

more than a place, it's home.

TO:	Honorable Mayor Lagergren and City Council Members
FROM:	Steven Helget, City Administrator
DATE:	October 18, 2017
SUBJECT:	2018 Preliminary Budget - Highway 212 Underpass Preliminary Design Proposals

Request for proposals for the preliminary engineer's design of the Highway 212 underpass were solicited from Bolton & Menk and SRF Consulting Group. The cost proposals received were as follows:

Bolton & Menk\$117,500SRF Consulting Group\$59,550

Bolton & Menk provided a "Value Engineering Alternate" as well and I submitted them to MnDOT for their consideration. The following are MnDOT's responses.

Geotechnical Evaluation

The RFP requires four 100 foot deep soil borings and Bolton & Menk proposes a depth of 40 feet. MnDOT is not comfortable with 40 feet because they don't have much soil data in Norwood Young America. They may be convinced to do something between 40' to 100'.

Structural Engineering/Foundation Design and FADR

Bolton & Menk recommended the extensive foundation and structural requirements be eliminated. MnDOT stated they have a requirement that if the box culvert has an opening of 80 sq. ft. or greater, a Foundation Analysis and Design Recommendation (FADR) is required. This has to be followed unless the box culvert size is planned to be less than 80 sq. ft.

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Pavement Design

Bolton & Menk suggests that the MnDOT pavement design methodology generally doesn't apply to bituminous trails and since a majority of the trail would be located outside the highway right-of-way that MnDOT doesn't have jurisdiction on its design. Bolton & Menk recommends eliminating the pavement design requirements from the RFP and simply work with MnDOT to determine the necessary trail installation. MnDOT concurs with Bolton & Menk's recommendations.

Bolton & Menk and SRF Consulting Group have been invited to the meeting to provide a brief summary of their respected proposals. Diane Langenbach, MnDOT South Area Engineer, will also be present at the meeting.

In respect to financing the hiring of a consultant to prepare the Highway 212 underpass preliminary engineering design, proposed is to consider two options: 1) to line item budget for the consultant expense in the 2018 General Fund Budget; or 2) establish a capital project fund for the Highway 212 Underpass project.

Proposed is to do the second option. Typically, for major capital projects a project fund is established. All project related expenses incurred go into this fund with the intent of paying them off from with the bond proceeds sold for the project. If the project doesn't happen and bonds are not sold, then typically funds are allocated and transferred from the General Fund and/or Enterprise Funds to zero out the capital project fund then the fund is closed out.

Enclosed documents include the City's Request for Proposals; and Bolton & Menk's and SRF Consulting Group's respective proposals.



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REQUEST FOR PROPOSALS

U.S. HIGHWAY 212 UNDERPASS PRELIMINARY DESIGN

SUBMISSION DEADLINE 4:30 p.m., September 27, 2017

City of Norwood Young America 310 Elm Street West P.O. Box 59 Norwood Young America MN 55368

Late, incomplete, unsigned, or illegible proposals may not be considered by the City in its discretion

PURPOSE OF REQUEST

The City of Norwood Young America seeks to enter into a contract with an engineering consultant to prepare the preliminary engineering design for construction of an underpass on U.S. Highway 212, Norwood Young America, Minnesota.

BACKGROUND

U.S. Highway 212 is a major thoroughfare in Norwood Young America with over 12,000 vehicles traveling it daily. The current speed limit is 50 mph within the city limits. Primary pedestrian and bicyclist crossings of Highway 212 are located at the intersections of County Road 33, Morse Street, and County Road 34. Signal lights exist at the two County Road crossings.

With the increasing vehicle traffic volume on Highway 212, pedestrian and bicyclist safety has been a growing concern. The City has been discussing and reviewing possible options for improving the safety of crossing Highway 212 for several years.

In 2016, Carver County completed a Highway 212 corridor feasibility study between Highway 5/25 and County Road 34. The purpose of the study was to identify improvements along the corridor that balance safety, mobility and access needs for all modes of transportation (e.g., pedestrians, bicyclists, freight, and vehicles). More importantly the study was to assist with aligning future improvements with MnDOT's scheduled 2020 mill and overlay project and the Metropolitan Council's Safe Routes to Schools grant application for installation of an underpass on Highway 212. Earlier this year the City received confirmation of the award of a Safe Routes to Schools grant in the amount of \$1,225,360 for installation of the Highway 212 underpass.

Though other possible locations were considered, the underpass location will be designed such as to utilize the City's Kehrer Park located on the south side of Highway 212. The underpass will then extend northeasterly under Highway 212 to Central School District's property on the north side of the highway. Sidewalk will be installed from where the underpass opens up on the north side of the highway and extend to the north to tie into the School's existing trail.

In 2020 MnDOT is scheduled to complete a mill and overlay project of U.S. Highway 212 from Minnesota Highway 25 to the city of Cologne. The underpass project is anticipated to be tied to and let with MnDOT's project. Work pertaining to plan development, permits, easements, environmental documentation, and preliminary design submittal will need to be coordinated with MnDOT and shall be conducted in accordance with MnDOT requirements.

OVERALL SCOPE OF SERVICES

All aspects of the scope of services outlined below and included herein are expected to be completed within the project deadline. The role of the selected consultant will be to complete all tasks necessary to take the project through the development of a MnDOT staff approved preliminary layout and to include submittal of a 30% Prepare Plan to MnDOT. The consultant will be required to furnish all labor, materials, transportation, supplies, equipment, etc. necessary for the completion of the following work:

Project Management,

- The consultant's project manager shall ensure that deliverables are on time and regular phone/e-mail communication with the City project manager throughout the project. The consultant selected shall provide a schedule with associated tasks and deliverables.
- The consultant engineer shall coordinate with any sub-consultants as necessary to complete all of the deliverables stated below.
- Provide a schedule of work tasks required/completed with monthly updates. The City shall be billed monthly throughout the project duration, no later than ten (10) days after the completion of each month. All invoices shall define the percentage of project completion and the percentage of project billed to date for each work task and the total project.
- The engineering consultant shall provide information and graphics as necessary for inclusion onto the City's website for the project.

Utility Identification and Coordination.

 The consultant will be responsible for identifying all public/private utility locations, and any necessary relocations or adjustments for the project. The consultant may coordinate this work with MnDOT if possible. The consultant shall utilize and follow the MnDOT Utility Coordination Process as detailed in the current MnDOT Utilities Manual, Utility Coordination Best Practices, and Consultant Project Manager Checklist.

Stormwater Management and Hydraulics Evaluation.

 The consultant will perform a preliminary hydraulic analysis for the location of the underpass identified in the Pedestrian Underpass Concept plan. The consultant shall conduct a detailed hydraulic analysis for the concept and the project corridor. The findings of the analysis will be summarized in a report and incorporated into the design to determine pipe, structure, and pond needs (size, quantity, etc.). The consultant shall provide a Surface Water Model for a 100 year storm event for in and around the box culvert.

Geotechnical Evaluation.

- 1. The consultant shall collect borings along the proposed trail corridor and at the proposed grade-separated crossing location to ensure that the soils can support the proposed crossing. For the purposes of the proposal, the consultant can assume that the work will include 5 borings to a depth of 20 feet along the preferred trail alignment and 4 borings to a depth of 100 feet along the preferred alignment of a grade-separated crossing. The consultant shall provide boring logs to MnDOT's Foundations Unit. The logs should include water table, geologic origin, location and other pertinent documentation as needed or requested. The consultant shall prepare foundations recommendations for locations for review by MnDOT.
- 2. Results from the foundation borings, technical analyses and site visits to the interchange location will be used by the consultant to prepare a foundation analysis and design recommendation (FADR). Staff from MnDOT will review the proposed recommendation and provide comments. Based on comments by the reviewing agencies, the consultant will revise its analysis/recommendations and submit a final recommendation for approval. A copy of the final FADR will be submitted to the foundations unit. Based on the FADR and boring information, MnDOT's Bridge Office will produce pile recommendations. The consultant will coordinate activities with MnDOT's Foundations Unit and Bridge Office.
- 3. The consultant shall prepare pavement designs for the proposed trail and any subpavement treatment designs, with consultation from MnDOT, needed to construct the proposed crossing. These designs shall be submitted to the City and MnDOT for review and approval. Upon approval, the consultant shall prepare the MDR, which shall include all information needed for the proposed trail. The consultant shall obtain approval from MnDOT of the final MDR. All work for this task shall be completed in accordance with the MnDOT Pavement Design Manual (www.dot.state.mn.us/materials/pvmtdesign/manual.html).

Survey Data.

- The consultant shall provide survey data for the project area. The survey data shall include alignment, topography, DTM, and right of way.
- 2. The consultant shall conduct any supplemental surveys required to complete the design of the project. Supplemental surveys shall include, but may not be limited to, utility surveys, drainage surveys, wetland surveys, and surveys required for bridges or structures. For the purposes of the proposal, the consultant may assume that the supplemental surveys will require field work from one survey crew for 3 working days and office work for 1 working day. The consultant may propose an alternative estimate to this.
- The consultant shall ensure that all survey information, including information provided by third parties, is consistent with survey datum in use on the MnDOT project.

Structure Engineering and Preliminary Design Plans.

- All work shall comply with the applicable MnDOT requirements for design and quality control, the MnDOT Highway Project Development Process (HPDP), MnDOT Computer Aided Drafting and Design (CADD) standards, Technical Memoranda, and any other applicable design standards.
- The consultant engineer shall prepare the 30% plan submittal in accordance with MnDOT, DCP, and FHWA guidelines.
- The consultant shall identify any other required processes to complete the preliminary design in their proposal.

Right of Way Mapping.

 The consultant shall identify any right of way required for the project, to include permanent and temporary easements and drainage and utility easements, early in the design process, to allow time to acquire the necessary easements.

Engineer's Estimates.

1. Prepare preliminary detailed engineer's estimates for the project.

Submission of Work.

The Consultant shall provide the City and MnDOT with all of the work in its original software digital format on a flash drive or solid state drive (SSD) as part of the final engineering product.

Responders are encouraged to propose additional tasks if they will substantially improve the results of the project. These items should be separated from the required items on the proposal.

The deadline for submitting the preliminary design shall be March 2, 2018.

Minimum Proposal Requirements.

 Describe the project understanding and approach to be used by your firm. Describe the issues you believe are significant on this project; how you intend to use existing information to limit design costs; any unique options to be pursued for this project; and an outline of your project approach based on the requested tasks.

Key Personnel

Project Manager: Provide the name of the Project Manager and a brief description
of their qualifications for this project. If more than one project manager is to be
assigned to various specialty areas, please provide multiple descriptions.

- Key Support Personnel: Provide a list of key personnel that will be assigned to this
 project. Identify their area of expertise, explain their role in the project, and list past
 projects they have worked on with the Project Manager.
- Provide previous design experience with highway underpass projects. List and briefly describe previous similar projects that the Project Team has designed.
- Sub-consultants. Include the name and location of sub-consultants that will be used in the design and identify the approximate percentage of the work that will be performed by each.

Consultant Provided Schedule.

The consultant shall provide a schedule with associated tasks and schedule for completion of preliminary design.

PROPOSAL SCHEDULE

The following is the desired schedule for the RFP process:

Notice of RFP request	September 6, 2017	
Proposals received by City of Norwood Young America	September 27, 2017	
City Council review proposals and interview consultants	October 9, 2017	
Selection of consultant	October 9, 2017	
Complete contract and submit to City Council for approval	October 23, 2017	

PROPOSAL FORMAT

The proposal submittal shall contain only the information requested below.

The submittal should follow the Table of Contents listed below:

- 1. General Information
- 2. Project Understanding
- 3. Project Approach
- 4. Schedule
- 5. Any Additional Information as Needed
- 6. Total Consultant Cost

A brief description of each section is as follows:

1. General Information

Provide general information and a brief history of the Consultant's firm and key personnel assigned to this project. Include similar information on key subconsultants, if any, proposed for the project.

2. Project Understanding

Include a summary of the Consultant's understanding of the project.

3. Project Approach

Provide specific approaches, methods, and assumptions that will be utilized to accomplish each work item as listed in the Overall Scope of Services.

4. Schedule

Provide a proposed schedule from project initiation to final completion. The schedule should include a listing of key tasks within each phase, key milestones and approximate dates, and deliverables.

5. Additional Information

Include any other information that is believed to be pertinent, but not specifically requested elsewhere in this RFP.

6. Total Consultant Cost

The consultant shall provide a not to exceed cost for the project. It is the responsibility of the proposing firm to accurately predict the amount of resources they will need to spend on the project.

CONSULTANT SELECTION

The proposals will be submitted to the City Council for consideration. The City Council may invite consultants to conduct a presentation before the Council and members of staff. Presentations are expected to occur in October. Once authorized to proceed, the consulting firm will be expected to immediately assist in developing a final scope of services, and contractual agreement.

CONTRACT TERMS AND CONDITIONS

Upon selection of a Consultant, an Agreement or Contract for Services shall be entered into by the City and Consultant. It is expected that the contract will provide for compensation for actual work completed on a not to exceed basis with the following conditions. The contract will be amended as agreed by both parties and as appropriate for each successive phase.

- The City shall retain ownership of all documents, plans, maps, reports and data prepared under this proposal. In addition to being provided hard copy and digital documents throughout the project, the consultant shall supply the City of Norwood Young America with a fully scanned file upon project completion.
- If, for any reason, the Consultant is unable to fulfill the obligations under the contract in a timely and proper manner, the City reserves the right to terminate the contract by written notice. In this event, the firm shall be entitled to just and equitable compensation for any satisfactory work completed to that point at the discretion of the City.

- The Consultant shall not assign or transfer any interest in the contract without prior written consent of the City.
- 4. The Consultant contract shall be governed by the laws of the State of Minnesota.
- 5. Project summaries shall be submitted with each invoice during the course of the project. Each summary shall detail the amount billed to date, work items that need to completed, the estimated costs to complete these tasks and the projected timeline for the completion of the project. Invoices submitted to the City shall include a detailed breakdown of times, personnel, mileage, etc. chargeable for that period.

Address all correspondence regarding this RFP to:

Steven Helget City Administrator City of Norwood Young America 310 Elm Street W. P.O. Box 59 Norwood Young America, MN 55368 <u>cltyadmin@cityofnya.com</u>

Any requests for additional information that may be needed for the preparation of the proposal should be directed to City Administrator Steven Helget at (952) 467-1805 or <u>citvadmin@citvofnya.com</u>. All questions must be received before 4:30 p.m., September 25, 2017. Questions received after that time will not be addressed.

Submittal of Proposal

Please provide six (6) paper copies and one (1) electronic (pdf) copy of the Proposal for the evaluation process.

Address submittals to:

Steven Helget City Administrator City of Norwood Young America 310 Elm Street W. P.O. Box 59 Norwood Young America, MN 55368

Submittals will be accepted until 4:30 p.m., September 27, 2017.

Acceptance of Proposal Contents

The contents of this RFP will be included as part of the contractual obligations if a contract ensues. All information in the proposal is subject to disclosure under the provisions of Minnesota Statutes Chapter 13 – Minnesota Government Data Practices Act.

DISCLAIMER

The City of Norwood Young America shall not be liable for any costs incurred by a consultant in responding to this request for proposal, for any costs associated with discussions required for clarification of items related to this proposal or costs associated with the consultant's presentation of proposal.

REQUEST FOR PROPOSALS MUST BE RECEIVED PRIOR TO 4:30 P.M. ON SEPTEMBER 27, 2017. LATE SUBMITTALS MAY NOT BE CONSIDERED BY THE CITY IN ITS DISCRETION.



Project Benefits:

- Safer ped/bike connection
- Provides connectivity between north and south side of NYA

CHTRAL PUBLIC







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Proposal for City of Norwood Young America U.S. Highway 212 Underpass Preliminary Design September 27, 2017

Submitted by:

Bolton & Menk, Inc. 2638 Shadow Lane Suite 200 Chaska, MN 55318 P: 952-448-8838 F: 952-448-8805

Contact:

Josh Eckstein, P.E. C: 612-756-3445 joshec@bolton-menk.com

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2638 Shadow Lane Suite 200 Chaska, MN 55318-1172

> Ph: (952) 448-8838 Fax: (952) 448-8805 Bolton-Menk.com

September 27, 2017

Steven Helget City Administrator City of Norwood Young America 310 Elm Street W. P.O. Box 59 Norwood Young America, MN 55368

RE: U.S. Highway 212 Underpass Preliminary Design

Dear Mr. Helget:

The City of Norwood Young America has been discussing and evaluating options for a safe pedestrian crossing of U.S. Highway 212 for many years. The proposed Underpass Preliminary Design project will provide the city that safe crossing.

We know Norwood Young America – Bolton & Menk, Inc. is intimately familiar with the city's need and desire for a safe pedestrian crossing on Highway 212, particularly near the school. We have been involved in numerous meetings, discussions, planning sessions, studies, and funding requests over the years to evaluate various methods, locations, and the overall feasibility of providing a safe pedestrian crossing, including an overpass, re-use bridge, and underpass.

As a result of our many years of service to the city, Bolton & Menk has in-depth knowledge of the previous issues, the existing and planned infrastructure, and the drainage mechanisms and function. We have a substantial amount of existing infrastructure information, survey control and records, right-of-way, and platting information in house and available for use to complete the preliminary design in an efficient and cost-effective manner. Bolton & Menk has extensive experience working on similar projects including underpasses, box culverts, Safe Routes to School funding, cooperative agreements with county and state agencies, and local plan inclusion in agency project letting.

We are local – The Bolton & Menk project team includes project manager Josh Eckstein (providing service to the city since 2002) and project engineer Phillip Schrupp (born and raised in the city) together with Jake Saulsbury (providing service to the city since 2002) and John Swanson (providing service to the city since 1993). They will provide technical support and familiarity with the city's infrastructure and history and facilitate a complete, efficient, and cost-effective preliminary design. Our team also has nearly 500 staff in numerous specialty areas to call on as needs arise. With our team located just 20 minutes away from the project and City Hall, we can be in Norwood Young America at a moment's notice.

We have history – The Bolton & Menk team is intended to be an extension of city staff with close coordination between the city and team maintained at all times. For more than 30 years, Bolton & Menk has routinely provided Norwood Young America with timely and high quality professional engineering services. We know and understand intricate details of your community that can only come through this long-standing commitment. Bolton & Menk is unmatched in our understanding of your infrastructure systems, design standards, and expectations.

In continued service to the City of Norwood Young America, we are excited at the opportunity to complete the Highway 212 Underpass Preliminary Design project for you. Josh Eckstein will serve as your project manager and lead client contact on this project. Please contact him at 612-756-3445 or joshec@bolton-menk.com if you have any questions regarding our proposal.

Respectfully submitted,

Bolton & Menk, Inc.

neg J. Schmidt

Kreg Schmidt, P.E. Principal-in-Charge



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General Information



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Bolton & Menk, Inc. 2638 Shadow Lane Suite 200 Chaska, MN 55318 P: 952-448-8838 | F: 952-448-8805

Engineering News-Record Top 500

Ranked #161 among the Top 500 Engineering and Surveying Firms in the United States.

Services Provided:

- Civil/Municipal Engineering & Planning
- Water & Wastewater Engineering
- Transportation Planning & Engineering
- Structural Engineering
- Aviation Services
- Water Resources Engineering
- Landscape Architecture
- Land Surveying
- Geographic Information Systems
- Project Funding & Financing



General Information

We believe everyone deserves to live in a safe, sustainable, and beautiful community and we take pride in our ability to make that happen. It's why we get out of bed every morning.

Our commitment to communities began in 1949 with two hard working Midwesterners—John Bolton and Martin Menk. They saw people in their surrounding communities who had dreams of a bright future, a desire to grow, and a common challenge of aging infrastructure. John and Martin's goal was to help communities make progress by listening to what people want, finding the best solutions for their needs, and treating them right. Their legacy lives on. We still want to help, we work hard every day, and we always remember what got us here—we're people helping people. Today, Bolton & Menk, Inc. has nearly 500 employees including a professional staff of more than 150 engineers, planners, landscape architects, and surveyors.

We specialize in providing public infrastructure solutions. We take care of our clients by providing the best services and solutions for them. From advocating for our communities to designing their dreams to finding funding; we take pride in our work throughout the Upper Midwest. Because we live here too. We believe in the power of face-to-face meetings, friendly conversations, and collaborative decision-making to keep your projects on schedule, within budget, and focused on real, workable solutions.

We promise every client two things: we'll work hard for you and we'll do a good job. We take a personal interest in the work being done around us. And at the end of the day, we're *Real People* offering *Real Solutions*.

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Key Personnel

The Bolton & Menk, Inc. project team includes individuals with the appropriate technical and managerial experience and training to complete the Highway 212 Underpass Preliminary Design to the satisfaction of the City of Norwood Young America. Bolton & Menk is committed to maintaining the availability of the proposed project team. Should additional staff be required, we will use the capabilities of other professional and technical staff members with your approval.

Although we are proposing the project staff below, we will draw upon Bolton & Menk's professional and technical staff of nearly 500 members as needed. This additional resource brings substantial planning, engineering, and support capabilities across a range of civil, water resources, structural, environmental, transportation, landscape architecture, surveying, and administrative skills. Based on these assignments, resources, and strategies, we are confident you will be fully satisfied with our project staffing and availability.

Our team will be led by Josh Eckstein, and supported by key individuals and support staff. The organizational chart below illustrates key personnel associated by assigned tasks. Project team member bios have been included in the following pages of this section. Full resumes can be provided upon request.



General Information



Kreg Schmidt, P.E. Principal-in-Charge

Kreg will actively oversee all of Bolton & Menk's services to the city. He will monitor Bolton & Menk's quality assurance and quality control program, as well as progress, schedule, and budget, working

closely with the project manager to ensure critical issues are addressed in a timely manner. Kreg began his career in 1988 and immediately began serving the City of Young America while with Englehart & Associates. His background includes evaluation, planning, design, and implementation of municipal engineering projects related to streets, municipal sanitary sewer systems, municipal water systems, stormwater systems, and residential, commercial, and industrial development. He has extensive experience working on projects having multiple agency jurisdictions and is familiar with the funding and financing tools available to cities, including the state aid and Chapter 429 process. Kreg successfully works with numerous jurisdictional entities on dozens of projects on an annual basis. He holds a Bachelor of Science in civil engineering from the University of Minnesota.



Josh Eckstein, P.E. Project Manager

Josh will be responsible for management and overseeing the project team, schedule, costs, and scope. He will provide close coordination of all design and project related information with city staff and

project partners. Josh has been providing service to the city since 2002. He knows Norwood Young America well as he and his family moved to the area in 1986 and grew up just 15 miles down the road in Lester Prairie. Josh has lived and worked in the area since graduating from Lester Prairie High School in 2000. After college graduation, Josh purchased a home in Lester Prairie and currently resides there. One of his first jobs as an engineering intern was inspection of The Preserve subdivision of Norwood Young America.

Josh began his career in 2002. He has completed a variety of engineering projects related to municipal and county highways and streets; municipal sanitary sewer, water systems, and stormwater systems; and residential, commercial, and industrial developments. His design background includes preliminary design and planning, final design, preparation of construction plans and specifications, construction management, and contract administration of municipal, county, and township engineering projects. He also has extensive experience working with the governing agencies in the area including MnDOT, Carver County, and the Carver County Watershed District. He has a range of experience developing, designing, and managing projects with multiple agencies and funding sources such as Safe Routes to School, municipal state aid, county, city, Minnesota Public Facilities Authority, watershed management organizations, state bridge bond funds, and Chapter 429 bond funds.

Josh has a history of work and involvement in many projects within the community of Norwood Young America including the Preserve development, Tacoma Avenue/Railroad Street Improvements (SAP 98-080-30), South Baseball Field Improvements, Sports Complex Improvements, Willkommen Park Improvements, 2005, 2007, 2010, and 2013 Infrastructure Rehabilitation Projects, CSAH 34 Improvements (SAP 10-634-11), 2008 Trunk Watermain Project, 2010 Reform Street Extension, 2009 Oak Grove Redevelopment Project, 2010 Shady Lane Drainage Project, 2016 Water Supply Plan update, Stormwater fee calculations, and Oak Lane utility review.

Josh serves as assistant city engineer for the City of Lester Prairie, Winsted, New Germany, and Plato and serves as an additional point of contact for the cities of Norwood Young America, St. Bonifacius, and Cologne. In addition to his design experience he has five summers of experience working as a construction observer for numerous municipalities. Josh holds a Bachelor of Science in civil engineering from Minnesota State University, Mankato.



Philip Schrupp P.E. Project Engineer

Philip will be responsible for general project layout, horizontal and vertical geometrics, ADA requirements, plan preparation, plan production, quantities, and the engineer's estimate. Philip was

born, raised, and lived in Norwood Young America for 28 years. He graduated from Central High School in 2004.

Philip began his career at Bolton & Menk in 2012. Prior to joining Bolton & Menk, Philip worked for the City of Bloomington and a local geotechnical and material testing firm. Philip has significant experience in the design and construction of utility, street, local trail, box culverts, MnDOT trail, and federal trail projects, including ADA compliance. His experience includes preliminary design and planning, final design, preparation of construction plans and specifications, construction management for municipal, county, state and federal aid engineering projects, and agency and funding source documentation requirements.

Philip has extensive experience in non-destructive testing and geotechnical evaluations. He has experience with related projects in the cities of Waconia, Watertown, St. Bonifacius, Savage, St. Louis Park, Cologne, Chaska, Mayer, Orono, Richfield, Wayzata, Bloomington, Plymouth, Brooklyn Park, and Winsted. In addition, Philip has completed projects for the City of Norwood Young America, including the 2014 Seal Coat project. Philip holds a Bachelor of Science in civil engineering from the University of Minnesota.



John Swanson, P.E. Technical Support /Infrastructure History and Familiarity

John has been providing engineering services to the city since 1993. He will provide technical support and assist with the design given his history with the

existing infrastructure, drainage mechanisms, and extensive experience working with the City, and on projects of this type. John began his engineering career in 1989. He has extensive experience in the development, design, and construction of infrastructure projects, including sanitary sewer, forcemain, lift stations, water production, storage and distribution facilities, streets, and storm sewers.

John has additional experience with CIPP and slip lining rehabilitation methods and trenchless construction, including cased borings and directional drilling with various carrier pipe sizes, materials, soil conditions, and areas crossed including rivers, lakes, railroads, and state and county highways. His expertise is in the design, construction, and project management of infrastructure retrofitting, reconstruction, and rehabilitation projects including deep installations with challenging soil and ground water conditions, and minimal construction limits. John holds a Bachelor of Science in civil engineering from the University of Minnesota and a Bachelor of Arts in mathematics from Macalester College.



Jake Saulsbury, P.E. Technical Support/Infrastructure History and Familiarity

Jake has been providing engineering services to the city since 2002, from designing projects to serving as assistant city engineer. He will provide technical

support and assist with design given his familiarity with the existing infrastructure, drainage mechanisms, and extensive experience in the city, and on other projects of this nature. Jake joined the firm in 1999 and has completed a variety of municipal engineering and planning projects. His background includes evaluation, planning, design, and implementation of municipal engineering projects related to streets, municipal sanitary sewer systems, municipal water systems, stormwater systems, sidewalks/trails, and residential, commercial, and industrial development.

Jake has extensive experience working on projects having multiple agency jurisdictions. This experience consists of consensus building, facilitating public meetings and open houses, TAC/PAC committee representation, permitting requirements, and coordination with other government agencies. Jake has a strong working relationship with these agencies and has assisted other communities in successfully securing permits and meeting project schedules that meet the needs of the city. In addition, Jake has an in-depth understanding of the various funding programs available and has worked with many clients to secure grant funding through these programs. Over the last five years, Jake has helped Bolton & Menk in assisting area clients in receiving more than \$20,000,000 in grants and funds from outside sources for municipal projects. Jake holds a Bachelor of Science in civil engineering from the University of Minnesota.

Bolton & Menk has been the only City Engineer Norwood Young America has had since the cities merged in 1995. Prior to the merge, Bolton & Menk served Young America since 1987.

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Subconsultant

Bolton & Menk has nearly 500 professional and technical staff in-house, covering a variety of service areas. As such, the only subconsultant needed to complete the proposed preliminary plans is a geotechnical engineer to complete the geotechnical evaluation. **Braun Intertec** will provide the geotechnical investigation and evaluation as defined in the RFP.



Braun Intertec is committed to being your full-service, professional geotechnical, environmental, and testing consultant. Their interdisciplinary approach is based on creative problem solving, proactive planning, and comprehensive support from their experts. Braun Intertec can provide you with a mix of services to meet your needs in the most cost-effective, efficient, and timely manner. The following is an overview of services Braun Intertec provides:

- Geotechnical engineering
- Construction materials testing
- Environmental consulting
- Drilling
- Concrete consulting

- Building sciences
- Materials laboratory testing
- Nondestructive examination
- Geothermal consulting



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Project Understanding

Project Understanding

The U.S. Highway 212 Preliminary Design project involves constructing a pedestrian underpass across Highway 212 between the Central School District property and Kehrer Park. A bituminous trail will then connect the existing trail on the school property through the underpass, across Kehrer Park to the sidewalk on the south side of Wilson Street.

Bolton & Menk is familiar with the city's need and desire for a safe pedestrian crossing on Highway 212, particularly near the school. Bolton & Menk has been involved in numerous meetings, discussions, planning sessions, studies, funding requests and more over the years to evaluate various methods, locations, and the overall feasibility of providing a safe pedestrian crossing, including an overpass, re-use bridge, and underpasses.

We have also been involved with various agency planning meetings and studies with MnDOT and Carver County regarding the Highway 212 Corridor from Chaska through Norwood Young America, TH 5, and various county roads throughout the region. Additionally, we evaluated the proposed underpass alignment included in the request for proposals (RFP) and provided our recommended revisions and methods to mitigate infrastructure and drainage issues. As part of that evaluation, we prepared preliminary drawings and graphics for the underpass, *free of charge*, and presented the findings to the city council during their May 22, 2017 meeting. The renderings we presented to the council are included at the end of this section.

Project Issues

There are several issues associated with the proposed project that should be addressed to ensure the successful outcome the city expects. The following summarizes the issues related to preliminary design:

Pedestrian Safety and Security

The trail slopes and access need to be ADA compliant. Bolton & Menk has an abundance of experience working with clients to ensure trails and sidewalks meet current ADA requirements.

Drainage

The area surrounding the proposed underpass is relatively flat with minimal topographic relief. The city is bisected by a regional ditch that conveys stormwater runoff from within and west of the city, from the northwest side of the city at Friendship Park to the southeast side of the city west of Tacoma Avenue.

Agencies with jurisdiction over this ditch include Carver County, MnDOT, and MnDNR. The ditch is highly susceptible to flooding during high precipitation and runoff periods. The city has experienced numerous localized flooding along the ditch and in low areas over the years. The wastewater treatment facility has also been flooded, resulting in significant damage at least twice in the past 40 years, the most recent being in 2014. Considering this, it is imperative that upstream and downstream impacts to the overall drainage in the area and ditch, resulting from the proposed underpass and trails, be mitigated with the proposed improvements. Bolton & Menk has an in-depth understanding of the area's drainage and hydrology, the regional ditch hydrology, and the agencies with jurisdiction over the ditch. The drainage along Highway 212 must be conveyed through the project area, in accordance with MnDOT requirements, without significantly impacting upstream or downstream highway drainage facilities.

Existing City Infrastructure

Existing sanitary sewer, storm sewer, and watermain facilities are located in the area of the proposed underpass. These facilities must be accurately located to the extent practicable. The preliminary design process should consider these facilities to determine appropriate proposed improvement locations and elevations, as well as the extent of existing facility protection and relocation required.

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Project Understanding

Highway 212 project renderings previously completed by Bolton & Menk.



MORSE STREET UNDERPASS NORWOOD-YOUNG AMERICA, MINNESOTA CONCEPT PERSPECTIVE RENDERING 1 - VIEW FROM NORTH SIDE OF 212 LOOKING SOUTH





Morse Street Underpass | Norwood-Young America, Minnesota Underpass Concept Plan



MORSE STREET UNDERPASS NORWOOD-YOUNG AMERICA, MINNESOTA



SECTION ENLARGEMENT



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Project Approach

Bolton & Menk will serve the City of Norwood Young America using an engineering team approach led by project manager, Josh Eckstein. Josh will be the primary contact for the city and is responsible for all activities performed on behalf of the city. By using this approach, consistency is maintained for the services provided – the city only has to look to one place for answers or information.

A structured engineering team assembled from our organization of experience professionals will support Josh in service to Norwood Young America. Our team has the ability to provide expertise in municipal; stormwater management; structural; wastewater collection and treatment; water supply, storage, distribution, and treatment; transportation engineering; landscape architecture; GIS; surveying; municipal planning; and funding. **The Bolton & Menk team is intended to be an extension of city staff with close coordination between the city and team maintained at all times.** We have continually adhered to this philosophy for the city for more than 30 years.

As a result of our years of service to the city, Bolton & Menk has intimate knowledge of previous issues, the existing and planned infrastructure, and the drainage mechanisms and function in the city. In addition, we have a substantial amount of existing infrastructure information, survey control and records, right-of-way and platting information, and more in house and available for use.

Our extensive history, knowledge, experience, and available information will be used to complete the preliminary design, in accordance with the RFP to the high Bolton & Menk standards the city has come to expect, and in a cost-effective manner.

Project Management

Our approach is to lead the project process through consistent communication, firm schedules, and established milestones. Josh will be at the disposal of the City of Norwood Young America to meet their needs 24 hours a day, 7 days a week. In addition, with the proximity of our Chaska location and staff to the city, we will be able to respond to the city's needs in a timely and efficient manner and can be available for face-to-face meetings. Josh will coordinate with the geotechnical subconsultant to ensure the geotechnical evaluation and analysis is completed promptly and in accordance with appropriate agency regulations. No other subconsultants are needed for the preliminary design.

Maria Sanga et Na Angara A ananang Ale anan ta Ananan Sanga Sang Sanga Sanga Sang	Contracts See Sea
Project Overview Annual Service Statistical Professional Professional Professional Province Service Service Professional Professional Professional Professional Professional Professional Professional Professional Professional Professional Professional Prof	Updaten Apresidentia

Josh will be responsible for ensuring the preparation and submittal of monthly invoicing, project status updates, and website information updates in accordance with the RFP and as requested by the city. Bolton & Menk has extensive experience in

preparing the requested invoicing, project status, and website information updates. In fact, we provide these services on a regular basis for numerous projects with numerous clients on an annual basis.

Utility Identification and Coordination

Bolton & Menk will submit a Gopher State One Call ticket for topographic surveys in order to acquire the actual location of private and public utilities in the project area to the extent practicable. We will also request private utility maps with the locate request. The geotechnical subconsultant, Braun Intertec, will also routinely submit a Gopher State One Call ticket for their geotechnical investigation activities.

As part of the topographic survey, Bolton & Menk will complete structure surveys on all sanitary sewer, storm sewer, and watermain facilities accessible to determine the actual location, elevation, and condition of these facilities. All locates will be completed in accordance with statute, industry standards, and agency requirements.

Stormwater Management and Hydraulics Evaluation

Bolton & Menk is very familiar with the drainage, hydrology, and hydraulics within the city, including the regional ditch that is prone to flooding.

As part of the preliminary design, Bolton & Menk will complete a hydrologic and hydraulic analysis of the contributing drainage area. We will then evaluate the storm sewer pond, and storm sewer lift station required in order to provide drainage through and around the underpass,

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while maintaining existing drainage along Highway 212 and minimizing downstream impacts to the regional ditch.

Geotechnical Evaluation

Bolton & Menk intends to use Braun Intertec as a subconsultant to complete a geotechnical investigation and evaluation in accordance with the RFP requirements. The geotechnical evaluation will include the following:

- Soil borings
- Ground water elevation encountered
- Soil classifications
- R-value determination for pavement design
- Soil bearing capacity for foundation and bedding
- Sieve analysis on water bearing soil strata encountered for determination of dewatering needs
- Geotechnical report for submittal to the city and MnDOT

Survey Data

Bolton & Menk will complete a topographic survey of the applicable project area in accordance with the RFP requirements. The survey will include a topographic survey, structure inventory, utility locations, locating available monumentation, property lines, right-of-way monuments, bench marks, soil boring locations, etc. The survey control will be coordinated with the MnDOT project datum. In addition, Bolton & Menk will acquire plat and right-of-way mapping information as necessary. To the extent practicable, we will use the information we have available from previous projects in the area in order to complete the task in a cost effective-manner.

The monumentation location and property line survey activities will be completed to the level of accuracy necessary for the preparation of temporary and/or permanent easements. Easement needs are anticipated to be minimal. The south side of Highway 212 is city-owned Kehrer Park, thus no easements are needed. The north side of Highway 212 is Central School District property so easements or an agreement with the school district may be required.

Engineers Estimate/Opinion of Probable Cost

Bolton & Menk will complete a quantity estimate and preliminary Engineer's Estimate for the project based on the work required in the preliminary 30% complete plans. The preliminary estimated construction costs will be based on estimated final project work tasks and quantities, as well as an estimate of the current industry costs for completing the proposed work at the time the estimate is completed. Bolton & Menk will provide the city and MnDOT with all work in its original software format on a flash drive as part of the final product.

Alternative Approach

A value engineering alternative has been provided in Section 6 – Total Consultant Cost.



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Schedule

We have developed the following schedule detailing the anticipated work tasks, deliverable due dates, and final completion dates. This schedule is based on our review of the project background, description, and scope of services included in the RFP and our experience on other similar projects. Upon selection, Bolton & Menk will work with city staff and other project partners to revise and update this schedule as needed to ensure successful delivery of this project.

Task	Completion Date
City Authorize Contract	October 23, 2017
Commence Survey Activities	November 2017
Commence Geotechnical Evaluation	November 2017
Preliminary Plans	November - December 2017
Present Plans to Council	January 8, 2018
Submit Plans to MnDOT for Review	January 9, 2018
MnDOT Review	January - Mid-February 2018
Complete any Revisions Required by MnDOT Review	Mid-February - March 1, 2018
Submit Completed 30% Plans to City and MnDOT	March 1, 2018

NOTE: It is critical that council award the contract promptly as it is necessary to complete survey and geotechnical evaluation prior to inclement weather to be cost-effective and accurate. Project delays could affect the completion date of March 1, 2018, as MnDOT review period often takes as long as six weeks or more.



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Additional Information

Similar Experience

Bolton & Menk specializes in providing professional engineering services for municipalities. Over our 68-year history, the firm has continued to grow and expand its expertise based on the unique needs and challenges of cities. In addition to basic services such as infrastructure maintenance, reconstruction, and expansion, we offer specialized expertise in traffic and transportation engineering, landscape architecture, water resources, environmental services, surveying and mapping, water and wastewater treatment, city planning, as well as airport planning and engineering. This range of municipal services enables our firm to easily accommodate the diverse needs of our clients.

The following is a brief summary of recent project experience Bolton & Menk has completed that included numerous items related to the proposed project including box culverts, pedestrian underpasses, trails, and Safe Routes to School. Additional project information is available upon request.

CSAH 10 Realignment in Waconia, Carver County, MN

CSAH 10 serves as the backbone of Carver County running from Chaska, to Waconia, to Watertown. Much of the county's planned growth will occur near this corridor. CSAH 10 cuts through urban Waconia at lower speeds with many access points. The city and county have planned for a beltway that would re-route the corridor to the edge of the community serving as a high speed corridor with highly managed access. In 2014, the school district passed a referendum that called for major development to expand their facilities in Waconia. The land this was to occur on was split by this beltway vision, accelerating the planning and implementation of the western portion of the beltway.



Bolton & Menk worked with Carver County and the City of Waconia since voters approved the referendum. Competitive funding was successfully obtained to relocate the roadway to the west, with funds being used to manage access on Highway 5 and construct a roundabout at new CSAH 10. A comprehensive corridor study was completed to identify the corridor alignment, focusing on items



such as cost, safety, sight distance, typical section (urban or rural), trail accommodations, access management, intersection safety and control, property impacts, drain tile, and farmland triangulation. Our team also completed traffic studies, wetland delineations, hydraulic analysis, utility coordination, trail design, pedestrian underpass design, and right-of-way acquisition assistance. The partners agreed on a recommended alignment that balanced the key issues. This project is currently under construction.

TH 5 Corridor Improvements, City of Waconia, MN

The City of Waconia was looking to improve the TH 5 corridor as the city wanted additional thru and turn lanes to make the corridor more functional for the public. The city also wanted a trail system along the corridor for pedestrians and bicyclists. The project provided an opportunity to improve the city's watermain, sanitary sewer, and storm sewer, and also add a water re-use system.

During the design phase, various issues arose regarding ADA compliance and keeping both pedestrians and bicyclists safe. Bolton & Menk was tasked with making sure the job could be built to current ADA standards, which allowed for a continuous trail for pedestrians and bicyclists and ensured the footprint of the trail system fell within the city's right-of-way. A couple issues occurred with grades, MnDOT trail design requirements, and ADA standards. By using horizontal and vertical geometry (switch backs), Bolton & Menk was able to use a box culvert, MnDOT trail design requirements, and ADA rules to ensure all grades and requirements could be met while keeping the footprint of the trail within the city's right-of way.



During project construction, Bolton & Menk altered various grades and cross-slopes. These changes allowed the project to be constructed to current ADA standards while allowing for a safe trail system along the corridor.

Bolton & Menk completed the job and built a better, safer, and more direct road through the city for motorists, bicyclists, and pedestrians. The city was also able to improve their existing watermain, sanitary sewer, storm



sewer, and build a new water re-use system not only for today's use, but for future development along the TH 5 corridor.

Sidewalk and Trail Improvements, City of Lester Prairie, MN

The City of Lester Prairie needed to facilitate safe and efficient movement of pedestrian traffic from easterly developments to the existing city sidewalk system. This project filled the gap between the existing sidewalk system and the newly developed area of town.

The city updated its Comprehensive Plan in 2006. The plan describes how the traffic on County Road (CR) 23 and CR 9 will increase over the next several years. The plan calls for more biking and walking paths to give people an alternative form of transportation. It also states the city should support Safe Routes to School efforts that include educational and incentive programs.



Police department observations indicate that pedestrians have been riding their bikes and walking in lanes of traffic in order to get to the downtown businesses, school, city park, and pool. The police department indicated 101 traffic enforcement issues along this alignment in 2005-2006, one being a bicycle accident that resulted in injuries. Many citizens voiced concerns with their children having to walk in the roadway to get to their destinations. Because no crosswalks exist along CR 9, and the speed limit on CR 23 is 55 mph, ISD #424 buses students from East Park Estates rather than have them walk or bike to school.

Bolton & Menk designed a pedestrian facility that met the city's needs and budget, and also complied with all state and federal Safe Routes to School funding criteria. This allowed us to prepare and submit a worthy application for funding.

The city was awarded federal Safe Routes to School grant dollars for the project. A design which included both concrete sidewalk and a bituminous trail segment was developed to bridge the gap between the existing sidewalk system and the new development area east of town.

Box Culvert Underpass, City of St. Louis Park, MN

The City of St. Louis Park was looking to connect their existing pedestrian facilities to new sidewalk and trails throughout the city. They also wanted to create bikeways that connected to neighboring communities.



Bolton & Menk was tasked with creating horizontal and vertical alignments that connected the city's existing facilities together. There were many unique and difficult areas where grades and locations of the trail needed to be built, including areas adjacent to schools and parks. We also determined which pedestrian crossing technology would be used to allow for safe routes to and from these facilities.

Bolton & Menk was able to design and build trail and sidewalk systems that met current ADA and MnDOT standards, while also providing children safe routes to and from school.

CSAH 61/TH 41 Improvements, Carver County, MN



Carver County and MnDOT, in partnership with the Cities of Chaska, Chanhassen, and Carver are working together to identify transportation system improvements on TH 41

and CSAH 61. These corridors serve important roles in connecting the southwest metro area and providing access and connectivity within the local communities they serve to move pedestrians, automobiles, transit, and freight users.

The long-term corridor improvements will reflect the transportation needs of the region and the local communities they serve. Efforts include:

- Defining the issues and potential opportunities
- Establishing the goals and objectives
- Developing and evaluating improvement alternatives
- Reaching consensus on recommendations
- Developing a long-term implementation plan



This is a massive effort targeting some of the most challenging issues in the region. TH 41 is a four-lane roadway with parking bisecting a historic downtown constrained in 80 feet of right-of-way. There is limited pedestrian space. Traffic projections range from 22,000 to 26,000 vehicles per day. We worked hard on behalf of all parties to find a sustainable solution, which took compromise from all parties and coordination with city, county, MnDOT functional groups, MnDOT leadership, and Metropolitan Council leadership. Our work is not yet complete; our final round of engagement occurred this spring to present the recommended options for council approval. The recommended solution will be developed into a staff-approved layout for construction in 2019. Through innovative approaches, we have studied and shown all parties that a three-lane divided section can work for mobility, create turn lanes (which do not exist today), and greatly enhance safety and the pedestrian network, including a trail underpass. All agencies and partners support this recommendation.

We are also studying CSAH 61, which was Highway 212 prior to the freeway being constructed nearly 10 years ago. Changing land use, regional growth, and numerous access points have been factored into the planning. Our team identified realignment alternatives that support future regional traffic demands, address safety concerns, minimize impacts to significant environmental resources including a calcareous fen, and strike a balance between serving existing land uses and maximizing future development potential.

Dinkytown Greenway, City of Minneapolis, MN

During construction of the new I-35W bridge, a pedestrian underpass was installed for a future trail to connect the U of M West Bank Campus to 13th Avenue S in downtown Minneapolis. Bolton & Menk prepared the Project Memorandum, completed surveying and complex ownership identification, and prepared construction plans and specifications. The project site is one of complex history in terms of both land uses and property ownership. Various past industrial and railroad operations have contributed to soil contamination and buried debris.



Dinkytown Greenway included an 18-foot-wide facility with two 6-foot bike lanes and a 6-foot sidewalk. This configuration was developed in collaboration with the city public works and city park board. Trail wayfinding and bike lane striping on 13th Avenue S are other key project components.

River to River Greenway, Dakota County, MN

A linking greenway connecting the Big Rivers Regional Trail and Mississippi River Regional Trail was hindered by a one-mile missing segment. The connection was historically controversial due to potential impacts to Dodge Nature Center, an environmental education and habitat restoration organization located on 462 acres.



Innovative stakeholder engagement techniques were utilized to capture and illustrate stakeholder concerns. GPS application was used on an iPhone to capture realtime feedback during field walks, identifying both areas of concern and potential greenway locations. Audience polling during stakeholder meetings determined public concerns. Often minor changes could gain support for an alignment. The unique approach was tailored to best resolve the specific problem as it presented itself. Through this process, Bolton & Menk was able to successfully identify a recommended trail alignment, including a street underpass that connected an elementary school to the Dodge Nature Center, was supported by Dodge Nature Center, Henry Sibley High School, and the Cities of Mendota Heights and West St. Paul.

The River to River Greenway now makes an important connection between the Big Rivers Regional Trail and Mississippi River Regional Trail, as well as to several other amenities.

Additional Information

TH 23 Pedestrian Facility Grade Separation, City of Marshall, MN

MnDOT District 8 began developing plans for a mill and concrete overlay of TH 23 through Marshall to be completed in 2010. With these plans to remove and replace the pavement section, the City of Marshall recognized an opportunity to install a pedestrian underpass connecting Southwest Minnesota State University (SMSU) on the west side of TH 23 to the high school and a proposed athletic complex on the east side. Bolton & Menk determined the feasibility of a pedestrian underpass, completed a Level 1 Geometric Layout and environmental documentation, completed a Project Memorandum for federal funding, and prepared final design plans for construction. Bolton & Menk worked closely with the City of Marshall and MnDOT staff throughout the design process. The project was constructed in conjunction with the MnDOT project and completed in the fall of 2010.



The pedestrian underpass is a 14-foot by 10-foot box culvert with concrete sidewalk connections on both sides. It was designed to Americans with Disabilities Act (ADA) standards and enhanced with aesthetic retaining walls and lighting. The underpass improves safety conditions for pedestrians crossing TH 23 since they are not forced to either cross the highway at-grade or travel two-thirds of a mile out of their way to use a signalized intersection for purposes of traveling from one destination to the other. The pedestrian underpass facility has been integrated into the SMSU sidewalk and trail system.

Safe Routes to School

Bolton & Menk has provided a full range of services for Safe Routes to School projects to several municipal clients. Since 2006, we have assisted municipalities with planning, securing funds, and/ or implementation (design and construction) of Safe Routes to School projects. Our in-house staff has been specially trained and focused on pedestrian and bike project planning, design, and construction; MnDOT State Aid design standards and guidelines: and ADA compliance standards and regulations. Our team understands what makes a good Safe Routes to School project and has helped guide communities through the planning and stakeholder outreach necessary to establish a common goal and effective Safe Routes to School project. In addition to project engineers, we have GIS experts in-house who bring fresh ideas for the use of web-based GIS technology to spark interest and accessibility to Safe Routes to School information within a community.

Below is a comprehensive listing of communities Bolton & Menk has assisted with the planning, design, securing of funding, or construction for the Safe Routes to School program.

- City of Arlington
- **City of Mankato**
- City of Belle Plaine
- City of Belmond, lowa
- City of Big Lake
- City of Buffalo
- City of Cologne
- City of Eagle Lake
- **City of Fairmont**
- **City of Fridley**
- City of Jordan

- **City of Norwood** • Young America
- City of Perry, Iowa
- **City of Saint Peter** •
- **City of St. Francis**
- **City of Waconia** •
- Hans Hagen Homes
- Mankato ISD #77



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Total Consultant Cost

Total Consultant Cost

Bolton & Menk proposes to complete the preliminary design in accordance with the RFP requirements for a not-to exceed fee of **\$117,500**. This fee includes labor, vehicle and personal expenses, mileage, telephone, survey stakes, and routine expendable supplies; no separate charges will be made for these activities and materials. Expenses beyond the agreed scope of services and nonroutine expenses, such as large quantities of prints, extra report copies, out-sourced graphics and photographic reproductions, document recording fees, outside professional and technical assistance, and other items of this general nature will be invoiced separately.

Value Engineering Alternative

Based on our extensive experience working with the city, project understanding, and similar projects of this nature, we are confident we can minimize the overall approach while still providing a quality, cost-effective project. The following is a summary of project scope revisions recommended for consideration.

Geotechnical Evaluation

The RFP requires four 100-foot-deep soil borings for the box culvert underpass. This is typically required for a bridge with the need for piling construction. The project includes a box culvert underpass. MnDOT standards for soil borings for a box culvert are typically 20 to 25-feet below the bottom of the box culvert. We recommend consideration be given to reducing the depth of the four underpass borings to 40-feet.

Structural Engineering/Foundation Design and FADR

This requirement is typically for constructing a bridge and associated abutments. Box culverts under MnDOT controlled roadways have been standardized, in most cases, and require the use of a MnDOT Standard Plate for the plans. All structural requirements are essentially included in the standard plate. We recommend consideration be given to eliminating extensive foundation and structural requirements, and instead using the standard plates with a bedding design as approved by MnDOT for the box culvert.

Pavement Design

The RFP requires extensive pavement design evaluation and calculations for both the Highway 212 pavement replacement and the bituminous trail. The underpass installation is proposed to be included with MnDOT's Highway 212 overlay project. It is anticipated MnDOT will dictate to the city the Highway 212 pavement section required for replacement of the excavated pavement area. Typically, replacing an existing pavement on projects of this type requires replacing the existing pavement structure as it currently exists prior to placing the overlay. The MnDOT pavement design methodology generally does not apply to bituminous trails. In addition, the majority of the proposed trail is located outside of MnDOT rightof-way, thus MnDOT has no jurisdiction. We recommend eliminating the pavement design requirements shown in the RFP. Bolton & Menk would instead work with MnDOT to determine the Highway 212 replacement section required. We also recommend the trails be constructed with the current city standard trail pavement section that has been in use within the city for many years.

Project Website Updates

With this approach, we could bypass updating the 30% plans on the city website.

Should the City of Norwood Young America decide to use the Value Engineering Alternatives approach addressed above, Bolton & Menk proposes to complete the project for a not-to-exceed fee of **\$77,500** saving both the city and residents **\$40,000**.

RFP Based Fee Summary							
Civil Engineering	\$85,500						
Geotechnical Analysis	\$32,000						
Total RFP Based Fee	\$117,500						
Value Engineering Proposed Savin	gs						
Structural, Pavement Design, and Website Deduction	-\$29,500						
Geotechnical Analysis Deduction	-\$10,500						
Total Proposed Value Engineering Fee Savings	\$40,000						
Value Engineering Based Fee Summary							
Civil Engineering	\$56,000						
Geotechnical Analysis	\$21,500						
Total Value Engineering Based Fee	\$77,500						



SRF P11012

September 27, 2017

Mr. Steve Helget City Administrator City of Norwood Young America 310 Elm Street W. P.O. Box 59 Norwood Young America, MN 55368

Subject: Proposal for Professional Services for U.S. Highway 212 Underpass Preliminary Design City of Norwood Young America

Dear Mr. Helget:

Based on your request, SRF Consulting Group, Inc. (SRF) is pleased to submit this proposal to provide professional services to prepare the preliminary engineering design for the pedestrian underpass on U.S. Highway 212 in the City of Norwood Young America (City).

1. General Information

The successful design and implementation of this project will demand a seasoned and experienced team, one that the City and its partners can trust and with whom they can collaborate to satisfy the technical needs, schedule requirements, and management challenges generated by this highly visible project. **SRF Consulting Group, Inc.** and our team members have the experience, technical expertise, staff capacity, and management strategy needed to successfully complete this challenging assignment.

- 1) Local Connections SRF is currently working with City staff and Council to update the City's 2018 Comprehensive Plan.
- Safe Routes to School Grant SRF previously worked with City staff, representatives from Carver County Public Works, MnDOT and surrounding businesses to prepare the Safe Routes to School grant solicitation in which the City was successfully awarded \$1,225,360 in funding for the underpass project.
- MnDOT Experience We have a long working relationship with MnDOT Metro staff and have successfully developed and implemented pedestrian safety improvement's under MnDOT highways, like the City's proposed underpass project.
- 4) **Highway 212 Experience** SRF is currently designing a project along Trunk Highway 212 from Carver to Cologne which will provide two additional travel lanes and improved access

along the corridor. As part of this work, we have been involved with public engagement, agency coordination, permit applications, environmental clearance, funding assistance for construction, and preparation of construction documents. Our in-depth knowledge of the corridor, and experience working with review agency staff, property owners along highway, and the overall process of collaborating with MnDOT to incorporate the underpass project into MnDOT's future Trunk Highway 212 Pavement Rehabilitation Project, make SRF the right choice.

State/Federal Aid Experience

SRF has extensive State and Federal Aid experience on pedestrian/trail facilities, having produced numerous feasibility studies and designs conforming to the high standards required by State and Federally funded jobs. Pedestrian/trail facilities require smaller funding packages yet are complicated projects to deliver. SRF has a proven track record in delivering this type of project on time and on budget.

Much of our success is due to our trusted relationships with regulatory agencies and ability to balance the interests of the agencies with those of our client, resulting in implementable, cost-effective projects that achieve project goals. We have cultivated these relationships by coordinating with the agencies early in the process, clearly explaining the parameters and goals of the projects and identifying agency issues, concerns, data needs, and regulatory processes. We follow up these initial discussions with responsive analysis and well-considered conclusions.

Underpass/Overpass Experience

Our firm's experienced engineers have designed a multitude of pedestrian/trail crossing projects which range in complexity from simple timber structures to intricately detailed trail bridges with unique aesthetics and accent lighting, optimal for becoming recognizable landmarks and community gateways. We specialize in designing vital connections uniting communities while improving safety. Our trail tunnel and bridge projects utilize multiple structure types to create an aesthetic sensitive to the surrounding environment. Our full-service approach includes civil engineering, environmental services, landscape architecture and urban design and public involvement.

Descriptions of selected projects similar to the Highway 212 Underpass proposed in the City of Norwood Young America are included on the next page:

Selected Project Experience



Parkers Lake Trail Underpass | Plymouth, Minnesota

The City of Plymouth retained SRF to prepare construction plans for the Parkers Lake Trail underpass at CSAH 6. This project was part of the reconstruction of CSAH 6 and consisted of a precast concrete box culvert underpass with cast-in-place wingwalls at each end.

To enhance the views of the entrances to pedestrian traffic, SRF developed special stone facing and other aesthetic treatments and architectural designs.

TH 7/School Road Pedestrian Underpass | Hutchinson, MN

SRF was selected by the City of Hutchinson to develop a feasibility study and design plans for a pedestrian underpass beneath TH 7. The pedestrian underpass provides access from the Luce Line Trail and Oddfellows Park to the north side of TH 7, while reducing pedestrian and bicycle conflicts at the intersection of TH 7 and School Road. The project included five secondary trail connections, providing additional trail connectivity to the Luce Line Trail, Shady Ridge Road and School Road. The preferred design included both cast-in-place and segmental retaining walls with surfaces designed to match the architecture of the nearby Heritage Museum. SRF also prepared final construction documents for use in MnDOT's construction plan as well as a separate set of documents for the City.





Wayzata Country Club Underpass | Wayzata, Minnesota

For safety reasons, it became necessary to develop a pedestrian crossing under Wayzata Boulevard for golfers traveling from the Country Club to the driving range.

Aesthetics were very important to the Country Club, so SRF developed a concept that would match and compliment the existing Club. This was accomplished by utilizing a precast concrete box culvert section with cast-in-place wing walls with a stone pattern that matched the type and color of the existing Country Club. Ornamental railing was also utilized with provisions for future ornamental lighting if this became desirable.

Additional Experience

Project	Underpass	Regional Trail	Design	Public Process	Planning
Lyman Boulevard (CSAH 18) Highway 41 to Powers Boulevard (CSAH 17), Carver County	•	•	•	•	•
Lake Minnetonka Underpass TH 7, Carver County		•	٠		
TH 41 Trail, Carver County		•	•	•	•
TH 110 Crossing in Mendota Heights, Dakota County		•	٠	•	•
Luce Line Trail, Hennepin County		•	•	•	•
Dakota Rail Regional Trail, Carver County		•	٠	•	•

KEY PERSONNEL

Project Manager – **Nathen Will** - Nathen will use his 21 years of experience in engineering and project management to develop a technically sound underpass alternative that balances raising the Highway 212 roadway profile, stormwater and utility impacts with the connectivity of the trails within Kehrer Park and the Central School District's property. Nathen was involved with the concept design used to secure the City's \$1.2M in funding from the Metropolitan Council's Safe Routes to Schools program. He will use this project background for a seamless transition to the preliminary engineering phase. Nathen has worked on numerous MnDOT projects and understands what MnDOT will require for the staff approved layout and 30-percent preliminary plans. He has led previous underpass projects including the Trunk Highway (TH) 7 at School Road (Hutchinson) and Lyman Boulevard (Chanhassen) while serving as the QC/QA Manager for the TH 41 trail and underpass (Chanhassen).

Drainage Design – **Bob Leba** - Bob has 19 years of experience in highway and municipal drainage design including projects coordinating with both MnDOT and the Carver County Water Management Organization (CCWMO). Bob will evaluate and find a stormwater solution that meets MnDOT's and CCWMO requirements while minimizing maintenance needs for the City. Bob will coordinate the drainage design to facilitate construction of the pedestrian underpass. Bob recently coordinated the drainage design with the TH 110 trail underpass in the City of Mendota Heights.

Geotechnical – **Bryan Field** (Braun Intertec) - Bryan has 13 years of experience on geotechnical projects, and will prepare the FADR for the underpass and the MDR for the trails. Bryan has coordinated the soil borings along Highway 212 and Lyman Boulevard for the Carver County Public Works and is familiar with the soils in the area. Bryan also understands the MnDOT geotechnical guidelines and will look for opportunities to reduce project costs by coordinating with MnDOT. Bryan has assisted the project team with previous projects including specifically the TH 110 underpass in Dakota County and Lyman Boulevard in Carver County.

Structural Design - **Casey Black** - Casey has 12 years of structural engineering experience and has designed trail underpasses under TH 110 (Mendota Heights), TH 7 at School Road (Hutchinson), and Lyman Boulevard (Chanhassen). Casey will balance the roadway, trail, stormwater, utility and geotechnical impacts associated with the underpass while meeting MnDOT's structural requirements.

QA/QC Manager – **Craig Hass** – Quality is one of SRF's core values. Craig has 15 years of experience in a wide variety of MnDOT, County and City roadway projects. As the QA/QC Manger, Craig will use this experience to ensure that risks are managed appropriately and that all quality control procedures are followed.

Sub-consultants

Braun Intertec

Located in Minneapolis, **Braun Intertec** will provide geotechnical engineering services. For more than 50 years, Braun Intertec has provided geotechnical, environmental, and testing solutions in the private and public sectors. Their award-winning services include engineering, environmental and laboratory testing, geothermal consulting, and materials laboratory for the commercial, industrial, energy, institutional, construction and government sectors. Their interdisciplinary approach ensures they are available throughout all stages of the project – from planning and design to construction, to ongoing management and operations.

2. Project Understanding

The City of Norwood Young America is a growing semi-rural small community located on the fringe of the Twin Cities Metropolitan Area in Carver County. The city is divided by Highway 212 (principal arterial) a four-lane divided rural expressway running east-west with a posted speed limit of 50 miles per hour. The city's public schools, Central High School, Central Middle School and Central Elementary School are located north of Highway 212 between Reform Street and Morse Street. Highway 212 divides the residential areas resulting in a large portion of the student population having to cross Highway 212 to access the schools. The most direct route across Highway 212 is an existing crosswalk at the unsignalized intersection of Morse Street. This crossing has many challenges including:

- A long crossing distance (260 feet) due to the skew of the intersection and the four-lane divided roadway.
- High-speed conflicting traffic volumes, much of which is traveling above the posted speed limit and comprised of a large percentage of heavy commercial vehicles.
- Distracted drivers not yielding to pedestrians in the marked crosswalk.

These conditions make Highway 212 an unsafe environment for students, which is demonstrated by the low volume of students walking/biking to school.

The Norwood Young America Highway 212 Underpass safety improvement project will provide a safer more direct route to the city's schools through the construction of a pedestrian underpass (box culvert) under Highway 212 and provide connections to local streets. This project will fill a critical gap in the city's existing trail network. The project will also meet State Aid Standards, the Americans with Disabilities Act (ADA), and the MnDOT Bikeway Facility Design Manual and will provide a non-motorized transportation option to the residents of the adjacent neighborhoods.

The project need was identified as part of the Highway 212 Access Management, Safety and Phasing Plan (2016) and as a priority project for the Southwest Corridor Transportation Coalition. The

project will also coincide with MnDOT's Highway 212 mill and overlay project in 2020. As part of these planning initiatives, public and stakeholder involvement meetings were held to better understand the key issues and concerns in the City. From those meetings, it was clear that there are safety concerns for students walking and biking to school.

One of the primary project goals is to provide a safe, cost effective crossing for pedestrians, cyclists, and non-motorized travelers at or near the intersections of Highway 212 at Reform Street and Morse Street. The City has local and Federal funding (Safe Routes to School) allocated to the underpass crossing and was approached by Carver County and MnDOT with an opportunity to tie the underpass crossing to the planned MnDOT resurfacing project on Highway 212. This opportunity provides the City the ability to take advantage of efficiencies in environmental documentation, final design and construction of work which will be completed under the MnDOT resurfacing project.

The City will lead this multi-jurisdictional project. SRF Consulting Group, Inc. understands that in addition to the City, the Central Public School District, MnDOT and Carver County all have a vested interest in the pedestrian underpass and associated trail connections.

3. Project Approach

SRF Consulting Group's approach to every project is simple: provide our best service to each and every client through clear and consistent communication, innovative and sustainable solutions, accurate and cost-effective services, and respect for all interested stakeholders.

This underpass project has a diverse range of stakeholders including the City, MnDOT, Central Public School District, Metropolitan Council, Carver County, residents and businesses and the Carver County Watershed Management Organization. In additional to technical expertise, strong project management and a project manager who knows and can communicate with all agency stakeholder as well as the local businesses and residents is critical to completing the project on time and within budget.

Critical Path Tasks

Our project team has years of experience and an extensive list of projects successfully delivered which involve both State and Federal Aid project delivery. Our staff clearly understands the approval sequencing of the Highway 212 Underpass project, and time sensitive tasks. It will be imperative in the preliminary design phase to provide clear and accurate information such that the City Council and MnDOT may easily identify the preferred trail connection through the underpass.

Critical path work tasks such as Right-of-Way identification, environmental documentation (additional scope task), and geotechnical field work can be completed only after the preferred trail connection has been identified. The selected trail connection will dictate the next steps in the design development and agency review process.

We have identified several key activities and components needed for this project, and our approach to addressing them is included below.

Project Management

Regular and clear communication with all parties involved is paramount to delivering a successful project. This can mark the difference between projects delivered on time and on budget and those which are not. At the onset of the project, clear communication paths will be established between the City Project Manager, the MnDOT Project manager, the SRF Project Manager and the design team. Information and graphics for inclusion into the City website will be prepared as necessary to communicate concise project updates to the public.

As Project Manager, Nathen Will will maintain regular contact with the City Project Manager to coordinate work and maintain the project schedule (including workload, deliverables, and project meetings). Nathen will also conduct the project kick-off meeting and project management team (PMT) meetings and produce meeting minutes in a timely manner, as well as preparing monthly invoices and providing progress reports of work tasks remaining and completed.

Highlighted below are three critical project management areas that must be actively managed for the Highway 212 Underpass project to be successful.

- 1. **Stormwater Management.** The existing topography including rural ditches, existing stormwater ponding, the drainage ditch that passes under Morse Street and the limited right of way have pinned the underpass crossing to the area identified in the Pedestrian Underpass Concept plan. Additional drainage impacts will be reviewed to provide trail connections adjacent to Highway 212 to provide key connections directing pedestrians to the underpass rather than the existing at-grade intersections at Reform Street and Morse Street. These connecting trails are considered essential to the project; however, additional drainage impacts and coordination will be necessary with all stakeholders to determine the optimal solution.
- 2. **Right-of-Way.** It may be determined that privately held lands will be impacted for the permanent underpass structure, the associated trail connections, drainage improvement or for its maintenance. SRF will quickly identify impacted lands and provide detailed limits of impacts. This information can be used to begin negotiations for permanent land easements or possible land acquisitions. Right-of-Way negotiations will need to satisfy the Federal Rules for Acquisition and should begin as early in the project as possible once impacts have been identified and the preferred crossing concept selected.
- 3. **Cost Control.** Local and Federal funding has been allocated toward the construction of the underpass project. It is imperative during preliminary design to provide the City and MnDOT with complete information from which they may base selection of the improvements. Maximizing efficiencies resulting from tying the Highway 212 Underpass project to the Highway 212 resurfacing project will provide significant cost advantages during final design and construction.

Utility Identification

SRF will follow the MnDOT procedures outlined in the MnDOT Utilities Manual, which lays out steps from early identification via the Gopher State One Call, ongoing coordination and correspondence with utility representatives, and depicting the utilities in the preliminary construction documents. The process includes one meeting with utility companies to ensure a plan of action is in place to deal with affected utilities within the project area and prevent any impacts to the project schedule.

SRF will coordinate with MnDOT's Highway 212 project to avoid any duplication of effort. We are familiar with the existing sanitary sewer, watermain and storm sewer within the project area based upon our earlier coordination and conceptual design that we prepared for the City with Carver County involvement through the Safe Routes to School grant.

Our efforts will be focused on locating existing facilities in the project area during the preliminary design stage to accurately reflect the potential impacts due to the proposed underpass and trail connections. Based upon our earlier concept design, we determined the watermain along the north right-of-way line of Highway 212 would need to be lowered at the underpass / trail crossing. Also, consideration for insulating the existing sanitary sewer or lowering the pipe would be further evaluated during the preliminary design to look for ways to reduce the overall project cost.

SRF will submit a Utility Adjustment Memorandum to the City and MnDOT summarizing the necessary utility relocations or adjustments for the underpass project.

Stormwater Management and Hydraulics Evaluation

During the preliminary design our trail and drainage design team will perform a preliminary hydraulic analysis for the underpass location as identified in the Pedestrian Underpass Concept Plan. This is particularly important so that the underpass is hydraulically disconnected from the adjacent stormwater ponding area that exists in Kehrer Park, south of the underpass opening, the adjacent conveyance ditches along Highway 212 and avoids impacts to the existing drainage ditch between the Dairy Queen and Highway 212.

A detailed hydraulic analysis will be completed for the preliminary design including project corridor between Reform Street and Morse Street. The findings of the analysis will be summarized in a report and incorporated into the design to determine pipe and structure needs, ditches and ponding options.

Once the preliminary design is completed, the drainage team will develop the surface water model for the 100-year storm event at the underpass location.

Geotechnical Evaluation

Bryan Field will lead the geotechnical design effort for the Highway 212 Underpass project. Bryan, with assistance from his team, will prepare the geotechnical subsurface investigation plan and geotechnical analysis identified in the RFP. Bryan's geotechnical experience working with state, county and other government agencies and the team's familiarity with MnDOT Trunk Highway standards will be imperative to successfully delivering this project in a timely and effective manner.

<u>Survey Data</u>

SRF will augment the survey and mapping data, SRF previously collected to review the concept design, so that preliminary construction limits and tie-in points are accurate for the underpass project. Critical utility, wetland, drainage and underpass information will be field located by survey. A full topographic survey will be required for areas with no other information available. SRF will coordinate with MnDOT for additional survey and mapping data if available for the larger Highway 212 overlay project. The survey will be consistent with the MnDOT survey datum. Our fee includes additional supplement surveys, assumed for 3 working days and one office day, as required in the RFP.

Structure Engineering and Preliminary Design Plans

The preliminary engineering phase will begin using the location of the underpass noted in the Pedestrian Underpass Concept Plan. SRF will meet with City staff to review the scope, schedule and project milestones based upon the preferred structure type. Time-sensitive design tasks such as Right-of-Way acquisition will commence based upon the updated schedule.

SRF will prepare a Geometric Layout and Preliminary Bridge Plan for the underpass in accordance with MnDOT standards. They will be submitted for review and approval by the City and MnDOT. All design exceptions will be identified and provided to the City and MnDOT for consideration.

A preliminary bridge plan will be prepared in accordance with MnDOT's preliminary bridge plan checklist. The plans will include the proposed bridge geometry, design criteria, structure type, and foundation type. MnDOT considers box culverts greater than 10-feet wide as a bridge, therefore the preliminary bridge plan checklist governs the design.

A preliminary bridge plan would require approval from the MnDOT Bridge Preliminary Design Unit before final design could progress. Environmental Documentation approval would need to be received before preliminary bridge plans could be approved.

Right-of-Way Mapping

The construction limits developed in the preliminary design will be used to determine the proposed right-of-way and easements that will be required for the early right-of-way acquisition period. SRF

will provide the City a plan view drawing of proposed Right-of-Way and easement areas to fully encompass the project and any needed drainage, utility, temporary and maintenance easements.

Engineer's Estimates

Accurate construction cost estimates continue to be an essential tool in evaluating the success of projects. We will prepare and submit a cost estimate with the preliminary (30%) construction plan. We will also engage our construction staff and discuss pricing with other industry experts to ensure accurate pricing.

Submission of Work

SRF will develop the proposed 30% construction plan using the current MnDOT CADD standards in MicroStation format. This will ensure the electronic files will be easily incorporated in the larger Highway 212 mill and overlay project with minimal effort by MnDOT. Our file deliverables will be provided to the City on a flash drive and include a PDF of the final deliverables.

4. Schedule

The schedule for this project, as outlined in the RFP will require the skills of a project manager with experience in managing multi-agency projects, as well as one who is familiar with the MnDOT design requirements. This skill is not one that is learned quickly or easily – it takes years of experience to understand the processes and the time the various tasks take.

Our Project Manager, as well as our carefully selected team members, have significant experience in projects similar to the Highway 212 Underpass and understand the unique needs of this project and the affected stakeholders. Through close coordination and clear communication with all stakeholders, we can ensure project milestones are met. Our experience, commitment to the client and the success of the project, and our strong relationships with the affected agencies give us the ability to manage this multi-agency project and complete it on schedule and within budget.

We have shown our anticipated project schedule on the next page, and have indicated the key tasks, milestones and the approximate dates for this project. In addition, we have shown key deliverables as well as the various meetings anticipated throughout the design life of the project.

U.S. HIGHWAY 212 UNDERPASS PRELIMINARY DESIGN

	2017							2018			
TASKS		ept	Oct	Oct Nov		Dec		Jan	Feb	Mar	
Project Management											
ADMINISTRATION/COORDINATION								•			
QA/QC											
reliminary Engineering											
SURVEYING AND MAPPING				7	🔶 D	esign Fi	le				
GEOTECHNICAL BORINGS											
FADR/MDR								Underpa	ass FADR Tra	il MDR	
HYDRAULICS ANALYSIS							-	Hydrauli	c Analysis Re	port	
STRUCTURAL ENGINEERING									relimin	ary Bridge F	
PUBLIC AND PRIVATE UTILITY COORDINATION								0	📕 🤶 Util	ity Adjustm	
STAFF APPROVED LAYOUT									Staff App	roved Layo	
30% PLAN										🕇 30% Pla	
RIGHT OF WAY IDENTIFICATION									7	Propose	
ENGINEERS ESTIMATE									7	Prelimin	
ENVIRONMENTAL SCREENING (ADDITIONAL TASK)								7	Environm	ental Tech N	

→ March 2 Submittal

5. Additional Information

5.1 <u>NEPA Requirements & Environmental Documentation</u>

To comply with federal funding procedural requirements, the proposed project will need to include documentation of the potential for social, economic, and environmental (SEE) impacts under the National Environmental Policy Act (NEPA). Our first step will be to coordinate with MnDOT to verify the type of document needed based on funding sources, and which process applies (Federal Aid Project Memorandum versus Trunk Highway Categorical Exclusion Document), and the relationship of the project to the Highway 212 resurfacing project. We believe at a minimum; the City will be required by MnDOT to initiate the environmental screening of the proposed underpass project with the assumption that the underpass NEPA document would be rolled into the larger Highway 212 environmental document prepared by MnDOT. Therefore, we propose to prepare an Environmental Technical Memorandum, for the City to document the initial screening results and will submit to MnDOT for consideration.

Optional Cost: Estimated fee to prepare the Environmental Technical Memorandum is \$2,000

6. Total Consultant Cost

SRF is pleased to present this fee estimate which has been developed to deliver the project identified in the RFP including the MnDOT layout and preliminary plan. If SRF is selected for this project, we propose to meet City staff to complete and refine as necessary our scope of services and estimated amounts to arrive at a mutually agreeable contract amount. Our fees for this project are allocated as follows which includes our subconsultant fees:

Task	Amount
Project Management	\$5,000
Utility Identification	\$3,000
Stormwater Management and Hydraulics Evaluation	\$10,000
Geotechnical Evaluation	\$20,550
Survey Data	\$4,000
Structure Engineering and Preliminary Design Plans	\$15,000
Right-of-Way Mapping	\$2,000
Total Consultant Cost	\$59,550

Mr. Steve Helget City of Norwood Young America September 27, 2017 Page 13

We sincerely appreciate your consideration of this proposal and look forward to working with you on this project. Please feel free to contact us if you have any questions or need additional information.

Sincerely,

SRF CONSULTING GROUP, INC.

Vater. Lil

Nathen A. Will, PE (MN IL) Senior Associate

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Kevin Jullie, PE (MN) Principal