



PROFESSIONAL SERVICES FOR **N 28TH STREET GRADE SEPARATION**

CITY OF SUPERIOR, WI
BID #26-10-PW

APRIL 28, 2026



In Partnership With
HDR, NWBE, Terracon, AET, and TRAINFO



Todd Janigo, Public Works Director
Public Works Department
1316 North 14th Street, 2nd floor
Superior, WI 54880

April 28, 2026

Subject: SRF Qualifications for Professional Services for N 28th Street Grade Separation for the City of Superior, Wisconsin

Dear Todd Janigo and Members of the Selection Committee:

SRF Consulting Group, Inc. (SRF) is pleased to submit our Statement of Qualifications for the **N 28th Street Grade Separation Project** for the City of Superior, Wisconsin. SRF understands the importance of this corridor to local access, emergency response, and economic activity, and we are committed to delivering a clear, defensible path forward for implementation.

The success of this effort hinges on **early, continuous, and effective coordination with the railroad, regulatory agencies, and the public**. The existing at-grade crossings on N 28th Street are located within an active BNSF rail yard and experience frequent train movements that constrain access and create safety risks for all users. Advancing this project will require a team that can navigate the FRA Project Planning Lifecycle, maintain a strong focus on community access and stakeholder concerns, and work collaboratively with BNSF, FRA, state rail partners, and the City at every step.

SRF's team offers the City of Superior the following key strengths:

- **Proven railroad and FRA coordination expertise**
Extensive experience working directly with BNSF Railway and the Federal Railroad Administration, including advancing projects through the FRA Project Planning Lifecycle and meeting federal guidance and grant requirements.
- **Strong leadership with local and regional experience**
Project leadership by Jeff Knudson, PE, PTOE, with more than 26 years of experience delivering complex, federally funded transportation studies, including recent work in Superior and on the Blatnik Bridge study team.
- **Integrated, multidisciplinary technical depth**
Specialists in rail planning, roadway and structural design, environmental documentation, public engagement, and grant compliance working together to deliver clear, well coordinated recommendations.
- **Local knowledge and trusted partnerships**
A strengthened team that includes NWBE, providing local insight and established relationships in Superior, and HDR, bringing decades of experience delivering grade separation projects nationwide for Class I railroads.
- **A focus on implementable, defensible outcomes**
A commitment to producing practical alternatives, clear documentation, and coordinated decision making that positions the project for funding, design, and construction

SRF looks forward to partnering with the City of Superior to advance this important project and to improve safety, access, and reliability along the N 28th Street corridor. If you have questions about any content in this proposal, please contact Jeff at 608.298.5407 or jknudson@srfconsulting.com.

Sincerely,

Jeff Knudson, PE, PTOE
Project Manager
jknudson@srfconsulting.com

Andy Mielke, AICP,
Senior Vice President/Quality Manager
amielke@srfconsulting.com



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4.1 Company Profile



SRF **SRF Consulting Group, Inc.**
3701 Wayzata Boulevard • Suite 100 | Minneapolis, MN 55416

SRF Consulting Group, Inc. (SRF) is a full-service consulting firm with a broad base of award-winning services. Delivered with integrity and passion, SRF's comprehensive services include:

- Rail, quiet zones, and freight projects
- Transportation, environmental, and community planning
- Traffic engineering and operations
- Corridor management and coordination
- Civil, traffic, structural, and electrical engineering
- Commercial freight facilities design and planning
- Water resources planning and engineering
- Landscape architecture and urban design
- Parking analysis and structures
- Right of way acquisition and relocation
- Project construction services

Headquartered in Minneapolis, Minnesota, SRF was established in 1961 and has offices in North Dakota, Wisconsin, Illinois, Florida, and Nebraska. Our 100 percent employee-owned firm employs more than 400 engineers, planners, and designers who specialize in working with public sector clients. Our Team has the knowledge and technical support to help you methodically evaluate the feasibility of a variety of crossing improvements in metro-wide railroad corridors and study multimodal and active transportation user access to recommend, position, and program projects for available grant funds.

Your Trusted Rail Project Partner

SRF has built excellent relationships with numerous railway companies by working on various rail planning and safety projects. We bring an unbiased perspective and have developed a holistic, context-sensitive, and equitable approach. All stakeholders are included to consider traffic operations, engineering solutions, railscaping opportunities, and public education to help our clients and their communities to realize their goals.

Rail Safety Planning and Engineering

SRF brings a deep understanding of multimodal rail crossing safety considerations. We help clients make informed decisions and consider cost-effective and implementable solutions with real-world funding opportunities. Our capabilities include the following:

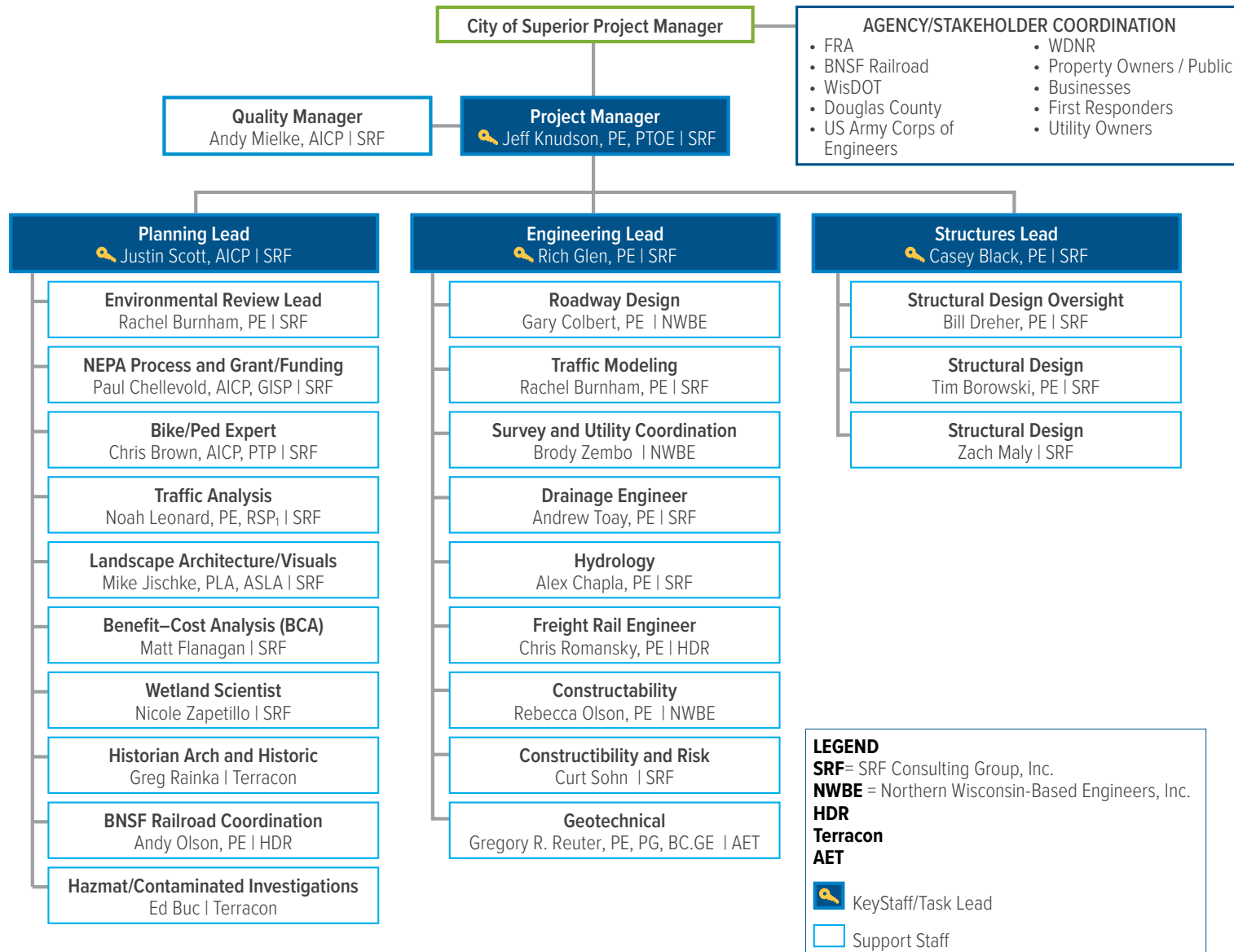
- State Rail Planning
- Rail Impact Studies
- Systematic Corridor or Localized Rail Safety Reviews
- Rail Crossing Elimination or Grade Separation
- At-Grade RR Crossing Review and Impacts on Local Traffic
- Roadway, Bridge, and Structure Design
- ITS Applications
- Railscaping and Architectural Landscaping



4.2 Key Personnel

TEAM ORGANIZATION

The SRF team brings extensive, award-winning experience in planning, environmental documentation, preliminary design, and securing grant funding for new railroad grade separations. Our collaborative team fully understands the City of Superior, FRA, BNSF, and WisDOT processes and requirements, enabling us to consistently marshal project development efforts to gain approvals for environmental documents, alternatives, and preliminary plans on schedule. The organization chart below presents Our Team, followed by a summary of our key and supporting staff.



KEY LEADS



JEFF KNUDSON, PE, PTOE | SRF | PROJECT MANAGER

AVAILABILITY
60%

Jeff Knudson has delivered hundreds of multimodal transportation planning, traffic, and design projects, working directly with municipal agencies and state DOTs to resolve complex challenges. He will lead the multidisciplinary team and will advance the study efficiently from scoping through preliminary engineering and environmental clearance, producing technically sound, agency-ready deliverables. With more than a decade of experience in Superior, Jeff will apply strong understanding of local traffic conditions and constraints and will maintain a collaborative partnership with the City of Superior. He is well-positioned to manage this effort with steady leadership and strong local understanding.



ANDY MIELKE, AICP | SRF | QUALITY MANAGER

AVAILABILITY
25%

Andy Mielke brings more than 25 years of transportation planning experience supporting cities, counties, and state DOTs on freight, rail, and corridor studies. As Quality Manager, he will apply a disciplined approach to reviews, documentation, and schedule adherence so deliverables remain clear, consistent, and defensible. His public engagement experience and national-level leadership will help keep work aligned with stakeholder needs and agency standards. He will keep quality high and reviews efficient so The Team can deliver with confidence.



JUSTIN SCOTT, AICP | SRF | PLANNING LEAD

AVAILABILITY
60%

Justin Scott has 19 years of multimodal transportation planning and policy experience delivering projects for federal, state, and local agencies. As Planning Lead, he will guide complex planning efforts—public and agency coordination, BNSF rail coordination, alternatives analysis, and grant adherence—and will translate them into practical, implementable recommendations. He is a recognized expert in federal grant requirements and application strategy and will apply that knowledge to strengthen project positioning and compliance. This experience makes him an excellent fit to lead planning.



RICH GLEN, PE | SRF | ENGINEERING LEAD

AVAILABILITY
75%

Rich Glen has more than 25 years of transportation design and project management experience, including extensive delivery of municipal and WisDOT Local Program projects. As Engineering Lead, he will oversee all engineering tasks and will coordinate between all engineering disciplines to provide consistency in the alternatives analysis and preliminary engineering products. Rich is known for practical problem-solving and will keep the multidisciplinary team aligned on scope, quality, and schedule. He brings the right mix of project delivery experience and team leadership to keep engineering moving smoothly.



CASEY BLACK, PE | SRF | STRUCTURES LEAD

AVAILABILITY
40%

Casey Black is a structural engineer with more than 20 years of experience delivering bridge, culvert, and retaining wall projects for state and local agencies. As Structures Lead, he will lead the alternatives analysis and preliminary engineering efforts related to structural elements. He has great recent BNSF rail crossing structure experience and will use proven tools that streamline BNSF Railway reviews through concise communication and proactive outreach. He is the right choice to guide bridge, culvert, and retaining wall decisions and assist with railroad coordination to timely, approvable outcomes.

ADDITIONAL SUPPORT



RACHEL BURNHAM, PE | SRF ENVIRONMENTAL REVIEW LEAD

AVAILABILITY
50%

Rachel Burnham brings more than 17 years of experience delivering roadway and trail environmental documents and design from corridor concepts through final plans. As Environmental Review Lead, she will apply strong knowledge of the NEPA process—agency and utility coordination, environmental documentation, and preliminary engineering plans—paired with advanced Civil 3D expertise. Rachel is known for ownership of details and will support efficient workflows and effective cross-discipline collaboration. Her background will support accurate inputs and documentation that stand up to agency review.



PAUL CHELLEVOLD, AICP, GISP | SRF NEPA PROCESS & GRANTS/FUNDING

AVAILABILITY
60%

Paul Chellevold leads SRF's Funding and Grants Practice and brings extensive experience with grant management and the NEPA process, supported by more than 23 years leading transportation and environmental projects. In the NEPA Process and Grant/Funding role, he will provide quality control for the NEPA process, assisting Rachel with particularly complex sections of the Environmental Review. He will also apply recent discretionary grant leadership experience to align compliance, strategy, and clear documentation throughout the full planning and preliminary engineering effort, so this project is well positioned for future grant funding.



CHRIS BROWN, AICP, PTP | SRF BIKE/PED EXPERT

AVAILABILITY
50%

Chris Brown brings 13 years of transportation planning experience, with a primary focus on active transportation planning and design. As the Bike/Ped Expert, he will lead active transportation integration and will apply a blend of planning, traffic/mobility engineering, and pedestrian/bicycle design experience from concept preliminary engineering. He will ensure active transportation (biking, walking) is integrated in both planning and preliminary engineering in a way that is safe and community-supported.



NOAH LEONARD, PE, RSP1 | SRF TRAFFIC ANALYSIS

AVAILABILITY
75%

Noah Leonard will support traffic operations and safety analysis, traffic impact studies, work zone and diversion analysis, benefit-cost analysis, and engineering visualization. In the Traffic Analysis role, he will translate roadway and rail volume and delay datasets into clear findings that support purpose and need development and alternatives analysis. He is a strong fit to provide clear, defensible traffic analysis that supports the project.



MIKE JISCHKE, PLA, ASLA | SRF LANDSCAPE ARCHITECTURE/VISUALS

AVAILABILITY
50%

Michael Jischke brings 26 years of experience in landscape architecture, planning, and urban design, including trail, park, streetscape, site design, and bridge aesthetics. In the Landscape Architecture/Visualization role, he will develop context-sensitive concepts and clear graphics that help agencies and stakeholders understand design intent and tradeoffs. He will integrate operations, maintenance, and sustainability considerations to develop design concepts that are durable and require an acceptable level of maintenance.



MATT FLANAGAN | SRF BENEFIT-COST ANALYSIS (BCA)

AVAILABILITY
75%

Matt Flanagan is a transportation engineer with experience in Benefit-Cost Analysis (BCA) for federally funded transportation projects. He will quantify project benefits, will document assumptions, and will present results in a way that supports future funding and decision-making. He will deliver a reviewer-friendly BCA that is technically rigorous and clearly documented.



NICOLE ZAPETILLO, CMWP | SRF WETLAND SCIENTIST

AVAILABILITY
50%

Nicole Zapetillo brings 17 years of experience in wetland science and environmental planning for highway and trail projects. As Wetland Scientist, she will provide end-to-end support—from field delineations and reporting to permitting and NEPA documentation preparation and review—supported by strong GIS mapping and data management skills. She will help identify constraints early and will keep environmental commitments clear and actionable. She is well-positioned to keep wetland findings and permitting support accurate, timely, and defensible.



ANDREW TOAY, PE | SRF DRAINAGE ENGINEER

AVAILABILITY
50%

Andrew Toay brings 13 years of water resources, civil, and municipal engineering experience supporting projects from survey and stormwater management through final design and construction administration. As Drainage Engineer, he will develop stormwater solutions that meet standards, will coordinate cleanly with roadway design, and will account for constructability and maintenance. He will apply agency and stakeholder coordination experience to keep drainage decisions aligned with expectations and project constraints. He will provide drainage design that is practical, permissible, and coordinated with the roadway solution.



ALEX CHAPLA, PE | SRF HYDROLOGY ENGINEER

AVAILABILITY
50%

Alex Chapla has 10 years of water resources engineering experience, including hydrologic and hydraulic modeling, floodplain analysis, drainage design, and GIS mapping. In the Hydrology role, he will apply expert hydrologic modeling to support drainage design and natural water conveyance through the area. He will support efficient alternative evaluation and drainage design.



CURT SOHN, PSP, PMP | SRF CONSTRUCTIBILITY AND RISK

AVAILABILITY
25%

Curt Sohn has 30 years of cost estimating, scheduling, and risk management experience and leads SRF's project controls practice. In the Constructibility and Risk role, he will help develop realistic estimates and schedules for the preliminary engineering components and will identify key delivery risks early. He will help The Team anticipate risks early and make practical choices that protect budget and schedule.



BILL DREHER, PE | SRF STRUCTURAL DESIGN OVERSIGHT

AVAILABILITY
50%

Bill Dreher brings more than 40 years of experience on structure replacement and rehabilitation projects, including 33 years with WisDOT's Bureau of Structures. In the Structural Design Oversight role, he will apply deep knowledge of WisDOT standards and expectations, informed by his former leadership as WisDOT Structures Design Chief overseeing bridge design and contract plan production statewide. He will help ensure designs remain practical, consistent, and review-ready from the start. He brings unmatched WisDOT structures insight that will strengthen design quality and streamline review.



TIM BOROWSKI, PE | SRF STRUCTURAL DESIGN

AVAILABILITY
75%

Tim Borowski has 10 years of structural engineering experience, including more than 8 years with WisDOT supporting design, load ratings, detailing, and plan production. In the Structural Design role, he will apply firsthand understanding of WisDOT review and delivery practices from serving as the Bureau of Structures' Northeast Region Liaison and as a Consultant Review Engineer approving consultant-designed plans. He will support Casey on all structural design elements.



ZACH MALY | SRF STRUCTURAL DESIGN

AVAILABILITY
80%

Zach Maly will support The Team in the Structural Design role, contributing to plan development, detailing, and coordination as the design advances. He will provide dedicated design capacity to maintain responsiveness during plan production. He will add focused support to help maintain schedule and production continuity as the design advances.



GREG RAINKA | Terracon HISTORIAN ARCH AND HISTORIC

AVAILABILITY
25%

Greg Rainka has 18 years of experience as an architectural historian and cultural resources specialist supporting compliance with federal and state preservation and environmental laws. Although we don't expect significant archaeological or historic resources on this project, he will confirm and document those facts in the Historian/Architecture & Historic role.



ED BUC | Terracon HAZMAT/CONTAMINATED INVESTIGATIONS

AVAILABILITY
25%

Ed Buc brings more than 35 years of environmental consulting experience, including developing and implementing remedial strategies for complex transportation projects. In the Hazmat/Contaminated Investigations role, he will support the Environmental Review process by confirming the existence of any contaminated soil conditions that would put the City at risk. As Terracon's Contract Manager for the WisDOT Hazardous Materials contract, Ed will bring familiarity with WisDOT processes and expectations to The Team.



ANDY OLSON, PE | HDR BNSF RAILROAD COORDINATION

AVAILABILITY
25%

Andy Olson brings more than 15 years of railroad experience supporting engineering and construction feasibility for railroad structures and track projects. In the BNSF Railroad Coordination role, he will apply knowledge of railroad standards, constructability, and review processes to support clear submittals, timely responses, and efficient comment resolution. He will work directly with Justin to coordinate with BNSF during project planning activities and then advise Rich and Casey on BNSF coordination activities during preliminary engineering. He will draw on facilities program management for BNSF and freight rail coordination experience on projects in Wisconsin, including Superior. He will help The Team navigate BNSF requirements efficiently and reduce approval-related risk.



CHRIS ROMANSKY, PE | HDR
FREIGHT RAIL ENGINEER

AVAILABILITY
25%

Chris Romansky is a rail and transit engineer with experience designing systems ranging from freight rail to commuter rail, light rail, and streetcar. In the Freight Rail Engineer role, he will support alternatives analysis by providing expert opinions on the rail facilities that will interact with project alternatives. He can support both project planning and preliminary engineering tasks with these rail design skills.

GARY COLBERT, PE | NWBE
ROADWAY DESIGN

AVAILABILITY
50%

Gary Colbert brings 34 years of Wisconsin roadway design engineering experience. In his role contributing to Roadway Design, he will lead the development of road approaches on the project. He will work closely with Rich to develop preliminary alignments and typical sections of the roadways. With his municipal and local government roadway design experience in northern Wisconsin, he is well-suited to lead roadway design that balances cost, impacts, and constructible solutions.

BRODY ZEMBO | NWBE
SURVEY AND UTILITY COORDINATION

AVAILABILITY
50%

Brody Zembo brings 17 years of experience in transportation design, construction, and surveying, including service as a project leader and survey crew chief. In the Survey and Utility Coordination role, he will apply field-informed judgment to support accurate base mapping, efficient utility coordination, and practical conflict resolution.

REBECCA OLSON, PE | NWBE
CONSTRUCTABILITY

AVAILABILITY
50%

Rebecca Olson brings 29 years of experience in transportation design and construction management with NWBE, including serving as a construction project leader. In the Constructability role, she will provide field-tested insight to review staging, identify constraints early, and help The Team develop preliminary engineering plans that reduce delivery risk. She will strengthen The Team by bringing a construction perspective to key engineering elements.

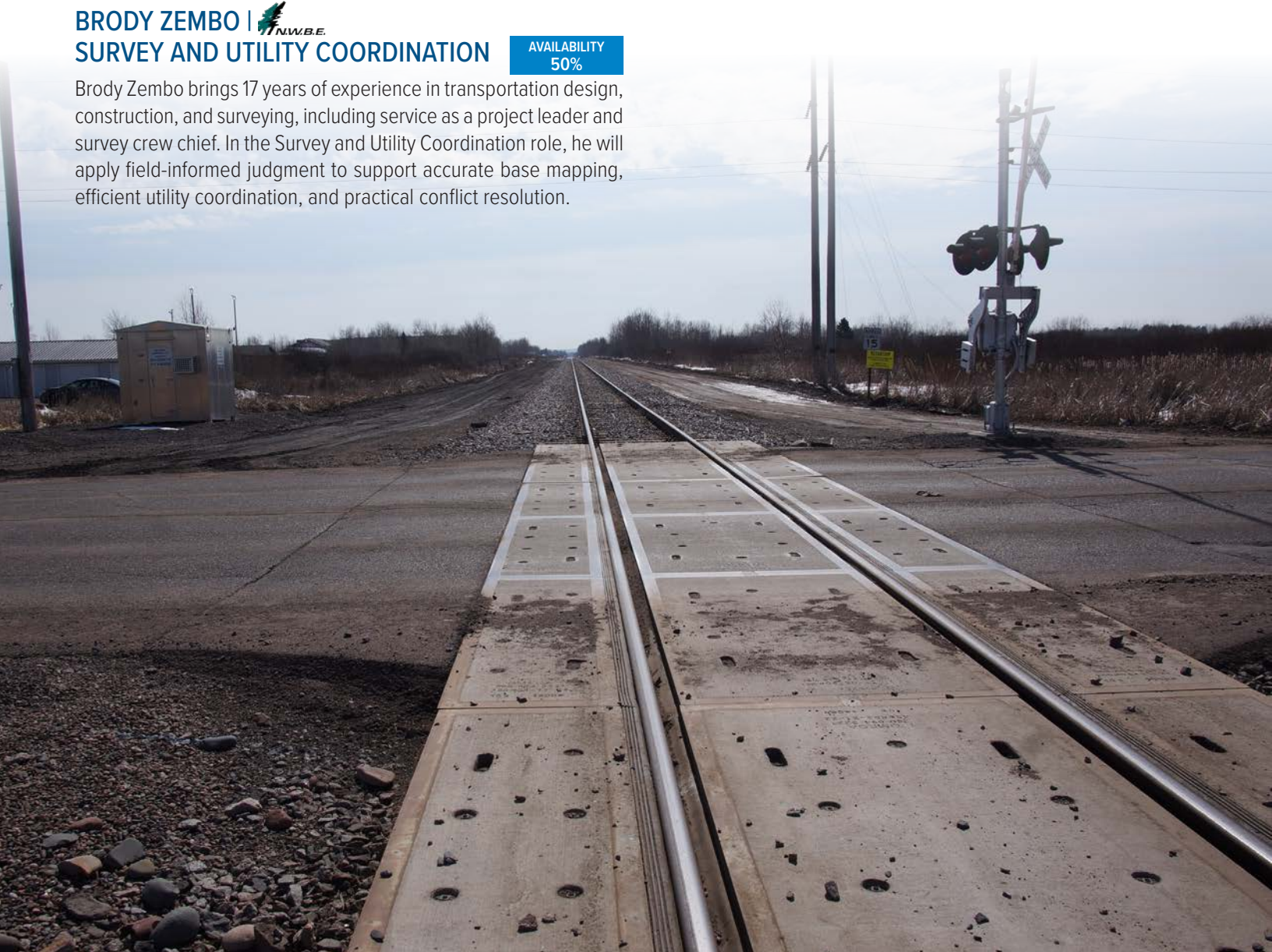


AVAILABILITY
25%

GREG REUTER, PE, PG, BC.GE | AMERICAN
GEOTECHNICAL

Greg Reuter has over 40 years of geotechnical experience related to structure and roadway design.

He will support the project by providing subsurface material opinions that help the roadway and structural staff be confident with Preliminary Engineering products. It's especially important for the structure elements to have this subsurface geotechnical confidence when determining pier and footing types for grade separation alternatives.



US 51 (STOUGHTON ROAD) NORTH STUDY | SRF

Madison, Wisconsin



SRF led the US 51 (Stoughton Road) North Study for WisDOT's Southwest Region. The Majors study evaluated reconstruction of US 51 (Stoughton Road) from WIS 30 in the City of Madison to Interstate 39/90/94 in the town of Burke, Dane County, a distance of approximately 5.5 miles. US 51 is a primary north-south facility on the east side of Madison, providing access to numerous industrial, residential, and commercial business developments, schools, medical facilities, and recreational areas with AADT ranging from 13,300 to 47,280 in the study limits.

The purpose of the study was to accommodate existing and future travel demand with a focus on safety issues that affect travel on Stoughton Road. The need for transportation improvements throughout the study corridor was demonstrated through safety, including bicycles and pedestrians; travel demand and traffic operations; and roadway and geometric deficiencies. There were an extensive number of alternatives that were developed as part of the EA process. A total of 44 concepts were developed for the 12 intersection areas throughout the corridor, with the majority at the East Washington Avenue intersection (16 total). Roadway modeling was developed for many of the alternatives to help determine impacts for the screening process that was done for the STH 30 interchange, Commercial Avenue intersection, and the East Washington Avenue intersection.

SRF led all traffic and safety analysis, including assisting with the quality control of the forecasting. **SRF completed extensive alternative analysis** for the interchanges and arterial roadway systems along the corridor and completed extensive microsimulation analysis to understand traffic and safety concerns to compare alternatives.

SRF completed 11 Phase I Intersection Control Evaluations (ICE), helping determine the final urban arterial roadway typical sections and intersection controls. Three Phase II ICE analyses were also completed.

The environmental process included an extensive alternative development screening process developed by the study team. Analysis included traffic, safety, impacts, cost, bike/ped facilities, and

community input. The NEPA process included an extensive public involvement process with recurring Citizen Advisory Committee (CAC), Technical Advisory Committee (TAC), and Local Officials Advisory Committee (LOAC) meetings. The project team also conducted three Public Involvement Meetings, a Public Hearing, bike/ped community meetings, EJ meetings, and separate meetings with the City of Madison to discuss alternative concepts.

The environmental process also included a Railroad Exposure Memo and analysis for an at-grade WSOR crossing, large noise analysis, indirect and cumulative effects screening analysis, extensive drainage analysis, airport Runway Protection Zone analysis, and rural-to-urban typical section conversion analysis. SRF completed this Majors study having successfully delivered a signed FONSI in the fall of 2025.

CLIENT REFERENCE:

Jeff Berens, PE | Major Studies Project Manager
Wisconsin Department of Transportation SW Region
608.245.2656 | Jeff.Berens@dot.wi.gov

RELEVANCY:

Environmental Review, railroad coordination, alternatives analysis, public engagement, bike and pedestrian facility additions, federally funded agency coordination, preliminary engineering including structures, roadways, culverts, shared-use paths, and walls

KELLOGG AVENUE/RIVERCENTRE BRIDGE REPAIR | SRF

Saint Paul, Minnesota



SRF performed preliminary design, environmental documentation, public engagement, and engineer of record services for the replacement of the Kellogg/3rd Street Bridge and Approach Roadway Replacement Project over BNSF/UP Railroads, the Bruce Vento Nature Sanctuary, Commercial Street, and I-94 in the City of Saint Paul. SRF is currently leading the Construction Engineering portion of this project. The purpose of this project is to replace the existing bridge while adding bicycle, pedestrian, and intersection improvements to the approach roadway.

During this project, SRF has assisted with the coordination between the City and various stakeholders such as Ramsey County, MnDOT,

Metropolitan Council, BNSF/UP Railroads, and the Lower Phalen Creek Project. Due to the COVID pandemic, SRF modified the public engagement efforts to include mail and online surveys and a virtual public presentation.

During preliminary design, SRF evaluated numerous street configurations to accommodate vehicular, pedestrian, and bicycle forms of transportation while improving intersection safety. SRF led utility coordination, including identifying conflicts and required relocations in the dense urban corridor.

CLIENT REFERENCE:

Brent Christensen, PE | Project Manager
Saint Paul Public Works
651-266-6182 | brent.christensen@ci.stpaul.mn.us

RELEVANCY:

Environmental Review, railroad coordination, alternatives analysis, public engagement, bike and pedestrian facility additions, federally funded agency coordination, preliminary engineering including significant multi-span structure, roadways, culverts, shared-use paths, and walls

WISDOT STATE RAIL PLAN | SRF

Wisconsin



The Wisconsin Department of Transportation (WisDOT) retained SRF to support the update of the Wisconsin State Rail Plan, providing technical analysis, environmental coordination, and public engagement services throughout the planning process. SRF played a lead role in completing the System-Plan Environmental Evaluation (SEE), which included extensive coordination with Wisconsin's environmental resource agencies and ensured the Plan's compliance with state and federal environmental requirements. SRF also conducted an environmental justice analysis consistent with federal guidance, prepared presentation materials used to brief WisDOT leadership and stakeholders, and led public outreach efforts to engage communities, agencies, and industry partners statewide.

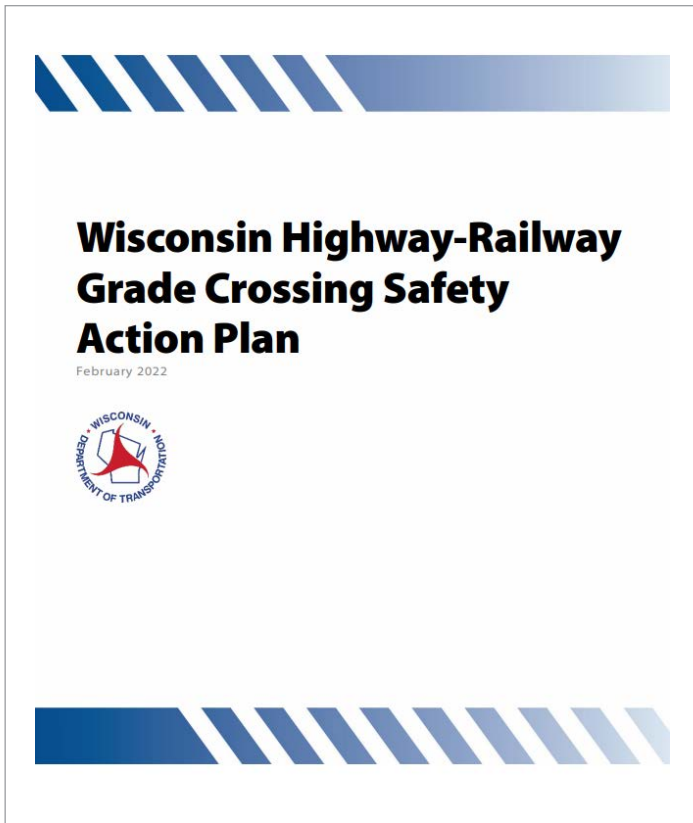
The updated Plan addressed evolving conditions affecting both passenger and freight rail in Wisconsin and was fully compliant with the Passenger Rail Investment and Improvement Act (PRIIA). It reflected the State's current priorities for passenger rail investment within the broader Midwest rail network, while also addressing changes in the freight rail landscape, including increased energy-related and hazardous materials traffic and its interaction with Wisconsin's critical agricultural and manufacturing shipments. Extensive outreach to the general public, local governments, railroads, and key stakeholders informed the Plan's recommendations and investment strategies.

CLIENT REFERENCE:

Kris Sommers, PE | WisDOT
608.266.3341 | kristen.sommers@dot.wi.gov

RELEVANCY:

Railroad coordination, Alternatives analysis, public engagement, federally funded agency coordination



SRF assisted the Wisconsin Department of Transportation with the completion of the state’s first Highway-Rail Grade Crossing State Action Plan (SAP), an important part of Wisconsin’s grade crossing program management process and its dedication to rail safety. This SAP provides a framework to reduce the probability of incident occurrence and the consequence of hazard (severity) at highway-rail and pathway grade crossings in Wisconsin and provides implementable strategies and action steps to improve rail safety throughout Wisconsin. SRF focused analysis on highway-rail and pathway grade crossings, where trains, pedestrians, and vehicles interact; and where unsafe interactions occur that can lead to dangerous consequences for all users.

The SAP identified rail crossings that:

- Have experienced recent accidents or incidents;
- Have experienced multiple accidents or incidents; or
- Are at high-risk for accidents or incidents as defined by the state.

Additionally, the SAP identified specific strategies for improving safety at rail crossings, including active warning device upgrades, closures, geometric realignments, signal and signage improvements, and grade separations; among other crossing treatments. Moffat and

1.4 SAP Goals

Early coordination within the Wisconsin SAP project team outlined the broad goals, objectives, and strategies for this plan while considering the unique railroad and safety environment in the state. These goals established the direction of the plan and were reviewed and refined as the development process continued.

Goals, objectives, and strategies work together to form an achievable, results-driven plan. These terms are defined in the graphic to the right.

A list of ten statewide goals were defined and numbered for organizational purposes. Numbering does not reflect priority. Detailed descriptions of the objectives and strategies can be found in Section 7.3.

GOAL
A broad statement that describes a desired end state.

OBJECTIVES
Specific, measurable, agreed upon, realistic, and time-bound metric that helps determine if a goal has been met.

STRATEGIES
Action steps, method, or plan that when implemented, achieve the defined objective.

1 Reduce the number and rate of incidents at railroad grade crossings	2 Reduce the number of severe incidents at locations with reoccurring incidents within the last five years
3 Efficiently deliver and manage projects in highway improvement, OCR safety, WisDOT safety and crossing surface repair programs	4 Implement and maintain safety improvements at interconnected crossing systems
5 Maintain a program to repair deficient railroad crossing surfaces on the STH network.	6 Evaluate rail corridors for potential crossing consolidations
7 Improve data collection and analysis on railroad crossings	8 Implement design improvements at railroad grade crossings when undertaking highway improvement projects
9 Engage statewide stakeholders in education and enforcement	10 Reduce Trespassing

Wisconsin Highway-Railway Grade Crossing Safety Action Plan 8

Nichol assisted SRF and the Wisconsin Department of Transportation with the completion of the state’s first Highway-Rail Grade Crossing State Action Plan (SAP). The Wisconsin Department of Transportation desired to use a data centric model. M&N provided data collection and analysis assistance which in turn was used to develop a risk assessment model. **The SAP identified specific strategies for improving safety at rail crossings, including active warning device upgrades, closures, geometric realignments, signal and signage improvements, and grade separations,** among other crossing treatments.

CLIENT REFERENCE:

Kris Sommers, PE | WisDOT
608-266-3341 | kristen.sommers@dot.wi.gov

RELEVANCY:

Railroad coordination, Alternatives analysis, public engagement, federally funded agency coordination, preliminary engineering



4.4 Project Approach

SRF UNDERSTANDS THIS PROJECT

The N 28th Street Grade Separation Project is a planning and preliminary engineering effort to eliminate at-grade rail crossings within the BNSF rail yard, improving safety, mobility, and connectivity in Superior. A central challenge is the corridor’s lack of continuous, safe bicycle and pedestrian facilities, which creates a significant barrier for non motorized users and challenges access to adjacent properties. The evaluation of grade separation alternatives must integrate roadway, rail, and active transportation needs while addressing property access and supporting future rail and property development. The resulting PMP, Project Planning, Environmental Review, and Preliminary Engineering deliverables must demonstrate a feasible, multimodal, and grant ready solution that positions the project competitively for future federal funding.

TASK 1: PROJECT MANAGEMENT PLAN (PMP)

Our Project Management Plan (PMP) is a clear roadmap and tracking document that explains how this N 28th Street Grade Separation Project (“28th Street Project,” from inception through Project Development) will be organized, coordinated, and delivered from start to finish. The PMP will focus on managing several key elements, including coordination among public agencies, close collaboration with the railroad, evaluation of project alternatives, completion of the environmental review process, and preliminary engineering.

Our PMP will provide the City of Superior with confidence that the FRA will approve the plan and set ourselves up for a successful project. We will refine our approach to best support the City of Superior’s objectives, budget constraints, and schedule.

SRF’s Project Manager, Jeff Knudson, will work closely with the City’s project manager to coordinate project administration and ensure compliance with FRA requirements. Jeff will manage the project budget, schedule, and monthly progress reporting to keep deliverables on time and within budget. **Jeff is an expert with Vantagepoint budgeting software to continuously monitor task labor burn rates and report both project status and budget progress to the City at regular intervals.** SRF will coordinate with the City, FRA, BNSF, WisDOT, and other project partners, with bi-weekly coordination meetings proposed to maintain alignment and proactively address risks. Standing bimonthly meetings with City staff will be used to report findings and obtain input, with additional stakeholders engaged as appropriate.



Project Leadership. Our project manager Jeff Knudson has extensive project management experience. He has managed large and complex planning and design projects with multiple subconsultants and numerous stakeholders, including freight and commuter railroad facilities. Jeff has a focused project management style that is detailed and prioritizes follow-through.

Key Elements of the 28th Street Project’s PMP

<ul style="list-style-type: none"> ✔ Project Overview and Governance ✔ Roles, Responsibilities, and Staffing ✔ Scope Management (Planning, Environmental Review, Preliminary Engineering) ✔ Schedule Management 	<ul style="list-style-type: none"> ✔ Cost and Financial Management ✔ Project Controls ✔ Risk Management ✔ Quality Management (QA/QC) ✔ Safety and Security Management ✔ Agency Coordination 	<ul style="list-style-type: none"> ✔ Environmental Compliance (NEPA and permitting) ✔ Procurement and Delivery Strategy ✔ Real Estate and Utilities Management ✔ Communications and Reporting ✔ Plan Maintenance and Updates
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Our Team has been coordinating closely with Matthew Mielke of the FRA. Through this coordination and several active FRA projects, Our Team has developed a strong awareness of the lifecycle stages, decision points, and documentation necessary to successfully advance this capital project. We are excited to bring our technical expertise to this 28th Street Project. We recognize this project fits within the Project Planning and Project Development stages of the lifecycle, as emphasized on the FRA lifecycle graphic below (specific RFQ scope tasks 1–4 [noted on the figure on the following page](#)).



TASK 2: PROJECT PLANNING

Project planning is the first formal development stage in which the City of Superior would identify and evaluate concepts capable of addressing the needs and opportunities identified during systems planning. A primary objective of this phase is to define the type, scope, and general configuration of improvements that best align with local goals, community context, and FRA requirements. **For the 28th Street Project, there are three major elements associated with the Project Planning Stage, Development of a Purpose and Need, Project Communication, and Alternatives Analysis,** each of which is discussed below.

Purpose & Need

The SRF team has the experience to develop a clear and defensible Purpose and Need Statement, which is critical for the success of this project. This statement will articulate the transportation problems to be addressed such as train-related congestion, safety risks at at-grade crossings, degradation of existing pavements, challenge of the existing drainage facilities, and lack of interconnected bike and pedestrian facilities will serve as the foundational guide for alternatives development, evaluation, and future environmental and engineering work. **Our Team has extensive experience preparing FRA compliant Purpose and Need statements that support successful progression into project development.**

Project Communication

Effective stakeholder coordination is integral to successful project development. SRF will apply its extensive experience with rail crossing studies to implement a structured, efficient, and outcome-driven public engagement program that supports decision-making and project acceptance.

Following the project kickoff, SRF will coordinate with City staff to define engagement objectives, target audiences, and appropriate outreach methods. Within one week of the kickoff meeting, SRF will submit a draft Stakeholder Coordination Plan (SCP) outlining engagement activities, schedule, roles, and deliverables. The SCP will be finalized within five business days of receiving City review comments, with implementation commencing immediately thereafter.

Engagement activities will be tailored to project needs and may include public meetings, focused stakeholder meetings, one-on-one coordination with railroad-adjacent property owners, surveys, project newsletters, and a project webpage hosted on the City's website. The selected techniques will be confirmed during project scoping to ensure efficient use of resources and meaningful stakeholder input.

Justin Scott will lead all stakeholder outreach and coordination efforts, supported by SRF staff. SRF has a demonstrated record of conducting technically complex public engagement programs and managing stakeholder expectations on transportation and rail-related projects.

The objective of the SCP is to provide impacted stakeholders—including residents, businesses, and the traveling public—with clear opportunities to comment on proposed crossing enhancements and improvement concepts. SRF's approach emphasizes early engagement, transparent communication, and corridor-level evaluation to identify improvements that are both technically feasible and publicly supported.

Three formal public meetings are anticipated. The first will occur early in the study to introduce the project, describe the planning and evaluation process, and outline opportunities for stakeholder input. The second meeting will be held during the Environmental Review process to publicize and gain feedback on project alternatives, and the third near completion of preliminary engineering to present draft findings and solicit feedback on the preferred alternative. **SRF's experience allows The Team to quickly identify potential concerns, assess stakeholder acceptance, and refine recommendations to support implementation and future funding.**

Where appropriate, SRF will develop and distribute online and printed survey materials to broaden participation and capture input from residents and the business community. SRF will prepare all engagement materials and coordinate and facilitate the project kickoff meeting with City of Superior staff.

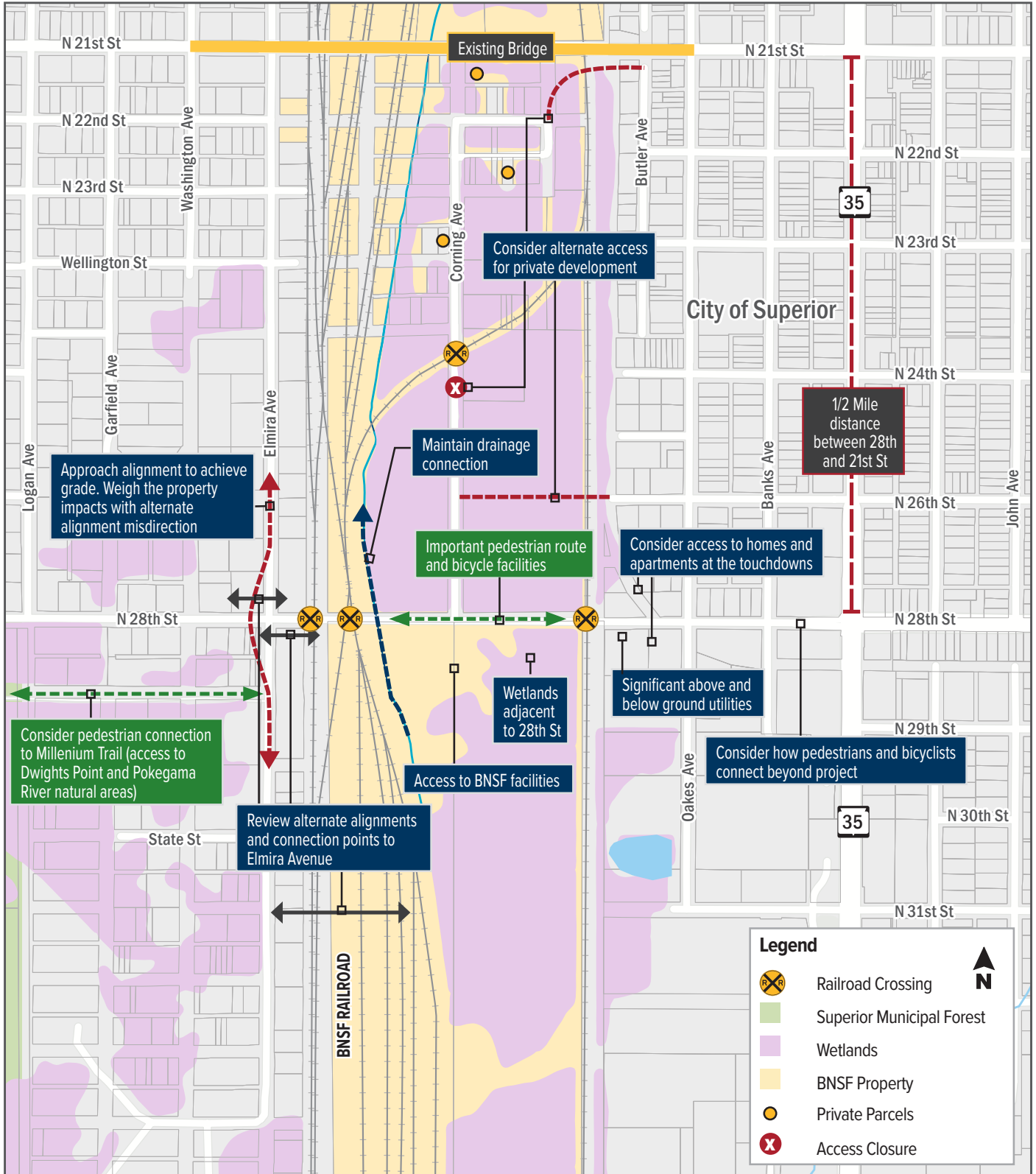
KEY STAKEHOLDERS
• FRA
• BNSF Railroad
• WisDOT
• Douglas County
• US Army Corps of Engineers
• WDNR
• Property Owners / Public
• Businesses
• First Responders
• Utility Owners

Alternatives Analysis

Having defined the project's purpose and need, the project planning effort begins the identification and evaluation of a range alternatives to satisfy those requirements. This includes planning level engineering of alternatives to provide a comparison of the benefits, costs, and impacts of viable solutions.

Constraints and Resources

The first step in the analysis of alternatives is to identify potential issues and constraints within the project corridor through the review of the project site and through coordination with various stakeholders. For example, **below is an initial project issues map developed by the project team**, outlining constraints based on access, environmental resources, access, right of way, drainage, and connectivity.



The team will collect environmental data through GIS and other databases. Field reviews, wetland delineations, and contaminated soil databases will also confirm adjacent property sensitive resources. This data collection will help to compare initial concepts, especially those with varying alignments or potential property impacts, and will also provide a great base of knowledge for the Environmental Review stage.

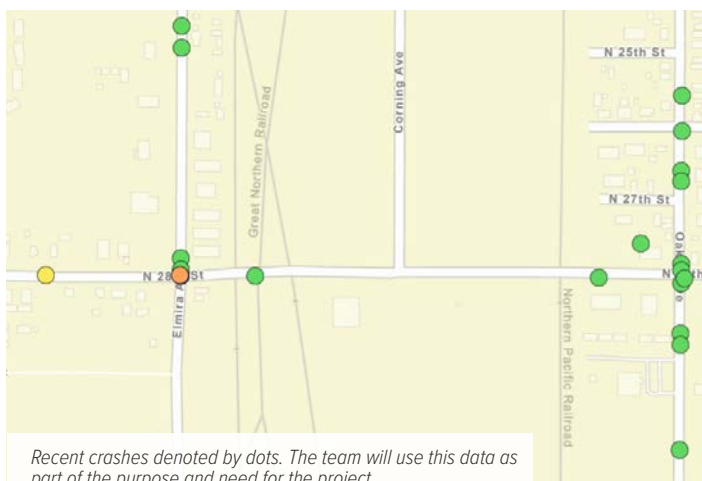
Formal utility coordination will commence beyond this project during the final design phase of this project. However, **given the magnitude of existing utilities along 28th Street, it's important to begin preliminary coordination efforts with facility owners to provide advanced notice of the project and discuss their existing facilities and planned improvements** to identify any essential facilities that may be considered for avoidance.

As The Team considers alternatives, we would host a utility coordination meeting with the nearby facility owners to gather concerns. For example, if there was a large gas main or a high-power electrical utility that would be impacted by a certain alternative, this would become part of the alternative analysis process and discussed at this early utility meeting.

Operational and Safety Analysis

Our traffic and safety team will review existing traffic data to evaluate anticipated growth trends to develop accurate forecasts for existing, construction-year, and design-year conditions. We anticipate these traffic volumes to indicate only a single vehicle lane in each direction but the volumes will help us clarify the turning movements needed at the east and west ends of the project where 28th Street connects to Oakes Road and Elmira Avenue.

We have already collected and analyzed historical crash data and have identified safety concerns within the corridor. By incorporating the basic elements of the operational analysis into the conceptual engineering stage, all alternatives will address known concerns and provide a thorough analysis of potential impacts prior to the selection of the preferred alternative.



The conceptual designs will include evaluation of how the alternatives would impact local access and regional mobility. The analysis will consider impacts to residents, businesses, freight movement, transit operations, and emergency response routes. **Alternatives may consider additional roadway alignments, potential rail line relocations, new street connections and grade-separated facilities.** Coordination with local agencies and emergency service providers will help ensure that access needs are maintained and that the project delivers both safety and operational benefits to the surrounding community.

Another key objective of this project is to improve safe and accessible multimodal connectivity in areas affected by rail infrastructure. The project will evaluate pedestrian and bicycle travel patterns and crossing usage, with particular attention to locations where at-grade crossings create safety risks or barriers to mobility. Proposed improvements will incorporate ADA-compliant facilities, accessible pedestrian routes, and bicycle considerations that safely connect neighborhoods, schools, transit stops, and commercial areas. **The SRF team includes bike/ped experts with extensive experience blending these features into planning and design projects.**

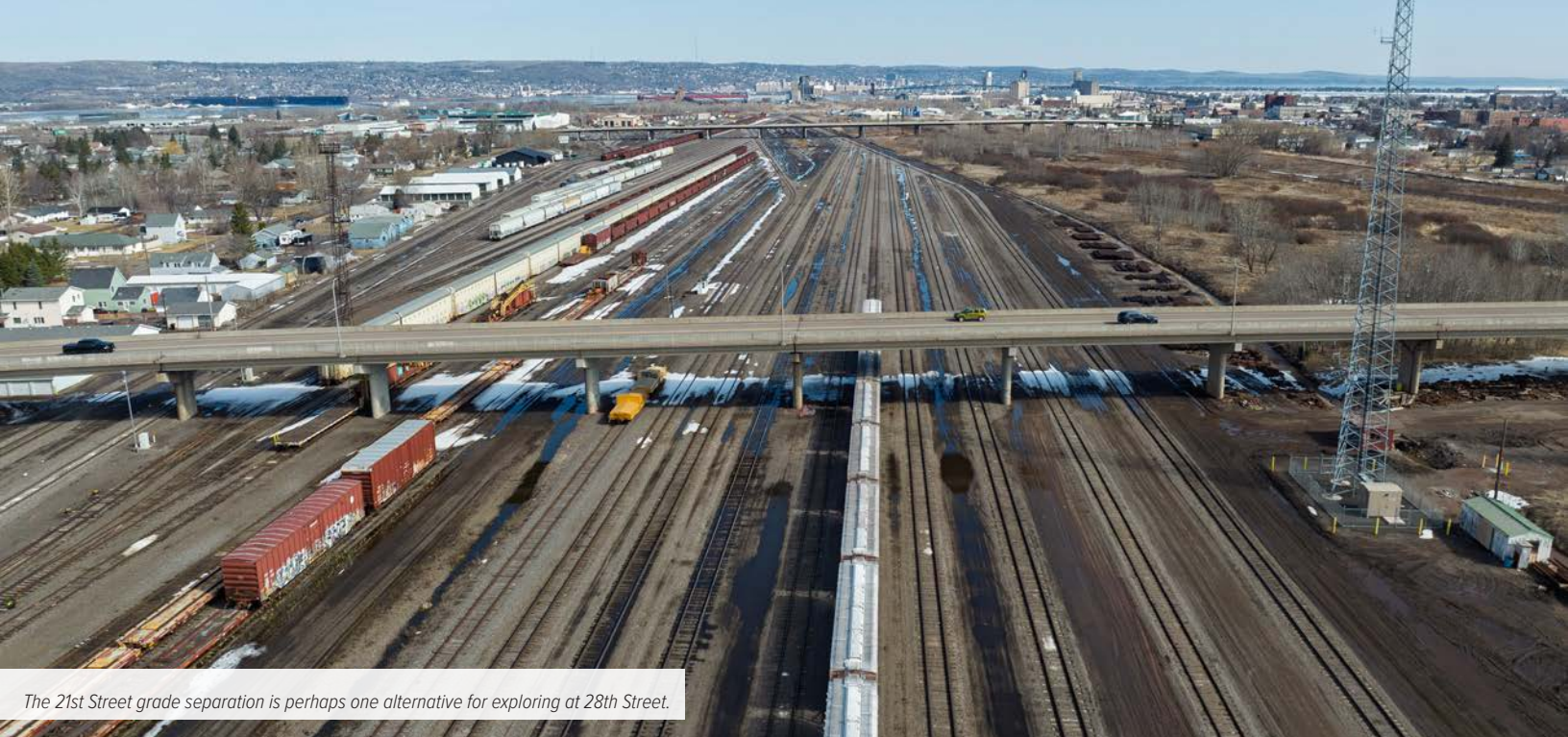
Alternatives Development

The Alternatives development stage will establish feasible concepts that attempt to satisfy the purpose and need of the project. This stage will be focused on roadway and structure related concept elements.

BNSF Railway Coordination

Understanding current and planned BNSF right-of-way use is critical to alternative development. The 28th Street BNSF Yard crossing (#061459A) is a pinch point between larger track groups to the north and south that support receiving, rearranging, and dispatching railcars. **Rail activity at 28th Street is driven primarily by yard switching rather than through trains (fewer than five through trains per week), with the adjacent yard generating up to 80 switching movements per day** that can stop-and-start on or near the crossing and occupy it for extended periods. This results in frequent, closely spaced gate activations and intermittent but persistent blockages that create vehicle delay, queuing, and travel time unreliability on this key east–west corridor, while also constraining yard efficiency as crews must repeatedly traverse the crossing to complete switching moves.

Study staff will coordinate closely with BNSF as a funding partner and active participant in design to define operational needs, future yard expansion requirements, and access to the BNSF office while advancing grade-separation alternatives for 28th Street. SRF's work will follow the current AREMA Manual for Railway Engineering, the BNSF Guidelines for Railroad Grade Separation Projects, and the BNSF Guidelines for Temporary Shoring, and coordination will be led through BNSF's Public Projects team (currently with Alexis Jones, Manager of Public Projects) with engagement of additional BNSF staff as needed. Coordination will include regular check-ins, review of assumptions and layouts affecting tracks and operations, confirmation of construction staging/protection requirements, and timely review/approval cycles to keep design decisions aligned with BNSF operational constraints and long-term plans.



The 21st Street grade separation is perhaps one alternative for exploring at 28th Street.

Conceptual Bridge Design

SRF's concept bridge design will follow BNSF Guidelines 3.10.A and include plan, elevation and typical section details of the proposed grade separation based on the current and future track conditions defined for the project. **Casey and his team have had great success working with BNSF in these type of projects.** A preliminary construction phasing plan will be provided if needed along with a photo log with pictures of the project location. This information will clearly convey our understanding of the project site and proposed bridge geometrics including minimum vertical and horizontal clearances to beams and piers to be located in the BNSF right-of-way.

Whereas the conceptual roadway design will investigate the bridge approach and crossing location alternatives along with impacts to the local roadway system, the conceptual bridge design will focus on the type of structure and geometric configurations that best-fit each site. We will evaluate each bridge concept based on user safety, bridge geometrics, constructability, anticipated construction costs and future maintenance needs. Costs and maintenance differences can be significant between steel girder structures and precast concrete beam structures, both of which are viable structure types for this project.

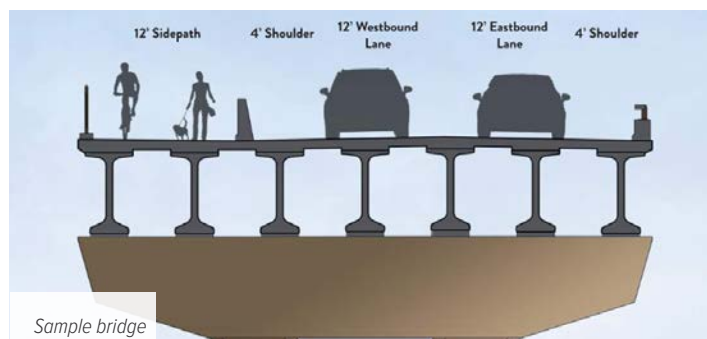
Substructures will also be evaluated. Alternatives will be developed based on different bridge span configurations. Piers located adjacent to tracks will account for AREMA pier protection criteria, including crash walls or heavy construction considerations. Abutment locations and types will also be investigated. Tall abutments set near tracks can shorten the bridge length but often come at a cost premium to the project, whereas longer bridges with shorter abutment set in embankments are longer, but can be more cost competitive.

Private residential and commercial properties are located along the corridor with access only from 28th Street. Property impacts and access impacts will be evaluated in our civil design along with impacts to the local street network. Some of these impacts may be reduced by using retaining walls to limit the embankment to within

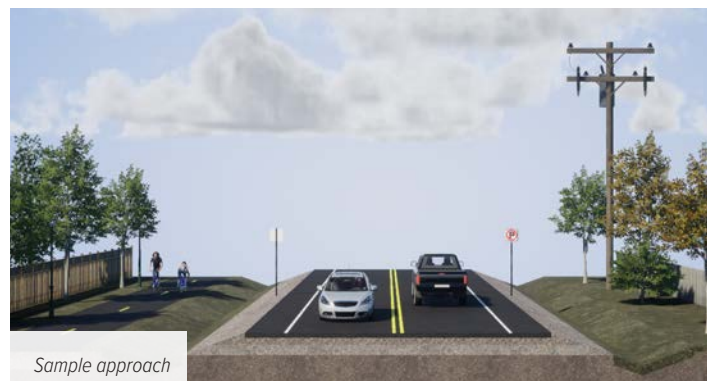
the existing right-of-way. Retaining wall locations and types will be part of our evaluation. Mechanically stabilized earth (MSE) retaining walls are efficient and a readily constructable wall type which may have advantages on this project over standard cast-in-place concrete walls. All walls and bridge substructures will be investigated for potential conflicts with existing utilities.

Typical Sections

Typical section will be a roadway alternative element but is of course very important for structure type selections. **The typical section shown below is an example of one potential typical section for the 28th Street corridor.**



Sample bridge



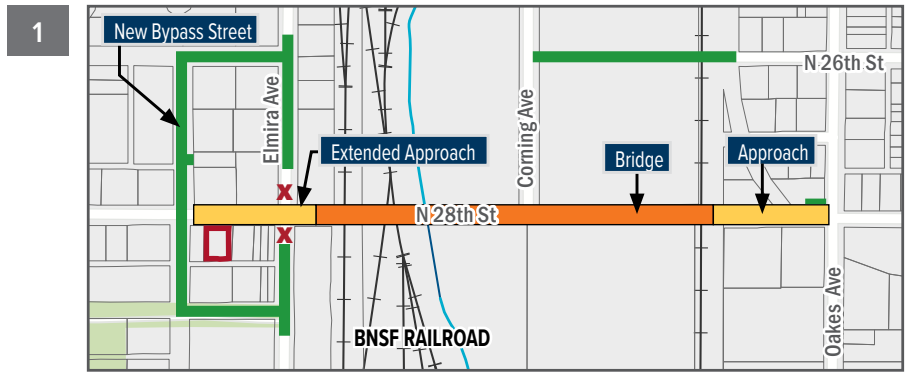
Sample approach

Roadway Concepts

Roadway concepts will include consideration of:

- **Roadway alignment.** 28th Street alignment and a brief review of other alignments such as just north or south adjacent to 28th Street or a 31st Street alignment. *See issues map.*
- **Typical section.** Understand the lanes/widths, shoulders, paths or sidewalks, and ditches or curbed areas that lead to and from the structures. *See roadway typical section sample on previous page.*
- **Private and public access to Elmira Avenue, Corning Avenue, BNSF office, and driveways near the east and west ends.** A primary element for consideration is how a grade-separated structure could challenge vehicular access to Corning Avenue. The team has conducted some preliminary investigation with creating a new extension of North 26th Street to connect to Corning Avenue. Although this creates a new rail crossing, it will be very low volume, and most of the traffic will be BNSF employees themselves. This is one of the access alternatives The Team proposes to analyze in this study. *See graphic to the right.*
- **Touchdown approaches.** As any structure(s) meets the existing road grade outside of the grade separated area of roadway, the approaches will be analyzed with multiple grade alternatives to determine the optimal condition balancing safety, standards, ADA considerations, and property impacts. We are anticipating a nearly 400-foot approach at a 7% slope at each end which helps us mitigate impacts to adjacent property owners and businesses. *See graphic to the right showing some initial concepts at the touchdowns.*

The three figures detailed on the right are potential touchdown alternatives to explore that would maintain the important connection at Elmira Avenue.

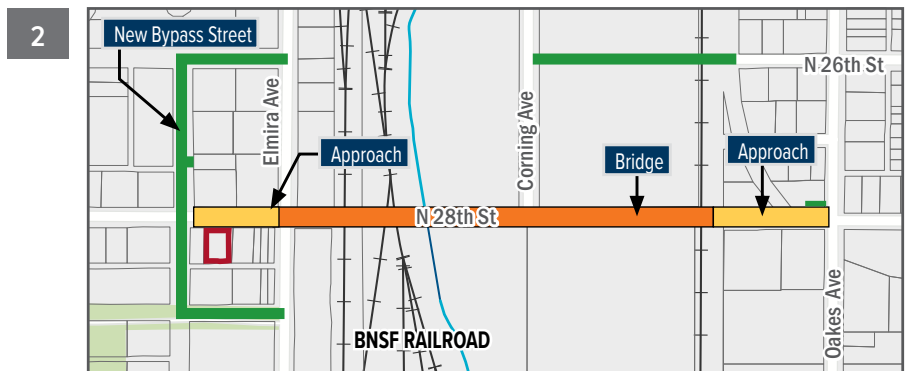


Benefits

- Eliminates vehicular and pedestrian crossings
- Provides ADA-Compliant route
- Improves west approach profile slope

Impacts

- Private entrance modification needed
- Closes Elmira Ave at 28th St
- Creates a low-volume rail crossing at 26th St
- Requires new Elmira Ave bypass street
- May require purchase of 2516 N 28th St property

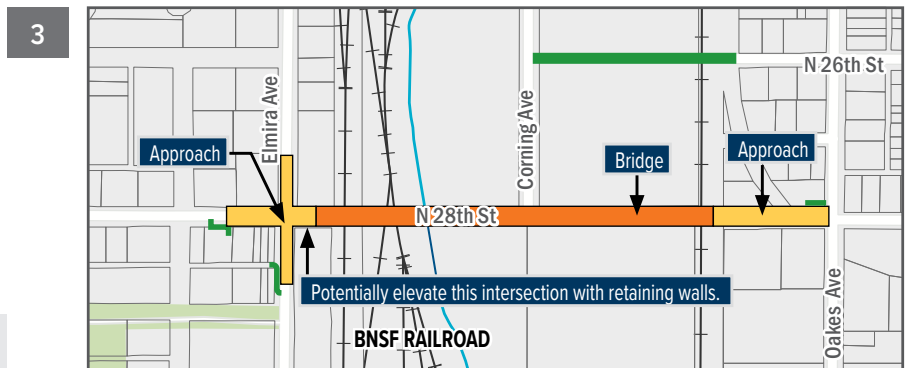


Benefits

- Eliminates vehicular and pedestrian crossings
- Provides ADA-Compliant route
- Maintains Elmira Ave

Impacts

- Private entrance modification needed
- Creates a low-volume rail crossing at 26th St
- Requires new Elmira Ave bypass to access 28th St
- May require purchase of 2516 N 28th St property



Benefits

- Eliminates vehicular and pedestrian crossings
- Provides ADA-Compliant route
- Maintains Elmira Ave access to 28th Street

Impacts

- Significant private entrance modifications needed
- Creates a low-volume rail crossing at 26th St

1 This alternative minimizes bridge length at the west approach but would require reconnecting roadways for the important Elmira Avenue intersection. This alternative would likely have property impacts.

2 This alternative would be similar to 21st Street by bridging over Elmira Avenue. Again, the 28th/Elmira connection is very important to this area so the alternative would need some improvements to maintain a connection. This alternative would also have property impacts.

3 This alternative proposes to raise the intersection of Elmira Ave and 28th Street. This concept will require significant retaining walls to reduce impacts to adjacent properties. This concept maintains the best connectivity between Elmira and 28th Street and reduces the overall footprint of the project compared to the other alternatives.

Project Planning Package

SRF commits to developing clear, concise, and approvable Project Planning Packages that support decision-making and future project stages. This document will serve as a key reference throughout Project Development; therefore, emphasis is placed on clarity, organization, and overall value. The package confirms the alternatives recommended to advance and documents the planning, coordination, and approvals completed to date. It includes conceptual engineering to establish project location, feasibility, and key design elements; an initial evaluation of environmental resources and potential impacts; and documentation of early coordination with stakeholders, agencies, tribes, and the public.

PROJECT DEVELOPMENT

SRF commits to developing clear, concise, and approvable Project Planning Packages that support decision-making and future project stages. This document will serve as a key reference throughout Project Development; therefore, emphasis is placed on clarity, organization, and overall value. The package confirms the alternatives recommended to advance and documents the planning, coordination, and approvals completed to date. It includes conceptual engineering to establish project location, feasibility, and key design elements; an initial evaluation of environmental resources and potential impacts; and documentation of early coordination with stakeholders, agencies, tribes, and the public.

TASK 3: ENVIRONMENTAL REVIEW

SRF staff are studied practitioners of the Environmental Review (ER) process. We've written hundreds of environmental documents of all sizes for state and federal agencies. **Your ER stage serves three important primary purposes for the 28th Street project:**

FIRST, it establishes confidence that the selected alternative achieves an optimal balance between impacts (environmental and socioeconomic) and overall value to the public and stakeholders.

SECOND, it verifies compliance with all applicable local, state, and federal regulations, allowing the project to advance into Preliminary Engineering without regulatory risk or uncertainty.

THIRD, it allows you to document all the great positive effects of this project! While most ERs focus on the negatives and the impacts, this project has very high positive effects for the motorists, pedestrians, bicyclists, businesses, and rail operators in superior. **The SRF team intends to promote those positive effects as much as possible!**

Public and Agency Coordination

The ER stage will continue the public and agency coordination that was started in Project Planning. This stage brings together close coordination with the Wisconsin Department of Natural Resources (WDNR), WisDOT Bureau of Rails and Harbors (WisDOT), local officials, and the public.

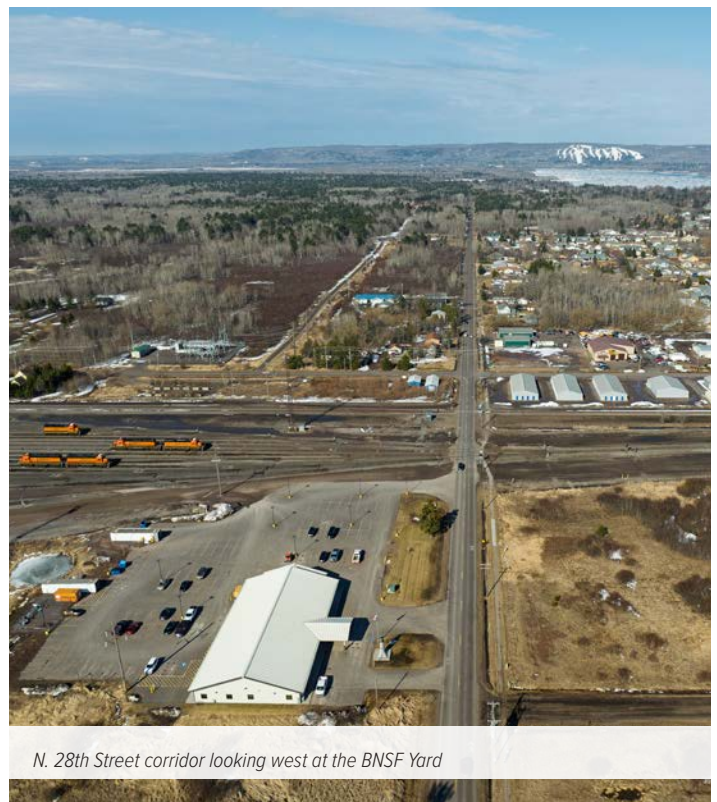
Environmental Coordination and Documentation

The grant agreement between the Federal Railroad Administration and the City of Superior includes several important declarations by the FRA that affect the Environmental Review process. The FRA has determined that the actions funded under the Agreement:

1. Are categorically excluded from detailed environmental review (i.e. we can follow the Categorical Exclusion Worksheet process)
2. Have no potential to cause effects to historic properties (i.e. we are unlikely to have any historic or archaeological impacts)
3. Do not require the use of property protected by Section 4(f) of the Department of Transportation Act (i.e., we won't need to worry about replacing parkland, a challenging process).

These initial declarations will be confirmed during initial ER processes but are very important for the initial PMP and schedule development.

The FRA has already determined a Categorical Exclusion to be the most likely class of action for this project. This suggests the project will have minimal negative effects on the socioeconomic and



N. 28th Street corridor looking west at the BNSF Yard

environmental community. **SRF believes in contrast this project has great long-term positive effects on both the roadway and rail system and will aggressively document these positive effects to further justify and promote the project.**

This project falls squarely under 23 C.F.R. § 771.116(c)(17), described as:

“...the rehabilitation, reconstruction or replacement of bridges, the rehabilitation or maintenance of the rail elements of docks or piers for the purposes of intermodal transfers, and the construction of bridges, culverts, or grade separation projects are predominantly within existing right-of-way and that do not involve extensive in-water construction activities, such as projects replacing bridge components including stringers, caps, piles, or decks, the construction of roadway overpasses to replace at-grade crossings, construction or reconstruction of approaches or embankments to bridges, or construction or replacement of short span bridges.”

The ER process typically has dozens of elements from air quality to sensitive species to socioeconomic topics. **Given our research and experience, the following topics are those that will have the most importance for careful analysis and documentation in the project:**

- **Land Use:** Adjacent private access and homes and businesses will be affected by the project. Reconnection of driveways and confirmation of direct property affects are important.
- **Cultural Resources:** FRA has determined that the actions funded under this Agreement have “no potential to cause effects to historic properties”, but the ER process requires confirmation and documentation of this fact. The team will confirm and document this decision with an archaeological review to meet Section 106 requirements and review by SHPO. We will also coordinate with Tribal Nations as needed.
- **Parks and Recreational Facilities:** FRA has determined that the actions do not require the use of property protected by Section 4(f). The team understands the importance of discussing the positive effects to the Millennium Trail by providing bike and pedestrian access across this project. It is as important to document the positive effects of the project as it is the negative effects of the project!
- **Transportation:** There will be temporary traffic impacts during construction, these are important to document. But in keeping with other elements, this project is an overwhelming positive effect on the transportation system, allowing updated safety facilities for roadway users, bicyclist, and pedestrians. Additionally, the rail service through the corridor will be less encumbered and enjoy higher efficiency and safety.
- **Hazardous Materials and Waste:** This corridor has elevated potential of contaminated soils due to the rail and industrial nature. The City needs to understand the risk they are undertaking with any transfer of ROW needed to construct this project. The team has experts to review and minimize this risk. We will document hazardous materials within the area of disturbance and elevate to subsurface investigation if necessary.

- **Communities and Environmental Justice:** The ER will document the impacts to sensitive populations such as those of low income and the elderly, among others.
- **Waters of the US:** SRF wetland scientists have reviewed the adjacent wetland complex around the project area and have determined that the wetlands along 28th Street are palustrine emergent / wet meadow wetlands, which are common and typical. This tells us that it is unlikely that there are particularly sensitive wetlands that may be a concern to regulatory agencies. The team will coordinate with the FRA and Wisconsin Department of Natural Resources (WDNR) and the United States Army Corps of Engineers (USACE) to confirm the type and impacts and document required mitigations in the Categorical Exclusion Worksheet. **Project Manager Jeff Knudson has just finished a complex wetland and permitting effort with the same WDNR representative that will likely be active on this 28th Street project. That relationship and experience will be valuable to the coordination effort.**



Alex Chapla, PE, our hydrology expert, previously worked with the Wisconsin Department of Natural Resources and has specialized expertise in habitat and stream restoration. His experience will be particularly valuable during the alternatives analysis and Environmental Review phases.

- **Sensitive Species:** **We have already identified federally listed species using the U.S. Fish and Wildlife Service (FWS) Information for Planning and Consultation tool.** This identified three mammals, one bird, and one insect. We do not believe these species will be affected by the project and will confirm that during the ER. We will verify the Wisconsin species using the IPAC.
- **Public Safety:** This is yet another element that we will publicize the great public positive effects of the project.

ER Conclusion

The ER concludes with regulatory approvals from WDNR and USACE, and a completed and approved ER document (the Categorical Exclusion Worksheet). FRA will be the approving federal agency unless they delegate oversight to FHWA through WisDOT. This document provides the City of Superior with confidence they can move forward securing funding and completing final design and construction of the preferred alternative.

TASK 4: PRELIMINARY ENGINEERING

The Preliminary Engineering stage commences in tandem with the ER, though the preferred alternative is needed to be confident in the effort of design. The PE will formally advance the project from concept to 30% design plans and will include:

- Collection of supplemental survey data (the Project Planning stage will need some level of survey to be confident in the alternative analysis process; this survey effort will supplement that initial collection with more detailed data)
- Additional/focused operational analysis
- More detailed preliminary engineering
- Preliminary construction costs estimates and schedules
- Improved estimate of environmental and real estate impacts
- Assessment of traffic impacts that could be expected.

Operational Analysis

Building on the operational analysis completed in the alternatives analysis, the project team will complete a more focused review of the preferred alternative.

Our Team has extensive experience with Intersection Control Evaluations (ICE), which will be utilized to assess operational performance and safety at intersections adjacent to the bridge approach touch down points. Stopping sight distance and intersection sight distance requirements will also be evaluated as part of the preferred alternative assessment.

Turning movement analyses will be evaluated during preliminary design not only for 28th Street and its intersecting roadways, but also for the proposed Elmira Avenue bypass and the extension of 26th Street to Corning Avenue.

Drainage Design

Our drainage engineer will analyze the bridge and roadway drainage by defining contributing drainage areas, reviewing governing drainage criteria, and performing hydrologic and hydraulic evaluations to establish design flows. The preliminary design will size and locate inlets, pipes, ditches, and outfalls to provide positive drainage, minimize ponding, and protect the structure, while considering constructability, maintenance, and environmental constraints.

Geometric Design

Following the selection of a preferred alternative in the ER, the project team will advance the concept design to a 30% design-level plan set. The intent of the 30% plan is to provide sufficient detail to establish confidence, feasibility and readiness in the proposed design. This includes confirming roadway geometry, identifying environmental and right-of-way impacts, and developing a reliable project cost estimate. This effort goes beyond the design level of the initial planning stage alternatives. This stage involves detailed 3 dimensional design. Achieving this level of definition will help minimize risk and avoid unforeseen issues during the next phase of the project between preliminary design and final construction plans.

Geometric design will be developed in accordance with the requirements of the City of Superior, Wisconsin State Statutes, Wisconsin Department of Transportation Facilities Development Manual (WisDOT FDM) and the Federal Railroad Administration (FRA). Design efforts will focus on evaluating intersection layouts, turning-movement operations, roadway profile and grades, private entrance modifications, and horizontal and vertical clearances at each railroad track alignment.

The 30% plan set also serve as a key communication tool during public engagement activities. These plans will be used to clearly explain the project to residents, business owners, and other stakeholders. In addition, targeted exhibits can be prepared for specific property owners where additional detail may help communicate design decisions and foster understanding and acceptance.

Completion of 30% plan is a critical step in securing required railroad agreements and pursuing additional grant funding necessary to advance the project to final delivery.



BNSF Railway Coordination

SRF's preliminary bridge design will follow BNSF Guidelines 3.10.B and include required materials for a complete review by the railroad. This set will confirm bridge geometrics, clearances, footing elevations, drainage conditions, construction phasing and other key considerations that will be needed for a future overpass agreement to be coordinated during the bridge's final design.

Preliminary Bridge Design

Development of the preliminary bridge design, and plan will meet the requirements of AASHTO LRFD Bridge Design Specifications and WisDOT's Facilities Development Manual (FDM) and Bridge Manual (BM). We will prepare the Structure Survey Report (SSR Form DT1694) and request a new bridge number be assigned for the grade-separation. Plans will document the roadway geometry and profile data, bridge cross section, span configurations, structure type, bridge aesthetics and geotechnical and foundation requirements. A preliminary cost estimate will be generated for the bridge and walls if included in the project and their maintenance needs. Special consideration such as the use of stainless steel reinforcement in the deck can be given at this time to reduce the potential for costly maintenance of the superstructure, especially if significant track expansion is planned which will make access to the deck from below more difficult in future years.

Structures Lead Casey Black has specific relevant experience with railyard structure development. See the first additional example project in the appendix labeled "55th Street Grade Separation."

Preliminary Engineering Deliverables

At the completion of the preliminary design phase, the following will be provided to the City of Superior for their review and comment:

- Preliminary project plans, including:
 - » Title Sheet
 - » General Notes
 - » Typical Sections
 - » Project Overview
 - » Plan & Profile Sheets
 - » Preliminary Structure Plans (See image to the right)
 - » Cross Sections
- Planning level construction staging overview
- Preliminary Right of way impacts overview & cost estimate
- Wetland Impacts overview
- Construction cost estimate
- Construction schedule
- Railroad agreements

These agreements, documents and relationships will help advance the project to the next phase of plan development, funding procurement and construction.

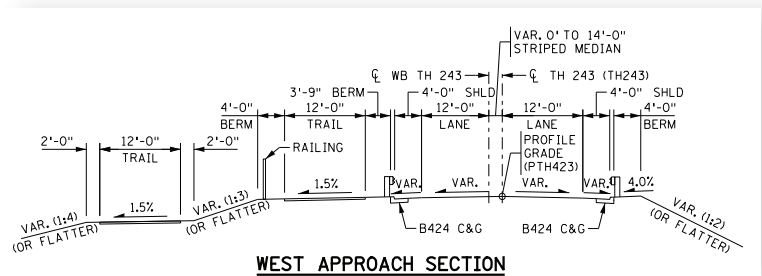
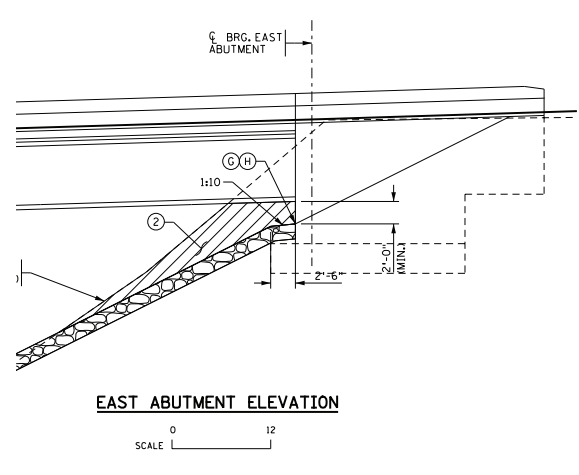
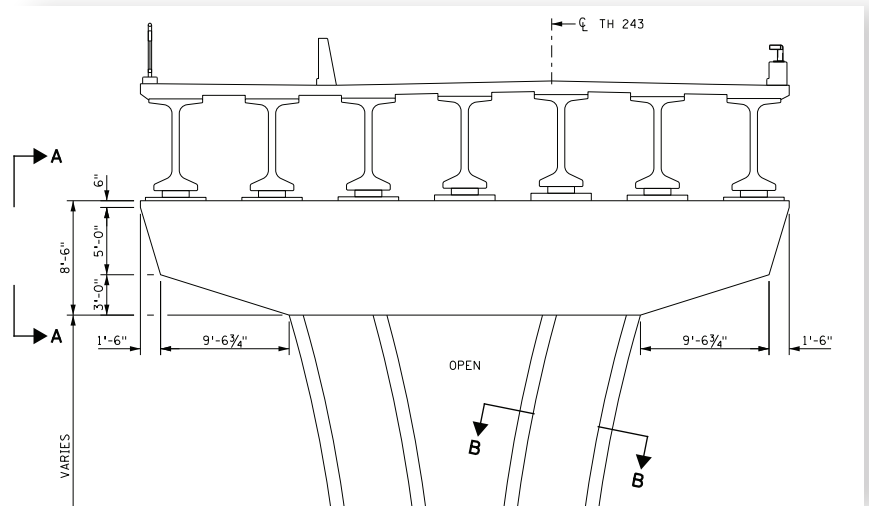


Figure: Preliminary Structure Plans

4.5 Subconsultants

HDR



For more than a century, HDR has partnered with clients to shape communities and advance what is possible. With more than 12,000 employees in over 200 locations worldwide, the firm delivers integrated engineering, architecture, environmental, and construction services. Multidisciplinary teams bring broad expertise and an optimistic, solutions-driven approach to creating resilient infrastructure and lasting community value. ***HDR has unmatched experience and relationships with BNSR railway. Simply put, they understand the “rail” language to help coordinate between the project and the rail operators. They will provide expert coordination with BNSF and supplement planning, alternatives analysis, and preliminary engineering activities with railway operations and design support.***

NWBE



Northern Wisconsin-Based Engineers, Inc. (NWBE) is a professional engineering consulting firm headquartered in Hayward, Wisconsin. Founded in 1995 by Heather Harrington, PE, NWBE is a 100 percent woman-owned firm certified as a Woman-owned Disadvantaged Business Enterprise in Wisconsin. The firm specializes in transportation design, construction management, commercial and residential site design, and FEMA Floodplain Letter of Map Amendment services. With an award-winning staff of civil engineers and technicians, NWBE is recognized for its technical expertise, effective project delivery, and collaborative approach. The firm leverages current surveying and civil design technologies and works closely with WisDOT, county highway departments, and municipal clients to deliver high-quality, cost-effective projects that meet schedule and performance goals. ***NWBE will provide survey, data collection, roadway approach design, and engagement support. Their local staff has great experience in the Superior area.***

American Engineering Testing (AET)



American Engineering Testing, Inc. (AET) is an employee-owned engineering and testing firm that provides geotechnical engineering, construction materials testing and inspection, pavement engineering, building science and forensic services, environmental consulting, and specialized laboratory services. Founded in 1971, AET has more than five decades of experience supporting public and private clients throughout the Upper Midwest, Wyoming, and beyond, delivering critical investigations, testing, analysis, and design services that reduce risk and improve project outcomes. With multidisciplinary experts including engineers, geologists, and scientists, AET supports projects from design through construction and asset preservation, offering unbiased, practical recommendations grounded in accurate data. The firm is recognized for its commitment to safety, quality, responsiveness, and long-term client relationships, providing continuity and technical certainty across a wide range of horizontal and vertical infrastructure projects. ***AET and SRF have partnered on dozens of projects and have a great working relationship. AET will conduct a preliminary level of geotechnical analysis to lend confidence to the structure alternative analysis. This investigation will confirm subsurface conditions can support various structure types.***

Terracon



Founded in 1965, Terracon is a leading national consulting engineering firm specializing in environmental, facilities, geotechnical, and materials services. In Wisconsin, the company’s environmental group includes an established cultural and heritage resources management team with extensive experience serving as archaeological and architectural history consultants for WisDOT projects in all regions of the state. Key staff are familiar with the Section 106 compliance process specifically as it relates to WisDOT projects and regularly work with project designers and engineers, WisDOT project managers, WisDOT regional environmental coordinators, WisDOT’s Cultural Resources Team, and the Wisconsin State Historic Preservation Office (SHPO). ***Terracon is a multi-talented firm that will provide several specialty services for the Environmental Review. They will expertly handle archaeological and historic surveys as needed and will complete contaminated soils and hazardous material investigations. Both services are critical for the confident completion of the Environmental Review process.***

TRAINFO



TRAINFO is a nationally recognized leader in railroad crossing data analytics, safety evaluation, and Intelligent Transportation Systems (ITS) solutions focused on improving safety, mobility, and operational performance at highway-rail grade crossings. The firm combines advanced detection technology, transportation engineering expertise, and large-scale data analytics to deliver measurable, data-driven results for public agencies. ***TRAINFO and SRF have partnered on many projects. TRAINFO will supplement The Team’s data collection with rail crossing frequency and duration as needed for production of an airtight purpose and need statement. The information they provide will also help with benefit cost evaluation of the preferred alternatives, to build further justification of a grade separation project.***

4.6 References

Applicant Firm Name: SRF Consulting Group, Inc.
Contact Person: Jeff Knudson, PE
Address: 1600 Aspen Commons, Suite 650
City, State, and Zip Code: Middleton, WI 53562
Telephone: 608.298.5400

Reference #1

Owner or Company Name: Wisconsin Department of Transportation
Contact Person: Tyler Rongstad, PE, PDS Unit 7 Supervisor – Northwest Region
Type of Service(s) Provided: Traffic engineering, alternatives analysis, agency and public coordination, large-project management, design decision making, environmental review
Calendar Year(s) of Service(s) Provided: 2020-current
City, State, and Zip Code: 718 W Clairemont Avenue, Eau Claire WI 54701
Telephone: 715.461.0372

Reference #2

Owner or Company Name: Wisconsin Department of Transportation
Contact Person: Kris Sommers, PE, Railroad Engineering and Safety Supervisor
Type of Service(s) Provided: Project management, plan review, statewide rail crossing risk assessment, improvement alternatives analysis, agency and public coordination and outreach
Calendar Year(s) of Service(s) Provided: 2020-current
City, State, and Zip Code: 4822 Madison Yards Way, Madison, WI 53705
Telephone: 608.266.3341

Reference #3

Owner or Company Name: Olmsted County Public Works
Contact Person: Benjamin Johnson, PE, County Engineer & Director
Type of Service(s) Provided: Bridge / Railroad Grade Separation Design - CSAH 44/TH 14 Interchange
Calendar Year(s) of Service(s) Provided: January 2022-Present
City, State, and Zip Code: 1188 50th Street SE, Rochester, MN 55904
Telephone: 507.328.7060

INDEMNIFICATION & HOLD HARMLESS STATEMENT

SRF will indemnify and hold harmless the listed references in relation to statements made to the City of Superior as a reference for the 28th Street RCE Study.

4.7 Examination Statement

SRF Consulting Group, Inc. ("SRF") has made its own examination, investigation and research regarding the method of doing the work, all conditions affecting the work to be done, the labor, equipment and materials, and the quantity of the work to be performed. SRF agrees that it has satisfied itself by SRF's own investigation and research regarding all of such conditions, and that SRF's conclusion to enter into the Service Agreement is based upon such investigation and research, and that SRF shall make no claim against the City because of any of the estimates, statements or interpretations made by any officer or agent of the City which may prove to be erroneous in any respect.

7. SubConsultants Listing (Must be submitted with Qualifications.)

N28th Street Grade Separation

The undersigned agrees to employ the following listed **subConsultants** for the following enumerated classes of work and not to alter or add to such list without the written consent of the City of Superior, WI. Use separate sheet as necessary.

	<u>SUBCONSULTANT</u>	<u>CLASS OF WORK</u>
1)	<u>HDR</u>	<u>BNSF Coordination, supplement planning, alternatives analysis, and preliminary engineering activities with railway operations and design support</u>
2)	<u>NWBE</u>	<u>Survey, data collection, roadway approach design, and engagement support</u>
3)	<u>AET</u>	<u>Geotechnical analysis</u>
4)	<u>Terracon</u>	<u>Archaeological and historic surveys, as needed, contaminated soils and hazardous material investigations</u>
5)	<u>TRAINFO</u>	<u>Supplemental data collection with rail crossing frequency and duration</u>

Submitted by: COMPANY SRF Consulting Group, Inc.
ADDRESS 3701 Wayzata Boulevard, Suite 100, Minneapolis, MN 55416
COMPANY REPRESENTATIVE Stacy Knudson, CFO

8. Addenda Acknowledgement (Must be submitted with Qualifications)

N28th Street Grade Separation

I/we hereby acknowledge receipt of the following addenda(s):

NO ADDENDA ISSUED

I/we further certify that no agreement has been entered into to prevent competition for said work and that I/we carefully examined the site where the work is to take place, and the plans, specifications, form of contract and all other contract documents.

I/we further agree to enter into the contract, as provided in the contract documents, under all the terms, conditions and requirements of those documents.

* If no addenda were issued, the consultant/firm shall so indicate and sign this document.

SRF Consulting Group, Inc.
Company

Representative Signature

A large blue rectangular graphic overlay is centered on the page. It contains the text 'SRF' in a white, sans-serif font, with a white square icon to its left. Below this, the word 'APPENDIX' is written in a larger, bold, white, sans-serif font. The background of the entire page is a photograph of a railway yard with tracks, gravel, and trees under a cloudy sky.

SRF
APPENDIX

Additional Project Experience

55TH STREET GRADE SEPARATION

Minot, North Dakota



The 55th Street Grade Separation project was part of a larger project connecting US Highway 2 East to US Highway 83 North, creating an important transportation link on Minot's eastern edge. The 55th Street Grade Separation consists of a 1,155-foot-long bridge over the BNSF Railroad mainline, a spur track from BNSF's Gavin Yard and three future tracks for the North Dakota intermodal facility. SRF coordinated closely with BNSF during the design phase to ensure the design accommodated all current and future track

needs. Based on the projected growth in traffic volumes, particularly with truck traffic and agricultural and industrial development, this project was needed to ensure the safe and efficient operation of these critical transportation facilities. SRF was a subconsultant on the bridge design portion of the project and was also involved in the construction oversight, assisting with surveying, inspection, and technical assistance as required.



SOUTHEAST MAIN AVENUE, 20TH STREET & 21ST STREET RAILROAD GRADE SEPARATION

Moorhead, Minnesota



SRF led the preliminary and final design phases of this complex grade separation project, including preparation of the Environmental Assessment and right-of-way acquisition. The scope also encompassed the design of three railroad bridges.

During construction, SRF provided engineering and surveying services, inspecting over 2,600 linear feet of retaining walls, 17.3 miles (91,000 LF) of CIP piling, 224,000 CY of excavation, including mitigation of 22,000 CY of contaminated soils, and addressing challenging soil conditions. Certified bridge inspectors ensured compliance with plan specifications during the construction of 3 steel-beam railroad bridges and the construction of new BNSF track aligned over the bridges and shoefly track construction. Our Team coordinated with BNSF design teams to review contractor

plans and provided oversight for the installation of sheet-pile walls, helical anchored walls, traffic control and detours.

Other inspection services included roadway reconstruction that included 9,000 LF of storm sewer systems, sanitary and watermain, a new lift station and forcemain for underpass drainage, concrete and bituminous pavement, ADA features, traffic signals, corridor signage, and striping.

The SRF construction team provided drone video and photography to document the progress of the project which became a great tool for documenting issues and contractor change order requests. The City of Moorhead used drone photos and video to put on the project website for public engagement updates.

AWARDS:

- 2023 ACEC-MN Engineering Excellence Grand Award
- 2023 APWA Public Works Project of the Year in Transportation for Small Cities/Rural Communities
- 2023 NDSPE Outstanding Design Award
- 2023 FM Engineers Project of the Year Award
- 2022 APWA-MN Public Works Project of the Year
- 2022 CEAM Municipal Project of the Year
- 2022 ARM Association of Minnesota Excellence in Concrete Award – Infrastructure

JACKSON STREET BRIDGE REPLACEMENTS – PRELIMINARY DESIGN

Saint Paul, Ramsey County, Minnesota



Ramsey County’s project involved conceptual, preliminary design and construction cost estimating for the replacement of three bridges involving BNSF Railway Co. and Soo Line Railroad (subsidiary of CPKC Railway). Bridges involved included:

1. BR 5664 (BNSF Railway and MN Transportation Museum)
2. BR 90408 (BNSF Railway)
3. BR 90409 (Soo Line Railroad)

Relevant Experience

Deliverables included a geotechnical report, approved preliminary bridge plans (Nos. 62656, 62657 & 62658) to replace the bridges over BNSF, underpass concept to replace bridge 90409 and realistic construction cost estimates for all new structures. SRF also acquired 30% plan approval from BNSF setting the stage for future final design efforts.

SRF delivered a MnDOT and BNSF approved preliminary plan for the replacement of bridge 5664. The existing bridge was reduced from a nine-span bridge into two bridges (Nos. 62656 & 62657) separated by MSE walls. This reduced construction costs and long-term maintenance costs and will make the smaller bridge no. 62567 subject to a new BNSF overpass agreement.

BLUFF DRIVE OVER TH 169 & UNION PACIFIC RAILROAD

Scott County, Minnesota



Scott County’s project and partnership with MnDOT improved the existing intersection of Bluff Drive at Highway 169 in Sand Creek Township. Bluff Drive was realigned to the north to provide a safer right-in-right-out access point to the south with an acceleration lane below the new bridge. The realignment and new grade-separated crossing allowed Bluff Drive to become a continuous corridor over the highway and railroad.

Relevant Experience

Development of bridge type study, coordinated with MnDOT’s Preliminary Bridge Design Unit. Preliminary and final design of a multi-span precast beam bridge with a pier and semi-integral abutments. Deck accommodations for vehicular traffic and a multi-use trail. MnDOT Bridge Office and Union Pacific approvals and agreements accommodating future track expansion. Cast-in-place retaining wall design at approach to limit property impacts from new embankment.



TH 336 OVER BNSF RAILWAY

Glyndon, Minnesota



TH 336 is an important link between the north-central Minnesota lakes area and the Fargo-Moorhead vicinity, connecting TH 10 and

I-94 just east of the City of Moorhead. The existing roadway was a narrow, two-lane facility. The highway crossed the busy BNSF Railroad at-grade, and also had an at-grade intersection with TH 10. At I-94, the existing interchange was geometrically deficient and had severe sight distance limitations.

SRF was retained by the MnDOT District 4, for preliminary engineering, Access Justification Reports, environmental studies and final P, S&E for improvements to TH 336.

SRF coordinated closely with BNSF during design of the TH 336 bridges over the railroad. The bridge span length was chosen to accommodate BNSF’s current and future needs with an efficient and cost-effective design that respected MnDOT’s project budget.

SRF BRIDGE DESIGN EXPERIENCE OVER RAILROADS

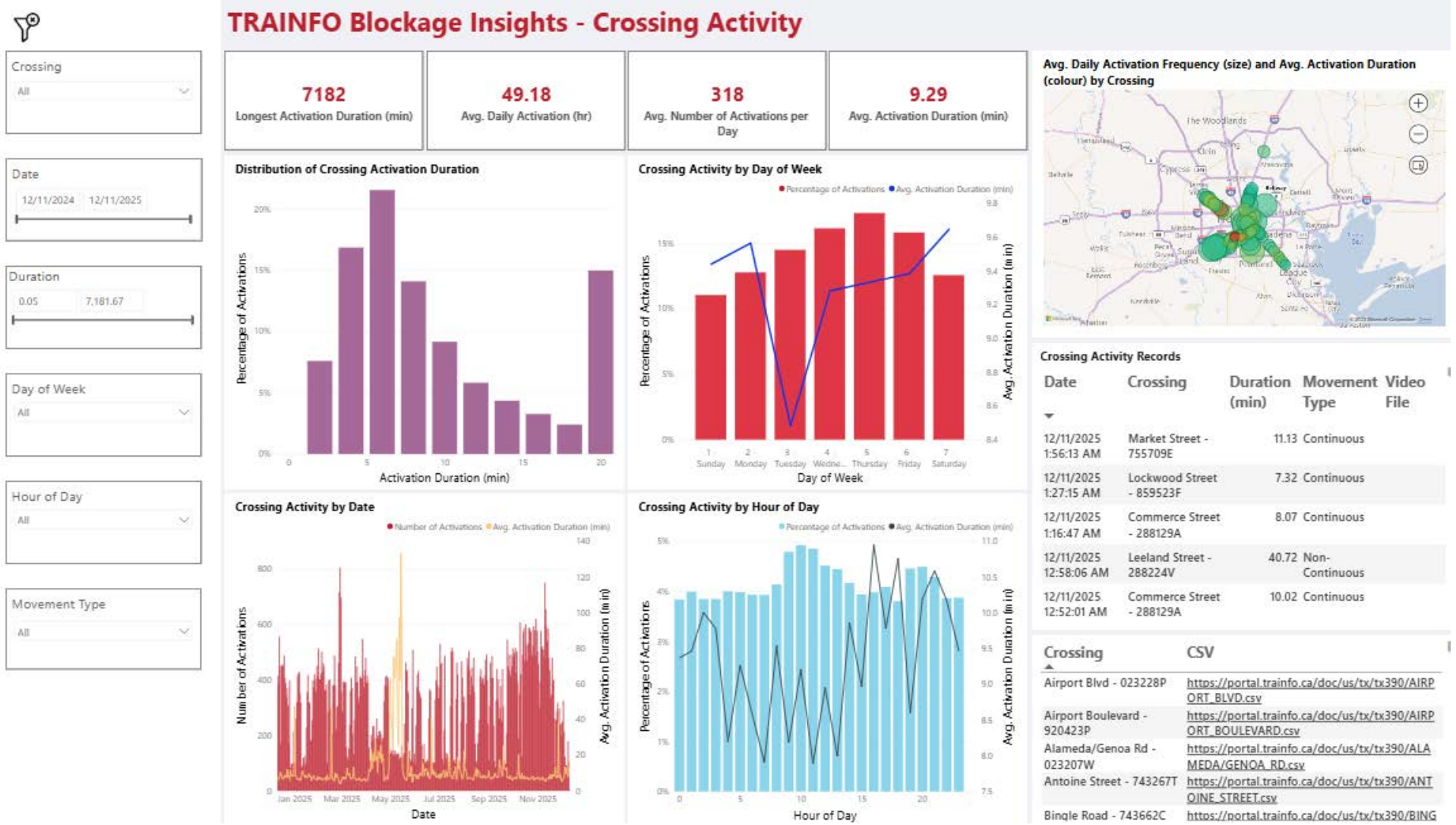
BR. NO.	BRIDGE DESCRIPTION	LOCATION	GIRDER TYPE	YEAR BUILT
55084	CSAH 44 over TH 14 and CPKC Railroad	Olmsted County, MN	Steel	2027
55085	TH 14 On-Ramp over CPKC Railroad	Olmsted County, MN	Steel	2027
55086	TH 14 Off-Ramp over CPKC Railroad	Olmsted County, MN	Steel	2027
55087	7th Street over TH 14 and CPKC Railroad	Olmsted County, MN	Steel	2027
62666	Kellogg Ave/3rd St over I-94, Commercial St, BNSF & UP Railroad	St. Paul, MN	Steel	2027
62675	CR C (CSAH 23) over BNSF Railroad	Roseville, MN	Steel	2027
19911	I-35W over Cliff Road & UP Railroad	Dakota County, MN	Steel	2026
70055	Bluff Drive over TH 169 and UP Railroad	Sand Creek Township, MN	Steel	2025
21831	TH 94 Westbound over CP Rail	Alexandria, MN	Steel	2023
21832	TH 94 Eastbound over CP Rail	Alexandria, MN	Steel	2023
20021	TH 56 over CP Rail	Dodge County, MN	Steel	2023
74025	CSAH 16 over TH14 and CP Rail	Steele Co.	Steel	2023
27316	CSAH 92 over TH 12 & BNSF Railroad	Independence, MN	Steel	2020
02589	CSAH 78 (Hanson Blvd) over BNSF Railroad	Coon Rapids, MN	Steel	2018
58821	I-35 Southbound over St. Croix Valley Railroad	Hinckley, MN	Steel	2016
58822	I-35 Northbound over St. Croix Valley Railroad	Hinckley, MN	Steel	2016
27B99	Vicksburg Lane over CP Rail	Plymouth, MN	Steel	2016
85014	Dresbach Interchange - TH 61 Northbound Ramp over CP Rail	Dresbach, MN	Steel	2016
85849	Dresbach Interchange - I-90 Westbound over CP Rail	Dresbach, MN	Steel	2015
85850	Dresbach Interchange - I-90 Eastbound over CP Rail	Dresbach, MN	Steel	2015
27W23	TH 494 Southbound over CP Rail	Hennepin Co.	Steel	2015
27W24	TH 494 Northbound over CP Rail	Hennepin Co.	Steel	2015
02586	CSAH 83 (Armstrong Blvd) over BNSF Railroad	Ramsey, MN	Steel	2015
62017	TH 52 NB over Mississippi River, Fillmore Ave, Alabama St, Sam Morgan Trail, Warner Road, CP Rail, UP Rail, BNSF Rail, Central Corridor LRT Yard, Kellogg Blvd & 4th St (Prelim Design)	St. Paul, MN	Steel	2014
62652	Summit Ave. over Ayd Mill Road & CP Rail	St. Paul, MN	Steel	2013
62608	Cayuga St over BNSF Railroad	St. Paul, MN	Steel	2013
02583	CSAH 14 over BNSF Railroad	Anoka County, MN	Steel	2012
MNOT26	55th St over BNSF Railroad	Minot, ND	Steel	2011
62018	TH 52 SB over Mississippi River, Fillmore Ave, Alabama St, Sam Morgan Trail, Warner Road, CP Rail, UP Rail, BNSF Rail, Central Corridor LRT Yard, Kellogg Blvd & 4th St (Prelim Design)	St. Paul, MN	Steel	2010
27B58	CSAH 81 Southbound over CP Rail	Crystal, MN	Steel	2010
27B59	CSAH 81 Northbound over CP Rail	Crystal, MN	Steel	2010
07589	CSAH 12 over DM&E Railroad	Blue Earth County, MN	Steel	2009
27684	LRT/5th St over Parking Lot & BNSF Railroad	Minneapolis, MN	Steel	2007
05534	CR 1 over the Mississippi River & BNSF Railroad	Sauk Rapids, MN	Steel	2006
82027	St. Paul Park Road over BNSF Railroad	St. Paul Park, MN	Steel	2004
27A95	Schmidt Lake Road over CP Rail	Plymouth, MN	Steel	2003
19R02	TH 52 Northbound over 140th St & UP Railroad	Inver Grove Heights, MN	Steel	2003
19R03	TH 52 Southbound over 140th St & UP Railroad	Inver Grove Heights, MN	Steel	2003
14009	TH 336 Southbound over BNSF Railroad (Prelim Design)	Moorhead, MN	Steel	2002
14010	TH 336 Northbound over BNSF Railroad (Prelim Design)	Moorhead, MN	Steel	2002
27A68	Cheshire Lane over CP Rail	Plymouth, MN	Steel	2001

LEGEND

Girder Types:	Steel	Prestressed Concrete
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Congestion Analytics

Example of TRAINFO Dashboard for at-grade crossing data collection analytics. The team will deploy this type of analytical analysis only as required for the project. This will be determined during scoping and the PMP.



Key Personnel Resumes



Jeff Knudson, PE, PTOE | SRF | Project Manager

Jeff Knudson has delivered hundreds of multimodal transportation planning, traffic, and design projects, working directly with municipal agencies and State DOTs to resolve complex challenges. He brings proven expertise in leading multi-disciplinary teams and advancing studies such as the 28th Street project efficiently from scoping through preliminary engineering and environmental clearance, producing technically sound, agency-ready deliverables.

With more than a decade of hands-on experience in Superior, Jeff provides deep insight into local traffic conditions and constraints and is committed to strengthening the City of Superior partnership

Areas of Specialty

- Transportation Planning
- Environmental Process
- Project Management
- Public Involvement
- Agency Coordination
- Traffic Engineering
- Traffic Forecasting
- Traffic Signal Design
- Intersection Design
- NEPA Studies
- Roundabout Analysis and Layout
- Traffic Impact Analysis

Education

Bachelor of Science Civil and Environmental Engineering, University of Wisconsin-Madison, 1999

Registrations

Professional Engineer: Wisconsin #37306-006, Illinois #062.060483

Certifications

Professional Traffic Operations Engineer

Project Experience

WisDOT STH 243 Osceola Bridge Replacement, Polk County Wisconsin. Jeff is the project manager assisting WisDOT on this MnDOT-led highway bridge project over the St. Croix River. Jeff completed agency coordination, design review, utility coordination, environmental agency permitting, local government coordination, and coordination with both State DOTs and other federal agencies. Project construction will begin in summer 2026. The typical section of this bridge is likely similar to the 28th Street grade separation.

WisDOT/MnDOT Blatnik Bridge, Douglas County Wisconsin. Lead traffic engineer for this major NEPA and preliminary engineering study that included interchange reconfiguration analysis in the urban area of Superior Wisconsin for this big multi-state bridge replacement project. Jeff led the development of Vissim, Synchro, and IHSDM models, completed multiple interchange and intersection configuration and control evaluations, and authored the Interstate Access Justification Report. Jeff also led the traffic management plan process that detailed the local and state roadway network improvements needed to be completed prior to the long-term bridge closure.

WisDOT US 51 North Stoughton Road Study, Madison, Dane County, Wisconsin. Lead traffic engineer for this major NEPA study that included interchange and intersection reconfiguration analysis and mainline capacity analysis for 5 miles of urban and suburban arterial reconstruction. Jeff led the development of Vissim, Synchro, and IHSDM models and completed 12 interchange/intersection control evaluations. Jeff also led the railroad exposure analysis for review of alternatives to an at-grade rail crossing as part of the environmental and concept engineering processes.

STH 130 over Wisconsin River, Lone Rock, Wisconsin. Jeff was the traffic engineer on WisDOT's first design-build project. This project involved removing the existing roadway and three existing bridges and included construction of two new structures to cross the Wisconsin River and a 1,000-foot roadway on STH 130. The project realigned STH 130 on new alignment with the new structures approximately 1,000-feet west of the existing intersection. Jeff's involvement helped navigate permitting and traffic management aspects of the project. Jeff chaired the traffic task force group and held multiple joint meetings with local stakeholders to coordinate upcoming traffic events and confirm traffic impacts.

WisDOT I-41 Study, Appleton to DePere, Brown and Outagamie Counties, Wisconsin. Lead traffic engineer for this major NEPA study that included interchange reconfiguration analysis and mainline capacity analysis for 25 miles of I-41 freeway expansion. Jeff led the development of corridor wide Vissim and IHSDM models, Synchro models, completed 8 interchange/intersection control evaluations, and authored the Interstate Access Justification Report.

WisDOT North West Region US 53 Study, Douglas County, Wisconsin. Project Manager and engineer responsible for studying safety, operations, access, and current and future roadway operations for an approximately 6-mile urban and suburban arterial corridor along US 53 in the City of Superior. Completed detailed operational, safety, and geometric analysis through the City, including alternate route diversion analysis in conjunction with future major bridge closure scenarios (structures connecting Superior to Duluth) that would divert traffic in the City.

[CTH SN Reconstruction, La Crosse County Wisconsin](#). Jeff was the project manager, NEPA practitioner, and traffic engineer that provided La Crosse County design engineering services for the reconstruction (and portion of pavement replacement) of CTH SN. This 3.5-mile, two-lane rural-to-urban roadway reconstruction project included a full bridge replacement and significant horizontal and vertical alignment changes. The project required environmental documentation, including Section 4(f) de minimis, Section 6(f) coordination, Section 404 permits, and involved significant utility relocation coordination with a large overhead transmission utility.

[WisDOT North West Region STH 35 Study, Polk County, Wisconsin](#). Project Manager and engineer responsible for determining operational and safety impacts on study-area roadways during a major detour that diverts some or all of a WI/MN border bridge (US 8 Bridge in St. Croix Falls) traffic onto State Trunk Highway 35 (STH 35) and other roadways in the greater Osceola area.

[City of Beloit STH 213/81 Intersection Control Evaluation, Rock County Wisconsin](#). Project manager and lead traffic engineer reviewing the operations and safety of the intersection and completing the required WisDOT and City processes to carry forward a traffic signal alternative into final design.

[City of Middleton Wisconsin Traffic Impact Analyses, Dane County Wisconsin](#). Project manager and lead traffic engineer for the analysis of dozens of property redevelopments over the past ten years. Redevelopments ranged from small hotel-type developments to major multi-use commercial, retail, and residential centers. The projects determined needed improvements to the roadway system for background, off-site, and redevelopment scenarios and allowed the City of Middleton to capture developer-driven improvements to the public road system.

[WisDOT Carmichael Road Safety and Operations Study, Hudson Wisconsin](#). Project manager and lead traffic engineer conducted safety and operational analysis on the Carmichael Road signal system from Coulee Road to Crest View Drive. He and his team completed existing conditions and alternative analysis. This project used Synchro operational software and the Interactive Highway Safety Design Model software to predict safety of potential improvements. Jeff and his team coordinated with WisDOT NW Region traffic and planning engineers weekly.

[WisDOT South West Region STH 19 Corridor Study, Dane and Jefferson Counties, Wisconsin](#). Project engineer and transportation planner responsible for studying safety, operations, access, development, and current and future roadway operations for an approximately 30-mile corridor along STH 19 in south central Wisconsin from Waunakee to Waterloo. Completed detailed operational, safety, and geometric analysis through the congested urban areas of Waunakee and Sun Prairie. Conducted and managed roadway safety audit and analysis, segment capacity analysis, intersection control analysis, traffic forecasting, travel time analysis, and land use and socioeconomic analysis for the corridor.

[WisDOT South West Region STH 16 Corridor Study, Jefferson County, Wisconsin](#). Project manager and lead engineer and transportation planner responsible for studying safety, access, development, and current and future roadway operations for an approximately 12 mile corridor along STH 16 in south central Wisconsin from Watertown to Oconomowoc.

[CTH M Reconstruction, Dane County Wisconsin](#).

[Jeff was the traffic engineer and assisted with the environmental process on this WisDOT Local Program project](#). This was a two-lane to four-lane conversion project and included the full WisDOT process. Jeff helped guide the alternative analysis and selection process. The project was constructed in 2023 and 2024.

[Ho-Chunk Nation Shady Lane Reconstruction, Sauk County, Wisconsin](#). Project manager for resurface and intersection reconstruction project of Shady Lane from USH 12 to the town of Delton eastern limit in Sauk County (a length of about 1 mile). The primary purpose of the project was to improve safety at a rural intersection with deficient stopping sight distance and perceived safety concerns. Project included all aspects of full rural intersection reconstruction and resurfacing project including design, agency coordination, planset creation and bidding. Construction completed in 2010.

[Village of Mount Pleasant Oakes Road Design, Wisconsin](#). Project manager and design engineer for approximately 1,200 feet of roadway reconstruction design converting a 2-lane rural roadway to 4-lane urban with curb and gutter and sidewalk. Completed all components of urban design project including: horizontal and vertical alignment design, drainage and intersection design, utility coordination, preliminary and final plans creation, project cost estimation, municipal letting process, easement determination, municipal assessment process and determination, project manual creation including specifications and bid documents, public hearing setup and conduct, WisDOT traffic signal revisions design, and permit coordination with the Wisconsin Department of Natural Resources and the Army Corps of Engineers.

[City of Madison, Femrite Drive Design, Wisconsin](#). Project engineer responsible for cost estimation and plan set creation of urban roadway reconstruction. Completed portion of roadway design, including storm water drainage design. Provided scheduling and estimating.

[WisDOT Carmichael Road Safety and Operations Study, Hudson Wisconsin](#). Jeff is the project manager and lead traffic engineering conducting safety and operational analysis on the Carmichael Road signal system from Coulee Road to Crest View Drive. He and his team have completed existing conditions analysis and are now moving into alternative analysis.



Andy Mielke, AICP | SRF | Quality Manager

Andy has 25 years of experience working on a variety of transportation planning projects for cities, counties, and state Departments of Transportation. His work focuses on freight planning and intermodal studies, railroad studies and quiet zone projects, statewide policy plans, corridor studies, and traffic incident related projects. Andy is a thorough project manager who is dedicated to the overall success of any project. Andy is an experienced public speaker and is well-versed in working with the public using a variety of presentation techniques. Andy has previously served on the Board of Directors for Minnesota Operations Lifesavers as well as serving on a panel for the National Cooperative Highway Research Program (NCHRP) 25-50 Prioritization Method for Proposed Road-Rail Grade Separation Projects along Specific Rail Corridors.

Areas of Specialty

- Rail and Freight Projects
- Train Whistle Quiet Zones
- Transportation Policy
- Corridor Studies
- Interchange Justification Reports
- Community Transportation Planning
- Traffic Incident Management

Education

Master of Urban and Regional Planning, University of Minnesota, 2000

Bachelor of Science in Public Administration and Geography, University of Wisconsin-La Crosse, 1998

Certification

American Institute of Certified Planners

Project Experience

[La Crosse County BNSF Rail Safety Review Study, La Crosse County, Wisconsin](#). SRF was selected to review all La Crosse County rail crossings along the BNSF Railway. This project was in response to some of the significant rail incidents and derailments that have occurred throughout the country over the past several years. Key components of the study included a crash analysis, bridge analysis, review of FRA inspection reports, and a site review of crossings to confirm adequate site lines and roadway/rail infrastructure.

[US 51 Corridor Study, DeForest-Portage, Wisconsin](#). Andy led the day-to-day task activities for this 22-mile corridor. This preservation project looked to identify roadway improvements to prolong the existing life of the roadway. In addition to overseeing the existing and future conditions analysis, Andy was involved in numerous project meetings and public involvement activities.

[MnDOT District 3 Freight Plan – Central Minnesota](#). Serving as the Project Principal of district-wide freight plan that will organize short- and long-term transportation improvements to support freight movement and the local economy. Provided quality management of deliverables.

[Sherburne County Rail Impact Study, Sherburne County, Minnesota](#). SRF led an effort to evaluate a future rail park and intermodal facility in Sherburne County, Minnesota. Working closely with County and City staff; SRF's team completed an economic analysis to determine the commodities that were moving through the area and could potentially locate in Sherburne County. The analysis also included detailed design on potential locations and transportation (road and rail) improvements that would be needed.

[Quiet Zone Projects, Various Locations](#). Andy has been involved in over 70 quiet zone studies, designs, and implementation projects throughout the United States since the Federal Railroad Administration (FRA) Quiet Zone Rule went into effect in 2005. In total, Andy has reviewed approximately 800 rail crossings for potential safety and operational improvements throughout the United States.

[Union Pacific Railroad Yard Expansion, South Saint Paul, Minnesota](#). SRF is assisting the City of South Saint Paul evaluate impacts associated with a proposal to expand the Union Pacific Rail Yard and identify potential mitigation measures that may be needed. Tasks associated with this work include evaluating proposed track improvements, crossing operations, utility impacts in and around the rail yard, assisting the City in meetings with impacted stakeholders, and various other duties to protect the City's best interests given the proposed rail yard expansion.



Justin Scott, AICP | SRF | Planning Lead

Justin has 19 years of multimodal transportation planning and policy experience working with federal, state, and local agencies to deliver a variety of large and small projects. He serves as a project manager in SRF's Minneapolis office and has experience leading regional and statewide freight plans, state rail plans and rail safety plans, and intermodal rail feasibility analysis studies. Justin is also a quiet zone expert having assisted numerous communities successfully implement quiet zones across the nation. He has a deep understanding of federal grant programs and is experienced in fulfilling federal grant requirements and working to program grant applications for winning projects. Justin is currently the project manager for the Wisconsin Bicycle/Pedestrian Railroad Crossing Plan and recently served as the project manager for WisDOT's first Highway-Rail Grade Crossing State Action Plan (SAP).

Areas of Specialty

- Freight Planning
- Rail Planning
- Intermodal Studies
- Alternatives Analysis
- Project Prioritization
- Performance Measurement
- Grant Writing
- Safety Action Plans
- Stakeholder Engagement
- Quality Management
- Project Management
- Long-Range System Planning

Education

Bachelor of Science in Urban Studies, University of Minnesota, 2006

Certifications

American Institute of Certified Planners

Project Experience

Wisconsin State Rail Plan. Justin is currently serving as the Project manager for the update to the Wisconsin Statewide Rail Plan. The plan focuses on extensive and equitable stakeholder outreach, which is critical to identifying issues and providing feedback to the proposed recommendations. Justin engaged the rail carriers serving the state and identified the critical strategic and policy issues that impact the availability and quality of rail service. He is also leading the coordination efforts with EJ and other communities that are critical to understanding rail-related issues included in the plan.

Wisconsin Grade Crossing Safety Action Plan. Justin served as the Project manager in the development of the state's first SAP. The plan included broad rail stakeholder engagement and a benefit-cost analysis approach that identified and programmed grade crossing safety improvements in Wisconsin. Justin led all coordination efforts with emergency responders and other important stakeholders and assisted with the identification and categorization of risk characteristics at rail crossings across the state. He was also responsible for leading the field review to identify potential grade crossing improvements and priority projects.

Railroad Quiet Zone Planning. Justin is currently serving as the project manager or principal rail planner for several quiet zone analysis and implementation studies in multiple states across the US including efforts in Connecticut, Wisconsin, Minnesota, Iowa, South Dakota, North Dakota, Oklahoma, and Montana.

Washington State Freight System Plan.* Justin assisted the Washington State DOT in the update of the State Freight System Plan. Justin led the effort which included updates of existing and future conditions on the freight network and directed the stakeholder outreach by developing a project solicitation survey and conducted stakeholder briefings on the freight plan with the State Freight Advisory Committee. The plan also included the development of a project prioritization tool and associated data-driven and transparent methodology that will help state planners review and validate future candidate freight projects that benefit the state's freight system. Mr. Scott served as the Project Manager for this effort providing project coordination and on time delivery to meet FAST Act requirements.

Intermodal Terminal Market Studies.* Justin was the principal freight planner for several public and private clients while conducting market analysis for proposed intermodal terminal facility developments in Grand Island, Nebraska; Spokane, Washington; and Dilworth, Minnesota. For several of these studies, Mr. Scott examined the likelihood and impacts of potential mode shifts. To evaluate these potential developments, Justin championed a public and private sector outreach strategy and conducted extensive outreach with shippers, third-party logistics providers, and container shipping lines.

** Prior to joining SRF*



Rich Glen, PE | SRF | Engineering Lead

With over 30 years of experience, Rich Glen has led the roadway design for complex, federally funded transportation projects requiring careful integration of geometry, drainage, traffic operations, and constructability within constrained corridors. He brings proven expertise in advancing roadway concepts from alternatives analysis through preliminary engineering and environmental review, producing clear, technically sound, and agency-ready roadway deliverables that support funding eligibility and long-term implementation. Rich's background includes extensive coordination with railroads, state DOTs, and federal agencies, and his disciplined approach to roadway design ensures that the N 28th Street Grade Separation Project balances safety, operations, and cost while positioning the project for successful progression into final design and construction.

Areas of Specialty

- Project Management
- Stakeholder Engagement
- Preliminary & Final Design
- Municipal Utility Design
- Environmental Documentation
- Utility Coordination
- Program Management

Education

Bachelor of Science, Civil & Environmental Engineering, University of Wisconsin-Madison, 1995

Registration

Professional Engineer:
Wisconsin #26246

Project Experience

CTH M, Belmont Road to USH 41, Brown County, Wisconsin. Rich was the project manager for this major corridor improvement project that converted approximately two miles of rural highway into a four-lane divided urban roadway through the Villages of Howard and Suamico. Key features included six multilane roundabouts, extensive geometric and profile improvements, storm sewer and drainage systems, retaining walls to minimize right-of-way and environmental impacts, and multimodal accommodations. The project also included the reconstruction of two at-grade railroad crossings involving two different railroad companies, requiring close coordination to integrate roadway geometry, drainage, and construction staging with railroad operations.

West Green Bay Street, Wolf River to Main Street, City of Shawano, Shawano County, Wisconsin. Rich was the project manager for this urban street reconstruction project involving approximately 0.3 miles of deteriorated concrete pavement within a constrained downtown corridor. The roadway design included full pavement replacement, profile refinements, storm sewer improvements, and enhanced bicycle and pedestrian accommodations, including intersection design features that integrated the City's designated bicycle loop into the corridor. Roadway improvements were closely coordinated with concurrent water main and sanitary sewer replacement, requiring careful alignment of pavement structure, drainage, and utility staging to maintain access and minimize disruptions. Rich led roadway geometry, multimodal integration, and cross-discipline coordination to deliver a durable and community-responsive urban roadway solution.

CTH EE (Weeden Creek Road), CTH OK to S 12th Street – City of Sheboygan, Wisconsin. Rich managed the design of this \$5 million urban reconstruction project involving approximately 1.25 miles of CTH EE. Roadway design elements included curb and gutter, bike lanes, sidewalks, ADA compliant curb ramps, street lighting, and geometric improvements to enhance access for adjacent businesses, neighborhoods, and Jackson Elementary School. The project incorporated a new storm sewer system and detention pond designed to meet WDNR and local stormwater requirements, along with pavement design supported by life cycle cost analysis. Extensive coordination was required among Sheboygan County, the City of Sheboygan, the Town of Wilson, utilities, and regulatory agencies, including completion of public involvement, environmental documentation, and final PS&E. Rich supported roadway design development, multimodal integration, and cross agency coordination throughout project delivery.



Casey Black, PE | SRF | Structures Lead

Casey is a Structures Project Director with over 20 years of experience in SRF's Structures Group. He has managed more than 50 projects for state and local agencies through design efforts involving local, state, and federal funding requirements. Casey works to establish a clear understanding of the project goals with clients to better determine how design can be advanced to achieve success for each project. His project management technique includes close coordination with the client, so the design team and owner clearly understand the direction of the project throughout the process. He considers early and thorough agency coordination to be critical to ensuring all project parameters are understood and met. Casey has been involved in bridge design projects including rehabilitations, replacements, and new construction in Minnesota, Wisconsin, and North Dakota. He brings a clear understanding of the City's goals and how design can be advanced to achieve success. He demonstrates a proven track record of delivering similar projects and has developed tools which simplify the BNSF Railway review and approval process through concise communication and proactive outreach.

Areas of Specialty

- Railroad Grade Separations
- River Crossings
- Highway Bridges
- Pedestrian/Trail Bridges
- Bridge Type Studies
- Bridge Feasibility Studies
- Retaining Walls
- Tunnels
- Parking Structures
- Miscellaneous Structure Design
- Construction Oversight

Education

Bachelor of Science in Civil Engineering, University of Minnesota, 2005

Registrations

Professional Engineer:
Wisconsin #43114-6, Minnesota #49163, North Dakota #8902

Project Experience

County Road C Bridge Replacement over BNSF Railway, Roseville, Minnesota. Project Manager for this locally led federally funded project. Tasks included a type study, preliminary and final design, BNSF approvals and agreements for construction. Bridge No. 62675 is a two-span precast concrete beam bridge over the BNSF Railway.

Dakota-Edgewood Trail over BNSF, St. Louis Park, Minnesota. Project Manager for this locally led federally funded project for a new 0.28-mile-long trail bridge (BR No. R0823). Tasks included a type study, preliminary and final design, BNSF approvals and agreements for construction. Casey managed NEPA documentation, ROW acquisitions, public engagement and other critical design tasks for the City, including construction administration.

CSAH 92 / TH 12 Interchange & BNSF Railway Grade Separation, Independence, Minnesota. Design Lead for this locally led federally funded project. Tasks included a type study, preliminary and final design, BNSF approvals and agreements for construction. Bridge No. 27316 is a three-span precast concrete beam bridge over TH 12 and the BNSF Railway.

Hanson Blvd. BNSF Grade Separation, Coon Rapids, Minnesota. Design Lead for this locally led federally funded project. Tasks included a type study, preliminary and final design, BNSF approvals and agreements for construction. Designs included two bridges over BNSF and a local road (BR Nos. 02588 & 02589), six mechanically stabilized earth (MSE) retaining walls and an underpass bridge through the new embankment (BR No. 02J49).

Jackson Street Bridges Preliminary Design, St. Paul, Minnesota. Project Manager for the development of preliminary plans and construction cost estimates for three Jackson Street bridge replacements (BR Nos. 5664, 90408 & 90409). 30% Bridge approvals and agreements were completed with the BNSF Railway Co.

55th Street BNSF Grade Separation, Minot North Dakota. Design Lead for this locally led federally funded project. Tasks included final design and BNSF approvals and agreements for construction. Bridge No. 62675 is a ten-span precast concrete beam bridge over BNSF's Gavin Yard that considered future track expansion and included a mechanically stabilized earth (MSE) retaining wall to retain the south bridge approach.



Rachel Burnham, PE | | Environmental Review Lead

Rachel is an enthusiastic and dedicated expert design engineer and environmental specialist. She has over 17 years of experience and has led environmental documentation efforts for a wide range of transportation and infrastructure projects in both rural and urban settings, coordinating with federal and state agencies, including the FRA, FHWA, and

WisDOT. She has worked on rural and urban freeways, tight urban corridors, ADA-compliant pedestrian facilities, and bicycle accommodations. Rachel is familiar with all aspects of design projects from conceptual layouts to final construction documents. She understands the importance and timing of impact analysis, environmental review, permitting, and agency and utility coordination.

Areas of Specialty

- Environmental Documentation
- Roadway Design
- Civil 3D
- Agency Coordination
- Utility Coordination
- Public Involvement
- Corridor Studies

Education

Bachelor of Science in Civil Engineering, University of Missouri, 2009

Bachelor of Arts in Design Arts, Drury University, 2007

Registration

Professional Engineer:
Wisconsin #43588-6

Project Experience

[WisDOT US 51 North Stoughton Road Study, Madison, Dane County, Wisconsin](#). Rachel served as a design engineer for this comprehensive corridor study. She was one of the main authors of the EA environmental document and applied her expertise in environmental design and NEPA processes to perform a range of tasks, including detailed alternative analysis review, noise analysis, access management studies, demographic outreach, and agency coordination.

[CTH SN Reconstruction, La Cross County, Wisconsin](#). Rachel served as the lead design engineer for this 3.5-mile rural-to-urban roadway reconstruction project delivered through the WisDOT local program. She oversaw the environmental process, including preparing the categorical exclusion document. The project involved archaeological and historical surveys as well as hazardous materials assessments. She also successfully navigated Section 4(f) de minimis and Section 6(f) requirements for properties along this corridor. The project involved complex utility relocation and targeted public involvement with many property owners.

[City of Madison CTH M Reconstruction and Ice Age Junction Train, Wisconsin](#). Rachel served as a design engineer for the 0.7-mile Ice Age Junction trail extension and was a key contributor to the Environmental Assessment and FONSI for this \$50 million urban expansion from two to six lanes. Rachel performed noise analysis and modeling and assisted with the overall environmental documentation agency coordination. Additionally, she navigated complex Section 4(f) and 6(f) requirements and evaluations for impacts to the University Ridge Golf Course, historic farmsteads, and the Ice Age National Scenic Trail.

[STH 130 over Wisconsin River, Lone Rock, Wisconsin](#). Rachel served as a design engineer for this award-winning project, one of the first design-build initiatives delivered for WisDOT. The project involved an accelerated schedule and complex site constraints, requiring close contractor coordination to provide near-complete quantities early in the design process. Her work spanned both the procurement and design-build phases.

[Dane County, STH 19 Reconstruction, Waunakee, Wisconsin](#). Rachel served as the lead design engineer for this complex reconstruction project that transitioned a rural corridor into an increasingly urban landscape. She led the design for two signalized intersections, a raised median, complex staging, curb ramps, and deep culvert pipes. She completed the environmental document and navigated the challenges of a changing scope due to rapid adjacent development.

[WisDOT Northwest Region US 53 Study, Douglas County, Wisconsin](#). Rachel served as a design engineer for a 6-mile urban and suburban arterial corridor along US 53 in the City of Superior. Rachel conducted geometric and operations analysis to identify mobility and safety improvements. Her work included traffic data collection, crash vetting, and the development of conceptual design alternatives to support the corridor's long-term modernization.



Paul Chellevoid, AICP, GISP | SRF | NEPA Process & Grants/Funding

Paul is the Director of the Funding and Grants Practice at SRF and an AICP certified planner with more than 23 years of experience leading transportation and environmental projects across the Midwest. He is an experienced grant writer and project manager who has developed winning applications for MPDG (Rural, Mega, INFRA), FASTLANE, BUILD/RAISE/TIGER, SS4A, Reconnecting Communities Pilot Program, SMART, Railroad Crossing Elimination Program, BIP, BIP (Large Bridge), and CRISI applications. He also serves as a Funding Plan and Strategy Advisor for three state DOTs including WisDOT, SDDOT, and MnDOT. Paul played a key role in the Blatnik Bridge INFRA application, which was awarded \$1.08 billion, the single largest INFRA award in US History. During this project, Paul also prepared the executed grant agreement and also assisted with BIP Large Bridge and Mega Grant applications.

Areas of Specialty

- Project Management
- Funding Strategy
- Grant Writing
- Project Prioritization
- Demographic Analysis

Education

Bachelor of Geography,
University of Wisconsin-
Oshkosh, 2001

Certification

American Institute of Certified
Planners #026626

Relevant Projects

- Project Manager, On-Call Federal Discretionary Grant Writing, 2024-2027, WisDOT
- Project Manager, Tribal IIJA Grant Support and Prioritization, 2023-2026, MnDOT Statewide
- Project Manager, On-Call Grant Support, 2022-2026, SDDOT Statewide
- Project Manager, On-Call Grant Support, 2022-2024, City of Madison, WI
- Project Manager, Project Funding Eligibility and Prioritization Analysis, East Central Wisconsin Regional Planning Commission (ECWRPC), 2024
- Project Manager, State and Federal Discretionary Grant Identification and Prioritization, 2023, City of Minneapolis, MN
- Strategic Advisor, Blatnik Bridge, FY 22-23 BIP (Large), FY 23 Mega, INFRA Grants, WisDOT/MnDOT

Recently Awarded Grants

- 2025/2026 INFRA: \$12.5M, I-43 Safety Rest Areas and Truck Parking Expansions, Denmark, WI, WisDOT
- 2025 BUILD (Round 2): \$22,009,000, SD US 85 over Belle Fourche River, Belle Fourche, SD, SDDOT
- 2025 RAISE (Round 1): \$25M, Building Complete Streets to Serve the Red Lake Reservation and Beyond, Redby, MN, Red Lake Nation
- 2024 ATTAIN: \$5,037,606, Advancing Safety and Emergency Operations through a Regional Connected Vehicle Corridor, Madison, WI, City of Madison
- 2024 RAISE: \$25M, Downtown Appleton – Valley Transit Regional Multimodal Project, Appleton, WI
- 2024 RCE: \$1M, Sioux Falls Railroad Corridor Analysis and Crossing Safety Study, Sioux Falls, SD, SDDOT
- 2023/2024 INFRA: \$1.08B, Blatnik Bridge, Duluth, MN/Superior, WI, MnDOT/WisDOT
- 2023/2024 INFRA: \$16,780,703, SD 73 Reconstruction to the Pine Ridge Reservation, SDDOT
- 2023/2024 INFRA: \$24,732,000, US 169 Rural Safety & Mobility Interchange Project, Sherburne County, MN
- 2023 SS4A: \$6,286,748, Forward to Vision Zero, Madison, WI, City of Madison
- 2022 RAISE: \$21.4M, US 12 Morristown to Watauga Project, Morristown, SD, SDDOT
- 2022 RCE: \$4,824,563, CSAH 55 Overpass, Kandiyohi County, MN
- 2021 INFRA: \$61.6M, I-90 Reconstruction Project, several locations in SD, SDDOT



Chris Brown, AICP, PTP | SRF | Bike/Ped Expert

Chris has 13 years of experience planning and engaging with communities while working in the private, public, and nonprofit sectors. Chris' experience spans all facets of the transportation planning field, and his passion is primarily active transportation planning and design. He leads SRF's active transportation service line and coordinates across the company to successfully execute these projects. Chris works to equitably expand mobility options by creatively designing spaces where those of all ages, abilities, backgrounds can travel safely, comfortably, and conveniently by walking, rolling, and biking. Chris' skills are unique as his experience spans large-scale planning efforts, traffic/mobility engineering, and complex pedestrian/bicycle design projects. He understands, and has successfully managed, projects from idea to construction. His planning experiences span nationwide and include planning and designing safe spaces for walking and biking through areawide, corridors, and Safe Routes to School projects. Chris' strengths are in synthesizing complex data, developing creative solutions, and meaningfully communicating to exceed his client partner's expectations.

Areas of Specialty

- Active Transportation Planning
- Pedestrian/Bicycle Design
- Safe Routes to School
- Corridor Planning
- Traffic Operations & Engineering
- Transportation Demand Management
- Urban Design & Placemaking
- Grant Writing
- Community Engagement

Education

Master of Urban and Regional Planning, University of Colorado Denver, 2017

Master of Business Administration, University of Colorado Denver, 2018

Bachelor of Science, Urban Studies, University of Minnesota, 2013

Certifications

American Institute of Certified Planners #32325

Institute of Transportation Engineers, Professional Transportation Planner #810

Project Experience

MnDOT Safe Routes to School Design Assistance Studies, Minnesota. Chris is the project manager for five Safe Routes to School Design Assistance Studies across Minnesota, including: Saint Paul, Richfield, Spring Grove, Hayfield, and Rushford Village. Chris will lead development of planning-level conceptual designs and cost estimates for projects in each community and development of an action plan to implement the recommendations.

MnDOT Pedestrian & Bicycle Design Trainings, Minnesota. Chris is supporting the development of in-person and recorded trainings for MnDOT project managers and designers to learn about the latest pedestrian and bicycle infrastructure treatments. This will include best practice and design guidance for certain infrastructure enhancements and the engineering process of contextually applying certain treatments.

Railroad Grade Separation Study, Mahanomen, Minnesota. Chris managed a study of potential railroad grade crossing locations of a busy CPKC line through the City of Mahanomen within the White Earth Nation. Focus of the study was improving pedestrian and bicycle movements across the railroad, in addition to reducing vehicular delay due to a busy grain facility in town. The study included extensive public engagement, conceptual designs and cost estimates, and implementation plan for grade separation.

Concord Boulevard/Mississippi River Greenway Crossings & 80th Street Trail Gap Projects – Dakota County, Minnesota. Chris was the project manager from planning through final design for crossing improvement and trail gap projects in Inver Grove Heights and South Saint Paul along Concord Boulevard and 80th Street. A total of 22 intersections or mid-block crossing locations were analyzed using the Dakota County Pedestrian Crossing Safety Assessment that Chris and colleagues at SRF produced. The project will include innovative solutions including ten raised crosswalks, two truck aprons, and removal of 11 right turn lanes to calm traffic and reduce crossing distance. Chris facilitated close agency coordination to ensure this project was supported by all partners.

Pedestrian Crossing Safety Assessment – Dakota County, Minnesota. Chris was the lead planner for the development of customized pedestrian crossing guidance in Dakota County. This data-driven process included a before and after study of five crossings using demonstration projects to develop a data collection and evaluation process, matrix, and guidance of how to approach pedestrian crossing enhancements for roadways of all types (number of lanes, speeds, and traffic volumes). The localized guidance created by Chris is one of only a few examples nationwide and has been successfully leveraged by county staff for all planning and design review processes.

MnDOT District 3 Freight Plan – Central Minnesota. Chris was the lead planner for MnDOT District 3's Freight Plan which organized short- and long-term infrastructure improvements to better support freight movement and the local economy. He analyzed existing conditions data, identified areas of need, and produced a prioritized list of freight projects for implementation. The issue analysis and project prioritization process were completed using Excel and ArcGIS tools to quantitatively devise and visually illustrate several evaluation measures and scenarios. He presented findings to MnDOT staff and facilitated discussions with local stakeholders. Chris served as the lead author of the District 3 Freight Plan.



Noah Leonard, PE, RSP, I Traffic Analysis

Noah's work focuses on traffic operations & safety analysis, traffic impact studies, work zone analysis, benefit-cost analysis, and engineering visualization. He's passionate about transforming complex data into clear, actionable insights that enhance safety, efficiency, and decision-making. Whether evaluating the performance of a corridor, assessing the impacts of new development, or visualizing engineering concepts for stakeholders, he strives to deliver practical, reliable solutions.

Areas of Specialty

- Traffic Operations Analysis
- Traffic Safety/Crash Analysis
- Traffic Data Analysis
- Traffic Impact Analysis
- Traffic Management Planning
- Work Zone Analysis
- Microsimulation Analysis
- Engineering Visualization
- Benefit Cost Analysis

Education

Bachelor of Science in Civil Engineering, University of Wisconsin – Madison

Registration

Professional Engineer:
Minnesota #64915

Certifications

Road Safety Professional: Level
1 #1768

Project Experience

[I-41 Corridor Expansion, Northeast Region, Wisconsin.](#)

Expansion Study: Noah played assisted in the comprehensive evaluation of Interstate 41 in Appleton and De Pere, Wisconsin, which included seven interchanges along the corridor. He contributed to the completion of Phase I and Phase II Intersection Control Evaluations (ICE) for each interchange, performing detailed traffic operations and safety analyses to identify optimal control selections and improve network performance.

Final Design: Noah supported the development of advanced microsimulation models for both existing and future traffic conditions along the I-41 corridor. His work included creating a preferred build alternative at the I-41 and Ballard Road (CTH E) interchange, where he led detailed modeling efforts for a Diverging Diamond Interchange (DDI). This involved building and calibrating the PTV Vissim model, analyzing operational performance, and generating comprehensive output reports to guide design decisions.

[Blatnik Bridge Preliminary Engineering, Superior, Wisconsin/Duluth, Minnesota.](#) Noah contributed to the joint project efforts between the Minnesota Department of Transportation (MnDOT) and Wisconsin Department of Transportation (WisDOT) focused on addressing structural concerns and planning for the future replacement of the John A. Blatnik Bridge. His responsibilities included delivering microsimulation models for the future, and full build-out traffic scenarios. Additionally, he performed intersection control evaluations and interchange configuration assessments for the I-535 touchdown point in Superior, Wisconsin. Noah also supported efforts in preparing and delivering the Environmental Assessment documentation for the project.

[I-90/94 Cranberry Interchange Design-Build, Tomah, Wisconsin.](#) Noah worked directly with the design-build team to assist in the development of traffic control philosophies and staging plans. He was the lead engineer responsible for the traffic management plan (TMP) documentation, which involved the completion of all analysis, allowing him to work directly with design staff in vetting traffic control schemes.

[USH 51 Corridor Study, Dane County, Wisconsin.](#) Noah contributed to the Wisconsin Department of Transportation's evaluation of a 5.2-mile reconstruction corridor along US 51/Stoughton Road. He developed PTV Vissim microsimulation models for existing, future, and preferred alternative build-out traffic conditions using Dynamic Traffic Assignment (DTA) methodologies. Noah collaborated with the project team to deliver Phase I and Phase II Intersection Control Evaluations (ICE), which included Synchro11 and HCS 2023 analyses, crash evaluations, and comprehensive documentation of the ICE process. Additionally, he led efforts in engineering visualization, creating detailed visual representations of proposed alternatives, enhancing stakeholder decision-making.

[Traffic Management Planning, Various, Wisconsin.](#) Noah led the delivery of nearly two dozen unique WisDOT Transportation Management Plans (TMP) across four different WisDOT regions. In addition to these WisDOT TMPs, Noah has also led the analysis and documentation efforts to support the delivery of two MnDOT TMPs. These TMP efforts involved both conventional design-bid-build and design-build project processes, involving interstates, state highways, county highways, and local roads. Noah's efforts involve analyzing operational and safety conditions of traffic control staging using WisDOT-approved analysis tools such as Synchro, HCS, WZTAT, and RUC calculators. Noah works directly with design staff to refine staging concepts and deliver all TMP-related supporting documentation and analyses.



Mike Jischke, PLA, ASLA | SRF | Landscape Architecture/Visuals

Michael has 26 years of experience in landscape architecture. His work has focused on designing vibrant public spaces and corridors in urban, suburban, and natural settings. He is skilled at creating a cohesive design that incorporates careful analysis of the site and surroundings, building massing, pedestrian and vehicle movement, stormwater treatment, and landscape features. He also specializes in bridge and wall aesthetics design and overall visual quality. Through careful attention to design detail, Michael strives to create designs that are both experientially memorable and functionally sound.

Areas of Specialty

- Landscape Architecture
- Transit Facilities Design
- Streetscape and Urban Design
- Bridge and Wall Aesthetics
- Visual Quality
- Visual Impact Assessment
- Site Planning
- Parks and Recreation

Education

Master of Landscape Architecture, University of Minnesota, 1999

Bachelor of Science in Architecture, University of Michigan, 1995

Registration

Professional Engineer:
Minnesota #63469

Project Experience

Kellogg Boulevard Bridge Reconstruction, St. Paul, Minnesota. For this significant connection between Lowertown and the Dayton Bluff Neighborhood which spans a railroad and nature area, Michael led the bridge aesthetics concept development. He designed unique pier forms that incorporate Dakota cultural symbology for the project which is in close proximity to the Mississippi River and sacred indigenous sites. He also worked with an artist to develop natural and cultural themes for special pedestrian railing panels that enhance the user experience of the new trails on the bridge which afford broad views of the surrounding landscape and St. Paul's skyline.

Highway 243 River Bridge, Osceola, Wisconsin. For this cooperative MnDOT/WisDOT project that is located within the Lower Saint Croix National Scenic Riverway, Michael had two main roles. Following the FHWA methodology, he prepared the Visual Impact Assessment during the alternatives evaluation phase which included establishing key views and selecting the recommended alignment. He also led the development of the Visual Quality Manual and 3D visualizations for the preferred bridge alternative that illustrated aesthetic features of piers, abutments, railings, and landscaping.

TH 13 Reconstruction, Savage, Minnesota. For this heavily traveled highway and freight corridor in the south metro area paralleling the Minnesota River, Michael developed the Visual Impact Assessment and provided objective feedback on preliminary alternative layout options. In addition to the highway, this work includes evaluating the project's effects on Downtown Savage and adjacent neighborhoods. Work has involved looking at the project from multiple perspectives – as a pedestrian, motorist, and resident – to establish key viewsheds for design evaluation. In addition, he led the development of the Visual Quality Manual that provided design guidelines for bridge and wall aesthetics, streetscape, and landscape features.

Interstate 90 Interchange and River Crossing, Dresbach, Minnesota. For this key transportation artery and unique natural setting, Michael developed conceptual designs for pier forms and aesthetic treatments for multiple bridge and wall types that sensitively respond to the dramatic Mississippi River Valley landscape as a cohesive family. He presented design concepts to the Visual Quality Advisory Committee and developed the Visual Quality Manual. He also coordinated a new state entry sign location and reforestation of roadside and riverfront areas.

West Waterfront Promenade, Sturgeon Bay, Wisconsin. Working with local engineer Cedar Corporation, Michael led the space planning and landscape design for a new public waterfront near downtown on an existing brownfield site. The proposed design reinterprets the rocky Door County shoreline in a modern aesthetic with walking paths and a prominent central overlook. The design is integrated with the adjacent Door County Maritime Museum and accommodates an active tugboat operation that is unique to the Sturgeon Bay economy. The project opened to the public in summer 2021.

Old Cedar Avenue Trailhead, Bloomington, Minnesota. Located at the gateway to the Mississippi National Wildlife Refuge and the historic Old Cedar Avenue Bridge, the new trailhead facility includes a picnic shelter and restroom building, parking, wayfinding, and interpretation. Michael led the site and landscape design that incorporates native plant material and unique use of stone in signage and seating features to create a rugged but refined character that fits the surrounding natural environment.



Matt Flanagan | SRF | Benefit-Cost Analysis (BCA)

Matt is a Transportation Engineer with significant experience in traffic safety analysis, data analytics, traffic operations analysis, benefit-cost analysis, data collection, and data visualization. He gained this valuable experience through work on projects for WisDOT, MnDOT, SDDOT, and IDOT, and on other projects across Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, and Illinois. Matt has extensive project experience working with Synchro/SimTraffic, MS Excel, HCS, SIDRA, IHSDM, and Tableau. As a lead benefit-cost analyst, Matt has helped clients secure over 1.4 billion dollars in federal grant funding.

Areas of Specialty

- Benefit-Cost Analysis
- Traffic Safety Analysis
- Traffic Operations Analysis
- Data Analysis and Visualization
- HCM Application using Synchro and HCS Software
- Traffic Forecasting
- Traffic Engineering
- Intersection Control Evaluation
- NEPA Studies
- Roundabout Analysis and Layout
- Data Collection
- Traffic Impact Analysis

Education

Master of Science in Engineering, University of Wisconsin – Milwaukee, 2018

Bachelor of Science in Physics, University of Wisconsin – La Crosse, 2016

Professional Certificate in Artificial Intelligence (AI Prompting), University of Wisconsin – Madison, 2025

Registration

Professional Engineer:
Minnesota #64915

Certification

Road Safety Professional: Level 1 #1768

Project Experience

Benefit-Cost Analysis, Midwest. Matt performs benefit-cost analysis and, as a lead analyst, has helped clients secure over 1.4 billion dollars in federal grant funding. His work involves analyzing project impacts, project costs, and documenting results. Matt's analysis specialties include quantifying project impacts to safety performance, travel time, vehicle operating costs, air quality impacts, and quality of life impacts. Primary clients include WisDOT, MnDOT, SDDOT, and Tribal Nations.

Blatnik Bridge Preliminary Engineering, Superior, Wisconsin/Duluth, Minnesota. The Minnesota Department of Transportation (MnDOT) and Wisconsin Department of Transportation (WisDOT) worked jointly toward a future project that addresses concerns about the condition of the John A. Blatnik Bridge, resulting in its future replacement. Matt performed the benefit-cost analysis to secure the largest INFRA grant in US history. Analysis involved quantifying project costs and user impacts and documenting results. Additional project involvement included leading traffic operations and traffic safety analysis to aid in the selection of the interchange configuration for the Blatnik Bridge termini in Superior, WI, and assisting with the development of the traffic management plan (TMP) to understand and mitigate traffic impacts during construction.

US 51 North Study, Wisconsin. Lead traffic engineer for the development of a five-mile urban IHSDM model with 13 intersections. Matt developed documentation to support the conclusions of the predictive safety analysis conducted on both the No Build and Build Alternative. He served as the lead traffic engineer on nine Intersection Control Evaluations (ICE) along US 51 and developed Tableau dashboards to document and analyze historical crash data in the project area.

I-41 Expansion Study, Appleton, Wisconsin. This project involved the evaluation of 25 miles of Interstate 41 in Appleton, WI, and De Pere, WI, as well as the evaluation of eight interchanges along I-41. Matt served as lead engineer in developing predictive safety analysis models using IHSDM to quantify the safety impacts of the preferred alternative. He served as the lead engineer on the completion of Phase I and Phase II Intersection Control Evaluation (ICE) for each interchange, involving both traffic operations and safety analysis.

WisDOT Southeast Freeway Benefit-Cost Analysis Update, Milwaukee, Wisconsin. Lead traffic engineer for a safety study on the Mitchell Interchange in Milwaukee, Wisconsin. Tasks included data collection, creating models of the Mitchell Interchange in IHSDM, model calibration, and documentation of results.

WisDOT SE Region Safety Certifications, Wisconsin. Lead traffic engineer for safety studies on 10 corridors in SE Wisconsin. Tasks included developing IHSDM models, data collection, data analysis, and documentation of results in accordance with WisDOT standards.

Space Florida Intelligent Automation AI Powered Mobility Management. Matt served as lead engineer supporting Unified Dataset preparation for this R&D initiative with Space Florida to develop, deploy, and manage a pilot of MnDOT's Traffic Management as a Service (TMaaS) system in Central Florida. TMaaS is an AI-driven platform that ingested traffic and related data to build network-level awareness. The system predicted traffic issues and, through an AI-based Decision Support System (DSS), generated plans to mitigate or prevent these issues.

Traffic Engineering Work Orders, Middleton, Wisconsin. Traffic engineer for 15 traffic engineering work orders as part of a master contract for the City of Middleton. Tasks included traffic data collection, trip generation and assignment, traffic operations analysis, crash analysis, preparation of exhibits, and documentation for traffic impact analysis (TIA) studies and corridor studies within the City.



Nicole Zapetillo, CMWP | SRF | Wetland Scientist

Nicole has 18 years of experience in wetland science and environmental planning. Her extensive environmental experience includes completing numerous field and office wetland delineations and reports, wetland permitting, and writing and reviewing NEPA documentation for primarily highway and trail projects. Her work at SRF includes wetland delineation/reports, wetland permitting, preparation of federal and state environmental documents, and GIS data management and mapping.

Areas of Specialty

- Wetland Delineations
- Wetland Permitting
- ArcGIS
- NEPA Documentation
- Environmental Assessments
- Environmental Assessment Worksheets
- Categorical Exclusion Actions/Determinations

Education

Bachelor of Science in Environmental Studies, Concordia College-Moorhead, 2007

Certifications

Minnesota Wetland Delineator Certification Program #1373

Project Experience

TH 210 and I-94 Interchange, Fergus Falls, Minnesota. Assisted with an office wetland delineation and completed wetland permitting for improvements to the TH 210 and I-94 interchange.

US 14 and CSAH 44 Interchange, Olmsted County, Minnesota. Completing wetland permitting, wetland mitigation support, and agency coordination for a new interchange on US 14 and realignment of a segment of Olmsted CSAH 44.

TH 212 Benton Township, Carver County, Minnesota. Completed wetland permitting and agency coordination for a two-lane to four-lane roadway reconstruction between Cologne and Norwood Young America.

TH 200 Mahnomen to Roy Lake, Mahnomen County, Minnesota. Completed a field wetland delineation, delineation report, wetland permitting, and agency coordination for approximately 18.5 miles of state highway within the White Earth Reservation.

TH 212 Carver to Cologne, Carver County, Minnesota. Completed wetland permitting and agency coordination for a two-lane to four-lane roadway reconstruction between Carver and Cologne.

Dayton Parkway / I-94 Interchange, Dayton, Minnesota. Completed agency coordination and prepared a wetland permit application for a new roadway segment and interchange on I-94.

Carver CSAH 44 from TH 212 to Cascade Drive, Chaska, Minnesota. Completed a field wetland delineation, delineation report, wetland permitting, and agency coordination for a new interchange on TH 212 and CSAH 44 improvements.

MnDOT TH 53 Unbonded Concrete Overlay, Saint Louis County, Minnesota. Completed an office and field wetland delineation, delineation report, wetland permitting, and agency coordination for an 8.8-mile segment of TH 53.

MnDOT I-35W North Corridor from TH 36 to Sunset Avenue, Minnesota. Completed a field wetland delineation, delineation report, and agency coordination for a 12.3-mile segment of I-35W.

MnDOT I-35 Unbonded Concrete Overlay, Pine County, Minnesota. Completed a field wetland delineation, delineation report, and agency coordination for entire 22 mile corridor and assisted with the Categorical Exclusion and wetland permitting for a 12 mile segment of I-35.



Andrew Toay, PE | SRF | Drainage Engineer

Andrew has thirteen years of water resources, civil, and municipal engineering experience. Andrew has experience in all phases of the design process including survey, stormwater management, preliminary design, final design, drafting, plan preparation, cost estimates, specifications, permitting, bidding, construction observation and construction administration. Throughout his career, Andrew has collaborated with both private and public sector stakeholders to complete a wide variety of roadway and site designs and solve complex drainage problems throughout Wisconsin, Minnesota, and the Midwest.

Areas of Specialty

- Water Resources Engineering
- Civil Engineering
- Construction Administration

Education

Bachelor of Science in Civil Engineering, University of Wisconsin – Milwaukee, 2013

Registrations

Professional Engineer:
Wisconsin #45855-6, Minnesota
#56747, Nebraska #E-17872,
South Dakota #14449, Illinois
#062.072844

Project Experience

STH 59 (East Waukesha Bypass) Storm Sewer Design, Waukesha, Wisconsin. Andrew was SRF's project manager and lead storm sewer designer for this nearly 2-mile, urban storm sewer design. The storm sewer design has navigated several utility conflicts, temporary storm sewer design for complex construction staging, WNDR and Army Corps of Engineering permitting, and extensive coordination with the City of Waukesha to relocate a major storm sewer outfall. SRF has pioneered the use of Analyze Gravity Network, a storm sewer design tool within AutoCAD Civil 3D, to complete the design. The project is scheduled to complete construction in 2026.

WisDOT Southeast Region Environmental Services, Wisconsin. SRF has been working with the WisDOT Southeast Region since May 2020, and Andrew has served as the project manager and primary point of contact for this contract. Andrew has been working in this role essentially as an extension of their group, providing design support and expertise as needed. The work has included storm sewer design, hydrologic and hydraulic modeling, flooding analysis, channel analysis and design, and project reviews. Andrew has excelled at communicating and understanding the client's needs to create a unique, tailor-made approach to each project, right sizing the effort, and deliver desirable project that meets the project goals and budget needs.

Wausau Downtown Mall Redevelopment, Wausau, Wisconsin. Andrew was the lead stormwater engineer for this downtown redevelopment that transformed a former shopping mall into a city plaza. Andrew designed the stormwater infrastructure that included storm sewer and an underground sedimentation basin. He also completed HydroCAD and WinSLAMM modeling and facilitated the WDNR permitting for the project.

La Crosse County CTH SN Reconstruction, Wisconsin. Andrew was a stormwater design engineer for this 3.5-mile, two-lane rural-to-urban roadway reconstruction project. The project included a bridge replacement for the structure over the Sand Lake Coulee Creek, design of new storm sewer network, and culvert crossings. The corridor receives runoff from more than 400 acres of wooded hillsides and farm fields and required the creation of a regional XP-SWMM model to perform the hydraulic analysis of the creek, culvert crossings, and ditches.



Alex Chapla, PE | SRF | Hydrology Engineer

Alex has 11 years of experience in water resources engineering. His projects include hydrologic and hydraulic modeling, hydraulic bridge analysis, bridge scour analysis, preliminary and final drainage design, and stream restoration design. He has a well-rounded understanding of engineering design procedures, floodplain, hydraulic bridge, and culvert modeling, and stream restoration principles. He previously worked at an environmental consultant firm where he designed and managed numerous stream restoration projects, as well as at the Wisconsin Department of Natural Resources where he provided technical review of plans and preliminary studies for habitat, stream, and coastal restoration projects. His software experience includes HEC-RAS, FHWA Hydraulic Toolbox, HY-8, HydroCAD, PCSWMM, Rivermorph, AutoCAD Civil 3D, and ArcGIS Pro.

Areas of Specialty

- Hydrologic Modeling
- Hydraulic Modeling
- Scour Analysis
- Preliminary and Final Drainage Design
- Stream Restoration Design
- Civil 3D Production

Education

Master of Environmental Engineering, North Carolina State University, 2014

Bachelor of Biological and Agricultural Engineering, North Carolina State University, 2013

Registrations

Professional Engineer:
Wisconsin #49970, Minnesota #61799, North Dakota #41087, Virginia #0402058726

Project Experience

WisDOT Scour Analysis, Statewide, Wisconsin. Alex prepared hydraulic models and HEC-18 scour analyses for 27 bridge crossings as part of an ongoing contract with the WisDOT Bureau of Structures. Many of these were double interstate crossings requiring bridges to be modeled as separate structures in HEC-RAS. Each of the crossings required data collection from LiDAR sources and HSI, initial model layout and data compilation, creation of an existing conditions HEC-RAS model, HEC-18 contraction and pier scour and NCHRP abutment scour computations, including cohesive soil scour calculations, scour analysis report preparation, and completion of WisDOT BOS Scour Appraisal and Level 2 Scour Report forms.

US 12 Bridge Replacement, Eau Claire, Wisconsin. Alex is currently performing hydrologic computations to use in the hydraulic sizing effort for the replacement B-18-0113 over Otter Creek. He completed gage comparison analysis and regression equation computations to explore a range of potential design flows. He also coordinated with the WisDOT Bureau of Structures, Wisconsin DNR, FEMA, and Eau Claire County to locate flood data from an atypical hydraulic model for the stream reach. Once a design flow has been selected, Alex will work with the SRF structures group to model proposed bridge alternatives in HEC-RAS and prepare scour computations as well as a sizing report.

Local Program Bridge Replacements – CTH JJ in Dane County, 1005th Avenue in Pierce County, and 205th Avenue in Chippewa County, Wisconsin. For these three projects Alex coordinated with SRF roadway and structure design teams to prepare Structure Sizing Reports for proposed bridge replacements. This effort involved preparing hydrologic reports utilizing several methods of design flow determination including regression equations and gage data basin comparison. The selected design flow was presented selected results to BOS for approval and used to create existing HEC-RAS models incorporating LiDAR and topographic survey data to establish existing hydraulic conditions for the crossings. Coordination with the structures design team occurred to determine proposed structure sizes, and proposed conditions models were created for comparison to existing conditions. The hydraulic openings were revised as needed to ensure No-Rise conditions and HEC-18 scour computations were performed for the proposed bridge conditions. Additional efforts involved preparation of various Structure Sizing Report components, including contour plans, county and location maps, photo logs, sizing reports, and model output documents. Of note, CTH JJ required additional modeling of multi-cell box culvert alternatives. 1005th Avenue also involved an atypical riprap berm design that was tied into a regraded drainage ditch. The ditch was additionally modeled for capacity and shear stress analysis. 205th Avenue necessitated the sizing of a temporary bypass structure in accordance with the Wisconsin Bridge Manual due to ADT and detour route conditions.

WisDOT Review of Hydraulic Analysis, Statewide, Wisconsin. Alex is currently performing reviews of hydraulic analyses, scour computations, and sizing reports for numerous bridge structures on behalf of the WisDOT Bureau of Structures. Current tasks include reviewing Structure Survey Reports and associated documents for accuracy and completeness, general design elements of bridge openings as they relate to hydraulic efficiency, HEC-RAS models for correct modeling practices and accurate documentation of results, and scour computations for sound analysis and interpretation of output. Additional tasks include preparing summary documents to record review observations and coordinating with bridge structure design consultants to ensure comments are addressed and that their bridge plans and hydraulic models are updated correctly.



Curt Sohn, PSP, PMP | Constructibility & Risk

With 30 years of project management, cost estimating, scheduling, and risk management experience on infrastructure projects, Curt leads SRF's project controls practice. He has worked as both a consultant and contractor on a wide range of challenging transportation projects and has extensive experience with cost estimating software, Primavera P6 scheduling and risk management. Curt has developed cost estimates and schedules for multiple transportation, transit and public works projects, including projects in excess of \$1 billion in value. He also draws on his background as a contractor to provide informed reviews of staging and constructibility, working in collaboration with SRF design teams.

Areas of Specialty

- Project Management
- Scheduling
- Cost Estimates
- Design-Build
- Construction Manager/General Contractor
- Independent Cost Estimates
- Claims Review, Expert Witness
- Partnering Facilitation

Education

Bachelor of Science in Business Administration and Construction Management, Mankato State University, 1996

Certifications

Planning and Scheduling Professional (PSP), AACE International, 2010

Project Management Professional (PMP), Project Management Institute, 2012

Project Experience

[IndyGo Blue Line BRT Construction Management, Indianapolis, Indiana](#). As a subconsultant, SRF is providing risk management, independent cost estimating and schedule control services. SRF reviewed the 90% capital cost estimate and will develop a production-based estimate at 100% design. Curt led the development of the project master schedule which includes a detailed construction time schedule. Curt will lead reviews of the contractor schedule for both the civil and stations construction packages and provide quality review for independent cost estimates.

[MDOT M-63/I-94B CM/GC Independent Cost Estimator, St. Joseph, Michigan](#). Curt is project manager that is leading the independent cost estimating, risk management and cost resolution at 60%, 90% and 100% design. This urban reconstruct project includes full roadway and public reconstruction through downtown St. Joseph.

[IDOT Independent Cost Estimating On-Call, Chicago, Illinois](#). As a subconsultant, SRF is providing independent cost estimating and schedule control services for the Innovative Project Delivery On-Call Contract. SRF is assisting in the independent cost estimating work on three projects. Curt will lead the SRF team in cost estimating, scheduling and perform quality review of estimates.

[County Engler Boulevard & TH41, Chaska, Minnesota](#). Curt led the development of a construction time schedule to determine the preferred staging, and reviews of the constructor's baseline schedule, monthly updates and impact schedules. Reconstruction of Engler Blvd from Prescott Ln to Old Audubon Rd. The project included turbo roundabouts, retaining walls, box culverts, watermain, storm sewer, curb and gutter, ADA ramps, trails, street lighting, settlement plate monitoring, concrete paving and watermain jacking.

[MnDOT HWY 243 Osceola Bridge Replacement, Franconia Township Minnesota](#). Curt developed the consultant preliminary design and environmental review activities that were integrated into the MnDOT schedule and provided regular updates. He also led the constructibility review team that developed independent production-based estimates and CPM construction time schedules and authored the constructibility report. He also developed MnDOT's risk register and assigned cost and schedule values to support a risk-based estimate.

[Anoka County TH 10 Ramsey Gateway, Ramsey, Minnesota](#). Curt was the project manager that led development of an independent construction time schedule and production-based estimate. The project consists of constructing two interchanges to separate county highways from MnDOT TH 10 and BNSF railway. Curt is also leading reviews of the contractor submitted CPM schedule through construction.

[City of Rochester Bus Rapid Transit, Rochester, Minnesota](#). Lead Scheduler and Risk Manager. For the first BRT line in Rochester, he developed the master program schedule that includes Owner activities, complete project design, detailed construction time schedule. Curt also led the development of production-based estimates at design milestones and the risk management process including risk register and risk analysis.

[MnDOT 11th St Underpass CMGC, Moorhead, Minnesota](#). Curt was the project manager of the consultant team for the development of the production-based engineers estimates at 30%, 60%, 90% & final design for this project which entails grade separating two high traffic rail lines from a busy roadway. He also participated in risk identification and assigning risk cost and schedule values..



Bill Dreher, PE | Structural Design Oversight

Bill has over 40 years of experience on structure replacement and rehabilitation projects including more than 33 years working at WisDOT Bureau of Structures, initially as a designer and later as the Structures Design Chief, and over 7 years of experience working as a private consultant, including the last four years at SRF where he leads the Wisconsin bridge group. As WisDOT Bureau of Structures Design Chief, Bill administered the statewide program for design and contract plan production for WisDOT bridges and related structures. In this role, he addressed structure design and construction questions and issues, and he was involved in setting WisDOT policy, and writing and interpreting specifications and special provisions related to structures. Bill is the Engineer of Record on over 80 designs for all types of bridges and related structures including replacements, rehabilitations, and repairs, and he has been involved in hundreds of structural projects throughout Wisconsin, teaming with WisDOT staff, other state, local and federal agencies, consultants, contractors, and industry representatives. Bill has worked on bridge projects ranging from small stand-alone stream crossings to multi-span interchange and river crossings, including state border bridges and Mega Project structures. Bill is intimately familiar with BOS's processes, procedures, and policies, as well as the WisDOT project development and delivery process and his unique experience will ensure that The Team provides high quality structure plans that are complete, accurate, biddable, and buildable; resulting in structures that are efficient and durable.

Areas of Specialty

- Railroad Grade Separations
- River Crossings
- Highway Bridges
- Retaining Walls
- Structure Repair and Rehabilitation
- Bridge Type Studies

Education

Bachelor of Science in Civil and Environmental Engineering (Structural Emphasis), University of Wisconsin – Madison

Registrations

Wisconsin #26530-6, Minnesota #58436

Project Experience

USH 14, Madison - Evansville, C Fitchburg N Limit to S Limit, Dane County, Wisconsin. Bill provided project oversight and quality control for the four (4) bridges on this USH 14 project. The structure work included expansion joint replacements, cleaning and painting bearings, concrete surface repair, deck patching, concrete overlay, and wingwall replacement.

I-43 Rock Freeway, STH 164 to Moorland Rd., Waukesha County, Wisconsin. Bill provided project oversight and quality control for the two bridges, two box culverts and two retaining walls on this I-43 freeway project. The structure work included preservation applications, general repair, and wingwall replacement and strapping.

I-41 Reconstruction (Meade St – Holland Rd), Outagamie County, Wisconsin. SRF provided staging design, traffic analysis, signal design, and structure design for the three-interchange and arterial system surrounding the I-41/STH 441 Interchange in Appleton. Bill provided project oversight and quality control for the widening and deck replacement of a 2-span prestressed concrete girder bridge and the replacement of a 200-foot-long concrete box culvert.

IH 94 Cranberry Interchange Design-Build, Monroe County, Wisconsin. SRF is the lead designer as a subconsultant to Hoffman Construction for this WisDOT design-build project. The project is in the towns of Tomah and La Grange, Monroe County, Wisconsin. The Project scope includes replacement of bridges B-41-0024 (IH 94 EB over RAMP IH 90EB-IH 94WB) and B-41-0044 (IH 94 EB over IH 90 WB) at the Tomah system interchange while keeping the existing roadways open to traffic. SRF provided the design and plans for removing and replacing two 3-span haunched concrete slab bridges with new 3-span prestressed concrete girder bridges. Staged removal of the existing bridges required SRF to perform analysis of the existing integral pier caps due to the changed configuration. Bill provided project oversight and quality control for this project.

STH 130 over Wisconsin River, Richland County, Wisconsin. SRF was the lead designer as a subconsultant to Kraemer North America for WisDOT's first design-build project. The project is located on STH 130 at the Wisconsin River Crossing, near the Village of Lone Rock, Richland County, Wisconsin. Bill provided project oversight and quality control for the preliminary and final design of a 1100-foot long, curved, eight-span prestressed concrete beam bridge over the Wisconsin River.

Mega and Major Projects. While at WisDOT, Bill served as BOS's design and construction liaison for the Marquette Interchange, Zoo Interchange, I-794 Hoan Bridge, I94 N-S Corridor, I-41 Corridor, US 10/441, I-39/90, St. Croix Crossing, Blatnik Bridge, Red Wing Bridge, Lansing (Black Hawk) Bridge, Leo Frigo Bridge investigation and repair.



Tim Borowski, PE | Structural Design

Tim has 14 years of experience in numerous structural engineering roles at Wisconsin Department of Transportation (WisDOT) and as a consultant. He has 8 ½ years of experience at WisDOT, including 1 ½ years in the Northeast Region and 7 years in the Bureau of Structures (BOS), where his roles included structural design engineer, consultant review engineer, and Northeast Region liaison. In addition, Tim has 5 ½ years of consulting experience, and at SRF

he works with our 22 structural staff to size, layout, and design structures, detail plans, develop bridge type studies, and address unique design and rehabilitation issues.

Tim has comprehensive knowledge of preliminary and final structural bridge design, Structure Survey Report preparation, the Wisconsin Bridge Manual, Wisconsin Standard Specifications, the Facilities Development Manual, and the AASHTO LRFD, LFD and ASD Bridge Design Specifications. He emphasizes regular communication to ensure that all issues are identified and resolved appropriately to keep projects on schedule. Tim is highly familiar with BOS processes, procedures, and policies, and he maintains strong working relationships with BOS staff. Tim's experience ensures that structures are designed and load rated accurately and that plans are detailed properly to ease construction and meet all the client's needs.

Areas of Specialty

- River Crossings
- Highway Bridges
- Bridge Rehabilitations
- Bridge Type Studies
- Retaining Walls
- Quality Assurance
- Construction Oversight
- Hydrology and Hydraulics
- Pedestrian/Trail Bridges

Education

Bachelor of Science in Civil Engineering, University of Wisconsin, 2010

Registrations

Professional Engineer:
Wisconsin #45180-6, Minnesota
#58521,

Project Experience

[IH 41 Reconstruction \(Meade St – Holland Rd\), Outagamie County, Wisconsin](#). SRF provided staging design, traffic analysis, signal design, and structure design for the three-interchange and arterial system surrounding the IH-41/STH 441 Interchange in Appleton. Tim provided structure design and plan development for the widening and deck replacement of a 2-span prestressed concrete girder bridge and the replacement of a 200-foot-long concrete box culvert.

[IH 94 Cranberry Interchange Design-Build, Monroe County, Wisconsin](#). SRF is the lead designer as a subconsultant to Hoffman Construction for this WisDOT design-build project. The project replaces two bridges at the Tomah system interchange while keeping the existing roadways open to traffic. SRF provided the design and plans for removing and replacing the 3-span haunched concrete slab bridges with new 3-span prestressed concrete girder bridges. Staged removal of the existing bridges required SRF to perform analysis of the existing integral pier caps due to the changed configuration. Tim provided structure design and plan development services for this project.

[BOS Structure Design & Plan Review, WisDOT Statewide](#). Tim assists the Bureau of Structures with the review of consultant prepared final structure plans and designs as an extension of the department. Working on site at WisDOT's Structures Design Office at Hill Farms, his review responsibilities include load ratings, design computations, bid items, constructability, policy compliance, plan completeness, and special provisions. He works closely with staff from the Consultant Review Unit, Ratings Unit, and Structural Development Section, helping identify and resolve potential design and constructability risks prior to letting and promoting consistency in structure plans across the state.

[STH 130 over Wisconsin River, Richland County, Wisconsin](#). SRF was the lead designer as a subconsultant to Kraemer North America for WisDOT's first design-build project. The project is located on STH 130 at the Wisconsin River Crossing, near the Village of Lone Rock, Richland County, Wisconsin. Tim served as Structures Designer responsible for preliminary and final design of a 1100-foot long, curved, eight-span prestressed concrete beam bridge over the Wisconsin River.

Greg Rainka, MS

Terracon Consultants – Environmental Planning Group Manager, Senior Architectural Historian



Greg currently serves as Group Manager in Environmental Planning in the Upper Midwest (WI/IL/MN/MI) for Terracon, and he also is a Senior Architectural Historian. He is new to Terracon as of March 2025 after 10 years with Chronicle Heritage (formerly Commonwealth Heritage Group/Commonwealth Cultural Resources Group). In total, Greg has 18 years of professional experience as an architectural historian, cultural and heritage resources specialist, preservation planner, and project manager. His work primarily involves documenting and facilitating project compliance with federal and state historic preservation and environmental laws and regulations. Greg has overseen hundreds of cultural and heritage resources investigations for projects in the western Great Lakes region. Services provided include managing architectural history and archaeological surveys, National Register of Historic Places evaluations, assessments of project effects on historic properties, and development of mitigation measures and agreement documents for the resolution of adverse effects.

Areas of Expertise

- Cultural and Heritage Resources Management
- Section 106 of the National Historic Preservation Act

Education

- Master of Science, Historic Preservation, The School of the Art Institute of Chicago, 2008
- Bachelor of Arts, General Science, Linfield College, 2000

Qualifications

- Exceeds the Secretary of the Interior's Professional Qualification Standards for History and Architectural History

Professional Affiliations

- American Cultural Resources Association (ACRA)

Project Experience

Wisconsin Department of Transportation, Master Contract, Architecture/History Survey and Evaluation, Wisconsin, Statewide. Greg manages Terracon's two-year (June 2025-May 2027) master contract with WisDOT to complete on-call architecture/history investigations for in-house designed road and bridge projects.

SW Bridge Engineers, Section 106 Coordination and Investigations, FOXY

Luxemburg Bridge 2.30 Rehabilitation, Green Bay, Wisconsin. Greg is managing Section 106 compliance work for the rehabilitation of a historic railroad swing bridge on the Fox River. The project will be federally funded through the Federal Railroad Administration (FRA) Consolidated Rail Infrastructure and Safety Improvements (CRISI) program.

Wisconsin Department of Transportation, Pre-NEPA Cultural Resources Review, North-South Corridor Studies, City of La Crosse, Wisconsin.

As part of a larger Planning and Environmental Linkages (PEL) study, Greg managed the completion of archaeological and architecture/history reviews for three highway corridors in La Crosse (STH 35, USH 53 and USH 14/61, and STH 16) to identify known and potential historic properties and understand the cultural and historical sensitivity of each project area.

City of Madison Metro Transit, East-West Bus Rapid Transit, City of Madison, Wisconsin.

Greg managed the completion of archaeological and architectural history investigations in accordance with Section 106 for a proposed 15-mile bus rapid transit (BRT) route in the city of Madison. Implementation of the project was federally funded through the Federal Transit Administration (FTA). Greg's work on the project included delineation of the project's Area of Potential Effects (APE), identification of historic properties within the APE, assessment of effects on historic properties, and Section 106 consultation. The Wisconsin SHPO concurred with the finding of no adverse effects to historic properties.

City of Appleton Valley Transit, Joint Development Transit Center, City of Appleton, Wisconsin.

Greg managed the completion of archaeological and architectural history investigations in accordance with Section 106 for a proposed transit center development in downtown Appleton. The project was federally funded through the Bipartisan Infrastructure Law's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program and the lead federal agency was the FTA. Greg's work on the project included delineation of the project's APE, identification of historic properties within the APE, and assessment of effects on historic properties. The Wisconsin SHPO concurred with the finding of no adverse effects on historic properties.



Edmund A. Buc, P.E., CHMM

Senior Project Engineer

PROFESSIONAL EXPERIENCE

Mr. Buc is a senior project engineer in Terracon's Milwaukee, Wisconsin office. He is a project manager, responsible for managing project personnel and budgets, preparing technical reports, supporting development of remedial strategies, and leading discussions with regulatory agencies to define project objectives and obtain project closure.

Mr. Buc has worked in the environmental consulting field for over 35 years. During that time, he has developed and implemented innovative remedial strategies for multi-disciplinary transportation projects. These projects have included property transactions, permitting, and investigation and remediation of a variety of contaminants. As a Certified Hazardous Materials Manager (CHMM), Mr. Buc has also provided support for a variety of regulatory compliance projects, including Tier II and Toxic Release Inventory (TRI) reporting; storm water pollution prevention planning; and spill prevention, control, and countermeasures (SPCC) plan preparation. Mr. Buc is the Terracon Contract Manager for its Wisconsin Department of Transportation (WisDOT) Hazardous Materials contract. He is also currently the vapor intrusion subgroup chair for the WDNR's Remediation and Redevelopment External Advisory Group.

PROJECT EXPERIENCE

ROADWAYS

Wisconsin Department of Transportation – Multiple Projects

Contract Manager for Terracon's WisDOT Hazardous Materials contract. Work under this contract has included Phase I Hazardous Materials (HAMAT) Assessments, Phase 2 and Phase 2.5 investigations, remediation, emergency response, and sediment assessments. In addition, Terracon conducts bridge asbestos surveys, with concurrent bat surveys. Mr. Buc also serves as an Authorized Project Reviewer (APR), providing quality control reviews of documents and assisting project managers with technical issues, scheduling, and budgeting.

Waukesha County, Wisconsin – Multiple Projects

Project manager and APR for county-lead HAZMAT assessments, Department of Public Works (DPW) property remediation projects, and roadway response actions. An example project started as a geotechnical study by Terracon for a county highway repaving project along a 3,300-foot length of roadway. The geotechnical borings encountered suspect material. Discussions with the county determined that fly ash was used for the subbase. The WDNR has indicated that excavated fly ash from road bedding requires management as a solid waste. The geotechnical study identified an approximately 360-foot section of roadway that needed to be undercut and backfilled prior to repaving. Mr. Buc coordinated the management of materials during excavation, providing oversight to verify that only the targeted material was being excavated for disposal, minimizing disposal costs.



EDUCATION

Master of Science, Engineering,
Marquette University, 1997

Bachelor of Science, Chemistry,
Michigan State University, 1987

REGISTRATIONS

Professional Engineer: Wisconsin,
No. 32096

Certified Hazardous Materials
Manager, No. 3174

CERTIFICATIONS

40-Hour HAZWOPER

WORK HISTORY

Terracon Consultants, Inc.,
Department Manager, 2021-
2025; Senior Project Engineer,
2015-2020, present

ARCADIS, Principal Engineer,
2010-2015; Senior Engineer,
2006-2010; Project Engineer,
1999-2006; Staff Engineer, 1995-
1999

Drake Environmental, Project
Manager, 1991-1995

Aqua-Tech, Inc., Chemist, 1988-
1991

PRESENTATIONS/PUBLISHED ARTICLES

See Endnote¹

¹ Work performed prior to joining Terracon.



Edmund A. Buc, P.E., CHMM

Senior Project Engineer

RAIL*

Canadian Pacific – Multiple Projects

Project manager for site investigation and remediation of properties that were part of Canadian Pacific's property lease program and former rail yards. Work included completion of Phase I Environmental Site Assessments (ESAs) and investigation of various lease properties including bulk petroleum storage yards, lumber yards, and other traditional rail siding uses. Project engineer for remediation efforts at the Tomah yard to address chlorinated volatile organic compounds through reductive dechlorination. Coordination of mussel assessment following derailment into Mississippi River.

CSX Spill Response – Paynesville Ohio

Part of a response team supporting the cleanup of a multiple-car derailment. On-site work for 2 months included collection of soil samples and water samples from frac tanks, supporting waste profiling and disposal of waste materials, monitoring surface water dissolved oxygen levels, and overseeing excavation of impacted soil.

AIRPORT

Wisconsin Air National Guard 128th Air Refueling Wing– Milwaukee, Wisconsin

APR for supporting management of soil during design and installation of a base microgrid. The microgrid project included the removal of several existing transformers, installation of new transformers and generators, and installation of a battery energy storage system (BESS) yard. Several historic releases had been previously documented at the base, including per- and polyfluoroalkyl substances (PFAS). The proposed installation work required excavation of soil from areas where several of these releases had occurred. Terracon prepared a workplan for review by the WDNR to comply with continuing obligations associated with closed release cases, and a materials management plan to guide contractors on safe handling practices.

Glycol Study – Multiple Wisconsin Airports*

Supported a study of deicing glycols at Mitchell International Airport (Milwaukee), Austin Straubel International Airport (Green Bay), and Dane County Regional Airport (Madison). Work included documenting process flow of deicing solutions, from storage, to application, to collection of wastewater.

Construction Stormwater Inspection Services, Onion River and Crawfish River Solar Sites – Cedar Grove and Jefferson, Wisconsin

Project Manager for construction stormwater pollution prevention plan (SWPPP) inspections throughout the construction of a 1,900-acre, 150-megawatt (MW) photovoltaic (PV) site and a 640-acre, 75-megawatt site. Coordinated training and inspection schedules of staff to ensure weekly and post-precipitation inspection coverage over a nearly 2-year period, from start of construction to owner handoff.



Andrew J (Andy) Olson

Project Manager

Andy has over 15 years of direct railroad experience working for CN Railway, Kraemer North America, and Krech Ojard & Associates providing both engineering and construction feasibility proposals for a variety of railroad structures projects. His role at HDR deals with Facilities Program Management for BNSF, track engineering projects, bridge inspections for CN Railroad and others. His current projects include management of facility improvements and material handling improvements to the Curtis Bay Coal Facility for CSXT in Baltimore, Maryland. Multiple facilities engineering projects in Northtown Yard for BNSF, including a new Traction Motor Storage facility and Locomotive shop electrical upgrades. Current projects with Wisconsin DOT and Eau Claire County for FRA Corridor Identification and Development grant projects, CSX dredging projects at both their Toledo and Curtis Bay ports, and mainline siding project along BNSF in Superior Wisconsin for Cenovus Energy. Past projects have included CP's siding extension design for two siding in Missouri, and prior HDR experience includes CN's Steelton Hill Double Track Extension, direct fixation deck repairs and steel span replacements to CN's structure over the St. Louis River connecting Superior, WI to Duluth, MN, and assisting in the management of Gavilon's FRA bridge management program including bridge capacity analysis and inspection.

EDUCATION

Bachelors Degree, Civil Engineering, Michigan Technological University, 2008

REGISTRATIONS

Engineer in Training, Minnesota, US, #12-412-07

INDUSTRY TENURE

17

HDR TENURE

3 years 4 months

RELEVANT EXPERIENCE

Cenovus Energy, Old Town Yard Rehabilitation

Superior, Wisconsin, United States

Design and construction management services for yard track rehabilitation in BNSF Old Town Yard. This work included construction activity monitoring, staging, and working planning while replacing two new yard switches, tie and rail replacement, and track and rail inspection.

Role: Project Manager

Date: 3/25/2025

Cenovus Energy, Siding and Track Extension

Superior, Wisconsin, United States

Design and construction management services for Cenovus siding extension, connecting their industry track to mainline BNSF track. This work included construction activity monitoring, staging, and working planning through the construction process

Role: Project Manager

Date: 3/25/2025

WisDOT, FRA CID Program, Twin Cities-Milwaukee-Chicago Service Expansion via LaCrosse

Wisconsin, United States

Design of rail corridor improvements to facilitate an additional Amtrak passenger rail trip between the Twin Cities and Chicago through Milwaukee. Manage deliverables for Step 1 submittals through the FRA's Corridor Identification and Development grant program.

Role: Project Manager

Date: 12/17/2024

WisDOT, FRA CID Program, HNTB - Milwaukee-Madison-Eau Claire-Twin Cities Intercity Passenger Rail

Minnesota, United States

HDR is a subconsultant to the prime consultant (HNTB) to assist with the design of rail corridor improvements to facilitate an additional Amtrak passenger rail trip between Milwaukee to the Twin Cities through both Madison and Eau Claire. Manage deliverables for Step 1 of the FRA's Corridor Identification and Development grant program.

Role: Project Manager

Date: 12/17/2024

Eau Claire County, FRA CID Program, Eau-Claire to Twin Cities

Eau Claire, Wisconsin, United States

Design of rail corridor improvements to facilitate new passenger rail trip between the Twin Cities and Eau Claire. Manage deliverables for Step 1 submittals through the FRA's Corridor Identification and Development grant program to develop the FRA Core Service Development Plan for this planned service.

Role: Project Manager

Date: 9/3/2024

CSX Transportation, Curtis Bay Facility Improvements

Baltimore, Maryland, United States

Manage design efforts for engineering services for facility improvements at the CSX Coal Facility in Curtis Bay. Schedule construction services with engineering drawings and manage construction projects and schedule for CSXT.

Role: Construction Manager

Date: 5/8/2024

CSX Transportation, Curtis Bay Material Handling and Conveyor Improvement Study

Baltimore, Maryland, United States

Manage design efforts for engineering services to determine the ability to increase coal output through conveyor improvement and new transfer tower installation at the CSX Coal Facility in Curtis Bay. Also provide a construction estimate for engineering findings.

Role: Asst Project Manager

Date: 7/12/2024

BNSF Railway Company, MRP Twin Cities

Kansas City, Wyandotte, Kansas, United States

Manage BNSF facility construction projects and design projects with a total budget of \$3M. Projects vary from electrical upgrades, new building construction, and new piping projects.

Role: Construction Manager

Date: 1/4/2023

BNSF Railway Company, BNSF 2023 Turntable Program Management

Missouri, United States

Assist in the development of BNSF's guidelines for the inspection and assessment of turntable structures system wide. Provide program management support to BNSF's turntable capital program.

Role: Project Engineer

Date: 1/4/2023

BNSF Railway Company, BNSF- Allouez Emergency Vessel Strike

Superior, WI, United States

Manage construction schedule and activities for the repairs of BNSF dock shuttles at BNSF Allouez taconite facility after a boat strike to two taconite shuttles.

Role: Project Manager

Date: 4/27/2023

BNSF Railway Company, BNSF- ISO MAPS

United States

Coordinate and manage schedule of deliverables for BNSF facility maps and their use on BNSF website.

Role: Project Coordinator

Date: 4/21/2023

BNSF Railway Company, BNSF MRP - Equipment Inspections – 2023

Missouri, United States

BNSF MRP - Equipment Inspections - 2023: renewal of engineering services to BNSF system-wide. Inspect and assess existing mechanical department equipment and determine repair/replacement schedule. Equipment varies from wheel true machines, in-floor jacks, drop tables, fixed car movers, etc.

Role: Project Engineer

Date: 5/1/2023



Christopher R. Romansky, PE*

*MN, NE, OR, WI

Transit Engineering Business Class Lead

EDUCATION

Bachelor of Science

Civil Engineering

University of Minnesota
Twin Cities (2006)

REGISTRATIONS

Professional Engineer:

Minnesota – 2010, No.
48240

Wisconsin – 2015, No.
44175-6

Nebraska – 2024, No. E-
20551

Oregon – 2026, 108608PE

PROFESSIONAL MEMBERSHIPS

American Public
Transportation Association
(APTA), Member

Transportation Research
Board (TRB)

Member: 2014-present

Rail Transit Infrastructure
Committee and Streetcar
Subcommittee

INDUSTRY TENURE

20 years

Chris is a transit engineer who has experience with the design of rail and transit systems ranging from freight rail to commuter rail to light rail to streetcar. He has final design and concept-level design experience and understands the importance of providing easy-to-understand graphics to stakeholders and decision-makers during the preliminary design phase.

His expertise focuses on providing cost-effective design by working through the alignments end to end and “optimizing” to reduce the construction footprint and impacts to adjacent infrastructure.

RELEVANT EXPERIENCE

Fargo-Moorhead Metro COG, Railroad Needs Study, Fargo,

Fargo, North Dakota & Moorhead, Minnesota

This in-depth railroad study for the Fargo-Moorhead Metro Area includes 15 pre-identified crossing locations that had been prioritized during an initial study. Chris is leading the alternatives development which included development of preliminary plans, quantities, and cost estimates for potential grade crossing enhancements, closures, grade separations, and quiet zones at each location.

Twin Cities-Milwaukee-Chicago Intercity Passenger Rail

St. Paul, Minnesota to Chicago, Illinois

Since 2015, the HDR team has worked with WisDOT, MnDOT, FRA, Amtrak, and Class I railroad to implement a second daily round-trip passenger train as part of the TCMC corridor. The project will improve capacity and operate along CPKC tracks between St. Paul, MN and Chicago, IL. The additional round trip provides more reliable service along the Amtrak Empire Builder route for MN and WI stops and allows for more opportunity for transit connections — while minimizing capital investment. The 411-mile-long corridor is a shared-used corridor at conventional speeds with 13 total stations, the start and end points being Saint Paul Union Depot and Chicago Union Station.

The corridor involves rural and urban communities through the most traveled inter-city corridor in Wisconsin and Minnesota. The initial phase involved Pre-NEPA activities, operational analysis, conceptual engineering, and capital cost estimating. Activities included preparing a purpose and need statement, conducting a route and service alternatives analysis, and performing stakeholder, public and agency outreach. The alternatives analysis involved developing methodologies for screening



various route and services options that would then be selected for operations analysis.

The team coordinated with the host Class 1 railroad on freight operations, with Amtrak on passenger operations, ridership, and revenue and with the engineering design team to evaluate which capital investment projects were reasonably constructable to meet the purpose and goals of the project.

HDR is a subconsultant on the project and responsible for final design on all construction documents in the La Crescent, MN area, which includes reworking track geometry on the west side of the CPKC swing bridge over the Mississippi River to increase operating speeds along the river. Another portion includes upgrading a yard track in the River Junction yard to a mainline and redesigning the north and south end leads to the remaining yard to improve operations. The work includes all drainage, utility, civil, geotechnical and track work associated with the sites.

Mr. Romansky's responsibilities included serving as project manager for the HDR team as well as guiding the track design for the River Junction and Mississippi River Bridge locations which encompassed developing alignment, profile, details, constructability review, right of way impacts, crossing updates, quantities and specifications related to final design.

Northern Indiana Commuter Transportation District (NICTD), West Lake Corridor NEPA & Engineering Services for New Starts Project

Chicago, Illinois to Dyer, Indiana

Track Subject Matter Expert. NICTD hired HDR to support NICTD and serve as an extension of staff to advance an eight-mile extension of the South Shore Line (SSL), known as the West Lake Corridor, southward to provide new passenger rail service to three municipalities in Lake County, IN: Hammond, Munster and Dyer. Trains on the new branch line would connect with the existing SSL and ultimately Metra Electric District line to the north. The West Lake Corridor project scope includes engineering design, a Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) and Federal Transit Administration (FTA) Capital Investment Grant application support. Engineering Services: The extension of the current SSL from approximately railroad milepost 70.4 near the existing Hegewisch Station in Chicago, IL, to the Munster/Dyer, IN terminus will mostly utilize abandoned railroad Right-of-Way. As part of the project development phase and in parallel with the combined FEIS/ROD, the work effort includes up to 50% project design and engineering be completed following the FTA published guidelines.



Design Personnel Profiles

NORTHERN WISCONSIN-BASED ENGINEERS, INC.

Gary Colbert, PE

Senior Design Engineer

Experience

34 years of Wisconsin Design engineering experience. Joined NWBE in 2008.

Areas of Expertise

- *Civil design and drafting with AutoCAD, and Civil 3D*
- *Urban and rural roadway design*
- *Drainage and storm sewer design*
- *Intersection design with vehicle turning movement analyses*
- *Erosion control and storm water management design*
- *Surveying and survey data processing*

Education

B.S. Civil Engineering, University of Wisconsin - Platteville

Availability

Gary is currently design leader for the following projects:

USH 63 rural resurfacing, Turtle Lake to Cumberland, Barron County, 2/1/2026 PS&E

Moose Lake Road rural pavement replacement, CTH A to FFR 320, Sawyer County, 11/1/26 PS&E

Local design projects

Gary's availability is 25% July 1 to Nov. 1, 2026; 50% Nov. 2, 2026 and forward.

Brody Zembo

Civil/Survey Technician

Experience

17 years of experience in transportation design, construction and surveying. Joined NWBE in 2009.

Areas of Expertise

- *Trimble RTK GPS/GNSS & robotic total station*
- *Data collection in WISDOT format with line work*
- *Highway and structure surveys*
- *Bridge construction project leader*

Education

Associate Degree in Civil Technology, Lake Superior College – Duluth

Availability

Brody serves as project leader on construction projects and as survey crew chief. Brody has been serving as materials specialist for WisDOT Northwest Region at the Superior lab starting in March 2022 and extending to February 2027. His availability is 25% during the construction season and 100% starting late Fall/early Winter 2026.

Rebecca Olson

Co-owner, Civil Technician

Experience

29 years of experience in transportation design and construction management with NWBE. Joined NWBE in 2005.

Areas of Expertise

- *Trimble RTK GPS/GNSS & robotic total station*
- *Data collection in WISDOT format with line work*
- *Highway and structure surveys*
- *Construction project leader on highway and bridge projects.*

Education

Associate Degree in Civil Technology, Lake Superior College - Duluth

Availability

Rebecca serves as project leader on construction projects. She is generally available during fall, winter, and early spring to assist with transportation design.



Gregory R. Reuter, PE, PG, BC.GE

Principal Geotechnical Engineer / Practice Lead



Education

M.S. Civil (Geotechnical) Engineering
University of Illinois – Chicago, 1988

B.S. Geological Engineering
University of Minnesota, 1984

Graduate studies in Geotechnical Engineering
University of Texas –Arlington, 1985-1986

Registrations/Certifications

Professional Engineer – MN, WI, ND, SD
IL, TX, MI, KS, WY, NC

Professional Geologist – MN, WI

Board Certified Geotechnical Engineer
(BC.GE) by the Academy of Geo-Professionals

Licensed Monitoring Well Contractor
Minnesota Department of Health

Employment

American Engineering Testing, Inc. (AET)
St. Paul, MN
Engineering Vice President – 2017 to present.
Principal Engineer – Geotechnical Division
2006 – Present

GME Consultants, Inc., Minneapolis, MN,
Geotechnical Engineer, 1988-2005

Prof. Serv. Industries, Chicago, IL,
Geotechnical Engineer, 1986-1988

National Soil Services/Prof. Serv. Ind.
Dallas, TX, Geotechnical Engineer, 1984-1986

Professional Memberships

American Society of Civil Engineers
Association of Engineering Geologists
Geo-Institute
Academy of Geo-Professionals (Admissions Committee
Chairman, 2021 to present)
Toastmasters International (Past Local President)
Univ. of MN Geotech Conf Committee (Past Chairman)
Minnesota Geotechnical Society (Past President)

Overview

Mr. Reuter is a licensed Professional Engineer (PE) and licensed Professional Geologist (PG) in both Minnesota and Wisconsin, along with being a PE in eight other states. He has a MS degree in Geotechnical Engineering and is a Board Certified Geotechnical Engineer (BC.GE) by the Academy of GeoProfessionals of the American Society of Civil Engineers. He has over 40 years of geotechnical engineering experience including being the lead geotechnical engineer on several MnDOT and WisDOT Design-Build projects, along with performing foundation design on many major bridge projects. In addition, he has also authored numerous technical articles and papers concerning geotechnical engineering and driven pile foundations.

Transportation/Bridge Experience

Mr. Reuter has served as AET's lead geotechnical engineer or AET geotechnical technical advisor/reviewer on numerous transportation and bridge projects; the following summarizes a few projects:

- WisDOT WIS 130 Bridges over the Wisconsin River Design-Build project, Lone Rock, Wisconsin – Lead geotechnical engineer.
- WisDOT I-90 and I-94 Interchange Design-Build project, Tomah, Wisconsin – Lead geotechnical engineer.
- CSAH 24 Overpass at CN RR, Koochiching County, Minnesota – Lead geotechnical engineer.
- Hwy 10/75-11th Street Underpass at BNSF RR, Moorhead, Minnesota – Geotechnical consultant for special geotechnical testing.
- MnDOT Dresbach I-90 bridge over Mississippi River and interchange bridges/MSE walls, La Crosse, Minnesota to La Crosse, Wisconsin – Lead geotechnical engineer for interchange project and bridges.
- MnDOT/CN RR Oliver bridge over St. Louis River, Duluth, Minnesota to Oliver, Wisconsin. Geotechnical engineer for bridge settlement evaluation.
- MnDOT I-35 bridge over Minnesota River, Bloomington to Burnsville, Minnesota; - Geotechnical engineer for bridge foundations
- MnDOT TH-43 bridge over the Mississippi River, Winona, Minnesota. Geotechnical engineer for bridge rehabilitation foundations

