This contract is for Planning, Preliminary Surveying, Design Engineering, and Preparation of Plans for a Complete Streets Project, Bituminous Milling and Overlay, Intersection Improvements, Hydraulic Improvements, Bridge Approach Panels, Americans with Disabilities Act (ADA) Improvements including pedestrian ramps, sidewalks and bike trails, along TH 59, TH 108 East and TH 108 West in the City of Pelican Rapids Minnesota.

1. **PROJECT MANAGEMENT (Source Type 1055)**

   This task focuses on effective contract work coordination to expedite the decision-making process and maintain scheduled completion dates. Contractor involvement is anticipated for 55 months from Notice to Proceed through completion of construction activities.

   1.1 Schedule Management
   
   Contractor will prepare a project schedule and coordinate tasks required of the Contractor. Contractor’s Project Manager will update the State’s Project Manager with regards to the status of the project schedule, budget and general status/progress.

   1.2 Administration
   
   Administration of the project will include meetings, progress reports, invoicing, preparation of contract amendment requests (if necessary), cost and schedule updates, billing preparation, other non-technical work, communication with the necessary project personnel, subconsultant management, and all other work to ensure all the project tasks are completed on time, within budget, and in accordance with State and Federal laws, rules, and regulations.

   Progress reports and invoices will be submitted on a monthly basis. The Contractor will submit invoices in a timely manner.

   1.3 Kickoff meeting
   
   Contractor will attend meeting with State staff to receive data and information, review project schedule, and discuss known issues. The meeting will be coordinated by State staff. The meeting will be held in Detroit Lakes.

   1.4 Monthly Project Management Team Meetings
   
   Meetings will be held monthly (40 meetings) during the preliminary and detail design. With the Contractor’s Project Manager present, the project schedule and budget status will be reviewed. Issues that may affect the design schedule, budget, or work quality will be presented and addressed. The Contractor will prepare an agenda and facilitate the Project Management Team meetings. The Contractor will also prepare and distribute draft minutes for review/comment to all meeting participants within 2 business days after each meeting and final minutes within 10 business days after each meeting. Meetings will be held in Detroit Lakes or via teleconference.

   1.5 Update Conference Calls
   
   Conference call meetings as needed until project plans are 100% complete (20 meetings). Meetings will be held via teleconference.

   1.6 Quality Control Management
   
   The Contractor will maintain a Quality Management Plan (QMP) that specifies how the Contractor will perform Quality Assurance (QA) and Quality Control (QC) activities throughout the contract duration to ensure delivery of quality design in a timely manner and in conformance to contract requirements established for the project.
The Contractor will perform Discipline Coordination Reviews and quality control checking of each submittal.

Deliverables
The Contractor will:
1. Schedule and attend meetings.
2. Hold update conference calls with State’s Project Manager.
3. Prepare meeting agendas, displays, and minutes on all meetings (including update phone conversations).
4. Prepare and submit monthly progress and status reports.
5. Prepare and Maintain project schedule.
6. Provide timely copies of critical correspondences and project issue data.
7. Submit Work Plan.
8. ADA checklist at 30, 60 and 90% plan submittals.
9. Prepare and Maintain Quality Management Plan (QMP)
10. Deliver copies of all pertinent project correspondence

The State will:
1. Review and respond to submittals.
2. Coordinate internal reviews.
3. Provide copies of project correspondence, project studies and general project information.
4. Attend meetings.
5. Approve deliverables.

2. PUBLIC AND AGENCY INVOLVEMENT (Source Type 0054)

With prior authorization from the State’s Project Manager, the Contractor will perform direct contacts with State functional units, City of Pelican Rapids, Otter Tail County, and other outside agencies to collect information needed for project development and final plans. Contractor will provide copies of communications with State functional units, City of Pelican Rapids, Otter Tail County, and other outside agencies to State’s Project Manager.

The Contractor will provide coordination for public, agency, and stakeholder involvement meetings. Tasks will include scheduling meetings, preparing meeting notices, and coordinating venues. The Contractor will provide staff and technical project information and displays for use during public meetings.

2.1 Public Involvement
The Contractor will organize and conduct up to 2 Public Information Meetings in the City of Pelican Rapids, upon direction from the State Project Manager, to disseminate project information to the General Public. The Contractor will arrange and pay for adequate facilities, prepare, print, and mail meeting notices for up to 200 addressees, and prepare exhibits and presentations. The Contractor will prepare a record of public comments and responses, with assistance from the State. The Public Information Meetings (PIMs) will be open house type facilitated by the State and Contractor Project Managers.

2.2 Agency Involvement
The Contractor will prepare for and attend 1 Council meeting in the City of Pelican Rapids. This meeting is in addition to the requirements listed in Section 3.1. The purpose of this meeting will be to discuss and answer questions on the proposed layout. The content and timing of the meetings
will be at the discretion of the State’s Project Manager.

2.3 Stakeholder Coordination
The Contractor will organize and conduct up to 5 Stakeholder Coordination meetings in the City of Pelican Rapids, upon direction from the State Project Manager, to coordinate the review and discussion of project elements, features and alternatives with key project stakeholders.

2.4 Public and Media Contact
The State will manage all public and media contacts (if any) for the project and will be responsible for disseminating information regarding public messaging to the relevant media venues.

The Contractor will be responsible for drafting any public notices or advertisements that are required for Public Information Meetings.

Deliverables

The Contractor will:
1. Organize and facilitate up to 2 Public Information meetings and up to 5 Stakeholder Coordination Meetings.
2. Provide and mail up to 200 meeting notices for Public Information Meetings.
3. Provide agendas and minutes for Stakeholder Coordination meetings.
4. Prepare Record of Comments and Responses for Public Information Meetings and furnish to the State’s Project Manager.

The State will:
1. Distribute media releases of the Public Information Meeting for media distribution.
2. Attend Public Information meeting and Stakeholder Coordination meetings.
3. Manage Public and Media contacts and provide public messaging to relevant parties/venues.
4. Assist the Contractor in providing responses to public comments.

3. MUNICIPAL CONSENT (Source Type 1140)

3.1 Municipal Consent
Municipal consent will be required for this project because access is being revised and permanent right of way and temporary easement acquisition may be required.

The Contractor will attend hearing and/or meetings at local jurisdictions, present information, and provide technical assistance during the consideration of the Staff Approved Layout. The Contractor is responsible for the preparation of all documents required to gain Municipal Consent.

The Contractor will prepare maps, graphics, and presentations to assist in communicating project intent and technical design information that will be targeted for non-technical groups. The products of this task shall be limited to the preparation of 36” x 48” graphics on foam boards and/or PowerPoint presentations adequate to communicate project details to City staff.

The Contractor will prepare documents, such as summary memorandums, cost estimates (with cost splits) and other documentation in support of gaining Municipal Consent.
The Contractor will submit a Municipal Consent Request Package to the State’s Project Manager. The Municipal Consent Request Package shall consist of a hardcopy of the Staff Approved Layout, a copy of the Design Memo, a copy of the Categorical Exclusion (CATEX) document (if complete), and a good faith cost estimate indicating the Total Project cost and the City’s share of the costs. The State’s Project Manager will submit the Final Municipal Request Package to the City of Pelican Rapids.

**Deliverables**

The Contractor will:
2. Prepare a Municipal Consent request package
3. Attend city council meeting to present Staff Approved Layout and seek resolution of approval.

The State will:
1. Provide oversight and direction.
2. Submit the Municipal Consent Request Package to the City
3. Attend city council meeting to present Staff Approved Layout and seek resolution of approval.

**The due date for Municipal Consent will be 1-26-2022.**

4. **DATA COLLECTION (Source Type 6265)**

4.1 Traffic Forecasts

The State has completed traffic forecasting for the design year and traffic forecasts will be furnished to the Contractor. No supplemental traffic counts or forecasting are required.

4.2 Wetlands

All wetland delineations and wetland permitting, if any, will be completed by the Contractor and furnished to the State for review and comment.

**Deliverables**

The Contractor will:
1. Provide updated base mapping.
2. Collect preliminary layout information from the City of Pelican Rapids.

The State will:
1. Complete a cultural resource review and documentation.
2. Provide planning documents and transportation plans.
3. Provide existing right-of-way drawings and plats.
4. Provide utility Permits within the Project Limits for State property only.
5. Review the previously delineated wetlands, if any.
6. Provide record or As-Built plans of roadways, existing traffic signal phasing
7. Provide traffic data including available intersection turn movements, Average Daily Traffic (ADT) Forecasts.
8. Provide culvert Hydraulic Recommendations (if any) including all culvert replacement, lining and repairs in rural areas and urban areas not affected by the project but in the project limits.
10. Provide available digital design files. Files will be in the same format as the Contractor’s submittal requirements (Microstation V8i and GEOPAK) complying with current MnDOT CAD standards.

5. ENVIRONMENTAL DOCUMENTATION (Source Type 1071)

5.1 Class II (CATEX) Document

1) The Contractor will prepare a Class II Environmental Document (CATEX) for approval in accordance with the requirements of State Prequalification work type 1.1, unless otherwise noted. The Contractor will perform on-going coordination with District 4 during development, processing, and approval of CATEX document.

2) The Contractor will prepare and submit the Early Notification Memo (ENM) and coordinate and review responses for completion of the CATEX document.

Project constraints:
1. Project meets the definition of a Class II Action (non-programmatic Categorical Exclusion) under National Environmental Policy Act (NEPA).
2. Environmental document is a non-programmatic, long-form Categorical Exclusion (CATEX) Determination document.
3. Proposed improvements do not meet the threshold for mandatory Environmental Assessment Worksheet (EAW) under Minnesota Environmental Quality Board (MEQB) rules. If Stata (as Responsible Governmental Unit (RGU) for projects on state trunk highway system) determines that a discretionary EAW is necessary, additional scope will be prepared.
4. District 4 will coordinate draft and final CATEX reviews and approvals with State Office of Environmental Stewardship (OES) and Federal Highway Administration (FHWA).
5. No Section 7 (Endangered Species Act) consultation required. Assumes a determination of no effect from OES.
6. No noise analysis is required.
7. Phase I environmental site assessment (ESA) requirements to be determined by State Environmental Investigation Unit (EIU). Assumes a Phase I ESA, if required, will be prepared by EIU.

The Contractor will perform a review of the project area, using available mapping and on-line data, to confirm conditions of affected environment. The Contractor will compile data from the City of Pelican Rapids, Otter Tail County, District 4, and other sources, including project background, funding, permit requirements.

The Contractor will prepare description of existing conditions and proposed improvements, description of project cost, anticipated funding sources, anticipated schedule, and key contacts for environmental document.

The Contractor will evaluate potential impacts of the project on parks, recreation areas, and trails and summarize Section 106 determination provided by Cultural Resources Unit (CRU). Any additional required cultural resources studies will be completed by CRU.
The Contractor will identify vegetation, fish and wildlife impacts, and measures to minimize harm.

The Contractor will address excess materials, geology, groundwater, and earthborne vibrations.

The Contractor will summarize drainage and water quality impact analysis for inclusion in CATEX document, address wetlands and floodplain impacts, and address erosion control.

The Contractor will consult with EIU regarding contaminated properties. Assumes EIU will prepare a Phase I ESA if necessary. Prepare Form EDD-1 (Environmental Due Diligence Form #1) and submit to EIU for review. Summarize contaminated properties review for inclusion in CATEX document.

The Contractor will address visual impacts, land use impacts, farmland, tribal, social and economic impacts and identify any controversial issues.

The Contractor will address access changes, traffic detours, and maintenance of traffic.

The Contractor will coordinate with OES, FHWA, and Minnesota Pollution Control Agency (MPCA) staff regarding analysis methodology (if necessary) and prepare discussion of National Ambient Air Quality Standards (NAAQS) criteria pollutants, qualitative CO analysis, and air quality conformity per State guidance. The Contractor will perform a qualitative Mobil Source Air Toxics (MSAT) analysis per Interim Guidance on Air Toxic Analysis in NEPA Documents Feb. 3, 2006 (or current) FHWA Memo.

The Contractor will address right of way impacts (permanent and temporary right of way needs).

The Contractor will prepare an environmental justice analysis and summarize findings in CATEX.

The Contractor will address bicycle and pedestrian movements, including accessibility.

The Contractor will prepare graphics for CATEX document including project location map, USGS map, layouts, typical sections, drainage plan, and other supporting graphics.

The Contractor will prepare a draft CATEX document for District 4, OES, and FHWA review. This assumes that District 4 will submit draft CE to OES and FHWA and also assumes a concurrent OES/FHWA review.

The Contractor will revise draft CATEX based on District 4, OES, and FHWA comments. The Contractor will prepare final CATEX for District 4, OES, and FHWA final review and approval. District 4 will distribute final CATEX document to OES and FHWA for approval.

The Contractor will submit the draft CATEX to the State for review and comment. Comments will be returned to the Contractor in writing. The Contractor will incorporate the State’s review comments on the draft CATEX and prepare a Final CATEX for approval.

5.2 Phase I & Phase II Environmental Site Assessments (ESAs), Regulated Waste Assessments

The State will conduct any required contaminated soils and regulated waste investigations. Any findings requiring contract Special Provisions will be drafted by the State. The State will provide any findings, reports, or required Special Provisions.
Deliverables

The Contractor will:
1. Prepare and submit a draft CATEG for State review.
2. Incorporate review comments and submit a Final CATEG for approval.
3. Respond to agency inquiries.

The State will:
1. Review draft CATEG and provide comments.
2. Conduct any required Environmental Site Assessments and Regulated Waste Assessments.
3. Provide wetland review and determination, if necessary.

6. PEDESTRIAN RAMP INSPECTION AND EVALUATION (Source Type 1055)

The person who is responsible for leading the design for the project must have attended State’s Consultant ADA Training or have comparable experience approved by the Project Manager and must be directly involved with the design of the project.

The Contractor will need to produce detailed 1:20 scale intersection designs at all signalized intersections and at intersection where standard designs can’t be applied for example where vertically constrained conditions exist. The Contractor will utilize sample plans provided by State as a template for this design work. This intersection detail will show signal system components including signal poles, pedestal poles, cabinets, hand holes and push button stations, in addition to the pedestrian facility work occurring at the intersection.

For signalized intersections, the curb ramp designer and signal designer will work together to determine appropriate locations for pedestrian crosswalks. The X, Y coordinates of the points where the proposed crosswalks intersect curb lines shall be provided in the plan.

At all non-signalized intersections with no vertically constrained conditions standard plans will be used. Ramp types will be identified at each quadrant with quantities in the tabulations for type of design. The Contractor will utilize sample plans provided by MnDOT as a template for this design work.

The curb ramp designer and signal designer will work together to determine appropriate locations for pedestrian crosswalks. The X, Y coordinates of the points where the proposed crosswalks intersect curb lines shall be provided in the plan.

All pay items including utility adjustments shall be tabulated by quadrant and if radial domes are intended to be used at a quadrant the radius shall be given in addition to quantity. Follow pay item guidance provided by State’s ADA Office when determining which pay items to use on the project.

6.1 Review pedestrian ramps
The Contractor will prepare for and attend 1 field walk with the State’s Project Manager for the project. Contractor will document and take pictures of existing conditions at each quadrant to provide State with a historical record of pre-project conditions. Contractor will also keep a log of all correspondence with property owners for State’s records. After this meeting the Contractor will compile and verify field notes from the and prepare a written meeting summary documenting design decisions and other pertinent information for each location. Contractor will review pedestrian ramps for compliance with Public Right of Way Accessibility Guidelines (PROWAG), Chapter 11 of the MnDOT Road Design Manual (February 2010), Minnesota Department of Transportation Office of Policy Analysis Research
and Innovation Memo on the use of Diagonal Curb Ramps (September 17, 2009), MnDOT Technical Memorandum No. 10-02-TR-01 (February 11, 2010), MnDOT Curb Ramp Guidelines (October 2010), 2009 Federal Manual on Uniform Traffic Control Devices Section 4E.08-4E.13, Sample Plans provided by State’s ADA Office.

Contractor will follow the ADA Project Design Guide and will utilize 20 scale Level 2 & 3 Sample Plan formats (including the ADA Legend, contractor friendly terms, and information from the Curb ramp Standard Plans along with any other details that must be prepared to show design intent, including right of Way (R/W)).

The Contractor also will utilize ADA Pay Items and Special Provisions. All can be found on State’s ADA website at: http://www.dot.state.mn.us/ada/design.html

Contractor will utilize State’s preferred ADA designs in order to design pedestrian systems that are usable, constructible, and maintainable. Preferred Design criteria can be found at the following link: http://www.dot.state.mn.us/ada/pdf/Preferred%20ADA%20Design%20Criteria23.14.pdf

Contractor will provide ADA plan sheets and details for the following sections of highway in Pelican Rapids Minnesota:

1. TH 59 (10th Ave. SW to CSAH 9) (17 intersections)- S.P. 5617-33 & S.P. 5618-117
2. TH 108 East (Jct. TH 59 to Anne lane) (8 intersections)- S.P. 5623-37
3. TH 108 West (9th street NW to Jct. TH 59) (7 intersections)- S.P. 5625-19

6.2 Proposed Ramp Preliminary Design
Contractor will propose ramp design and replacement for compliance with the above utilizing Minnesota Department of Transportation’s Curb Ramp concepts.

6.3 Identify Conflicts with Proposed Ramp Design
Contractor will identify conflicts and other issues related to the proposed design (e.g. storm sewer, utilities, R/W)

6.4 Proposed Ramp Final Design
Contractor will propose solution to issues/conflicts identified, and identify impacts associated with the solutions

6.5 Pedestrian Ramp Documentation
Contractor will document locations by quadrant where PROWAG guidelines cannot reasonably be met within the scope of the project and the reason why. Contractor will provide an Excel Spreadsheet Documenting showing findings.

Deliverables
The Contractor will:

1. Prepare for and attend 1 ADA field walk and provide a written summary of design decisions.
2. Prepare plan sheets showing proposed pedestrian facilities i.e. ramp locations, stop bar placement, R/W, existing conflicts and proposed remedies.
4. Due Date for all Plan Sheets is September 1, 2021.
5. Excel Spreadsheets due September 1, 2021 documenting block by block referenced above:
   • Whether the existing pedestrian ramp meet PROWAG
7. **SIDEWALK EVALUATION (Source Type 1055)**

7.1 **Review existing sidewalk**
Contractor will review existing sidewalk for compliance with Public Right of Way Accessibility Guidelines (PROWAG), Chapter 11 of the MnDOT Road Design Manual (February 2010), MnDOT Technical Memorandum No. 10-02-TR-01 (February 11, 2010), MnDOT Standard plans for sidewalks and driveways (7035N) (July 2011), 2009 Federal Manual on Uniform Traffic Control Devices Section 4E.08-4E.13, Sample plans provided by State’s ADA Office, and providing plan sheets (include R/W) for the following section of highway in Pelican Rapids, Minnesota and continuity in pedestrian ramp location:

1. TH 59 (10th Ave. SW to CSAH 9) (17 intersections)-S.P. 5617-33 & S.P. 5618-117
2. TH 108 East (Jct. TH 59 to Anne lane) (8 intersections)- S.P. 5623-37
3. TH 108 West (9th street NW to Jct. TH 59) (7 intersections)-S.P. 5625-19

7.2 **Proposed Sidewalk Preliminary Design**
Contractor will propose sidewalk design and replacement for compliance with the above utilizing Minnesota Department of Transportation’s Sidewalk Concepts.

7.3 **Identify Conflicts with Proposed Sidewalk**
Contractor will identify conflicts and other issues related to the proposed design (e.g. storm sewer, utilities, R/W).

7.4 **Proposed Sidewalk Final Design**
Contractor will propose solution to issues/conflicts identified, and identify any impacts associated with the solutions.

7.5 **Sidewalk Documentation**
Contractor will document locations by street block where PROWAG guidelines cannot reasonably be met within the scope of the project and the reason why. Contractor will provide an Excel Spreadsheet documenting findings.

**Deliverables**
The Contractor will:
1. Prepare for and attend 1 ADA field walk and provide a written summary of design decisions.
2. Deliver plan sheets showing proposed sidewalk facilities i.e. block by block locations,
3. **Due Date for all Plan Sheets is September 1, 2021**

4. **Excel Spreadsheets due September 1, 2021** documenting block by block referenced in Task 3.0:
   - Whether the existing sidewalk and driveways meet PROWAG
   - Whether the proposed sidewalk and driveways meets the guidelines and what conflicts/issues need to be resolved and the proposed solution
   - Locations where PROWAG cannot reasonably be met given the project scope and the reason why

8. **SURVEYS (Source Type 1040)**

The Contractor will provide design surveys, maintain the horizontal datum and the vertical datum. The tasks will be in conformance with the current standards and specifications of the State Survey & Mapping Manual, unless otherwise specified.

8.1 **Right-of-Way Survey**

Right-of-Way is variable throughout project, and may need Temporary Easements especially at intersections where pedestrian ramps are located. State will locate/provide available Right-of-Way markers and corners/monuments throughout the project corridor. The State has the existing right of way throughout the downtown area of Pelican Rapids available in both coordinate correct CAD and in pdf.

8.2 **Sidewalk, Driveway, and Pedestrian Ramp Survey**

Contractor will complete topographic survey for sidewalk and driveway locations that are receiving ADA upgrades. Follow the ADA curb ramp survey needs document.

http://www.dot.state.mn.us/ada/pdf/surveyrampneeds.pdf

8.3 **Surface Utility Survey**

Contractor will complete topographic survey of surface utilities that may be impacted by constructions, included but not limited to: manholes, hydrant, gate valves, drainage structures, signal system components (poles, push button stations, pedestals, cabinets, and loop detectors), light poles, telephone/cable boxes, fiber optic vaults and irrigation/sprinkler heads or services if they are on or near public R/W. Includes survey of private utilities identified in Task 11.0 Utility Plans and Coordination.

8.4 **Buildings, Doorways, Structures Survey**

Contractor will survey buildings and doorways, other permanent features in or near the construction area such as landscaping, retaining walls, planters, benches, sign posts etc., existing crosswalk striping, curb and gutter lines (flow lines), sidewalk edges 30’ in both directions (mainline and side streets), and medians.

8.5 **TH 59 Topographic Survey**

Contractor will collect existing conditions along TH 59 (10th Ave. SW to CSAH 9) in NAD 83 (1996 Adj.) Otter Tail County coordinates sufficient to document the existing slope, drainage, possible obstructions, and structures.

8.6 **TH 108 East Topographic Survey**

Contractor will collect existing conditions along TH 108 (Jct. TH 59 to near Anne lane) in NAD 83 (1996 Adj.) Otter Tail County coordinates sufficient to document the existing slope, drainage, possible obstructions, and structures.

8.7 **TH 108 West Topographic Survey**

Contractor will collect existing conditions along TH 108 (9th Street NW to Jct. TH 59) in NAD 83 (1996 Adj.) Otter Tail County coordinates sufficient to document the existing slope, drainage, possible
obstructions, and structures.

8.8 Survey Data Reduction and Drafting
Contractor will produce and deliver Microstation design files along with a Geopak gpk files containing the survey data collected.

Deliverables
The Contractor will:
1. Complete topographic survey as listed above.
2. Provide State with one copy of survey data.

The State will:
1. Provide R/W mapping, electronic files, and other available information. Most of the R/W mapping is in .tif format, except the downtown area of Pelican Rapids which is available in both coordinate correct CAD and in pdf.
2. Provide Roadway Alignments.

9. PRELIMINARY ROADWAYS DESIGN (Source Type 1140)

9.1 Layout Concept Evaluation
A concept layout will be provided by the State. The Contractor will evaluate the concept layout and provide recommendations with regards to improving traffic operations, safety, and eliminating design exceptions.

9.2 Preliminary Geometric Layout
The Contractor will prepare one Level 1 Preliminary Geometric Layout for State review. The Contractor will complete and submit the current version of the layout checklists before submitting the Preliminary Geometric Layout to the State. The State will review the Preliminary Geometric Layout and provide written comments to the Contractor to be incorporated into the Final Geometric Layout for Staff Approval.

9.3 Preliminary Cost Estimate
The Contractor will prepare a preliminary cost estimate for the entire project and submit it with the Preliminary Geometric Layout. This cost estimate will be similar in format to MnDOT's Light Weight Deflectometer (LWD) method.

9.4 Intersection Control Evaluation (ICE) Report
The Contractor will prepare an Intersection Control Evaluation (ICE) Report, Phase I, in accordance with MnDOT Tech Memo No. 07-02-T-01. The intersections at both TH 59/TH 108’s and TH 59/Jct CSAH 9 will be analyzed.

9.5 Design Memorandum
The Contractor will prepare one Design Memorandum corresponding to the Preliminary Layout and submit it in conjunction with the layout submittal for State review. The State will provide review comments to be incorporated into the final version of the Design Memorandum.

The Contractor will submit the final Design Memorandum with the Final Geometric Layout.

9.6 Final Geometric Layout
Upon receipt of Preliminary Geometric Layout review comments from the State, the Contractor will assess the comments for incorporation into the Final Layouts. The Contractor will prepare, in writing, a Layout Comment Response Memo detailing a response to each review comment (i.e. will incorporate, needs further discussion, etc.) and will submit the memo to the State before initiating work on the Final
Geometric Layout.

Upon the State’s concurrence of the Layout Comment Response Memo, the Contractor will incorporate review comments and submit the Final Geometric Layout to the State.

9.7 Preliminary Public Utility Design Review
The Contractor will review proposed public utility design for continuity with proposed roadway and drainage elements.

9.8 Construction Limits Map
The Contractor will prepare a construction limits map for the final geometric layout.

Due Date for the construction Limits Map will be January 26, 2022.

Deliverables

The Contractor will:

1. Evaluate and provide recommendations for the Concept Layout
2. Based on the preferred alternatives, prepare and submit Preliminary Geometric Layout, including profiles to the State for review.
3. Prepare and submit an electronic spreadsheet and three (3) hardcopies of a preliminary cost estimate for the project.
4. Prepare and submit a Design Memorandum.
5. Prepare and submit three (3) Phase I Intersection Control Evaluation (ICE) Reports.
6. Prepare and submit Layout Comment Response Memo(s).
7. Prepare and submit Final Geometric Layout.
8. Prepare and submit 3 hard copies and 1 electronic version (PDF) of Final Geometric Layout with profiles and preliminary cross sections for the State approval and signature.
10. Prepare a Construction Limits map and submit 1 hardcopy and 2 electronic copies (PDF, DGN).
11. Summarize and submit results of site survey of conveyances.
12. Prepare and submit a Risk Assessment and Hydraulics Recommendation Letter for all structures greater than 48 inches in diameter.

The State will:
1. Provide Layout Concept for Contractor evaluation.
2. Review the Preliminary Geometric Layouts and provide written comments.
3. Review the Preliminary Cost Estimate and provide written comments (if any).
4. Review the Design Memorandum and provide written comments (if any).
5. Provide concurrence on the Layout Comment Response Memo(s) when appropriate.
6. Review the hydraulics designs and Drainage Design Report and provide comments.
7. Review, sign, and distribute the Final Geometric Layouts.

10. HYDROLOGY/HYDRAULIC DESIGN

10.1 Preliminary Hydraulic/Drainage Design
The Contractor will complete hydrology/hydraulic analysis and design for proposed storm sewer, culvert pipes, and ditches in accordance with MnDOT technical memorandum, drainage manual and/or road design manual. Peak discharges for storm water conveyance design shall be determined by using
the rational method and Atlas 14 data.

The Contractor will complete an onsite survey of the existing conveyances along the project. Contractor will document their condition and characteristics (i.e. material, size, inverts, etc.). It is assumed that the existing conveyances in the mill and overlay portions of the project are in good working condition and have adequate hydraulic capacity. If damaged, failing, or inadequate conveyances are discovered during the site survey, in the mill and overlay areas, the Contractor will notify the State.

The Contractor will complete a Risk Assessment and Hydraulics Recommendation Letter for all structures greater than 48 inches in diameter. The Contractor will submit these documents and all supporting hydraulic models and computations to State for Acceptance.

The Contractor will complete a hydraulic analysis for proposed storm sewer, culvert pipes, and ditches for the roadway. Peak discharges shall be determined by using the rational method and Atlas 14 data. A drainage area map with contours shall be prepared for new culverts, ditches or new storm sewer.

10.2 The Contractor will incorporate preliminary drainage design into plan sheets and details suitable for bidding and construction.

10.3 The Contractor will prepare a Drainage Design Report and Drainage Area Map as detailed in the State Drainage Manual, Section 1.4.

Deliverables

The Contractor will:
1. Prepare and submit a drainage area map with contours in MicroStation.dgn V8i format.
2. Prepare and submit a Drainage Design Report.
3. Summarize and submit results of site survey of conveyances.
4. Prepare and submit a Risk Assessment and Hydraulics Recommendation Letter for all structures greater than 48 inches in diameter.

The State will:
1. Review the hydraulics designs and Drainage Design Report and provide comments.

11. UTILITY COORDINATION (Source Type 1195)

The Contractor will perform utility coordination for the project in accordance with the MnDOT Utility Accommodation and Coordination Manual, Steps 1 through 9. The Contractor will function as the project manager for the steps indicated herein.

Plans and other contract documents prepared by the Contractor for project letting will adhere to the requirements of Utility Coordination Step 12, as detailed in the MnDOT Utility Accommodation and Coordination Manual.

The Contractor will organize and conduct up to 2 Utility Design Meetings. The Contractor will provide meeting agendas, exhibits, and minutes. The Contractor will provide up to 2 individuals for attendance at the Utility Coordination Meetings. The Meetings will be held in Detroit Lakes or Pelican Rapids.

The Contractor will prepare Utility Special Provisions.

Deliverables
The Contractor will:
1. Serve as the project manager for Utility Coordination Steps 1 through 9, as detailed in the MnDOT Utility Accommodation and Coordination Manual.
3. Schedule and facilitate up to two (2) Utility Design Meetings.
4. Provide agendas and minutes for Utility Coordination Meetings. Gopher One call ticket and maps supplied by utility companies.
5. Provide plans, cross sections and drawings for utility coordination.
6. Complete utility plans, tabulations and utilities shown on cross sections.
7. Respond to questions during construction, per Task 19.

The State will:
1. Attend Utility Coordination Meetings.
2. Send out notice and orders to utility companies (steps 13 and 14).
3. Provide available existing utility information.
4. Provide a single set of consolidated utility plan comments.
5. Provide example utility tabulation.
6. Provide updated PACER information.
7. Provide Project Manager Utility Certification form.

12. DETAIL ROADWAYS DESIGN (Source Type 1250)

The Contractor will complete detailed highway design in accordance with State’s Prequalification Program work type 2.1, unless otherwise noted.

Upon Staff Approval of the final Geometric Layouts and the Construction Limits Map, the Contractor will initiate Final Highway Design.

12.1 30% Plans
Includes the design and coordination to develop the 30% plan set which will include the following plan sheets:
1. Title sheet
2. In place utilities and tabulations
3. Preliminary typical sections
4. In place Topo, Utility and R/W Plan
5. Alignment plans
6. Preliminary Construction Plan, including construction limits
7. Preliminary ADA Plan
8. Preliminary Profiles
9. Cross section sheets including: Inplace and proposed R/W
10. Prepare existing conditions drainage area map, including existing storm drain and culvert infrastructure, hydrologic boundaries, and surface flow directions.
11. Coordinate inclusion of City of Pelican Rapids public utility replacement plans and tabulations.

12.2 60% Plans
Includes the design and coordination to develop the 60% plan set which will incorporate 30% comments and include the following plan sheets:
1. Title sheet and general layout
2. Statement of Estimated Quantities (listing of items, format only, no quantities)
3. Standard plates and chart index
4. Soils / construction notes
5. Typical sections
6. Miscellaneous Details
7. Standard Plan sheets
9. Alignment plans and tabulations
10. In place Topo, Utility and R/W Plan
11. Utility tabulation remarks (conflicts) added
12. Removal plans
13. Drainage Plan / Trunkline Profiles
14. Drainage Standard Details
15. Intersection details
16. ADA pedestrian ramp details
17. Roadway profile sheets
18. Erosion Control Plans
19. Turf establishment plans
20. Landscape Plans (provided by City)
21. Public Utility Plans (provided by City)
22. Traffic signal plans
23. Signing and Pavement marking plan
24. Pavement marking details and notes
25. Matchline Layout
26. Cross section sheets including:
   - Inplace and proposed R/W
   - Existing utilities
   - Proposed utilities

12.3 Public Utility Plan Review
Contractor will review Public Utility Plans provided by the City for conflicts with proposed roadway and drainage plans.

12.4 Landscape Plan Design Review
Contractor will review the Landscape Plan provided by the City for conflicts with the proposed roadway and drainage plans.

12.5 90% Construction Plan
Includes the design and coordination to develop the 90% plan set which will incorporate 30% & 60% comments and include the following plan sheets:

1. Title Sheet
2. General Layout
3. Estimated Quantities
4. Soils and Construction Notes
5. Standard Plates
6. Earthwork Tabulation and Summary
7. Tabulations
8. Inplace Utility Tabulations
9. Typical Sections
10. Miscellaneous Details
11. Standard Plans
12. Inplace Topography and Utility Plans
13. Removal Plans
14. Construction Plans and Profiles
15. ADA/Pedestrian Facilities Plans
16. Bituminous Paving Plans
17. Superelevation Plans
18. Storm Water Pollution Prevention Plan (SWPPP)
19. Drainage Plans, Profiles, and Tabulations
20. Turf Establishment Plans
21. Landscape Plans (provided by City)
22. Public Utility Plans (provided by City)
23. Erosion Control Plans
24. Construction Staging Plans
25. Traffic Control Plans and Tabulations
26. Traffic Signal Plans and Details
27. Striping Plans and Details
28. Signing Plans and Details
29. Lighting Plans and Details
30. Cross Sections

12.6 Final Construction Plans

Final construction plans will be prepared in conformance with the form and content of the following:

1. State Metro District’s Final Design Sample Plan and District 4 provided sample plan
2. State Level 1 & 2 Computer Aided Drafting and Design (CADD) Standards
3. Minnesota Department of Transportation Road Design Manual
4. State Office of Traffic, Safety and Operations design guidance
5. Minnesota Department of Transportation Utilities Manual
6. The project’s Materials Design Recommendations
7. The governing storm water treatment regulations.
8. Plan format must be according to requirements below.
9. Plan review and approvals must follow requirements in Section 15, specifically; plan submittals will be at the following milestones: 30%, 60%, 90%, and 100% completion, including signed plans for letting.

The following MicroStation plan sheets will be prepared. Sheets will be combined with the prior consent of State’s Project Manager.

1. Title Sheet
2. General Layout
3. Estimated Quantities
4. Soils and Construction Notes
5. Standard Plates
6. Earthwork Tabulation and Summary
7. Tabulations
8. Inplace Utility Tabulations
9. Typical Sections
10. Miscellaneous Details
11. Standard Plans  
12. Inplace Topography and Utility Plans  
13. Removal Plans  
14. Construction Plans and Profiles  
15. ADA/Pedestrian Facilities Plans  
16. Bituminous Paving Plans  
17. Superelevation Plans  
18. Storm Water Pollution Prevention Plan (SWPPP)  
19. Drainage Plans, Profiles, and Tabulations  
20. Turf Establishment Plans  
21. Erosion Control Plans  
22. Construction Staging Plans  
23. Traffic Control Plans and Tabulations  
24. Traffic Signal Plans and Details  
25. Striping Plans and Details  
26. Signing Plans and Details  
27. Lighting Plans and Details  
28. Cross Sections  

Deliverables  
The Contractor will:  
1. Provide plans in Microstation power GEO-PAK SS3 or newer, which are compliant to CADD standards.  
2. Provide individual Microstation final plan sheets with no references (cut sheets).  
4. 3D Surface models of Subgrade, Grading Grade and Finished Grade produced using Corridor Modeler Microstation power GEO-PAK SS3 or newer. The final file format for the surface models will be in .XML file format.  
5. Electronic files for purposes of construction staking by State including:  
   a. Finished surface .TIN file in a .TTM format. Match point right to match point left or R/W to R/W whatever is further out.  
   b. Top back of curb alignment and profile in the GPK file for islands, slip ramps, entrances, intersections (all parts that would be in radius or to tie in point.)  
   c. .DGN “X” section files made out of lines NOT strings for proposed finished surfaces and sub cuts.  
   d. .DGN coordinately correct plan view with alignment and stationing, lighting, traffic control devices, hand holes, loops, vaults, electrical cabinets, pavement marking (temp and permanent), storm sewer, staging plans, removal limits, clearing and grubbing limits.  
   e. Finished alignment and profile in GPK file with an explanation of what files go together  
   f. Storm sewer structures/aprons, water valves and sanitation man holes in a comma delineated .CMA file or an excel .CSV file. Structure #, Easting, Northing, Elevation, code (GeoPac codes)  
6. Provide paper plan sheets by a professional engineer registered in Minnesota.  
7. Provide three paper copies of design computations detailing how quantities and measurements where made.  

The State will:  
1. Provide District specific construction details  
2. Prepare bid proposal  
3. Provide a Sample Plan  
4. Provide plan review comments in written form.  
5. Provide Example SWPPP, Title, Culvert Treatment Tabulations
6. Provide Road and Curb Ramp Concepts Detail Sheet
7. Provide Materials Design Recommendation (MDR)
8. Provide Hydraulic recommendation
10. Provide Time and Traffic after 90% plan review
11. Provide Project Scoping Document
12. Provide Project Memorandum
13. Provide List of useful websites
14. Provide Reference point log
15. Provide Previous project plans
16. Photo Mosaics
17. Example similar plan set (.pdf and .dgn)
18. Available survey data and alignments

13. PLAN FORMAT (Source Type 1250)

The format of the Construction Plans will comply with the MnDOT Technical Manual Section 5-292.600, related appendices, and the State’s current design concepts and practices. All sheets contained in the Construction Plans and cross sections will be submitted to State in Microstation V8i and Geopak formats. The Plans and cross sections will be in compliance with the MnDOT CADD Standards Manual.

Plans submitted for reviews will be delivered on 11”x17” bond sheets and in PDF format created using Adobe Acrobat. The detail design plan will be submitted on 11”x17” bond. For the 100% Plan, the title sheet will be on an 11” x 17” sheet of vellum.

14. PLAN REVIEW AND APPROVAL (Source Type 1250)

The Contractor will submit Construction Plans and documents for review and approval at the following milestones:

14.1 Initial Design (30% Complete)
The Contractor will submit 3 hard copies and 1 PDF copy of the proposed Construction Plan elements listed in this Scope of Work and Deliverables. The Contractor will submit 3 hard copies and 1 electronic Microsoft Excel copy of the Preliminary Length, Width and Depth (LWD) Cost Estimate along with the Construction Plan. The Contractor will also complete and submit the ADA Plan Review Stage 1 Form for review. State’s staff will complete review and comment on this submittal within 20 working days of the submittal date. The Contractor will make all necessary revisions required by the State’s District 4 staff.

14.2 Intermediate Design (60% Complete)
The Contractor will submit 3 hard copies and one PDF copy of the proposed Construction Plan elements listed in this Scope of Work and Deliverables. The Contractor will submit three hard copies and one electronic Microsoft Excel copy of the Engineer’s Construction Cost Estimate for the State’s review and comment along with the Construction Plan. The Contractor will also complete and submit the ADA Plan Review Stage 2 Form for review. The State’s District 4 staff will complete review and comment on this submittal within 20 working days of the submittal date. The Contractor will make all necessary revisions required by the State’s District 4 staff.

14.3 Detail Design (90% Complete)
The Contractor will consider the 90% complete plans to be 100% complete. The Contractor will submit 3 hard copies, one Microstation copy and 1 PDF copy of the proposed Construction Plan, and 3
hard copies and 1 electronic Microsoft Excel copy of the Engineer’s Construction Cost Estimate for the State’s Review and Comment. The State’s District 4 staff will complete review and comment on this submittal within 20 working days of the submittal date. Selected sheets will be sent to State’s Central Office for preparation of any necessary Agreements. The Contractor will make all necessary revisions required by the State’s District 4 staff.

14.4 Construction Plan (100% Complete)
Upon making the revisions to the 90% Construction Plan submittal, the Contractor will submit 2 signed and certified set of bond prints, 1 Microstation copy and 1 PDF copy of the Construction Plan with the vellum title sheet. Electronic signature is acceptable for signing the plans. The Contractor will also submit 2 hard copies and one electronic Microsoft Excel copy of the Engineer’s Construction Cost Estimate. The original prints will be submitted by District 4 to State’s Central Office Pre-letting section for review and approval. The State’s Central Office Pre-letting section will make a final review and comment on the certified Construction Plan.

14.5 Construction Plan (Revisions for Bid Letting)
Upon making the revisions requested by State’s Central Office Pre-letting section the Contractor will submit new signed and certified sheets, as necessary. An electronic copy of the project’s Geopak design files (.gpk) and each sheet in Microstation format and PDF format will be submitted. Three copies of the project design computations and quantity calculations will also be submitted.

Deliverables

The Contractor will:
1. Submit all deliverables to the State in a timely manner based on the schedule below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 30% submittals (Construction Plans, Preliminary Cost Estimate, etc.)</td>
<td>7/29/2022</td>
</tr>
<tr>
<td>2. 60% submittals (Construction Plans, Engineer’s Construction Cost Estimate)</td>
<td>12/30/2022</td>
</tr>
<tr>
<td>3. 90% submittals (Construction Plans, Engineer’s Construction Cost Estimate)</td>
<td>5/31/2023</td>
</tr>
<tr>
<td>4. 100% submittals to State (Construction Plans, Vellum Title Sheet, and Engineer’s Construction Cost Estimate)</td>
<td>8/31/2023</td>
</tr>
</tbody>
</table>

This project is projected for letting on **January 26, 2024**. The Contractor will submit all deliverables as required to meet the 100% submittal date. The State expects 100% completion of tasks and deliverables for a final Construction Plan turn in on **August 31, 2023**.

1. Provide the State electronic copy on CD of all project files including: Microstation design files, GPK file, design computations and quantity calculations, engineer’s estimate, special provision, and hydraulic design and computation files.

The State will:
1. Complete review and comments in a timely manner
2. Provide one set of comments per milestone submittal. Review periods are assumed to take 20 working days for the Layout, 20 working days for the 30% plan, 20 working days for the 60% plans, and 20 working days for the 90% plan.
15. MAINTENANCE OF TRAFFIC (MOT) (Source Type 1254)

15.1 Traffic Management Plan (TMP)
The Contractor will prepare a basic TMP utilizing the State’s checklist. A draft TMP will be submitted for the State’s review. The State’s comments will be incorporated into a final TMP document.

15.2 Temporary Pedestrian Access Route (TPAR)
The Contractor will address TPAR requirements meeting the PROWAG and Manual on Uniform Traffic Control Devices (MUTCD) standards and guidelines for short-term and long-term work zones in the Traffic Management Plan.

15.3 MOT Stakeholder Meetings
The Contractor will hold up to 3 meetings with the State and select stakeholders to discuss construction staging and MOT requirements at a time under the discretion of the State’s Project Manager. The Contractor will provide meeting agendas, exhibits, and minutes. Meetings will be held in Pelican Rapids.

Deliverables
The Contractor will:
1. Prepare and submit a draft TMP for State review.
2. Revise the draft TMP based on State review comments.
3. Submit a final TMP.
4. Hold up to 3 MOT Meeting.
5. Provide agenda, exhibits, and minutes for the MOT Meetings.

The State will:
1. Review the draft TMP and provide comments.
2. Attend MOT Meetings.
3. Coordinate with internal State staff regarding traffic control and construction staging and assist the Contractor in resolving issues.

16. CONSTRUCTION COST ESTIMATES (Source Type 1250)
The Contractor will submit the Engineer’s Construction Cost Estimate based on quantities and information at hand. The cost estimates will use the latest cost data available. Contractor will incorporate cost estimates provided by the City for their items including, but not limited to, Public Utilities and Landscape Items.

In addition to the required cost estimates in Excel format, the Construction Plan submittal (100%) will include an electronic file of estimated quantities and costs utilizing Geopak Quantities Manager. The electronic file will be submitted by State’s Central Office directly to the State’s Estimates Unit for loading into the Trns*port system.

Deliverables
The Contractor will:
1. Prepare and submit an electronic spreadsheet and three (3) copies of the Construction Cost Estimate at 30%, 60% and 90%, and an electronic spreadsheet and two (2) copies at 100%.
2. Provide an electronic file of estimated quantities and costs utilizing Geopak Quantities Manager at 100%.

The State will:
1. Review the Construction Cost Estimates and provide comments, if any.
17. SPECIAL PROVISIONS (Source Type 1250)

The Contractor will be responsible for producing the Division S, Division SS (traffic signal) Division SL (lighting), and Division ST (signing) Special Provisions. Each provision will contain a description, materials, construction requirements, method of measurement, and basis of payment for each item. Deletions from, and additions to Standard Specifications will be written and included as necessary. Construction contract time and traffic provisions will be developed with input from State. Copies of the Special Provisions will be submitted to State for review along with the 60%, 90%, and 100% Construction Plan submittals. Electronic copies of the final Special Provisions in Microsoft Word format will be submitted with the Final Construction Plans. The Contractor will meet with State Central Office Pre-Letting staff to discuss formatting, review schedules, etc. to minimize Central Office review time.

The City will provide Specifications for City related items including, but not limited to, Public Utilities and Landscaping Items.

Deliverables

The Contractor will:
1. Prepare and submit 3 copies of the Special Provisions at 60% and 90%, and 2 copies and a PDF version at 100%.

The State will:
1. Review the Special Provisions and provide comments.

18. PERMITS (Source Type 1071)

18.1 Permit Applications

The Contractor will investigate the requirements for all permits and approvals for this project including the Minnesota Wetland Conservation Act (WCA), the Minnesota Department of Natural Resources (DNR) Public Waters Permit, the CORPS Section 404 Permit, MPCA Water Quality Certification Section 401 Permit, the National Pollution Discharge Elimination System (NPDES) Permit, and the City of Pelican Rapids permit. If any additional permit or approval is required, the Contractor will notify State’s Project Manager immediately.

The permits related to public utility work will be obtained by others.

Deliverables

The Contractor will:
1. Review permits requirements.
2. Prepare and submit permit applications listed above to State.

The State will:
1. Review permits applications.
2. Submit permit applications to the agencies/authorities requiring them.

19. CONSULTATION DURING CONSTRUCTION (Source Type 1801)

19.1 Attend Preconstruction Conference
The Contractor will attend the preconstruction conference and will answer questions and provide design clarification related to the final design plan set and specifications.

19.2 Construction Consultation
The Contractor will be available to answer questions (not to exceed 80 hours) concerning design during the construction of the project at the request of the State.

Deliverables
The Contractor will:
1. Contractor will attend preconstruction conference.
2. Contractor will be available to answer questions concerning design during the construction of the project, at the request of the State.

The State will:
1. Prepare and facilitate the preconstruction conference.
2. Provide required handouts, agenda and meeting minutes.

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