SD DEPARTMENT OF TRANSPORTATION

Division of Operations
Mitchell Region Design Office
Better Lives Through Better Transportation
1300 S Ohlman St - PO Box 1206, Mitchell, SD 57301
Phone: 605-995-8129 | Fax: 605-995-8135
dot.sd.gov

December 16, 2024

TO: Interested Bidders

ADDENDUM 1

RE: IM-B-CR 2292(101)3, Minnehaha County - PCN 09VY
Prepurchase Structural Steel for use on
I229 SBL over Cliff Ave at Exit 4 – Str. No. 50-210-230

The following addenda to the plans will be inserted and made a part of your contract proposal and plans for the above referenced project:

PROPOSAL

No change.

PLANS

Delete Sheet 4 of 10 and replace it with the included revised sheet 4 of 10. In the footnote for the Structural Steel, Furnish item, the informational quantity for weight of structural steel was revised from 1,425,752 to 1,008,663 pounds.

Proposal and Plans (and Addenda, when applicable) can be accessed at the following link: https://apps.sd.gov/HC65BidLetting/RegionDefault.aspx Prior to submitting a bid, it is the bidder's responsibility to examine the project in accordance with Section 2.5 of the specifications. It is also the bidder's responsibility to acknowledge and account for any addenda issued prior to bid opening.

Please verify that all required information is complete prior to mailing bid documents.

Very truly yours,

DEPARTMENT OF TRANSPORTATION
Travis Dressen, Region Engineer

_____
Monte Rice, Region Design Engineer

cc: Bennett – Construction and Maintenance
B. Hoffman – Bid Letting
R. Johnson/Paul/Kruger – Operations Support
Hudecek – Certification
Hansen – Civil Rights
Reiss – Planning & Programs
S. Johnson/Wellner/Kerr/Lorenz/McDonald – Bridge
Johnston/Pfaff/Henderson/Vandam – Sioux Falls Area
Weisz – Operations
Larson/Litka/T. Schnabel – Bridge Maintenance
Horstman – Materials

ESTIMATE OF STRUCTURE QUANTITIES

DESCRIPTION	QUANTITY	UNIT	REMARKS
ΔStructural Steel, Furnish	Lump Sum	LS	
≠ Bridge Painting	Lump Sum	LS	

Δ For informational purposes only, the estimated weight of structural steel is 1,008,663 pounds.
≠ For informational purposes only, the estimated area to be painted is 55932 sq. ft.

BRIDGE SPECIFICATIONS

1. Design Specifications: AASHTO LRFD Bridge Design Specifications, 9th Edition.

2. Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2015 Edition and required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

3. All welding and welding inspections will be in conformance with the latest edition of AASHTO/AWS D1.5/D1.5M Bridge Welding Code unless noted otherwise in the plans.

BRIDGE DESIGN LOADING

1. AASHTO HL-93.

2. Dead Load includes 22 psf for future wearing surface on the roadway.

DESIGN MATERIAL STRENGTHS

Structural Steel (ASTM A709 Gr. 36T2) f_y = 36,000 psi
Structural Steel (ASTM A709 Gr. 50T2) f_y = 50,000 psi

CONNECTION OF GIRDER TO PILE

1. Steel for the bearing plates will conform to ASTM A709 Gr. 50.

2. Payment for furnishing the bearing plates will be incidental to the contract lump sum price for Structural Steel, Furnish.

BENT

All Swedge Bolts will be 1 1/2-inch diameter x 2'-6" F1554, Grade 55 bolts with heavy hex nut and cut washer (listed with structural steel in Superstructure quantities). A minimum of 20% of the embedded bolt surface will be covered with deformations whose radial dimensions are 15 to 20% of the bolt diameter. Payment for furnishing the Swedge Bolts and associated hardware will be incidental to the contract lump sum price for Structural Steel, Furnish.

GIRDERS

1. Structural steel will conform to ASTM A709 Gr. 50T2. Steel for diaphragms and stiffeners may conform to ASTM A709 Grade 50. Shear connectors will conform to Section 7.3 Type B of the Bridge Welding Code.

2. Bolts, nuts, and washers will conform to ASTM F3125, Grade A325, Type 3.

3. Shear connectors will be provided, but not installed. Shear connectors shown are for information only and will be field welded to the girders under a future contract.

4. All butt-welded girder splices will be ultrasonically inspected.

5. The shear connectors that will be attached to the girder will be 7/8-inch diameter x 5 inches long and will conform to ASTM 108, Gr. 1015, 1018, or 1020. The connectors will meet the following minimum mechanical property requirements for Type B studs,

Tensile Strength	60 ksi
Yield Strength	60 ksi
Elongation	20%
Reduction of Area	50%

6. The cost of welding and weld inspection will be incidental to the contract lump sum price for Structural Steel, Furnish.

7. Structural steel will be painted in accordance with Section 411 of the Construction Specifications. The topcoat will be an approved brown (AMS STD 595 Color 30045). The fabricator will supply paint for touch-ups. Payment for supplying paint will be incidental to contract lump sum price for Bridge Painting.

8. See Diaphragm Details for the notes concerning diaphragms.

9. Structural steel used in all girder web plates, girder flanges, and girder splice plates will comply with the Charpy-V-Notch toughness requirements set forth in Section 970 of the Construction Specifications. Material greater than 1 1/2 inches in thickness will require frequency (P) testing in lieu of heat lot (H) testing. See Girder Layout for location of tension and stress reversal areas of girder flanges.

10. Dead Load camber will be cut into the girder webs. Do not induce or correct camber in plate girders by local heating without prior approval from the Engineer.

BEARINGS

1. All steel for the bearings will conform to ASTM A709, Gr. 50.

2. The pre-formed fabric pads will be composed of multiple layers of 8-ounce cotton duck impregnated and bonded with high quality natural rubber or of equivalent and equally suitable materials compressed into resilient pads of uniform thickness, after compression and vulcanization. The finished pads will withstand compression loads perpendicular to the plane of the laminations of not less than 10,000 psi without detrimental reduction in thickness or extrusion.

3. The bearing plates will be shop painted with 3 mils of inorganic zinc primer in accordance with Section 411 of the Construction Specifications. No topcoat of polyurethane will be applied.

4. Tolerances and surface finish for Rocker Plates will be as follows:

Convex Radius Dimension	+0.000-inch to -0.010-inch
Surface Finish, Machined Surfaces	125 RMS or Better
Surface Finish, Other Surfaces	230 RMS or Better

5. Payment for furnishing the bearings, including the pre-formed fabric pads under the bearing plates and painting, will be incidental to the contract lump sum price for Structural Steel, Furnish.

FIELD BOLTED GIRDER SPLICES

1. Steel for splice and filler plates will conform to ASTM A709 Gr. 50T2, except material less than 1/4-inch in thickness may be ASTM A1011 Gr. 36.

2. Payment for furnishing splice plates and bolts for girder splices will be incidental to the contract lump sum bid price for Structural Steel, Furnish.

WELDING AND WELD INSPECTION

Main members referred to in Section 6.7 Nondestructive Testing of the Bridge Welding Code are identified as follows: girder webs, girder flanges, and bearing stiffeners. Ultrasonic testing of groove welds will be used in lieu of radiography. See girder layout for locations of tension and stress reversal areas of the girder flanges.

BOLT TESTING

The certified mill test reports for all bolts used on the project will include the test results for all the testing specified in section 972.2 D of the Construction Specifications. Some of these tests are supplemental tests that must be requested at the time the bolts are ordered. It is the responsibility of the fabricator to notify the bolt supplier of these requirements.

DELIVERY OF STRUCTURAL STEEL

1. All structural steel will be delivered to the job site (I-229 exit 4, Cliff Ave., Sioux Falls, SD). The contact person regarding delivery arrangements is Sioux Falls Area Engineer, Harry Johnston at (605) 367-5680 or Project Engineer, Mike Schmidt at (605) 940-1000.

2. All costs involved with the transportation of the structural steel to the job site will be included in the contract lump sum price for Structural Steel, Furnish.

3. Construction phasing may require the girders to be set at night. The girders may have to be delivered accordingly.

TAX LIABILITY

The South Dakota Department of Transportation (SDDOT) is a South Dakota sales tax-exempt government entity. Therefore, a Certificate of Exemption will be provided to the successful bidding party which excuses the party from paying sales tax on the materials being furnished to the SDDOT. It is the responsibility of bidding parties to contact the SD Department of Revenue at 1-800-829-9188 to determine tax licensure requirements. A South Dakota Contractors Excise Tax License is not required for this pre-purchase contract as it is not considered a reality improvement.

ESTIMATE OF STRUCTURE QUANTITIES AND NOTES
FOR
400' - 9 ⅛" STEEL GIRDER BRIDGE

STR. NO. 50-211-230
NOVEMBER 2024

DESIGNED BY	CK. DES. BY	DRAFTED BY	
CHM MINN09VY	CL 09VYTA02	BT	Steve A Johnson BRIDGE ENGINEER