



Blue Star Trail – Wiley Road to M-89

Proposal for Engineering Services

Prepared for:
**Saugatuck Township, City of the Village
of Douglas, and Friends of Blue Star Trail**

Submittal Date:
August 18, 2023

August 18, 2023

Daniel DeFranco
Saugatuck Township
P O Box 100
Saugatuck, MI 49453-0100

RE: Request for Proposals (RFP) – Blue Star Trail | Wiley Road to M-89

Dear Mr. DeFranco:

Thank you for the opportunity to provide a proposal for preliminary design/scoping work for the Blue Star Trail project from Wiley Road to M-89.

This is a noteworthy extension of an exciting and ambitious project, and we are looking forward to the opportunity to work with Saugatuck Township, the City of the Village of Douglas, and the Friends of the Blue Star Trail.

We look forward to the opportunity to talk with you further about your plans and how our Prein&Newhof team can help you accomplish your vision! In the meantime, please contact us if you have any questions or would like addition information.

Sincerely,

Prein&Newhof



Scott Post, PE
Project Manager



Brian Vilmont, PE
Team Leader

cc: Richard Donovan, Friends of the Blue Star Trail
Rich LaBombard, The City of the Village of Douglas



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Business Organization

At Prein&Newhof, our goal is to serve our clients wisely – meeting their infrastructure needs with a combination of experience, integrity, creativity, and common sense.

For over 50 years, Prein&Newhof has been serving township, municipal, and private clients across Michigan. Because every situation is different, we put a high value on personal attention. Our main goal is to see farther. We are dedicated to crafting flexible, long-term solutions rather than quick fixes, because we want the best for our clients and for Michigan.

History

Begun by Tom Newhof and Ed Prein in 1969, Prein&Newhof was founded on the belief that each engineer should take personal responsibility for meeting his or her clients' needs – building long-term relationships and managing each project from start to finish, from preliminary design to final construction. Today, we are the engineer of choice for over 50 communities across Michigan.

Employees

Prein&Newhof is 100 percent employee-owned, with over 150 full-time personnel, including engineers, surveyors, drafters, geologists, chemists, communication specialists, and support staff.

Professional Services

At Prein&Newhof, we are constantly developing our skills to serve our clients better. Our primary services include the following:

- Municipal Engineering
- Water & Wastewater
- Stormwater Management
- Roads & Trails
- Airports
- Private Development
- Asset Management
- Landscape Architecture
- Environmental Consulting
- Laboratory Testing
- Structural Engineering
- Geotechnical Engineering
- Surveying
- GIS & Mapping

Locations



Our Values

Invest Wisely

Develop Relationships

Take Responsibility

Build Expertise

Support Community

Our strength lies in our dedication to thinking ahead, building lasting relationships, and crafting long-term solutions.

Qualifications

A well-planned trail system drives business, tourism, and civic pride. It brings people together. But first, it must get built. Trail projects can take months, sometimes years of coordination and cooperation among residents and businesses, and road, funding and permitting agencies.

Forte.

We have designed many hundreds of miles of trails for West Michigan communities since the early 1980s. Trail design is a niche practice area for engineers. Technically considered transportation facilities, non-motorized trails are much more complicated than a road. Unlike any firm we know of, Prein&Newhof has a team specifically dedicated to non-motorized transportation projects. Many of these trails need to cross barriers like roads, highways, rivers, and wetlands. As part of these projects, we have designed numerous bridges, boardwalks, and tunnels for pedestrians to safely cross to the other side.

The design of each segment should be considered site specific. Every section has its own unique design and constructability challenges that need to be closely reviewed to ensure your investment lasts as long as possible.

Familiarity.

We are familiar with the overall vision underway for developing the Blue Star Trail. We have already walked and driven the route of the proposed trail with you and Mr. Donovan, scoping the potential route and locations, and reviewed some of the challenges and opportunities presented especially as it crosses the highway.

Funding.

Grants through MDOT and other funding sources typically come with complicated strings and many requirements. Because of our experience working with these programs, we know the people, the rules, and what to expect. The adjacent matrix demonstrates several clients and the funding agencies associated with which we have recently worked.

Project	MDOT TAP	MDOT CMAQ	MDOT STP	MDOT Local Bridge	MDNR Trust Fund	CZMP
North Bank Trail, Crockery Township	█				█	
Paul Henry Thornapple River Connector Trail, Caledonia	█					
Cannon Township Cannonsburg Trail	█					
City of Grand Rapids Plainfield Sidewalk Improvements	█					
Fred Meijer Grand River Valley Rail Trail	█				█	
East Grand Rapids Reeds Lake Boulevard Boardwalk	█					
Fred Meijer Standale Trail Tunnel under Lake Michigan Drive	█					
Pottawattomie Park, Grand Haven Charter Township	█					█
Traverse City Boardman Lake Loop Trail	█				█	█
Holland Township Adams Street Pathway and Bridge over I-196		█	█			
Fred Meijer Clinton Ionia and Shiawassee Trail (The CIS)	█				█	
Montague Parking Lot (Hart-Montague Trail)						█
Muir-Lyons Connector Bridge to the CIS Trail				█	█	
Ottawa County Parks Grand River Greenway	█					
Ottawa County Spoonville Trail	█				█	
Park Township 160th Avenue Pathway	█					
Port Sheldon Township Crosswell Street Pathway		█				
Saugatuck Township Blue Star Trail	█	█				
South Central Portage Bikeway	█					
Zeeland Township's Quincy Street Non-motorized Pathway		█				

Work Plan

Once you accept our proposal, we will schedule a kickoff meeting with you and your leadership group to confirm your expectations and our understanding of the project. Scott Post and Dana Burd will attend this meeting. Before we meet with you, we will drive the proposed route(s), study as much existing background information as we can, including the conceptual routing. This includes geographical information system (GIS) parcel and topographic maps, your concept plan and development guide, as well as any other documents to help us with preliminary design.

Kickoff meeting discussion items include:

1. Establishing clear points of contact between our teams
2. Your expectations for effective communication and preferred styles
3. Design concepts and schedule
4. MDOT and other funding
5. The potential for easements or property acquisition
6. Any other items of importance to you and the project



After the kickoff meeting, we recommend walking/driving the proposed route again with your team and the Allegan County Road Commission to talk about specific items related to location and design. This will provide us all with a clear and current perspective of the project needs and goals.

This boots-on-the-ground group will give us the opportunity to discuss options in greater depth, consider unique routing opportunities, and talk about specific points of interest of which there are several.

One of the most important things we have learned from designing over 600 miles of non-motorized trails is this: team and stakeholder communication is the key to success for a non-motorized trail project. We believe the Blue Star Trail will be a significant project in your community.



Preliminary Design Plan/Project Scoping

We understand you will need an accurate and thorough design, completed to the level of determining feasibility, constructability, permissibility and sufficient to seek grants and funding for the project.

Previous planning work has been completed for this section of the trail, and we will use this to speak into our preliminary design work. Some of the key issues to discuss will be:

1. Preferred side of the road

2. Possible easement locations/discussions with property owners
3. The Blue Star Highway and I-196 Interchange
4. Coordination with the Allegan County Road Commission and City of Douglas

Using GIS contour data, property lines and supplemental topographical survey where necessary, we will create a base map for our preliminary design and future construction drawings. Using the base map, coupled with suggestions from our walk/drive through, we will draw a preliminary layout for the preferred routing, develop design details, and a preliminary cost estimate.

We will start a conversation with MDOT about the highway crossing as soon as possible. This is will likely be the most critical section of the design, and we feel it is important to bring them in early and keep them informed of progress.



In addition, discussions with the local emergency services, fire, and law enforcement agencies will be an important part of the process. They often have insights into local safety that will be important to accommodate with the design.

When the plans are at approximately 50 percent, we will give them to you for your review before we meet as a team so you will have time to formulate questions and ideas. This will make the presentation more productive and help us to prepare for the final design. We anticipate your team will include the Allegan County Road Commission, the City of the Village of Douglas, Saugatuck Township, and the Friends of the Blue Star Trail. However, you are welcome to invite other partner entities you feel are important at this stage.

We are intimately familiar with MDOT design guidelines include AASHTO and ADA. We have designed and built hundreds of miles of pathways funded through these programs, and our design will conform to them. Please note that most of our locally funded projects are specifically designed to meet these standards, as well.

After our 50 percent design meeting, we will incorporate the comments your team has, update the design to include MDOT comments for the crossing, and closely review any permitting issues we see along the route. We will use our proprietary in-house non-motorized trail cost database as well as MDOT's MERL program to help develop reliable construction cost estimates. We have excellent relationships with local trail contractors, too. We often get their input on constructability issues and our cost estimates. This is important because construction costs have escalated in recent years, and it helps to understand the construction marketplace.

Having invested this time and effort into your design will have a payback several times over when the project has been completed and trail maintenance comes into play. The best materials will not overcome poorly designed drainage, problematic soils, or poorly managed vegetation. Designing trails is a step-by-step process. It is very easy to get into the weeds, get tunnel vision, or to lose focus. This is the benefit of having Prein&Newhof on your team because “we see farther.” We know from experience that design for each trail is site specific. There is not a typical cross section universally constructed everywhere. Each section of trail has its own unique design and constructability challenges that must be closely reviewed to ensure the trail lasts as long as possible.

Considerations such as poor drainage are easy to gloss over until you are riding on a trail and run into a spot completely washed out by a recent storm, sometimes multiple times because the planning was poor. Topography may be easy to overlook until you realize you spent a lot of money cutting and filling when an option could have been rerouted with an even safer option.

When the plans have been updated, and we all feel confident in the route selection, we will schedule a 90 percent meeting with your team. This gives everyone a chance to closely review the route one more time before it is finalized for funding agencies and the updated engineer’s estimate of construction costs is completed.

After our 90 percent review meeting, we will incorporate your final comments, produce the final preliminary plans and estimate and give them to you both in digital format and hard copies.

Prein&Newhof’s QA/QC review helps decrease your overall project cost. Our QA/QC goal is to produce a better project at lower cost with fewer challenges. A good set of construction plans and bid documents provides clarity, produces better bids by reducing unknowns, allows for faster construction, minimizes change orders, and requires a lower level of construction oversight.

Contract

Please note that this work can be authorized under our current professional services agreement with Saugatuck Township.

Next Steps

Funding

Our complete preliminary design will be immediately useful to apply for grants. We are experienced with the acquisition and administration of many state and federal grants. We feel this project will qualify for MDOT's TAP grant program, as well as the MDNR Trust Fund grant.

We estimate that application for the MDOT TAP Grant is approximately \$9,000.

We estimate that application for the MDNR TF Grant is approximately \$7,000.

We have used these grants to match each other on many projects, so note that if both are done together, we could realize some cost savings with the application.



Before you invest in final, construction ready design plans, we recommend that you secure the funding.

Final Design

Final design should begin as soon as funding is secure. We will provide a detailed scope of services at that point. Please note that final design will include the following tasks:

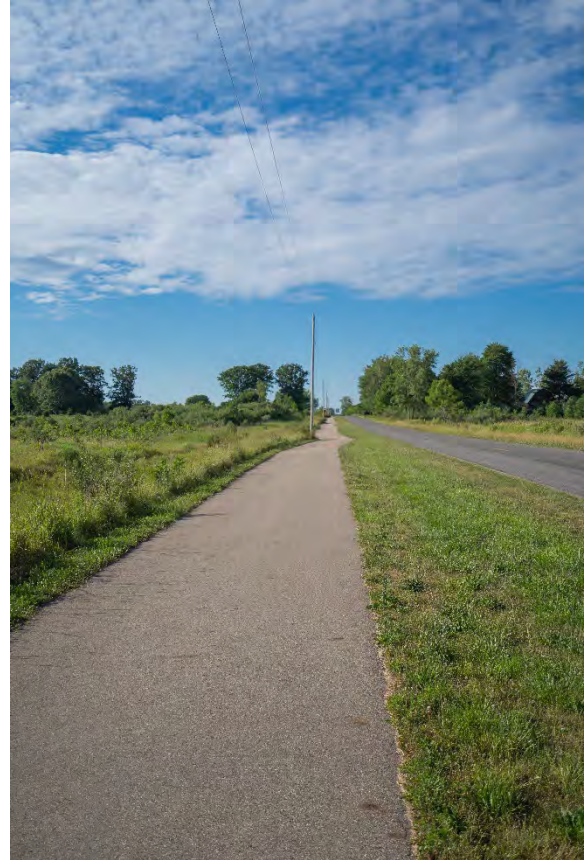
1. Complete topographical survey
2. Soil borings and geotechnical design
3. Wetland determination
4. Right-of-way (ROW)/easement acquisition
5. Permitting, including EGLE/US ACE Joint Permit, Soil Erosion and Sedimentation Control (SESC), Allegan County ROW, and MDOT/FHWA ROW
6. MDOT program application, National Environmental Policy Act (NEPA) environmental review, and State Historic Preservation Office (SHPO) clearance
7. Utility coordination
8. Structural design for boardwalks (and overlooks where desired)
9. Project specifications
10. Grade Inspection (GI) meeting with MDOT
11. Final MDOT plan approval

Construction Administration

This project is a prime candidate for MDOT TAP funding. The State has listed this project in their regional trail network, so it is a priority for funding. In addition, they have already invested so much in the corridor that they are going to want to help finish it. For this reason, our descriptions assume final design and construction will follow MDOT processes.

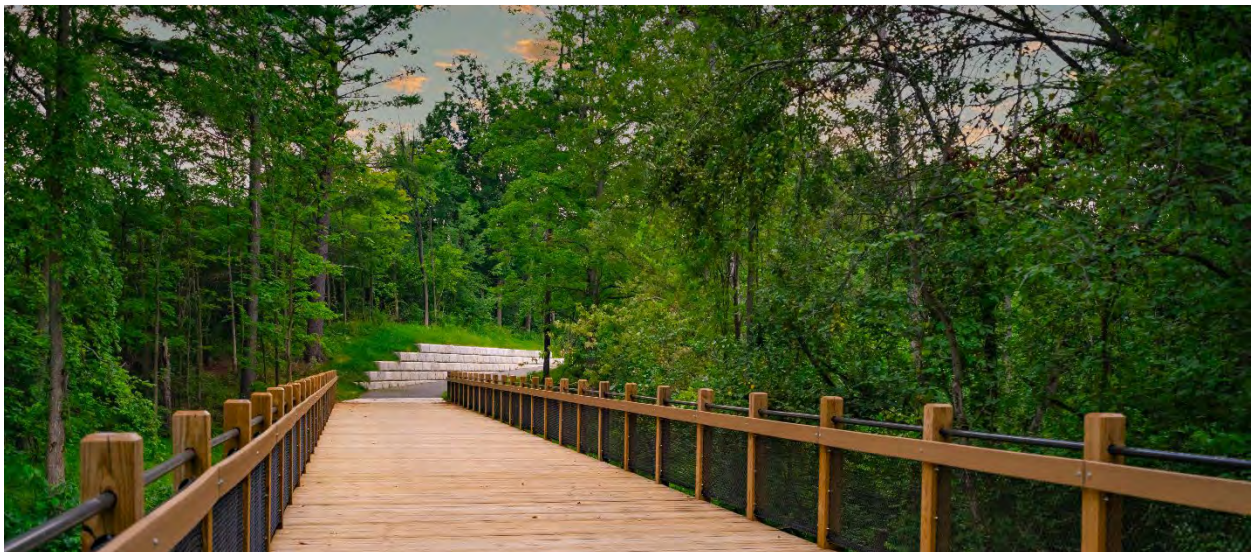
As with final design, we will provide a detailed scope of services for you for construction administration, but we anticipate the following general tasks to completion:

1. The project will be bid at MDOT
2. Preconstruction meeting
3. Construction observation
4. Construction administration through ProjectWise and FieldManager
5. MDOT project audits: Field and files
6. Record plans



Fees

For the preliminary design/scoping phase of the project, we propose to complete the project on and time and material basis with a not-to-exceed amount of \$49,000.



Experience

The following is a brief overview of the non-motorized trails and pedestrian facilities we have designed and constructed throughout Michigan. As you can see, we have been involved in quite a few communities. Many of these projects are high profile projects that have elevated community connectedness while also adding economic development opportunities to businesses located within the vicinity—an economically viable community is a healthy community.

Caledonia Charter Township	Campau Lake Shared Use Pathway Loop 84 th Street to Paul Henry Thornapple River Trail
Cannon Township	Cannon Trail: Cannonsburg to Township Hall and Bridge over Bear Creek Cannon Trail: Myers Lake and 9 Mile Section Cannon Trail: Springer Royal Section Cannon Trail: 10 Mile Road and Courtland Drive Section
City of Adrian	Pedestrian Tunnel Under M-52
City of Greenville	Pedestrian Tunnel Under M-57 Flat River Trail
City of Ionia	Fred Meijer Grand River Valley Rail Trail and Bridge over M-66, Ionia to Saranac (with RJM Design)
City of Kentwood	East/West Trail (Kalamazoo Avenue to Paul Henry Trail)
City of St. Johns	Trailhead at Rotary Park on the Clinton, Ionia and Shiawassee (CIS) Trail (with RJM Design)
City of Traverse City	West Boardman Lake Trail, Boardwalk, and Bridges
City of Walker	Walker Avenue Non-Motorized Trail Kinney Avenue and Trail Connector M-45 Pedestrian Tunnel Under Lake Michigan Drive
Comstock Park DDA	White Pine Trail Extension to Comstock Park
Georgetown Charter Township	22 nd Avenue Non-motorized Pathway
Glen Arbor Township	Sleeping Bear Dunes Heritage Trail and Bridge over Crystal River Preliminary Design
Grand Haven Charter Township	Buchanan Street and Sleeper Street Non-motorized Pathway
Holland Charter Township	Adams Street Non-motorized Pathway Bridge Over I-196
Jamestown Charter Township	24 th Avenue Non-motorized Pathway, Riley Street to Outback Drive 24 th Avenue Non-motorized Pathway

	Fred Meijer Kenowa Trail: Quincy Street
	Riley Street Bicycle Path Bridge
Kent County Parks	Four Mile Trail
	Dwight Lydell Park Boardwalk Bridge and Trail
Laketown Township	Beeline Trail, Holland to Saugatuck
Meijer	3 Mile Road Pedestrian Tunnel to Corporate Campus
Ottawa County Parks & Recreation	Spoonville Trail
	Idema Explorers Trail: Stearns Bayou Pathway and Bridge
	Idema Explorers Trail: Grand River Ravines Trail and Suspension (With UP Engineers and Architects)
	Idema Explorers Trail: Grand River Greenway
	Musketawa Trail/Pioneer Trail Connector Pathway
Park Township	Greenly Street Non-motorized Pathway
Plainfield Charter Township	Jericho Trail
	Kuttshill Drive, Brewer Avenue, and Kroes Street Shared Use Pathway
	Jupiter Avenue Pathway
Port Sheldon Township	Croswell Street Non-motorized Facility: Lakeshore Drive to US-31
City of Ionia	Ionia Trailhead Park on the Grand River Valley Rail Trail (with RJM Design)
Saugatuck Township	Blue Star Trail
State of Michigan MDNR and DTMB	Idema Explorers Trail: Bass Lake Recreation Area Preliminary Trail Route Study
	Fred Meijer CIS Rail Trail Ionia to Owosso
Zeeland Charter Township	64 th Avenue Non-motorized Pathway, Adams Street to Byron Road

Project Staffing

One of Prein&Newhof's biggest strengths is our ability to see an idea to implementation. Ideas are easy, but making it happen is what matters most. "Seeing farther" is one of the guiding principles that define our purpose. We believe it is reflected in the relationships and expertise we have been developing throughout West Michigan since 1969.

We have assembled a team of exceptional professionals passionate about collaborating with people to unearth and levitate new energy into their communities. Our professional non-motorized path group works together on a regular basis and recognize they are just one piece in the puzzle. Their strong working relationship and respect for one another is immediately evident, which in turn develops trust and quickly builds consensus with you and your constituents, ensuring better decisions are made and potential frustrations are minimal. The following is a brief introduction to the key members of our non-motorized trail team:

Scott Post, PE | Project Manager

Scott is a senior project manager and our lead designer for non-motorized trailways. He has designed and managed the construction of several hundred miles of trail totaling over \$30 million throughout his 28-year career. Scott is considered one of the preeminent designers in Michigan by his peers. Scott understands construction, potential challenges, and thinks through constructability issues before designing projects. His experience with the various types of non-motorized trail projects gives him an exceptional big-picture perspective. This experience is priceless and will translate into significant value added to your project.

Scott's greatest asset is his energy, enthusiasm, and creativity—his passion is contagious. He thrives on connecting with people and bringing their collective vision to life. Saving trees, dodging obstructions, and minimizing construction-related resource destruction are second nature to him. His strong understanding of costs, design standards, contractors, permitting, funding resources, and agency rules will be a huge advantage.

Dana Burd, PE | Township Liaison

Dana will be your local liaison for this project. He is Saugatuck Township's Engineer, is an elected Parks Commissioner in the Township, and has an unmatched familiarity with the local community. He often works with Saugatuck Township, Kalamazoo Lake Sewer & Water Authority (KLSWA), the Allegan County Road Commission, Saugatuck Township Fire District, and Allegan County Drain Commissioner's office coordinating utility projects, road projects, and site plan reviews. Dana will attend meetings, review work products as they are completed, and ensure the project design and management team are meeting your needs and expectations. Dana will ensure quality of deliverables and assist with any local coordination efforts.

Carlee Thompson, EIT | Engineer

Carlee is a highly motivated professional and has proven she has leadership, organizational, communication, GIS, and CAD capabilities. She has taken charge and is dedicated to learning the skills and capabilities required to be a well-rounded civil engineer. She discovered her love for non-motorized transportation while studying in Europe and has since geared her career goals toward her passion.

Ken Bosma, PE | City Liaison & QA/QC

Ken is currently acting City Engineer for the City of Douglas and will be responsible for Quality Assurance/Quality Control (QA/QC) review. He has managed projects in Allegan and Ottawa Counties for over 25 years and is familiar with the communities. In addition, Ken does drainage reviews for the Allegan County Drain Commissioner's Office. Ken will look over work products as they are completed and ensure they meet your needs, including quality deliverables, within your budget and on time.

Our Team

We have a deep, in-house deep field of engineers including disciplines such as transportation, geotechnical, structural, and hydraulic; a team of landscape architects with years of trail design experience; and multiple survey crews to assist us with your project.

In addition to the Prein&Newhof professionals outlined for your project, we frequently partner with other specialized firms that have worked with us on many of our non-motorized trails throughout Michigan. These firms include:

Barr Engineering | John Vigna | Wetlands

Barr Engineering are experts in wetland determination and other environmental services. They are a trusted partner on our trail projects.

Land Matters, Inc. | Deborah Poeder | ROW Acquisitions

Land Matters specializes in ROW acquisition. Notably, they are qualified to work on projects involving federal funding and all the legal requirements necessary for this work.

Orbis Environmental Consulting | J Ryan Duddleson | NEPA/SHPO/Environmental Review

Orbis Environmental Consulting is regionally qualified in environmental review projects, including NEPA and historic preservation. We have successfully partnered with Orbis on several projects with sensitive environmental concerns.

References

We would be pleased to have you contact the following clients for their input on our ability to provide them with world class facilities for their community. We have also included a representative from the MDNR, as an agency representative to give you a perspective on the quality of work we do.

Holland Township

Steve Bulthuis, Township Supervisor
616-396-2345 x 222
steveb@hct.holland.mi.us

Laketown Township

Al Meshkin, Township Manager
616-335-3050
al@laketowntwp.org

Plainfield Township

Bill Fischer, Community Development
Director
616-364-8466
fischerb@plainfieldmi.org

Cannon Township

Joe Gavan, Parks & Recreation
Committee Chair
616-874-6966
jgavan@cannontwp.org

Ottawa County Parks and Recreation Commission

Curt TerHaar, Coordinator of Park
Planning and Development
616-738-4810
cterhaar@miottawa.org

Ottawa County Department of Strategic Impact

Paul Sachs, Director
616-738-4852
psachs@miottawa.org

TART Trails, Inc.

Julie Clark, TART Trail Director
231-941-4300
julie@traversetrails.org

Michigan Department of Natural Resources

Annamarie Bauer
Landscape Architect & Regional
Field Planner (former State Trails
Coordinator)
989-386-4067
bauera1@michigan.gov

City of Walker

Scott Conners, PE, City Engineer
616-791-6792
sconners@walker.city

Appendix: Resumes

Scott Post, PE Project Manager

Scott is recognized as one of Michigan's premier multi-use, non-motorized pathway designers in Michigan. He has designed or managed hundreds of miles of trails for many communities throughout West Michigan and excels at finding solutions that satisfy both residents and community leaders.

Scott has experience with both private and municipal clients and has worked extensively with MDOT on LAPs, as well as with the MDTMB, MDNR, and other state agencies. He is very familiar with MDOT trail specifications, knowledgeable on current AASHTO and ADA requirements, and experienced with the administration and testing required for grant-funded projects.

He also has extensive experience with acquisition and administration of grants, such as MDOT TAP, and CMAQ programs, and MDNR's Trust Fund. Scott has also successfully combined these grants on several projects to maximize grant funding used.

Representative Projects

- Saugatuck Township: Blue Star Trail from Holland Street to 64th Street, TAP Grant
- Laketown Township: Blue Star Highway CMAQ Trail Extension 63rd to 62nd Streets
- Ottawa County Parks and Recreation: Spoonville Trail Phases, Grand River Greenway, Musketawa Trail Extension, Holland State Park Path Extension and Boardwalk
- City of Ionia: Grand River Valley Rail Trail, Saranac to Ionia and Bridge over M-66
- Cannon Township: Townsend Park Trail, Cannon Trail
- Comstock Park Downtown Development Authority: White Pine Trailhead and Trail Extension
- Grand Traverse County/City of Traverse City: Boardman Lake Loop Trail Loop
- Village of Elk Rapids: Preliminary Design Acme to Elk Rapids segment of the TC to CHX Trail



Education

Bachelor of Science, Civil Engineering
Calvin University, 1995

Registrations

Engineering Michigan, 2000

Certifications & Training

AASHTO Bicycle Facility Design
Training: Training Wheels, MDOT
Designing Pedestrian Facilities for
Accessibility, APBP & ACEC
Introduction to Pedestrians & Bicycle
Safety, Planning & Design, MSU
PSMJ Project Management Bootcamp

Professional Activities

American Society of Civil Engineers
West Michigan Trails & Greenways
Coalition
Rails-to-Trails Conservancy

Professional History

Prein&Newhof, 1995-Present
28 years in Industry

- City of Greenville: Fred Meijer Flat River Trail
- Jamestown Charter Township: 24th Avenue Non-motorized Pathway, Riley Street Pathway and Bridge
- Laketown Township: Beeline Trail, Holland to Saugatuck
- Port Sheldon Township: West Olive Road Path & Bridge, Croswell Street Path
- Holland Charter Township: Adams Street Path Bridge over I-196, 104th Avenue and Mason Street Path
- CIS Rail Trail, Ionia to Owosso (DTMB/MDNR)
- Zeeland Charter Township: 64th Avenue Non-motorized Pathway, Adams Street Path
- Macatawa Greenway Project: Zuidema Farm Trail

Presentations

"Renovate Your Road! Complete Streets in Action." Michigan Transportation Planning Association Conference, July 2019

"The Three Amigos of Trails." Institute of Transportation Engineers Great Lakes District Meeting, April 2019

"Trails as Green Infrastructure." Michigan Recreation & Park Association, mParks Trail Summit, 2018

"If You Build It, They Will Come." Michigan Society of Professional Engineers, October 2017

"Trails, Rivers, and Roads, Oh My!" American Public Works Association, APWA Great Lakes Expo, 2017

"Why Did the Engineer Cross the Road?" Institute of Transportation Engineers, Institute of Transportation Engineers (ITE) Conference, 2017

"Fred Meijer CIS Trail." Institute of Transportation Engineers, Institute of Transportation Engineers Great Lakes Conference, April 2015

"Progress of the CIS Trail." Friends of the CIS Trail Annual Board Meeting, March 2013

Personal Awards

Fred Meijer Trail Champion: Champion Trail Professional, 2018, West Michigan Trails & Greenways Coalition

Carlee Thompson EIT Engineer

Since joining Prein&Newhof in 2019, Carlee has demonstrated she is a highly motivated Engineer-in-Training. In a very short time, she has proven leadership, organizational, communication, GIS, and CAD capabilities. She has taken charge and is dedicated to learning the skills and capabilities required to be a well-rounded civil engineer. In this, she has worked alongside one of Michigan's premier non-motorized pathway designers and has discovered her passion for pedestrian transportation development.

Representative Projects

- City of Douglas: Union Street Non-motorized Pathway, Wiley Road CMAQ Non-motorized Pathway
- Ottawa County Parks & Recreation: Grand River Explorers Trail Eastmanville Connector Trail, Idema Explorers Trail, Stearns Bayou (TAP), Spoonville Trail
- Caledonia Charter Township: Non-motorized Pathway
- Cannon Township: Myers Lake & 9 Mile Shared Use Pathway, Pathway Administration, Pathway Asset Management Plan, Springer Farms Trail
- City of Muskegon: Laketon Lakeshore Trail Connector
- City of South Haven: Aylworth Ave Non-motorized Path
- Grand Traverse County/City of Traverse City: Boardman Lake Loop Trail Loop
- Comstock Park Downtown Development Authority: Jupiter Avenue Pathway Phase II
- Laketown Township: Blue Star Highway Shared Use Pathway MDOT Parking Lot to Shangrai La Drive
- Plainfield Charter Township: Kuttshell Drive, Brewer Avenue, & Kroes Street Shared Use Pathway, Pathway Asset Management Plan
- Village of Elk Rapids: TC to CHX Trail: Acme Township to Elk Rapids
- Zeeland Charter Township: Quincy Street Non-motorized Pathway



Education

Bachelor of Science, Civil Engineering
Michigan Technological University, 2018

Professional Activities

Society of Women Engineers Club

Professional History

Prein&Newhof, 2019-Present
5 years in Industry

Dana Burd, PE

Township Liaison

Dana serves as a project manager and community engineer for municipal public works projects and has senior design experience in the areas of hydrology, hydraulic design and modeling, river analysis, stormwater collection/treatment, sanitary sewer, water main design and construction, site design, permitting, utility and floodplain studies.

He advises clients on general engineering matters, site plan reviews, capital improvement planning, project funding, asset management, and overall infrastructure system management. He prepares and administers public bid construction contracts for municipal clients. Dana has counseled a variety of clients including cities, townships, road commissions, county drain commissioners, airports, public and private schools and universities, MDOT, healthcare, and industrial clients. Dana has given presentations across the State of Michigan on asset management, funding, and successful project outcomes.

Representative Projects

- Shared Use Pathways: 160th Path in Park Township, Blue Star Highway in Laketown Township (CMAQ), Annual Path Maintenance and Asset Management Plans for Park, Holland, and Laketown Townships
- Saugatuck Township Roadway Asset Management Plan
- Allegan County Road Commission: Lakeshore Drive Managed Retreat and Coastal Hazard Studies
- Utility Asset Management Plans: Saugatuck Township, City of Douglas, City of Fennville, City of Hastings, West Michigan University, City of Coopersville, City of Allegan, Park Township
- City of Fennville: Landsburg Road Improvement with MDOT TEDF Funding, Street Improvements Associated with Utility Projects.
- Ottawa County Water Resources Commissioner: Hiawatha Drain Improvements and Habitat Restoration, Drain No. 52 Drainage Improvements, Van Laar Drain Study, Shoemaker Drain Study, Hickory Grove Drain, and Orphan Drains



Education

Bachelor of Science, Civil Engineering
University of Notre Dame, 2001

Registrations

Engineering Michigan, 2005

Certifications & Training

Certified Floodplain Manager, ASFP
LEED® Accredited Professional, U.S.
Green Building Council

Professional Activities

Michigan Stormwater and Floodplain
Association
Association of State Floodplain
Managers
Saugatuck Township Parks
Commissioner
Michigan Association of County Drain
Commissioners
ACEC Michigan (ACEC Rural
Development Committee Chair)

Professional History

Prein&Newhof, 2014-Present
22 years in Industry

Ken Bosma, PE

City Liaison and QA/QC

As a senior project engineer, Ken oversees Prein&Newhof's Holland office, serves on both the Board of Directors and Executive Committee, and is the team leader responsible for administering design and construction observation of projects for this group. He has extensive municipal experience which includes water and wastewater systems, drainage improvement projects, road improvement projects, plan reviews, water reliability studies and reports, wastewater master plans, ordinances, and contract negotiations.

Ken has worked closely with many government agencies such as MDOT, EGLE, county road and drain commissions, and local board of public works (BPWs). He is also familiar and a valuable resource on project funding and grants, capital improvement planning, and design.

Representative Projects

Stormwater Management

- Ottawa County: Sapphire Lake Drain, 32nd Street Emergency Culvert Replacement, Drain No. 14 and 20 Extension, Roost Avenue Storm Sewer Improvements, Riley Street Improvements, Drain No. 30 Improvements
- Van Buren County: Bob-O-Link Estates
- Allegan County Road Commission: 147th Street Emergency Culvert Replacement, Neerken's Plat Drain
- Holland Charter Township: Stormwater Mapping

Roads and Streets

- City of Douglas: Street, Sidewalk, and Pathway projects
- City of Holland: Downtown Streetscape, Holland-Wyoming Interconnect
- Zeeland Charter Township: 88th Avenue Reconstruction
- Ottawa County Road Commission: Riley Street, Lakewood Boulevard
- Holland Charter Township: Garden Avenue, HEDCOR Industrial Park



Education

Bachelor of Science, Civil Engineering
Calvin University, 1987

Registrations

Engineering Michigan, 1992

Certifications & Training

PSMJ Project Management Bootcamp

Professional Activities

Michigan Association of County Drain Commissioners

Holland Charter Township Brownfield Redevelopment Authority

Holland Charter Township Planning Commission

Michigan Townships Association

Professional History

Prein&Newhof, 1987-Present

36 years in Industry

Appendix: Project Summaries

Spoonville Trail

Ottawa County Planning and Performance Improvement, Ottawa County Parks & Recreation

In 2015, Ottawa County began building a non-motorized pathway along 120th Avenue in Crockery Township. Coined as the Spoonville Trail in honor of the area's history, this path's purpose is to connect the north end of the North Bank Trail to the south end of the Idema Explorer's Trail at the M-231 trailhead.

Spoonville is part of a developing trail network that will span from Metro Grand Rapids to Lake Michigan. To maximize funding and financial resources, the County split the project into two phases.

Prein&Newhof designed both phases of the trail, incorporating local landmarks and monuments, such as the Sgt. Henry E. Plant Pathway on M-231 over the Grand River and the Crockery Creek Natural Area. Phase I involved 1.75 miles of paved trail, beginning at North Cedar Drive in Robinson Township and running north to Leonard Road in Crockery Township. MDOT provided the trail design for the portion of the trail that involved the M-231 bridge. Construction of Phase I was completed in one summer, and the trail opened for public use in the fall of 2016.

Phase II extends the path an additional 1.75 miles from the intersection of Leonard Road and 120th Avenue to the north side of I-96 in Nunica and connects with the North Bank Trail. A new trailhead parking lot was built on 120th Avenue, south of Arthur Street. Completed in the spring of 2021, it allows the public to utilize the entire connector. The trail is 10 feet wide with the boardwalks expanding to 14 feet wide. Five boardwalks were built with a 20,000 pound weightbearing limit. The trail travels through a local golf course with ravines with six separate retaining walls (7,000 square feet).

Totaling \$3.76 million, the Spoonville Trail was funded by MDOT TAP, MDNR TF, Grand Haven Area Community Foundation, DALMAC, Quiet Water Society, Loutit Foundation, Scholten-Fant, Shape Corporation, Rycenga Building Center, Charter Communications, and many other generous donors.

[Project Completion Video](#)

Completion Year

2022

Project Team

Scott Post, PE, Project Manager
Carlee Klenotich, EIT
Matt Levandoski, PLA
Devin Brown, PE

Funding Source

MDOT TAP, MDNR TF

Client Contact

Aaron Bodbyl-Mast
abodbyl-mast@miottawa.org
Paul Sachs
psachs@miottawa.org

Awards

Outstanding Project of the Year –
2022 ASCE Michigan
Public Works Project of the Year –
2022 APWA Michigan
Project of the Year - Transportation
– 2021 APWA Midwest



West Boardman Lake Loop Trail

Grand Traverse County, TART Trails, Michigan Department of Natural Resources

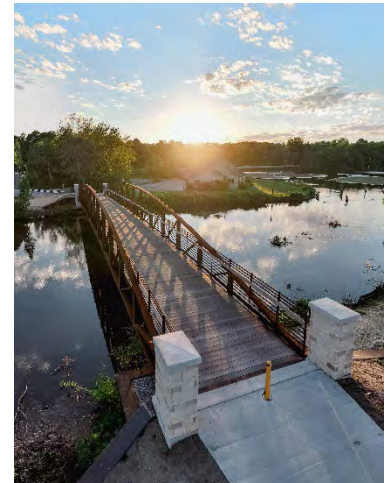
Grand Traverse County had a 1.5-mile-long gap in its trail loop around Boardman Lake and wanted to close the final stretch. This section begins at 14th Street and meanders south to Medalie Park. The trail links users to community assets, including the library, a food market, Northwestern Michigan College University Center, densely populated neighborhoods in Traverse City and Garfield Township, and several commercial areas surrounding the lake.

In conjunction with TART Trails, Garfield Township, and the City of Traverse City, Grand Traverse County hired Prein&Newhof to provide preliminary and geotechnical design, topographic surveying, mapping, assistance in public meetings, and design development drawings.

Details of the project included trail design and routing, boardwalk design over a shallow part of Boardman Lake, water access amenities including stairs and a fishing deck, and two bridges over the Boardman River to connect to the trail on the east side.

Working with Grand Traverse County's team, meeting with the public many times, gathering input, and presenting the proposed design, the team was enthusiastic about moving forward with the trail's final leg. Phase 1, nearly a mile of the trail, includes a retaining wall between 16th Street and Northwestern Michigan College University Center. The next leg of the trail, between Medalie Park and Northwestern Michigan College, includes the big boardwalk, two bridges, and the overlooks and was completed in 2022.

Funding for the project included grants from the CZM program, MDOT's TAP program, MDNR Passport program, and EGLE Brownfield funding. Garfield Township and Traverse City funded the remainder of the project.



Completion Year

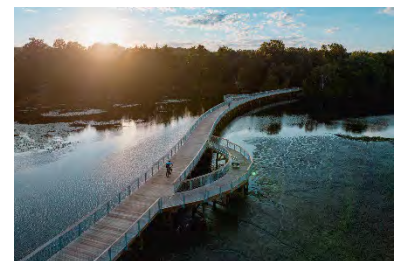
2022

Project Team

Scott Post, PE, Project Manager
Matt Levandoski, PLA
Devin Brown, PE

Funding Source

Coastal Management Program,
Michigan Department of Natural
Resources Trust Fund
(\$500,0000), Tax Increment
Financing, Donations





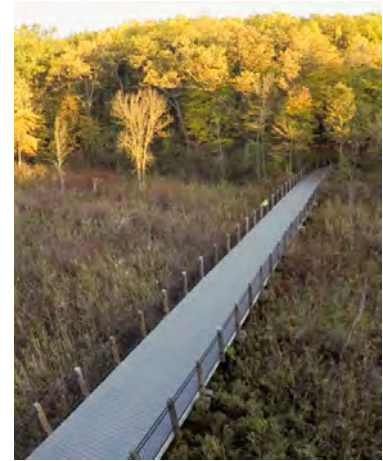
Cannonsburg Trail Cannon Township

Cannon Township hired Prein&Newhof to design a 0.4-mile-long, 10-foot-wide ADA-compliant trail curving between Townsend Park and downtown Cannonsburg. The paved trail includes a 40-foot-long prefabricated bridge over Bear Creek, a cold-water trout stream, with 100 feet of wooden boardwalk over a floodplain and wetland.

Prein&Newhof's EGLE-permitted design and close observation during construction helped decrease negative impacts to the stream and riparian wetlands. The bridge and boardwalk design meets MDOT H-10 loading rules (10-ton vehicles) and can handle a 20,000-pound vehicle. The bridge and boardwalks have pedestrian-scale, park-like character.

Prein&Newhof designed the trail to keep and enhance the unique character of Townsend Park. During construction, Cannon Township closed an old gravel parking lot used for Townsend Park. The parking lot was improved with topsoil, steps, and several trees to create a more natural scene along the trail.

Prein&Newhof helped Cannon Township obtain several easements for the trail and collaborated with the Kent County Parks Department during design and construction. Our team engaged and coordinated the trail and restoration work with the owner of many of the commercial properties in Cannonsburg, who also invested in the simultaneous beautification of these properties. This effort resulted in seamless improvements to the downtown area.



Completion Year

2016

Professional Fees

\$99,210

Funding Source

Cannon Township funded the project with money from a trail millage combined with an MDOT Enhancement grant.

Project Team

Scott Post, PE, Project Manager

Client Contact

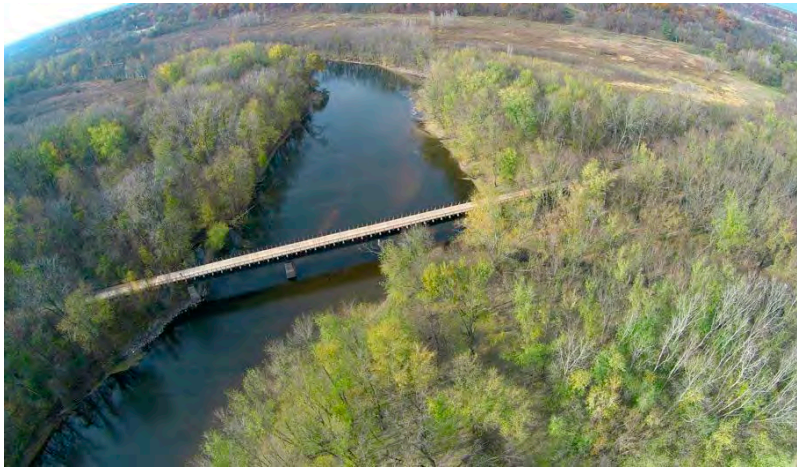
Bonnie Blackledge, Clerk

616-874-6966

Several challenges of the project included meeting ADA requirements. The most significant grade on the trail is 5 percent. To meet this grade, structural sections of the trail required cutting into the wooded hillsides, which would have destroyed the park's character.

The design combined retaining walls, grassy slopes, and new tree plantings that provided a functional and useful trail and a beautiful experience for trail users. The retaining walls minimized the environmental impact of the trail in hilly areas, but the steep slopes above could have caused runoff and erosion.

A special seed/restoration mix that provides thick grass cover quickly was used on the steep slopes to minimize these difficult-to-restore areas' potential erosion. The sprayed mixture held up well to hard rain without washing away.



Grand River Valley Trail City of Ionia

In partnership with the MDNR, the City of Ionia hired Prein&Newhof to design Phase 1 of the Grand River Valley Rail Trail (GRVRT) between Saranac and Ionia. The GRVRT is the Lowell to Ionia section of the 130-mile-long Fred Meijer Trail network stretching from Alma to Owosso via Lowell and Greenville.

The GRVRT is an AASHTO-compliant non-motorized trail on an abandoned rail bed. It features seven rehabilitated trestles over various watercourses. One 466-foot-long trestle over the Grand River provides exceptional views of the river in the Ionia State Recreation Area. Between the communities of Ionia and Saranac, the trail flows through the Ionia State Recreation Area's arboreal wilderness. Sections of the trail have an asphalt surface. The remaining part of the trail through the countryside has a limestone aggregate surface designed for non-motorized use.

One challenge for the trail route was crossing M-66 in Ionia. A Prein&Newhof traffic study recommended a new bridge over M-66, as traffic was too heavy for safe crossing by trail users. Prein&Newhof engaged landscape architect Jim Morgan of RJM Design Inc. to consult on the trail, bridges, and other amenities.

The city managed the project with assistance from the MDNR. Funding for the project was made possible with the MDNR's Trust Fund, MDOT TEP funding, and local and private money.



Completion Year

2012

Funding Source

MDNR Trust Fund, MDOT TEP

Professional Fees

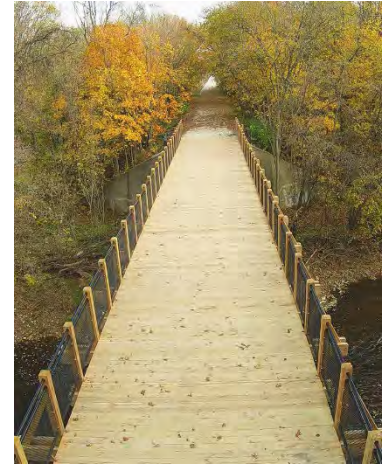
\$9,000

Project Team

Scott Post, PE, Project Manager

Awards

Public Works Project of the Year
for Small Cities/Rural
Communities - 2014
APWA Michigan



Clinton, Ionia, and Shiawassee Multi-use Trail

Michigan Department of Technology, Management and Budget, Michigan Department of Natural Resources

Prein&Newhof teamed with Lansing-based Eng., Inc. to design a 42-mile-long, multi-use trail between Ionia and Owosso on an abandoned rail line. The CIS Trail is part of the 130-mile-long Fred Meijer Trail network between Owosso and Alma, via Lowell and Greenville. Eng., Inc. provided topographical surveying, and Prein&Newhof designed the project.

The project transformed 42 miles of abandoned rail bed into non-motorized trail, converted several railroad trestles into trail bridges, and replaced several culverts. MDOT owns the trail corridor.

Contractors built the rural trail areas with crushed limestone and paved it through Muir, Fowler, Pewamo, St. Johns, and Ovid. Near Ovid, the trail leaves the rail bed and follows an alternate route to accommodate a milk processing plant.

The MDNR managed the CIS Trail project. MDOT's Transportation Enhancement Program and the MDNR TF provided funding.

Completion Year

2017

Funding Source

MDOT TAP, MDNRTF

Professional Fees

\$454,278

Project Team

Scott Post, PE, Project Manager
Ed Dempsey, GISP

Client Contact

Annamarie Bauer
989-386-4067
bauera1@michigan.gov



Jupiter Avenue Pathway Plainfield Charter Township

In 2016, Plainfield Charter Township passed a millage to develop a non-motorized network of paths and trails. One of the priorities in the plan was to create a north-south connector through the township that would go on Jupiter Avenue from Plainfield to the YMCA. Due to the long length of the connector, the project was separated into two phases:

Phase 1: Plainfield Avenue to West River Drive was constructed in 2018.

Phase 2: North from West River Drive to the YMCA was constructed in 2019.

Plainfield Charter Township hired Prein&Newhof for design and construction engineering of an HMA non-motorized pathway approximately 10,100 feet in length and 8 feet wide.

A cycle track had already been installed on the Jupiter Avenue bridge. Cycle track (or protected bike lane) is a two-way designated bike lane that is part of a street but separated from auto traffic, in this case, by extra stripes. The township did not want vertical delineators such as bollards or curb which sometimes accompany cycle tracks due to snow removal challenges.

Completion Year

2019

Professional Fees

\$127,000

Project Team

Scott Post, PE
Devin Brown, PE
Dan Elzinga, PS

Client Contact

Bill Fischer
Community Development Director
fischerb@plainfieldmi.org

