PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES

2025 Reclamation and Overlay Project

NORTHFIELD, MINNESOTA | REVISED MARCH 13, 2024

SEH

Building a Better World for All of Us®

Engineers | Architects | Planners | Scientists

February 29, 2024

Sean Simonson
City of Northfield
Sean.Simonson@northfieldmn.gov

Re: 2025 Reclamation and Overlay Project

Dear Mr. Simonson:

The City of Northfield is planning for the 2025 Reclamation and Overlay Project as part of your annual street maintenance program. This continues your commitment to extend the useful life of your streets and provide safe travel for all users. The City will see successful outcomes on this project by working with a trusted professional engineering partner to collaborate and lead these improvements from start to finish.

Short Elliott Hendrickson Inc. (SEH®) is invested in the continued upgrades in Northfield to meet the high standards you have set for your community. We have assembled an experienced team to deliver efficient, cost-effective service for the City and your stakeholders. Our commitment to delivering a successful project is built on the following key considerations:

Project outcomes that meet Northfield's long-term needs. A successful reclamation and overlay project will implement the identified improvements while providing long-term benefits in terms of mobility, durability, and future maintenance. Additionally, SEH will work with you to leverage the opportunity to enhance multimodal connectivity and safety in the community. With our experience delivering projects with similar goals and priorities, we will balance these issues to provide solutions that meet the City's needs.

Clear communication and project management. Our approach will be built on our previous experience with the City on a number of projects, including the 2022 Mill and Overlay and 2023 Reclamation and Overlay projects. Project Manager William Bauer and the rest of our team offer strong working relationships and cohesiveness with your staff. With City staff taking the lead on the feasibility study and the design of the mill and overlay, consistent communication will be critical in limiting potential rework for the City and SEH.

Cost-effective and efficient results. As we have on previous Northfield projects, our team will focus on accessibility, cost-effectiveness, and constructability. We will establish a plan and identify milestones to meet your budget and schedule. Our team members offer the capacity and expertise to meet this project's technical and documentation demands, and we will identify efficiencies for the cost and timeline wherever possible.

We have introduced our team and our approach in this proposal, and we look forward to the opportunity to discuss this project with you further. Please don't hesitate to contact me at 952.912.2629 or wbauer@sehinc.com if you have any questions or would like additional information.

SEH
Building a Better World for All of Us®

"We look forward to continuing our successful partnership with Northfield. We're ready to get to work!"

WILLIAM BAUER PE (MN), ENV SP

CONTENTS

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

NFIEL 176999

Project Understanding/Goals/Objectives

GOALS

✓ **Extend the service life of all streets** by 15 years within mill and overlay areas and by 25 years in pavement reclamation areas, with spot repair of curb and gutter, driveway aprons, and sidewalks throughout the project area.

✓ **Improve pedestrian and bicycle connectivity and safety** through the addition of sidewalks, trails, bikeways, and pedestrian crossings, as recommended by the Pedestrian and Bikeway Analyzation plan and Complete Streets Policy.

✓ **Develop intersection design plans** for all intersections, including upgrading in-place pedestrian facilities to meet Americans with Disabilities Act (ADA) standards.

✓ **Analyze cross section alternatives** and provide a recommendation for Washington Street bikeway.

✓ **Evaluate trees** within the right-of-way to provide condition and recommendations for removing or saving trees within the project area.

✓ **Coordinate and collaborate** to deliver a cohesive set of construction documents partially designed by City staff and partially designed by the consultant.

EARLY ISSUES IDENTIFICATION

Our approach to the project starts with early issue identification. Our previous experience demonstrates that early identification is key to timely resolution of challenges and issues that can impact the successful completion of a project. We believe these challenges can be resolved through the course of the design process, coordination with private utility companies, neighborhood open houses, and construction management.

The first step will be to meet with City staff to determine the areas of highest concern within the project areas. **A few areas that we think will need immediate attention include the following:**

PRIVATE UTILITY COORDINATION

We will take a proactive approach to identifying potential private utility issues early in the process to mitigate impacts to the overall project schedule. During development of the 2022 NW Area Mill and Overlay and 2023 Reclamation and Overlay projects, **William Bauer** worked with many of the same private utility companies expected to be present within the project area. He will leverage those relationships to ensure private utility relocations do not cause construction delays. Depending on the recommended cross section, there appear to be a few private utilities along Washington Street that may require relocation.

Existing view of southern end of Washington Street.

WASHINGTON STREET IMPROVEMENTS

The City is proposing to change the cross section of this roadway to introduce a new off-street shared use trail. At the southern end, the trail will extend through private property to connect to an existing trail. SEH will begin working in this area immediately, as the City might want to engage with property owners early in the process. SEH will be ready to assist with these conversations.

Existing intersection of Washington Street and Ames Street.

A **CHALLENGE:** Greenhouse near future trail; many trees in right-of-way along corridor.

B **CHALLENGE:** Steep driveway without a flat landing at the top or bottom.

C **CHALLENGE:** Picket fence in the right-of-way.

D **CHALLENGE:** No storm sewer south of Ames, all run-off goes to private property.

OPPORTUNITIES:

A B C SEH will develop bikeway design alternatives to limit private property impacts. We'll also review issue D with City staff to brainstorm potential solutions.

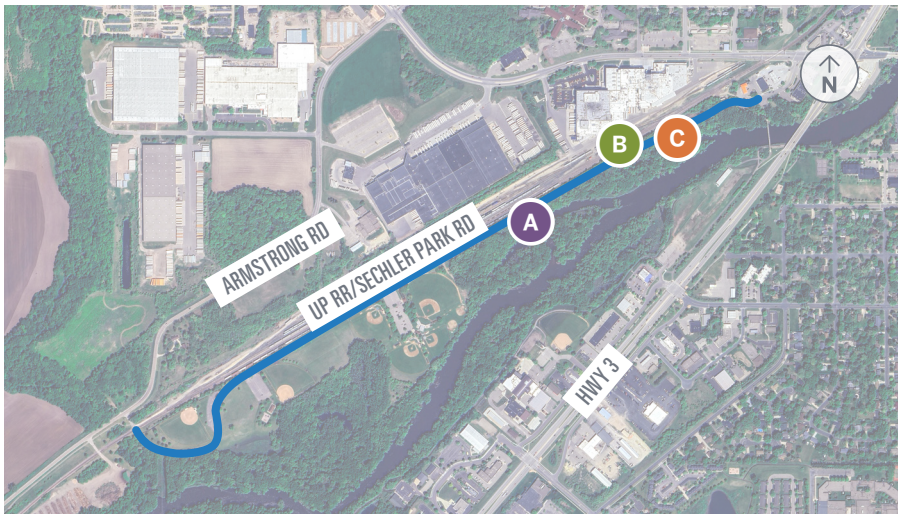
SECHLER PARK ROAD TRAIL

The existing trail appears to be narrow, approximately 6 ft. wide and runs in and out of the Union Pacific Railroad right-of-way. Should the DNR funding become available, SEH sees these main challenges:

- **Potential for widening:** Most bike trails are a minimum of 8 ft. wide. If the City wishes to widen the trail, there may be wetland and floodplain impacts.
- **Railroad right-of way:** Whether or not the trail is replaced in the same width and location, there are likely existing railroad agreements that will need to be reviewed. As soon as the City indicates that DNR funding has been awarded and the project is set to move forward, SEH will immediately get to work on understanding any environmental concerns and railroad issues. Wetland delineation services and floodplain modeling are value added services not included in this base proposal.

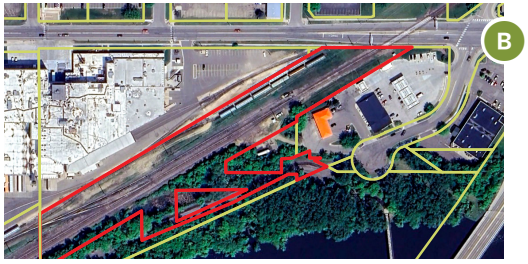
The image to the right summarizes a few other challenges this trail segment presents. Please note that wetland, railroad coordination, and floodplain services are available upon request and not included in SEH's base scope of work.

Existing trail conditions at Sechler Park Road trail.



CHALLENGE: Potential wetland impacts.

OPPORTUNITY: **Rebecca Beduhn**, SEH wetland scientist, has the expertise to guide the City through any wetland delineation and permitting process impacts.



CHALLENGE: Potential Union Pacific Railroad ROW impacts.

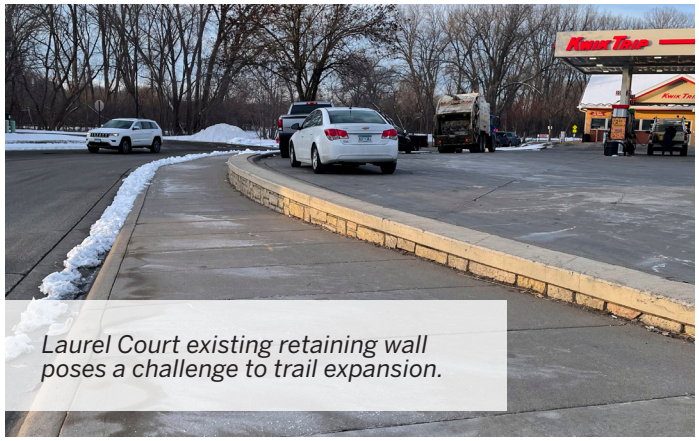
OPPORTUNITY: **Bryan Remer** is SEH's technical expert regarding railroad operations. Both he and **William Bauer** have railroad right-of-way experience within the City.

CHALLENGE: Zone AE Floodplain.

OPPORTUNITY: **Lindsey Roberts McKenzie** provides expertise on floodplain issues and is available to assist should the Sechler Trail project impact the floodplain.

LAUREL COURT TRAIL

There appear to be some constraints with constructing a new trail along the west side of Laurel Court between TH 19 and Sechler Park (refer to the image at the right). Right-of-way might be tight to fit a new trail, and Kwik Trip has an existing retaining wall that might pose a challenge. SEH will begin exploring options for this trail segment early in the process to inform the City of any right-of-way needs or design alternatives for their consideration.



Laurel Court existing retaining wall poses a challenge to trail expansion.

We will quickly identify parcels requiring easements as well as their approximate limits so City staff may begin discussions with property owners. Doing so will help ensure easement negotiations do not delay construction.

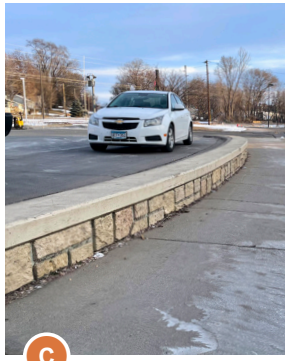
WILLIAM BAUER PE | PROJECT MANAGER

A

CHALLENGE:
Steep driveway; existing fire hydrant.

B

CHALLENGE:
Narrow boulevard; signage in right-of-way.



C

CHALLENGE:
Existing Kwik Trip retaining wall.

OPPORTUNITIES:

These challenges can be solved by changing the trail location to be on the south/east side of Laurel Court, or by reducing the roadway width and moving the curb in to create more space for the trail on the north/west side of Laurel Court.

Approach/ Work Plan

COLLABORATION/COORDINATION

In order to ensure a successful collaboration between the City and SEH, the very first step will be to hold a meeting with City staff to confirm that both parties have a clear understanding of the expectations. In addition, SEH will determine the most pressing issues with the project areas to create a plan to address these concerns.

The City of Northfield staff will design the final construction plans for the mill and overlay portions of the project based on base mapping and files provided by SEH. The City-designed plans will be incorporated into the final planset for bidding the project.

TOPOGRAPHIC SURVEY AND FIELD INVESTIGATION

Upon completion of the kickoff meeting with City staff, **William Bauer** will engage the design survey team and initiate the topographic field survey. SEH will conduct a full topographic field survey of the following:

- Full topographic survey of the project boundaries, including property pins
- All project intersections requiring ADA curb ramp upgrades
- Roadway reclamation areas
- Locations of proposed sidewalks, trails, and bikeways
- Spot curb and gutter and sidewalk repair locations
- Easement acquisition areas

Once the field work and available mapping has been collected, processed electronically, and vetted through our internal QA/QC process, we will perform a field review of the project site to ensure the base map is accurate and nothing was missed. To ensure the City staff completing the design of the mill and overlay portions have time to complete the design, the base map will be provided to the City as soon as it is completed.

SEH has teamed with **WSB** to provide geotechnical drilling and coring services. Lab testing will be completed by **Soil Engineering Testing, Inc. (SET)** and will be reviewed and determined by SEH geotechnical staff.

A geotechnical memorandum will be provided as a deliverable for the geotechnical portion and will provide final soil boring logs with soil types, groundwater elevations, and laboratory testing, as well as pavement design recommendations, if full depth replacement of some areas is determined to be required.

Davey Resource Group (DRG) will collect tree and site data on all right-of-way trees within the project area. Additionally, an arborist's report will be developed that includes detailed information of overall tree condition and project of fate following project completion. A tree inventory will be provided in the City's preferred GIS format. DRG will also recommend which trees should be saved and which should be removed with this project. Trees that are recommended to be removed will be replaced at a 2:1 ratio from the City's Acceptable Boulevard Tree List.

PEDESTRIAN AND BICYCLE IMPROVEMENTS

Improving the connectivity for both bicyclists and pedestrians will be an important component of this project. In addition to ADA upgrades of existing pedestrian facilities, we will also implement the addition of new trail connections, off-street shared use trails, on-street bikeways, and sidewalks in various locations within the project area.

Our experienced multimodal lead, **Heather Kienitz**, will be a key team member in reviewing proposed sections for Washington Street and making a recommendation. She will also lead review of the four identified pedestrian crossing locations and identify up to two improvement alternatives per crossing. With more than 24 years of local, state, and national experience, she has evaluated and delivered numerous crossing enhancement projects for communities across the state.

SEH will develop recommendations for pedestrian crossing safety improvements on Superior Drive, Maple Street, and Washington Street.

The pedestrian and bicycle improvements will be designed considering the following:

- City of Northfield Pedestrian + Bikeway Analyzation, October 2022
- City of Northfield Complete Streets Policy, July 2012
- MnDOT's Bicycle Facility Design Manual
- Federal Highway Administration (FHWA) Safe Transportation for Every Pedestrian (STEP) Guide
- Reviewing available data, such as speed, crash, traffic (vehicular, transit, pedestrian, bicyclist), transit activity, and existing and proposed land use to understand pedestrian origins and destinations and demographic data for each location
- Understanding the relationship and connectivity to existing and planned multimodal facilities

The 2022 Pedestrian + Bikeway Analyzation calls for Green Stormwater Infrastructure (GSI) to be incorporated in Capital Improvement Projects. Table 3 indicates that limited GSI will be incorporated in mill and overlay projects, standard GSI will be included in reclamation projects, and opportunistic GSI will be used for sidewalk and trail projects.

This project includes all three types of Capital Improvements, and therefore, we have included our GSI specialist, **Lisa Breu**, on the SEH team. Lisa has 12 years of experience as a water resources engineer and has expertise in incorporating GSI into retrofit projects.

SEH will engage with the City throughout the process and review the tradeoffs for each design location. This includes, but is not limited to, the following considerations:

- Parking removal/retention
- Lane dimensions
- Safety improvements
- Geometric changes
- Maintenance needs
- Right-of-way/easement needs

SEH recommends adding additional public engagement for property owners along Washington Street. The proposed improvements will be impactful to all of the properties along the corridor, and extra care should be considered when working with these property owners. We have included an optional value added service for additional public engagement.

Final recommendations will be based on the results from these discussions. The City will approve the preferred improvements for each location, which will be included in the final design.

EASEMENT ACQUISITION

It is anticipated that easements will need to be acquired from at least one property for the Washington Street trail extension. SEH will provide construction limits for review by the City. Our Registered Land Surveyor, **Theo Brown**, will then prepare parcel sketches and legal descriptions for the City to negotiate with the property owner.

UTILITY IMPROVEMENTS

The City will provide inventories for storm and sanitary structures to determine which may require rehabilitation or replacement. The SEH design team will incorporate these improvements into the final plans and specifications. Additionally, gate valve bolt replacements will be included in the reclamation areas.

FINAL DESIGN

SEH will prepare final design plans and specifications in accordance with City standards. The mill and overlay portions of the project that were designed by City staff will be given a Quality Assurance/Quality Control (QA/QC) review. Any additional drafting assistance will be provided, as requested. These plans will be incorporated into the overall bid package. Our special provisions will be combined with the City's contract provisions to complete the entire bid proposal. As part of the final plans and specifications, we will:

- Define the schedule and controls for contractors that give the City power to enforce the schedule
- Clearly identify traffic control and residential/business access requirements
- Identify private utility impacts

SEH will provide 50% and 95% design documents and a cost estimate that will be reviewed with City staff at each milestone. All plan sets will be prepared and delivered in the format and order required by the City.

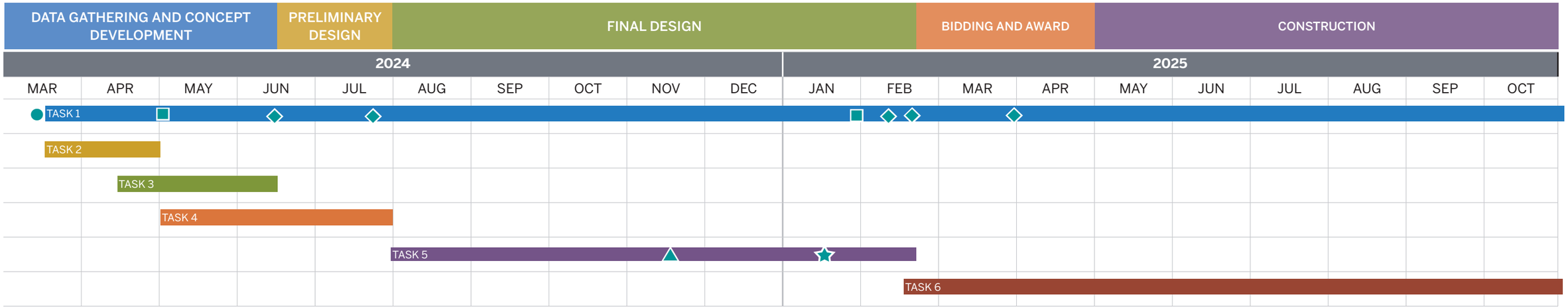
BIDDING AND CONSTRUCTION SERVICES

The project team will provide bidding services that include the following:

- Assist the City with advertising the project through award of the contract
- Provide answers to bidder's questions and prepare addenda (if required)
- Prepare and distribute bid documents
- Prepare a letter of award recommendation

For construction services, SEH will provide construction staking and will utilize WSB to provide field testing services that meet MnDOT requirements.

TASK BREAKDOWN AND SCHEDULE



- Kick-off Meeting
- Council Meetings
- Neighborhood Meetings
- 50% Plan Submittal
- 95% Plan Submittal

TASK 1

PROJECT MANAGEMENT, COORDINATION, QUALITY CONTROL

- Project schedule
- Monthly progress reports and invoices
- QA/QC plan
- Meeting agendas and minutes


William Bauer


Jen Desrude

TASK 2

TOPOGRAPHIC SURVEY AND FIELD INVESTIGATION

- Topographic survey
- Base map
- Tree Inventory and condition report
- Geotechnical memorandum


Brian Lenzen

wsb

DAVEY

Davey Resource Group

TASK 3

PEDESTRIAN AND BIKE IMPROVEMENTS

- Review and selection of proposed Washington Street multimodal improvements
- Trail alignments and profiles
- Intersection improvements (two alternatives)
- Green Stormwater Infrastructure (GSI) concepts


Heather Kienitz


Lisa Breu

TASK 4

PRELIMINARY DESIGN/ FEASIBILITY

- 30% plans
- Opinion of probable cost
- Easement acquisition parcel sketches and legal descriptions
- Feasibility report figures
- Neighborhood meeting materials


Nina Bonanno


Theo Brown

TASK 5

FINAL DESIGN

- 50% plans, specifications, and cost estimate
- 95% plans, specifications, and cost estimate
- 100% bid documents, engineer's estimate


Nina Bonanno


William Bauer

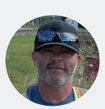
TASK 6

BIDDING AND CONSTRUCTION SERVICES

- Ad for bid
- Addenda, if needed
- Bid tabulation
- Award recommendation letter
- Construction staking
- Materials testing


William Bauer

wsb


Brian Lenzen

Team

SEH has assembled a team that regularly partners with clients on similar street improvement projects. We also have experience working together on similar projects, including recent projects in the City of Northfield. By selecting SEH, you are choosing quality service and thorough local experience. We have provided an organizational chart below followed by information about each person's role, background, and experience.

City of Northfield
David Bennett, PE
Public Works Director/City Engineer

William Bauer PE, ENV SP
Project Manager

Jen Desrude PE
QA/QC

TRAFFIC ENGINEERING

Heather Kienitz PE
Lead Multimodal Engineer

CIVIL ENGINEERING

Nina Bonanno PE
Lead Civil Designer

Theodore Brown LS
Land Surveyor

Brian Lenzen
Survey Crew Chief

WATER AND GEOTECHNICAL ENGINEERING

Lisa Breu PE
Water Resources Engineer

Darin Hyatt PE
Geotechnical Engineer

SUBCONSULTANT

WSB
Geotechnical

Soil Engineering Testing, Inc. (SET)
Geotechnical

Davey Resource Group
Arborist

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

12

YEARS OF EXPERIENCE

EDUCATION

Bachelor of Science
Civil Engineering
Bradley University - Peoria, IL

REGISTRATIONS/CERTIFICATIONS

Professional Engineer in Minnesota, Iowa, and South Dakota

ENVISION Sustainability Professional (ENV SP)

2023 Reclamation and Overlay – Northfield

William was the project manager and primary point of contact for the City, responsible for overseeing the team and overall project delivery. As part of the City's annual street improvements program, SEH provided preliminary and final design services for full depth pavement reclamation and mill and overlay on a series of residential neighborhood streets. The project included the development and implementation of on- and off-street bikeways as well as new sidewalks.

WILLIAM BAUER PE, ENV SP

PROJECT MANAGER | SEH

William will be the City's primary point of contact, responsible for oversight of the team, budget, and schedule.

William is a professional engineer who has worked on a variety of municipal roadway projects. His experience includes the design of existing roadway reconstructions and rehabilitations, recreational trails, site design and grading, stormwater collection systems, sanitary sewer systems, and water distribution systems. William's responsibilities include preliminary and final design, cost estimating, preparing project plans and specifications, and overseeing construction management for complex projects.

WILLIAM'S RELEVANT TRAIL AND CONSTRUCTION EXPERIENCE INCLUDES:

- 2023 Reclamation and Overlay– Northfield, MN
- 2022 Mill and Overlay - Northfield, MN
- TH 246 and Jefferson Parkway - Northfield, MN
- Division and 7th Street Reconstruction - Northfield, MN
- Spring Creek Road Reconstruction - Northfield, MN
- 5th Avenue Reconditioning - South St. Paul, MN
- Eden Avenue and Brookside Avenue Improvements - Edina, MN
- 2021 Utility Reconstruction - Crystal, MN
- 2021 Street Improvements - West St. Paul, MN
- City Wide Trail Gap Improvements – Lakeville, MN
- I-35W Frontage Trail Design and Construction – Burnsville, MN
- Robert Street Underpass (Dakota County) – West St. Paul, MN
- Johnson Parkway Trail Design – Saint Paul, MN
- City Hall Raised Crossing and Trail Design – Edina, MN
- Minnesota River Greenway Fort Snelling Segment Design – Dakota County, MN
- 2022 Street Improvements - West St. Paul, MN

JEN DESRUDE PE
QA/QC | SEH

23
YEARS OF EXPERIENCE

Jen will be responsible for timely reviews of deliverables and compliance with design standards. Jen is a project engineer with extensive experience overseeing improvement projects, development and permit review, stormwater management, right-of-way management, traffic management, and special assessment processes. She manages Capital Improvement Plan (CIP) development and implements projects. Jen also coordinates funding strategies for a variety of projects

EXPERIENCE

- Williams Drive Corridor Study – Burnsville, MN*
- Maintenance Planning for Pedestrian and Bicycle Facilities within MnDOT's Right-of-Way - Pilot Project (MnDOT West Metropolitan District) – Various Locations, MN
- I-35W Frontage Trail Design and Construction – Burnsville, MN*
- Multimodal and Complete Streets Study – Burnsville, MN*
- Cliff Road/CSAH 32 Corridor and Multi-Modal Preliminary Engineering – Burnsville, MN*

**Project experience prior to joining SEH*

EDUCATION
Master of Public Affairs
Humphrey School of Public Affairs

Bachelor of Science
Civil Engineering
North Dakota State University-Fargo

REGISTRATIONS/CERTIFICATIONS
Professional Engineer in Minnesota

NINA BONANNO PE
LEAD CIVIL DESIGNER | SEH

9
YEARS OF EXPERIENCE

Nina will lead the civil design team and the development of the plans and specifications. Nina is a professional engineer with experience providing preliminary and final design for a variety of municipal projects. She has served as lead designer on projects that includes roadways, storm sewer systems, shared use paths, trails, and ADA improvements. Nina's typical responsibilities include grading plans, site plan layouts, cost, and quantity estimates. She has experience with a variety of software programs and techniques, including MicroStation, GEOPAK Design, AutoCAD Civil 3D, and SewerCAD.

EXPERIENCE

- 2023 Reclamation and Overlay– Northfield, MN
- Eden Avenue and Wilson Road – Edina, MN
- Greenway Accelerations Final Design – Dakota County, MN
- 2022 Street Improvements – Blaine, MN
- City Wide Trail Gap Improvements – Lakeville, MN

EDUCATION
Bachelor of Science
Civil Engineering
Michigan Technological University-Houghton

REGISTRATIONS/CERTIFICATIONS
Professional Engineer in North Dakota

SPENCER SZYMONOWICZ

TECHNICIAN | SEH

14
YEARS OF EXPERIENCE

Spencer will support the develop of the project design, plans, and specifications. He is a civil engineering technician with experience working on designs for a variety of municipal projects. Spencer's experience includes roadways, utilities, trails, and water treatment projects. He also offers experience in corrosion control, soils testing, and ASTM concrete materials. Spencer has hands-on experience with Trimble Robotic Total Station, Trimble R10 GPS, Digital, and Automatic Levels. Spencer's computer experience includes AutoCAD Civil 3D, Esri ArcMap, and Microsoft Office suite.

EDUCATION

Associate of Applied Science
Civil Engineering Technology
Southeast Technical Institute - Sioux Falls, SD

Associate
General Studies
University of Wisconsin-Superior

EXPERIENCE

- 2022 Mill and Overlay - Northfield, MN
- Eden Avenue/Wilson Road – Edina, MN
- 2021 Utility Reconstruction - Crystal, MN
- Eden Avenue and Brookside Avenue Improvements – Edina, MN
- Moreland Avenue Street Improvements – West St. Paul, MN

HEATHER KIENITZ PE

LEAD MULTIMODAL ENGINEER | SEH

26
YEARS OF EXPERIENCE

Heather will provide guidance for the off-street trails and other multimodal improvements. Heather has dedicated herself to developing highly inclusive, context-sensitive solutions for built environments for the past 26 years. She routinely leads multimodal traffic engineering projects for area plans, preliminary designs and final designs. Heather's particularly experienced with the retrofit, reconstruction, or new construction of bicycle and pedestrian facilities and enhancements.

EDUCATION

Bachelor of Science
Civil Engineering
University of Minnesota-Twin Cities

REGISTRATIONS/CERTIFICATIONS

Professional Engineer in Minnesota

EXPERIENCE

- Minnesota's Best Practices for Pedestrian and Bicycle Safety Handbook Update – MnDOT
- MnDOT Complete Streets Workshops Instructor – Various Locations in Minnesota
- Multimodal Plan and Complete Streets Study – Burnsville, MN
- Johnson Parkway Trail Design – Saint Paul, MN
- TH 246 and Jefferson Parkway – Northfield, MN

LISA BREU PE
WATER RESOURCES ENGINEER | SEH

12
YEARS OF EXPERIENCE

Lisa will be responsible for stormwater design and providing any needed recommendations for GSI. She has extensive experience in hydrologic and hydraulic modeling, water quality modeling, rural and urban drainage design, and green infrastructure permitting and design. Her projects have ranged from feasibility and conceptual design to final design and construction administration. Lisa excels at complex problem solving and collaborating with multidisciplined teams to develop sustainable solutions that are cost-effective and maintainable.

EXPERIENCE

- CSAH 36 and 37/University Avenue and 4th Avenue –Hennepin County, MN*
- Upper Dowling Avenue – Minneapolis, MN*
- Hoyer Heights Street Reconstruction – Minneapolis, MN*
- 40th St. NW Flood and Storm Sewer Modeling – Rochester, MN*
- Robert Street Reconstruction – West Saint Paul, MN*

**Project experience prior to joining SEH*

EDUCATION
Bachelor of Science
Civil Engineering (Emphasis: Environmental Engineering)
University of Minnesota-Twin Cities

REGISTRATIONS/CERTIFICATIONS
Professional Engineer in Minnesota and Wisconsin

DARIN HYATT PE
GEOTECHNICAL ENGINEER | SEH

32
YEARS OF EXPERIENCE

Darin will lead the geotechnical analysis and scoping efforts and develop the geotechnical memorandum. Darin is an experienced geotechnical and civil engineer with leadership experience in national retail, residential, commercial, solar farms, transportation, and mixed-use projects. He has developed projects with a range of funding sources for a variety of clients including state and federal agencies, municipalities, and private businesses. Darin is experienced with Microsoft Office, Deltek Vision, and industry specific software such as LPILE, APILE, Driven, and gINT.

EXPERIENCE

- 2023 Reclamation and Overlay– Northfield, MN
- Lake Road Trail Improvements Design – Woodbury, MN
- City Wide Trail Gap Improvements Design – Lakeville, MN
- I-35W and Aldrich Avenue - Burnsville, MN
- Eden Avenue and Wilson Road - Edina, MN

EDUCATION
Bachelor of Science
Civil Engineering
University of North Dakota-Grand Forks

REGISTRATIONS/CERTIFICATIONS
Professional Engineer in Minnesota, Illinois, North Dakota, and South Dakota

BRIAN LENZEN
SURVEY CREW CHIEF | SEH

Brian will serve as task manager for the design topographic survey and construction staking phases of the project. Brian is a survey crew chief with transportation and civil engineering experience. Brian has served as a crew member, instrument operator, and currently as a crew chief on multiple street and roadway projects. His primary responsibilities include scheduling crews and assisting registered land surveyors with land surveying, designing plats, CAD drafting, and mathematical detailing for plats and land tract records.

EXPERIENCE

- 2023 Reclamation and Overlay – Northfield, MN
- 2022 NW Area Mill and Overlay – Northfield, MN
- 2021 Utility Reconstruction – Crystal, MN
- TH 246 and Jefferson Parkway – Northfield, MN
- Division and 7th Street Reconstruction – Northfield, MN

32
YEARS OF EXPERIENCE

EDUCATION

Technical Degree
Brainerd Community College - Brainerd, MN

REGISTRATIONS/CERTIFICATIONS

MnDOT: Aggregate Production

THEODORE BROWN LS
LAND SURVEYOR | SEH

Theo will manage the land and location surveying efforts. Theo is an experienced survey leader and has served in various capacities and roles. He has spent time in both the private and public sector, and he has worked on a wide base of project types in both the field and the office. Theo's responsibilities include scheduling, oversight, and completion of all survey related work tasks. Completing jobs for all levels of government agencies and commercial developments has kept him well-rounded for all survey types.

EXPERIENCE

- Koehler Road Trail – Vadnais Heights, MN
- 2023 Street Improvements – Blaine, MN
- City Wide Trail Gap Improvements – Lakeville, MN
- Eden Avenue and Wilson Road – Edina, MN
- CSAH 23 Mill and Overlay Design, CSAH 42 to 138th Street (Dakota County) – Apple Valley, MN

20
YEARS OF EXPERIENCE

EDUCATION

Bachelor of Science
Surveying and GIS
St. Cloud State University - St. Cloud, MN

Associate of Arts
Business
Century College - White Bear Lake, MN

REGISTRATIONS/CERTIFICATIONS

Professional Land Surveyor in Minnesota and Wisconsin

Project Experience

2023 RECLAMATION AND OVERLAY

NORTHFIELD, MN

KEY PROJECT DESCRIPTION

As part of the City's ongoing street improvements program, SEH was selected to provide preliminary and final design services for full depth pavement reclamation and mill and overlay on a series of residential neighborhood streets. The project included the development and implementation of on- and off-street bikeways as well as new sidewalks to improve connectivity in the City's multimodal network. SEH also developed pedestrian crossing improvements in several locations, which included enhanced signing and striping, bumpouts, and raised crosswalks.

Roadway improvements were successfully implemented along with improved pedestrian crossings.

Incorporating off-street bikeways fulfilled a key City priority on the project.

KEY SIMILAR FEATURES

- Pavement reclamation
- Mill and overlay
- ADA improvements
- Utility repairs
- On-and-off street bikeways
- Sidewalks

CLIENT

City of Northfield

KEY PERSONNEL

William Bauer
Nina Bonanno
Darin Hyatt
Heather Kienitz
Davey Resource Group

2022 NW AREA MILL AND OVERLAY

NORTHFIELD, MN

SEH provided design and construction administration services for the City of Northfield's NW Area Mill and Overlay project. As part of the City's annual pavement rehabilitation program, the project included pedestrian curb ramp replacement, spot curb and gutter and sidewalk repair, sidewalk and trail extensions, bituminous pavement mill and overlay, and analysis and implementation of bikeway facilities. Bikeway facilities that were analyzed included off street trails, shared lanes, bicycle lanes, buffered bicycle lanes, and two-way cycle tracks. The project also included extensive public engagement to present bikeway alternatives to the public and gather feedback.

CLIENT

City of Northfield

KEY PERSONNEL

William Bauer
Spencer Szymonowicz
Brian Lenzen
Davey Resource Group

CSAH 19 (WOODBURY DRIVE) LOCAL ROAD CAPACITY AND SAFETY IMPROVEMENTS

WOODBURY, MN

SEH worked closely with Washington County and the City of Woodbury to develop a preliminary and final design for Woodbury Drive (CSAH 19) that not only satisfied the needs for this important regional arterial, but also addressed the operations and safety of entire commercial area roadway system from I-94 to Tamarack Road, including Hudson Road, Commerce Drive, Rivertown Drive, and Tamarack Road. The traffic study analysis played a key role in determining intersection design and relief for future congestion, ultimately recommending adding a lane in each direction to CSAH 19, turn lane recommendations, and geometric improvements to all of the major intersections in the corridor. Recommendations for overall surface water management for the area, pavement improvements, trail connection improvements, and landscaping treatments were all addressed in the preliminary design phase and refined to complete the $17 million construction plan documents.

CLIENT

City of Woodbury

KEY PERSONNEL

Heather Kienitz
Theodore Brown
Brian Lenzen

Cost

FEE SUMMARY

SEH will perform the work tasks as identified in the City's RFP and as outlined in our project approach and scope for an estimated fee of **$285,692** plus an additional fee for subconsultant services of **$72,065** for a total project fee of **$357,758**. Our fee includes reimbursable expenses. We will bill the City on a monthly basis for reimbursable expenses and on an hourly basis for labor.

Our fee is summarized in the table to the right and further detailed in the Task Hour Budget (THB) that follows.

TASK	DESCRIPTION	COST
1	Project Management and Coordination	$30,537
2	Topographic Survey and Field Investigation	$39,224
3	Pedestrian and Bicycle Improvements	$37,832
4	Preliminary Design and Feasibility	$17,118
5	Final Design	$124,886
6	Permitting, Bidding, and Construction Services	$36,095
Total SEH Fee		**$285,692**
Davey Resource Group (Arborist Review)		$3,313
WSB (Geotechnical)		$8,963
Soil Engineering Testing Lab. (Geotechnical)		$713
WSB Materials Testing (Materials Testing)		$59,076
Total Subconsultant Fee		**$72,065**
Total Fee		**$357,758**

ASSUMPTIONS

TASK	ASSUMPTION
1	SEH staff will be in-person for the kick-off meeting, the neighborhood meetings, and the City Council meetings. All other meetings are assumed to be virtual.
1	The City will lead the neighborhood open house and SEH will prepare boards and have SEH staff available for questions.
1	The City will lead the City Council presentation and SEH will be available for questions.
3	For pedestrian and bicycle improvements, each location is assumed to include up to two alternatives for the City to select their preferred to advance to final design. Some locations may only need one option for consideration.
3,4	Wetland delineation and permitting services are not included in this scope of work.
3,4	Floodplain analysis services are not included in this scope of work.
3,4	Railroad coordination services are not included in this scope of work.
4	The City is preparing the feasibility report and SEH will provide figures and cost estimates to the City for inclusion in the report.
4	SEH will prepare a parcel sketch and legal descriptions for easement acquisition for one parcel. The City will lead all aspects of the easement acquisition process including, but not limited to: negotiation with the property owner, prepartion of the easement document, and recording of the easement document.
5	The City will prepare plans for the mill and overlay portions of the project for insertion into the full project planset.
6	The City will complete construction administration and inspection for the project. SEH will provide construction staking, a subconsultant for materials testing, and as-builts.

Project: 2025 Reclamation and Overlay Project

Client: Northfield, MN

Prepared by: JCD

Reviewed By: WB

Prepared Date: 2/27/2024

Reviewed Date: 2/28/2024

Date: 02/29/24
Revised: 03/13/2024

	Billing Title	CSM/PM	QA/QC	PE	Tech	Multi-Modal Lead	Resources Lead	Geotech	Geotech	Survey Crew Chief	RLS	GIS Analyst	Accounting Rep	Admin Tech	Expenses	Total
TASK 1 - Project Management/Coordination																
1.1	**Contract and General**															
	Develop & execute City agreement	1												1		**2**
	Create project in accounting system	1											1			**2**
	Invoice management (April 24 - Oct 25)	10											10			**20**
	Develop QA/QC and PM Plan	2	2													**4**
1.2	**Meetings**															
	Kickoff meeting with City	3	3	3		3										**12**
	Internal kick-off meeting with SEH	3	1	1	1	1	1	2	1							**11**
	30%, 50%, and 95% design review meetings	3		3		3	3									**12**
	Neighborhood meetings	16		12	12	8										**48**
	City Council Meetings	8														**8**
	Private Utility Meetings	4		10	6											**20**
1.3	**Project Correspondence**															
	Client email updates and phone calls	12														**12**
	Task 1 Hours Summary	**63**	**6**	**29**	**19**	**15**	**4**	**2**	**1**				**11**	**1**	**N/A**	**151**
	Task 1 Fee Summary	**$13,779.99**	**$1,651.13**	**$4,492.87**	**$2,351.43**	**$3,845.53**	**$921.79**	**$449.70**	**$197.64**				**$1,400.60**	**$132.85**	**$1,312.99**	**$30,536.51**
TASK 2 - Topographic Survey & Field Investigation																
2.1	**Topographic Survey**															
	Topographic Survey									84						**84**
2.2	**Data Collection & Base Files**															
	Gopher State One Call			1	4									4		**9**
	Collect data (LIDAR, Aerial imagery, master plans, reports, GIS parcels, etc.), private utility mapping			2	2											**4**
	Reduce data into basemap (Create CAD base file)			2	4											**6**
	Reduce topo data into EG surface			2	17											**19**
	Create RW file				8						12					**20**
	Review and document sidewalk, pavement, and curb/gutter condition	8		8												**16**

	Billing Title	CSM/PM	QA/QC	PE	Tech	Multi-Modal Lead	Resources Lead	Geotech	Geotech	Survey Crew Chief	RLS	GIS Analyst	Accounting Rep	Admin Tech	Expenses	Total
2.3	Geotechnical Investigation															
	Stake and survey soil borings									6						6
	Subsurface Investigation	1						13								14
	Geotechnical Analysis			1				12								13
	Geotechnical Report			1				12	4					2		19
2.4	Arborist Report															
	Arborist Report - Davey Resource Group															
	Task 2 Hours Summary	9		17	35			37	4	90	12			6	N/A	210
	Task 2 Fee Summary	$1,968.57		$2,633.75	$4,331.57			$8,319.50	$790.55	$12,488.91	$2,200.38			$797.12	$18,682.50	$52,212.86
TASK 3 - Pedestrian & Bicycle Improvements																
3.1	Bikeway/Trail Design															
	Laurel Ct Trail Connection	2	1	8	24	1										36
	Washington St Alternatives	2	1	12	32	1										48
	Washington to Archibald Trail Connection	2	1	8	16	1										28
	Sechler Park Road Trail Replacement	2	1	8	16	1										28
	Washington St (Fremont to Sumner) bike blvd and sidewalk design	2	1	6	12	1										22
	Assumptions: up to two alternatives per location															
	Subtotal Hours	**10**	**5**	**42**	**100**	**5**									**N/A**	**162**
	Subtotal Fees	$2,187.30	$1,375.94	$6,506.91	$12,375.92	$1,281.84										$23,727.91
3.2	Pedestrian Crossing Improvements															
	Superior Drive Mid-Block	2		2	8	2										14
	Superior/Maple	2		2	8	2										14
	Ames/Washington	2		2	8	2										14
	Woodley/Washington	2		2	8	2										14
	Assumptions: up to two alternatives per location															
3.3	Green Stormwater Infrastructure															
	Review geotech report and drainage areas						16									16
	Task 3 Hours Summary	18	5	50	132	13	16								N/A	234
	Task 3 Fee Summary	$3,937.14	$1,375.94	$7,746.32	$16,336.22	$3,332.79	$3,687.17								$1,416.62	$37,832.20

	Billing Title	CSM/PM	QA/QC	PE	Tech	Multi-Modal Lead	Resources Lead	Geotech	Geotech	Survey Crew Chief	RLS	GIS Analyst	Accounting Rep	Admin Tech	Expenses	Total
TASK 4 - Preliminary Design/Feasibility																
4.1	**Feasibility Study/Preliminary Design**															
	Prepare project area figures	2			8	2						12				**24**
	Develop recommended improvements	4		14												**18**
	GSI cross sections and inlet detail						8									**8**
4.2	**30% Cost Estimate**															
	Prepare Feasibility Project Cost Estimate	2		4	21		2									**29**
4.3	**Easement Acquisition**															
	Legal Descriptions and Exhibits	2									16					**18**
	Task 4 Hours Summary	**10**		**18**	**29**	**2**	**10**				**16**	**12**			**N/A**	**97**
	Task 4 Fee Summary	**$2,187.30**		**$2,788.68**	**$3,589.02**	**$512.74**	**$2,304.48**				**$2,933.84**	**$2,146.23**			**$656.27**	**$17,118.56**
TASK 5 - Final Design																
5.1	**Final Street and Utility Design**															
	Storm Sewer Design	1		2	8											**11**
	Intersection/Ped Ramp Design	2		6	34											**42**
	Construction Phasing & Traffic Control	1		8	6											**15**
	Geomatics Cad File				32											**32**
	Removal Cad Base File				18											**18**
	Trail/Sidewalk final design	1		2	20	2										**25**
	Ped Crossing improvements final design	2		4	28	2										**36**
	Street Reclamation final design (Washington, Laurel, Industrial)	2		4	48											**54**
	Private Utility Coordination	1		8	8											**17**
	GSI: Refine BMP locations, volume, inlets/outlets						32									**32**
	Washington Storm Sewer/BMP						16									**16**
	50% Cost Estimate	1		6	20											**27**
	95% Cost Estimate	1		5	14		4									**24**
	100% Cost Estimate	1		4	10		2									**17**
5.2	**Develop Construction Plans**															
	Title Sheet				2											**2**
	General Layout				6											**6**
	Estimated Quantities, Notes, Standard Plates			2	4											**6**
	General Notes				2											**2**
	Tabulations				8											**8**
	Construction Details				4											**4**
	Typical Sections			1	8											**9**
	Traffic Control/Phasing			4	16											**20**
	Removals				22											**22**
	Incorporating Overlay plans from City				4											**4**

	Billing Title	CSM/PM	QA/QC	PE	Tech	Multi-Modal Lead	Resources Lead	Geotech	Geotech	Survey Crew Chief	RLS	GIS Analyst	Accounting Rep	Admin Tech	Expenses	Total
	Reclamation Plans				20											20
	Trail plan and profiles			2	36											38
	Pavement Markings and signing			4	26											30
	Intersection/Ped ramp details			2	32											34
	Tree planting plan			2	4											6
	SWPPP			2	8											10
	Erosion Control Plan			2	16											18
	Cross Sections			2	8											10
	Stormwater - 95% Plans, details costs						16									16
	Quality Control Review/Site Walk through	8	8	8	8											32
	QA/QC City of Northfield Plans	4		4	4											12
	Drafting Consultation / Design Assistance	10			40											50
5.3	Project Manual															
	Front end documentations			1										1		2
	Bidding requirements			1										1		2
	Geotechnical data			1										1		2
	Contract forms			1										1		2
	Condition of the contract			1										1		2
	Supplementary conditions			8										4		12
	Special provisions			8										4		12
	Technical specifications			8										4		12
	Quality Control review	4	4													8
5.4	Reviews															
	50% Owner Review	1	1	1	16		4									23
	95% Owner Review	1	1	1	12		4									19
	Task 5 Hours Summary	41	14	115	552	4	78							17	N/A	821
	Task 5 Fee Summary	$8,967.93	$3,852.63	$17,816.54	$68,315.10	$1,025.47	$17,974.96							$2,258.52	$4,674.47	$124,885.62
TASK 6 - Permitting, Bidding, & Construction Services																
6.1	Permits															
	Permits (MnDOT, County, NPDES)	2		4												6
6.2	Bidding															
	Prepare ad for bid and electronic bid documents	2												8		10
	Respond to bidder questions and prepare addenda	4		4	8											16
	Attend bid opening	2														2
	Review Tabulation of Bids													1		1
	Prepare recommendation letter	1												1		2

	Billing Title	CSM/PM	QA/QC	PE	Tech	Multi-Modal Lead	Resources Lead	Geotech	Geotech	Survey Crew Chief	RLS	GIS Analyst	Accounting Rep	Admin Tech	Expenses	Total
6.3	Construction Services															
	Review shop drawings/submittals	1		4												5
	Construction Staking									130						130
	As-builts	1		2	12					6						21
	Task 6 Hours Summary	13		14	20					136				10	N/A	193
	Task 6 Fee Summary	$2,843.49		$2,168.97	$2,475.18					$18,872.13				$1,328.54	$67,482.95	$95,171.26

TASK 1 - Project Management/Coordination																
	Task Hours Summary	63	6	29	19	15	4	2	1				11	1	N/A	151
	Task Fee Summary	$13,779.99	$1,651.13	$4,492.87	$2,351.43	$3,845.53	$921.79	$449.70	$197.64				$1,400.60	$132.85	$1,312.99	$30,536.51

TASK 2 - Topographic Survey & Field Investigation																
	Task Hours Summary	9		17	35			37	4	90	12			6	N/A	210
	Task Fee Summary	$1,968.57		$2,633.75	$4,331.57			$8,319.50	$790.55	$12,488.91	$2,200.38			$797.12	$18,682.50	$52,212.86

TASK 3 - Pedestrian & Bicycle Improvements																
	Task Hours Summary	18	5	50	132	13	16								N/A	234
	Task Fee Summary	$3,937.14	$1,375.94	$7,746.32	$16,336.22	$3,332.79	$3,687.17								$1,416.62	$37,832.20

TASK 4 - Preliminary Design/Feasibility																
	Task Hours Summary	10		18	29	2	10				16	12			N/A	97
	Task Fee Summary	$2,187.30		$2,788.68	$3,589.02	$512.74	$2,304.48				$2,933.84	$2,146.23			$656.27	$17,118.56

TASK 5 - Final Design																
	Task Hours Summary	41	14	115	552	4	78							17	N/A	821
	Task Fee Summary	$8,967.93	$3,852.63	$17,816.54	$68,315.10	$1,025.47	$17,974.96							$2,258.52	$4,674.47	$124,885.62

TASK 6 - Permitting, Bidding, & Construction Services																
	Task Hours Summary	13		14	20					136				10	N/A	193
	Task Fee Summary	$2,843.49		$2,168.97	$2,475.18					$18,872.13				$1,328.54	$67,482.95	$95,171.26

PROJECT SUMMARY																
	Project Hours Summary	154	25	243	787	34	108	39	5	226	28	12	11	34	N/A	1,706
	Project Fee Summary	$33,684.41	$6,879.69	$37,647.12	$97,398.52	$8,716.53	$24,888.41	$8,769.21	$988.19	$31,361.04	$5,134.22	$2,146.23	$1,400.60	$4,517.04	$94,225.80	$357,757.00

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