule bid submissions strategically to allow contractors sufficient time to minimize trail closures during peak seasons.
- Work with the City to schedule construction kickoff to allow City personnel to attend all meetings. Where necessary, the bid packages may need to be staggered to minimize the overlap of project meetings/field visits/ office work.
- Provide construction administration, including full-time observation for bridge projects, to manage and document compliance with City and FEMA processes, as well as environmental regulations.
- Ensure staff availability for site inspections and field engineering decisions to maintain contractor efficiency.
- Provide project documentation in accordance with FEMA & State requirements for record-keeping, storage, & future access.



With over **50 years of combined experience**, *Zac Morris and Scott Weyandt have led numerous FEMA-funded and infrastructure projects for the City of Duluth. Their expertise includes shoreline restoration, hazard mitigation, erosion control, permitting, and disaster recovery, ensuring resilient, sustainable solutions that align with the City's goals and regulatory requirements.*

TEAM SPECIALTIES

- **Civil & Structural Engineering**
- **FEMA Expertise**
- **Environmental Review & Permitting**
- **Community & Stakeholder Engagement**
- **Bid Process Facilitation**
- **Construction Administration**

BACKGROUND & EXPERIENCE

AMI

At AMI, we take pride in delivering successful projects through strong communication and client-centered engineering services. But our commitment goes beyond our work—we are dedicated to making a meaningful impact in the community. As a local business headquartered in the Twin Ports, our employees don't just work here; they live, play, and invest in the area's future. AMI's skilled professionals provide exceptional service without compromise. Our experts specialize in civil, geotechnical, water resource, and structural engineering, as well as environmental permitting, construction administration, and community development. Our knowledge and passion for the region drives us to support local initiatives, contribute to community development, and actively engage in efforts that enhance the quality of life for those around us. At AMI, we're engineering more than just solutions—we're engineering a stronger community.

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NORDIC GROUP
MARINE • CIVIL • BUILDINGS

Due to the unique nature of these project sites, AMI has partnered with **Nordic Group, a local, service-disabled veteran-owned small business based in Superior, Wisconsin with corporate office in Carlton, Minnesota**, to assist with construction estimating and planning. Nordic Group has extensive experience in local trail, dam, and river restoration projects, including Mission Creek and Kingsbury Creek. Their ability to not only successfully bid on these types of projects but also perform the work in-house makes them an asset for ensuring accurate construction cost estimates for unique projects. Nordic's unique resume of completed projects includes working in difficult-to-reach locations, utilizing low-impact construction techniques, and creatively preserving historical structures. They are experienced in estimating projects over a broad range of costs and scopes (i.e., $50,000 to $5 million). Due to the unique locations, historical significance, and difficult working conditions for these project sites, traditional estimating methods will not be sufficient. Having a specialized contractor assisting in cost estimating will provide insight into the unique equipment required, nontraditional access techniques, site prep work, and the project's duration. As a local contractor specializing in civil waterfront and trail restoration, Nordic's cost estimates will accurately reflect current market conditions, helping to attract competitive bids from other qualified contractors.

DULUTH & FEMA PROCESS EXPERTISE

AMI is eager to apply our experience and expertise to serve and support the City of Duluth. We've assembled a specialized team with extensive knowledge in managing FEMA and State Disaster program funded projects. AMI has successfully designed and implemented over 10 City of Duluth projects utilizing FEMA and State Disaster Funding to restore and enhance critical infrastructure. Beyond disaster recovery, we are highly familiar with the City's communication protocols, expectations, deliverables, and schedules. Our team has also contributed expertise to numerous additional FEMA- and state-funded projects for municipalities across the U.S., ensuring resilient and sustainable solutions for communities in need. With experience in local trail projects, AMI brings a deep understanding of regional needs, environmental considerations, and stakeholder collaboration. Our commitment to quality engineering and strategic project management enables us to deliver results that strengthen communities and improve public spaces.

AMI has a proven track record of assisting with the development of Damage Description and Dimensions (DDD) and completing grant documentation on behalf of client projects. Our expertise in coordinating with local FEMA liaisons, navigating FEMA policies and procedures, and managing project documentation will contribute to the project's successful completion. Additionally, AMI is committed to responsible stewardship of project data and will advocate on behalf of the City to ensure a smooth and worry-free FEMA audit process if necessary.

At AMI, we take pride in leveraging our expertise to deliver high-quality results that enhance and protect communities. To illustrate our experience, we have included a few relevant projects on the following pages.

Trusted experts in FEMA-funded projects, shoreline stabilization, flood mitigation, and resilient infrastructure, delivering cost-effective, sustainable, and regulatory-compliant solutions.

Zac Morris and Scott Weyandt are experts in FEMA-funded projects. Zac specializes in shoreline restoration, erosion control, and FEMA compliance, managing numerous projects. Scott, with 40+ years of experience, leads hazard mitigation, regulatory compliance, and grant-funded infrastructure projects, including shoreline stabilization and roadway failure repairs.

RAINY LAKE MEDICAL CENTER

PARKING LOT AND RIVERBANK STABILIZATION

INTERNATIONAL FALLS, MINNESOTA

The Rainy Lake Medical Center is situated on the riverbank of the Rainy River in International Falls, Minnesota. AMI was hired to perform civil and riverine engineering services for the hospital while preparing the documents required to apply for funding from FEMA.

The design consisted of a unique "deep patch" technique along the top of the slope to strengthen the extremely weak soil that the new concrete helipad and existing hospital parking lot was built atop. The deep patch consisted of carefully installed high-strength biaxial geogrid coupled with select granular backfill. The deep patch was carefully installed around the storm sewer system. Erosion control blankets and native vegetation were designed to stabilize the bank from shallow slope failures by using the strength of the deep-rooted vegetation.

As water levels fluctuate along the riverbank, a variety of grasses, shrubs, and sedges were required that could handle being submerged underwater during certain seasons. The construction administration included on-site inspections, weekly progress updates to the hospital staff, coordination with emergency helicopter pilots and a final punchlist walkthrough with the contractor.

The Rainy Lake Medical Center's operations were fully restored. Additional features added through design included stormwater diversion structures, re-grading and paving, and rehabilitation of the helipad for safe transport of gurneys.

AMI worked with the Rainy Lake Medical Center and Fox Advancement on grant applications for FEMA funding. AMI provided design alternatives, cost estimates, benefit cost analyses, and content for FEMA applications including economic impacts.

PROJECT TIMELINE

2019 - 2022

KEY TEAM MEMBERS

- Chad W. Scott, PE – Principal
- Zac Morris, PE – Project Manager & Riverine
- Chase Dewhirst, PE – Marine Civil
- Ryan Dagger, PE – Marine Civil

KEY FEATURES

- **FEMA Grant Applications**
- Culvert and Asphalt Replacement
- New Curb and Gutter
- Slope Stabilization
- Native Vegetation Restoration
- Flood Zone Mapping
- Riprap Swales
- Heli Pad Redesign
- River Flood Restoration

CLIENT REFERENCE

Rainy Lake Medical Center

WESTERN WATERFRONT TRAIL SHORELINE REHABILITATION

DULUTH, MINNESOTA

AMI Consulting Engineers, PA provide marine civil and bio engineering design solutions for 200 feet of eroding trail along the St. Louis Estuary. AMI performed an initial site survey of the waterfront trail, culverts, wetlands, invasive species, and near shore bathymetry to determine the extents of the damage. A certified drone pilot took photos of the existing trail and documented the damaged areas to compare against **FEMA's** reporting. AMI performed a wetland delineation to determine the extents of the types of wetlands that could be impacted during the reconstruction of the gravel trail and shoreline slopes.

Following the topographic surveying, AMI provided several preliminary design solutions ranging from harder armoring to more softer stabilization techniques to restore the land lost due to erosion and protect the restored section of shoreline from future erosion. Each design solution was presented with preliminary renderings, estimated construction costs, and expected life span. Designs included coir logs, brush bundles, live facines, live stakes, rootwads, vegetated walls, vegetated mechanically stabilized earth walls, stone sills, and armor stone revetments. A hybrid design was selected that included an armored toe, vegetated slope, vegetated riprap and coir logs.

Permits for the shoreline and trail restoration work were submitted to the City of Duluth, MNDNR, and Army Corp. of Engineers. AMI provided the Owner with required documentation from the permitting agencies following the approved permits.

AMI worked closely with the City to ensure FEMA compliance and validation of the design extents, priority areas, and extents of repairs. AMI developed estimates for the City to utilize in FEMA applications and correspondence.

AMI performed bidding and construction administration services including inspections during construction and documentation on all **FEMA** related material quantities.

PROJECT TIMELINE

2020 – 2022

KEY TEAM MEMBERS

- Zac Morris, PE – Project Manager/**FEMA** Expert
- Ryan Dagger, PE, – Lead Marine/Civil Engineer
- Brendon Gearhart, EIT – Civil Engineer
- Jordan Vargas – Wetland Delineator/ Surveyor

KEY FEATURES

- **FEMA Hazard Mitigation Funding and Design Solutions**
- Gravel trail realignment and repairs
- Culvert replacement
- Nature based solution repairs
- Wetland delineation
- Full-time construction administration

CLIENT REFERENCE

City of Duluth

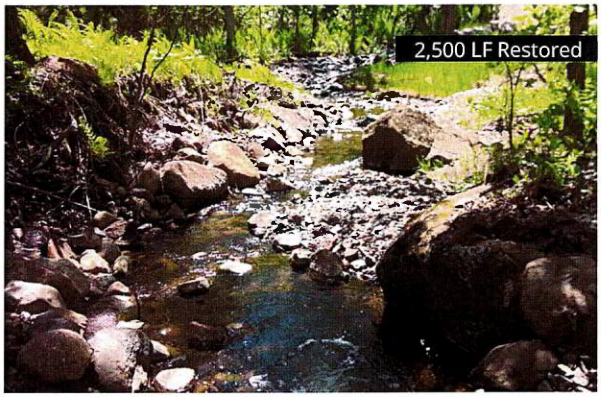
MISSION CREEK STREAM RESTORATION - DULUTH, MN

Nordic Group was selected by the St Louis County Soil and Water Conservation District to complete this challenging stream restoration project located near the neighborhood of Fond du Lac in the City of Duluth.

The project included channel excavation, material harvesting, stream re-alignment, temporary stream diversion, installation of streambed wood and rock habitat structures, grading of flood plain, restoration of a small tributary channel and the removal of a debris catcher. Work also included the reestablishment of native trees, shrubs and grasses, as well as the restoration of key trails.

KINGSBURY CREEK RESTORATION - DULUTH, MN

Nordic Group was contracted to restore sections of Kingsbury Creek and 68th Avenue West Creek to address erosion issues and reduce excess sediment flowing downstream. The restoration work focused on reducing streambank erosion, stabilizing the stream channel and adjoining gullies, improving stormwater infrastructure, and enhancing fish habitat, including their ability to navigate upstream and downstream where feasible. These improvements help protect critical infrastructure and reduce future maintenance needs. This project builds upon previous restoration efforts in Kingsbury Bay, where decades of accumulated sediment from urbanization and past flooding had significantly impacted the area.



PARKS AND TRAILS

Nordic Group specializes in constructing diverse recreational and multi-use trail systems, including bike paths, equestrian trails, hiking routes, and park pathways. We offer turnkey solutions using materials like asphalt, concrete, mulch, stone, and wood. Our expertise extends to designing, building, and installing motorized and non-motorized boat launches and zero-entry access points for rivers, lakes, reservoirs, and ocean fronts, employing materials such as cast-in-place and precast concrete, geogrids, steel, and wood structures. Our dock accessories and approaches meet ADA standards for accessibility, reflecting our dedication to efficient project delivery and environmental responsibility tailored to our clients' needs.

HISTORIC TETTEGOUCHE BUILDINGS AND BOATHOUSE

Several Historical timber log buildings, built in 1911, and a timber crib boathouse were repaired while using historically accurate construction techniques. The cabins had new foundations installed which required the structure to be lifted off the ground, while maneuvering large equipment between large red and white pine trees without causing structural damage. Logs used to build the walls had rotted which required replacement to match the existing wood species and diameter. The old roof structures needed to be replaced which required demolition and reconstruction of the cabins log rafters, log purlins, ridge logs, and a giant ridge beam. Nordic's restoration work on the boathouse included replacing the logs supporting the roof and all the rock-filled cribbing surrounding the existing boathouse.

PROJECT TEAM

To successfully deliver this project, AMI has assembled a specialized team with extensive expertise in engineering, water resources, permitting, and project management. Our team is structured to ensure efficient coordination, clear communication, and a streamlined workflow.

SHANNA SAARELA-SCHULTZ | PROJECT MANAGER & PERMITTING LEAD

Shanna is an experienced project manager and environmental scientist with deep knowledge in leading and participating in project teams. *She will oversee overall project management and lead environmental review and permitting.*

ZACHARY MORRIS, PE | PRINCIPAL & QA/QC LEAD

Zac brings extensive experience in FEMA-funded projects, shoreline stabilization, and infrastructure resilience. *Zac will provide oversight and quality control, ensuring that the project meets technical and regulatory standards.*

ERVIN KRAFT IV, EIT | WATER RESOURCE ENGINEER

Erv specializes in riverine modeling and hydraulic engineering. His expertise will support the development of effective mitigation strategies, ensuring the project's technical feasibility and resilience. *Erv will oversee construction administration and coordinate with site inspectors and contractors to ensure projects are built as designed.*

SCOTT WEYANDT, PE | SENIOR CIVIL & WATER RESOURCE ENGINEER

With over 40 years of experience, Scott specializes in hazard mitigation, regulatory compliance, and grant-funded infrastructure projects. He will provide technical expertise and guidance in water resource design and policy development. *Scott will perform special inspections to ensure project is built as designed.*

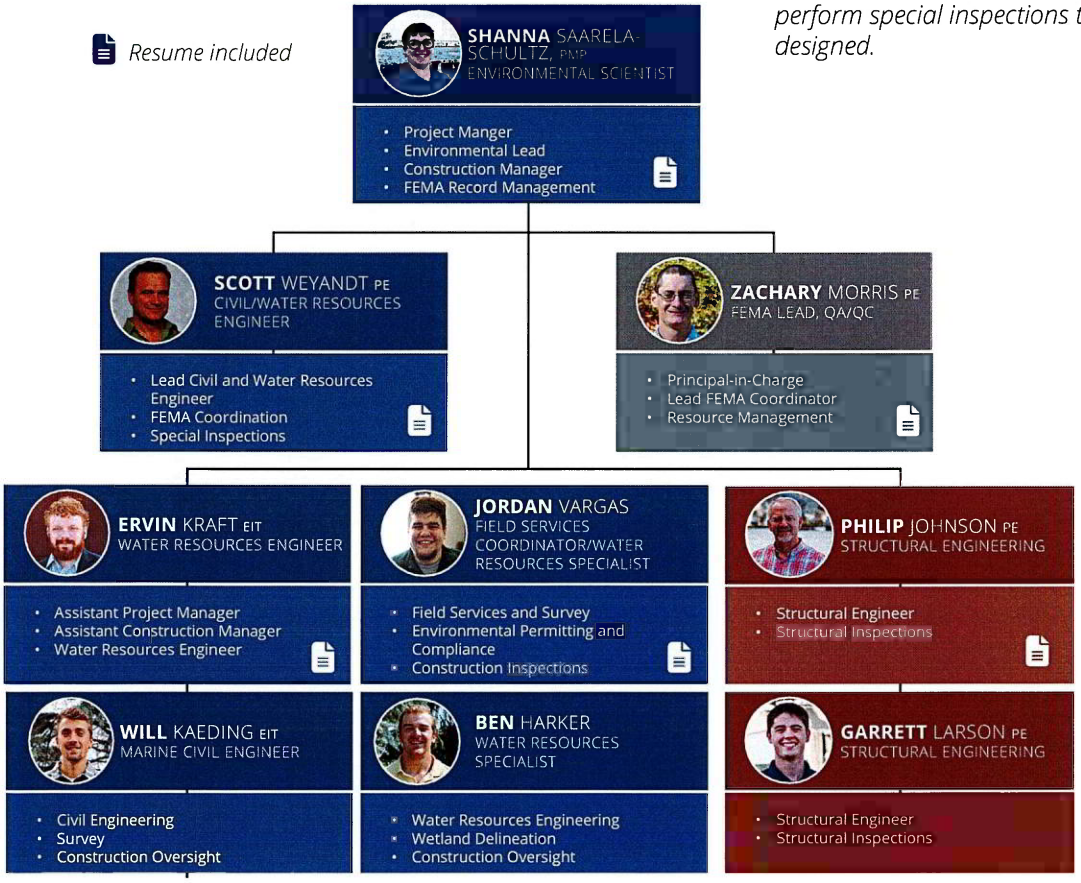
JORDAN VARGAS | PERMITTING & COORDINATION SPECIALIST

Jordan brings strong experience in permitting, regulatory coordination, and environmental compliance. He will manage coordination with agencies and stakeholders, ensuring a smooth permitting process. *Jordan will assist with field services and inspection coordination.*

PHIL JOHNSON, PE | STRUCTURAL ENGINEER

Phil is an experienced structural engineer with a focus on designing resilient infrastructure. He will provide expertise in structural assessments, stabilization techniques, and the integration of engineering solutions to enhance project durability and performance. *Phil will perform special inspections to ensure project is built as designed.*

Resume included



SHANNA SAARELA-SCHULTZ MS, PMP, PWS

PROJECT MANAGER / SENIOR ENVIRONMENTAL SCIENTIST

Shanna is an experienced environmental scientist with proficiency in project management, environmental survey, assessment, permitting, and regulatory compliance activities required for planning and completing successful construction, maintenance, and restoration projects. Shanna has over 15 years of experience performing and managing environmental surveys, permitting, and compliance for public and private entities.

RECENT RELEVANT EXPERIENCE

Coastal Infrastructure Dredging Project – Duluth, MN
Shanna led project design, permitting, and environmental assessments to secure regulatory approvals for dredging near the Duluth Entertainment Convention Center, enabling cruise vessel docking along the Lake Superior dock wall. She assisted in identifying a storage site at Lot D, repurposing dredged material for future development. Shanna also oversaw construction administration during project execution, ensuring compliance and coordination. Her role included sediment characterization, site design, stakeholder coordination, and securing approvals from USACE, MN DNR, MPCA, and the City of Duluth for Clean Water Act compliance and regulations on wetlands, waterways, floodplains, and stormwater discharge.

Utility Maintenance Projects – Minnesota
Shanna managed the environmental review, permitting, and construction support for utility maintenance projects across the U.S., including sites in Minnesota. The utility repair projects varied in project scope and were issued in groups by utility corridor locations, averaging between 500 and 800 sites per year. Project scopes varied but typically included ground disturbance near or within wetlands, waterways, or sensitive resources. Shanna oversaw the environmental review, management, and documentation of the projects. These projects required coordination with the USACE, U.S. Fish and Wildlife Service (USFWS), and state agencies for resource impacts.

Stream Crossing Repair Projects – Missouri, Kansas, Oklahoma
Shanna handled environmental review and permitting for geohazard repairs on buried utilities at stream crossings. Projects involved stream restoration and stabilization for utilities exposed by erosion, using armored and natural methods. She coordinated with USACE, USFWS, and state agencies for CWA Section 404/401/408 and local wetland and waterway regulations. Work also included survey, planning, permitting, and avoidance measures for endangered aquatic species, such as fish seining and mussel relocation.

SCOTT WEYANDT PE

WATER RESOURCE ENGINEER

Scott is a seasoned project and client service manager with **more than 40 years of experience** in municipal, transportation, natural resource and water resource engineering. Specialties include regulatory compliance, water resource design and policy development, environmental permitting for complex projects, large scale urban and rural highway design, wetland mitigation bank development and grant writing. Project roles include managing project development from concept through construction, permitting, managing regulatory agency relationships, ensuring construction compliance with permit conditions, and the development and implementation of public involvement and stakeholder engagement plans.

Registered professional engineer in Minnesota and Wisconsin.

Grant Experience: FEMA: 404, 406 HAZARD Mitigation, State Disaster, MnDNR, BRIC, EDA

RECENT RELEVANT EXPERIENCE

- **City of Duluth Lakewalk Shoreline Rehabilitation Phases 1 through 3 – FEMA Funding – Duluth, MN**
- **Lake Superior Shoreline Stabilization County Highway H – FEMA Funding – Madeline Island, WI**
- **Cody Street Roadway Failure – FEMA Funding – Duluth, MN**
- Woodstock Park and Trail Access – Superior WI
- Wisconsin Point Trail and Access Conceptual Design – City of Superior, WI
- Wetland Crossing Removable Trail Crossing – Access to Lot 1 Wisconsin Point – Superior, WI
- Newton Creek Culvert Redesign – East 5th Street – Superior, WI
- City of Duluth Watershed Studies – Several Named and Unnamed Creeks – Duluth, MN
- East 3rd Street Culvert Rehabilitation and Low Flow Design – City of Superior, WI
- Low Impact Municipal Trail Corrections – Municipal Forest Trail System – City of Superior, WI
- Millenium Paved Trail Design – City of Superior
- US Highway 2 to Wisconsin Point Trail Design and Permitting – Superior, WI
- Wisconsin Point Road – US Highway 2 to Landfill Culvert Replacements – Superior, WI

ZACHARY MORRIS PE

FEMA LEAD, QA/QC

Zac has worked with the City of Duluth on multiple FEMA-funded projects, serving in various roles throughout his time at AMI. His responsibilities have included project feasibility studies, grant application assistance, permitting coordination, **FEMA quantity determinations, Hazard Mitigation requests**, engineering, bidding, and construction administration through project completion.

Through years of experience working with City personnel, Zac has become well-versed in the City's policies and procedures. Zac has built strong relationships with City staff. **A native Duluthian**, he is passionate about preserving and restoring the community. As AMI's **dedicated FEMA lead**, he will oversee the organization and documentation of FEMA-required materials throughout all project phases. With **established relationships with City and State FEMA staff,** Zac understands their requirements and is well-positioned to guide the City through the process.

Registered professional engineer in Minnesota and Wisconsin, Michigan, Louisiana, and Florida.

Grant Experience: FEMA: 404, 406, State Disaster Relief, MnDNR, BRIC, EDA, GLRI

RECENT FEMA AND STATE DISASTER EXPERIENCE

Lakewalk FEMA and State Disaster Projects – Duluth, MN
Project Manager, Engineering Lead, **FEMA Lead**. Zac oversaw the design and implementation of over 10 different projects with the City of Duluth where FEMA 404, FEMA 406, and State Disaster Funding were utilized. Projects included shoreline restoration near Fitger's, Veterans Memorial, Canal Park, The Ledges, Bayfront Park, Brighton Beach, and Waabizheshikana (Marten) Trail. These projects included walking/biking trail restoration, culvert replacement, slope repairs, vegetation restoration, erosion control, retaining walls, riprap, site grading, and custom waterfront access designs. Zac managed the organization and formatting of all documents to be submitted to FEMA through the City of Duluth.

St. Paul Port Authority FEMA Project – St. Paul, MN
Lead Riverine Engineer, **FEMA Lead**. Zac led the riverine scour repairs for the St. Paul Port Authority's (SPPA) Red Rock Terminal. Zac developed the quantities required for restoration as a result of the historic flooding and subsequent scouring that occurred on the Mississippi River. Zac worked close with the SPPA to ensure FEMA compliance and that the proper quantities were utilized for bidding purposes. Zac assisted in the contractor bidding process and ensuring compliance with FEMA requirements.

Rainy Lake Medical Center FEMA Project – International Falls, MN
Project Manager, Lead Riverine Engineer, **FEMA Lead**. Zac led the slope failure repairs required at the Rainy Lake Medical Center. Zac was responsible for project scoping, design alternatives, and development of the FEMA content for grant applications. Zac led this project from feasibility to final construction completion and project closeout.

ERVIN KRAFT IV EIT

WATER RESOURCES ENGINEER

Erv is a water resources engineer with four years of experience in hydraulic and hydrodynamic modeling, site surveying, floodplain management, and bank stabilization. He specializes in riverine and coastal design and modeling. Erv is particularly passionate about working on riverine and costal systems. He is quick to pick up modeling programs and identify effective solutions for projects.

RECENT RELEVANT EXPERIENCE

Congdon Boulevard Storm Damage Repairs – Duluth, MN
In 2022 a significant storm hit Duluth Minnesota and caused damage to multiple roadside overlooks on Congdon Boulevard. State emergency management funds were allocated for the redesign of the sites. AMI provided engineering design and construction administration services for the project. Erv conducted all the drafting and developed designs for the project as well as providing the construction administration services once construction commenced.

3rd & 4th Avenue Outfalls Shoreline Protection – Duluth, MN
New protective measures for the shoreline north of the 3rd & 4th Avenue outfalls were needed after severe storms had caused a slope failure along the shoreline. AMI provided consulting and quality assurance services for the project. Erv was present on site most days to assist in coordinating between the contractors and the owner, provide construction oversight for critical design components, and document delays, errors, and general progress.

Canal Park Lodge and Brewery LOMC – Duluth, MN
The Canal Park Lodge and Brewery were found to be inside of the coastal floodplain of Lake Superior. AMI was contacted to provide a Letter of Map Amendment to remove both facilities from the floodplain. Erv conducted the site survey and compiled and filed all of the forms necessary to get the Letter of Map Amendment approved for the property owners.

Ravine Erosion Evaluation – Council Bluffs, IA
The City of Council Bluffs was experiencing severe erosion of various ravines across town. This erosion was induced by storm water runoff from existing and new developments. Erv took the data collected on site and provided a report of recommendations on how to address the issues with minimal impact. Care was taken in the report to outline which methods would be effective in reducing erosion and which methods would worsen the issues observed on site

JORDAN VARGAS

FIELD SERVICES COORDINATOR/WATER RESOURCE SPECIALIST

Jordan is a skilled geologist with over nine years of experience in field sampling, demolition, SWPPP erosion control, and soil management. His expertise includes environmental investigations, soil and waste characterization, sediment sampling for the EPA in the St. Louis River Estuary, hydrographic surveying, and sediment and erosion control. He is proficient in wetland delineations, client and watershed district communications, field sampling design, soil and sediment characterization, remediation management, and ensuring permit compliance through construction site inspections. His efficiency in field sampling design and construction compliance contributes to successful project execution.

RECENT RELEVANT EXPERIENCE

National Park Service Mint Spring Bayou Slope Stabilization, Vicksburg, MS
AMI partnered with Vanasse Hangen Brustlin Inc. (VHB) to stabilize the Mint Spring stream bank and adjacent 150-foot slope at Vicksburg National Military Park, Mississippi. The project, bordering the National Cemetery, required environmental services, including National Park Service (NPS) regulatory compliance, impact analysis, federal and state permitting, wetland delineation, and U.S. Army Corps of Engineers (USACE) jurisdictional determination. Jordan led environmental permitting and compliance, overseeing regulatory approvals, impact analysis, wetland delineation, and agency coordination.

Manitou Islands Rehabilitation, MI
AMI was hired by VHB to provide engineering design, coastal modeling, environmental services, and permitting for the rehabilitation of infrastructure on North and South Manitou Islands in Lake Michigan. Jordan directed environmental permitting and compliance, coordinating topographic and ground-penetrating radar surveys, conducting wetland delineations and special species surveys, and securing federal, state, and local permits with USACE, Michigan's EGLE, and other agencies.

DECC Seawall Phase II, Duluth, MN
AMI Consulting Engineers was hired by the City of Duluth to provide design, permitting, environmental, and construction administration services for the DECC Seawall construction project. Jordan managed environmental permitting and compliance, leading sediment sampling for contamination analysis to determine proper dredge material disposal. He also coordinated with USACE, State Historic Preservation Office (SHPO), and the Minnesota Department of Natural Resources (DNR) to obtain necessary construction permits.

PHILIP JOHNSON PE

STRUCTURAL ENGINEER

Phil is an accomplished professional engineer with over 35 years of experience in consulting engineering, utility engineering and operations. He has extensive experience with civil/structural design, construction oversight and project management, for dams, concrete bridges and walkways, buildings, retaining walls, and foundations.

Registered professional engineer in Minnesota, Wisconsin, Michigan.

RECENT RELEVANT EXPERIENCE

Silver Lake Dam, MN
AMI provided comprehensive engineering services for the Minnesota DNR to repair or replace the failed embankments of the Silver Lake dam in Waldorf, MN, which had partially drained the lake. Phil and AMI's team of engineers conducted non-destructive field investigations, including ground-penetrating radar inspections, concrete degradation assessments, and strength analysis. To minimize wetland disturbance, soil conditions were evaluated using handheld equipment, and DCP testing assessed subsoil strength, soil types, water content, and bearing pressure—yielding results comparable to soil borings without major disruption. The final design featured an overflow control structure with stoplogs, sediment and erosion controls for wet construction, and access roads for improved dam accessibility, ensuring long-term stability and lake restoration.

Retaining Wall Design, Various Locations
Phil led the design and analysis of retaining walls for both industrial and commercial projects. Proficient in utilizing design software and engineering principles to develop safe, cost-effective, and durable solutions tailored to site-specific conditions. Skilled in working with a geotechnical engineer, selecting appropriate materials, and ensuring compliance with local regulations and industry standards. Provide innovative solutions to complex engineering challenges while maintaining environmental sustainability.

St. Croix River Access Pedestrian Bridge
Phil led the design of a pedestrian bridge featuring a reinforced concrete foundation, collapsible bollards for controlled access, and a timber-framed railing system. Developed bridge framing plans, rail sections, and foundation details to ensure structural integrity and compliance with local building codes. Utilized design software for stress analysis and material optimization. Closely worked with the client to deliver a sustainable and aesthetically appealing final product.

WORKPLAN

Several areas of City recreational infrastructure were damaged due to excessive rainfall during three major storm events spanning 2023 and 2024. These disasters—FEMA Disaster 4722 (April 2023), a State-declared disaster (September 2023), and FEMA Disaster 4797 (June 2024)—resulted in damage to various trails, culverts, boardwalks, and bridges. The City seeks to restore and enhance these damaged areas using a combination of state and federal disaster funding.

This project presents an opportunity to not only restore damaged recreational infrastructure but also enhance its resilience against future flood events. AMI's approach will focus on innovative and sustainable engineering practices that align with the City's long-term vision for infrastructure reliability and environmental stewardship. By integrating our expertise in project management, FEMA and state agency coordination, engineering design, and construction oversight, we will deliver these projects with a focus on comprehensive, efficient, and affordable solutions.

This document outlines AMI's approach to providing the services necessary for successful project completion, which is broken by tasks associated with site review, design, and construction. AMI has identified an initial milestone schedule and each task includes a high level list of deliverables expected. If awarded the project, AMI will coordinate with the City to develop a detailed work breakdown structure, project schedule, and list of deliverables for City review and approval

Importance of FEMA in Design Process

To ensure the City receives the applicable FEMA and Minnesota State disaster funds, AMI will phase the project design to align with FEMA's review and approval process. This phased approach will include developing discrete design and cost estimates for the initial Public Assistance (PA) scope, the Hazard Mitigation (HM) scope under Section 406, and any Alternative Projects under Section 428 of the Stafford Act.

AMI will structure project development around key design milestones at the 30%, 60%, 90%, and 99% review stages, ensuring compliance with FEMA's and State Disaster funding requirements at each step. At the 30% stage, AMI will confirm project eligibility, scope definition, and preliminary cost estimates for both FEMA and State reviews. The 60% stage will include refined engineering details, updated cost projections, and compliance checks with both FEMA and State requirements. The 90% stage will incorporate final design elements, constructability reviews, and any necessary revisions based on feedback from FEMA and the State. At the 99% stage, AMI will finalize all documentation for FEMA and State approval, facilitating the obligation of funds and ensuring that both funding agencies' criteria are met for full project funding and compliance.

Additionally, AMI will coordinate with FEMA and State representatives to facilitate site inspections, eligibility determinations, and benefit-cost analyses, ensuring each project meets regulatory standards. Throughout the process, AMI will provide timely responses to Requests for Information (RFIs) and work proactively to resolve any compliance issues, expediting project approval and maximizing available funding.

PROJECT MILESTONES

- **Anticipated Notice to Proceed**
  February 28, 2025
- **AMI/City Kickoff Meeting**
  March 1-8, 2025
- **Site Survey and Data Collection:**
  March 1-8, 2025
- **30% Design Drawings Deliverable**
  May 2, 2025
- **60%: Design Drawings Deliverable**
  June 30, 2025
- **Permit Applications Submitted**
  July 15, 2025
- **90%: Final Design Drawings & Construction Cost Estimate**
  August 30, 2025
- **99% Construction Documents: Final Drawings, Specifications, & Final Construction Cost Estimate**
  September 15, 2025
- **Bidding Phase**
  October 15, 2025 - November 15, 2025
- **Final Permits Received By**
  December 1, 2025
- **Construction Contracts Award**
  December 1, 2025
- **Construction Administration (12 weeks assumed)**
  December 15, 2025 – March 15, 2026
- **FEMA Documentation and Reporting**
  March 15, 2026 – June 22, 2026
- **As-built Drawing Submittal**
  June 22, 2026
- **Project Closeout Meeting and Walkthrough**
  June 22-26, 2026
- **Contract End**
  June 30, 2026

TASK 1 - PRE-DESIGN

AMI will begin the pre-design phase by thoroughly reviewing the information collected for each of the damaged sites and the preliminary damage estimates, including the information from FEMA, State, and City site visits. For each site, we will then assess a variety of relevant materials, such as engineering reports, as-builts, oblique imagery, photogrammetry, soil borings, topographic data, historical site designations, natural resource data, stream data, climate change trends, and FIRM hydraulic models, where applicable. This comprehensive review will allow us to provide the City with the most cost-effective, practical, and resilient solutions.

We will then conduct a kickoff meeting with City representatives to discuss project priorities, construction concerns, and previous repair challenges. AMI assumes a day-long kickoff meeting that includes visiting as many of the sites as possible, focusing first on the most complex or sensitive sites.

Project Kickoff Meeting

Upon award of the project, AMI will schedule a kickoff meeting with City representatives to review and clarify the damage descriptions, estimated scope, and cost estimates provided in Appendix C of the RFP. AMI's work plan and cost estimates are based on the information in Appendix C, the site locations in Appendix B, and the site conditions shown in Appendix A.

During the kickoff meeting, AMI will confirm its understanding of project requirements for each site. The meeting will be a full-day session that includes site visits, prioritizing the most complex or sensitive locations first. Any discrepancies, additional expectations, or unforeseen conditions identified during this meeting will be evaluated for their impact on project scope, schedule, and cost. Based on this review, AMI is open to discussing adjustments to the proposal costs in coordination with the client.

Data Collection

As part of the pre-design review, AMI will collect and synthesize all available public data relevant to the projects. Additional site-specific data will also be collected by the AMI Team where it is needed to validate, supplement, and enhance the publicly available data. AMI assumes the following regarding data collection:

- Public data will be used for sites with lower scope complexity and resource impacts, such as the Piedmont and Lester Park Trail repairs. For these sites, neither the specified project approach nor the hazard mitigation designs will require updated elevation information.
- Site specific data will be collected at sites with more complex scopes or resources impacts, such as the sites on Mission Creek Trail, Hartley Park, and Chester Park near the 8th/9th Street Bridge. These sites exhibit significant erosion and unique characteristics that must be properly documented to provide accurate and thorough designs.
- Sites requiring structural design, such as the Lester River Pedestrian Bridge and Concrete Snowmobile Bridge, will require site specific data collection to aid in design. Collection of structural inspections, topographic surveys, and aerial imagery is included within this scope task. This information will be critical for developing the project designs in accordance with FEMA and state processes.

For this proposal, AMI assumed that the following services were not required. If found to be necessary, AMI is qualified to provide these services at negotiated rates.

- Per the RFP, wetland delineations and ordinary high water mark site determinations are not included to be completed under this proposal. The City has completed delineations for the Hartley Park bridge replacement.
- No soil borings, soil gradation testing, or bedrock testing will be necessary for project design. If soil information is required for design of structures, dynamic cone penetration (DCP) testing would be sufficient and could be completed as necessary.
- No quarry stone testing will be necessary for the project. AMI assumes that the projects requiring rock repair will reuse existing materials supplemented with alternative methods to achieve stability.

Site Access

To improve cost accuracy and project planning, AMI and our team partner, Nordic Group, will assess each repair location for equipment access and material requirements. Given that many sites are challenging to reach, this evaluation will help ensure accurate mobilization and demobilization cost estimates, leading to improved budget management and more competitive and realistic pricing.

Site Analysis and Project Groupings

After collecting, synthesizing, and reviewing all data needed for the predesign process, AMI will evaluate each site to determine the PA and HM scopes of work. AMI will collaborate with FEMA and State Disaster representatives to ensure that the PA design information includes the appropriate level of detail for approval, while avoiding excessive design for sites that will require hazard mitigation.

AMI will also coordinate with the City of Duluth to determine the best approach to grouping the individual projects into bid packages. For the purposes of this proposal, AMI assumes that the project will be split into four (4) bid packages with multiple sites per package. If additional bid packages are requested, AMI can provide additional contractor coordination, contract management, and construction administration at negotiated rates.

Permitting Kickoff

To ensure a smooth permitting process, AMI will coordinate early in the design process with the Minnesota Department of Natural Resources (MN DNR), City of Duluth, and the United States Army Corps of Engineers (USACE) to determine if any special permits or considerations will be needed for permit submissions in support of the projects. Additionally, AMI will work with agencies to determine their preferences for grouping of project sites during the permitting process. AMI will manage the coordination process and answer questions from the permitting agencies in a timely manner.

TASK 1 DELIVERABLES

- GIS-based project list with updated scope information for project sites, including field information, estimated schedule, access information, and proposed scope.
- List of sites requiring environmental permitting.
- Project kickoff meeting minutes & supporting documentation.

TASK 2 – DESIGN DEVELOPMENT

Using the information collected during Task 1, AMI will coordinate with the City to develop designs for each of the repair sites following FEMA and state disaster procedures. AMI will also prepare detailed plan sets and refine cost estimates for the 30% and 60% review milestones. AMI will manage environmental reviews and permitting to ensure regulatory compliance and streamline approvals. Activities to be included in Task 2 are described below.

PA Construction Estimate & Design

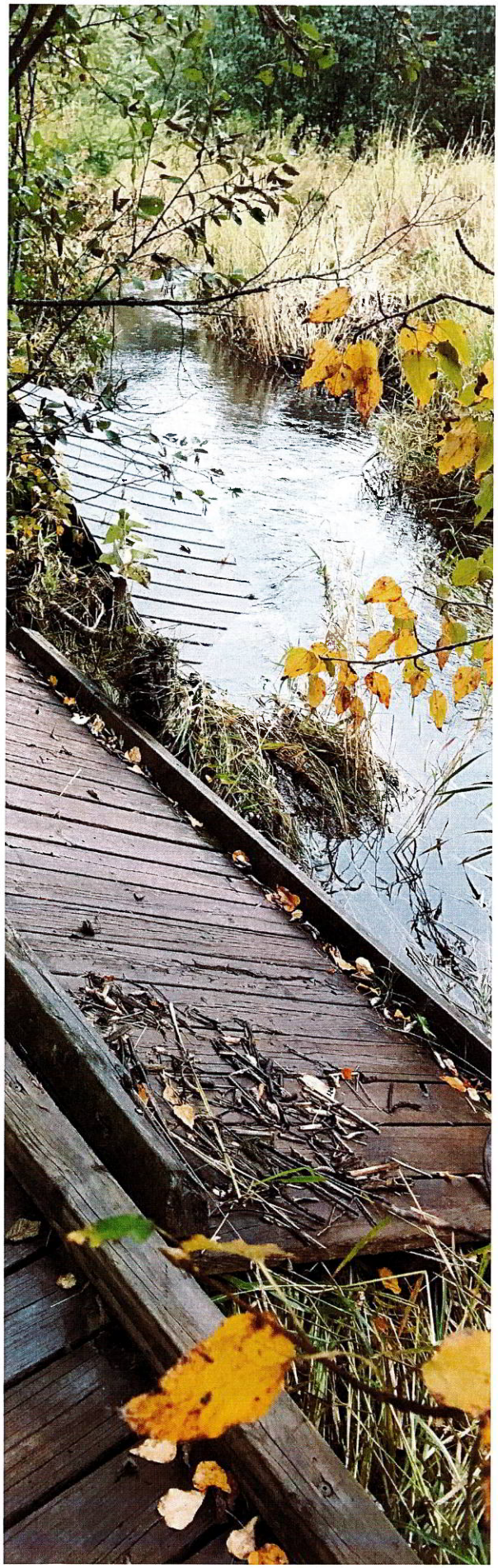
Using information gathered during the pre-design phase and guidance from FEMA and State representatives, AMI will develop a site-specific restoration plan for each site based on the documented damage descriptions. In accordance with FEMA's PA procedures, AMI will prepare a base PA Construction Estimate focused solely on restoring each site to its pre-disaster condition, ensuring compliance with FEMA's eligibility and cost-estimating requirements. This estimate will be submitted to FEMA and State representatives for review and validation on behalf of the City, following the standard PA funding process.

Hazard Mitigation Estimates & Design

After obtaining concurrence from FEMA and State Disaster Program representatives on the PA construction concepts and costs, AMI will collaborate with the City to assess, estimate, and design repairs for sites requiring additional hazard mitigation. The City has identified numerous repair sites where hazard mitigation measures are necessary to address existing damage and prevent future impacts.

AMI will develop Hazard Mitigation Proposal (HMP) scopes for these sites in accordance with FEMA requirements. These scopes will be designed to meet FEMA's eligibility criteria, ensuring cost-effectiveness, technical feasibility, and resilience against future damage from similar events. Mitigation measures will be designed to provide protection up to the regulated minimum storm event and will be clearly identified and estimated for comparison with the PA Construction Estimate.

AMI will work closely with the City and FEMA to ensure that all mitigation proposals meet FEMA and state approval criteria, optimizing funding opportunities while effectively reducing future risk and damage.



Alternative Projects

When significant design modifications are necessary to mitigate future flood damage, AMI will support the City in developing FEMA-compliant Alternative Projects. The City has identified seven (7) repair sites that will likely require relocation rather than in-place reconstruction. For these sites, AMI will collaborate with the City and funding agencies to develop relocation plans that align with FEMA's Alternative Procedures while ensuring compliance with local requirements. AMI will also work to maximize available funding from disaster recovery programs by coordinating eligibility determinations, cost-effectiveness analyses, and project justification to meet FEMA's approval criteria. AMI understands that these projects will include the relocation of trails within Hartley Park and Chester Park. AMI assumes relocation of approximately 200 linear feet of Hartley Park Trail and 400 linear feet of Chester Creek Park Trail.

Design Documents

Based on FEMA, state agency, and City comments during the design process, AMI will develop the design and quantities, begin technical specifications for the project, write design specific verbiage for the City to include in their front-end documents, and produce detailed cost estimates. AMI will coordinate with Nordic Group to validate and refine material and mobilization costs to ensure high accuracy estimates during this phase. Design documents will be submitted to the City for review at 30% and 60%.

Plan Sets

AMI assumes developing one full plan set per bid package, using a combination of GIS and CAD-based files for plans based on site grouping and repair complexity, for a total of four (4) plan sets. The plan sets will be well-organized, concise, and detailed. If all sites contained within a plan set are unable to move forward simultaneously, we will break the plan set out into phases. This will be possible due to careful planning, clarity, and detail in the bid documents. In our experience, this additional time spent during the design process saves time during construction administration (reduced RFIs, change orders, ambiguities, constructability, etc.). Plan sets will be submitted to the City for review at 30% and 60%.

Project Permitting

Once 60% designs have been approved by the City, the State, and a FEMA liaison, AMI will coordinate environmental review and permitting for the projects in the groups determined during Task 1. This will streamline agency communications and tracking for construction compliance. AMI anticipates coordinating with the MN DNR, USACE, City of Duluth, and State Historic Preservation Office (SHPO). AMI will coordinate with the City and regulatory agencies throughout the permitting process to facilitate project regulatory approvals. Upon receipt of all regulatory approvals, AMI will develop a summary of permit requirements for inclusion in project specifications and designs.

To determine the likely environmental permitting and coordination needs, AMI completed an initial GIS desktop review based on the provided location information, damage descriptions, estimated scopes, and hazard mitigation concepts. The project site locations were compared to publicly available wetland, waterway, and floodplain data to determine their proximity to these regulated resources. Many of the project sites were located along Minnesota Public Water watercourses, riparian or palustrine wetlands, and/or mapped flood hazard zones.

Wetland & Waterway Permitting

AMI estimates that 52 sites will require coordination with the MN DNR for work in a public water and/or coordination with the City for potential wetland or waterbody impacts. These projects range from the restoration of stream banks and installation of culverts to replacement of boardwalks or bridges and repair of retaining walls. Based on early communication with regulatory agency, AMI will group repair projects accordingly to streamline the permitting process.

Hydraulic Modeling & Floodplain Permitting

After reviewing the documentation provided, AMI estimates that 49 sites will require coordination with the MN DNR Floodplain Management Department and/or the City regarding work within a mapped floodplain or waterway. Considering the provided project scopes and their locations, AMI assumes that most sites located in the flood plain will not require hydraulic modeling to be conducted. It is anticipated that many of these projects will be considered replacements in kind, needing only a letter of professional opinion for a no-rise.

For project sites with more involved designs, located within or across the floodplain, AMI assumes that hydraulic modeling will be required and prudent. Using modeling will ensure that trails are properly relocated outside of the floodplain and that bridges are sufficiently elevated above the base flood elevation. These models will be limited in use to sites such as the Lester River Pedestrian Bridge where floodplain considerations are critical. However, as clarified in Addendum 2, AMI does not anticipate modeling any sites to conduct letters of map change such as LOMRs, LOMAs, and their variations.

Stormwater Design for Permitting

In addition to wetland, waterway, and floodplain permitting, AMI will provide designs for stormwater management in accordance with City ordinances. AMI assumes that no individual repair project will disturb more than one (1) acre of land and that the sites are sufficiently separated to avoid being considered a common plan of development. Furthermore, AMI assumes that the project will not result in an increase in impervious surface that would trigger post construction stormwater designs. Erosion and sediment control measures to protect water resources will be incorporated into the design documents, with the selected contractor responsible for applying for any necessary MPCA or City stormwater permits if disturbed area thresholds are exceeded.

Stakeholder Meetings

The design development phase will involve multiple meetings with all stakeholders, and AMI will facilitate these discussions, ensuring active participation from all involved. Stakeholder engagement is essential for the success of the project. AMI will collaborate with the City of Duluth to ensure representation from relevant City departments throughout this process. We anticipate holding at least two stakeholder meetings during this phase: one prior to submitting the design development deliverable, and another after it has been submitted and reviewed. A third meeting may be necessary, depending on stakeholder feedback.

TASK 2 DELIVERABLES

- PA Construction Cost Estimates for All Repair Sites.
- 30% / 60% Design Concepts for Repair Sites not requiring Hazard Mitigation.
  - → List provided by City includes 12 repairs without HM at 11 Sites.
- 30% / 60% Design Concepts & Cost Estimates for HM Sites.
- 30% / 60% Design Concepts & Cost Estimates for Alternative Projects.
  - → List provided by City includes seven (7) repairs requiring an alternative project.
- Project Permits.

TASK 3 – FINAL DESIGN

To ensure a seamless transition from design to construction, AMI will guide the project through the final stages of design development, bidding, and contractor selection. The following tasks outline our approach to refining designs, preparing bid documents, and supporting the City of Duluth throughout the bidding process. Our focus will be on incorporating stakeholder feedback, ensuring regulatory compliance, and facilitating smooth communication between the City, contractors, and relevant parties to ensure the project is ready for construction.

Final Design

AMI will revise the design development drawings, cost estimates, and technical specifications based on feedback from the City of Duluth and stakeholders. We will produce a 90% drawing set for inclusion in each bid package and submit it to the City for final review. A meeting with the City and relevant stakeholders will be held after the review of the 90% submittal to address any remaining comments.

Bid Documents

Based on feedback from the 90% submittal, AMI will prepare the complete bidding documents, which will include detailed cost estimates, bid forms, technical specifications, and supplemental front-end verbiage for the City's inclusion of any FEMA or State Disaster requirements. The project will be split into four (4) bid packages, each containing multiple sites.

Bidding Phase

During the bidding process, AMI will support the City by attending pre-bid meetings, preparing agendas, taking minutes, answering questions, and evaluating the bids received. AMI will provide comments and recommendations on the responding bidders to the City. Throughout the process, AMI will incorporate feedback from contractors and the City to finalize and issue the 99% "issued for construction" drawings and specifications.

TASK 3 DELIVERABLES

- 90% Design Concepts for All Sites, including Hazard Mitigation and Alternative Projects.
  - → Bid Documents.
  - → Final Construction Cost Estimate.
- Technical Specifications.
- 99% Design Issued for Construction Drawings.
- Review of Bid Results and Comments.

TASK 4 – CONSTRUCTION ADMINISTRATION PHASE

To ensure successful project completion and compliance with all necessary regulations, AMI will provide a comprehensive approach to construction administration, documentation, and coordination throughout the project. Our dedicated local on-site team will manage, inspect, and document the construction process, ensuring high-quality execution and adherence to FEMA and State Disaster requirements. We will work closely with the City and contractors to maintain rigorous documentation, track prevailing wages, conduct site inspections, and manage change orders efficiently. This organized approach will ensure the City remains in full compliance with all funding sources and is well-prepared for any future audits or inquiries.

Dedicated, Local, On-site Team

AMI will ensure professional and trained personnel are on-site a minimum of one day a week during construction to document the work as it is completed. AMI has a team of well-versed engineers who have extensive experience managing, tracking, and directing project construction. AMI has identified several skilled employees to perform special inspections and/or routine site inspections throughout this project. AMI's experience will ensure change orders are fully vetted and that pricing is fair and competitive.

Construction Documentation

Meticulous construction documentation and record keeping is critical to ensure the City funding is protected during an agency audit associated with FEMA and State Disaster spending. AMI will work closely with the City to better understand lessons learned by the City through their previous experiences with FEMA & State Disaster funding, and to understand the City's internal process and approach to managing these funding sources. AMI will coordinate with the City to provide thorough and stringent project documentation procedures to keep State and FEMA funds properly allocated and recorded.

Contractor Coordination

AMI will collaborate with the awarded Contractor(s) by providing simplified CAD files and establishing on-site survey control. We will conduct weekly project meetings and provide progress reports that summarize completed work and include all necessary documentation to support the project's record-keeping. If on-site questions arise, AMI personnel will address them promptly and efficiently, ensuring any design or material quantity changes are documented. Depending on the nature of the issue, AMI will either direct the Contractor to submit a request for information (RFI) or issue engineer's supplemental information (ESI) as needed.

Prevailing Wage Tracking

AMI understands that prevailing wage tracking services are required by the City. Our team is committed to providing accurate and timely prevailing wage tracking in accordance with both State and Federal requirements. Care will be taken to ensure that weekly reports are delivered consistently, reflecting the necessary compliance details for regular and overtime wages, ensuring all labor wage standards are met for both standard and overtime hours worked. Our approach will prioritize thorough documentation and transparent communication to ensure that all labor wage standards are met without exception. We understand the critical nature of this task and are prepared to maintain diligent oversight to ensure no lapses in meeting the contract requirements.

Site Inspections

AMI will conduct both general and special inspections. General inspection will be conducted by the day-to-day inspector, who will verify and document pay quantities, document construction progress and verify that the work being conducted is in conformance with the contract documents. During critical components of the project, an AMI subject matter expert will perform an inspection. Subject matter experts will inspect specialized installations, critical features, and unanticipated field conditions requiring plan modifications. Examples include reinforcement layout, bridge anchoring and foundation repairs, trail alignment changes, etc.

Managing Change Orders

Throughout the construction process, if quantities or scope changes are required or recommended, the City will be notified of these proposed adjustments immediately. AMI will submit an Engineer's Proposal Request (EPR) to the Contractor to confirm scope and anticipated fees. AMI will ensure that no significant changes are approved without approval by the City of Duluth and that any implications of these changes to FEMA or State funding eligibility are clearly conveyed.

Surveys

AMI will survey final grades, feature lines, and materials as needed. If haul tickets are not provided for the project site, or if AMI collected site specific data prior to beginning design, then a survey will be required. These surveys will provide a detailed breakdown of any potential quantity over/under runs and will supplement the development of as-builts for the City of Duluth's records.

As-Built Construction Drawings

AMI's approach to creating project as-built drawings will be tailored to the size and complexity of each individual project, ensuring compliance with both FEMA and State Disaster funding procedures. For larger projects with detailed designs, we will track and document all changes to materials, dimensions, and site features throughout construction. For smaller projects or those with less extensive design work, we will ensure that all modifications are accurately captured and reflected in the final as-built documentation. Upon project completion, AMI will compile all relevant construction data into as-built drawings that represent the final site conditions, in full alignment with both FEMA and State funding requirements. These drawings will be organized to meet the documentation standards set by both funding agencies, including any necessary revisions. AMI will provide the City with the PDF as-built drawings in and raw survey points in St. Louis County Transverse Mercator Coordinate System 96.

Final Construction Document and FEMA

After construction is completed, AMI will provide electronic copies of all construction administration documentation in accordance with FEMA's requirements for record-keeping and storage. These documents will be organized and stored in a manner that facilitates easy access and retrieval. Additionally, AMI will supply a comprehensive workflow document to guide City personnel in navigating the records, ensuring they can efficiently respond to any future requests for information from funding sources or regulatory agencies.

TASK 4 DELIVERABLES

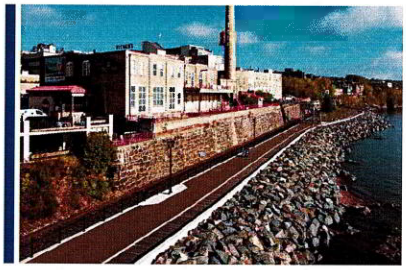
- Construction Inspection Documents
- Construction Meeting Minutes
- As-Built Construction Documents
- Project & Construction Documentation with Workflow Document

ASSUMPTIONS

AMI's scope, schedule, and costs are based on the following assumptions about the work and consultant responsibilities. If adjustments are needed, AMI is open to discussing fee structure or scope changes with the City before work begins.

SCOPE & SCHEDULE ASSUMPTIONS	COST ASSUMPTIONS
• Notice to proceed on February 28, 2025 • Day-long kickoff meeting • 101 sites: • Some with multiple repairs • Some with multiple funding sources • Publicly available data will be used for most sites • AMI will collect necessary field data • Two (2) designs required for each site: – PA Design/Cost Estimate – HM or Alternate Project Design • Four (4) bid packages – One plan set per bid package – Combination of GIS & CAD for design documents • 52 sites with wetland or waterway permitting • 49 sites with work in floodplain • All sites require some erosion & sediment control design • MPCA stormwater permitting not required	• Cost estimate developed using information provided in City RFP Appendix A, B, & C • Based on FEMA Public Assistance Cost Estimating Tool for Engineering Design Services (Curve B) (12/18/2015) – PA Cost Estimate approximately $1.5 million (Appendix C) – HM Cost Estimate assumed 1.75x PA Cost Estimate: $3 million • Two (2) general contractors awarded between the four (4) bid packages • Concurrent construction required to complete by June 2026 – Construction inspection will be 1.5 FTE per week over 12 weeks. – Special inspections as needed for critical components of construction • One (1) virtual weekly construction meeting per contractor • One (1) weekly report per contractor

REFERENCES



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