



Board of County Commissioners Agenda Request



Requested Meeting Date: May 12, 2020

Title of Item: Engineering Services – Mille Lacs East ATV Trail

<input checked="" type="checkbox"/> REGULAR AGENDA <input type="checkbox"/> CONSENT AGENDA <input type="checkbox"/> INFORMATION ONLY	Action Requested: <input checked="" type="checkbox"/> Approve/Deny Motion <input type="checkbox"/> Adopt Resolution (attach draft)	<input type="checkbox"/> Direction Requested <input type="checkbox"/> Discussion Item <input type="checkbox"/> Hold Public Hearing* <i>*provide copy of hearing notice that was published</i>
Submitted by: Ross Wagner		Department: Economic Development & Forest Ind
Presenter (Name and Title): Ross Wagner, Economic Development & Forest Industry Coordinator		Estimated Time Needed: 20 Minutes
Summary of Issue: <p>Aitkin County has advertised for Engineering services for the Mille Lacs East ATV Trail project. Services are for the project scoping, project design, project bidding and project construction. Eight requests for proposals were sent out and 4 were received. Proposals were received from; Benchmark Engineering, Mountain Iron, MN, SEH, Inc, St. Cloud, MN, Widseth, Baxter, MN and WSB, St. Cloud, MN. An engineer selection committee made up of Commissioners Bill Pratt, Laurie Westerlund along with Jessica Seibert, Rich Courtemanche, Chris Johnson and myself have reviewed them.</p> <p>Ultimately, the committee narrowed the choices to Benchmark Engineering and Widseth and after a WebEx interview of the two firms, have made the recommendation to retain Widseth for the Mille Lacs East ATV Trail project. The choice was not a easy one to make, all firms demonstrated experience with ATV Trails, wetland mitigation, archeological findings and similar issues we are sure to encounter. Attached are the proposals received and an analysis of the top three firms proposals.</p> <p>Also attached is the estimated project costs from Widseth. The range of estimates is given for "General Conditions". Due to the many unknowns, such as finding a suitable route from Malmo to Glen and Wealthwood. The first step in the process needs to be for scoping. This step will identify route and route alternatives and will shed light on if extra services are needed. Such as bridge design, easement or right-of-way purchase, or, down the road, a complete new alignment needed based on findings from environmental or other findings. We will be receiving a contract for Scoping services from Widseth.</p>		
Alternatives, Options, Effects on Others/Comments: Local match, State of MN paperwork is all completed, next step is trail design.		
Recommended Action/Motion: Hire Widseth for Engineering services, Mille Lacs East ATV Trail, enter into a contract for project scoping.		
Financial Impact: Is there a cost associated with this request? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No What is the total cost, with tax and shipping? \$ Is this budgeted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Please Explain:		

Benchmark Engineering

Prior Experience with ATV Trails;

Voyageur Country ATV, 2019, 2020. Northern Traxx 2011, 2016. Voyager Country ATV Master Plan.

Experience with Environmental, Arch;

Yes

Scope of work with timelines;

Engineering Design, right of way acquisition, environmental review, spring summer 2020. Trail alignment, permitting, right of way finalized & ready for construction 2021.

Est Cost Breakdown by scope;

Initial site visits and project scope meetings (6 meetings assumed) \$ 6,000.00

Field surveying (10 field days assumed) \$ 14,500.00

Environmental permitting \$ 10,000.00

Engineering design \$ 35,000.00

Project management (10 pay requests assumed) \$ 8,000.00

Construction observation (6 site visits assumed) \$ 6,000.00

Construction staking (10 field days assumed) \$ 14,500.00

Total Estimated Cost \$ 94,000.00

References;

9 Cities, Northern Traxx ATV Club, 2 ISD's, IRRRB, 5 mining Companies.

Qualifications of Staff;

Yes

References;

Benchmark Engineering, Chris Ismil, IRRRB and Larry Folstad, Northern TRAXX ATV Club.

My questions;

- What projects or events have you worked with Benchmark Engineering on and were any of them Trail and or ATV Trail related.

My experience with Benchmark has been with sewer, water and other municipal projects and an Economic Development project.

- What were your general impressions of Benchmark, i.e., were they prompt, on budget, collaborative and professional, or not?

They are the most honest and professional firm I have worked with in my years with the agency. They truly work for the client. They were very positive to work with, I liked the size of the firm and how cooperative they were.

- Do feel that they were helpful in moving the project ahead with a good understanding of your project goals and expectations, how so?

Yes, they have always been forward thinking and looking ahead on the projects I worked with them.

- Would you recommend Benchmark for the Mille Lacs East ATV Connector Trail?

I would recommend them for the ATV Trail based on my experience with other projects, however, I have not worked with them on any trail projects. Only in their role as City Engineers and other municipal projects.

- **Any additional comments or observations?**

Just the above remarks.

- **What projects or events have you worked with Benchmark Engineering on and were any of them Trail and or ATV Trail related.**

I have worked with Benchmark on 3 different trail projects, 2 ATV – Hibbing Chisholm extension, Chisholm ATV Trail and the Mesabi Bike Trail. As a Director of Public Works, I have worked with Benchmark on other projects as well. I feel that Benchmark has sort of made ATV Trails and other trails as their niche. Another project was regional planning for the ATV trails in the larger area looking for future connections and trails. They were very timely and are hands down the best trail engineering firm I am aware of.

- **What were your general impressions of Benchmark, i.e., were they prompt, on budget, collaborative and professional, or not?**

They are very professional, topnotch in my book. We have used them on a project to clean up another firm's mess. On items such as change orders or contract extensions, they are always very professional and keep us up to date and informed. I like the size of the firm and that they are very responsive.

- **Do feel that they were helpful in moving the project ahead with a good understanding of your project goals and expectations, how so?**

Yes, they are very hands on and spent many hours in the woods and were very observant. They were more like a partner with us and just did many of the little things to help us along.

- **Would you recommend Benchmark for the Mille Lacs East ATV Connector Trail?**

Yes, absolutely, as a Public Works Director, I have worked with many engineering firms over the years and still do on wastewater treatment and similar projects that Benchmark doesn't specialize in. I will use Benchmark on any project I can. They are a small firm with good expertise and have a personal hometown attitude that you feel like you are dealing with a local firm and not a corporation.

- **Any additional comments or observations?**

I have worked with Benchmark on different projects for over 10 years, many of the same people and I have always received consistently good service at a fair price.

SEH, Inc

Prior Experience with ATV Trails;

Voyager Country ATV Trail Bridge Design. Taconite ATV Trail Wetland Delineation & Route Planning.

Experience with Environmental, Arch;

Yes

Scope of work with timelines;

Step 1, Establish Preliminary Trail Alignment. Step 2, Environmental Documents and Right of Way. Step 3, Final Design & Aquatic Resource Permitting. Step 4, Bidding Documents and Bids. Step 5, Construction Oversight. SHE provided great detail of process and deliverable for each step. No timelines.

Est Cost Breakdown by scope;

Establish a Preliminary Alignment (\$36,800)

Environmental documents and right of way (ROW) needed (\$45,000 - \$75,000)

Complete the design and permitting (\$50,000 - \$80,000).

Bidding Documents (\$15,000 - \$25,000)

Construction Oversight (TBD)

Total estimated cost of this Scope of Work is \$145,800 - \$216,800

References;

Conrad Kragness, ACHD, Nick Wognum, Trail Prospectors Alliance, Ron Potter ATVAM.

Qualifications of Staff;

Yes

References;

SEH Inc. Nick Wognum, Trail Prospectors Alliance and Conrad Kragness, Aitkin County Highway Dept.

- What projects or events have you worked with SEH, Inc. on and were any of them Trail and or ATV Trail related.

Through the Prospector Alliance I have worked with SEH for our \$3.4 million construction project which is broken down into six phases. I have also worked with SEH on the state Taconite Trail through a joint powers agreement with the Town of Morse where I am the clerk. This is a \$1.1 million project where SEH provided all of the environmental review including permitting.

- What were your general impressions of SEH, Inc., i.e., were they prompt, on budget, collaborative and professional, or not?

I have found SEH to be a very professional company throughout. From our direct Point of Contact to office staff, engineers and wetlands experts we couldn't have asked for a better firm to work with on our projects. Our only mistake was not hiring them to do our initial wetland permitting that dragged on for over three years by a different company. We ended up hiring SEH to assist that company with completing the work.

- Do feel that they were helpful in moving the project ahead with a good understanding of your project goals and expectations, how so?

We have had constant communication with SEH on our overall project including future phases where the company has assisted us in identifying future connections and the best way to not only complete them but also how to fund them. They have expertise in working with funding agencies that has opened doors for us to find construction dollars along the way.

- Would you recommend SEH, Inc. for the Mille Lacs East ATV Connector Trail?

I would highly recommend SEH, Inc. for the Mille Lacs East ATV Connector Trail. SEH has also been working with an ATV trail system north of us through the Voyageur ATV Club.

- Any additional comments or observations?

With any professional service, much of the impression a firm makes is through the people who represent the company to the customers. Our experience is SEH has qualified, professional people who work for them. They are available to help make a project go and find ways to do so. That's as much as we could ask for.

The main person I've worked with from SEH, Inc., is Joel Asp and I've been very happy with the service provided.

- What projects or events have you worked with SEH, Inc. on and were any of them Trail and or ATV Trail related.
 - a) I have had SEH, Inc. conduct two Wetland Delineations for me. In 2013 on CSAH No. 3 between Palisade & TH No. 65 in Shamrock Township and in 2019 on CSAH No. 27 between TH No. 27 in Beaver Township and Lawler.
 - b) SEH, Inc. is currently in the process of conducting Asbestos and Regulated Materials Surveys for me on six bridges that will be replaced throughout Aitkin County. The results will be used in MPCA Demolition Notifications.
 - c) The CSAH No. 3 project has an ATV trail that was and will be included in the projects (SAP 001-603-017 & SAP 001-603-018). However, the SEH work only included wetland delineation on the above reference linear projects.
- What were your general impressions of SEH, Inc., i.e., were they prompt, on budget, collaborative and professional, or not?
 - d) My general impression of SEH, Inc. is as a well respected full service engineering/consulting firm.
 - e) All of my interaction with SEH staff was handled professionally, any questions I had were answered in a timely manner and reports were delivered on time and within budget.
 - f) After report delivery any errors or inconsistencies found during my review were corrected at no additional charge.
- Do feel that they were helpful in moving the project ahead with a good understanding of your project goals and expectations, how so?
 - g) Regarding the Wetland Delineations, on both projects, SEH met with personnel from Aitkin County (Becky Sovde) and the Corps of Engineers to concur with their wetland findings. Any discrepancies were corrected before the report was delivered.

- h) The Wetland Replacement Reports were valuable supporting documentation in gaining Wetland Permit approvals by the Corp of Engineers and wetland replacement authorizations by BWSR.
- Would you recommend SEH, Inc. for the Mille Lacs East ATV Connector Trail?
 - i) Based on my experience with SEH, Inc., I would give them a favorable recommendation.
- Any additional comments or observations?
 - j) I have used other engineering/consulting firms to conduct Wetland Delineations and I will only use SEH to conduct future Wetland Delineations for me.

Widseth, (formerly Widseth Smith Nolting)

Prior Experience with ATV Trails;

Emily to Blind Lake ATV Connector Trail

Experience with Environmental, Arch;

Yes

Scope of work with timelines;

Kickoff Meeting, April 2020; On-site review w/ Co April - May 2020; Preliminary layout April - June 2020; Wetland Deliniation, Arch/Hist, April - July 2020; EAW April - July 2020; DNR/DOT permits April - Sept 2020; Public Input Mtgs June and August 2020; Project Design July - September 202; Porject Bidding October 2020; Construction TBD.

Est Cost Breakdown by scope;

Survey and GIS Services Estimated \$25,000 to \$30,000

Environmental Services Estimated \$30,000 to \$35,000

Civil Services Estimated \$25,000 to \$28,000

Total estimate; \$80,000 - \$93,000

References;

Tom Strack, Crow Wing Co., Perry May, Over the Hills ATV Club, Meredith Warmuth, Cuyuna Lake Mountain Bike Club, 5 County/Municipal Engineer/Public Works including John Welle.

Qualifications of Staff;

Yes

References;

Widseth Smith Nolting (WSN) Perry May, Over the Hills ATV Club and John Welle, Aitkin County Highway Department.

• What projects or events have you worked with WSN. on and were any of them Trail and or ATV Trail related.

The Emily Blind Lake ATV Trail required a SWPPP (Storm Water Protection Plan Permit) for the construction of the ATV trail. Crow Wing County advised me to use WSN to fill out the needed documents to apply for the permit. We (myself and Tom Strack from CWC) held an initial meeting on the project scope at WSN, and CWC shared GIS files of the trail alignment. After the meeting the next step was for WSN to provide a proposal for the application. Proposal consisted of labor hours, schedule of completion, and final application documents. After acceptance of the proposal, my club issued them a purchase order for the work.

What were your general impressions of WSN, i.e., were they prompt, on budget, collaborative and professional, or not?

Very professional and collaborative. The proposal numbers were a little late (2 weeks) beyond request date. WSN just hired a new Civil Engineer and assigned him to the trail project. The new Engineer asked many good questions, but did not have first-hand experience constructing a recreational trail through the woods and across wetlands. Tom and I spent a good amount of the first meeting describing Grant-In-Aid minimum requirement details, and also details such as a puncheon boardwalk to cross a wetland.

Do feel that they were helpful in moving the project ahead with a good understanding of your project goals and expectations, how so? Yes, the new Engineer was familiar with the SWPPP application process. What he lacked in trail construction understanding, he knew what was needed for the permitting process. The final SWPPP documents were over and above what both Tom and I felt was needed. We underestimated this process by 1/2 of the final costs. I cannot complain about the final documents and permits, but felt if WSN knew a little more about recreational trails, we may not have had to do so much due diligence on the paperwork for application -or maybe I should have known more about the work needed for the SWPPP process

Would you recommend WSN for the Mille Lacs East ATV Connector Trail?

Yes. - I have no complaints about the interaction with WSN or the level of professionalism they put into the task. I was a little bit taken back on the cost of a SWPPP permit and documents needed. I think WSN is a fine Engineering firm, but feel their cost will be on the premium side of other proposals. The final SWPPP documents were 2-weeks late also. It did not deter our overall project schedule. Final documents were all electronically shared.

Any additional comments or observations?

WSN is currently working on a design /feasibility for a bridge over Sand Creek in the Mississippi Northwoods ATV Trail area for a possible new multi-use trail in Crow Wing County. The County is leading that effort, using ATV dedicated account funds. Ryan Simonson is leading that effort. The WSN accounting department was willing to work with us to invoice for work completed, so that this could be submitted within the Grant period. One of the questions you may want to ask WSN is their knowledge of State of MN Grant-In-Aid ATV Trail design and if they have ever attended a OHV Trails workshop. This area was weak when I met with them.

What projects or events have you worked with WSN. on and were any of them Trail and or ATV Trail related.

- We've worked with WSN on many projects over the years. We typically have them do all of our hydraulic analysis for culvert sizing, they design about half of our bridge structures, they've done a few preliminary topographic surveys for our road reconstruction projects, performed wetland delineations on numerous projects, and designed municipal streets projects in Aitkin and Palisade . We utilized their architectural staff for one of our shop buildings and they are currently working on our office renovation/expansion project. They were also involved with the bridge substructure design for the paved bike trail over the Ripple River on the south end of Aitkin behind the motel.

What were your general impressions of WSN, i.e., were they prompt, on budget, collaborative and professional, or not?

- They are better than most consultants when it comes to schedules and budgets and are very collaborative and professional to work with. They are one of my favorite consultants to work with, if not the favorite, as they, unlike many consultants are down-to-earth, good to work with, and not nearly as driven by corporate profit as many of the larger consulting firms.

Do feel that they were helpful in moving the project ahead with a good understanding of your project goals and expectations, how so?

- On all of the projects we have worked with them on, which numbers probably over twenty or even thirty, they've always been helpful in moving the project forward with a clear understanding of the project and the related goals, budget, etc.

Would you recommend WSN for the Mille Lacs East ATV Connector Trail?

- I would highly recommend WSN, now just Widseth, for this project. They are a unique combination of a consulting firm that is large enough to have all the necessary services under their own roof, yet small enough to provide that local friendly service that isn't driven by a larger corporate structure.



CIVIL AND ENVIRONMENTAL ENGINEERING • PLANNING
MINING • LAND SURVEYING • LAND DATA BASE MAPPING

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email: info@brn-eng.com

March 3, 2020

Aitkin County Government Center
ATTN: Ross Wagner
307 2nd Street NW #316
Aitkin, MN 56431

Re: RFP for Professional Engineering Services for the Mille Lacs East ATV Trail Extension Project

Dear Mr. Wagner;

Benchmark Engineering, Inc. is pleased to provide a professional services proposal to Aitkin County for the Mille Lacs East ATV Trail Extension Project. Benchmark has worked on several ATV projects and has completed environmental permitting, engineering design, surveying, and project management. With our team's technical and professional experience in surveying, design, and project management, we feel that we are especially qualified for this project.

We understand that Aitkin County has received \$1.5 million in bonding to connect to the Northwoods ATV Trail System. We understand that the project will include scoping, design, bidding, and construction observation services and will also likely require environmental permitting and right-of-way permissions. Engineering and environmental fees may vary depending on the project. Benchmark Engineering would be happy to assist in any or all of the above tasks for Aitkin County to complete this project.

Due to property ownership and environmental considerations, project timelines may vary significantly. Benchmark Engineering would plan to meet with the county and stakeholders as soon as possible to discuss possible issues and project scope priorities. We would anticipate engineering design, right-of-way acquisition, and environmental review to begin spring and summer of 2020. Based on previous project experience, we anticipate the trail alignment, permitting, and right-of-way to be finalized and ready for construction by summer of 2021.

After an initial meeting, Benchmark Engineering would request to visit the trails with a county representative or stakeholder in order to become familiar with the project. After that, we would begin environmental and right-of-way work. We would assume to visit the site a few more times throughout the project as well as attending a couple of public meetings. Benchmark Engineering would also provide construction observation and staking services as needed during construction.

Attached, please find our statement of qualifications, including project experience and hourly rates. If any additional information is needed, please contact Jeremy Schwarze or me.

Thank you for your consideration, and please do not hesitate to contact our office with any questions.

Sincerely,
Benchmark Engineering, Inc.

A handwritten signature in black ink that reads "Alan J. Johnson". The signature is written in a cursive style with a large initial "A".

Alan J. Johnson, P.E.
President



Benchmark Engineering, Inc.

» Providing Engineering & Surveying Services since 1993 «

Alan Johnson, President

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- Professional Staff
- Hourly Rate Sheet
- Professional References



Company Introduction

Benchmark Engineering, Inc. is an independent, locally owned engineering firm located in Mountain Iron, Minnesota, established in 1993.

Benchmark Engineering and its parent firms have over 40 years of experience, offering professional services to its clients throughout Northern Minnesota. These services include Civil and Environmental Engineering, Land Surveying, Subdivision and Land Planning, Mining, and Land Database Design and Development. Our goal is to meet our client's needs through resourceful and practical solutions, supported by a continued commitment to service.

Our Mountain Iron, Minnesota office provides a professional, knowledgeable staff of 15 full time team members for all aspects of your project - from design to project closeout.

Civil Engineering and Environmental Services

Benchmark Engineering, Inc. provides Professional Civil Engineering services and environmental permitting assistance to public and private clients. Our broad scope of services include:

- Preliminary and Final Design
- Project Memoranda
- Project Planning
- Construction and Project Management
- Attendance at Public Meetings
- Recreational Facilities
- MPCA Stormwater Permitting
- Wetland Permitting Assistance



Company Introduction

Land Surveying Services

Benchmark Engineering, Inc. offers a variety of land surveying services to public and private landowners, municipalities and mining companies. Our field survey personnel utilize the latest Trimble GPS and Robotic Total Station equipment to gather the necessary field information in the most efficient and cost-effective manner. Benchmark's technicians use the latest computer-aided drafting and design (CAD) systems and ArcGIS Database Information Management software for all phases of our civil engineering and land surveying work. These systems interface with our electronic data collection system to create a completely integrated design for planning and construction. Benchmark Engineering's land surveying services include:

- Construction Staking
- Boundary & Topographic Surveys
- Platting & Subdivision Planning
- Land Database Information Systems
- Remonumentation of Townships
- Property Surveying
- Property Descriptions and Easements
- ALTA Surveys
- GPS Surveys
- Large Tract/Section Breakdown



Company Introduction

Project Team Approach

In some cases our clients may request services, such as electrical engineering, architecture, or mechanical engineering, that are not a specialty of our firm. In these cases we work with the client to determine the best fit and team with the appropriate firm. Over the years, we have successfully teamed with a variety of firms when these services have been required.

Funding

Benchmark Engineering, Inc. is able to assist our clients in acquiring funds from numerous sources. These funding sources include: Iron Range Resources, USDA-Rural Development, Dept. of Commerce, Dept. of Employment and Economic Development (DEED), Army Corps of Engineers Section 569 and St. Louis County Community Development Block Grant (CDBG) funding. We have also secured Petrofund reimbursement and Clean Water and Drinking Water Revolving Fund loans through the Minnesota Public Facilities Authority.



Recreational Projects

Benchmark Engineering, Inc. has provided engineering and land surveying services to several cities and recreational organizations for the design and construction of motorized and non-motorized trails. Organizations include the Northern Traxx ATV Club, Trail Hawks Snowmobile Club, Voyageur Country ATV, and the St. Louis and Lake Counties Regional Railroad Authority (Mesabi Trail).

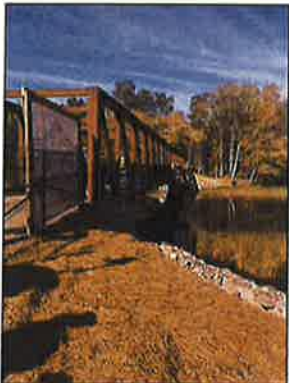
Mesabi Trail Projects



Mesabi Trail Bridge over Wynne Lake

- ◆ Embarrass to Wahlsten Road - 8 miles (2020 construction)
- ◆ Eagles Nest Town Hall to Camp Lake Road - 3 miles (completed 2017)
- ◆ Giants Ridge to Highway 135 - 5 miles, including a bridge over Wynne Lake (completed 2012)
- ◆ Over the years, Benchmark has been involved with over 44 miles of the Mesabi Trail

ATV Trail Projects



ATV Trail Bridge over the Vermillion River

- ◆ Voyageur Country ATV Vermillion Falls Picnic Area to Crane Lake Resort Community - 5.5 miles (2020 construction)
- ◆ Voyageur Country ATV Forest Rd 601 to Kabustasa Rd - 4.5 miles, including a bridge over the Vermillion River (completed 2019)
- ◆ Northern Traxx ATV Highway 5 Bar & Grill to Shannon Lake Road - 5 miles (completed 2016)
- ◆ Northern Traxx ATV Chisholm to Highway 5 Bar & Grill - 10 miles (completed 2011)

Other Projects



Snowmobile Bridge over the St. Louis River

- ◆ Voyageur Country ATV Master Plan Development (formatted for Greater Minnesota Regional Parks and Trails Commission)
- ◆ Mountain Iron Multi-Use Trail from Downtown to South Grove - 1 mile
- ◆ Trail Hawks Snowmobile Bridge over St. Louis River - surveying, observation, and project management services
- ◆ Ironworld Discovery Center Trail Paving Project
- ◆ Mesabi Station Trailhead Facility Site Design



Alan Johnson, P.E. President, Professional Engineer

Alan Johnson began working in the fields of surveying, construction staking and engineering in 2003. Alan joined Benchmark Engineering, Inc. in 2007 and purchased in December 2017 to become Owner/President. Alan is the City Engineer for local municipalities, and is responsible for preparing plans and specifications, project management tasks, and completing cost estimates and feasibility studies. Alan also has worked as an on-site Project Representative for a wide variety of municipal projects and private development projects.

Education

Bachelor of Science
Civil Engineering
Minnesota State University, 2005

Licenses / Certificates

Professional Engineer
Minnesota Reg. No. 48185

MNDOT Design of
Construction SWPPP

Bituminous Street 1 & 2

MSHA

eRailSafe

Project Experience

CSAH / MSAH Projects:

- ◆ Itasca County CASH - 16 & 82, Keewatin 2015

Plans and Specifications:

- ◆ Aurora, MN 2019 Watermain Improvements
- ◆ Eveleth, MN 700 Block Jackson St. Sanitary Sewer Improvements
- ◆ Keewatin, MN 2016 Street Improvements
- ◆ Mountain Iron, MN Douglas Court Improvements
- ◆ Virginia, MN Building Demolitions
- ◆ Keewatin, MN Problast Site Expansion
- ◆ Mountain Iron, MN 2015 Street Improvements
- ◆ Virginia, MN South Grove Tennis Court Reconstruction
- ◆ Keewatin, MN Mt. Iron Drive Reconstruct
- ◆ Mountain Iron, MN Woodland Estate's Street Improvements
- ◆ Virginia, MN Nichols Pond Decommissioning
- ◆ Keewatin, MN Parkview School addition
- ◆ Mountain Iron, MN Natural Harvest Site Expansion
- ◆ Virginia, MN Washke Site Improvements

Project Management:

- ◆ Eveleth, MN 700 Block Jackson St. Sanitary Sewer Improvement
- ◆ Mountain Iron, MN 2016 Street Improvements
- ◆ Keewatin, MN Downtown Storm Sewer
- ◆ Mountain Iron, MN Wastewater Treatment Plant Aeration Improvements
- ◆ Keewatin, MN Mt. Iron Drive Improvements
- ◆ Mountain Iron, MN 2019 Sanitary Sewer Improvements
- ◆ Keewatin, MN Problast Expansion

Storm Water/Detention Ponds:

- ◆ Buhl, MN 2014 Ziegler Site Drainage Ponds
- ◆ Aurora & Orr, MN 2013 & 2014 Assisted Living Facility Ponds
- ◆ Mt. Iron, MN 2013 Rock Ridge Regional Detention Pond
- ◆ Woodland Estate's Development



Jeremy Schwarze, P.E. Project Engineer

Jeremy has worked in the fields of both civil and mining engineering, surveying, and construction management since 2011. He joined Benchmark in 2015 and currently works on design, permitting, and project management tasks. He serves local municipalities as City Engineer and assists clients with a wide variety of site development and recreational projects.

Education

Bachelor of Science
Civil Engineering
University of Minnesota
Duluth, 2012

Licenses / Certificates

Professional Engineer
Minnesota Reg. No. 55498

MnDOT Design of
Construction SWPPP

eRailSafe

Project Experience

Recreational Design Projects:

- ◆ 2019 (in progress) Voyageur Country ATV Vermilion Falls Rd to Crane Lake Trail Improvements
- ◆ 2019 Mesabi Trail Embarrass to Wahlsten Road Segment
- ◆ 2019 Voyageur Country ATV Forest Rd 601 to Kabustasa Rd Trail Improvements
- ◆ 2018 Voyageur Country ATV Environmental Permitting and Master Plan Development
- ◆ 2016 Mesabi Trail Eagles Nest Town Hall to Camp Lake Road Segment (State Aid)
- ◆ 2016 Mountain Iron Downtown to South Grove Bike Trail
- ◆ 2016 Northern Traxx ATV Connors Rd to Shannon Lake Rd Trail Improvements (Chisholm)

Municipal Projects:

- ◆ 2019 Eveleth Water Tower Improvements
- ◆ 2019 Eveleth Jackson Street 300 Block Improvements
- ◆ 2018 Eveleth Alley Improvements
- ◆ 2018 Downtown Mountain Iron Sanitary Sewer CIP Improvements

Site Design and Development:

- ◆ 2018 Iron Range Tykes Learning Center Site Development (Mt. Iron)
- ◆ 2018 Eveleth-Virginia Airport Infrastructure and Site Development
- ◆ 2017 Mountain Iron New High School Site Development & Storm Water Pond Design
- ◆ 2017 Short Stop Gas Station Site Development & Storm Water Pond Design (Buhl)
- ◆ 2016 Rock Ridge Retail Center Site Development (Mtn. Iron)



Anthony Palcich, P.L.S. Land Surveyor



Tony joined Benchmark Engineering in January 2019 with 12 years of land surveying experience. He is experienced in a variety of survey projects, including boundary, topographic, Remonumentation; and construction. He is responsible for survey project management on a daily basis.

Education

Bachelor of Science
Land Surveying
St Cloud State University, 2010

Associate of Arts, Civil
Engineering Technology
Lake Superior College, 2008

Licenses / Certificates

Professional Land Surveyor
Minnesota Reg. No.
53737

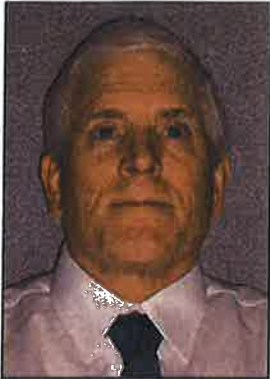
eRailSafe

MSHA

MSPS member

Project Experience

- ◆ NRCS Conservation easement for Mears Tract in Section 14-163-46 - Kittson County, Minnesota. This project consisted of record research section corner recovery, placement of property monuments, drafting of Certificate of Survey and Location of Government Corner Certificates.
- ◆ NRCS Conservation easement for Storm Tract in Section 35-160-45, Kittson County, Minnesota. This project consisted of record research section corner recovery, placement of property monuments, drafting of Certificate of Survey and location of Government Corner Certificates.
- ◆ Township Remonumentation, Polk County, MN, 2010-2018
 - Remonument all township corners, including corner searches record research and Corner Certificates.
- ◆ Township Corner Remonumentation, Polk County, MN, 2012
 - Remonument corners every 3 miles, including corner searched and record research, and Corner Certificates
- ◆ Highway Remonumentation, Lake of the Woods County, MN, 2018
 - Remonument corners on selected county roads, including corner searches, record research, and Corner Certificates
- ◆ Highway Remonumentation, Polk County, MN, 2010-2018
 - Remonument corners on select county roads
- ◆ Highway Remonumentation, Pennington County, MN, 2015
 - Remonument corners on select county roads
- ◆ US Forest Service, 2019
 - Retracement and Remonumentation of 13 sections
- ◆ Teck America, St. Louis County, 2019
 - Retracement and remonumentation of 5 sections
- ◆ Corner certificates, property descriptions and easements, Construction Staking



Rodney Flannigan, P.L.S. Professional Land Surveyor

Rodney Flannigan has been working in the areas of engineering and land surveying since 1976. In June 1993, Rodney purchased all records and equipment from John Baker Engineering to become president and owner of Benchmark Engineering, Inc. In 2017, he sold Benchmark Engineering to Alan Johnson and continues to assist the company.

Rodney is responsible for land surveying projects. Rodney provides cost estimates, land surveying quotes, designs and develops Land Information Systems and all tasks associated with the land surveys.

Education

Associate of Arts -
Civil Engineering
Rochester Community
College, 1976

AutoCAD Course
Hibbing Community College,
1990

Licenses / Certificates

Licensed Land Surveyor
Minnesota Reg.
No. 19792

Affiliations

Minnesota Society of
Professional Surveyors

Arrowhead Chapter of
Land Surveyors

National Institute for Civil
Engineering Technology

Project Experience

Land Surveying:

- Corner Certificates, Property Descriptions and Easements
- Property, Boundary and Topography Surveys, and Subdivision Platting
- Construction Staking
- Common Interest Communities, Condominium & Subdivision Planning
- GPS Surveying, Government Corner Remonumentation
- Land Data Base Information Systems
- Forest Service Project - 2018 -19
 - Retracement and Remonumentation of 13 sections
- Saint Louis County Remonumentation Project

Engineering:

- Site Designs for Commercial Development Sites
- Municipal Turn back Projects in Hibbing, Virginia and Chisholm, MN
- Design and Staking for:
 - Keewatin Main Street
 - Babbitt Business District
 - Marble Business District
 - Mountain Iron Park Ridge Development
 - Mountain Iron Energy Park Development
 - Mountain Iron Laurentian Energy Park
 - Mesabi Nugget Facility and Mining Development



Jeremy Aho

Civil Designer/Technician



Jeremy is a Senior Civil Designer and has been with Benchmark Engineering since 1995. Jeremy is responsible for engineering designs, processing field crew data, survey management and providing technical assistance to office staff. He has completed advanced computer hardware and software training and is responsible for maintaining the CAD standards within Benchmark Engineering. Jeremy is well-versed in Autocad, Civil3D, and ArcGIS programs.

Education

Associate of Applied Science
Computer Aided Drafting &
Design
Hibbing Community College
1995

Licenses / Certificates

Autodesk Civil 3D
Fundamentals

FAA Licensed Drone Pilot
eRailSafe

Project Experience

Mining Projects:

- ◆ Mesabi Nugget
 - ◆ Northshore Mining
 - ◆ United Taconite
 - ◆ Essar Steel
- Railroad and Access Road Designs
Pellet Pile Volumes
Yard inventory volumes
Mine Access Road Design &
Tailings Pipeline Design

Roadway Design Projects:

- ◆ Minnesota Power
 - ◆ USS-Minntac
- Access Roadway to Taconite Ridge
Access Road & County Road 102 Realignment (State Aid)

State Aid & County Projects:

- ◆ Virginia, MN
 - ◆ Chisholm, MN
 - ◆ Eveleth, MN
- 2nd Avenue/9th Street Turnback
9th Avenue West
Main Street Turnback
Lincoln, Monroe, Douglas Streets

Residential Developments:

- ◆ Mountain Iron, MN
 - ◆ Hibbing, MN
- Unity Addition Phase I & II
Mesabi Woods Development

Commercial Developments:

- ◆ Virginia, MN
 - ◆ Mountain Iron, MN
- Natural Food Harvest Site
Park Ridge Commercial Development
Laurentian Clinic Site

Recreational Trails:

- Mesabi Trail Segments including:
- ◆ Hibbing to Buhl
 - ◆ Nashwauk to Pengilly
 - ◆ Giant's Ridge to Hwy 135 (State Aid)



Alex Troumbly Design Engineer

Alex has worked in the fields of civil engineering and surveying. Alex joined Benchmark Engineering in the summer of 2015 as an Intern. After graduating from the University of Minnesota Duluth in 2017, he was hired as a Design Engineer, with duties including design and inspection on civil engineering projects. He has also assisted as a Mine Engineer and Survey Crew Chief.

Education

Bachelor of Science
Civil Engineering
University of Minnesota Duluth,
2017

Licenses / Certificates

MSHA

eRailSafe

Affiliations

Member of the Sons of the
American Legion

Project Experience

Design Engineer projects :

- ◆ 2019 Keewatin Force main
- ◆ Hibbing Taconite Mine Engineering Office to help perform mining operations.
- ◆ Jackson Street Improvements, Eveleth
- ◆ Unity Drive Water Improvements
- ◆ Aurora Watermain Inspection
- ◆ McKinley Utility Improvements

Survey Crew Chief for major construction projects:

- ◆ Duluth Road Construction - Central Entrance to Michigan Street
- ◆ Two Harbors Road Construction Hwy 61
- ◆ Hibbing Airport Construction
- ◆ CN Railroad staking and monitoring
- ◆ 2019 Forest Service Remonumentation
- ◆ Bathymetric Surveying
- ◆ Mesabi East School Staking



Joshua McDonnell Land Surveyor-in-Training



Josh has worked in the fields of surveying and construction staking since 2003, and joined Benchmark Engineering in 2018. He has experience surveying using GPS and Total Station, construction staking, drone flight-processing with Pix4D software, AutoCAD and model building.

Education

AAS in Civil Engineering
Lake Superior College
2004

Bachelors Degree in Land Survey/
GIS Mapping
St. Cloud University
2006

Licenses \ Certificates

Minnesota LSIT

eRailSafe

MNDOT
Aggregate Production
&
Grading & Base Level 1 & 2

MSHA

Project Experience

- ◆ US Forest Service retracement and remonumentation of 13 sections
- ◆ Teck American Property Survey of 5 sections in Saint Louis County
- ◆ Flood Plain surveys
- ◆ Hibbing Airport - Parking Lot Expansion
- ◆ Hibbing Airport - Taxiway expansion - 2018-19
- ◆ 2019 Eveleth Airport Improvements
- ◆ Ely Airport - Parking lot and apron - 2018-19
- ◆ Gravel Pit drone flights and volume calculations
- ◆ Boundary & property surveys
- ◆ CN Railroad construction staking and monitoring
- ◆ Mesabi East School staking
- ◆ Mine Pellet Audits
- ◆ Bathymetric Surveys
- ◆ Polymet Control, drone survey



Lauren Buffetta

Design Engineer

Lauren joined Benchmark Engineering in the fall of 2019 as a Design Engineer. Her duties include design and drafting on civil engineering projects, cost estimates, and client meetings.

Education

Bachelor of Science
Civil Engineering
Florida State University
2007

Project Experience

Design Engineer projects :

- ◆ 2019 Keewatin Force main
- ◆ Municipal maps - Utilities, Waterwater Treatment Plants, Zoning
- ◆ Cost estimates - Road reconstruction, Sanitary and Stormwater improvements, Trails
- ◆ Client meetings

Licenses / Certificates

EI, Florida



Technical Staff

In addition to the aforementioned professionals, Benchmark Engineering, Inc. has a substantial, experienced and well-versed technical staff. These employees provide a vast array of knowledge and field experience in various aspects of civil engineering and survey design.

- ◆ **Robert Ruuhela** - Surveying Crew Chief, Mining Operations, FAA Licensed Drone Pilot
Benchmark Engineering since 2007; Industry experience since 1990
- ◆ **Kyle Flannigan** - , Surveying Crew Chief, Mining Operations, CST Level III Construction
FAA Licensed Drone Pilot
Benchmark Engineering since 2006
- ◆ **Bjorn Twite** - Survey Crew Technician, Mining Operations, CST Level III Construction
FAA Licensed Drone Pilot
Benchmark Engineering since 2013
- ◆ **Tim Gray** - Survey Crew Technician, Mining Operations, FAA Licensed Drone Pilot
Benchmark Engineering since 2018
- ◆ **Walter Skahl** - Surveying Crew Chief, FAA Licensed Drone Pilot
Benchmark Engineering since 2000
- ◆ **Aaron Troumbly** - Survey Crew Technician, FAA Licensed Drone Pilot
Benchmark Engineering since 2018
- ◆ **Mckenzie Schreffler** - Survey Crew Technician, FAA Licensed Drone Pilot
Benchmark Engineering since 2019

2020 Hourly Rate Sheet

ENGINEERING FEES

Professional Engineer	125.00
Design Engineer	100.00
Project Management	95.00
Senior Design Engineering Technician	95.00
CAD Technician	85.00
On-Site Project Representative	70.00

SURVEYING FEES

Professional Land Surveyor	110.00	
Land Surveyor in Training	95.00	
Senior Design Surveying Technician	95.00	
CAD Technician	85.00	
Drone Pilot (No Survey Equipment)	95.00	
1 Person Survey Crew	110.00	(OT) 125.00
2 Person Survey	145.00	(OT) 175.00
2 Person with Drone/2 GPS/Bathymetry	155.00	
3 Person Survey	165.00	(OT) 210.00

PREVAILING WAGE

1 Person Survey Crew	125.00	(OT) 140.00
2 Person Survey Crew	165.00	(OT) 200.00
3 Person Survey Crew	220.00	(OT) 250.00

PREVAILING WAGE/HH

1 Person Survey Crew	130.00	(OT) 145.00
2 Person Survey Crew	185.00	(OT) 215.00
3 Person Survey Crew	230.00	(OT) 270.00

OTHER FEES

Utility Locator – Standard	80.00
Utility Locator – w/GPS	110.00

OUTSIDE SERVICES – Including:

Direct Cost

- Soils & Material Testing
- Wetland Delineations
- Outside Consulting Fees for Acquisition of Alternative Funding

The following items will be at no charge

- Assistance with cost estimates & grant applications for various funding sources, such as: UDSA, IRRRB, CDBG, ARDC, DNR, DEED, ACOE, MNDOT, State & Federal Trail Grants
- Project Administration
- Mileage
- Clerical
- Telephone
- Total Station & GPS Equipment
- Project Related Meetings, Including:
 - City Council
 - Planning & Zoning
 - Public Hearings
 - HRA

Rates valid January 1 through December 31, 2020



Professional References

City of Aurora

Wayne Thuringer
16 West 2nd Ave
Aurora, MN 55705
218-229-2231

City of Ely

Harold Langowski
209 E Chapman Street
Ely, MN 55731
218-365-3224

City of Eveleth

Jerry Rosati
413 Pierce Street
Eveleth, MN 55734
218-744-4329

City of Keewatin

Bill King
PO Box 190
Keewatin, MN 55753
218-778-6517

City of McKinley

Tony Nygaard
PO Box 2088
McKinley, MN 55741
218-749-5313

City of Mountain Iron

Craig Wainio
8586 Enterprise Drive South
Mountain Iron, MN 55768
218-748-7570

City of Orr

Cheri Carter
4429 Highway 53
Orr, MN 55771
218-757-3288

City of Taconite

Mike Troumbly
PO Box 137
Taconite, MN 55768
218-245-1831

City of Virginia

Britt See-Benes
327 - 1st Street South
Virginia, MN 55792
218-748-7500

Regional Rail Authority

Bob Manzoline
111 Station 44 Road
Eveleth, MN 55734
218-744-2653

Northern Traxx ATV Club

Larry Folstad
3730 Mayfair Ave
Hibbing, MN 55746
218-969-6789

Mountain Iron-Buhl School

District 712
5529 Emerald Ave
Mt. Iron, MN 55768
218-735-8271

Independent School District 706

Robert Judnick
411 5th Avenue South
Virginia, MN 55792
218-749-5437

IRRRB

Chris Ismil
4261 Hwy 535
Eveleth, MN 55734
218-274-7000

Hibbing Taconite Company

Chris Winter
PO Box 589
Hibbing, MN 55746
218-262-5953

Arcelor Mittal Minorca

Steve Mekkes
PO Box 1
Virginia, MN 55792
218-749-5910

United Taconite

Perri Fiorini
PO Box 180
Eveleth, MN 55734
218-744-7815

Northshore Mining

Chris Tokvam
10 Outer Drive
Silver Bay, MN 55614
218-226-6002

US Steel - Minntac

Rob Wilmunen
PO Box 417
Mountain Iron, MN 55768
218-749-7553

ATV Project Summary:

Voyageur Country ATV Vermilion Falls Road to Crane Lake Trail Improvements

- Project Cost: \$506,238.30
- Funding/Sponsor: IRRRB Regional Trails Grant and DNR Federal Recreational Trails Program Grant/St. Louis County
- Project Description: 5.6 miles of trail improvements, including wetland and stormwater permitting, culverts, aggregate fill, and a 256' long by 12' wide elevated timber boardwalk
- Benchmark assisted with environmental permitting, trail design, and project management

Voyageur Country ATV Forest Road 601 to Kabustasa Road Trail Improvements

- Project Cost: \$1,260,360.00
- Funding/Sponsor: IRRRB Regional Trails Grant/City of Ely
- Project Description: 4.5 miles of trail improvements, including culverts, aggregate fill, and a 185' long by 12' wide prefabricated steel truss bridge over the Vermilion River; also included wetland, stormwater, and DNR public waters permitting
- Benchmark assisted with environmental permitting, trail design, and project management

Northern Traxx ATV Connors Road to Shannon Lake Road Trail Improvements

- Project Cost: \$122,764.00
- Funding/Sponsor: DNR Federal Recreational Trails Program Grant/City of Chisholm
- Project Description: 3 miles of trail improvements, including wetland and stormwater permitting, culverts, aggregate fill, and on-ground boardwalks
- Benchmark assisted with environmental permitting, trail design, and project management

Northern Traxx ATV Chisholm to Connors Road Trail Improvements

- Project Cost: \$170,518.04
- Project Description: 11 miles of trail improvements, including wetland and stormwater permitting, culverts, and aggregate fill
- Benchmark assisted with environmental permitting, trail design, and project management

Mesabi Trail: Eagles Nest Town Hall to Camp Lake Road

- Project Cost: \$1,051,354.60
- Project Description: 3.1 miles of paved multi-use trail, including wetland permitting, fencing, culverts, aggregate base, bituminous pavement, and one kiosk
- Benchmark assisted with all aspects of the project, including design, permitting, bidding, construction staking, and full-time observation

See attached bid tabs of recent projects to see common trail items and costs.

For more details, please contact us.



8/29/2019

**SLCPW
Project Bid Abstract**

Project Name: CP 0000-438737 - Vermilion Falls Rd to Gold Coast Rd ATV Trail Contract No.:

Client: St. Louis County Public Works Department Project No.: CP 0000-438737

Bid Opening: 08/29/2019 10:00 AM Owner: Saint Louis County Public Works Department - Virginia

Project: CP 0000-438737 - CP 0000-438737 - Vermilion Falls Rd to Gold Coast Rd ATV Trail				George Bougalis and Sons Co.		Meyer Contracting Inc.		Utility Systems of America, Inc		
Line No.	Item	Units	Quantity	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	
BASE BID										
1	2021.501 MOBILIZATION	LUMP SUM	1	\$128,000.00	\$128,000.00	\$61,281.98	\$61,281.98	\$75,000.00	\$75,000.00	
2	2101.501 CLEARING & GRUBBING	LUMP SUM	1	\$1,500.00	\$1,500.00	\$23,142.00	\$23,142.00	\$40,000.00	\$40,000.00	
3	2104.503 REMOVE PIPE CULVERTS	LIN FT	86	\$6.00	\$516.00	\$28.25	\$2,429.50	\$10.00	\$860.00	
4	2104.601 REMOVE MISCELLANEOUS STRUCTURES	LUMP SUM	1	\$1,500.00	\$1,500.00	\$6,717.00	\$6,717.00	\$7,500.00	\$7,500.00	
5	2105.504 GEOTEXTILE FABRIC TYPE 5	SQ YD	3350	\$1.65	\$5,527.50	\$2.60	\$8,710.00	\$4.00	\$13,400.00	
6	2105.601 SITE GRADING	LUMP SUM	1	\$6,250.00	\$6,250.00	\$31,138.00	\$31,138.00	\$15,000.00	\$15,000.00	
7	2105.603 CONSTRUCT DRAINAGE DITCH	LIN FT	900	\$18.00	\$16,200.00	\$73.00	\$65,700.00	\$14.00	\$12,600.00	
8	2118.507 AGGREGATE SURFACING (CV) CLASS SPECIAL	CU YD	970	\$59.00	\$57,230.00	\$113.00	\$109,610.00	\$45.00	\$43,650.00	
9	2403.603 TIMBER BOARDWALK	LIN FT	256.5	\$580.00	\$148,770.00	\$848.00	\$217,512.00	\$1,100.00	\$282,150.00	
10	2411.507 GRANULAR BACKFILL (CV)	CU YD	80	\$26.00	\$2,080.00	\$130.00	\$10,400.00	\$45.00	\$3,600.00	
11	2452.602 HELICAL PILE LOAD TEST	EACH	2	\$3,200.00	\$6,400.00	\$5,500.00	\$11,000.00	\$6,500.00	\$13,000.00	
12	2452.602 HELICAL PILING 10' LONG	EACH	34	\$583.00	\$19,822.00	\$1,161.00	\$39,474.00	\$1,200.00	\$40,800.00	
13	2452.603 ADDITIONAL HELICAL PILING LENGTH	LIN FT	393.2	\$44.00	\$17,300.80	\$35.00	\$13,762.00	\$68.00	\$26,737.60	
14	2501.502 18" CAS PIPE APRON	EACH	18	\$310.00	\$5,580.00	\$661.00	\$11,898.00	\$400.00	\$7,200.00	
15	2501.502 24" CAS PIPE APRON	EACH	2	\$341.00	\$682.00	\$753.50	\$1,507.00	\$575.00	\$1,150.00	
16	2501.503 18" CAS PIPE CULVERT	LIN FT	180	\$47.00	\$8,460.00	\$80.50	\$14,490.00	\$50.00	\$9,000.00	
17	2501.503 24" CAS PIPE CULVERT	LIN FT	20	\$52.00	\$1,040.00	\$86.75	\$1,735.00	\$60.00	\$1,200.00	
18	2511.507 RANDOM RIPRAP CLASS III	CU YD	150	\$64.00	\$9,600.00	\$160.50	\$24,075.00	\$75.00	\$11,250.00	
19	2540.603 ON-GROUND PUNCHEON	LIN FT	1310	\$47.00	\$61,570.00	\$91.25	\$119,537.50	\$225.00	\$294,750.00	
20	2557.602 INSTALL VEHICULAR GATE	EACH	1	\$2,400.00	\$2,400.00	\$2,175.00	\$2,175.00	\$1,800.00	\$1,800.00	
21	2563.602 FLEXIBLE DELINEATOR TYPE A	EACH	14	\$115.00	\$1,610.00	\$75.00	\$1,050.00	\$150.00	\$2,100.00	
22	2573.503 SILT FENCE, TYPE PA	LIN FT	1400	\$3.00	\$4,200.00	\$3.50	\$4,900.00	\$6.00	\$8,400.00	
Total BASE BID:						\$506,238.30		\$782,243.98		\$911,147.60
CP 0000-438737 ALTERNATE BID										

Project: CP 0000-438737 - CP 0000-438737 - Vermilion Falls Rd to Gold Coast Rd ATV Trail					George Bougalis and Sons Co		Meyer Contracting Inc.		Utility Systems of America, Inc	
Line No.	Item		Units	Quantity	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
23	2021.501	MOBILIZATION	LUMP SUM	1	\$128,000.00	\$128,000.00	\$61,281.98	\$61,281.98	\$75,000.00	\$75,000.00
24	2101.501	CLEARING & GRUBBING	LUMP SUM	1	\$1,500.00	\$1,500.00	\$23,142.00	\$23,142.00	\$40,000.00	\$40,000.00
25	2104.503	REMOVE PIPE CULVERTS	LIN FT	86	\$6.00	\$516.00	\$28.25	\$2,429.50	\$10.00	\$860.00
26	2104.601	REMOVE MISCELLANEOUS STRUCTURES	LUMP SUM	1	\$1,500.00	\$1,500.00	\$6,717.00	\$6,717.00	\$7,500.00	\$7,500.00
27	2105.504	GEOTEXTILE FABRIC TYPE 5	SQ YD	2975	\$1.65	\$4,908.75	\$2.60	\$7,735.00	\$4.00	\$11,900.00
28	2105.601	SITE GRADING	LUMP SUM	1	\$6,250.00	\$6,250.00	\$31,138.00	\$31,138.00	\$15,000.00	\$15,000.00
29	2105.603	CONSTRUCT DRAINAGE DITCH	LIN FT	900	\$18.00	\$16,200.00	\$73.00	\$65,700.00	\$14.00	\$12,600.00
30	2118.507	AGGREGATE SURFACING (CV) CLASS SPECIAL	CU YD	830	\$59.00	\$48,970.00	\$113.00	\$93,790.00	\$45.00	\$37,350.00
31	2403.603	TIMBER BOARDWALK	LIN FT	256.5	\$580.00	\$148,770.00	\$848.00	\$217,512.00	\$1,100.00	\$282,150.00
32	2411.507	GRANULAR BACKFILL (CV)	CU YD	80	\$26.00	\$2,080.00	\$130.00	\$10,400.00	\$45.00	\$3,600.00
33	2452.602	HELICAL PILE LOAD TEST	EACH	2	\$3,200.00	\$6,400.00	\$5,500.00	\$11,000.00	\$6,500.00	\$13,000.00
34	2452.602	HELICAL PILING 10' LONG	EACH	34	\$583.00	\$19,822.00	\$1,161.00	\$39,474.00	\$1,200.00	\$40,800.00
35	2452.603	ADDITIONAL HELICAL PILING LENGTH	LIN FT	393.2	\$44.00	\$17,300.80	\$35.00	\$13,762.00	\$68.00	\$26,737.60
36	2501.502	18" CAS PIPE APRON	EACH	18	\$310.00	\$5,580.00	\$661.00	\$11,898.00	\$400.00	\$7,200.00
37	2501.502	24" CAS PIPE APRON	EACH	2	\$341.00	\$682.00	\$753.50	\$1,507.00	\$575.00	\$1,150.00
38	2501.503	18" CAS PIPE CULVERT	LIN FT	180	\$47.00	\$8,460.00	\$80.50	\$14,490.00	\$50.00	\$9,000.00
39	2501.503	24" CAS PIPE CULVERT	LIN FT	20	\$52.00	\$1,040.00	\$86.75	\$1,735.00	\$60.00	\$1,200.00
40	2511.507	RANDOM RIPRAP CLASS III	CU YD	150	\$64.00	\$9,600.00	\$160.50	\$24,075.00	\$75.00	\$11,250.00
41	2540.601	ON-GROUND PUNCHEON	LUMP SUM	1	\$46,000.00	\$46,000.00	\$70,559.37	\$70,559.37	\$250,000.00	\$250,000.00
42	2557.602	INSTALL VEHICULAR GATE	EACH	1	\$2,400.00	\$2,400.00	\$2,175.00	\$2,175.00	\$1,800.00	\$1,800.00
43	2573.503	SILT FENCE, TYPE PA	LIN FT	1400	\$3.00	\$4,200.00	\$3.50	\$4,900.00	\$6.00	\$8,400.00
Total CP 0000-438737 ALTERNATE BID:						\$480,179.55		\$715,420.85		\$856,497.60
Total BASE BID:						\$506,238.30		\$782,243.98		\$911,147.60
Total CP 0000-438737 ALTERNATE BID:						\$480,179.55		\$715,420.85		\$856,497.60
Totals for Project CP 0000-438737						\$986,417.85		\$1,497,664.83		\$1,767,645.20

I hereby certify that this is an exact reproduction of bids received.

Certified By: 

Date: 8/29/2019

License No. 40351



BID TABULATION

Date: April 1, 2019

Forest Rd 601 to Kabustasa Rd Trail Improvements and Vermilion River Bridge Construction
 St. Louis County
 Project #: VCAC18-01

BASE BID

BID ITEM	ITEM	UNITS	ESTIMATED QUANTITIES	GEORGE BOUGALIS AND SONS		HOOVER CONSTRUCTION	
				UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT
2021.501	MOBILIZATION	LUMP SUM	1	\$ 150,000.00	\$ 150,000.00	\$ 78,400.00	\$ 78,400.00
2101.501	CLEARING AND GRUBBING	LUMP SUM	1	\$ 4,600.00	\$ 4,600.00	\$ 21,000.00	\$ 21,000.00
2104.503	REMOVE PIPE CULVERTS	LIN. FT.	48	\$ 6.00	\$ 288.00	\$ 22.00	\$ 1,056.00
2104.602	REMOVE MISCELLANEOUS STRUCTURES	EACH	2	\$ 924.00	\$ 1,848.00	\$ 285.00	\$ 570.00
2211.507	AGGREGATE BASE (CV) CLASS 5	CU. YD.	670	\$ 36.00	\$ 24,120.00	\$ 46.50	\$ 31,155.00
2411.507	GRANULAR BACKFILL (CV)	CU. YD.	1800	\$ 24.00	\$ 43,200.00	\$ 30.00	\$ 54,000.00
2501.502	18" CAS PIPE APRON	EACH	36	\$ 1,351.00	\$ 48,636.00	\$ 390.00	\$ 14,040.00
2501.502	24" CAS PIPE APRON	EACH	2	\$ 1,425.00	\$ 2,850.00	\$ 460.00	\$ 920.00
2501.502	48" CAS PIPE APRON	EACH	8	\$ 2,760.00	\$ 22,080.00	\$ 2,000.00	\$ 16,000.00
2501.503	18" CAS PIPE CULVERT	LIN. FT.	362	\$ 51.00	\$ 18,462.00	\$ 95.00	\$ 34,390.00
2501.503	24" CAS PIPE CULVERT	LIN. FT.	30	\$ 72.00	\$ 2,160.00	\$ 96.00	\$ 2,880.00
2501.503	48" CAS PIPE CULVERT	LIN. FT.	136	\$ 131.00	\$ 17,816.00	\$ 150.00	\$ 20,400.00
2511.507	RANDOM RIPRAP CLASS III	CU. YD.	456	\$ 63.00	\$ 28,728.00	\$ 71.00	\$ 32,376.00
2557.503	WIRE FENCE DESIGN 60V-9322	LIN. FT.	80	\$ 86.00	\$ 6,880.00	\$ 84.00	\$ 6,720.00
2573.503	FLOATATION SILT CURTAIN TYPE MOVING WATER	LIN. FT.	200	\$ 20.00	\$ 4,000.00	\$ 33.00	\$ 6,600.00
2573.503	SILT FENCE, TYPE PA	LIN. FT.	400	\$ 5.00	\$ 2,000.00	\$ 4.70	\$ 1,880.00
2575.504	EROSION CONTROL BLANKET CAT. 4P	SQ. YD.	350	\$ 2.00	\$ 700.00	\$ 5.50	\$ 1,925.00
2573.503	TURF ESTABLISHMENT	EACH	1	\$ 1,636.00	\$ 1,636.00	\$ 3,700.00	\$ 3,700.00
2401.507	STRUCTURAL CONCRETE (1G52)	CU. YD.	30	\$ 392.00	\$ 11,760.00	\$ 1,735.00	\$ 52,050.00
2401.507	STRUCTURAL CONCRETE (3B52)	CU. YD.	27	\$ 945.00	\$ 25,515.00	\$ 2,600.00	\$ 70,200.00
2401.508	REINFORCEMENT BARS	POUND	1820	\$ 8.00	\$ 14,560.00	\$ 3.00	\$ 5,460.00
2401.508	REINFORCEMENT BARS (EPOXY COATED)	POUND	2860	\$ 8.00	\$ 22,880.00	\$ 5.05	\$ 14,443.00
2401.601	STRUCTURE EXCAVATION	LUMP SUM	1	\$ 1,200.00	\$ 1,200.00	\$ 13,300.00	\$ 13,300.00
2401.601	SLOPE PREPARATION	LUMP SUM	1	\$ 38,000.00	\$ 38,000.00	\$ 4,675.00	\$ 4,675.00
2402.601	PEDESTRIAN BRIDGE (SUPERSTRUCTURE)	LUMP SUM	1	\$ 750,000.00	\$ 750,000.00	\$ 1,061,000.00	\$ 1,061,000.00
2451.507	AGGREGATE BACKFILL (CV)	CU. YD.	33	\$ 47.00	\$ 1,551.00	\$ 62.00	\$ 2,046.00
2511.504	GEOTEXTILE FILTER TYPE 7	SQ. YD.	520	\$ 3.00	\$ 1,560.00	\$ 3.60	\$ 1,872.00
2511.507	RANDOM RIP RAP CLASS III	CU. YD.	215	\$ 62.00	\$ 13,330.00	\$ 71.00	\$ 15,265.00

\$ 1,260,360.00

\$ 1,568,323.00

RESPONSIBLE CONTRACTOR FORMS
 BID BOND
 ADDENDUM ACKNOWLEDGED

✓
 ✓
 ✓



Bid Tab
Northern Traxx ATV Club
Chisholm ATV Trail Extension

ITEM NO.	ITEM	UNITS	PROJECT QUANTITY	ENGINEERS ESTIMATE		ACM CONSTRUCTION		GEORGE BOUGALIS & SONS	
				UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT
2101.511	CLEARING AND GRUBBING	LUMP SUM	1.0	\$ 10,000.00	\$ 10,000.00	\$ 32,000.00	\$ 32,000.00	\$ 25,000.00	\$ 25,000.00
2105.501	COMMON EXCAVATION	CU. YD.	4567.0	\$ 8.00	\$ 36,536.00	\$ 3.45	\$ 15,756.15	\$ 7.00	\$ 31,969.00
2105.505	MUCK EXCAVATION	CU. YD.	33.0	\$ 10.00	\$ 330.00	\$ 10.00	\$ 330.00	\$ 15.00	\$ 495.00
2105.522	SELECT GRANULAR BORROW (CV)	CU. YD.	40.0	\$ 20.00	\$ 800.00	\$ 12.00	\$ 480.00	\$ 20.00	\$ 800.00
2105.604	GEOTEXTILE FABRIC, TYPE VI	SQ. YD.	480.0	\$ 1.50	\$ 720.00	\$ 3.50	\$ 1,680.00	\$ 2.00	\$ 960.00
2211.503	AGGREGATE BASE (CV) CLASS 5	CU. YD.	1200.00	\$ 25.00	\$ 30,000.00	\$ 27.30	\$ 32,760.00	\$ 25.00	\$ 30,000.00
2501.521	21" SPAN CAS PIPE-ARCH CULVERT	LIN. FT.	30.0	\$ 50.00	\$ 1,500.00	\$ 46.63	\$ 1,398.90	\$ 50.00	\$ 1,500.00
2501.521	28" SPAN CAS PIPE-ARCH CULVERT	LIN. FT.	110.0	\$ 55.00	\$ 6,050.00	\$ 48.55	\$ 5,339.95	\$ 50.00	\$ 5,500.00
2501.525	21" SPAN CAS PIPE-ARCH APRON	EACH	2.0	\$ 200.00	\$ 400.00	\$ 240.00	\$ 480.00	\$ 350.00	\$ 700.00
2501.525	28" SPAN CAS PIPE-ARCH APRON	EACH	10.0	\$ 250.00	\$ 2,500.00	\$ 250.00	\$ 2,500.00	\$ 400.00	\$ 4,000.00
2511.501	RANDOM RIPRAP CLASS III	CU. YD.	200.0	\$ 50.00	\$ 10,000.00	\$ 35.00	\$ 7,000.00	\$ 30.00	\$ 6,000.00
2557.517	VEHICULAR GATE DESIGN SPECIAL-SINGLE	EACH	4.0	\$ 2,000.00	\$ 8,000.00	\$ 1,750.00	\$ 7,000.00	\$ 2,200.00	\$ 8,800.00
2573.502	SILT FENCE	LIN. FT.	3930.0	\$ 3.00	\$ 11,790.00	\$ 2.30	\$ 9,039.00	\$ 2.00	\$ 7,860.00
2575.523	EROSION CONTROL BLANKET	SQ. YD.	200.0	\$ 2.00	\$ 400.00	\$ 3.50	\$ 700.00	\$ 2.00	\$ 400.00
2572.555	TURF ESTABLISHMENT	LUMP SUM	1.0	\$ 1,000.00	\$ 1,000.00	\$ 4,500.00	\$ 4,500.00	\$ 5,000.00	\$ 5,000.00
2575.602	SEDIMENT TRAPS	EACH	16.00	\$ 500.00	\$ 8,000.00	\$ 112.50	\$ 1,800.00	\$ 550.00	\$ 8,800.00

Total Estimated Cost for Project

\$ 128,026.00

\$ 122,764.00

\$ 137,784.00

TONY'S CONSTRUCTION		TBG COMPANY LLC	
UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT
\$ 6,000.00	\$ 6,000.00	\$ 40,640.00	\$ 40,640.00
\$ 9.00	\$ 41,103.00	\$ 3.00	\$ 13,701.00
\$ 14.00	\$ 462.00	\$ 10.00	\$ 330.00
\$ 18.00	\$ 720.00	\$ 16.00	\$ 640.00
\$ 2.00	\$ 960.00	\$ 2.00	\$ 960.00
\$ 28.00	\$ 33,600.00	\$ 19.50	\$ 23,400.00
\$ 34.00	\$ 1,020.00	\$ 30.00	\$ 900.00
\$ 43.00	\$ 4,730.00	\$ 30.00	\$ 3,300.00
\$ 200.00	\$ 400.00	\$ 100.00	\$ 200.00
\$ 250.00	\$ 2,500.00	\$ 200.00	\$ 2,000.00
\$ 30.00	\$ 6,000.00	\$ 30.00	\$ 6,000.00
\$ 1,600.00	\$ 6,400.00	\$ 1,000.00	\$ 4,000.00
\$ 2.50	\$ 9,825.00	\$ 4.00	\$ 15,720.00
\$ 1.50	\$ 300.00	\$ 5.00	\$ 1,000.00
\$ 4,500.00	\$ 4,500.00	\$ 3,000.00	\$ 3,000.00
\$ 650.00	\$ 10,400.00	\$ 1,000.00	\$ 16,000.00

\$ 128,920.00

\$ 131,791.00

Notes:

- Assumes 6 inch thick, 8 foot wide class 5 aggregate for approx. 3 miles of trail
- Assumes less than 2 acres of clearing and grubbing to be paid for



BID TABULATION
NORTHERN TRAXX ATV CLUB HIGHWAY 5 TRAIL CONSTRUCTION
CHISHOLM, MN
NTAC11-01

September 6, 2011

BASE BID			ENGINEERS ESTIMATE			RADOTICH ENTERPRISES, LLC		GEORGE BOUGALIS AND SONS, CO.		VIITA'S EXCAVATING, INC.	
SPEC. NO.	ITEM	UNITS	ESTIMATED QUANTITY	UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT	UNIT COST	TOTAL AMOUNT
2101.5	CLEARING & GRUBBING	LUMP SUM	1.0	#####	\$25,000.00	\$34,625.00	\$34,625.00	\$38,000.00	\$38,000.00	\$32,699.26	\$32,699.26
2105.522	SELECT GRANULAR BORROW (CV)	CU. YD.	2,900.0	\$ 13.00	\$37,700.00	\$15.95	\$46,255.00	\$18.00	\$52,200.00	\$20.44	\$59,276.00
2105.604	GEOTEXTILE FABRIC, TYPE 5 WOVEN	SQ. YD.	2,667.0	\$ 1.50	\$4,000.50	\$0.95	\$2,533.65	\$1.50	\$4,000.50	\$1.76	\$4,693.92
2211.503	AGGREGATE BASE – CLASS 5 (CV)	CU. YD.	1,445.0	\$ 21.00	\$30,345.00	\$19.70	\$28,466.50	\$22.00	\$31,790.00	\$33.22	\$48,002.90
2501.511	18" CAS PIPE CULVERT	LIN. FT.	225.0	\$ 37.00	\$8,325.00	\$21.85	\$4,916.25	\$53.00	\$11,925.00	\$83.37	\$18,758.25
2501.511	24" CAS PIPE CULVERT	LIN. FT.	54.0	\$ 40.00	\$2,160.00	\$24.76	\$1,337.04	\$56.00	\$3,024.00	\$83.56	\$4,512.24
2501.511	36" CAS PIPE CULVERT	LIN. FT.	24.0	\$ 50.00	\$1,200.00	\$44.60	\$1,070.40	\$66.00	\$1,584.00	\$107.67	\$2,584.08
2501.515	18" CAS PIPE APRON	EACH	34.0	\$ 200.00	\$6,800.00	\$206.50	\$7,021.00	\$90.00	\$3,060.00	\$260.00	\$8,840.00
2501.515	24" CAS PIPE APRON	EACH	6.0	\$ 275.00	\$1,650.00	\$295.00	\$1,770.00	\$120.00	\$720.00	\$340.00	\$2,040.00
2501.515	36" CAS PIPE APRON	EACH	4.0	\$ 750.00	\$3,000.00	\$719.80	\$2,879.20	\$230.00	\$920.00	\$725.00	\$2,900.00
2511.501	RANDOM RIPRAP CLASS III	CU. YD.	56.0	\$ 50.00	\$2,800.00	\$54.00	\$3,024.00	\$30.00	\$1,680.00	\$62.00	\$3,472.00
2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN. FT.	6,400.0	\$ 3.00	\$19,200.00	\$2.30	\$14,720.00	\$3.50	\$22,400.00	\$1.38	\$8,832.00
2575.602	SEDIMENT TRAPS	EACH	30.0	\$ 450.00	\$13,500.00	\$730.00	\$21,900.00	\$200.00	\$6,000.00	\$976.00	\$29,280.00
BASE BID TOTAL					\$155,680.50	\$170,518.04	\$177,303.50	\$225,890.65			


 Benchmark Engineering, Inc.

SP 069-090-030 - Project Bid Abstract



8/12/2016

SLCPW
Project Bid Abstract

Project Name: SP 69-090-030, CP 0000-213215 - Ped/Bike Trail Contract No.:
 Client: St. Louis and Lake Counties Regional Railroad Authority Project No.: SP 069-090-030
 Bid Opening: 08/11/2016 10:00 AM Owner: Saint Louis County Public Works Department - Pike Lake

Line No.	Item	Units	Quantity	Mesabi Bituminous, Inc.		TNT Aggregates LLC		KGM Contractors, Inc		Ulland Brothers, Inc.	
				Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	2021.501 MOBILIZATION	LUMP SUM	1	\$33,500.00	\$33,500.00	\$85,635.40	\$85,635.40	\$73,000.00	\$73,000.00	\$81,606.25	\$81,606.25
2	2101.506 GRUBBING	ACRE	19	\$3,000.00	\$57,000.00	\$3,000.00	\$57,000.00	\$5,000.00	\$95,000.00	\$5,960.00	\$113,240.00
3	2104.513 SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	38	\$5.00	\$190.00	\$3.00	\$114.00	\$4.15	\$157.70	\$2.00	\$76.00
4	2105.501 COMMON EXCAVATION	CU YD	50293	\$7.20	\$362,109.60	\$5.80	\$291,699.40	\$5.25	\$264,038.25	\$7.25	\$364,624.25
5	2105.503 ROCK EXCAVATION	CU YD	7616	\$1.00	\$7,616.00	\$22.00	\$167,552.00	\$34.00	\$258,944.00	\$49.00	\$373,184.00
6	2105.505 MUCK EXCAVATION	CU YD	250	\$10.00	\$2,500.00	\$20.00	\$5,000.00	\$10.00	\$2,500.00	\$11.00	\$2,750.00
7	2105.522 SELECT GRANULAR BORROW MOD 10% (CV)	CU YD	400	\$15.00	\$6,000.00	\$16.00	\$6,400.00	\$16.75	\$6,700.00	\$43.25	\$17,300.00
8	2105.523 COMMON BORROW (CV)	CU YD	6870	\$8.00	\$54,960.00	\$0.01	\$68.70	\$18.00	\$123,660.00	\$9.50	\$65,265.00
9	2105.604 GEOTEXTILE FABRIC TYPE VI	SQ YD	250	\$3.00	\$750.00	\$2.25	\$562.50	\$4.00	\$1,000.00	\$4.50	\$1,125.00
10	2105.604 SOIL STERILIZATION	SQ YD	24601	\$1.00	\$24,601.00	\$1.00	\$24,601.00	\$1.05	\$25,831.05	\$1.00	\$24,601.00
11	2118.607 AGGREGATE SURFACING (CV) CLASS 5	CU YD	488	\$34.50	\$16,767.00	\$34.50	\$16,767.00	\$37.00	\$17,982.00	\$36.00	\$17,496.00
12	2211.503 AGGREGATE BASE (CV) CLASS 5	CU YD	2820	\$28.00	\$78,960.00	\$28.00	\$78,960.00	\$30.00	\$84,600.00	\$29.00	\$81,780.00
13	2360.501 TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	2587	\$68.00	\$174,556.00	\$68.00	\$174,556.00	\$80.80	\$207,413.60	\$69.00	\$177,123.00
14	2501.511 18" CS PIPE CULVERT	LIN FT	310	\$35.00	\$10,850.00	\$40.00	\$12,400.00	\$42.00	\$13,020.00	\$43.00	\$13,330.00
15	2501.515 18" GS PIPE APRON	EACH	12	\$100.00	\$1,200.00	\$150.00	\$1,800.00	\$275.00	\$3,300.00	\$250.00	\$3,000.00
16	2511.501 RANDOM RIPRAP CLASS III	CU YD	84	\$30.00	\$2,520.00	\$35.00	\$2,940.00	\$30.00	\$2,520.00	\$65.00	\$5,460.00
17	2521.501 4" CONCRETE WALK	SQ FT	80	\$10.00	\$800.00	\$10.00	\$800.00	\$16.00	\$1,280.00	\$18.00	\$1,440.00
18	2521.501 6" CONCRETE WALK-REINFORCED	SQ FT	80	\$10.00	\$800.00	\$15.00	\$1,200.00	\$21.00	\$1,680.00	\$22.50	\$1,800.00
19	2531.618 TRUNCATED DOMES	SQ FT	40	\$35.00	\$1,400.00	\$50.00	\$2,000.00	\$48.00	\$1,920.00	\$40.00	\$1,600.00
20	2554.509 GUIDE POST TYPE B	EACH	12	\$100.00	\$1,200.00	\$100.00	\$1,200.00	\$105.00	\$1,260.00	\$105.00	\$1,260.00
21	2557.501 WIRE FENCE DESIGN 60V-9322	LIN FT	6550	\$21.00	\$137,550.00	\$16.80	\$110,040.00	\$17.65	\$115,607.50	\$17.15	\$112,332.50
22	2563.601 TRAFFIC CONTROL	LUMP SUM	1	\$100.00	\$100.00	\$3,500.00	\$3,500.00	\$4,725.00	\$4,725.00	\$4,600.00	\$4,600.00
23	2564.531 SIGN PANELS TYPE C	SQ FT	20	\$60.00	\$1,200.00	\$100.00	\$2,000.00	\$210.00	\$4,200.00	\$205.00	\$4,100.00
24	2564.901 TRAFFIC SIGNS AND DEVICES	LUMP SUM	1	\$1.00	\$1.00	\$500.00	\$500.00	\$1,050.00	\$1,050.00	\$1.00	\$1.00
25	2573.502 SILT FENCE, TYPE PA	LIN FT	2820	\$2.95	\$8,319.00	\$2.45	\$6,909.00	\$2.60	\$7,332.00	\$2.50	\$7,050.00

SP 069-090-030 - Project Bid Abstract

Project: SP 069-090-030 - SP 69-090-030, CP 0000-213215 - Ped/Bike Trail				Mesabi Bituminous, Inc.		TNT Aggregates LLC		KGM Contractors, Inc		Ulland Brothers, Inc.		
Line No.	Item	Units	Quantity	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	
26	2573.602	ROCK DITCH CHECK	EACH	14	\$250.00	\$3,500.00	\$225.00	\$3,150.00	\$645.00	\$9,030.00	\$440.00	\$6,160.00
27	2573.602	SEDIMENT CONTROL STRUCTURE	EACH	20	\$1,800.00	\$36,000.00	\$500.00	\$10,000.00	\$1,300.00	\$26,000.00	\$1,735.00	\$34,700.00
28	2575.505	SODDING TYPE LAWN	SQ YD	40	\$15.00	\$800.00	\$17.50	\$700.00	\$20.00	\$800.00	\$40.00	\$1,600.00
29	2575.511	MULCH MATERIAL TYPE 1	TON	27	\$315.00	\$8,505.00	\$385.00	\$10,395.00	\$405.00	\$10,935.00	\$393.00	\$10,611.00
30	2575.555	TURF ESTABLISHMENT	LUMP SUM	1	\$16,800.00	\$16,800.00	\$18,550.00	\$18,550.00	\$20,000.00	\$20,000.00	\$19,000.00	\$19,000.00
31	2582.502	4" SOLID LINE EPOXY	LIN FT	100	\$5.00	\$500.00	\$10.00	\$1,000.00	\$18.00	\$1,800.00	\$17.00	\$1,700.00
Totals for Project SP 069-090-030						\$1,051,354.60		\$1,098,000.00		\$1,387,286.10		\$1,549,915.00

I hereby certify that this is an exact reproduction of bids received.

Certified By: _____ License No. _____
 Date: _____



Building a Better World
for All of Us[®]

March 6, 2020

RE: Aitkin County, Minnesota
Northwoods Regional ATV Trail System -
Mille Lacs East ATV Connector Trail
SEH No. P-AITKI 154598 10.03

Mr. Ross Wagner
Economic Development & Forest Industry Coordinator
Aitkin County
307 2nd Street NW #316
Aitkin, MN 56431

Dear Mr. Wagner:

Short Elliott Hendrickson Inc. (SEH[®]) is pleased to provide this response to the Request for Proposal (RFP) of professional engineering services for the future Mille Lacs East ATV Connector Trail. The needs identified in the RFP include planning, design, and construction of a first class ATV trail. The trail will connect trail users on the east and northeast side of Mille Lacs Lake to the existing Northwood's ATV Trail System – South Soo Line Grade.

SEH has the staff and experience in completing projects like this. We are currently working with ATV clubs, county staff, and regulatory staff, on completing the Prospector Loop ATV and the Voyageur County ATV trail system in northern Minnesota. Our team worked on bridge designs, environmental reports, and aquatic resource permitting. SEH is licensed and insured to provide the services for this project.

Both Joel Asp and Dan Landrus, who are assigned prominent roles on our team, are originally from Aitkin County and look forward to the opportunity of working in Aitkin County again. They both are passionate about ATV trails and the benefits they provide.

Thank you for considering our proposal. We look forward to discussing our proposal with you. Please let us know if you need any additional information. I can be contacted directly at 320.229.4323 or slange@sehinc.com.

Sincerely,

A handwritten signature in black ink that reads "Scott A. Lange".

Scott A. Lange, PE
Principal
(Lic. MN, ND, SD)

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Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 1200 25th Avenue South, P.O. Box 1717, St. Cloud, MN 56302-1717
SEH is 100% employee-owned | sehinc.com | 320.229.4300 | 800.572.0617 | 888.908.8168 fax

PROPOSAL SUMMARY

Aitkin County received a \$1,500,000 appropriation from bond proceeds for predesign, design, acquisition and construction of an ATV trail to connect the Northwoods Regional ATV trail system with a new trail system the Mille Lacs East ATV Connector Trail. A trail alignment concept was included in the RFP (Map #1). Our stepped approach is summarized below with detailed description of tasks following.

Step 1 – Establish a Preliminary Alignment (\$36,800)

- Clarification of project goals
- Review selection process for Preliminary Alignment
 - Expect to use existing roads (County/Township/Forestry) and build trails that connect these roadways to maximize the funds available
- Identification of approvals, permits, and environmental documents needed for Preliminary Alignment

Step 2 – Once the alignment is established, this step will complete the environmental documents and right of way (ROW) needed (\$45,000 - \$75,000).

- Environmental Assessment Worksheet (EAW):
 - Work with County to verify need and administrative requirements.
- Level 1 Wetland Delineation (desktop review):
 - Review and identify areas of avoidance or impacts.
- Review threatened and endangered species considerations.
- Review archeological & cultural resources considerations.
- Review ROW easements considerations:
 - State, County, and/or Private.

Step 3 – When the environmental documents are completed and the ROW established, this step will complete the design and permitting (\$50,000 - \$80,000).

- Final Alignment:
 - Quantify wetland impacts.
 - Stream crossing and bridge needs.
 - Trail design features.
 - Survey.
 - Erosion control/SWPPP.
- Wetland Permitting and Mitigation Documents.

Step 4 – Bidding Documents (\$15,000 - \$25,000)

- Plans, Specifications, Schedule, Review.

Step 5 – Construction Oversight (TBD)

- Confirming plan details and project specifications are followed.

Total estimated cost of this Scope of Work is \$145,800 - \$216,800. This cost could vary based on the complexity of the preliminary trail alignment selected in Step 1. Review of the cost estimate will occur prior to beginning the next step.

This project provides a great opportunity for collaboration between the successful proposer and Aitkin County. We look forward to hearing from you on this project.

TECHNICAL QUALIFICATIONS

SEH and staff are licensed and insured to complete work within the State of Minnesota. The SEH team brings a substantial portfolio of trail related projects with deliverables similar to Aitkin County's project. The following list of projects below demonstrate our depth of trail experience. This section also introduces our team members that are dedicated to this project.

SEH EXPERIENCE

Voyageur Country ATV Trail Bridge Design over Vermillion River (VCATV Club) – St. Louis County, MN

SEH recently completed the design and engineering for the bridge crossing over the Vermillion River from the trail segment between the Vermillion River Road and Gold coast Road near Crane Lake. Our engineering team supported the club by providing the technical analysis and context-sensitive design for crossing wetland areas, yet creating a bridge suitable for motorized recreational vehicles using heavy timber frame construction deck and railing. This project included preparation of construction documents, which were implemented in 2019 to meet the timeline for a successful grand opening in fall of 2019.

Taconite ATV Trail Wetland Delineation & Route Planning (Trail Prospector Alliance) – St. Louis County, MN

This project gathered the information necessary for environmental review and permitting for the conversion of 27 miles of snowmobile trail and 8 miles of proposed reroute to allow summer ATV use. The SEH project team conducted Level 1 (remote sensing) and Level 2 (routine onsite field review) wetland delineations. The team also coordinated with MNDNR as both land manager and administrator of the Wetland Conservation Act within the trail corridor. The field team accessed remote areas of the site by foot and by ATV (where permissible) between the communities of Tower and Ely in northeastern Minnesota.

ROCORI Trail, Phase II (Rocori Trail Construction Board (RTCB) / Stearns County) – Cold Spring to Rockville, MN

This 3.8 miles of paved bituminous trail project followed combination road and railroad corridors of which 1.4 miles are "trails with rails" design through a narrow overlapping railroad and state highway corridor. Concept design is completed, preliminary right-of-way discussions with the railroad and road authorities have occurred and final design is finalized.

Mesabi Trail Wetland Delineation and Permitting (St. Louis & Lake County Regional Rail Authority) – St. Louis County, MN

Once completed, the Mesabi Trail will be an approximately 145-mile paved recreational trail between Grand Rapids and Ely. The SEH team has assisted with trail design, permitting, survey and easement acquisition, and wetland services for multiple segments of the trail. SEH wetland specialists have conducted Level 1 (remote sensing) and Level 2 (routine onsite field review) wetland delineations for the project. The team has also coordinated with multiple agencies to obtain approval for wetland boundaries and wetland replacement plans.

SEH works on trail projects on a regular basis. As a company we have extensive experience in trail alignment selection, design, and construction. All the key staff members for this project have experience in trail design.

KEY STAFF

Joel Asp – Project Manager

Mr. Asp is a restoration ecologist/natural resource scientist with 25 years of experience specializing in natural resource management. At SEH, he provides wetland services such as wetland delineations, aquatic resource permitting, completion of a variety of environmental documents and project management. Joel has extensive experience with natural resource management and understands the importance of design features to minimize impacts to the natural environment. Joel will manage the project, and lead the wetland and environmental review/permitting efforts.

Dan Landrus, PE (MN) – Lead Engineer

Mr. Landrus is a professional engineer with 8 years of experience being part of engineering projects including rail terminal and yard designs, arterial roadways, construction of utilities and stormwater pollution prevention plan inspections. Dan also has experience in permitting, stormwater management plans, plan and specifications documents, and cost estimating. Dan will lead the engineering design, and will lead the bidding and RPR tasks.

Jason Chopp, PE (MN, IN, OH) – QA/QC ATV Trail Design

Mr. Chopp is a professional engineer with a wide variety of experience in the civil engineering field. His experience includes project management, project planning, design and construction related services. Jason has designed and managed numerous ATV and recreational trail projects in northern Minnesota, and is one of SEH's most experienced trail experts. Jason will assist the engineering team with design, QA/QC, and support of bidding and RPR needs.

Scott Hedlund, PE (MN), PMP – Lead ROW easements

Mr. Hedlund is a project engineer with extensive experience in transportation and civil engineering. Scott has designed, inspected and managed all aspects of several public street, utility and traffic signal projects. His 24 years of experience includes state and federal project development reports, preliminary and final design, construction administration and Right of Way easements/acquisition. Scott will provide senior engineering review and QAQC.

Bryan Tolcser – PWS, CWD – Lead GIS and Remote Sensing

Mr. Tolcser is a professional wetland scientist and Minnesota-certified wetland delineator with 15 years of experience as a wetland biologist on the SEH natural resources team. Bryan's work and research experience includes wetland surveys, remote sensing, tree and vegetation sampling, and Geographic Information Systems (GIS) mapping. Bryan has delineated thousands of wetlands throughout the upper Midwest. Bryan provides wetland permitting services and has experience in wetland functions and values assessments, threatened and endangered species surveys, habitat assessments and Global Positioning Systems (GPS). Bryan will lead the GIS analysis and mapping for the project, and assist with environmental review.

Erin Budrow – Lead Scientist

Ms. Budrow has four years of experience providing wetland services in the upper Midwest. Prior to SEH, Erin interned with WisDOT in Northwest Wisconsin, where she gained in-depth knowledge of the region's forested and wetland landscapes. Erin has completed more than 100 wetland delineations in Minnesota and Wisconsin, further broadening her vegetation and wetland mapping skills, including several rare plant surveys. She is part of several SEH project teams delivering complex wetland delineations, habitat assessments, botanical surveys, monitoring of wetland mitigation sites and reporting. Erin will serve the team out of our Grand Rapids office to provide local wetland field services and assistance with regulatory review and permitting.

PROJECT SCOPE OF WORK

Step 1 – Establish Preliminary Trail Alignment

This task includes conducting a kickoff meeting to review the project scope, assemble existing corridor information, discuss project goals critical project success factors, and define project schedule, milestones, and responsibilities including:

- Clarify goal and best use of available money:
 - Preliminary vs. Optimal Alignments.
- Assemble available information (GIS and local) regarding wetlands, streams, property information, zoning, Natural Heritage Information System (NHIS), archeological.
- Identify permits/approvals required from Township, County, Minnesota Department of Natural Resources (MNDNR) and other regulatory agencies.
- Determine assessments required if overall project triggers an environmental review process (i.e. Environmental Assessment Worksheet (EAW)).

Create maps identifying site considerations such as property ownership, wetland and stream crossing areas, available existing corridors, and steep slope areas. These maps will be used to identify the preliminary alignment for the 60+ miles of trail improvements proposed. SEH and the County will discuss the differences between a preliminary vs optimal alignment and the project costs of creating these alignments. The County will ultimately determine which alignment to proceed towards final design.

An onsite review of the selected alignment corridor to determine any additional areas of constraint or specific areas of improvement are needed. Based on this information, mapping will be updated to refine the preliminary route and a cost estimate will be prepared for the anticipated scope of work for environmental documents (Task 2) and Final Design portion of Task 3.

SEH's staff involved with Step 1 include Bryan Tolcser conducting the GIS remote sensing, Dan Landrus and Jason Chopp reviewing alignments for engineering constructability, and Joel Asp providing local knowledge of the area.

Deliverables:

- Preliminary ATV Trail alignment for the Mille Lacs East ATV Connector Trail.
- Aquatic resources (wetland habitat, public waters, and misc. streams) identified for use in Final design and environmental documents.
- Identify permits/approvals required for Preliminary Trail to become Final ATV Trail alignment.
- Recommend termini locations for potential phasing of project.

Assumptions:

- Use of Map #1 in RFP as the Preferred ATV trail alignment.
- Use of existing forestry roads is allowed.
- County provide GIS data such as forestry roads, previously suggested routes, and environmental documents from previous activities.
- Two meetings, the kickoff meeting and presentation of preliminary trail routes to County staff for selection of Preferred Alignment.

Step 2 – Environmental Documents and Right of Way (ROW)

The selection of the Preliminary Alignment of the Mille Lacs East ATV Connector Trail allows for the determination if the overall project triggers the need for an EAW and the supportive environmental documents. The following provides a cost estimate for the documents potentially required.

A mandatory EAW may be required under Minnesota Rule 4410.4300 Subpart 37 – Recreational Trails if the final alignment constructs a trail at least ten miles long on forested or other naturally vegetated land for recreational use other than snowmobiling or cross-country skiing. SEH will work with the County in making the final determination if a mandatory EAW is needed or not.

Draft and Final EAW, RGU Engagement, and Public Involvement:

The EAW task will involve supporting Aitkin County through collaboration meetings with Aitkin County, as RGU for the EAW. We have estimated SEH's involvement will include one (1) kick-off meeting with the RGU and two (2) additional project team meetings. SEH's Sr. Scientist, Joel Asp, and Sr. Engineer, Scott Hedlund, would lead this task. QA/QC support would be provided by SEH Sr. Scientist, Deric Deuschle, and overall project support would be provided by SEH's, Jason Chopp.

A Draft EAW will be prepared for the County to review and comment. The Draft EAW will include data collection and analysis of the existing trail/forestry roadway information and history of the project from the DNR, County, and other stakeholders/agencies. As relevant to the project, SEH will assess all available data and information furnished by DNR and the County for completeness and accuracy. These data will be used to prepare the Draft EAW for RGU review/approval prior to publication following the Minnesota Environmental Quality Board guidelines. We anticipate that the County will be ultimate "publisher" of the Final EAW as RGU. However, we anticipate that SEH will support in preparing responses to public comments, and where necessary, findings of fact & conclusion to support a decision about the EAW. This task assumes that one public hearing/open house meeting will be held during the 30-day comment period for the EAW. SEH staff will be available at the public meeting/open house to support in preparing for the meeting with handouts, display board, and presentation materials, as needed.

Archeological & Cultural Resources Phase 1:

If determined that this is a requirement of the environmental review process, SEH proposes to subcontract services for archaeological and cultural resources survey for portions of the trail improvements that have not been previously reviewed. Subcontracted services would include onsite and offsite historic research and a summary report suitable for use and inclusion in the EAW, reporting to the State Historic Preservation Office (SHPO), and in support of state and federal wetland permit applications. These data are required documentation for federal wetland permits to ensure compliance with Section 106 of the National Historic Preservation Act.

Wetland Delineation, Reporting, & Agency Review:

This task is Level 1 (desktop review) survey for wetlands/aquatic resources within the preliminary trail alignment to document the boundaries. These data will be used to develop the alignments that minimize impacts to the maximum extent practicable.

The Level 1 delineation would result in preparation of a draft wetland boundaries which will be used for discussions with agencies regarding the needs for Level 2 wetland delineations and the documentations needed for impacts to aquatic resources.

Right of Way Easements and/or Acquisition:

During preliminary design and environmental efforts, the need for roadway easements or ROW acquisition will be discussed. Primarily, the trails will be located on government owned property, limiting the difficulty of the easements. The trail will only be designed on willing land owners properties and if the need for easements or acquisition arises, Scott Hedlund with SEH will provide a scope of services to assist in the process.

Deliverables:

- Draft and Final EAW report with text and supporting documentation.
- Level 1 Wetland Boundaries.
- Identification of ROW issues.

PROJECT DESIGN

Step 3 – Final Design and Aquatic Resource Permitting

Final Design and Specifications will commence after the County selects the Preliminary alignment and requests final design to begin. Field survey and Level 2 (field work) wetland delineation efforts for selected sections of the trail improvement areas will be completed. The survey information will be for details required for engineering design. Examples include stream crossing and bridge needs, steep slopes, and other needs identified throughout the selection process. We will prepare plans and specifications in accordance with the Natural Surface Design Guidelines.

The final plans and specifications will include:

- Title sheet, general layout sheet, typical sections, erosion details, SWPPP, and Clemson leveler details.
- Plan sheets for approximately 60 miles of trail including clearing limits, bridge/culvert locations, and erosion control measures.
- General layout sheets for trail locations with listed performance requirements.

As part of the final plans and specifications we will:

- Define the schedule and controls for contractors that give the County power to enforce the schedule.
- Prepare cost estimates and compare to your overall budget.
- Provide bid assistance including answering contractor questions, meeting with County staff and attending the bid opening and preconstruction conference.

Wetland Permit Application & Agency Review:

SEH will develop wetland permit applications for state (WCA) and federal (Clean Water Act Section 404) permits by defining the project purpose and need, proposed action and impacts, alternatives considered, and mitigation to offset resource impacts.

We anticipate the wetland permit applications will include the following supporting data at a minimum:

- Construction approach and phasing to minimize wetland/aquatic resource impacts.
- Design details (plans and specifications) for trail alignments on, over, and near wetlands/stream crossings.
- Descriptions of wetlands, aquatic resources, and other surface water impacts within temporary and permanent construction areas, including where wetland impacts have been avoided and/or minimized.
- Regulatory jurisdiction based on catchment basin, connectivity to Waters of the U.S., and wetland origin (natural or incidental).
- Wetland mitigation plan (e.g., purchase agreement from available wetland bank to replace impacts within the watershed).

- Other supporting data developed from the EAW that incorporate details on special conditions and/or public interest factors, which are required by the rules of the WCA and Section 404 to facilitate agency reviews.

SEH's staff involved with Step 3 of Project Final Design will be led by Dan Landrus with Max Watercott completing the drafting. Jason Chopp will provide quality assurance and quality control (QA/QC) of the design utilizing his previous ATV trail design experience.

PROJECT BIDDING

Step 4 – Bidding Documents

Bidding the plans and specifications. SEH engineers and project managers will work with County staff to provide bidding documents that meet both Aitkin County and SEH standards. SEH will identify a list of qualified bidders and follow the rules as required with bonding money. Scott Hedlund and Dan Landrus will lead this portion of the project.

PROJECT CONSTRUCTION OVERSIGHT

Step 5 – Construction Oversight

SEH will provide inspections on the critical areas such as any bridge construction or any other structural design. General construction observation will be discussed when the Final Design is nearing completion, and we understand the complexities of the entire trail. Ideally, it would be beneficial to use local staff or ATV club members that are trained or have previous road construction knowledge.

ASSUMPTIONS AND EXCLUSIONS

- Due to the uncertain nature of the final alignment, this scope does not include any easements. Should the selected alignment include these items, SEH will be able to provide a scope and fee for completing these efforts.
- Field survey efforts include up to 40 hours of time (including travel). If additional survey efforts are warranted, this can be addressed with an amendment to our scope and fee. Survey data collection efforts are assumed to be completed in leaf off conditions.
- No hydraulic modeling, bridge survey, hydrology, or hydraulics efforts are included in this scope. Additionally, no permanent stormwater treatment will be required by any local, state, or federal agency. Culverts will be placed and sized upon a "rule of thumb" basis which may result in future trail maintenance after heavy rain events.
- Bridge designs (if needed) will be used from previous ATV Trail design projects. No new bridge designs are included in the scope at this time.

LIST OF REFERENCES

Conrad Kragness
Aitkin County Highway Department
1211 Air Park Drive
Aitkin, MN 56431
218.927.3741
conrad.kragness@co.aitkin.mn.us

Nick Wognum
President of Trail Prospectors Alliance
15 East Chapman Street
Ely, MN 55731
218.343.2019
n.wognum@atvam.org

Ron Potter
ATV Association of Minnesota
PO Box 300
Stacy, MN 55079
218.235.0382
r.potter@atvam.org

COMPENSATION AND SCHEDULE

SEH has developed proposed costs for Steps 1-4 for our staff labor, subcontracted services, travel expenses, equipment, and document production based on what we know today. SEH proposed to discuss Step 5 – Construction Oversight if our firm is selected to provide the professional services. The construction oversight costs can vary widely depending on the final design and complexity of the project. SEH provides this service and could for this project as well, but it prudent to discuss the final cost as the project develops. A summary of these costs by Task are provided in the following summary table. These costs are calculated on an hourly basis and may vary depending on the final alignment of the trail.

Task	Task Description	SEH Estimated Cost*
Step 1	Preliminary Trail Alignment	\$36,800
Step 2	Environmental Documents	\$45,000 - \$75,000
Step 3	Final Design	\$50,000 - \$80,000
Step 4	Project Bidding	\$15,000 - \$25,000
Step 5	Project Construction Oversight	TBD
		\$145,800 - \$216,800
* Estimated cost could vary based on Preliminary Trail Alignment selection. Review of the cost estimate will occur prior to beginning the next step.		

SHORT ELLIOTT HENDRICKSON, INC.

**St. Cloud Office
Hourly Rate Schedule for Engineering Services**

Effective January 1, 2020 – December 31, 2020

Senior Project Manager.....	\$150	-	\$192
Project Manager, Sr Engineer, Sr Scientist, Sr Planner, Sr GIS Specialist	\$118	-	\$150
Project Engineer, Architect, Scientist, Planner	\$95	-	\$155
Registered Land Surveyor.....	\$105	-	\$160
Lead Technician, Lead Resident Project Representative.....	\$110	-	\$125
Staff (Graduate) Engineer, Architect, Scientist	\$90	-	\$120
Senior Technician, GIS Technician, Sr Resident Project Representative	\$95	-	\$115
Survey Crew Chief.....	\$70	-	\$115
Survey Instrument Operator	\$65	-	\$85
Technician, Resident Project Representative.....	\$65	-	\$95
Senior Administrative Assistant	\$65	-	\$99
Administrative Assistant	\$60	-	\$80
Intern	\$46	-	\$65
Specialist			Variable

Reimbursable Expenses:

Printing and Postage Costs	Actual Cost
Subconsultants.....	1.1 x Actual Cost
Mileage.....	IRS Rate
Survey Vehicle and Equipment (Including Hubs, Lath, Irons, etc.)	\$ 4.50 / Hour
GPS Equipment.....	\$30.00 / Hour
Total Station	\$30.00 / Hour
RPR Vehicle	\$16.00 / Day
Regular City Council Meetings	No Cost



A PROPOSAL FOR

Engineering Services for

ATV Trail Extension

FOR AITKIN COUNTY



March 6, 2020
Mr. Ross Wagner
Aitkin County Government Center
307 2nd Street NW #316
Aitkin, MN 56431

Re: Proposal to Provide Engineerin Services for ATV Trail Extension for Aitkin County

Dear Mr. Wagner:

On behalf of WSB, we would like to thank Aitkin County for giving us the opportunity to present our professional services proposal for the ATV Trail Extension Project. We look forward to working collaboratively with you and County staff on this exciting & important public project. You will see in the attached proposal we bring a collaborative team approach to this project to ensure we address all items holistically and that all design solutions are taken into account. Please consider the following while reading this proposal:

FAMILIARITY WITH SIMILAR PROJECTS

Our team brings on-the-ground experience and knowledge to this unique project. Members of our our proposed project team have worked on several similar trail design and construction projects as shown through our project examples. Our knowledge will aid in understanding existing conditions and potential issues as well as answer the why and how questions for the current trail layout and configuration.

PASSIONATE PROFESSIONALS

WSB has office with mixed groups of professionals in our St. Cloud, Baxter, and Duluth locations. We are fortunate to have staff that each bring varying ideas and perspectives to the table during the design process which ensures a well-thought approach for each design solution. Ron Bray, principal, is an avid recreationalist involving both snowmobiling and ATV/UTV trail riding and has previously spent hours riding ATV's in the Foothills State Forest.

Thank you for this opportunity to propose; we look forward to collaborating with Aitkin County on this exciting project. If you have any questions, please contact Mike Nielson at 320.534.5940 or mnielson@wsbeng.com.

Sincerely,
WSB


Mike Nielson, PE
Project Manager

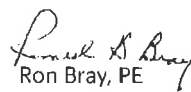

Ron Bray, PE
Principal



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Forge ahead.



WSB is a design and consulting firm specializing in engineering, community planning, environmental, and construction services. Our staff of over 500 improve the way people engage with communities, transportation, infrastructure, energy and our environment. We offer services in over 25 complementary areas that seamlessly integrate planning, design and implementation. Our coast-to-coast client base is served from 14 offices in four states.

**We share a vision to connect your dreams for tomorrow to the needs of today—
the future is ours for the making.**

500+

STAFF

25+

SERVICE AREAS

14

OFFICES

4

STATES

Asset Management Systems | Community Planning | Construction Administration | Construction Materials Testing & Inspection | Design-Build | Economic Development | Environmental Planning & Natural Resources | Environmental Compliance | Geographic Information Systems | Geohazard Risk Assessments | Geotechnical Engineering | Intelligent Transportation Systems | Landscape Architecture | Land Development | Management Analysis & Development | Municipal Engineering | Pavement Management/Forensics | Pipeline | Project Controls | Project Funding | Renewable Energy | Right of Way | Site Validation | Structures | Surveying | Transportation/Traffic | Visualization | Water Resources | Water/Wastewater



Technical Qualifications

WSB is a Minnesota owned consulting firm providing services in civil engineering, planning, environmental, and construction.

Founded in 1995, WSB currently has over 500 staff members who are motivated by a desire to meet challenges with new and innovative approaches. Our corporate culture values creativity, long-lasting relationships, and high technical standards. This culture allows us to offer our clients expertise that delivers cost-effective, thoughtful, and successful projects. WSB meets our clients' needs with service.

WSB has partnered successfully with our clients on many transportation improvements, large and small, and this experience will help drive our approach on this project.



Our proposed team, lead by Ron Bray and Mike Nielson, recently provided the design and construction for Crow Wing County and the MnDNR on the recently completed Cuyuna Lakes Trail-Segment C from Crosby to Deerwood along TH 6/210. **During the design of the Cuyuna Trail, we addressed many of the same issues that Aitkin County must address for the completion of the East Mille Lacs ATV Loop Trail.** These include environmental, cultural and historic project documentation, and coordination with multiple agencies including MnDOT and Townships. Some of the specific design challenges included creating two directional trails adjacent to highway traffic within a limited right of way crossing numerous wetlands. This project will require several creek crossings which will may require box culvert extensions and possible bridge construction. WSB's structural group has extensive experience with stream crossings and minimizing the cost complete an approved crossing method.

The work recently completed on the Cuyuna Lakes Regional Trail involved many of the same environmental and design challenges related to constructing a trail adjacent to a state highway that you will experience with this trail development project. WSB has worked on numerous similar projects and we are familiar with State and local requirements that will be important to achieve project success in the eyes of the stakeholders of the East Mille Lacs ATV Trail. **Our knowledge of the area, combined with our experience on many similar trail projects, will help Aitkin County deliver a successful project.**

On previous projects where wetlands and poor soils existed adjacent to the highway, MNDOT required all fill areas in wetlands to be surcharged for a period of six months to reduce the chance of trail settlement and adverse impacts to the road due to settling trail fill. WSB has the experience to complete these types of soils corrections and if it is determined that slop failure is a concern and as an alternate will investigate the use of Tire Derived Aggregate (TDA) as light weigh fill to avoid the need for costly and time-consuming soil surcharges.

Familiarity with Project Locale

WSB's proposed team is familiar with the project area. **Mike Nielson** previously served as the Isle City Engineer and has fished Mille Lacs Lake for many years. **Chad DeMenge** is a McGregor resident and will be a valuable resource on this project. Chad and **Ron Bray** were involved with the construction of TH210 from Hassman to McGregor. Mike and Chad are working on the Aitkin County Ditch 5 re-alignment with the City of McGregor and John Welle.

WSB has office locations in St. Cloud and Baxter and can have staff resources available upon request. Our team has the following understanding that Aitkin County will participate in the contract as follows:

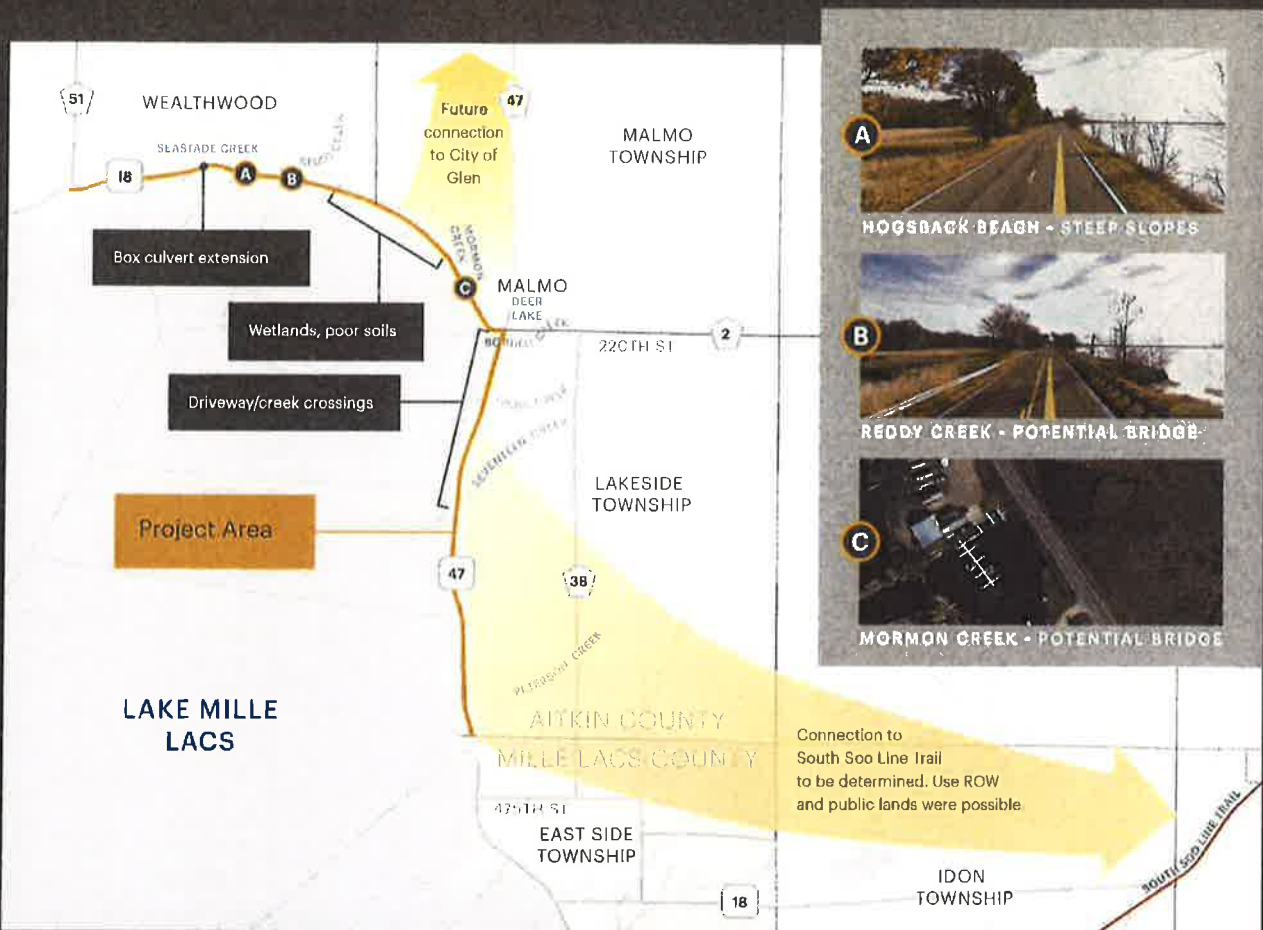
- Aitkin County will administer the contract and have final authorization for all design related decisions. The County will provide all available data relevant to the project including GIS information, aerial photos, 2' contours, and NWI maps. We understand that Aitkin County staff have significant trail design experience and are willing to collaborate with the consultant on this project.
- Aitkin County staff will work with the client to fully scope the project to ensure that all the concepts are reviewed and evaluated properly.
- Aitkin County and MnDOT will be significantly involved in plan review including but not limited to reviewing alignment, profile, cross sections, drainage, erosion control, wetland mitigation signing striping. As well as soliciting input from the engineering staff, we will solicit input from the maintenance department with regards to drainage, and maintenance issues including driveway approach erosion.



Project Understanding

The Mille Lacs East Connector Loop is proposed to be constructed along the north and east shore of Mille Lacs Lake beginning at CR 51 in Wealthwood and connecting to Malmo along TH 18 and south from Malmo along TH 47 to the Aitkin County Line. These segments are approximately 7.5 miles long and 6.2 miles respectively. Future phases will connect the east side trail to the South Soo Line trail utilizing public lands and public right of way and will connect the East Side Loop to the City of Glen. The alignment for the South Soo Line connection has not been determined and will be evaluated as part of this contract. The map below depicts the trail alignment we understand to be the preferred location. The map also indicates known or potential issues along the corridor that will need to be addressed during preliminary design, environmental documentation, and final design.

The Mille Lacs East Connector Loop represents one of several pieces of the Northwoods Regional ATV Trail System, ultimately connecting to the existing 200 miles of ATV trails.





Objectives

There has been a substantial amount of investigation and input into the route segments along the north and east side of Mille Lacs Lake. The primary objectives of the Mille Lacs East ATV Trail:

- Perform preliminary design and verification of the preferred alignment, including cost estimating, for local and state agency approval. This must be completed in time to utilize the existing \$1.5M bonding money to complete construction.
- Obtain county approval of an EAW for the improvements if the total trail length exceeds 25 miles.
- Identify right of way needs and prepare final construction plans and specifications for use in constructing the trail.
- Identify future corridor for connections to Glen and Soo Line South Trail.



Goals

The following goals for the East Mille Lacs ATV Loop are to construct as much of the proposed trail segments with the available \$1,500,000 state funds and to determine routes for the eventual connect to the City of Glen and the South Soo Line Trail. The East Mille Lacs Loop has the goals of:

- Creation of a safe ATV trail within a trunk highway corridor such that users of all skill levels can utilize the system.
- Extension of the East Mille Lacs ATV Trail an additional 7.5 miles from Wealthwood to Malmo and 6.2 miles from Malmo to the south County line.
- Connection of the communities of Wealthwood, Malmo, Glen and Isle to promote economic stability and opportunity as a tourist and business destination.
- Provide users with the opportunity to experience the natural and cultural resources of the area by selecting a preferred alignment that connects lakes, wetlands, parks, playgrounds, services, downtown areas, and cultural amenities.
- Use existing highway and street right of way where practical to minimize both cost and impact to adjacent landowners and natural resources.

Tasks

We understand the work anticipated on the project to consist of the following general tasks:

- Geometric layout preparation consistent with MnDOT & DNR standards.
- Alternative analysis to determine impacts and project costs of alternatives.
- Selection of preferred alternative.
- Coordination with/approval from applicable agencies with regard to alignment selection, layout approval, SEE impacts, Project EAW/EIS, construction documents, and permits if the total trail length exceeds 25 miles.
- Environmental investigation and preparation of Project Memorandum in accordance with State standards.
- Field investigations, including topographic survey, soils, wetlands, and utilities.
- Right of way investigation, determination of acquisition needs, and preparation of legal documents for use in acquiring necessary easements and agreements.
- Preparation of final construction plans, specifications, cost estimate, and appurtenant forms in accordance with MnDOT standards to publicly bid and construct the improvements.





Project Experience

On the following pages we highlight some of our similar experience that shows our ability to deliver the East Mille Lacs ATV Trail project and exceed expectations of clients and stakeholders.

PROJECTS INCLUDE:

- Cuyuna Lakes Trail
- Lake Wobegon
- CR 19 Multi-use Trail

PROJECT EXPERIENCE MATRIX

PROJECT NAME	CLIENT	PRELIM DESIGN	FINAL DESIGN	RAILROAD COORD./DESIGN	ROW SERVICES	SURVEY	PUBLIC INVOLVEMENT	ENVIRONMENTAL DOCUMENTS	PERMITS	UTILITIES	CONSTRUCTION SERVICES	FEDERAL FUNDS	STATE AID FUNDS
20TH STREET MIDTOWN GREENWAY TRAIL	MINNEAPOLIS										●	●	
8TH & PINECONE	ST. CLOUD, MN	●				●	●	●				●	●
BASSFITT CREEK BIKE TRAIL	MINNEAPOLIS, MN	●											
BEEBE LAKE REGIONAL TRAIL	WRIGHT COUNTY, MN (CITY OF HANOVER)	●	●		●	●	●	●	●	●		●	
CR 19 MULTI-USE TRAIL	HERNEPIN COUNTY, MN (CITY OF HANOVER)	●	●		●	●	●	●	●	●		●	
CSAH 13 (NINTON)	WASHINGTON COUNTY, MN	●	●			●		●	●	●		●	●
CSAH 19 TRAIL	WRIGHT COUNTY, MN (CITY OF HANOVER)	●	●			●	●	●	●	●		●	
CSAH 23 TRAIL	CHISAGO COUNTY, MN	●	●			●	●	●	●	●		●	●
EAST BUSH LAKE ROAD BIKE TRAIL	BLOOMINGTON, MN	●	●		●	●	●	●	●	●		●	●
EAST RIVER PARKWAY BIKE TRAIL	ST. PAUL, MN	●	●		●	●	●	●	●	●		●	●
LAKE WOBEGON TRAIL PHASE 3B	STEARNS COUNTY, MN		●								●	●	
LAKE WOBEGON TRAIL PHASE 3C	TODD COUNTY, MN		●			●	●	●	●	●		●	
LAKE WOBEGON TRAIL PHASE 4	STEARNS COUNTY, MN		●			●		●	●	●		●	
LUCE LINE BIKE TRAIL	MINNEAPOLIS/GOLDEN VALLEY, MN	●	●		●	●	●	●	●	●		●	
MISSISSIPPI RIVER REGIONAL TRAIL - EASTERN SEGMENT	MINNIDER TOWNSHIP/HASTINGS, MN	●	●		●	●	●	●	●	●		●	
MISSISSIPPI RIVER REGIONAL TRAIL - INVER GROVE ALIGNMENT	INVER GROVE HEIGHTS, MN	●				●	●	●					
MISSISSIPPI RIVER REGIONAL TRAIL - NORTHERN SEGMENT	SOUTH ST. PAUL/INVER GROVE HEIGHTS, MN	●	●	●	●	●	●	●	●	●		●	
MISSISSIPPI RIVER REGIONAL TRAIL - 17TH STREET TO SPRING LAKE PARK RESERVE	ROSEMOUNT, MN		●		●	●	●	●	●	●		●	
PEDESTRIAN PATHWAY BRIDGE OVER I-94	MONTICELLO, MN	●	●			●	●	●	●	●		●	●
SHAKOPEE PEDESTRIAN BRIDGES	SHAKOPEE, MN	●	●		●	●	●	●	●	●		●	●
TH 95 INTERCHANGE	NORTH BRANCH, MN	●				●	●	●	●	●		●	●
THEODORE WIRTH BIKE TRAIL	MINNEAPOLIS/GOLDEN VALLEY, MN	●	●		●	●	●	●	●	●		●	
VICTORY MEMORIAL PARKWAY TRAIL	MINNEAPOLIS, MN	●	●		●	●	●	●	●	●		●	

Cuyuna Lake Trail – Segment C

CLIENT: **CROW WING COUNTY**

DURATION: **DESIGN: 2012 - 2016 | CONSTRUCTION: 2018 - 2019**

Segment C of the Cuyuna Lakes Trail is approximately four miles long and provides a non-motorized connection between the Cities of Crosby and Deerwood, roughly along the alignment of Trunk Highway 6/210. Segment C represents one of several pieces of the Cuyuna Lakes State Trail, ultimately stretching from the Paul Bunyan State Trail in Baxter to Aitkin—about 20 miles. The trail was legislatively authorized in 2002 and it is part of the Mississippi River Regional Trail (MRRT) that follows the river through 10 states, from its headwaters in Minnesota to the Gulf of Mexico. When Segment C connects the in-place trail and the completed length increased to approximately 10 miles.

PROJECT OBJECTIVES:

- Create a safe recreational trail within a trunk highway corridor that encourages users of all abilities and interests to use it as part of a healthy, outdoor lifestyle.
- Extend the existing piece of the Cuyuna Lakes Trail an additional four miles, connecting regional trail systems and furthering the MRRT.
- Connect the communities of Crosby and Deerwood to promote economic stability and opportunity as a tourist and business destination.
- Provide users the opportunity to experience the natural and cultural resources of the area by selecting a preferred alignment that connects lakes, wetlands, parks, playgrounds, services, downtown areas, and cultural amenities.
- Practical use of existing highway and street right of way to minimize cost and impact to adjacent landowners and natural resources.



WSB performed preliminary design and verification of the preferred alignment, including cost estimating, for local and agency approval. WSB also obtained federal approval of a Project Memorandum for the improvements, identified right of way needs and prepared final construction plans and specifications.

KEY WSB STAFF: MIKE NIELSON | MIKE MOLITOR

ORIGINAL BUDGET: \$1,674,000

ACTUAL COST: \$1,408,000

REFERENCE: ROB HALL | CROW WING COUNTY |
218.824.1110 | ROB.HALL@CROWWING.US

DAVID SOBANIA | MNDNR | 218.203.4389 | DAVE.
SOBINA@DNR.STATE.MN.US

Lake Wobegon Trail Improvements

CLIENT: STEARNS COUNTY AND TODD COUNTY
COMPLETION: 2006

The Lake Wobegon Trail system was completed in phases over nearly ten years. The now completed project extends 46 miles, and is being used by many bicyclists, snowmobilers, roller bladers, hikers, and walkers.

The trail is designed with a 10-foot bituminous paved surface and 2-foot turf shoulders, and the trail system incorporates segments of abandoned railroad lines. Construction also consisted of upgrading the decks and railings on the old rail bridges along with waterway pipe and culvert replacements.

In 2006, the completion of the final phase connected the Lake Wobegon Trail project with a 55-mile long Central Lake Trail system, and now provides additional means of transportation between 18 cities in six counties along a 117-mile transportation corridor.

PHASE IIIA (2003), STEARNS COUNTY

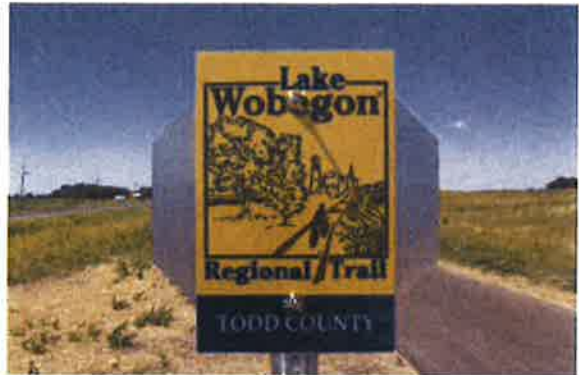
WSB performed construction administration for approximately nine miles of trail – from Avon on the west through St. Joseph on the east.

PHASE IIIB (2006), STEARNS COUNTY

WSB performed final design for the 4.4-mile section of the multi-use trail – from the Todd County line to CSAH 17 in Sauk Centre.

PHASE IIIC (2006), TODD COUNTY

WSB performed final design and construction administration for the 7.7 miles that stretches into Todd County – from the Stearns/Todd County line to Osakis.



PHASE IV (2005), STEARNS COUNTY

WSB performed final design and construction administration for the 3.8 mile segment – from an existing trail head in Holdingford northeasterly to the Morrison County Line.

KEY WSB STAFF: MIKE NIELSON, MIKE MOLITOR

ACTUAL COST: \$2,168,000

REFERENCE: JODI TEICH | STEARNS COUNTY | 455 28TH AVE S | WAITE PARK, MN 56387 | 320.255.6180 | JODI.TEICH@CO.STEARNS.MN.US

CR 19 Multi-Use Trail

CLIENT: HENNEPIN COUNTY/CITY OF HANOVER

DURATION: DESIGN: 2011 - 2013 | CONSTRUCTION: 2015



WSB completed the environmental documentation, preliminary and final design, specifications, bidding documents, and construction staking, observation, and administration. The funding for this project was requested by Hennepin County on behalf of the City of Hanover because Hanover is not a State Aid City.

Work included design of 1.75 miles of multi-use path adjacent to Hennepin CR 19 from the Historic Bridge Crossing over the Crow River east past a mixed land use that includes residential, agricultural, and park land adjacent to an existing trail segment on Hennepin CR 19. This project includes the construction of a 10-foot-wide bituminous trail along this section of CR 19.

WSB completed a preliminary design to determine right of way needs and identify any design exceptions, wetland impacts, and utility relocations that may be required.

To enhance the design of this project, WSB used a 3D software to better identify interferences and design issues and used the 3D renderings and video logs for public engagement to help the public understand how the trail will look when completed.

KEY WSB STAFF: MIKE NIELSON, ANDI MOFFATT, MIKE MOLITOR

ORIGINAL BUDGET: \$877,258

ACTUAL COST: \$869,772

REFERENCE: DANIEL BUCHHOLTZ | FORMER CITY ADMINISTRATOR | HANOVER | 763.784.6491 | DBUCHHOLTZ@SLPMN.ORG

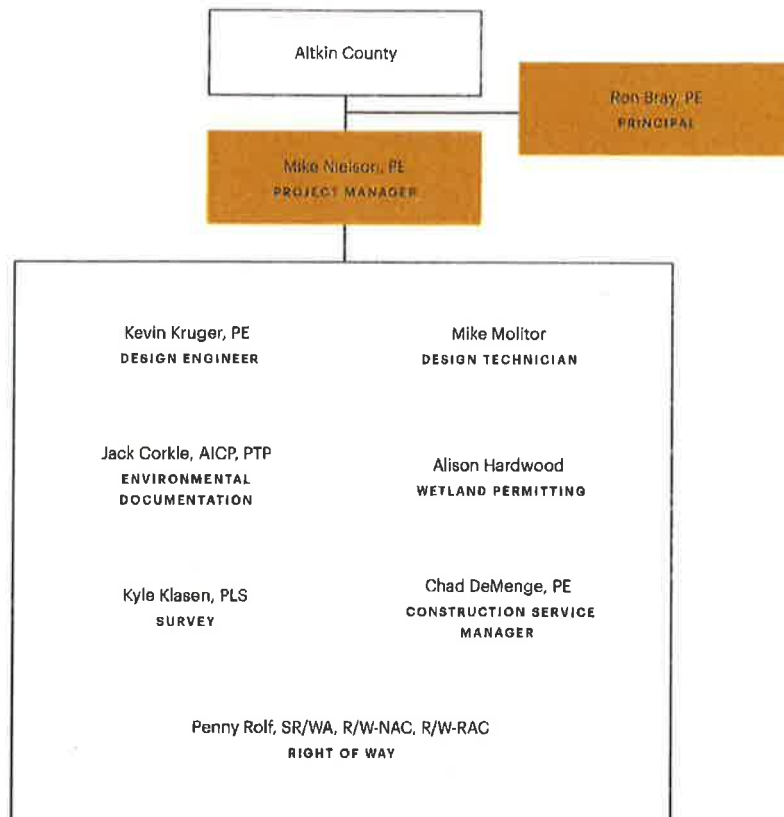


Key Personnel

WSB has assembled a team of qualified professionals – experts with the skills required to successfully deliver a project such as the Cuyuna Lakes Trail Segment C project.

From data collection to environmental documentation to transportation design, each team member brings their specific experience in all the various project aspects into WSB's collaborative environment. The result is design decisions that can secure stakeholder participation and necessary right of way, federal compliance, can be approved and permitted by governing agencies, and can obtain municipal consent through public and agency involvement.

MEET THE TEAM





Ron Bray, PE

PRINCIPAL

Ron has over 37 years in transportation and construction services as a project manager/principal. He has experience with roadways, bridges, complete streets and trail design, along with planning, traffic analysis, geometric layout, design of roadways and bridges, constructions services, and nine years of service at MnDOT. He has extensive experience with public hearings and the public involvement process. Ron is well versed with current design standards, the Highway Project Development Process established by MnDOT, and state and federal regulations. He has completed several federally funded projects for MnDOT, counties, and municipalities in both project development and construction. He is an avid recreationalist involving both snowmobiling and ATV/UTV trail riding and has previously spent hours riding ATV's in the Foothills State Forest. The projects highlighted below all included a Complete Streets Approach to the final design and construction.

SERVICE GROUP:

Transportation

REGISTRATION:

Professional Engineer
MN #18327

EDUCATION:

Bachelor of Science
in Civil Engineering,
University of Minnesota

MEMBERSHIPS + RECOGNITIONS:

Systematic
Development of
Informed Consent

MnDOT Hear Every
Voice

OSHA 10-Hour
Construction Safety &
Health

CSAH 77 Reconstruction | Lake Shore, MN

CLIENT: CASS COUNTY

Ron was the project manager on this \$5.5 million four-mile reconstruction project along Gull Lake in a highly-developed context-sensitive corridor. The design of CSAH 77 included new pavement, curb and gutter areas, a review of drainage improvements along the corridor, and improvements to pedestrian access along the corridor by coordinating with the trail project team. The area located on the west side of Gull Lake in the City of Lake Shore is highly developed, with numerous small lots both on Gull Lake and on the west side of CSAH 77. The project required a complete streets solution for a mix of recreationalists and motorists in a summer tourist environment.

CSAH 3 (Second Street North) | Sauk Rapids, MN

CLIENT: BENTON COUNTY

Ron served as the project manager and led the public involvement efforts on this project that included \$6 million in construction cost and was the 2017 Minnesota County Engineers Association Project of the Year. The project involved the reconstruction of a one-mile expansion that included four lanes with roundabouts, trails, sidewalks providing a complete streets approach. Ron oversaw the project from concept to construction. It included the relocation of 19 homes along the corridor and nearly \$5 million of right of way acquisition cost.

Reconstruction of College Drive | Brainerd, MN

CLIENT: CITY OF BRAINERD

Ron oversaw this complete street redesign project. Improvements included roundabouts at Mississippi River Parkway, Southwest Fourth Street and South Fourth Street; a stop light at Quince and South Fifth streets; repaving Quince Street to South Sixth Street; trails; sidewalks; bridge improvements; pedestrian crosswalks, flashers and deterrents; lighting improvements; and a road to accommodate the apartment buildings. The expanded roadway stretched from Crow Wing County Road 48 to South Fourth Street; reconstruction of College Drive and Crow Wing County Road 48 intersection.



Mike Nielson, PE

PROJECT MANAGER

Mike is a registered professional engineer with over 30 years of diverse municipal and general civil engineering experience, relating to all phases of trail designs that include wetland impacts, tree removal, water crossings and right-of-way acquisition. He is an experienced project manager responsible for the planning, coordination, design, and construction administration of a wide variety of municipal, transportation and trail projects. Mike has completed trail design and construction for the Cuyuna Lakes Trail - Segment C, for Crow Wing County, several segments of the Wobegon Trail for Stearns and Todd Counties, and trail projects for the cities of Hanover and St. Michael.

SERVICE GROUP:
Municipal

REGISTRATION:
Professional Engineer
MN #23623
WI #28060-006

EDUCATION:
Bachelor of Civil
Engineering, University
of Minnesota, 1991

Cuyuna Lakes Trail - Segment C | Crow Wing County, MN

CLIENT: CROW WING COUNTY/DNR

DURATION: 2012 - 2019

WSB was selected by Crow Wing County to complete the final design services for the Cuyuna Lakes Trail Segment C adjacent to TH 6/210 from Crosby to Deerwood, MN. The project included the design of a multi-use trail to promote economic stability and opportunity as a tourist and business destination. The trail design involved fitting the trail within the existing TH 6/210 right of way and traversing four wetlands that required surcharge fill to minimize future settlement. The trail design did require permanent and temporary easements that were obtained by the DNR Staff. Due to easement acquisition issues, design changes were required to relocate and shorten sections of the trail.

Following the final design, WSB was selected by the DNR provide the construction administration and construction oversight on the project. Mike Nielson was the Principal in Charge, assisted by Chad DeMenge as the project Manager. Through value engineering WSB was able to reduce the overall project cost of the project by eliminating a watermain replacement and ultimately saving \$147,000 The project will be completed in the spring of 2019 and will come in under budget.

Lake Wobegon Trail Improvements | Stearns and Todd County, MN

CLIENT: STEARNS COUNTY/TODD COUNTY

DURATION: 2006

Mike was the lead design engineer for Phase 3C of the multi phase Wobegon Trail Project. This project included federal funding, project memorandum, project design, landowner, and stakeholder coordination, critical schedule. Mike has been the lead engineer for three segments of the multi phase Wobegon Trail Project. This project included federal funding, multiple agencies, landowner, and stakeholder coordination.



Kevin Kruger, PE

DESIGN ENGINEER

Kevin has been a Graduate Engineer in WSB's Municipal Group for four years. Throughout his experience, he has worked with municipal clients in preparing feasibility reports, preliminary design, final design, project management, and construction inspection on a variety of projects. He has been assisting the City of Rogers as an in-house engineer with various projects throughout the City. He is also knowledgeable in the use of various engineering software, including Civil3D and ArcGIS. Kevin has experience with various municipal projects that include sanitary sewer, watermain, storm sewer, drainage, roadway construction, and site grading.

SERVICE GROUP:

Municipal

REGISTRATION:

Professional Engineer
MN #57791

EDUCATION:

Bachelor of Science in
Civil Engineering, North
Dakota State University,
2015

MEMBERSHIPS + RECOGNITIONS:

APWA – Outstate
Development
Committee member

Hassan Elementary Trail Extension | Rogers, MN

CLIENT: CITY OF ROGERS

PROJECT DURATION: JUL 2019 - SEP 2019

The project was a trail extension along a ditch and wetland in a residential area. The project consisted of a 1600-foot-long bike and pedestrian trail. Kevin assisted in plan and specification review as well as construction inspection. The project was along a County road and included funding from several sources that needed to be consulted on the design.

Great Northern Trail | Princeton, MN

CLIENT: CITY OF PRINCETON

PROJECT DURATION: OCT 2018 - OCT 2019

The project consisted of a bituminous trail extension that extended through the City of Princeton and consisted of four separate segments. The trail had a total length of just over a mile and included easement and right-of-way acquisition along the entirety of the project length. Kevin had a role of preliminary design and preparing for meetings with the stakeholders of the project.

Arbor Lakes Parkway and 73rd Avenue Street Reconstruction | Maple Grove, MN

CLIENT: CITY OF MAPLE GROVE

PROJECT DURATION: AUG 2018 - OCT 2019

The project consisted of two state aid streets that received storm sewer improvements, full curb and gutter replacement, trail replacement and street replacement. The project had two collector streets with a high volume of traffic with a trail that was adjacent to the roadway. Kevin was the lead on the design, specifications, preliminary and final cost estimates and working with the residents and businesses to discuss potential construction conflicts.



Mike Molitor

DESIGN TECHNICIAN

Mike has a diverse background in computer aided design (CADD) including the use of MicroStation, Geopak SS4, OpenRoads Designer, and AutoCAD Civil3D. He has a working knowledge of Windows operating systems and dos operating systems. Mike provides detail design and data management services for infrastructure engineering projects and reports to assist the design engineer. He is responsible for design, CADD drafting, machine control data preparation, and quality control of a variety of infrastructure design projects. Mike is also proficient in the use of conceptstation, a conceptual design software that has 3D rendering, visualization, and cost estimating capabilities to analyze several design concepts quickly.

SERVICE GROUP:

Transportation

EDUCATION:

Technical Degree – Civil Engineering Technology, St. Cloud Technical College, 1996

General Course Work, St. Cloud State University, 2002

Lake Marion Trail Project | Burnsville, MN

CLIENT: CITY OF BURNSVILLE

PROJECT DURATION: 2019 - 2020

Mike was involved in the preliminary and final design and plans for a 2.5 mile bike trail that consisted of on and off road trail design including a mile long board walk over a wetland and a bridge underpass.

CSAH 77 (Interlachen Road) | Cass County, MN

CLIENT: CASS COUNTY

PROJECT DURATION: 2015 - 2017

Mike was involved in the preliminary and final design for the reconstruction of a two lane county road with two mile of off road trail and two miles of on road trail.

Lake Wobegon Regional Trail | Stearns and Todd County, MN

CLIENT: STEARNS COUNTY/TODD COUNTY

PROJECT DURATION: 2006 - 2008

Mike assisted in the final design on several section of the regional trail system that converted existing rail road grades to paved trails.



Jack Corkle, PTP, AICP



ENVIRONMENTAL DOCUMENTATION

Jack has over 20 years of experience and has served as project manager or lead staff on complex, and oftentimes controversial studies and environmental documents involving local, regional, state, and federal agencies, stakeholders, and public interest groups. Regarding studies, she has completed or overseen the development of technical analyses related to safety, mobility and capacity, access, functional classification, transit, pedestrian and bicycle movements, freight, land use, social/ economic/and environmental impacts, and alternatives comparison. Regarding environmental documents she has completed state environmental assessment worksheets (EAWs) and scoping documents. She has also completed federal project memos, environmental assessments and is involved in an environmental impact statement. Jack has also been heavily involved in grant writing, securing over \$120 million in funding for her clients.

SERVICE GROUP:

Transportation

REGISTRATIONS:

Professional

Transportation Planner

111

American Institute of
Certified Planners (AICP)

EDUCATION:

Master of Planning,
University of Minnesota,
1999

Bachelor of Arts in
Political Science and
Public Administration,
Augustana College,
1996

West River Parkway & James I. Rice Trails Project Memo | Minneapolis, MN

CLIENT: MINNEAPOLIS PARK AND RECREATION BOARD

Jack prepared the Project Memorandum for these federally funded trails within the Minneapolis Grand Rounds. The project replaced existing shared use trails with the reconstruction of portions of those trails, as well as segments that were split from the current alignment and were assigned specifically for bicyclists. There were also a few sections of new use for just pedestrians. Environmental issues on the project included historic and archaeological resources.

Dean Parkway Trail Project Memo | Minneapolis, MN

CLIENT: MINNEAPOLIS PARK AND RECREATION BOARD

Jack prepared the Project Memorandum for this federally funded trail within the Minneapolis Grand Rounds. The project replaced an existing trail and incorporated additional alignments for pedestrians and separate facilities for bicyclists within portions of the project area. The project also included reconfiguring a couple of street intersections to provide better separation between motorized and non-motorized users. Environmental issues on the project included historic resources.

Blackdog Trail Project Memo | Burnsville, MN

CLIENT: CITY OF BURNSVILLE

Jack prepared the Project Memorandum for this federally funded trail. The project location was along the Minnesota River in an area with many wetlands and in a floodplain. The trail was primarily located on property owned by Xcel Energy and US Fish and Wildlife. A Programmatic Net Benefits Section 4f document was required for this project due to its location on US Fish and Wildlife property. In addition to Section 4f impacts, the project also had wetland, floodplain, contaminated property, and threatened and endangered species impacts and mitigation.



Alison Harwood

WETLAND PERMITTING

Alison has been a senior environmental scientist and certified wetland delineator for over 10 years. Alison's performed numerous wetland delineations across Minnesota using the 1987 Corps of Engineers delineation manual methods. In addition to wetland delineations, Alison has led alternatives analyses in terms of wetland impact review, led wetland avoidance and minimization studies on numerous projects, and identified mitigation options when impacts are unavoidable. She has frequently used this data to complete the permit applications necessary to obtain US Army Corps of Engineers Section 404, Wetland Conservation Act (WCA), DNR Public Water, Watershed District, and NPDES approvals. Alison has completed Environmental Assessment Worksheets (EAWs) necessary to comply with Minnesota Environmental Policy Act (MEPA) requirements.

SERVICE GROUP:
Environmental Planning
& Natural Resources

REGISTRATION:
Certified Wetland
Delineator #1238

EDUCATION:
Master of Science in
Biology, Minnesota State
University - Mankato,
2009

Bachelor of Science in
Biology, South Dakota
State University, 2005

**MEMBERSHIPS +
RECOGNITIONS:**
Wetland Professionals
Association
WTS Minnesota
Women of Renewable
Industries and
Sustainable Energy

CSAH 12 (Manning Avenue to Owens Street) Project | Stillwater, MN

CLIENT: WASHINGTON COUNTY

PROJECT DURATION: NOV 2016 - MAR 2018

Alison managed the wetland delineation and obtained the WCA, BWSR Road Bank, Section 404, DNR, and watershed district approvals for this project. The project involved the reconstruction of CSAH 12 from CSAH 15 (Manning Ave.) to CSAH 5 (Owens St.) in the City of Stillwater and Stillwater Township. Trails were also constructed along the roadway.

I-35W Bridge Replacement over Minnesota River Project | Burnsville, MN

CLIENT: MNDOT METRO DISTRICT

PROJECT DURATION: NOV 2017 - JUN 2018

Alison led the permitting effort for the I-35W bridge replacement project, which consisted of replacement of the I-35W bridges over the Minnesota River with new bridges on a slightly new alignment. Permit approvals were received from the US Army Corps of Engineers, MnDOT (for Wetland Conservation Act), Pollution Control Agency (NPDES and Section 401 Certification), US Coast Guard, and Nine Mile Creek Watershed District, and Lower Minnesota River Watershed Management Organization.



Kyle Klasen, PLS

SURVEY

Kyle is a Professional Land Surveyor with more than 25 years of experience, including 15 years for the Minnesota Department of Transportation. As the Survey Group Manager, he ensures quality control from the initial base mapping and design survey through final construction staking. Kyle manages 14 survey crews and 8 office technicians on transportation, county, and municipal highway projects. He is an experienced MicroStation/GEOPAK user and trains WSB staff on this operation. His CADD abilities and use of design files ensures adhering to all CAD standards and quality staking on all projects. Kyle also leads WSB's efforts to be leaders in survey technologies and processes. He has developed 3D machine control surface models for contractors in the five-state region which increased workflow and held projects to the design plan.

SERVICE GROUP:

Survey

REGISTRATION:

Professional Land
Surveyor MN #44606,
IA #20601,
ND LS-7446

EDUCATION:

Bachelor of Science, St.
Cloud State University,
1994

TH52 | Becker, Mahnomen, and Polk Counties

CLIENT: MNDOT DISTRICT 4 AND DISTRICT 2

PROJECT DURATION: APR 2017 - DEC 2017

WSB's survey group performed design surveys along TH 59 for the design of 38 miles of mill and overlay, widening, turn lanes, and a new trail in the City of Mahnomen. WSB crews utilized a two-person crew for the data collection. GPS was used for rural data collection and total stations for urban sections for ADA design. WSB's survey office staff computed the right-of-way alignments and right-of-way along TH 59. Through the City of Mahnomen, survey crews staked the right-of-way monuments computed from old partial subdivision acquisition. Approximately 18 PLS corners were researched and located along this corridor for replacement after construction. Kyle's role on this project was to manage all survey operations and coordinating critical tasks to meet project deadlines, specifications, and deliverables. He computed MnDOT right-of-way alignments and right-of-way, parcel files, and exhibits for acquisition.

TH14 Design Build | Owatonna, MN

CLIENT: MNDOT DISTRICT 6

PROJECT DURATION: APR 2018 - NOV 2019

District 6 selected WSB to perform the work associated with acquiring 68 parcels for an accelerated design build project on TH14 from the Dodge/Steele County line to Owatonna. Kyle computed existing Right of Ways, alignments and spotting certificates of Title to generate the project workmap. This project is broken into 3 package deliverables to Waters Edge Right of Way group for platting. Submittals include MicroStation workmap and gpk with existing Right of Way chains, proposed Right of Way chains, PLS Corners, parcels containing associated takes, parcel sketches and output parcel files for appraisers. Kyle researched highways documents and construction plans that were not shown in the Certificates of Title to computing Dodge County Road Right of Ways.



Chad DeMenge, PE

CONSTRUCTION SERVICE MANAGER

Chad has successfully administered numerous construction projects varying by type and delivery method over his 17-year career. He has experience with urban and rural grading and reconstruction projects as well as many other complex highway and bridge projects. In 2016 Chad was hired by WSB, where he has worked as a Construction Quality Manager and Project Engineer on both Design-Build and Design-Bid-Build projects. Prior to WSB, Chad worked for MnDOT Districts 1 and 3 as Resident Construction Engineer, administering nearly \$150M in construction projects. Chad fully understands the methodology behind both the design and desired performance of the final project.

SERVICE GROUP:

Construction

REGISTRATION:

Professional Engineer

MN #45854

ND #27818

EDUCATION:

Bachelor of Science in
Civil Engineering, North
Dakota State University,
2002

CERTIFICATIONS:

Aggregate Production
Bituminous Street I & II
Grading & Base I
Construction Site
Management

Cuyuna Lakes Trail - Segment C | Crow Wing County, MN

CLIENT: CROW WING COUNTY/MNDNR

PROJECT DURATION: JUN 2018 - PRESENT

Chad was the Project Engineer for this 2.5 mile, \$1.7M grading and paving project which included storm sewer and watermain construction. He performed contract administration requirements and documentation according to State Aid Standards for MnDNR, or project client. He was responsible for supervising inspection and testing staff, and assuring the contractor was in compliance with standard specifications, plans, and provisions.

Twin Ports Interchange | Duluth, MN

CLIENT: MNDOT DISTRICT 1

PROJECT DURATION: AUG 2019 - PRESENT

Chad is the MnDOT Construction Project Manager reporting directly to the MnDOT Major Projects Office for this \$340M federally funded interchange project. The project will replace 35 bridges and reconstruct I-35/I-535/Hwy 53 interchange to improve safety and provide access for oversize and overweight loads. Chad's current responsibilities include administration of building demolitions, constructability reviews, test-section and instrumentation installation as well as staging review and preparing special provisions.

CR 106, 112, and 151 Improvements | Milaca, MN

CLIENT: MILLE LACS COUNTY

PROJECT DURATION: APR 2019 - AUG 2019

The \$7.5M project included approximately six miles of grading, widening, and paving of two-lane roadways in Mille Lacs County. Chad was the Construction Project Engineer, reporting directly to the Mille Lacs Engineer. This Locally-funded project was administered in accordance with State Aid practices and requirements and involved grading, widening, aggregate base, storm sewer, drainage improvements, cement-treated subgrade, and bituminous paving.



Penny Rolf, SR/WA, R/W-NAC, R/W-RAC

RIGHT OF WAY

Penny has been exclusively devoted to acquiring right-of-way and providing relocation services for MnDOT, WisDOT and counties and cities in Minnesota and North Dakota. Penny's acquisition knowledge and experience has earned the trust of the property owners, resulting in a high percentage of settlements that are fair to all parties. Her work on relocation projects has included commercial, agricultural and residential properties for owners and tenants. Her training includes multiple IRWA Advanced Courses and FHWA courses on right-of-way acquisition and relocation.

SERVICE GROUP:

Right of Way

REGISTRATION:

ND Real Estate Broker

License #9635

MN Real Estate Broker

License #20596830

Notary Public: ND, MN,

WI

MEMBERSHIPS & RECOGNITIONS:

IRWA – SR/WA, R/W

RAC, R/W NAC

IRWA Region 3 –

Chairperson (2018-

2020)

Twin Ports Interchange Project | Duluth, MN

CLIENT: MNDOT DISTRICT 1

PROJECT DURATION: PRESENT

Penny is serving as the project manager and acquisition agent for MnDOT on this project. Easement and fee acquisitions are being acquired for MnDOT to allow them to construct pavement repair, ADA ramp upgrades, bridge replacement rechanneling of Miller/Coffee Creek, storm sewer work and other related project work. WSB's right of way staff are acquiring right of way over 31 parcels involving residential, commercial and railroad parcels. Due to the fact that Duluth is a busy port city, railways are common and are impacted in multiple locations with BNSF and Union Pacific as the main railroads we are working with as part of this project.

Hwy 14 Preliminary Design and Right-of-Way Acquisition | Claremont to Dodge Center, MN

CLIENT: MNDOT DISTRICT 6

PROJECT DURATION: PRESENT

Penny, serving as the right-of-way lead, is providing turnkey services on this project including project management, design, preparation of right-of-way packages, appraisal coordination, obtaining updated title work, field title reports, and direct purchase negotiations. This project involves the construction of a new alignment of TH 14 that impacts 64 different properties. Of those properties, 41 are agricultural properties ranging from 20 to over 320 acres. Many of these parcels have farm fields that are being divided by the new alignment resulting in uneconomic remnants, changes in accesses to fields, triangulation and severance damages.

Cost for Services



The County has indicated that they understand that completing a cost of services at this time is difficult due to unknown design issues. Trail design and construction services related to trails can range from 15% to as high as 30% of the construction cost depending on the complexity and number of alignments that need to be evaluated. Upon selection, WSB will work out a well defined scope of services with the County and provide a cost to provide those services.

TEAM MEMBER*	RATE
RON BRAY, PE	\$192
MIKE NIELSON, PE	\$172
KEVIN KRUGER, PE	\$120
MIKE MOLITOR	\$146
JACK CORKLE, PTP, AICP	\$182
ALISON HARWOOD	\$152
KYLE KLASSEN, PLS	\$192
CHAD DEMENGE, PE	\$172
PENNY ROLF, SR/WA, R/W-NAC, R/W-RAC	\$182

*Hourly rates listed are for the key personnel of each group. The majority of the work will be completed by staff with lower billing rates.

2020 RATE SCHEDULE

	BILLING RATE/HOUR
PRINCIPAL ASSOCIATE	\$152 - \$192
SR. PROJECT ENGINEER SR. PROJECT MANAGER	\$152 - \$192
PROJECT MANAGER	\$135 - \$150
PROJECT ENGINEER GRADUATE ENGINEER	\$90 - \$146
ENGINEERING TECHNICIAN ENGINEERING SPECIALIST	\$58 - \$146
LANDSCAPE ARCHITECT SR. LANDSCAPE ARCHITECT	\$70 - \$150
ENVIRONMENTAL SCIENTIST SR. ENVIRONMENTAL SCIENTIST	\$58 - \$146
PLANNER SR. PLANNER	\$70 - \$150
GIS SPECIALIST SR. GIS SPECIALIST	\$70 - \$150
CONSTRUCTION OBSERVER	\$95 - \$120
SURVEY	
ONE-PERSON CREW	\$149
TWO-PERSON CREW	\$196
THREE-PERSON CREW	\$211
OFFICE TECHNICIAN	\$53 - \$94



Project Scope



Approach, Methodology, and Deliverables



Our approach to the East Mille Lacs Loop project delivery combines our understanding of the desired process and the milestones with our collective experience in the planning, funding, and design of many similar trail projects. Our team understands how the processes of public/agency coordination, environmental documentation, and trail design work together within the project timeline to successfully deliver these trail segments.

A brief description of our approach to each work type follows, including project management techniques we will apply to each.



Public Agency/Coordination

Streamlining the alternative selection process from the outset of the project is the key to meeting the schedules for environmental review and permitting deadlines. The kick-off meeting will need to be comprehensive in terms of potential alternatives and available data.

Understanding the approval process for agencies and elected officials is also key, as well as setting agency coordination meetings and a public meeting. Both of these meetings need to happen in early April so consensus can be obtained on the selected alternative. If we get too far down the path and appear to make selections and decisions prior to public and agency input, consensus will be difficult to achieve. Once the alignment has been selected, agency coordination for PM preparation, plan approval, and permitting can proceed at appropriate intervals over the remainder of the project.



PROJECT MANAGEMENT TECHNIQUES FOR

Public/Agency Coordination

- Early focus at the kick-off meeting to establish lead times for agency, public, and elected official meetings and approvals.
- Clear communication of technical information and design information to facilitate decision-making.
- Monthly progress reports reflecting not only milestones and deliverables, but upcoming decision points and response deadlines.



Environmental Documentation

Our approach to EAW preparation is based on following the procedures laid out by MnDOT and the EQB, as that is the easiest way to secure approval. Through our experience, we are also aware of not only shifts in regulatory requirements, but also in priorities of the reviewers. WSB frequently contacts the state reviewers to discuss our process and to receive informal direction. We anticipate where the state agencies will focus their attention, which are often areas that are relatively minor to local agencies and reviewers. We begin the investigation process early using available information, forming key guiding decisions from the outset. Specific impacts and their mitigation are planned to be finalized later in the year, once spring thaw allows for field investigations. By that time, there will be no surprises in terms of environmental issues, only final confirmation of anticipated issue resolution.



PROJECT MANAGEMENT TECHNIQUES FOR Environmental Documentation

- Immediate collection of available information to guide decisions, and early initial contact with agencies to allow for anticipated response times.
- Document preparation in accordance with accepted practices.
- Direct communication with reviewers during development to get informal feedback.
- Spreadsheet tracking of pending agency responses, with follow-up dates to begin follow-ups ahead of milestone dates.

Trail Design

The trail design will initially focus on rapid analysis of alternatives, developing trail alignments and profiles that conform to design guidelines, applying cross-sections, determining impacts, and estimating costs. Concept or alternative design analysis is necessary to identify possible options available for a project site requiring an improvement. In the past, engineers and designers would sketch concepts using design software used in detail design. Drawings would often take two to three weeks, depending upon the drafters level of experience. Concept Station is a Bentley product meant for concept development stage of the project. OpenRoads Concept Station expedites a project by rapidly creating conceptual designs and improving decision-making process. The software reduces concept design development time down to days, instead of weeks, and would produce concept images and high-level cost estimates concurrently. Different alternatives can be analyzed quickly providing better means for a project team to understand which design would be the appropriate design to use for a project.

Once an alignment is selected, a full geometric layout will be prepared that provides the level of detail required for approval by Aitkin County, MnDOT and other stakeholder agencies. This milestone is key in the process, as it solidifies not only the basis for final plans and permits, but for right of way needs and acquisition. We propose that this layout approval be accomplished with the agreed upon schedule, so subsequent field investigations can be focused and efficient on the specific alignment. Plans and specifications will be prepared to Aitkin County and MnDOT standards. We will confirm permitting requirements early in the final design process, which will result in a smooth path to approval as final construction documents are completed.



PROJECT MANAGEMENT TECHNIQUES FOR

Trail Design

- Rapid determination of alignments and profiles so impacts, and alternative selection can be accomplished.
- Early coordination with MnDOT & DNR reviewers so layout components, process, and expectations of both parties are confirmed.
- Preparation of layouts and construction documents with strict adherence to requirements and standards to facilitate approvals.
- Formal comment response tables to simplify review of modified materials.
- Focus on accuracy of property information so future legal acquisition documents are prepared efficiently and without question as to ownership and needs.
- Early coordination with permitting agencies to confirm process and anticipated review times/responses relative to the Mille Lacs East Loop trail project.



Deliverables

PROJECT MANAGEMENT

- Progress Reports
- Invoices
- Meeting Materials: Announcements, Agendas, Minutes, and Exhibits
- Public Involvement Plan

DATA COLLECTION

- Topographic Base Map
- Existing Right of Way Map
- Inplace Utility Map
- Soils Report
- Wetland Delineation Report
- Floodplain Mapping
- Stormwater Management Plan

ANALYSIS AND SELECTION OF PREFERRED ALTERNATIVE

- Letter Confirming Alternatives
- Alignment/Profile of Each Alternative
- Draft and Final Memorandum Describing Impacts and Selection of Preferred Alternative

LAYOUT AND LIMITS

- Final Geometric Layout

ENVIRONMENTAL DOCUMENTATION

- Agency Letters
- Purpose and Need Statement
- Draft and Final EAW

FINAL DESIGN, SPECIFICATIONS AND ESTIMATE

- Construction Plans (60%, 95%, and Final)
- Specifications (Final)
- Cost Estimates (60%, 95%, and Final)
- Permit Applications and Approved Permits for Construction



References

JODI TEICH

STEARNS COUNTY | 370.355.8180

JODI.TEICH@CO.STEARNS.MN.US

DAVID SOBANIA

MNDNR | 218.203.4388

DAVE.SOBANIA@DNR.STATE.MN.US

ROB HALL

CROW WING COUNTY | 218.824.0310

ROB.HALL@CROWWING.US

Cost History

Cost history information of similar projects can be found listed under each project in the Project Experience section starting on page 8.

Proposal for Professional Services
Northwoods Regional ATV Trail System
Mille Lacs–Malmo East ATV Loop Project
Aitkin County, Minnesota



March 6, 2020



Chad Conner, LS, CFedS, VP
Principal in Charge | Land Surveyor
Chad.Conner@wsn.us.com
218.316.3632

Tony Pohl, PE
Project Manager | Civil Engineer
Tony.Pohl@wsn.us.com
218.316.3640

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Project Personnel

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Hourly Rates

March 6, 2020

Ross Wagner
Aitkin County Government Center
307 2nd Street NW #316
Aitkin, MN 56431



Brainerd/Baxter
7804 Industrial Park Road
PO Box 2720
Baxter, MN 56425-2720

Re: Proposal for Professional Services
Northwoods Regional ATV Trail System
Mille Lacs-Malmo East ATV Loop Project

218.829.5117
218.829.2517
Brainerd@wsn.us.com
WidsethSmithNolting.com

Dear Mr. Wagner and Members of the Selection Committee:

Aitkin County is taking the next exciting step to develop a first-class network of ATV trails to connect the east and north sides of Mille Lacs Lake to the Northwoods ATV Trail System. With its wide-ranging expertise, Widseth Smith Nolting's team is ready to work as your partner in scoping, designing, bidding, and overseeing the construction of this new 58-mile trail. With 45 years of experience providing engineering and design services on a range of trail projects, as well as our history of working with Aitkin County, WSN is well suited to complete this project. Our team offers:

Experience. WSN has designed trails for the DNR, several counties and communities, and private organizations throughout Minnesota, including Aitkin County, Alexandria, Baxter, Bemidji, Crookston, Crosslake, and the Cuyuna Lakes area. Our work with Aitkin County has included many projects involving section corner remonumentation, preliminary design surveys, engineering, and bridge design services.

Team Partner. Rounding out our team's expertise will be Duluth Archaeology Center. DAC's extensive experience includes working with state and county highway departments, various other public entities, and small private firms and individual developers. They have successfully collaborated with Aitkin County Highway Department on roads and the Mesabi Trail.

Multiple Disciplines. WSN has extensive experience in civil engineering, structural engineering, land surveying, environmental services, geospatial services, and architecture—all in-house. Our multi-discipline team represents the components needed to accompany Aitkin County throughout this project.

Familiarity with Requirements. Our team of engineers and technicians has extensive knowledge in many types of trail design and construction methods using the Minnesota Department of Natural Resources Trail Planning, Design and Development Guidelines. We bring expertise in planning, design, construction observation, and contract administration along with a familiarity with construction practices, scheduling and team communication

Aitkin County has developed miles of trails, and the Minnesota bonding funds offer an opportunity to add this significant expansion, bringing trail users into even more communities. As Aitkin County residents and outdoors enthusiasts, we are personally committed to working as your partner, exchanging ideas and relying on each others' expertise, as we bring this extension to reality. We look forward to working alongside you on this project!

Sincerely,

WIDSETH SMITH NOLTING AND ASSOCIATES, INC.

Chad Conner, LS, CFeds, Vice President
Principal in Charge | Land Surveyor

Tony Pohl, PE
Project Manager | Civil Engineer

Engineering

Architecture

Surveying

Environmental



Firm Overview

Vibrant Design. Integrated Systems. On Budget. On Time.

Good roads, clean water, safe bridges, dynamic spaces, and robust communities are central to our quality of life. Founded in 1975, Widseth Smith Nolting supports our communities through engineering, architecture, land surveying, and environmental services throughout the Upper Midwest. With more than 200 employees working from nine locations, our team offers a complete package of services to take your project from concept to completion. Our services include:

- Civil Engineering
- Structural Engineering
- Water Resources
- Environmental Services
- Land Surveying
- Geographic Information Systems (GIS)
- Architecture
- Landscape Design
- Interior Design
- Mechanical Engineering
- Electrical Engineering
- Electric Distribution / Transmission
- Funds Development
- Communications
- Planning

Our team can provide aerial mapping or related geospatial services through our subsidiary firm KBM GeoSpatial.

Established in 2000, the Duluth Archaeology Center is a cultural resource management consultant specializing in prehistoric archaeology, architectural history, and geomorphology in support of archaeology. DAC also provides expertise in historic archaeology and underwater archaeology through subcontractors. DAC has worked with county and state highway depts. DAC has the following certifications:

- Small Business Association, Women-owned Business
- Small Business
- MN Targeted Vendor, Materials Mgmt. Div.
- MnDOT Disadvantaged Business Enterprise
- MnDOT Prequalified for Precontract Archaeology and Geomorphology in Support of Archaeology
- All of DAC's owners meet SHPO standards for field supervisor and/or Principal Investigator



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WidsethSmithNolting.com



Duluth Archaeology Center, LLC
Susan Mulholland, Licensed Archaeologist
President | Principal Investigator

archcenter@aol.com



Project Understanding & Timeline

Our team has reviewed the timeframe outlined in the Request for Proposals and is confident that we can meet your anticipated milestones. The RFP calls out the size and complexity of this project and astutely points out that development may be phased. Our team members' experiences support this assumption—trail projects developed in concert with the MN DNR and other stakeholders are typically long-term commitments. We offer the staff, resources, and local presence to support a phased project, efficiently and effectively. Following is a breakdown of the project scope and anticipated milestones.

Stage/Task	Date Range
Kickoff Meeting	April 2020
On-site Review of Proposed Route with County / Trail Staff	April–May 2020
Preliminary Layout	April–June 2020
Wetland Delineation, Archaeological/Historical Review, Rare Species Review	April–July 2020
Environmental Assessment Worksheet (EAW)	April–July 2020
MN DNR / MnDOT Permits	April–September 2020
Public Input Meetings (two)	June and August 2020
Project Design	July–September 2020
Project Bidding	October 2020
Construction	TBD

Relevant Projects



Emily to Blind Lake Multiple-Use Trail—Crow Wing County and Western Aitkin County, MN

The new 16-mile multiple-use trail links and connects to two existing trail systems, resulting in a 50-mile loop that connects users to another 300 miles of trails in Aitkin, Cass, and Crow Wing Counties. The project comprises 13 miles of existing and 3 miles of new trail construction, while the trail area encompasses more than 1,400 acres of Crow Wing County managed public land, more than 200 acres of Aitkin County managed public land, and more than 320 acres of MN DNR managed forestland. Funding for the project was through the MN DNR Off-Highway Vehicle (OHV) Grant-in-Aid (GIA) program and the Over the Hills Gang ATV Club. The trail is open to recreational motorized use, May 15–October 31.

Project Contact / Reference

Tom Strack, Crow Wing County
Environmental Services Specialist
tom.strack@crowwing.us | 218.824.1138

Perry May, Over the Hills ATV Club Member
p.may@atvam.org | 612.919.5806

Relevance

Multiple-use trail, including ATVs, OHMs, and non-motorized uses

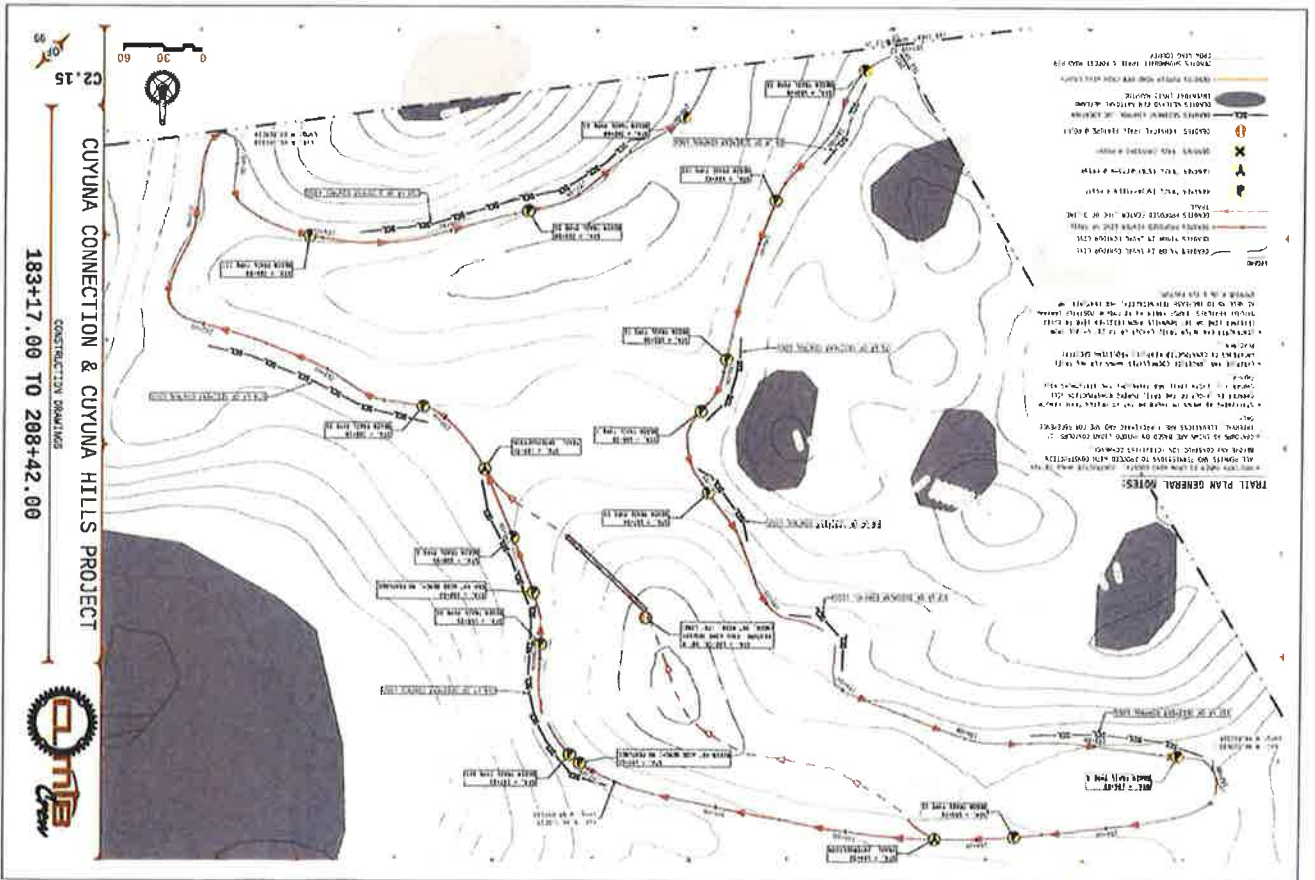
Connects to and links existing ATV trail systems (Emily to Outing and Northwoods Regional)

Utilizes existing undesignated forest trails and creates new trails

Cuyuna Connection and Cuyuna Hills Projects—Crow Wing County, MN

This project comprises planning for an expansion to the existing Cuyuna County State Recreation Area (CCSRA) trails on county and Minnesota Department of Natural Resources Forestry owned land in 2017 by the Cuyuna Lakes Mountain Bike Crew (CREW). This represented the first time the CREW had financed, designed and are to construct trails in county owned land. WSN assisted the CREW with wetland delineation and survey staking. WSN employee Joshua Rebnack volunteered his time with the CREW to create the construction documents.

Project Contact / Reference
 Meredith Warmuth, Volunteer President
 president@cuyunahillstb.com
 Extensive trail system in the Cuyuna area
 Working with county, state (MN DNR), and
 non-profit organization
 Relevance





Paul Bunyan Trail and Bridge—Baxter, MN

Planning began in 2002 for a grade separated crossing of a busy roadway for the Paul Bunyan Trail. WSN studied several options, generated cost estimates, and assisted with temporary crossing protection. Conceptual renderings and materials were used to secure funding, and a cooperative agreement was developed among the city, MnDOT, and MN DNR for construction. WSN completed all preliminary and final design for the 350-foot-long, three-span, pre-stressed concrete bridge, assisted with obtaining MnDOT and MN DNR approvals, facilitated bidding, and provided full-time observation, contract management, and materials testing services during construction.

Project Contact / Reference

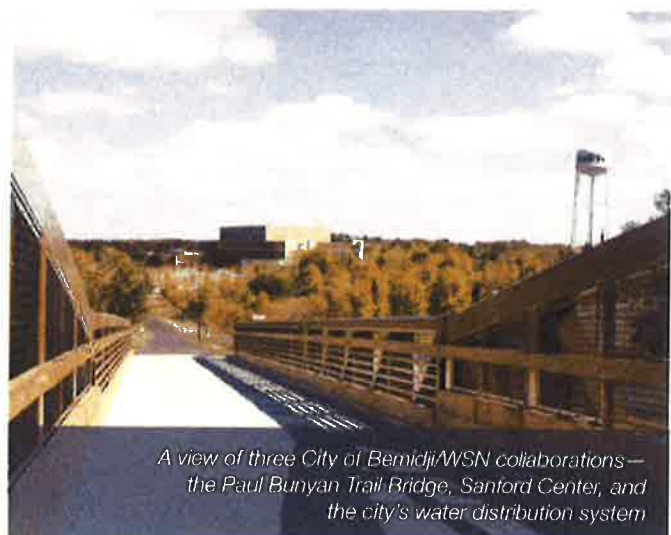
Trevor Walter, PE
Public Works Director/City Engineer
twalter@baxtermn.gov | 218.454.5100

Relevance

Working with multiple entities, including MN DNR

Multiple-use trail, including off-highway vehicles (OHV)

Connects to and links existing trail systems



A view of three City of Bemidji/WSN collaborations—the Paul Bunyan Trail Bridge, Sanford Center, and the city's water distribution system

Paul Bunyan Trail Bridge—Bemidji, MN

The Paul Bunyan State Trail is the longest continuously paved path in the state of Minnesota and one of the longest in the country. Stretching 112 miles from Bemidji to Brainerd, the trail passes through historic sites and vacation destinations and provides recreational use for hiking, biking, running, and snowmobiling.

The 400-foot-long pedestrian bridge in Bemidji solidified another crucial piece of the Paul Bunyan State Trail. It allows trail users to safely cross four lanes of busy traffic on Highway 197 for an uninterrupted experience. The project was a collaborative effort among the city of Bemidji, the Minnesota Department of Natural Resources, and Widseth Smith Nolting.

Construction of the bridge began in March 2012 and concluded in August of the same year. The bridge consists of three steel truss spans, two concrete piers, and two concrete abutments. The bridge was formally opened with a ribbon cutting ceremony on September 26, 2012, and various trail users from across the state have enjoyed the benefits of this project ever since.

Project Contact / Reference

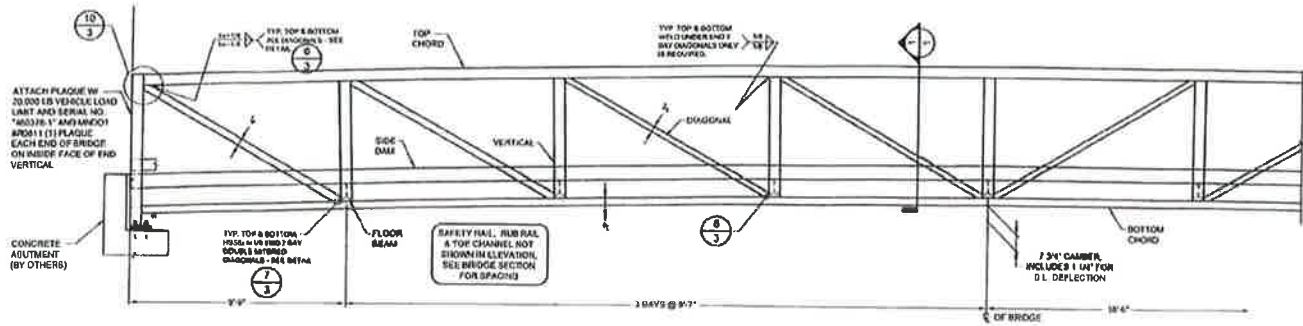
Craig Gray, PE
 Director of Public Works/City Engineer
craig.gray@ci.bemidji.mn.us | 218.333.1850

Relevance

Multiple-use trail, including off-highway vehicles (OHV)

Working with multiple entities, including MN DNR

Connects to and links existing trail systems



Ripple River Trail Bridge—Aitkin, MN

WSN teamed with Aitkin County and Contech Engineered Solutions for the design of a trail bridge that crosses the Ripple River in Aitkin. Our team provided the hydraulic design and risk assessment for the bridge along with setting the bridge low member elevation and bridge length.

Project Contact / Reference

John Welle, PE, County Engineer
218.927.7469

Relevance

Multiple-use trail, including off-highway vehicles (OHV)

Working with multiple entities, including MN DNR

Connects to and links existing trail systems



Milford Mine Memorial Park—Wolford Township, MN

WSN worked with Crow Wing County on the development of Milford Mine Memorial Park, which is listed on the National Register of Historic Places. Our team was responsible for designing detailed plans, preparing opinions of probable costs, and developing installation standards. Phase I included a new picnic shelter, and Phases II and III comprised an upland boardwalk, a boardwalk across the lake to the site of the mining town, permanent fishing/canoe launch platforms, vault toilet, and an additional picnic shelter. Trails and interpretive signs commemorate the history of Milford Mine and the accident of February 5, 1924, in which 41 miners lost their lives.

Project Contact / Reference

Bryan Pike, Natural Resources Manager
Crow Wing County Land Services
218.824.1353

Relevance

Multi-use trail, recreational, and interpretive project in Cuyuna lakes region

Trail route planning and design

Design of kiosks and pavilions



Chad Conner, LS, CFedS

Principal in Charge | Professional Land Surveyor | Vice President

As Director of Survey Operations in the Brainerd/Baxter office, Chad coordinates work assignments to ensure projects are completed within the client's timeframe. Chad has worked on many municipal, county and township projects. Those projects included collection of data necessary for design and route determination. His training as a Certified Federal Surveyor has given him additional expertise to work on or near federal lands. His responsibilities include land survey project development and management, scheduling, and coordination

License/Certifications

Professional Land Surveyor: MN (41643), WI (3180); IL (3887)

Certified Federal Surveyor (CFedS) (1292)

Education

Bachelor of Science, Land Surveying and Mapping | St. Cloud State University, 2000

Diploma, Civil Engineering Technology | St. Cloud Technical College, 1994

Related Experience

- West Shore Drive Trail—Crosslake, MN
- Paul Bunyan Trail Bridge over Excelsior Road—Baxter, MN
- Manhattan Point Blvd. Trail Improvements—Crosslake, MN
- DNR Rako Wildlife Management Area Boundary Survey—Lake of the Woods County, MN
- Minnesota Avenue Reconstruction—Aitkin, MN
- Aitkin County CSAH 11, CSAH 12, and 265th Lane—Hazelton Township, MN
- Adney Lake Road Improvements—Crosby, MN
- McGill Street Improvements—Pequot Lakes, MN



Tony Pohl, PE

Project Manager | Civil Engineer

Since joining WSN in early 2014, Tony has expanded his experience to include design for public and private projects including roadways, storm water management systems, and lot development plans. He conducts field inspections, interprets design criteria, develops and reviews site plans and designs, develops special provisions for construction, and coordinates plans and designs with clients. Tony works with local municipalities to maintain and grow their infrastructure as well as providing structural and site design services for private clients' commercial and residential development projects. Tony completes this work through the application of planning, design, and construction administration, all centered around protecting public and environmental health.

Related Experience

- Milford Mine Memorial Park—Wolford Township, MN
- Baxter Drive—Charles Street Trail Connection—Baxter, MN
- True North Basecamp—Crosby, MN
- Malone Island Bridge—Isle, MN
- Aitkin Public Schools Future Site Master Plan—Aitkin, MN
- Paulbecks County Market Stormwater Improvements—Aitkin, MN
- Ryan's Knoll PUD—Aitkin, MN
- Aitkin County Growth – Property Development – Aitkin, MN

License/Certifications

Professional Engineer: MN (56606)

MN Erosion/Sediment Control Specialist: Design Construction SWPPP

MnDOT Certification (18916):

- Bituminous Street Level I & II
- Grading & Base Level I
- Aggregate Production

Education

Bachelor of Science, Civil Engineering | University of Minnesota—Duluth, 2013



Joshua Rebennack

Engineering Technician

Joshua is experienced in drafting, designing, and laying out trails and proposed developments; preparing figures for reports and drawings; and is the primary GIS/CADD specialist for investigations, limited site investigations, corrective action design/excavation, detailed corrective action design plans, and environmental assessment worksheets. He prepares site maps and sets up corrective action specification drawings. He assists the GIS team with mapping and GIS data handling.

Education

Diploma, Computer Aided Design Technologies | Hoosier Hills Area Vocational School, 1995

Joshua adds specific and invaluable expertise to the team through his lengthy involvement with the Cuyuna Lakes Mountain Bike Crew (formerly a chapter of Minnesota Off-Road Cyclists). Joshua helped bring the Cuyuna Country State Recreation Area's trails to life, and he is the liaison between CREW and MN DNR for trail construction and reroutes. For the Cuyuna Connection and Cuyuna Hills projects, he wrote the Environmental Assessment Worksheet (EAW) as well as created the design drawings and all associated details.

Related Experience

- Cuyuna Connection and Cuyuna Hills Trails—Crow Wing County, MN
- Wellhead Protection Plan Implementation—Baxter, MN
- Emily ATV Trail Stormwater Pollution Prevention Plan (SWPPP)—Emily, MN
- Sanford Health Development EAW—Thief River Falls, MN



Tim Ramerth, PE

Water Resources Engineer | Civil Engineer | Vice President

Tim offers a diverse background working with MnDOT, Soil and Water Conservation Districts, Natural Resources Conservation Service, BWSR, USACE, municipalities, and private sector organizations. His expertise includes watershed engineering, design of municipal infrastructure, stormwater management plans and reports, erosion and sediment control, NPDES compliance, wetland delineations, wetland mitigation plans and wetland banking. Tim has worked with regulating agencies, local governments, and state agencies to foster project support and acquire permit approvals; attended meetings with committees, residents, and boards to present materials and provide guidance and opinions; and carried projects from concept through bidding and final closeout.

License/Certifications

Professional Engineer: MN (41966), ND (PE-7634)

Erosion / Sediment Control Design Construction SWPPP; Construction Installer; Construction Site Management

Education

Bachelor of Science, Agricultural Engineering | South Dakota State University, 1992

Related Experience

- Emily to Blind Lake Recreational ATV Trail—Emily, MN
- Jasperwood Drive, Mapleton Road, and Knollwood Drive Reconstruction, Including Trails—Baxter, MN
- TH 371 Environmental Compliance Manager, Including Trails—Nisswa to Jenkins, MN
- MnDOT TH 67 Overlay with Hydraulics, Categorical Exclusions, ADA Improvements—Redwood Falls, MN
- Wildflower and Woida Roads Reconstruction, Including Trails—Baxter, MN



Mark Reineke, CMS, GISP

Geographer | GIS Analyst

Mark has more than 20 years' experience in spatial analysis, mapping, and Geographic Information Systems (GIS). He has mapped more than 1,250 miles of ATV trails, primarily using GIS with aerial imagery and LiDAR digital elevation models (DEM) and also via ATVs with GPS. He coordinates GIS projects among the firm's offices and manages its extensive spatial database. Mark assists and advises project teams by providing analysis, mapping, and technical support necessary for overall project success. His varied cartographic works include museum displays, published works in books, numerous thematic maps and graphics for Environmental Assessment Worksheets (EAW), Environmental Impact Statements (EIS), engineering reports, and comprehensive plans. Mark works extensively with LiDAR, deriving project specific data sets and the development of hydrologic applications and is an active member on the MN Geospatial Advisory Council's 3D Geomatics Steering Committee (3DGeo).

License/Certifications

Certified Mapping Scientist–GIS/LIS (GS291)

Certified GIS Professional (52240)

Education

Bachelor of Science, Geography | University of Minnesota, 1995

Notable Works/Publications

Catalhoyuk from Space. Exhibit map for the Science Museum of Minnesota

Related Experience

- East Watershed Trail Planning— Alexandria, MN
WSN completed trail planning to connect the Central Lakes Trail to the new school and mall
- Fritz Loven Park Trail Map Brochure—Lake Shore, MN



Kent Rohr, PE

Structural Engineer | Vice President

As Director of Structures and Bridges, Kent has been involved in the design of nearly 250 bridges with WSN and has participated in inspection of numerous existing trail and vehicular bridges and bridge sites, as well as the development of capacity ratings and load posting recommendations. Kent has experience with bridge analysis and design programs including RC-PIER, CONSYS, FastFrame, ENERCALC, MDX, MERLIN_DASH, and SLABBRDG. He has experience with timber, masonry, composite steel, and reinforced concrete structural systems. He provides structural design for the firm's architectural projects, including evaluating existing structures to determine feasibility for remodeling, renovation, or expansion.

Related Experience

- Paul Bunyan Trail Bridge— Baxter, MN
- Paul Bunyan Trail Bridge— Bemidji, MN
- Morrison County, Rehab Five Railroad Bridges to Trail Bridges— Morrison County, MN
- Norman County Trail Bridge Rehabilitations—Ada, MN
- Aitkin County Bridge 01506 Rehabilitation—Aitkin, MN
- Aitkin County Bridge 01535 Over Willow River—Aitkin, MN

License/Certifications

Professional Engineer [Structural];

MN (21179), ND (PE-6661), SD (6166),

WI (E-45447)

Education

Bachelor of Science, Civil Engineering (Structural) | University of Minnesota, 1986



Brian Ross, PG

Environmental Scientist | Vice President

As the Director of Environmental Services, Brian has addressed a wide range of environmental concerns. His work includes hydrogeological studies, landfill monitoring, municipal well siting, environmental site assessments, pesticide release investigations, wetland permits, shoreland management plans, and environmental impact studies. He has worked on several groundwater investigations to determine contamination extent and to assess groundwater resources. Brian has completed more than 20 Environmental Assessment Worksheets (EAW), and he has been the project director for several Alternative Urban Area Reviews (AUAR), which are planning documents that look at potential environmental impacts over large development areas. He has reviewed dozens of wetland delineations and led wetland replacement projects including wetland banks and wetland creation.

License/Certifications

Professional Geologist: MN, (30720) 1999

40-Hour OSHA HAZWOPER Training

Licensed Monitoring Well Contractor: MN (761) 1995

Education

Master of Science, Geology | University of Minnesota, 1985

Bachelor of Arts, Earth Science | St. Cloud State University, 1981

Related Experience

- Cuyuna Recreation Trail Extension EAW—Crosby, MN
- Paul Bunyan Trail Bridge over Excelsior Road—Baxter, MN
- Trail System Extension, Connection to Paul Bunyan Trail—Baxter, MN
- South Shore Development AUAR—Bemidji, MN
- Central Lakes Properties Wetland Replacement—Baxter, MN
- Edgewood Drive Wetland Replacement—Baxter, MN



Joey Goeden, WDC

Environmental Scientist

Joey specializes in ecological resources with primary responsibility for wetland delineations, wetland permitting, wetland reclamation, wetland monitoring, plant community surveys, and Phase I ESAs. He has worked on wetland delineation projects that have ranged in size from less than five acres to several hundred acres. When completing wetland delineations, he identifies upland and wetland plant species to assist with determining the wetland boundaries. He has experience completing plant community surveys. He is experienced in GPS equipment and techniques. He works with clients to create project designs that are feasible and minimize impacts to ecological resources to the extent possible. He coordinates with state and federal agencies when projects have the potential to impact threatened or endangered species.

License/Certifications

Wetland Delineator Certified: MN (1311)

Education

Bachelor of Science, Natural Resource Management | North Dakota State University, 2013

MN Wetland Certification Program, 5-Day Basic Wetland Delineation Course

MN Wetland Certification Program, Basic Plant Identification Course

HalfMoon Education Inc., Minnesota Wetlands Law & Compliance

Related Experience

- Woodland School Pedestrian Underpass—Alexandria, MN
- Placid Drive Wetland Replacement Plan—Deerwood, MN
- Forestview Avenue Trail Plat—Baxter, MN
- Cuyuna Recreation Trail Extension—Crosby, MN
- Wetland Delineation of Vacant Property—Hill City, MN
- Grand Oaks Firewood Drive Trail Connection—Brainerd, MN



2020 FEE SCHEDULE

CLASSIFICATION	HOURLY RATE
<u>Engineer/Architect/Surveyor/Scientist/Wetland Specialist/Geographer</u>	
Level I	\$110.00
Level II	\$135.00
Level III	\$160.00
Level IV	\$170.00
Level V	\$185.00
<u>Technician</u>	
Level I	\$ 73.00
Level II	\$ 92.00
Level III	\$110.00
Level IV	\$125.00
Level V	\$140.00
Computer Systems Specialist	\$150.00
Senior Funding Specialist	\$125.00
Marketing Specialist	\$110.00
Funding Specialist	\$ 95.00
Administrative Assistant	\$ 70.00

OTHER EXPENSES	RATE
Mileage (Federal Standard Rate) <i>subject to IRS Guidelines</i>	
Meals/Lodging	Cost
Stakes & Expendable Materials	Cost
Waste Water Sampler	\$40.00/Day
ISCO Flow Recorder	\$60.00/Day
Photoionization Detection Meter	\$80.00/Day
Explosimeter	\$50.00/Day
Product Recovery Equipment	\$35.00/Day
Survey-Grade GPS (Global Positioning System)	\$75.00/Hour
Mapping GPS (Global Positioning System)	\$150.00/Day
Soil Drilling Rig	\$35.00/Hour
Groundwater Sampling Equipment	\$75.00/Day
Subcontractors	Cost Plus 10%

Reproduction Costs	RATE
Black & White Copies: 8 1/2 x 11	\$0.10
Black & White Copies: 11 x 17	\$0.50
Black & White Copies: 24 x 36	\$3.00
Color Copies: 8 1/2 x 11	\$2.00
Color Copies: 11 x 17	\$4.00
Color Copies: 24 x 36	\$12.00
Color Plots: 42 x 48	\$22.00

These rates are effective for only the year indicated and are subject to yearly adjustments which reflect equitable changes in the various components.



Chad Conner, LS, CFedS, VP
Principal in Charge
Land Surveyor
Chad.Conner@wsn.us.com
218.316.3632

Tony Pohl, PE
Project Manager | Civil Engineer
Tony.Pohl@wsn.us.com
218.316.3640

Brainerd Office
7804 Industrial Park Road
PO Box 2720
Baxter, MN 56425
218.829.5117



**WIDSETH
SMITH
NOLTING**

Alexandria
Bemidji

Brainerd / Baxter

Crookston

East Grand Forks

Forest Lake

Grand Forks

Mankato

Rochester

WidethSmithNolting.com



A PROPOSAL FOR

Engineering Services for

ATV Trail Extension

FOR AITKIN COUNTY

April 17, 2020



Ross Wagner
Economic Development & Forest Industry Coordinator
Aitkin County
307 2nd Street NW #316
Aitkin, MN 56431

Baxter/Brainerd
7804 Industrial Park Road
PO Box 2720
Baxter, MN 56425-2720

218.829.5117
218.829.2517
Brainerd@wsn.us.com
WidsethSmithNolting.com

**Re: Northwoods Regional Trail System Mille Lacs - Malmo East
ATV Loop Project Design Services**

Dear Mr. Wagner,

In accordance with your request we have prepared an outline of the estimated costs and services anticipated for the general trail design for the project. We understand that there are many variables that will be encountered as the projects develop that may increase or decrease the level of effort necessary. The following services are separated into the major disciplines required for our design. We have included the Land survey, GIS Environmental and Civil Engineering services anticipated in a project such as yours. The following is a breakdown of the major services anticipated.

Survey and GIS Services

Estimated \$25,000 to \$30,000

- Utilize available LIDAR, National Wetland Inventory mapping and parcel data to create a project base map of the entire project route
- Develop final trail route layout through meetings and on-site review
- Perform detailed field surveys of key areas needing engineering design using GPS and conventional survey methods
- Identify public Rights of way and incorporate them into the base map
- Preparation of easements for necessary portions of trail impacting private / public interests

Environmental Services

Estimated \$30,000 to \$35,000

- Determine areas of wetland impact through the trail layouts
- Review base mapping and provide guidance wetland impacts
- Perform off-site and on-site wetland delineation
- Incorporate delineation into base mapping
- Preparation of the Environmental Assessment Worksheet
- Review meetings with TEP and State agency's



Civil Services

Estimated \$25,000 to \$28,000

- Coordinate with GIS and survey to develop preliminary base mapping for general trail corridors.
- Once initial wetland and property/ROW information prepared on base mapping, meet with County staff and field drive, walk, 4-wheel the entire 58-mile corridor. Documents specific features and considerations along the corridor that will need to be addresses. Examples are water way crossings, wetland crossings, steep roadway ditch slopes, utility poles/ground pedestals. Three 10-hour days are estimated to be needed for this first review.
- Continue coordination with GIS, Environmental/Wetland and Survey departments as base mapping work continues and trail locations within corridors are further defined.
- Review any water crossings with hydraulics group and identify types of structures (metal culverts, precast box sections, suspended bridge) and related hydraulic reviews that would be needed for any final design.
- Prepare preliminary trail cross sections that will be needed over the 58-mile corridor and review with County staff along with preliminary water crossing structures/options.
- Develop final sections that would be used over the trail route and relative distance for each section type to total the 58-mile length.
- Establish specific count of water or wetland crossings and structure/cross sections to be utilized at each costing with a budget cost scale.
- Develop estimate of unit length costs for the varies trail cross sections and overall cost based total lengths of each section along with finalizing cost estimates for water crossings.
- Final coordination with GIS and Survey departments in development of route mapping and related trail cross sections to be utilized and special structures.
- Prepare final cost estimates for various trail segments and special structures. Meet with County Staff to prioritize trail segments for final cost estimating and identifying specific considerations that will need to address in each segment during final design.

We understand that as you review our outline of proposed services you may have questions regarding our proposed services. We have used our discussions, review of the project documents and experience on other projects to develop this preliminary scoping outline. We would be glad to meet with the committee to further discuss the details of this process with you. We appreciate the opportunity to present this proposal to you and look forward to working with you on this project. Please feel free to contact us with any questions.

Sincerely,
WIDSETH SMITH NOLTING

A handwritten signature in black ink, appearing to read "Chad M Conner", written over a light blue horizontal line.

**Chad M Conner, LS CFedS
Vice President**