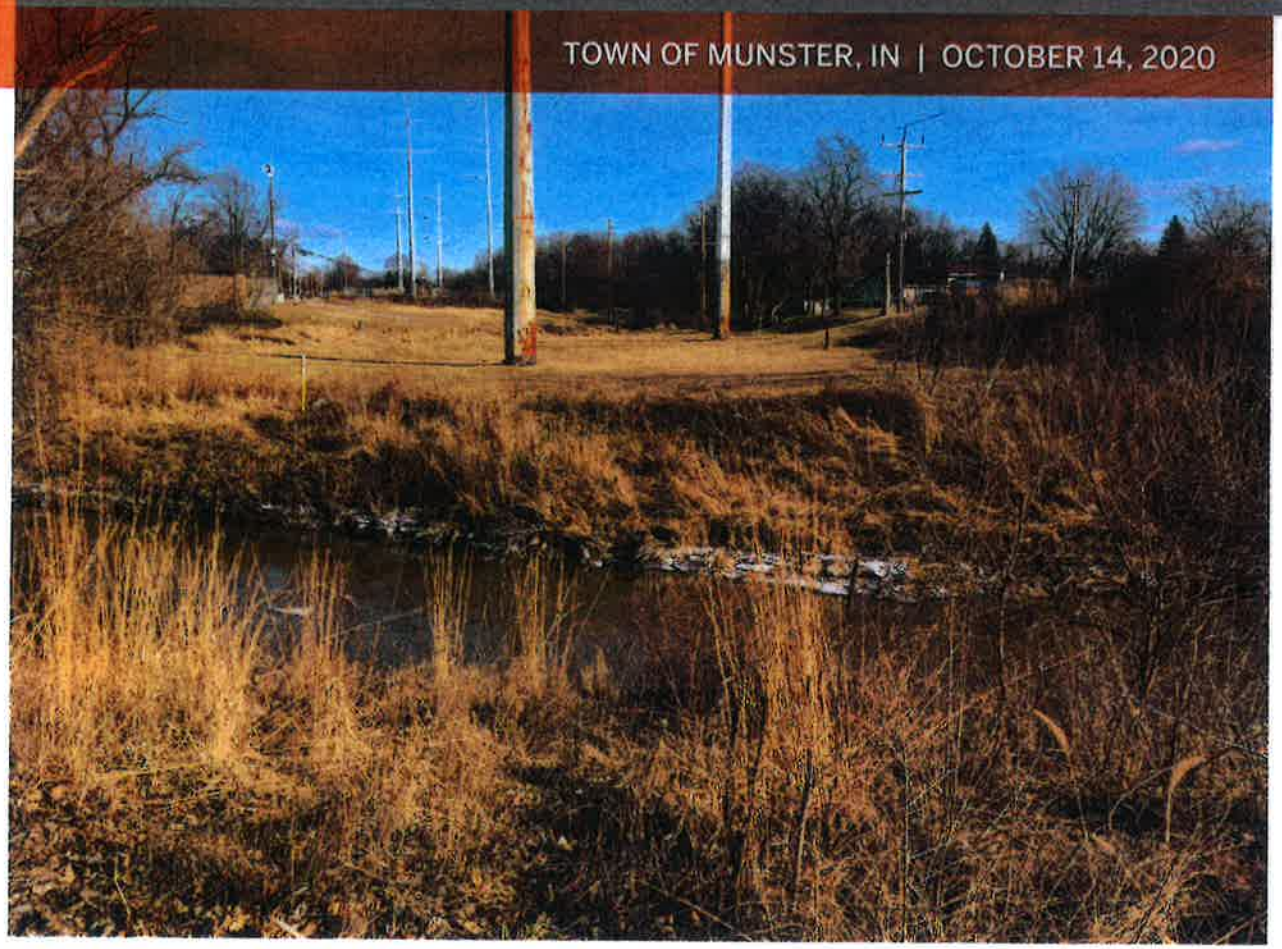
PROPOSAL FOR ENGINEERING SERVICES

Town of Munster Pedestrian Bridge over Hart Ditch and Cady Marsh Ditch

(DES # 1173597)
Laporte District

TOWN OF MUNSTER, IN | OCTOBER 14, 2020



SEH

Building a Better World
for All of Us®

Engineers | Architects | Planners | Scientists

October 14, 2020

Dustin Anderson, Town Manager
1005 Ridge Road
Munster Indiana 46321
219.836.6900
danderson@munster.org

SEH
Building a Better World for All of Us®

Re: Town of Munster, Indiana Munster Pedestrian Bridge Over Hart Ditch and Cady Marsh Ditch (Des # 1173597) in Laporte District

Dear Mr. Anderson and members of the selection committee,

The Town of Munster's Pedestrian Bridge over Hart Ditch and Cady Marsh Ditch project is a sound investment in the trail segment that will be a vital link in the non-motorized transportation system in northwest Indiana. Short Elliot Hendrickson, Inc. (SEH®) is your best choice to provide environmental documentation and design services due to our existing project knowledge, our experience with similar trail projects and the fact that three SEH team members both live and work in Munster.

THIS IS WHAT WE DO! SEH is a premier trail designer in northwest Indiana, having completed design and construction inspection services on **20+ miles of trails in this area.** Three current projects our team is working on are in Burns Harbor, Portage, and Lowell. For the Town of Munster we will apply our knowledge of the issues, challenges and steps necessary to achieve your project goals. What's more, we are very familiar with INDOT Local Public Agency (LPA) requirements and review process.

SEH CAN MEET THE ACCELERATED SCHEDULE, SAVING THE TOWN SIGNIFICANT TIME AND COSTS. Our team has completed 30% design plans. We have worked with your staff to submit the Next Level Trails (NLT) application. We have completed the topographic and utility surveys. And we've performed coordination with Indiana DNR and Northern Indiana Public Service Company (NIPSCO). We'll hit the ground running as soon as we're selected.

PERSONAL INVESTMENT IN MUNSTER. Every SEH team member is personally invested in Munster, but three SEH trail team members also call Muster home: Satya Tallamraju, Jill DiTommaso and Akhtar Zaman (AES). It's inspiring to provide new recreational and transportation options in your own community.

We're eager to help you make this project a reality. If you have questions, please contact Glenn at 219.513.2511 or gpeterson@sehinc.com.

COMPANY OVERVIEW

Founded in 1927, SEH is an employee-owned professional services company with more than 800 engineers, architects, planners and scientists located in 31 offices across nine states. Our collective purpose and body of work focused on Building a Better World for All of Us®.

The majority of the SEH trails team proposed here work out of our Munster office. We continue to provide the same high level of customer service during the COVID-19 pandemic. We have seamlessly transitioned to working virtually from home and safely in the field, following all national, state and local safety guidelines.

STATEMENT ON FIRM'S FINANCIALS

SEH has been in business since 1927 and is financially sound. The company generated more than $132 million in gross revenue in Fiscal Year 2019 (ended June 30, 2019). SEH remains in a healthy financial position.

GLENN PETERSON, PE (IN)
PROJECT MANAGER

SATYA TALLAMRAJU, PE (IN, MN)
CLIENT SERVICES MANAGER / QA/QC

Project Experience

SEH is a **premier trail designer** in northwest Indiana, having completed design services on **over 20 miles** of trail in this area. We've selected the projects on the next page to highlight our experience designing and constructing trails in different environments and in different mediums. Our capabilities include **stakeholder coordination, environmental analysis, planning and design and preparing construction plans and specifications**. Regardless of the project's scope, size or location, we design improvements that **ensure the highest level** of safety, constructibility, longevity and operational efficiencies. With over **90 years** of engineering experience, the SEH portfolio is extensive, yet our value is best represented by the **client relationships we maintain.** We truly **hope to work with the Town of Munster** on this important trail connection project.

SEH TRAIL DESIGN SERVICES ON 20+ MILES OF TRAIL

Project	Length (miles)	Status	Funding Source	SEH Role	Bridge	Boardwalk	Lighting	Wayfinding	Brick Pavers	HAWK Signal	National Parks Property/ Environmental
Whiting Marquette Greenway Trail	0.7	Constructed	RDA	Design/Inspection							
Hammond Wolf Lake Trails	5.1	Constructed	RDA	Design/Inspection		✓					
Hammond Indianapolis Boulevard Bridge	0.3	Constructed	RDA	Design/Inspection	✓						
Portage Northside Trail	1.2	Constructed	RDA	Design/Inspection		✓		✓			
Portage Marquette Trail – Ameriplex	1.5	In Design	INDOT LPA	Design/Inspection				✓			
Portage South Properties Trail	1.5	Constructed	RDA	Design/Inspection							✓
Porter Dunes Kankakee Trail – US 20 to State Park	2.0	Constructed	RDA/INDOT	Design/Inspection				✓			✓
Dunes Kankakee Trail – Calumet Spur	0.5	Constructed	RDA	Design/Inspection		✓		✓			
Calumet Trail Phase 1 – Mineral Springs to Tremont	2.2	Designed	INDOT LPA	Design	✓	✓	✓	✓	✓		
Plymouth Greenways Trail – Phase 2	0.25	Constructed	INDOT LPA	Design/Inspection	✓	✓	✓				
Hammond Wolf Lake – Calumet Avenue Pedestrian Bridge		Constructed	Local	Design	✓		✓				
Chessie Ped-Bike Trail – Phase 1	1.1	Constructed	INDOT LPA	Design				✓		✓	
Burns Harbor Marquette Trail	2.9	In Design	INDOT LPA, DNR Next Level Trails, DNR Recreational Trails Program	Design		✓					✓
Portage Marquette Trail – National Park Connection	0.78	In Design	Local/Next Level Trails	Design	✓	✓					✓

GREENWAYS TRAIL

PLYMOUTH, IN

The Plymouth Greenways Trail was designed and constructed by SEH. The trail winds through Gill Park and creates a pedestrian crossing of the Yellow River. The trail is part of the larger Plymouth Greenways Trail, which connects the City's vast park system with downtown Plymouth.

The 10-ft.-wide trail design includes asphalt trail section, concrete trail section, a precast concrete boardwalk leading up to the pedestrian bridge, and a 100 ft. steel pedestrian bridge.

Challenges SEH overcame included a very limited area to construct the trail due to properties previously acquired using FEMA funds. And the pedestrian bridge over Yellow River included river bank modifications to make sure the hydraulics worked for the area.

REFERENCE

Rick Gaul, City Engineer
publicworks@plymouthin.com
574.936.3614

WOLF LAKE PARK AND TRAILS

HAMMOND, IN

This scenic park and trail system includes a large amphitheater and sloped seating area, boat launch and fishing pier, parking lots, splash pad and playground, conservatory and naturalized areas. The extensive trail includes 6.5+ miles of asphalt paved (with ribbon curb) multi-use trail, lighted pedestrian bridge and more than 1000 ft. of boardwalk that spans across Wolf Lake adjacent to the Indiana Toll Road. The Wolf Lake Trail connects to the George Lake Trail, Whiting Lakefront Trail and Marquette Greenway Trail (which connects to the Monon Trail system via street routes). The Wolf Lake Park and Trail project received three awards:

- 2011 Engineering Excellence Honor Award | American Council of Engineering Companies of Indiana (ACEC/IN)
- 2011 National Recognition Award | American Council of Engineering Companies
- 2011 Merit Award | American Institute of Architects, Northern Indiana

REFERENCE

Milan Krusynski, Hammond Port Authority Director
kruszynskim@hammondmarina.com
219.659.7678

DUNES KANKAKEE TRAIL

PORTER COUNTY, IN

SEH designed the Dunes Kankakee Trail, a 3-mile walking and bike path that begins in the Indiana Dunes State Park and travels south to Chesterton. It connects the Calumet Trail, which is also in the state park, and the Prairie-Duneland Trail. This trail will also eventually go south to the Kankakee River and then travel west from Kouts to Hebron.

REFERENCE

Michael Barry, Director of Development
mbarry@townofporter.com
219.405.8615

CHESSIE PEDESTRIAN-BIKE TRAIL

LAPORTE, IN

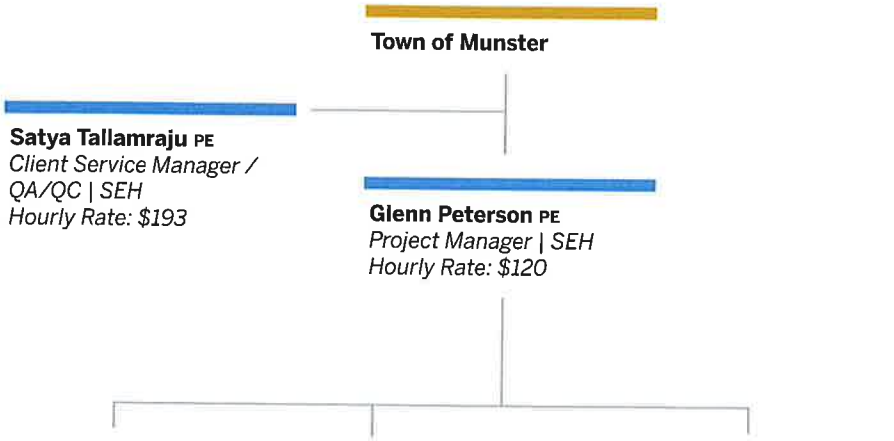
A trail offering recreation and a connection to LaPorte's parks and lakes is a mile-long stretch of multi-use path from Pine Lake to New Porte Landing. SEH designed a pedestrian hybrid beacon at Pine Avenue that allows trail users to activate a red light at the crosswalk, permitting them to safely cross the highway.

REFERENCE

Nick Minich, City Engineer
nminich@cityoflaportein.gov
219.362.2327

Project Staff

If you're seeking an experienced trail design team to work by your side and deliver excellent results, turn to the team you know. Glenn Peterson, PE and Satya Tallamraju, PE will work closely with the Town of Munster and INDOT LaPorte District to keep the project on schedule and seek out all available efficiencies. Our personal investment in this town stems from our local SEH office situated in Munster, as well as three team members who call Munster home: Satya Tallamraju, Jill DiTommaso and Akhtar Zaman (AES).



The specific licenses and credentials of the team members are described in the personnel and/or resume section of this document.

SUBCONSULTANTS

CARDNO INC.

Founded in 1945, Cardno is one of the largest full-service civil and environmental firms in the United States. Cardno has provided innovative and sustainable solutions to challenging environmental issues in the Midwest for decades.

Cardno provides a fully integrated approach to the work associated with the evaluation of site conditions. This includes a holistic review of past uses as well as proposed future actions.

To fully understand the impact of a project, Cardno reviews the big picture to ensure all considerations are being met at a project site. This includes considering regulatory permit applications or proposed authorization requests for proposed actions.

Whether it's evaluating compliance with permits, conducting compliance obligations, or ensuring the right stakeholders are being consulted, Cardno has the relationships and the project experience to keep work moving while overcoming obstacles and reducing risks and costs.

AES (ADVANCED ENGINEERING SERVICES INC.)

Advanced Engineering Services (AES) Inc., is an engineering consulting firm based in Hammond, Indiana that specializes in geotechnical engineering, construction materials testing, and inspection services. AES is a certified DBE firm with Indiana Department of Transportation (INDOT) as well as an MBE firm with IDOA.

QUALIFICATIONS

SEH | 72.5%

- 6.1 Topographical Survey Data
- 9.1 Level 1 Bridge Design

CARDNO | 13%

- 5.2 Environmental Document Preparation-CE

AES INC | 14.5%

- 7.1 Geotechnical Engineering Services

SATYA TALLAMRAJU PE

CSM / QA/QC | SEH

Satya will serve as the project QA/QC engineer and client service manager. He is a professional engineer with extensive experience in transportation planning including NEPA-compliant environmental documentation and public involvement. He is currently managing the design of 2.5 mile segment of the Marquette Greenway Trail in the Town of Burns Harbor.

26
YEARS OF EXPERIENCE

EXPERIENCE

- Hessville Kennedy Avenue (Hammond Board of Public Works & Safety) – Hammond, IN
- Wolf Lake Pedestrian Bridge, Multi-Use Trail and Site Improvements (Beam Longest and Neff LLC) – Hammond, IN
- Marquette Greenway Trail (Town of Burns Harbor Redevelopment Commission) – Burns Harbor, IN
- Washington Park Entry/Roundabout – City of Michigan City, IN
- Hessville Park Improvement – City of Hammond, IN

EDUCATION

Master of Science
Civil Engineering
Texas A&M University-College Station

Bachelor of Science
Civil Engineering
Osmania University-India

CERTIFICATIONS

Professional Engineer in IN and MN

GLENN PETERSON PE

PROJECT MANAGER | SEH

Glenn will serve as the project manager and lead the design team for this project. He will be responsible for ensuring that the Town of Munster's vision is translated into a reality. Glenn has more than seven years of experience with SEH and has worked as a designer and construction inspector on a number of INDOT LPA projects. Glenn's experience with trails includes pedestrian bridges, boardwalks, work within utility and railroad corridors and coordination with the National Parks Service.

7
YEARS OF EXPERIENCE

EXPERIENCE

- Greenways Trail, Phase II – City of Plymouth, IN
- Dunes Kankakee Trail – Towns of Chesterton and Porter, IN
- Calumet Trail – Porter County, IN
- La Porte's Chessie Bike-Ped Trail City of La Porte, IN
- Portage Northside Business Park Trail – City of Portage, IN
- Portage Marquette Trail through Ameriplex – City of Portage, IN
- Burns Harbor Marquette Greenway Trail (Town of Burns Harbor Redevelopment Commission) – Burns Harbor, IN

Note: All of the above projects are Multi-Use pedestrian trails that have been designed through the INDOT LPA system.

EDUCATION

Bachelor of Science
Civil Engineering (Minor: Land Surveying)
Purdue University, West Lafayette, IN

CERTIFICATIONS

Professional Engineer in IN
Certified in Materials Testing, INDOT

"The Town of Burns Harbor entrusted the development of Marquette Greenway to SEH because of their regional trail construction expertise, full connectivity approach and stakeholder coordination capability. Our 3-mile trail project engages entities from the federal to local level as well as private industry, major utilities and residential property owners. **Throughout the design and engineering process, Glenn Peterson has demonstrated the ability to effectively communicate, manage and creatively resolve complex issues in a cost-efficient manner."**

– Eric Hull, President, Burns Harbor Redevelopment Commission

JILL DITOMMASO PE

PROJECT ENGINEER | SEH

Jill will serve as the project engineer responsible for utility coordination, permitting and client coordination. Jill will use her experience as the Town Engineer to ensure that the Town's vision for this project is achieved. She understands the issues and challenges, having lead the efforts for the NLT grant application. Jill is a professional engineer with experience in a wide range of municipal engineering projects including roadway construction, water and wastewater design, storm water design, preparation of contract documents and cost estimates, bidding and construction support, and inspection.

EXPERIENCE

- Lakeshore Drive Pedestrian Trail (City of La Porte) – La Porte, IN
- Greenways Trail, Phase II (City of Plymouth) – Plymouth, IN
- Burns Harbor Marquette Greenway Trail (Town of Burns Harbor Redevelopment Commission) – Burns Harbor, IN
- Portage Greenway Trail Extension (Portage Redevelopment Commission) – Portage, IN
- 2020 Street Improvements (Town of Munster) – Munster, IN
- 2019 General Services (Town of Munster) – Munster, IN

EDUCATION

Bachelor of Science
Civil Engineering
State University of New York at Buffalo

Master of Science
Environmental Engineering
State University of New York at Buffalo

CERTIFICATIONS

Professional Engineer in IN and IL

Certified Utility Coordinator, INDOT

Certified Storm Water Management, INDOT

MIKE DUPONT PE

STRUCTURAL ENGINEER | SEH

Michael will serve as the structural engineer responsible for the design of any stream crossings, pedestrian bridges and retaining walls. Michael is a project manager/ engineer with civil engineering experience working with structural, site and bridge design, transit and transportation projects including design-build. Michael's skills include structural design software specific to bridge design (CON/SPAN and PSBeam), general structural analysis software (RISA 3D), as well as custom-developed Microsoft Excel spreadsheets used to assist in the design of bridges and bridge components. He is also highly proficient in AutoCAD Civil 3D and MicroStation V8i.

EXPERIENCE

- Greenways Trail, Phase II (City of Plymouth) – Plymouth, IN
- Bridge 150 over East Arm Little Calumet River (Porter County) – Porter County, IN
- Hessville Park Improvement Project (City of Hammond Parks and Recreation) – Hammond, IN
- Wolf Lake Pedestrian Bridge, Multi-Use Trail and Site Improvements (Beam Longest and Neff LLC) – Hammond, IN
- Bridge #62 over Kankakee River (Porter County) – Porter County, IN
- 140th Street Pedestrian Overpass (Dakota County) – Apple Valley, MN
- Nine Mile Creek Regional Trail Project (Three Rivers Park District) – Edina, MN
- Mississippi River Regional Trail, Spring Lake Park Reserve Trail Project Memorandum (Dakota County) – Hastings, MN

EDUCATION

Bachelor of Science,
Civil Engineering
University of Minnesota
Minneapolis

CERTIFICATIONS

Professional Engineer IN and MN

RACHEL PICHELMANN

PE, CFM

HYDRAULIC DESIGN LEAD | SEH

Rachel will be responsible for sizing stream crossings and culverts and ensuring proper drainage for the trail. Rachel is a professional engineer and certified floodplain manager with experience in hydraulic and hydrologic analysis and watershed modeling. Rachel has prepared detailed plans and specifications as well as project cost estimates. Her project experience includes hydrologic and hydraulic modeling studies, flood risk management plans, dam failure assessments, hydraulic designs for bridge, culvert and dam projects, sanitary flow data compilation, drainage design for rural and urban projects, design of specialized hydraulic structures and preparation of construction plans and specifications.

EXPERIENCE

- Greenways Trail, Phase II – City of Plymouth, IN
- Burns Harbor Marquette Greenway Trail (Town of Burns Harbor Redevelopment Commission) – Burns Harbor, IN
- Central Park North Campus Master Plan (Carmel Clay Parks and Recreation) – Carmel, IN

EDUCATION

Bachelor of Science
Civil Engineering
Iowa State University

CERTIFICATIONS

Professional Engineer in IN, IA, MN and SD

Certified floodplain Manager, Association of State Floodplain Managers, Inc.

JASON SPAIN PLS

PROJECT DESIGN LEAD | SEH

As lead project designer, Jason will be responsible for setting the alignment and profile for the trail and leading the plan production. Jason is a project design leader and registered land surveyor with an array of experience that includes design, development and management of municipal, recreational and commercial projects. Jason's experience includes the management, design and construction of various projects including parks, subdivisions, trails, roadway construction, sewer systems and water mains. As the project manager and project design leader with SEH, he has designed and/or constructed numerous park and trail projects

EXPERIENCE

- Freedom Trail (Town of Lowell) – Lowell, IN
- Hessville Park Improvement Project – City of Hammond
- Wolf Lake Pedestrian Bridge, Multi-Use Trail and Site Improvements (Beam Longest and Neff LLC) – Hammond, IN
- Dunes Kankakee Trail – Towns of Chesterton and Porter, IN
- Hammond Lakes Area Marquette Projects (Hammond Port Authority) – Hammond, IN
- George Lake Trail Pedestrian Bridge (Hammond Port Authority) – Hammond, IN

EDUCATION

Bachelor of Science
Construction Civil Technology
Purdue University

CERTIFICATIONS

Professional Surveyor in IN

GREG QUARTUCCI

ENVIRONMENTAL LEAD | CARDNO

Greg will be responsible for completing the necessary work for the project's environmental assessment.

Greg manages wetland permitting, linear corridor, transportation and wetland delineation projects in northern Indiana. His knowledge of the intricate state and federal regulations coupled with his relationship with permitting agencies has led to many successful permitting projects. For many wetland permitting projects, Greg has designed on- and off-site enhancement for mitigation lowering costs and eliminating permitting delays. In addition, he has written National Environmental Policy Act (NEPA) documentation such as environmental impact statements and categorical exclusions for transportation projects, and has conducted Federal Energy Regulatory Commission (FERC) permitting.

His project experience includes: Marquette Park Lakefront East Master Plan, Lake County, IN; Oxford Recreational Trail Crossing at Four Mile Creek, Butler County, OH; and Pheasant Branch Conservancy Marina Court Trail, Middleton, WI

AKHTAR ZAMAN PE

GEOTECHNICAL LEAD | AES SERVICES, INC.

Akhtar will be responsible for overall supervision of field and laboratory testing, design analysis and development of geotechnical design parameters for the proposed pedestrian bridges.

Akhtar is a Principal Engineer and a registered Professional Engineer (PE) with more than 25 years of experience in the fields of geotechnical engineering and construction materials testing. He completed geotechnical engineering services for numerous pedestrian bridges in northwest Indiana, including Little Calumet River Trail in Hammond over Little Calumet River, Stone Lake Trail, Marquette Greenway Trail in Burns Harbor, Wolf Lake Trail and Pennsy Greenway Trail in Schererville.

His project experience includes: Proposed three-span pedestrian bridge on the Little Calumet River Trail over Calumet Avenue in Hammond; Stone Lake Trail and Bridge, La Porte; Marquette Greenway Trail and Bridges in Burns Harbor; Pennsy Greenway Trail and Bridge in Schererville.

Work Plan

PROJECT UNDERSTANDING

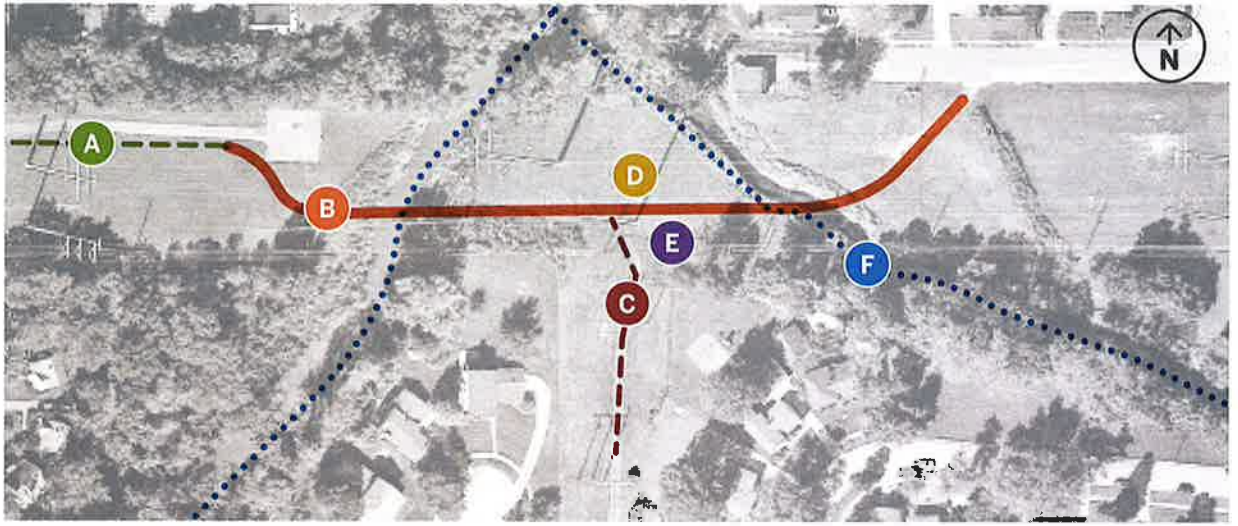
Site of first steel pedestrian bridge: looking east from west bank of Hart Ditch.

Having worked on the initial trail alignment, the SEH team is thoroughly aware of the background and importance of this project. The project includes approximately 2,000 linear feet (0.38 miles) of multi-use trail that will connect into the existing Fisher Street NIPSCO Corridor trail on the west side, and it will ultimately connect the Pennsy Greenway and Monon Trail in Munster to the Erie Lackawanna Trail in Highland. The Town of Highland is in the planning phase to have a more established bike route from the east end of the trail to the existing Erie Lackawanna/ Cross Town Trail. Once the Highland connection to Erie Lackawanna is complete, this trail would continuously link the Town of Munster, Town of Highland, City of Hammond, Town of Griffith and the City of Crown Point. While not directly a part of the regional comprehensive plan, this trail section would connect two major sections of the existing NIRPC trail system.

Site of second pedestrian bridge: looking east from west bank of Cady Marsh Ditch.

ISSUES MAP

The SEH team has performed extensive work on this project and is thoroughly aware of the issues and challenges. We have coordinated with the utilities and regulatory agencies. We know what needs to be done to take this project to construction.



- **A** Connect to exisitng trail
- **B** The entire trail is located within the NIPSCO right-of-way. SEH secured a Letter of Intent from NIPSCO agreeing to construction of the bridges.
- **C** Future trail

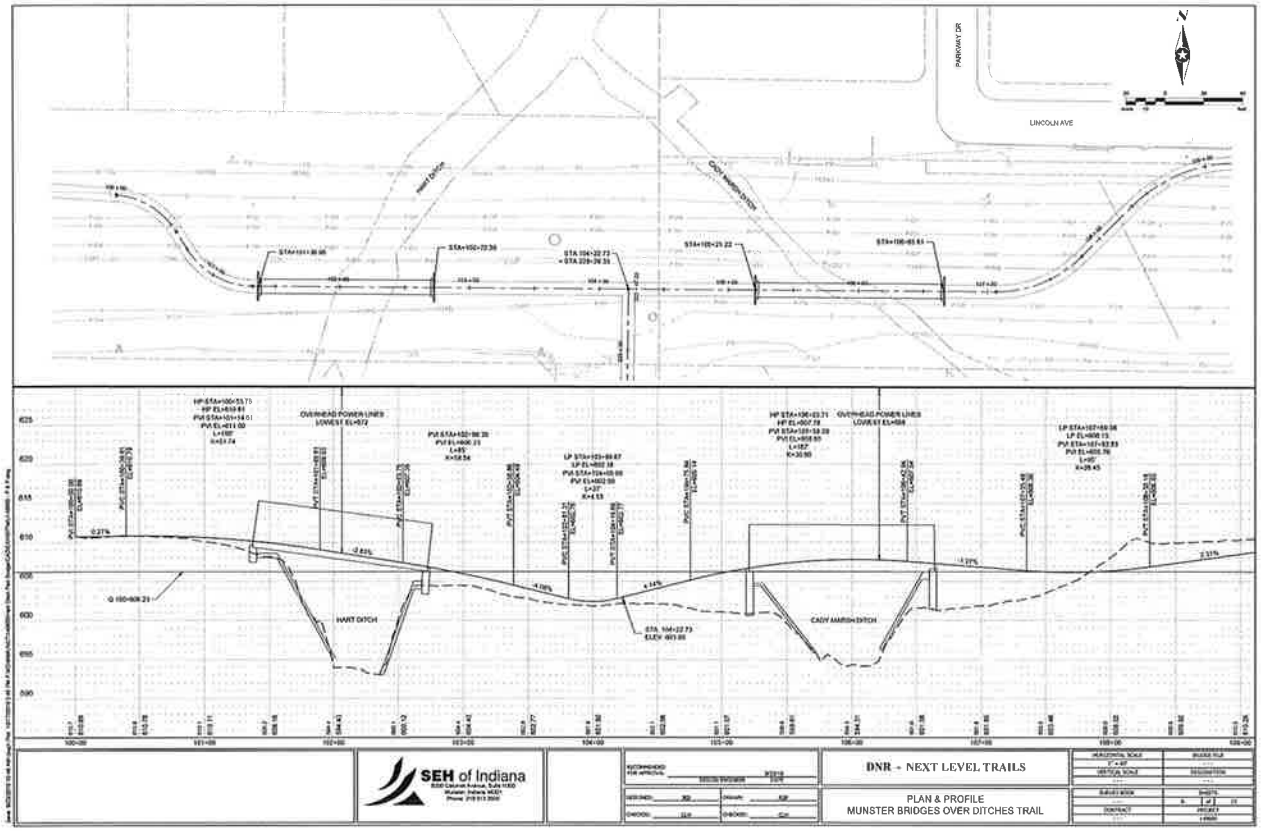
Boardwalk will likely be required between the two bridges due to existing elevations. The design will include a set down point to provide future connection to a southern leg.

Signifcant underground and overhead utilities will influence the design and placement of the bridges. SEH has completed topographical survey, including ground penetrating radar, in the area to determine the location and depth of utilities.

Two crossings of the FEMA floodplain and regulatory floodway will require hydraulic modeling and permitting.

PEDESTRIAN BRIDGE PLAN SHEET WITH UTILITIES

SEH has done all the groundwork for the project and is ready to submit the Stage 1 design plans. We have completed the topographic survey and performed extensive utility investigations.



PROJECT APPROACH

SEH has **extensive history** on the Munster Pedestrian Bridge project. We have worked on this project as part of the NLT application process and are very familiar with the work that has been completed and the work that remains to be done to take the project to construction. We have completed topographic survey work and the utility survey, and have coordinated with Indiana Department of Natural Resources (IDNR) and NIPSCO. SEH also secured the Letter of Intent from NIPSCO for the construction of the two (2) bridges. Also, we have completed 30% design plans for the project. Because of this prior work done on the project by SEH, we are uniquely positioned to meet the **accelerated schedule** and will save the Town of Munster significant time and costs. The SEH team will commit to submitting the Stage 1 Design Plans within two weeks of the INDOT scoping meeting.

Our team has the required background, knowledge and experience, having completed numerous trail projects throughout northern Indiana. Our team routinely delivers projects through the INDOT LPA program. We are currently working on three (3) regionally significant trail projects (in Burns Harbor, Portage and Lowell) and we understand the issues, challenges and steps necessary to achieve the project goals. Our team has a vested interest in the success of this project. We will have three (3) Munster residents working on the project. Teaming with us on this project are local firms Cardno and AES. Cardno will assist on the environmental documentation services. Cardno has provided environmental documentation services on numerous INDOT LPA projects. This teaming will help in expediting the project through the environmental documentation review process and will also facilitate effective coordination with NIPSCO and other utilities. AES, a certified DBE and MBE, will serve as the project's geotechnical engineer.

OVERVIEW OF INDOT PROJECT SUBMITTAL REQUIREMENTS

SEH will prepare the following documentation and submittals including facilitation of meetings related to submittals, all in accordance with the requirements of the most recent version of the Indiana Design Manual.

- Preparing the Stage 1 Plan Submittal
- Scheduling and attending a PRELIMINARY Field Check
- Scheduling and conducting a FINAL Field Check
- Preparing Stage 3 Plan Submittal, including:
  - Preparation of Project permits and permit documentation, if required
  - Preparation of signage and lighting, including a proprietary material request submittal
  - Preparation of FINAL Tracings
  - Coordination with the Town and INDOT

TASK 1. ENVIRONMENTAL DOCUMENTATION

Because of our prior design work for the project, the SEH team can get the Stage 1 design plans completed within two (2) weeks after the INDOT scoping meeting. This will help significantly reduce the amount of time and cost that will be spent getting the environmental documentation approved. The environmental documentation will be completed in general accordance with INDOT's 2008 Procedural Manual for Preparing Environmental Documents and the Categorical Exclusion (CE) Preparation Manual (July 2013). The SEH team anticipates that this trail project would meet the thresholds for a Categorical Exclusion 1. The project will require the preparation of a Red Flag Investigation (RFI) in the early planning stages of the project to identify any environmental concerns.

The RFI will be completed in general accordance with INDOT – Hazardous Materials Unit Operating Manual and current guidelines. We will clearly define the description of the project, purpose and need, and alternatives considered in the analysis. We will identify the proposed project impacts on the natural and human environment based on information gathered from the RFI, early agency coordination and additional resource studies, including cultural and ecological resources. A preliminary review of the project area resulted in the following environmental resources within the project area:

- Infrastructure: The project route goes through Brantwood Park, a publicly owned park. Coordination with Highland Parks and Recreation may be required. There are several pipelines that cross the project corridor. Coordination with utilities will be required.
- Water Resources: The project crosses Hart Ditch and Cady March Ditch and the associated floodplains. Both waterways are also listed as impaired on the state 303(d) list. A Waters of the U.S. Report will be prepared. Coordination with the Local Floodplain Administrator and IDNR may be required. Work within jurisdictional waters will require Clean Water Act (CWA) Section 404/401 permitting. Work within the regulated floodway may require a Construction in a Floodway (CIF) permit.
- Threatened and Endangered Species: The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."
- Cultural Resources: It is anticipated that the project will qualify as a Category B Minor Project under the Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), INDOT, the Advisory Council on Historic Preservation (ACHP) and the Indiana State Historic Preservation Officer (SHPO) regarding the implementation of the Federal Aid Highway Program in the State of Indiana. Coordination with the INDOT cultural resources officer will be required. If the project

PROPOSED PROJECT TIMELINE

ACTIVITY	START	END	NOTES
Tentative Contract Approval	10/19/2020		
Project Scoping & Kickoff Meeting	10/28/2020		Required by NIRPC and INDOT
NEPA Document Preparation	10/29/2020	1/27/2021	Assumes 30 days for early coordination, 30 days for document prep, 30 days for INDOT review
Stage 1 Design Submittal	10/29/2020	11/12/2020	
INDOT Stage 1 Review	11/12/2020	12/12/2020	
Preliminary Field Check	12/18/2020		
Geotechnical Investigation	12/21/2020	1/11/2021	
Stage 3 Design Submittal	12/12/2020	2/19/2021	
Right-of-Way Clear Due	2/19/2021		
Final Tracings Submittal	2/19/2021	4/5/2021	When Stage 3 Submittal is complete, required documents for final tracings submittal will begin to be prepared
Ready for Contracts Date	5/5/2021		All documents must be ready by this date.
Contract Letting	7/14/2021		

requires the acquisition of new (temporary or permanent) right-of-way or if there is new ground disturbance in previously undisturbed soils, a Phase I archaeological investigation may also be required. Cardno is prequalified under INDOT Category 5.9 for archaeological investigations, should this be necessary.

TASK 2. ENGINEERING DESIGN

a) Abbreviated Engineer's Assessment Report:
SEH will prepare an Abbreviated Engineer's Assessment Report documenting the analysis of bridge alternatives and suggesting the preferred alternative recommendation. Each concept design alternative will be developed to a sufficient degree to allow the selection of a preferred alternative. For each alternative, SEH will compare right-of-way and environmental impacts, the preliminary cost estimate(s), potential environmental concerns and issues, and anticipated permit needs.

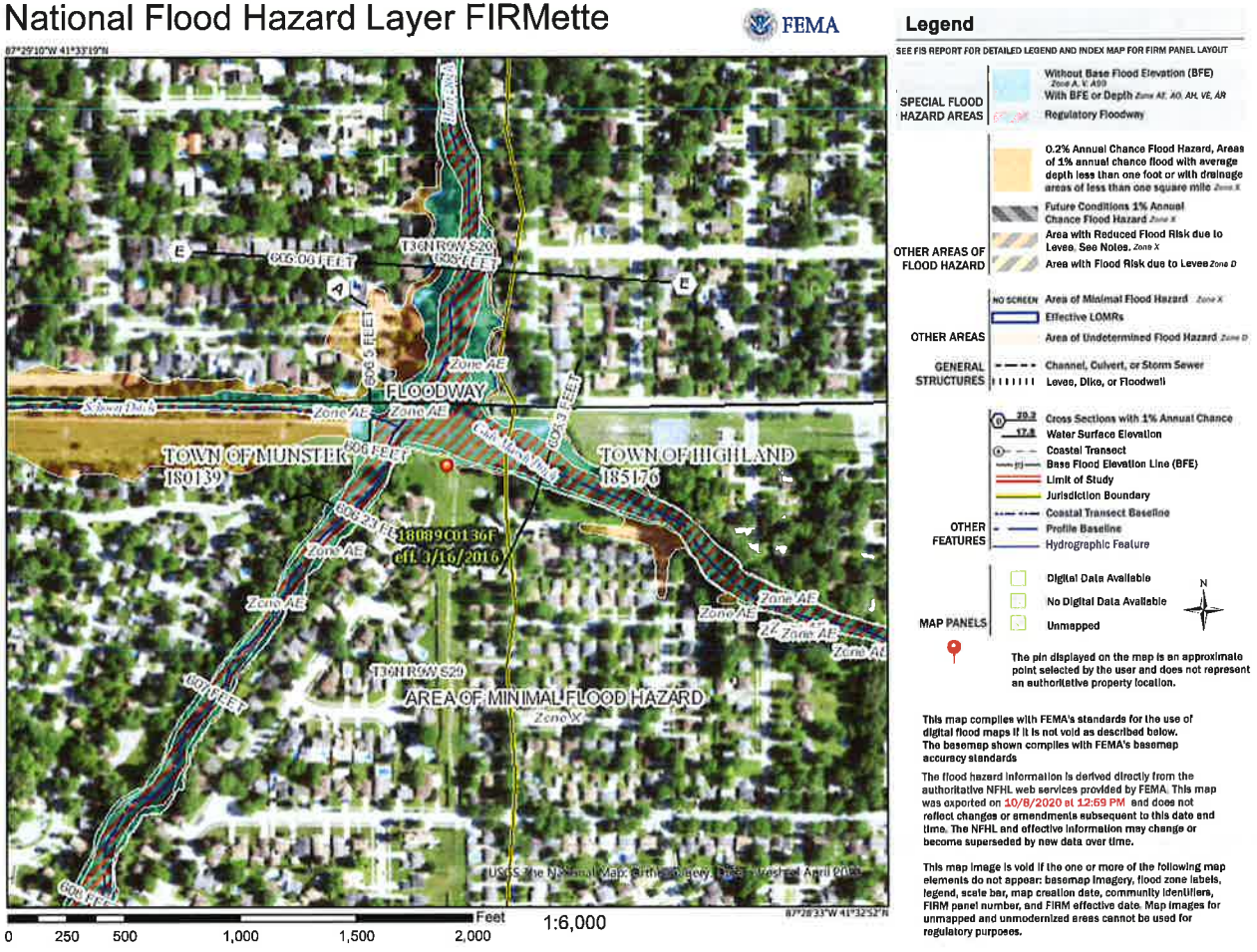
b) Floodplain Specific Survey and Data Collection:
As part of the work for the NLT application, SEH team has completed most of the topographic survey needed for the project. We will perform floodplain-specific survey as needed to facilitate hydraulic modeling of the ditches and analysis.

c) Bridge Hydraulics:
The proposed trail alignment includes two crossings of Federal Emergency Management Agency (FEMA)-designated floodplain: one at Hart Ditch and one at Cady Marsh Ditch. In each instance, the FEMA floodplain includes a portion designated as Regulatory Floodway. Because of this, a permit for "Construction in a Floodway" will be needed from IDNR for each crossing, and hydraulic modeling will likely be required to support these applications.

Based on preliminary drawings prepared by SEH to support the NLT funding application for this trail construction project, it is anticipated that the proposed bridge over Hart Ditch may span the FEMA Regulatory Floodway, and limited fill within the floodplain will be needed at that bridge. For the proposed bridge over Cady Marsh Ditch, the preliminary drawings show significant fill within the Regulatory Floodway and/or surrounding floodplain. The proposed trail between the two bridges also requires significant fill, and may be within the Regulatory Floodway. As SEH works through the final design of the trail and bridges, opportunities to minimize fill within the Regulatory Floodway will be explored. However, it is expected that a "Construction in a Floodway" permit will be needed for each new bridge, and that hydraulic modeling will be needed for design and permitting.

To evaluate the potential impacts associated with the proposed trail and bridges within the FEMA Regulatory Floodway, SEH will conduct hydraulic modeling of Hart Ditch and Cady Marsh Ditch. SEH will utilize the existing hydraulic models for each of these streams that are available from the DNR, but will incorporate new data as needed to improve the accuracy of

National Flood Hazard Layer FIRMette



the analysis. Additionally, Schoon Ditch is a FEMA Regulatory Floodway that joins with Hart Ditch just downstream from the proposed bridge location. It is not expected that the floodway or BFE of Schoon Ditch will be impacted; however, potential impacts on this due to fill or grading may also need to be considered. Since the proposed trail and bridges are near the confluence of Hart Ditch and Cady Marsh Ditch, SEH is recommending that special considerations be given to this potentially complex flow area. SEH will coordinate with IDNR to establish the necessary modeling assumptions to ensure that the hydraulic modeling is conducted such that it is consistent with DNR standards. While a rise of 0.14 ft. in flood elevations due to the project is permittable through IDNR, SEH will attempt to minimize any increases in flood elevations to minimize risk to upstream properties. SEH assumes that a Letter of Map Revision (LOMR) will not be needed, and is therefore not included in the fee estimate.

SEH will prepare Construction in a Floodway permit applications for each crossing. SEH assumes that two separate permit applications will be needed (one for each waterway), but early coordination with IDNR will be conducted to determine whether they can be combined into a single application. As part of the permit application to IDNR for the proposed work within the Regulatory Floodway, SEH will prepare a hydraulic report to summarize the hydraulic analysis, consistent with the documentation required by IDNR.

d) Structural Analysis:
There are two pedestrian bridges spanning the Hart ditch and the Cady March Ditch with corresponding span lengths of approximately 132 ft. and 144 ft. The pedestrian bridges would be designed and pre-manufactured offsite by a variety of designers (e.g., Contech or Wheeler) and field spliced prior to being lifted into place.

SEH will provide the following:

- A performance specification and coordination with the selected manufacturer for the pedestrian bridges. SEH will review the design calculations provided by the manufacturer.
- Coordination with the a geotechnical engineer to select the optimum abutments support (e.g., micropiles, piles or spread footings) for existing soil conditions.

SEH will provide design calculations and plan preparation for the four abutments supporting the pedestrian bridges. We anticipate a single "worst-case" design will be applied to all of the abutments to facilitate ease of construction.

e) Right-of-Way Acquisition Services:
As the entire project will be constructed within NIPSCO corridor, right-of-way acquisition services are not anticipated. SEH secured a Letter of Intent from NIPSCO agreeing to the construction of the bridges. Should the need arise for right-of-way acquisition services, SEH has a local team of INDOT-prequalified subconsultants prepared to assist us with these services.

QUALITY ASSURANCE

SEH has a formal Quality Management Plan (QMP) that incorporates the company's standards for developing quality documents and, ultimately, quality projects for our clients. It includes review guidelines, document control procedures, records retention and other issues. The QMP is customized to meet specific client requirements, and once adopted by all parties, will serve as the Design Quality Management Plan (DQMP) governing all work performed by SEH and our subconsultants. The SEH QMP is based on our experience and industry best practices. As part of the QMP, a comprehensive plan review is done to not only identify design issues but also to identify creative and innovative time and cost saving recommendations that benefit and add value to the project and ultimately, the Town.

In addition to design reviews, we perform constructability reviews. In a constructability review we focus on constructability, access, maintenance of traffic safety, construction staging/phasing, potential utility conflicts, items that can be eliminated or reduced in quantity, alternative materials and techniques to bring added value to you. SEH's focus on these issues will occur throughout our involvement with the project and assist in the containment and potential reduction of construction cost.

TASKS AND COST BREAKDOWN

TASK DESCRIPTION	COST
Environmental Documentation, Coordination and Permitting	$18,000
Floodplain Survey	$8,200
Stage 1 Design Submittal	$15,000
Hydraulics Submittal	$36,200
Geotechnical Engineering	$20,300
Structural Design	$10,200
Stage 3 Design Submittal	$26,800
Final Tracing Submittal and Bidding	$5,800
Total Fee	**$140,500**

Affirmative Action Certification Form

(Rev. 06/27/18)

Des. #: 1173597

Affirmative Action Certification (AAC) for Disadvantaged Business Enterprises (DBE)

I hereby certify that my company intends to affirmatively seek out and consider Disadvantaged Business Enterprises (DBEs) certified by the State of Indiana's DBE Program and the Kentucky Transportation Cabinet (KYTC) DBE Program to participate as part of this proposal. An Agreement between INDOT and KYTC established reciprocal acceptance of certification of DBE firms in their respective states under the Unified Certification Program (UCP) pursuant to 49 CFR §26.81(e) and (f).

I acknowledge that this certification is to be made an integral part of this proposal. I understand and agree that the submission of a blank certification may cause the proposal to be rejected. I certify that I have consulted the following DBE websites to confirm that the firms listed below are currently certified DBEs:

INDOT: https://entapps.indot.in.gov/DBELocator/
KYTC: https://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-DBE-Directory.aspx

I certify that I have contacted the certified DBE's listed below, and if my company becomes the CONSULTANT, these DBEs have tentatively agreed to perform the services as indicated. I understand that neither my company nor I will be penalized for DBE utilization that exceeds the goal. After contract award, any change to the firms listed in this Affirmative Action Certification to be applied toward the DBE goal must have prior approval by INDOT's Economic Opportunity Division.

I. DBE Subconsultants to be applied toward DBE goal for the RFP item:

Certified DBE Name	Service Planned	Estimated Percentage to be Paid*
		%
		%
		%
		%

II. DBE Subconsultants to be utilized beyond the advertised DBE goal for the RFP item:

Certified DBE Name	Service Planned	Estimated Percentage to be Paid*
AES Services, Inc	7.1 Geotechnical Engineering Services	14.5 %
		%
		%
		%

Estimated Total Percentage Credited toward DBE Goal: 0%

Estimated Percentage of Voluntary DBE Work Anticipated over DBE Goal: 14.5%

Company Name: Short Elliott Hendrickson Inc.

Signature: _____ **Date:** 10/14/2020

* It is understood that these individual firm percentages are estimates only and that percentages paid may be greater or less as a result of negotiation of contract scope of work. My firm will use good faith efforts to meet the overall DBE goal through the use of these or other certified and approved DBE firms.

DBE Certificate

Indiana DBE Certification Program

In accordance with 49 CFR Part 26 as published in the code of federal regulations, the Indiana Department of Transportation acknowledges

Advanced Engineering Services

as a certfied DBE in the State of Indiana.

Date Issued:06/02/2014

No Change Affidavit Due:09/30/2021

E Crawford

Elizabeth Kiefner Crawford, Director
Economic Opportunity Division

Derrick Casson

Derrick Casson, Certification Manager
Economic Opportunity Division

(Reference the Indiana Department of Transportation's DBE Public Search at http://www.in.gov/2674.htm for the most current information regarding this certification)

www.in.gov/indot

Building a Better World for All of Us®

Sustainable buildings, sound infrastructure, safe transportation systems, clean water, renewable energy and a balanced environment. Building a Better World for All of Us communicates a company-wide commitment to act in the best interests of our clients and the world around us.

We're confident in our ability to balance these requirements.

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