

# **REQUEST FOR PROPOSALS FOR PROFESSIONAL ENGINEERING SERVICES**

The City of Sioux Falls, South Dakota, (City) is accepting proposals from qualified firms for the following professional engineering design services.

## **MINNESOTA AVENUE FROM RUSSELL STREET TO 18<sup>TH</sup> STREET**

### **PURPOSE**

Minnesota Avenue serves as both a primary gateway and major traffic corridor to a cluster of important destinations and neighborhoods; the downtown, the Sports and Entertainment District, the regional airport, City and County campuses, and several neighborhoods.

The purpose for Minnesota Avenue is to provide a lively, secure, distinctive corridor to better serve the public and enhance the community image for visitors. The main goals of the Minnesota Avenue reconstruction project are to stimulate economic development in the core of the City, to raise aesthetics and create a favorable impression, to improve traffic flow, and to promote pedestrian safety and corridor walkability.

The City intends to reconstruct Minnesota Avenue from Russell Street to 18<sup>th</sup> Street in phases over multiple years.

### **BACKGROUND**

The Sioux Falls Metropolitan Planning Organization (MPO) 2040 Long Range Transportation Plan (LRTP) is the comprehensive document that strives to preserve the quality of life and economic vitality by providing guidelines for a safe and efficient transportation system. In a market research analysis conducted to support the LRTP, public survey results indicated preserving people's ability to travel across and through the City of Sioux Falls is a top concern. In addition, the LRTP identified several areas to be considered for investment, including enhancing operational efficiencies by adding capacity and providing a transportation system that fully supports a multi-modal transportation system.

Minnesota Avenue was constructed by the South Dakota Department of Transportation (SDDOT) as SD Highway 115. In 2005, the SDDOT and the City executed a jurisdictional agreement, which transferred all state highways inside city limits to the City. The City now has ultimate authority of Minnesota Avenue.

Minnesota Avenue is a four-lane facility with center turn lane, back of curb sidewalk, and parking on both sides of the street in certain areas of the corridor. The average traffic volume is 23,000 vehicles per day and the 2040 volume ranges from 20,000 to 25,000 vehicles per day.

## **SCOPE OF SERVICES**

1. Scope of work is as follows, but is not limited to:

- A. **Project boundaries:** The selected consultant will complete a survey and geometric layout of Minnesota Avenue from Russell Street to 18<sup>th</sup> Street. The corridor is nearly two miles long.
- B. **Street Section:** The street will be a concrete section with a narrow, raised median. Median detailing will need to be evaluated with Parks and Recreation, Planning and Building Services, and Public Works.

A variety of proposed typical sections for Minnesota Avenue were analyzed and shared with the public in the 2014 Minnesota Avenue Streetscape Plan. This document recommended the removal of on-street parking, narrowing the street to provide boulevards between the back of curb and sidewalk, and installing an elevated median along the corridor with median openings at the ¼ mile locations.

The consultant will need to evaluate and recommend improvements relating to capacity, such as access consolidation and reduction, median installation, turn lanes, and any pedestrian improvements so this corridor can safely accommodate future growth. The consultant should also obtain the crash data from the SDDOT and review the crash history and recommend any improvements needed to reduce crash potential. The crash information should be included in the corridor geometrics technical memorandum.

Minnesota Avenue from Russell Street south to Bennett Street was reconstructed in 2004 with a SDDOT Roadway Safety Improvement project. The consultant should analyze this concrete section to determine if any concrete rehabilitation work is needed as part of this project.

- C. **Traffic/Transportation Planning:** There are traffic signals at Russell Street, 2<sup>nd</sup> Street, 6<sup>th</sup> Street, 8<sup>th</sup> Street, 9<sup>th</sup> Street, 10<sup>th</sup> Street, 11<sup>th</sup> Street, 14<sup>th</sup> Street, and 18<sup>th</sup> Street. There is no existing fiber or conduit between Russell Street and 6<sup>th</sup> Street.

The Russell Street signal equipment was installed in the 2004 SDDOT project. Replacement of this equipment is not planned, but the intersection does need to be compliant with the Americans with

Disabilities Act. Improved camera traffic detection is also needed at this intersection.

The other existing traffic signals were updated by the SDDOT in the late 1990's and, in some cases, can be reused. After the geometric layout is finalized, the consultant should analyze if the existing poles, mast arms, and controller boxes can be reused and relocated with the project. Audible pedestrian crossings and pedestrian push buttons are needed at the signalized intersections.

All new communication facilities should be planned from Russell Street to 6<sup>th</sup> Street. New fiber and 2-inch innerduct should be designed. Existing conduits from 6<sup>th</sup> Street to 18<sup>th</sup> Street vary in size from 1 ½ inch to 2 inch and carry traffic and information technology fiber. The existing conduits may need to be replaced.

Permanent counter loop stations should be planned for the areas in between traffic signals. Iteris, MioVision, or Grid Smart systems should be explored for traffic data collection at the intersections. At least two traffic monitoring cameras should also be planned along the corridor. These cameras would be available on the City's website for street conditions and public information, similar to other locations throughout the city.

The existing speed limit on Minnesota Avenue is 30 mph. The consultant should design the new corridor for 40 mph if achievable. The City may consider raising the speed limit to 35 mph after the project is completed.

The average traffic volume on Minnesota is 23,000 vehicles per day. The 2040 volumes range from 20,000 to 25,000 vehicle per day. The consultant will verify the number of lanes needed using the City's 2040 traffic model. The City will provide the turning movement counts at all intersections for the consultant to determine the lane geometrics and storage length needs. U-turn lanes should be planned on all legs of the intersections. The consultant shall prepare a technical memorandum discussing the current and future geometrics, crashes, and street section recommendations along the corridor.

A thorough detour traffic plan will be required to determine the alternate routes, minimum lanes needed to keep open to traffic, and other traffic related impacts of this construction project. The consultant should have experience in forecasting traffic using the City's traffic model. Turning movement counts, traffic counts, and

traffic projections are available from the City Engineering Division. Video data will be available if needed for the analysis.

Discussions during the public involvement process for the 2013 Minnesota Avenue Streetscape Study revealed the need for off-street parking lots for adjacent property owners in strategic locations. According to Engineering Design Standards, on-street parking on arterial streets is not allowed. The on-street parking removal along this corridor is a very sensitive topic and has been discussed numerous times over the last twenty-five years with the adjacent property owners. The most recent parking study was completed in 2013 with the Streetscape Plan. The City will complete an updated parking study for this design to share with the consultant.

During the streetscape study, an additional traffic signal was discussed at the intersection of Brookings Street. This was suggested to help with safe pedestrian crossings and allow vehicles to enter the corridor safely at a signalized intersection. The consultant shall consider this during the analysis to determine if this is a correct location and if this is a reasonable solution.

- D. **Access Management:** Minnesota Avenue has the access category Arterial I, as described in Chapter 8 of the Sioux Falls Engineering Design Standards. Access shall be removed and consolidated where other access is available. Back access, U-turns, relocation to collector streets, or service roads will be explored for access to residential properties. All existing accesses will be required to be permitted if no permit exists.

When working with property owners, the consultant may need to prepare circulation exhibits for various businesses to show how reducing access would benefit the properties. The consultant should also be familiar with public alleys available for back access for properties.

- E. **Water main:** There is an existing 36-inch concrete transmission water main with two parallel 6-inch distribution water mains on both sides of the corridor. The transmission main will be replaced with a 42-inch ductile iron pipe. This transmission main is the primary feeder of water to the south side of the City.

There two distribution mains will be replaced with one 8-inch main and one 12-inch main running on both sides of the transmission main. The location for each will be determined by the consultant.

There will likely be six 42-inch gate valves on the transmission main. The connections to the transmission main will be minimized which will allow for better flow and capacity. The 12-inch water main would be connected to each of the street intersections and would also be connected to the transmission main at four locations; Russell Street, 3<sup>rd</sup> Street, 8<sup>th</sup> Street, and 14<sup>th</sup> Street.

Water main functionality considerations need to be analyzed during the design. For example, construction phasing, temporary water, limiting water outage, and determining the preferred time to switch water from the 36-inch pipe to the 42-inch pipe are all critical items for consideration during the design. From our water modeling analysis, the segment from 8<sup>th</sup> Street to Russell Street will impact the transmission system when offline. We recommend leaving the 36-inch line in service when constructing this segment. The segment from 8<sup>th</sup> to 14<sup>th</sup> Street can be taken off line with minimal impact.

The transmission main will have to be restrained at the joints near fittings. Engineering calculations will determine the distance restrained from fittings (potentially 30% of the main is planned to be restrained). Corrosion protection, air relief, hydrants, and all related materials will be considered.

- F. **Sanitary Sewer:** There is an 8-inch sanitary main along the entire corridor and it is expected to be removed and replaced throughout the corridor with a new pipe size determined by the City. Additional items will include identifying active services and replacing them to a point behind the curb and gutter, eliminating inactive services, and extending services to serve future redevelopment when appropriate. Manholes will need to be evaluated and replaced if needed.
- G. **Railroad Crossing:** The railroad crossing is for the Ellis & Eastern Railroad. This crossing will be removed and replaced with the project. Coordination with Ellis & Eastern will be a key issue for the project. The crossing improvements planned should allow for a smooth transition into a quiet zone in the future if needed.
- H. **Storm water:** All new storm water conveyance systems shall be designed along the corridor. The drainage studies for this area are posted to the RFP website for review. All necessary studies, permits, and approvals required by the project will be completed by the consultant.

Additional tasks include:

- Analyze the potential for increased runoff from the arterial street expansion and provide recommendations to mitigate any potential downstream impacts.
  - Evaluate and provide recommendations for storm water treatment to promote water quality.
  - Provide a technical memorandum summarizing storm water design information including references for previous drainage studies relied upon for project design. Include existing and post-developed hydrology for the corridor or adjacent basins conveying to the corridor during the minor/major design storm events.
  - Analyze downstream conveyance for potential tail water effects potentially affecting pipe hydraulic design.
  - Provide a storm water hydraulic model in XPSWMM compatible format.
- I. **Lights:** The project will include a new LED street lighting system with conduit, footings, and meter feeds. (The median is the preferred location for the street lights, but will be dependent on the median design). Street light layout will be established using photometric calculations. The Contractor shall furnish and install the street light system. The Electric Light Division will complete the line to line connections.
- J. **Multi Modal Considerations:** The Complete Streets Assessment Checklist will be evaluated and completed. The consultant will explore ways to improve bicycle and pedestrian movements in this corridor. All sidewalks will meet Americans with Disabilities Act (ADA) requirements.

Coordination with the City's Bicycle and Pedestrian Committees should be planned during the preliminary design. To date, parallel bicycle routes on Spring Avenue and on Dakota Avenue have been discussed. This would alleviate on-street routes on Minnesota Avenue, but would still allow bicycles to cross the corridor. Improvements should be planned to assist in facilitating these parallel route improvements. Striping, signs, and pavement markings should be incorporated. A separate technical memorandum is needed for this analysis.

Individual meetings with emergency services providers and public transit will be needed to discuss the project and the impacts during construction. Updated bus stop locations may be necessary.

Meetings with the Visual Arts Commission, Accessibility Review Board, Metropolitan Planning Organization, and the various Downtown Review Advisory Committees, at a minimum, should be conducted. Monthly status update meetings with a design team should be planned. The design team will have Public Works, Planning and Building Services, Parks and Recreation, and Economic Development representatives.

- K. **Other design considerations:** The consultant will explore all possible accelerated construction options for this project to minimize the impacts to the existing drivers.

The following past studies available for review by the consultant will be on the City's website:

- Minnesota Avenue Streetscape Study (2013)
- Minnesota Avenue Corridor Study (2010)
- Various drainage studies

- L. **Public Involvement:** At least three public open houses are expected for this project. The first should occur during the fall of 2018 and the second should occur at the end of the preliminary geometric design. The final open house should occur during final design. A fourth open house could also be planned after bid opening and the awarded contractor could attend the open house. The consultant will be expected to reserve a meeting location, prepare exhibits, send out the meeting information, provide meeting minutes, and attend all meetings. The meeting location should be a public facility.

- M. **H-Plats/Easements:** The consultant will prepare temporary construction easements. Actual right of way acquisition will depend on the final traffic lane needs determined in the traffic analysis. There are close to 200 parcels along the corridor. The consultant will need to research the existing right of way for this corridor at the courthouse and also attend land owner meetings.

- N. **Schedule:** The consultant should assume a notice to proceed by early October of 2018. The consultant should also assume that a phase of the project will be constructed in 2020 with a second phase constructed in 2021. The phasing will depend on street condition need, traffic needs, and public input.

The consultant will need to determine the costs per block, the intersection costs, and the overall corridor estimates. A technical memorandum shall be prepared detailing the recommendations for construction phasing. Keeping the street open to traffic is

preferred. The discussion on which segments or intersections to do first will be a critical aspect of this project. The consultant should consider all variables during their analysis and recommendations.

The consultant will propose a schedule they feel best represents their level of effort available for this project. The geometrics and survey of the entire corridor and an analysis of what segments of the corridor should be phased first for construction is critical in the preliminary design. The final design will include the first phase of the proposed construction.

- O. **Funding:** This project will be funded using 100% City funds.
- P. **Private Utilities:** The private utility companies have been notified and made aware of the project. The City contacted utility companies and received preliminary feedback from a few companies. The consultant is responsible to begin the identification and coordination with utility companies on this project during the preliminary design of the project.

**FIRMS INTERESTED IN PROVIDING TECHNICAL ENGINEERING SERVICES ARE REQUESTED TO SUBMIT THE FOLLOWING INFORMATION.**

- Name of Project Manager and other design team members to be assigned to this project. Please address contingency plans should one of these employees be unavailable during the design phase. The consultant should also include the Construction Administration Team that would be available for this project.
- The firm's approach to the project and experience in each of the design features listed above. The approach should include, but not be limited to, all items listed above and a task list.
- The firm's estimate of staff hours for the preliminary phase.
- Limit of 20 single sided pages for the RFP is encouraged.
- A proposed schedule for the project assuming the project phase 1 is bid in February 2020.

Professional liability insurance will be required upon selection.

**Format**

**A. Content (please limit to 20 pages)**

Responding individuals and firms must submit a detailed proposal including the following:

1. **Cover Letter** – Include the name of a contact person, address, phone number, and e-mail address.
2. **Technical Approach** – Provide a detailed project approach for completing the project. The project plans should outline how your project team will deliver services, define how the project will be executed, monitored, and controlled, and challenges you perceive. High scoring proposals will demonstrate a comprehensive understanding of the major tasks and sub-tasks, identify responsible staff, associated deliverables and any assumptions or risks that could impact the scope or timeline.
3. **Project Schedule and Estimate of Staff Hours** – A detailed spreadsheet of staff hours for the entire project is required to be submitted with the proposal.
4. **Project Organization, Schedule, and Staffing** – A list of project personnel including role in the project, an organizational chart including sub-consultants, and project design schedule.

**B. Signature Requirements**

Proposals must be signed by a duly authorized official of the consultant firm. Consortiums, joint ventures, or teams submitting proposals, although permitted and encouraged, will not be considered responsive unless it is established that all contractual responsibility rests solely with one contractor or one legal entity which shall be a subsidiary or affiliate with limited resources. Each proposal should indicate the entity responsible for execution on behalf of the proposal team. All sub consultants must be listed in the proposal. The consultant should show a geo-technical consultant as part of their team.

**C. Rejection Rights**

The City retains the right to reject all proposals and re-solicit if deemed to be in their best interests. Selection is also dependent upon the negotiation of a mutually acceptable contract with the successful consultant firm and readiness to enter into a binding agreement by October 2018.

**D. Selection Criteria**

The selection team will select the consultant they feel will provide the City the best and most complete project. The selection criteria will be based on project approach, team organization and management, past experience, level of effort, and any other factors the consultant highlight in the proposal. The project approach and team are the heaviest weighted categories of the selection.

The proposals of the unsuccessful consultants will remain confidential. The winning proposal will be public information. The unsuccessful consultants can schedule debriefs with the City to discuss their proposal.

## **EVALUATION OF PROPOSAL SCHEDULE**

A consultant selection team comprised of Sioux Falls Planning and Building Services and Public Works shall review the proposals and select the firm they feel will provide the City the best and most complete project.

The evaluation of proposal shall proceed on the following schedule:

July 27, 2018	Request for Proposal posted on website
August 17, 2018	Deadline for Questions
<b><u>August 24, 2018</u></b>	<b>Proposals received at City Hall</b>
September 7, 2018	Shortlist consultants
September 24-28, 2018	Interviews, if needed
October 1, 2018	Consultant selection and agreement negotiations
October 19, 2018	Notice to Proceed

Please furnish **one copy** of the proposal and **one** electronic copy, in PDF format with book marks to Ms. Shannon Ausen, PE, Office of Public Works-Engineering, 224 West Ninth Street, Sioux Falls, SD 57104-6407 by 2:00 p.m. Central Time, **FRIDAY, AUGUST 24, 2018**. Submittals received after the stated time will be returned unopened and will not be considered.

All proposals received by the City will be **confidential**.

**All Questions regarding this proposal are required to be submitted by email or phone** to Ms. Shannon Ausen at [sausen@siouxfalls.org](mailto:sausen@siouxfalls.org) or 367-8607. Emails and voicemail will be checked daily for questions and will be answered within 24-48 hours (working day) and posted to the City's website on the Request for Proposals web page. Deadline for questions is 2:00 pm Central Time, August 17, 2018.