

FOR BIDDING PURPOSES ONLY

PLANS FOR PROPOSED PROJECTS

IM 0293(96)73 & IM 2292(90)0

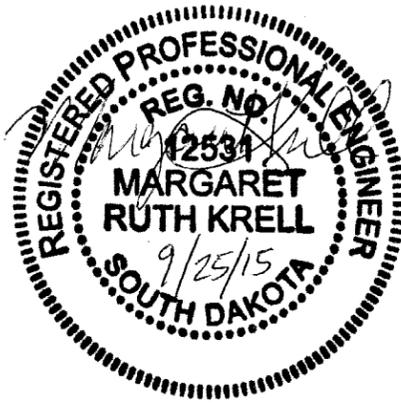
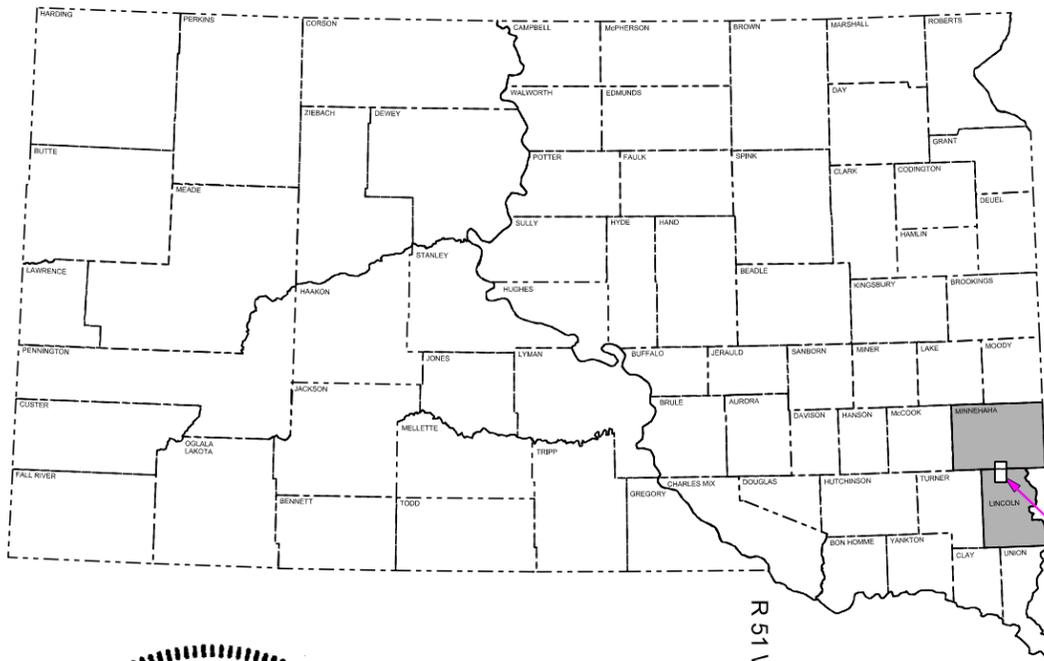
INTERSTATES 29 & 229

LINCOLN & MINNEHAHA COUNTIES

GRADING, PCC SURFACING, STRUCTURES, ROADWAY LIGHTING,
 & PERMANENT SIGNING
 PCN 01QS, PCN 020Q

INDEX OF SECTIONS

- Section A: Estimates of Quantities and Environmental Commitments
- Section B: Grading Plans
- Section C: Traffic Control Plans
- Section D: Erosion and Sediment Control Plans
- Section E: Structure Plans
- Section F: Surfacing Plans
- Section L: Lighting Plans
- Section M: Pavement Marking Plans
- Section S: Permanent Signing Plans
- Section X: Cross Sections
- Section Z: Pipe Sections



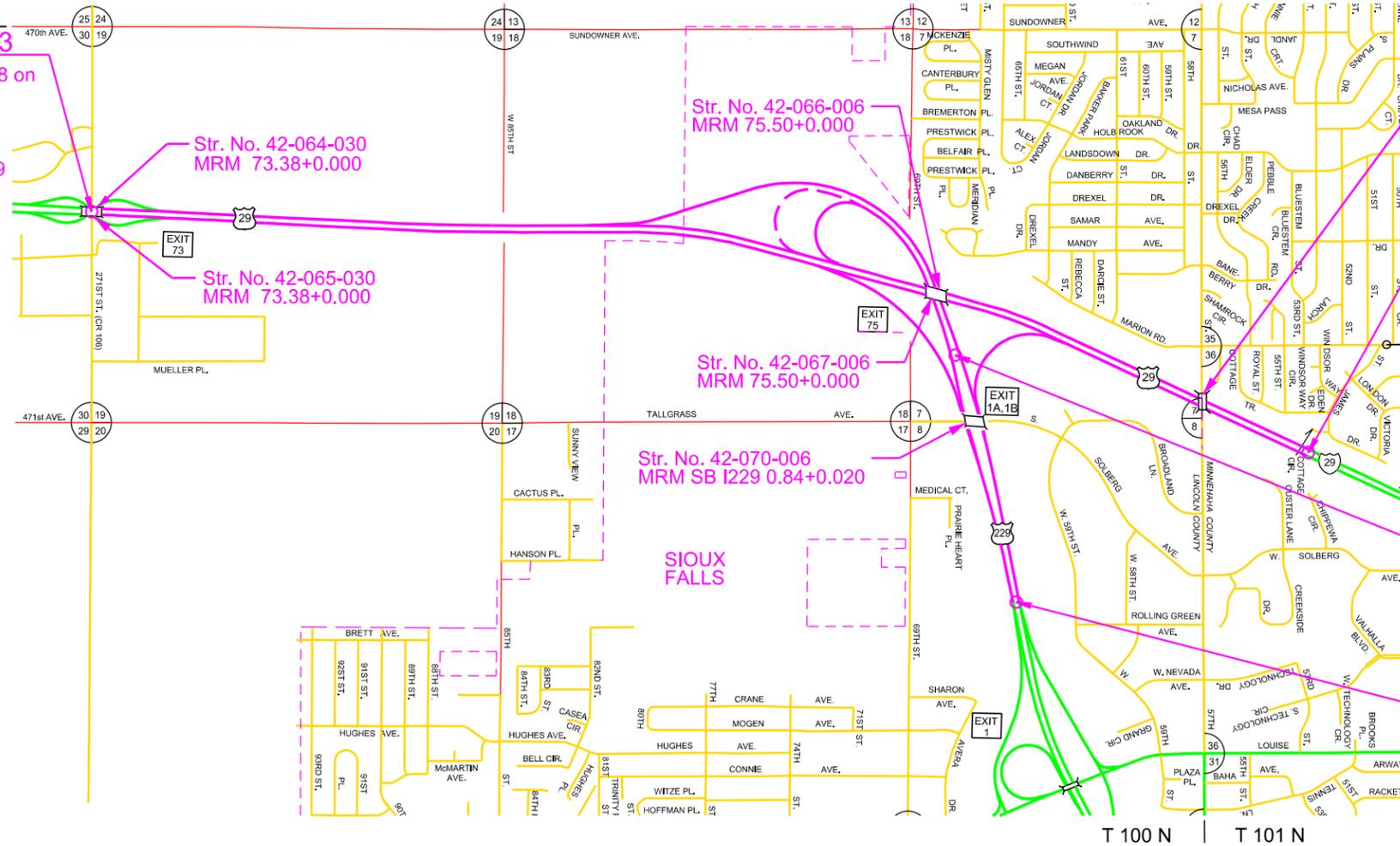
BEGIN IM 0293(96)73
 I29 Station 8+74.08=48+74.08 on
 IM 0292(52)72
 MRM SB I29 73.34+0.016
 36.54' South & 2360.03'
 East of SW Corner Section 19
 T100N R50W 5th PM

Str. No. 50-172-240
 MRM 76.19+0.000

END IM 0293(96)73
 Station 172+90.28 = 289+20 on
 IM 0293(39)76
 MRM SB I29 76.19+0.294
 1421.43' North & 378.04'
 East of NW Corner Section 8
 T100N R50W 5th PM

BEGIN IM 2292(90)0
 Station 4+53.85
 MRM 0.00+0.60
 617.90' North & 652.05' West of
 NE Corner Section 18
 T100N R50W 5th PM

END IM 2292(90)0
 Station 36+61.20
 MRM SB I229 0.84+0.523
 1499.37' North & 2431.04' East
 of NE Corner Section 18
 T100N R50W 5th PM



| DESIGN DESIGNATION | I29 S. OF 85th ST. | I29 N. OF 85th ST. S. OF I229 | I29 N. OF I229 | I229 |
|--------------------|--------------------|-------------------------------|----------------|--------|
| ADT (2013) | 33300 | 33300 | 34100 | 24900 |
| ADT (2036) | 70500 | 70500 | 64100 | 47300 |
| DHV | 7740 | 7740 | 5170 | 5170 |
| D | 50% | 50% | 50% | 50% |
| T DHV | 6.1% | 6.1% | 4.1% | 4.1% |
| T ADT | 12.4% | 12.4% | 10.3% | 10.3% |
| V | 75 mph | 70 mph | 70 mph | 70 mph |

| DESIGN DESIGNATION | RAMP A (I229 SB TO I29 NB) | RAMP B (I29 NB TO I229 NB) | RAMP C (I229 SB TO I29 SB) | RAMP G (I29SB TO I229 NB) |
|--------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| ADT (2013) | 6300 | 8800 | 8700 | 5800 |
| ADT (2036) | 9100 | 14900 | 14800 | 8500 |
| DHV | 1080 | 1630 | 1890 | 850 |
| D | 100% | 100% | 100% | 100% |
| T DHV | 2.0% | 5.1% | 4.5% | 4.4% |
| T ADT | 4.6% | 12.4% | 12.4% | 8.8% |
| V | 45 mph | 65 mph | 65 mph | 35 mph |

STORM WATER PERMIT
 Major Receiving
 Body of Water: Big Sioux River
 Area Disturbed: 129 Acres
 Total Project Area: 215 Acres
 Approx. Begin Lat/Long 43.4650, -96.8464

| | I29 PCN 01QS | I229 PCN 020Q |
|----------------------|----------------------------|---------------------------|
| Gross Length | 16,290.28 Feet 3.085 Miles | 3,207.35 Feet 0.607 Miles |
| Length of Exceptions | 0.00 Feet 0.000 Miles | 0.00 Feet 0.000 Miles |
| Net Length | 16,290.28 Feet 3.085 Miles | 3,207.35 Feet .607 Miles |

1

Plot Scale - 1:200

Plotted From - Margie Krell

Plot Name -

File - ...\\rpfj\LINCO101QS\title.dgn

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|-------------------------|--------------------------|--------------------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A1 | A8 |
| Plotting Date: 9/1/2015 | | Revised: 9/30/2015 | |

Grading – Section B (01QS)

Grading – Section B (01QS), Continued

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|-----------|------|
| 004E0050 | Remove Traffic Diversion(s) | Lump Sum | LS |
| 009E0010 | Mobilization | Lump Sum | LS |
| 009E3230 | Grade Staking | 16.679 | Mile |
| 009E3240 | Graded Centerline Staking | 7.136 | Mile |
| 009E3245 | Final Cross Section Survey | 7.508 | Mile |
| 009E3250 | Miscellaneous Staking | 7.508 | Mile |
| 009E3280 | Slope Staking | 7.508 | Mile |
| 009E3290 | Structure Staking | 2 | Each |
| 009E3300 | Three Man Survey Crew | 160.0 | Hour |
| 100E0100 | Clearing | Lump Sum | LS |
| 110E0400 | Remove Drop Inlet | 9 | Each |
| 110E0500 | Remove Pipe Culvert | 300 | Ft |
| 110E0600 | Remove Fence | 24,697 | Ft |
| 110E0650 | Remove Crossover Closure | 371 | Ft |
| 110E0655 | Remove Interim Crossover Closure | 448 | Ft |
| 110E0700 | Remove 3 Cable Guardrail | 3,893 | Ft |
| 110E0730 | Remove Beam Guardrail | 785.0 | Ft |
| 110E0740 | Remove 3 Cable Guardrail Anchor Assembly | 21 | Each |
| 110E0770 | Remove W Beam Guardrail Breakaway Cable Terminal | 3 | Each |
| 110E1100 | Remove Concrete Pavement | 107,960.0 | SqYd |
| 110E6010 | Remove 3 Cable Guardrail Anchor Assembly for Reset | 4 | Each |
| 110E7510 | Remove Pipe End Section for Reset | 3 | Each |
| 120E0010 | Unclassified Excavation | 395,804 | CuYd |
| 120E0400 | Select Subgrade Topping | 167,077 | CuYd |
| 120E0500 | Option Borrow Excavation | 52,741 | CuYd |
| 120E1000 | Muck Excavation | 27,170 | CuYd |
| 120E6100 | Water for Embankment | 2,553.1 | MGal |
| 240E0010 | Obliterate Old Road | 20 | Sta |
| 250E0020 | Incidental Work, Grading | Lump Sum | LS |
| * 270E0040 | Salvage and Stockpile Asphalt Mix and Granular Base Material | 69,676.2 | Ton |
| 270E0040 | Salvage and Stockpile Asphalt Mix and Granular Base Material | 99,894.5 | Ton |
| 270E0110 | Salvage and Stockpile Granular Material | 3,305.7 | Ton |
| 421E0100 | Pipe Culvert Undercut | 108 | CuYd |
| 450E0102 | 12" RCP Class 2, Furnish | 176 | Ft |
| 450E0110 | 12" RCP, Install | 176 | Ft |
| 450E0142 | 24" RCP Class 2, Furnish | 362 | Ft |
| 450E0150 | 24" RCP, Install | 362 | Ft |
| 450E0162 | 30" RCP Class 2, Furnish | 528 | Ft |
| 450E0170 | 30" RCP, Install | 528 | Ft |
| 450E0182 | 36" RCP Class 2, Furnish | 8 | Ft |
| 450E0190 | 36" RCP, Install | 8 | Ft |
| 450E0242 | 72" RCP Class 2, Furnish | 16 | Ft |
| 450E0250 | 72" RCP, Install | 16 | Ft |
| 450E2016 | 24" RCP Flared End, Furnish | 4 | Each |

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 450E2017 | 24" RCP Flared End, Install | 4 | Each |
| 450E2024 | 30" RCP Flared End, Furnish | 8 | Each |
| 450E2025 | 30" RCP Flared End, Install | 8 | Each |
| 450E2200 | 24" RCP Sloped End, Furnish | 3 | Each |
| 450E2201 | 24" RCP Sloped End, Install | 3 | Each |
| 450E2304 | 18" RCP Safety End, Furnish | 1 | Each |
| 450E2307 | 18" RCP Safety End, Install | 1 | Each |
| 450E3012 | 24" RCP Arch Class 2, Furnish | 106 | Ft |
| 450E3020 | 24" RCP Arch, Install | 106 | Ft |
| 450E3072 | 60" RCP Arch Class 2, Furnish | 200 | Ft |
| 450E3080 | 60" RCP Arch, Install | 200 | Ft |
| 450E4528 | 60" RCP Arch Flared End, Furnish | 4 | Each |
| 450E4529 | 60" RCP Arch Flared End, Install | 4 | Each |
| 450E4600 | 24" RCP Arch Sloped End, Furnish | 1 | Each |
| 450E4601 | 24" RCP Arch Sloped End, Install | 1 | Each |
| 450E4739 | 12" CMP 16 Gauge, Furnish | 434 | Ft |
| 450E4740 | 12" CMP, Install | 434 | Ft |
| 450E4758 | 18" CMP 14 Gauge, Furnish | 48 | Ft |
| 450E4760 | 18" CMP, Install | 48 | Ft |
| 450E5203 | 12" CMP Flared End, Furnish | 4 | Each |
| 450E5204 | 12" CMP Flared End, Install | 4 | Each |
| 450E5211 | 18" CMP Flared End, Furnish | 2 | Each |
| 450E5212 | 18" CMP Flared End, Install | 2 | Each |
| 450E9001 | Reset Pipe End Section | 3 | Each |
| 462E0100 | Class M6 Concrete | 16.1 | CuYd |
| 464E0100 | Controlled Density Fill | 4.5 | CuYd |
| 480E0100 | Reinforcing Steel | 1,496 | Lb |
| 600E0300 | Type III Field Laboratory | 1 | Each |
| 620E0030 | Type 3 Right-of-Way Fence | 9,176 | Ft |
| 620E1020 | 2 Post Panel | 14 | Each |
| 620E1030 | 3 Post Panel | 6 | Each |
| 621E0160 | 6' Chain Link Fence with Tension Wired Top | 15,521 | Ft |
| 629E0100 | 3 Cable Guardrail | 2,395 | Ft |
| 629E0110 | NCHRP 350 Test Level 3 High Tension Cable Guardrail | 6,200 | Ft |
| 629E0290 | NCHRP 350 Test Level 3 High Tension Cable Guardrail Anchor Assembly | 30 | Each |
| 629E0300 | 3 Cable Guardrail Slip Base Anchor Assembly | 8 | Each |
| 629E0400 | 3 Cable Guardrail Anchor Assembly | 4 | Each |
| 629E0410 | Reset 3 Cable Guardrail Anchor Assembly | 4 | Each |
| * 629E1107 | Furnish High Tension Cable Guardrail Post | 50 | Each |
| * 629E1109 | Furnish High Tension Cable Guardrail Post and Sleeve | 50 | Each |
| * 629E8010 | Cable Tension Indicator | 1 | Each |
| 629E9000 | Crossover Closure | 608 | Ft |
| 630E0110 | Straight Double Class A Thrie Beam Guardrail with Wood Posts | 75.0 | Ft |
| 630E1010 | Straight Class A W Beam Guardrail with Wood Posts | 225.0 | Ft |

INDEX OF SHEETS

A1 to A5 Estimate of Quantities for Sections B,C,D,E, F, L, M, and S
A6 to A7 Environmental Commitments

Grading – Section B (01QS), Continued

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 630E2000 | W Beam to Thrie Beam Guardrail Transition | 6 | Each |
| 630E2030 | W Beam Guardrail Breakaway Cable Terminal | 6 | Each |
| 650E4380 | Type D48 Concrete Curb and Gutter | 106 | Ft |
| 670E2200 | Type C Frame and Grate | 1 | Each |
| 670E3200 | Type D Frame and Grate | 8 | Each |
| 670E4205 | Type M Frame and Grate Assembly | 2 | Each |
| 670E5400 | Precast Drop Inlet Collar | 8 | Each |
| 671E7010 | Adjust Manhole | 1 | Each |
| 720E1015 | Bank and Channel Protection Gabion | 18.0 | CuYd |

* - Denotes Non-Participating

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|---------------------------|--------------------------|---------------------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A2 | A8 |
| Plotting Date: 10/22/2015 | | Revised: 10/22/2015 | |

Grading – Section B (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 009E0010 | Mobilization | Lump Sum | LS |
| 009E3230 | Grade Staking | 2.745 | Mile |
| 009E3240 | Graded Centerline Staking | 1.141 | Mile |
| 009E3245 | Final Cross Section Survey | 1.141 | Mile |
| 009E3250 | Miscellaneous Staking | 1.141 | Mile |
| 009E3280 | Slope Staking | 1.141 | Mile |
| 009E3300 | Three Man Survey Crew | 40.0 | Hour |
| 100E0100 | Clearing | Lump Sum | LS |
| 110E0400 | Remove Drop Inlet | 1 | Each |
| 110E0600 | Remove Fence | 5,025 | Ft |
| 110E0700 | Remove 3 Cable Guardrail | 330 | Ft |
| 110E0730 | Remove Beam Guardrail | 180.0 | Ft |
| 110E0740 | Remove 3 Cable Guardrail Anchor Assembly | 2 | Each |
| 110E1100 | Remove Concrete Pavement | 16,923.0 | SqYd |
| 120E0010 | Unclassified Excavation | 90,257 | CuYd |
| 120E0400 | Select Subgrade Topping | 30,335 | CuYd |
| 120E1000 | Muck Excavation | 3,230 | CuYd |
| 120E6100 | Water for Embankment | 581.1 | MGal |
| * 270E0040 | Salvage and Stockpile Asphalt Mix and Granular Base Material | 4,752.1 | Ton |
| 270E0040 | Salvage and Stockpile Asphalt Mix and Granular Base Material | 6,813.1 | Ton |
| 450E0122 | 18" RCP Class 2, Furnish | 16 | Ft |
| 450E0129 | 18" RCP for Jacking, Furnish | 16 | Ft |
| 450E2304 | 18" RCP Safety End, Furnish | 1 | Each |
| 450E2307 | 18" RCP Safety End, Install | 1 | Each |
| 462E0100 | Class M6 Concrete | 0.8 | CuYd |
| 480E0100 | Reinforcing Steel | 108 | Lb |
| 621E0160 | 6' Chain Link Fence with Tension Wired Top | 5,025 | Ft |
| 629E0110 | NCHRP 350 Test Level 3 High Tension Cable Guardrail | 2,212 | Ft |
| 629E0290 | NCHRP 350 Test Level 3 High Tension Cable Guardrail Anchor Assembly | 10 | Each |
| 670E2200 | Type C Frame and Grate | 1 | Each |

* - Denotes Non-Participating

Traffic Control – Section C (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E4600 | Salvage Traffic Control Barrier End Protection | 4 | Each |
| 250E0010 | Incidental Work | Lump Sum | LS |
| 320E1200 | Asphalt Concrete Composite | 200.0 | Ton |
| 628E1200 | Haul Movable Concrete Barrier | 284 | Each |
| 634E0010 | Flagging | 400.0 | Hour |
| 634E0110 | Traffic Control Signs | 1,178 | SqFt |
| 634E0120 | Traffic Control, Miscellaneous | Lump Sum | LS |
| 634E0280 | Type 3 Barricade, 8' Single Sided | 19 | Each |
| 634E0340 | Temporary Raised Pavement Markers | 5,680 | Mile |
| 634E0420 | Type C Advance Warning Arrow Board | 1 | Each |
| 634E0525 | Linear Delineation System Panel, Barrier Mounted | 2,217 | Each |
| 634E0560 | Remove Pavement Marking, 4" or Equivalent | 55,672 | Ft |
| 634E0640 | Temporary Pavement Marking | 99,634 | Ft |
| 634E0750 | Temporary Concrete Barrier End Protection | 6 | Each |
| 634E0760 | Temporary Concrete Barrier End Protection Module Set or Repair Kit | 2 | Each |
| 634E1215 | Contractor Furnished Portable Changeable Message Sign | 3 | Each |
| 634E3000 | Traffic Control Barrier | 3,000 | Ft |
| 634E3010 | Traffic Control Barrier - State Furnished | 3,200 | Ft |
| 634E3020 | Traffic Control Barrier - Rental | 5,650 | Ft |
| 634E3030 | Reset Traffic Control Barrier | 13,175 | Ft |
| 634E3100 | Reset Traffic Control Barrier End Protection | 4 | Each |

Traffic Control – Section C (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 250E0010 | Incidental Work | Lump Sum | LS |
| 634E0010 | Flagging | 200.0 | Hour |
| 634E0110 | Traffic Control Signs | 415 | SqFt |
| 634E0120 | Traffic Control, Miscellaneous | Lump Sum | LS |
| 634E0280 | Type 3 Barricade, 8' Single Sided | 10 | Each |
| 634E0340 | Temporary Raised Pavement Markers | 1,520 | Mile |
| 634E0420 | Type C Advance Warning Arrow Board | 1 | Each |
| 634E0560 | Remove Pavement Marking, 4" or Equivalent | 32,789 | Ft |
| 634E0640 | Temporary Pavement Marking | 8,976 | Ft |
| 634E1215 | Contractor Furnished Portable Changeable Message Sign | 4 | Each |

Erosion and Sediment Control – Section D (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E1690 | Remove Sediment | 10.3 | CuYd |
| 110E1693 | Remove Erosion Control Wattle | 1,125 | Ft |
| 110E1700 | Remove Silt Fence | 3,688 | Ft |
| 230E0010 | Placing Topsoil | 37,438 | CuYd |
| 730E0212 | Type G Permanent Seed Mixture | 2,120 | Lb |
| 731E0200 | Fertilizing | 40.80 | Ton |
| 732E0100 | Mulching | 163.0 | Ton |
| 734E0044 | Soil Stabilizer | 35.0 | Acre |
| 734E0103 | Type 3 Erosion Control Blanket | 20,440 | SqYd |
| 734E0131 | Type 1 Turf Reinforcement Mat | 2,800.0 | SqYd |
| 734E0154 | 12" Diameter Erosion Control Wattle | 3,650 | Ft |
| 734E0160 | 20" Diameter Erosion Control Wattle | 850 | Ft |
| 734E0165 | Remove and Reset Erosion Control Wattle | 1,125 | Ft |
| 734E0510 | Shaping for Erosion Control Blanket | 8,705 | Ft |
| 734E0602 | Low Flow Silt Fence | 14,750 | Ft |
| 734E0610 | Mucking Silt Fence | 1,024 | CuYd |
| 734E0620 | Repair Silt Fence | 3,688 | Ft |
| 734E0845 | Sediment Control at Inlet with Frame and Grate | 8 | Each |
| 735E1120 | 2' Deciduous Shrub, Furnish and Plant | 302 | Each |
| 735E2020 | 2' to 4' Tree, Furnish and Plant | 51 | Each |
| 735E2040 | 4' to 6' Tree, Furnish and Plant | 100 | Each |
| 900E1320 | Construction Entrance | 4 | Each |

Erosion and Sediment Control – Section D (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 110E1690 | Remove Sediment | 1.0 | CuYd |
| 110E1693 | Remove Erosion Control Wattle | 80 | Ft |
| 110E1700 | Remove Silt Fence | 253 | Ft |
| 230E0010 | Placing Topsoil | 6,528 | CuYd |
| 730E0212 | Type G Permanent Seed Mixture | 390 | Lb |
| 731E0200 | Fertilizing | 7.50 | Ton |
| 732E0100 | Mulching | 30.0 | Ton |
| 734E0044 | Soil Stabilizer | 6.0 | Acre |
| 734E0154 | 12" Diameter Erosion Control Wattle | 300 | Ft |
| 734E0160 | 20" Diameter Erosion Control Wattle | 30 | Ft |
| 734E0165 | Remove and Reset Erosion Control Wattle | 80 | Ft |
| 734E0602 | Low Flow Silt Fence | 1,010 | Ft |
| 734E0610 | Mucking Silt Fence | 70 | CuYd |
| 734E0620 | Repair Silt Fence | 253 | Ft |

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|---------------------------|--------------------------|---------------------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A3 | A8 |
| Plotting Date: 10/22/2015 | | Revised: 10/22/2015 | |

Structure – Section E (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E3470 | Salvage Large Block Retaining Wall | 555 | SqFt |
| 250E0030 | Incidental Work, Structure | Lump Sum | LS |
| 380E2431 | Concrete Barrier and 8' Plain Jointed Concrete Shoulder | 180 | Ft |
| 380E2451 | Concrete Barrier and 10' Plain Jointed Concrete Shoulder | 190 | Ft |
| 410E0030 | Structural Steel, Miscellaneous | Lump Sum | LS |
| 410E4002 | Salvage and Relocate Bridge | Lump Sum | LS |
| 460E0070 | Class A45 Concrete, Bridge Repair | 0.2 | CuYd |
| 460E0300 | Breakout Structural Concrete | 0.2 | CuYd |
| 632E0072 | 4' Diameter Fixed Support Concrete Footing | 413.0 | Ft |
| 632E0074 | 4.5' Diameter Fixed Support Concrete Footing | 20.0 | Ft |
| 635E5040 | 4' Diameter Footing | 352.0 | Ft |
| 650E2000 | Concrete Barrier Curb and Gutter | 328 | Ft |
| 650E2001 | Concrete Barrier Curb and Gutter End Section | 26 | Ft |

Structure 42-065-030 – Section E (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E0010 | Remove Concrete Bridge Approach Slab | 233.2 | SqYd |
| 410E2600 | Membrane Sealant Expansion Joint | 87.1 | Ft |
| 460E0070 | Class A45 Concrete, Bridge Repair | 3.8 | CuYd |
| 460E0150 | Concrete Approach Slab for Bridge | 186.3 | SqYd |
| 460E0160 | Concrete Approach Sleeper Slab for Bridge | 68.1 | SqYd |
| 460E0172 | Concrete Patching Material, Bridge Deck | 24.0 | CuFt |
| 460E0380 | Install Dowel in Concrete | 110 | Each |
| 480E0200 | Epoxy Coated Reinforcing Steel | 274 | Lb |
| 480E0504 | No. 4 Rebar Splice | 28 | Each |
| 480E0505 | No. 5 Rebar Splice | 52 | Each |
| 480E0506 | No. 6 Rebar Splice | 44 | Each |
| 491E0007 | Two Coat Bridge Deck Polymer High Friction Chip Seal | 920.0 | SqYd |
| 491E0110 | Abrasive Blasting of Bridge Deck | 920.0 | SqYd |
| 491E0120 | Bridge Deck Grinding | 920.0 | SqYd |
| 491E0130 | Concrete Removal, Class A | 4.0 | SqYd |
| 491E0140 | Concrete Removal, Class B | 4.0 | SqYd |
| 734E2020 | Bridge Berm Slope Protection, Crushed Aggregate | 211.2 | SqYd |

Structure 42-066-006 – Section E (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 009E3310 | Bridge Elevation Survey | Lump Sum | LS |
| 009E5000 | Concrete Penetrating Sealer | 1,884.0 | SqYd |
| 260E1010 | Base Course | 3,222.0 | Ton |
| 410E0020 | Structural Steel | Lump Sum | LS |
| 410E2600 | Membrane Sealant Expansion Joint | 115.8 | Ft |
| 411E0100 | Bridge Painting | Lump Sum | LS |
| 420E0100 | Structure Excavation, Bridge | 212 | CuYd |
| 430E0200 | Bridge End Embankment | 1,662 | CuYd |
| 430E0300 | Granular Bridge End Backfill | 113.0 | CuYd |
| 460E0030 | Class A45 Concrete, Bridge Deck | 510.4 | CuYd |
| 460E0050 | Class A45 Concrete, Bridge | 515.4 | CuYd |
| 460E0150 | Concrete Approach Slab for Bridge | 432.2 | SqYd |
| 460E0160 | Concrete Approach Sleeper Slab for Bridge | 93.2 | SqYd |
| 480E0100 | Reinforcing Steel | 66,633 | Lb |
| 480E0507 | No. 7 Rebar Splice | 150 | Each |
| 480E0514 | No. 14 Rebar Splice | 66 | Each |
| 510E0300 | Preboring Pile | 260 | Ft |
| 510E3521 | HP 14x73 Steel Test Pile, Furnish and Drive | 330 | Ft |
| 510E3525 | HP 14x73 Steel Bearing Pile, Furnish and Drive | 8,285 | Ft |
| 680E0040 | 4" Underdrain Pipe | 186 | Ft |
| 680E2500 | Porous Backfill | 32.8 | Ton |
| 734E2020 | Bridge Berm Slope Protection, Crushed Aggregate | 1,028.6 | SqYd |
| 831E1010 | Geogrid Reinforcement | 3,559 | SqYd |

Structure 42-064-030 – Section E (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E0010 | Remove Concrete Bridge Approach Slab | 233.2 | SqYd |
| 410E2600 | Membrane Sealant Expansion Joint | 87.1 | Ft |
| 460E0070 | Class A45 Concrete, Bridge Repair | 3.8 | CuYd |
| 460E0150 | Concrete Approach Slab for Bridge | 186.3 | SqYd |
| 460E0160 | Concrete Approach Sleeper Slab for Bridge | 68.1 | SqYd |
| 460E0172 | Concrete Patching Material, Bridge Deck | 24.0 | CuFt |
| 460E0380 | Install Dowel in Concrete | 110 | Each |
| 480E0200 | Epoxy Coated Reinforcing Steel | 274 | Lb |
| 480E0504 | No. 4 Rebar Splice | 28 | Each |
| 480E0505 | No. 5 Rebar Splice | 52 | Each |
| 480E0506 | No. 6 Rebar Splice | 44 | Each |
| 491E0007 | Two Coat Bridge Deck Polymer High Friction Chip Seal | 920.0 | SqYd |
| 491E0110 | Abrasive Blasting of Bridge Deck | 920.0 | SqYd |
| 491E0120 | Bridge Deck Grinding | 920.0 | SqYd |
| 491E0130 | Concrete Removal, Class A | 4.0 | SqYd |
| 491E0140 | Concrete Removal, Class B | 4.0 | SqYd |
| 734E2020 | Bridge Berm Slope Protection, Crushed Aggregate | 211.2 | SqYd |

Structure 42-066-006 – Alternate A (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|-----------------------------|----------|------|
| 480E0300 | Stainless Reinforcing Steel | 137,967 | Lb |

Structure 42-066-006 – Alternate B (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 480E0250 | Zinc and Epoxy Dual-Coated Reinforcing Steel | 137,967 | Lb |

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|---------------------------|--------------------------|---------------------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A4 | A8 |
| Plotting Date: 10/22/2015 | | Revised: 10/22/2015 | |

Structure 42-067-006 – Section E (01QS)

Surfacing – Section F (01QS)

Surfacing – Section F (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 009E3310 | Bridge Elevation Survey | Lump Sum | LS |
| 009E5000 | Concrete Penetrating Sealer | 1,541.0 | SqYd |
| 260E1010 | Base Course | 2,584.0 | Ton |
| 410E0020 | Structural Steel | Lump Sum | LS |
| 410E2600 | Membrane Sealant Expansion Joint | 91.8 | Ft |
| 411E0100 | Bridge Painting | Lump Sum | LS |
| 420E0100 | Structure Excavation, Bridge | 198 | CuYd |
| 430E0200 | Bridge End Embankment | 1,723 | CuYd |
| 430E0300 | Granular Bridge End Backfill | 85.8 | CuYd |
| 460E0030 | Class A45 Concrete, Bridge Deck | 435.0 | CuYd |
| 460E0050 | Class A45 Concrete, Bridge | 347.9 | CuYd |
| 460E0150 | Concrete Approach Slab for Bridge | 310.0 | SqYd |
| 460E0160 | Concrete Approach Sleeper Slab for Bridge | 73.9 | SqYd |
| 480E0100 | Reinforcing Steel | 44,019 | Lb |
| 480E0507 | No. 7 Rebar Splice | 118 | Each |
| 480E0514 | No. 14 Rebar Splice | 48 | Each |
| 510E0300 | Preboring Pile | 220 | Ft |
| 510E3521 | HP 14x73 Steel Test Pile, Furnish and Drive | 330 | Ft |
| 510E3525 | HP 14x73 Steel Bearing Pile, Furnish and Drive | 5,955 | Ft |
| 680E0040 | 4" Underdrain Pipe | 156 | Ft |
| 680E2500 | Porous Backfill | 28.6 | Ton |
| 734E2020 | Bridge Berm Slope Protection, Crushed Aggregate | 926.5 | SqYd |
| 831E1010 | Geogrid Reinforcement | 2,598 | SqYd |

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|-----------|------|
| 110E1020 | Remove Asphalt Concrete Pavement | 4,499.6 | CuYd |
| 110E1640 | Remove Granular Material | 3,240.9 | CuYd |
| 120E6200 | Water for Granular Material | 1,413.3 | MGal |
| 120E9000 | Pit Run | 7,978.0 | Ton |
| 260E1010 | Base Course | 2,497.2 | Ton |
| 260E1030 | Base Course, Salvaged | 14,432.8 | Ton |
| 260E2010 | Gravel Cushion | 13,718.9 | Ton |
| 260E2030 | Gravel Cushion, Salvaged | 79,288.3 | Ton |
| 320E0007 | PG 64-28 Asphalt Binder | 496.1 | Ton |
| 320E1060 | Class G Asphalt Concrete | 8,783.0 | Ton |
| 320E3000 | Compaction Sample | 3 | Each |
| 320E4000 | Hydrated Lime | 86.7 | Ton |
| 330E0010 | MC-70 Asphalt for Prime | 0.6 | Ton |
| 330E0100 | SS-1h or CSS-1h Asphalt for Tack | 10.4 | Ton |
| 330E0210 | SS-1h or CSS-1h Asphalt for Flush Seal | 3.6 | Ton |
| 330E2000 | Sand for Flush Seal | 65.8 | Ton |
| 380E0120 | 11.5" Nonreinforced PCC Pavement | 1,000.0 | SqYd |
| 380E0130 | 12" Nonreinforced PCC Pavement | 36,213.6 | SqYd |
| 380E0150 | 13" Nonreinforced PCC Pavement | 101,177.2 | SqYd |
| 380E0560 | 11" Continuously Reinforced PCC Pavement | 72.0 | SqYd |
| 380E0800 | PCC Shoulder Pavement | 56,500.8 | SqYd |
| 380E6000 | Dowel Bar | 58,409 | Each |
| 380E6110 | Insert Steel Bar in PCC Pavement | 2,258 | Each |
| 410E2600 | Membrane Sealant Expansion Joint | 493.2 | Ft |
| 680E0100 | Cutoff Drain | 2 | Each |
| 831E0210 | Non-woven Geotextile Separator | 3,459 | SqYd |

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E1020 | Remove Asphalt Concrete Pavement | 984.2 | CuYd |
| 120E6200 | Water for Granular Material | 218.5 | MGal |
| 260E1010 | Base Course | 3,014.2 | Ton |
| 260E1030 | Base Course, Salvaged | 240.6 | Ton |
| 260E2010 | Gravel Cushion | 2,205.4 | Ton |
| 260E2030 | Gravel Cushion, Salvaged | 12,745.9 | Ton |
| 320E0007 | PG 64-28 Asphalt Binder | 106.6 | Ton |
| 320E1060 | Class G Asphalt Concrete | 1,886.4 | Ton |
| 320E3000 | Compaction Sample | 3 | Each |
| 320E4000 | Hydrated Lime | 18.6 | Ton |
| 330E0010 | MC-70 Asphalt for Prime | 0.5 | Ton |
| 330E0100 | SS-1h or CSS-1h Asphalt for Tack | 2.3 | Ton |
| 330E0210 | SS-1h or CSS-1h Asphalt for Flush Seal | 1.0 | Ton |
| 330E2000 | Sand for Flush Seal | 17.5 | Ton |
| 380E0130 | 12" Nonreinforced PCC Pavement | 25,594.9 | SqYd |
| 380E0800 | PCC Shoulder Pavement | 8,853.3 | SqYd |
| 380E6000 | Dowel Bar | 11,227 | Each |
| 380E6110 | Insert Steel Bar in PCC Pavement | 72 | Each |

Structure 42-067-006 – Alternate A (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|-----------------------------|----------|------|
| 480E0300 | Stainless Reinforcing Steel | 114,998 | Lb |

Structure 42-067-006 – Alternate B (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 480E0250 | Zinc and Epoxy Dual-Coated Reinforcing Steel | 114,998 | Lb |

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|-----------------------|--------------------------|-------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A5 | A8 |

Plotting Date: 9/1/2015 Revised: 9/30/2015

Signal and Lighting – Section L (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 635E0050 | Breakaway Base Luminaire Pole with Arm, 50' Mounting Height | 11 | Each |
| 635E0350 | Breakaway Base Luminaire Pole with Top Twin Mount, 50' Mounting Height | 40 | Each |
| 635E3150 | 150' Light Tower with Lowering Device | 12 | Each |
| 635E3230 | Roadway Luminaire, 1000 Watt | 62 | Each |
| 635E3340 | Roadway Luminaire, 400 Watt with Photoelectric Cell | 11 | Each |
| 635E3384 | Post Top Luminaire, 400 Watt with Photoelectric Cell | 80 | Each |
| 635E3515 | Under Bridge Deck Luminaire, 100 Watt | 6 | Each |
| 635E5020 | 2' Diameter Footing | 408.0 | Ft |
| 635E5302 | Type 2 Electrical Junction Box | 33 | Each |
| 635E5360 | Surface Mounted Junction Box | 6 | Each |
| 635E5400 | Electrical Service Cabinet | 6 | Each |
| 635E5500 | Meter Socket | 6 | Each |
| 635E8020 | 2" Rigid Galvanized Steel Conduit | 180 | Ft |
| 635E8120 | 2" Rigid Conduit, Schedule 40 | 26,517 | Ft |
| 635E8220 | 2" Rigid Conduit, Schedule 80 | 3,050 | Ft |
| 635E8230 | 3" Rigid Conduit, Schedule 80 | 380 | Ft |
| 635E8310 | 1" Innerduct, Schedule 40 | 11,855 | Ft |
| 635E9011 | 1/C #1 AWG Copper Wire | 5,615 | Ft |
| 635E9012 | 1/C #2 AWG Copper Wire | 37,571 | Ft |
| 635E9014 | 1/C #4 AWG Copper Wire | 8,720 | Ft |
| 635E9016 | 1/C #6 AWG Copper Wire | 3,320 | Ft |
| 635E9020 | 1/C #10 AWG Copper Wire | 12,515 | Ft |
| 635E9710 | 2/C #10 AWG Copper Pole and Bracket Cable | 5,915 | Ft |
| 635E9826 | 6 Pair Communication Cable | 340 | Ft |
| 900E2030 | Miscellaneous Work | 1 | Site |

Signal and Lighting – Section L (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---------------------------------------|----------|------|
| 635E3150 | 150' Light Tower with Lowering Device | 5 | Each |
| 635E3230 | Roadway Luminaire, 1000 Watt | 18 | Each |
| 635E5302 | Type 2 Electrical Junction Box | 2 | Each |
| 635E5400 | Electrical Service Cabinet | 1 | Each |
| 635E5500 | Meter Socket | 1 | Each |
| 635E8120 | 2" Rigid Conduit, Schedule 40 | 3,485 | Ft |
| 635E8220 | 2" Rigid Conduit, Schedule 80 | 250 | Ft |
| 635E9011 | 1/C #1 AWG Copper Wire | 10,695 | Ft |
| 635E9016 | 1/C #6 AWG Copper Wire | 650 | Ft |

Permanent Signing – Section S (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 110E0120 | Remove Sign Bridge | 3 | Each |
| 110E0130 | Remove Traffic Sign | 81 | Each |
| 110E7150 | Remove Sign for Reset | 7 | Each |
| 250E0010 | Incidental Work | Lump Sum | LS |
| 632E0010 | 1.25' Diameter Breakaway Support Concrete Footing | 84.0 | Ft |
| 632E0012 | 1.5' Diameter Breakaway Support Concrete Footing | 8.0 | Ft |
| 632E0014 | 1.75' Diameter Breakaway Support Concrete Footing | 164.0 | Ft |
| 632E0058 | 2.25' Diameter Fixed Support Concrete Footing | 102.0 | Ft |
| 632E0060 | 2.5' Diameter Fixed Support Concrete Footing | 24.0 | Ft |
| 632E1225 | W6x12 Steel Post | 54.0 | Ft |
| 632E1235 | W6x20 Steel Post | 129.7 | Ft |
| 632E1240 | W8x18 Steel Post | 38.2 | Ft |
| 632E1245 | W8x21 Steel Post | 229.9 | Ft |
| 632E1255 | W8x28 Steel Post | 134.4 | Ft |
| 632E1260 | W8x31 Steel Post | 47.2 | Ft |
| 632E1320 | 2.0"x2.0" Perforated Tube Post | 241.9 | Ft |
| 632E1410 | 3" Diameter Steel Post, .216" Shell | 38.1 | Ft |
| 632E1415 | 4" Diameter Steel Post, .237" Shell | 248.4 | Ft |
| 632E2000 | 4"x4" Amber Delineator with 1.12 Lb/Ft Post | 144 | Each |
| 632E2004 | 4"x8" Amber Delineator with 1.12 Lb/Ft Post | 15 | Each |
| 632E2020 | 4"x4" White Delineator with 1.12 Lb/Ft Post | 193 | Each |
| 632E2024 | 4"x8" White Delineator with 1.12 Lb/Ft Post | 37 | Each |
| 632E2220 | Guardrail Delineator | 18 | Each |
| 632E2520 | Type 2 Object Marker | 15 | Each |
| 632E3103 | Extruded Aluminum Sign, Removable Copy High Intensity | 5,190.8 | SqFt |
| 632E3203 | Flat Aluminum Sign, Nonremovable Copy High Intensity | 239.0 | SqFt |
| 632E3205 | Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity | 321.0 | SqFt |
| 632E3500 | Reset Sign | 7 | Each |
| 632E5010 | Double Beam Sign Bridge | 5 | Each |
| 632E5020 | Overhead Cantilever Sign Support | 3 | Each |
| 635E5302 | Type 2 Electrical Junction Box | 3 | Each |
| 635E8120 | 2" Rigid Conduit, Schedule 40 | 1,000 | Ft |
| 635E8220 | 2" Rigid Conduit, Schedule 80 | 75 | Ft |
| 635E9020 | 1/C #10 AWG Copper Wire | 3,538 | Ft |

Pavement Marking – Section M (01QS)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|---|----------|------|
| 633E1300 | Pavement Marking Paint, White | 415 | Gal |
| 633E1305 | Pavement Marking Paint, Yellow | 200 | Gal |
| 633E3000 | Durable Pavement Marking, 4" White | 60,647 | Ft |
| 633E3005 | Durable Pavement Marking, 4" Yellow | 47,988 | Ft |
| 633E3010 | Durable Pavement Marking, 8" White | 1,875 | Ft |
| 633E3020 | Durable Pavement Marking, 12" White | 11,223 | Ft |
| 633E3030 | Durable Pavement Marking, 24" White | 233 | Ft |
| 633E3055 | Durable Pavement Marking, Lane Reduction Arrow | 2 | Each |
| 633E5100 | Grooving for Durable Pavement Marking, 4" | 108,636 | Ft |
| 633E5105 | Grooving for Durable Pavement Marking, 8" | 1,875 | Ft |
| 633E5110 | Grooving for Durable Pavement Marking, 12" | 11,223 | Ft |
| 633E5115 | Grooving for Durable Pavement Marking, 24" | 233 | Ft |
| 633E5131 | Grooving for Durable Pavement Marking, Lane Reduction Arrow | 2 | Each |

Pavement Marking – Section M (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 633E1300 | Pavement Marking Paint, White | 52 | Gal |
| 633E1305 | Pavement Marking Paint, Yellow | 24 | Gal |
| 633E3000 | Durable Pavement Marking, 4" White | 6,612 | Ft |
| 633E3005 | Durable Pavement Marking, 4" Yellow | 5,523 | Ft |
| 633E3010 | Durable Pavement Marking, 8" White | 643 | Ft |
| 633E3020 | Durable Pavement Marking, 12" White | 1,520 | Ft |
| 633E5100 | Grooving for Durable Pavement Marking, 4" | 12,135 | Ft |
| 633E5105 | Grooving for Durable Pavement Marking, 8" | 643 | Ft |
| 633E5110 | Grooving for Durable Pavement Marking, 12" | 1,520 | Ft |

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|-----------------------|--------------------------|-------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A6 | A8 |

Plotting Date: 9/1/2015 Revised: 9/30/2015

Permanent Signing – Section S (020Q)

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|-----------------|--|----------|------|
| 110E0120 | Remove Sign Bridge | 1 | Each |
| 110E0130 | Remove Traffic Sign | 33 | Each |
| 110E5040 | Salvage Road Closure Gate | 1 | Each |
| 250E0010 | Incidental Work | Lump Sum | LS |
| 632E0010 | 1.25' Diameter Breakaway Support Concrete Footing | 12.0 | Ft |
| 632E0014 | 1.75' Diameter Breakaway Support Concrete Footing | 106.0 | Ft |
| 632E1230 | W6x15 Steel Post | 71.8 | Ft |
| 632E1240 | W8x18 Steel Post | 40.1 | Ft |
| 632E1255 | W8x28 Steel Post | 169.4 | Ft |
| 632E1410 | 3" Diameter Steel Post, .216" Shell | 13.3 | Ft |
| 632E1415 | 4" Diameter Steel Post, .237" Shell | 26.0 | Ft |
| 632E2020 | 4"x4" White Delineator with 1.12 Lb/Ft Post | 25 | Each |
| 632E2220 | Guardrail Delineator | 10 | Each |
| 632E2520 | Type 2 Object Marker | 1 | Each |
| 632E3105 | Extruded Aluminum Sign, Removable Copy Super/Very High Intensity | 2,685.0 | SqFt |
| 632E3203 | Flat Aluminum Sign, Nonremovable Copy High Intensity | 53.5 | SqFt |
| 632E3205 | Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity | 20.0 | SqFt |
| 632E5010 | Double Beam Sign Bridge | 4 | Each |
| 635E4010 | 1 Section Vehicle Signal Head | 6 | Each |
| 635E5025 | 2.5' Diameter Footing | 8.0 | Ft |
| 635E5302 | Type 2 Electrical Junction Box | 9 | Each |
| 635E5400 | Electrical Service Cabinet | 1 | Each |
| 635E5500 | Meter Socket | 1 | Each |
| 635E8015 | 1.5" Rigid Galvanized Steel Conduit | 85 | Ft |
| 635E8120 | 2" Rigid Conduit, Schedule 40 | 2,535 | Ft |
| 635E8220 | 2" Rigid Conduit, Schedule 80 | 140 | Ft |
| 635E9016 | 1/C #6 AWG Copper Wire | 2,240 | Ft |
| 635E9020 | 1/C #10 AWG Copper Wire | 8,961 | Ft |
| 635E9505 | 5/C #14 AWG Copper Tray Cable, K2 | 60 | Ft |
| 900E0045 | Drop Arm Road Closure Gate | 1 | Each |

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT A: WETLANDS

Approximately 3.65 acres of wetlands will be impacted by the project. Refer to Section B – Grading Plans for location and boundaries of the impacted wetlands. These unavoidable impacts to wetlands shall be mitigated through an approved wetland mitigation bank site at the time of construction.

Table of Impacted Wetlands

| Wetland No. | Type | Station | Impact Left (Acres) | Impact Right (Acres) | Total Impact (Acres) |
|-------------|------|-----------------------------------|---------------------|----------------------|----------------------|
| PEM-32 | PEMA | 24+85 to 30+30 | 0.10 | - | 0.10 |
| PEM-27 | PEMA | 40+95 to 42+50 | 0.05 | - | 0.05 |
| PEM-26 | PEMA | 42+75 to 49+80 | - | 0.17 | 0.17 |
| PEM-34 | PEMA | 50+30 to 51+35 | - | 0.03 | 0.03 |
| PEM-6 | PEMC | 58+60 to 68+00 | 0.29 | - | 0.29 |
| PEM-10 | PEMC | 62+65 to 68+15 | - | 0.65 | 0.65 |
| PEM-8 | PEMC | 68+50 to 71+95 | - | 0.31 | 0.31 |
| PEM-7 | PEMC | 68+00 to 77+45 | 0.35 | - | 0.35 |
| PEM-35 | PEMC | 83+65 to 85+30 | 0.01 | - | 0.01 |
| PEM-38 | PEMA | 91+30 to 92+50 | - | 0.06 | 0.06 |
| PEM-40 | PEMC | 31+95 (RampB) to 157+50 (I229 NB) | - | 0.05 | 0.05 |
| EDGES | PEMA | 77+15 (I229 SB) to 24+50 (RampA) | - | 1.02 | 1.02 |
| PEM-41 | PEMA | 16+30 to 20+85 (RampA) | - | 0.04 | 0.04 |
| PEM-42 | PEMA | 128+55 to 130+90 | 0.03 | - | 0.03 |
| PEM-43 | PEMC | 135+55 to 139+75 | - | 0.01 | 0.01 |
| PEM-44 | PEMC | 146+15 to 156+85 | - | 0.48 | 0.48 |
| | | | 0.83 | 2.82 | 3.65 |

Action Taken/Required:

SDDOT will utilize 8.05 credits from the Tetonka wetland mitigation bank site as mitigation.

Temporary impacts will not be mitigated as original grades will be re-established.

Contact the SDDOT Environmental office if additional work outside the project work limits is needed that may have impacts to wetlands. Contact the Environmental Project Scientist of the SDDOT Environmental Office at 605-773-3268.

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D2: SURFACE WATER DISCHARGE

The Big Sioux River is classified as a warm water semi-permanent fishery with a Surface Water Discharge standard of 90 milligrams/liter total suspended solids.

Action Taken/Required:

If construction dewatering is required, the Contractor shall obtain a Temporary Discharge Permit from the DENR and provide a copy to the Project Engineer. Contact the DENR Surface Water Program at 605-773-3351 to apply for a permit.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|-----------------------|--------------------------|-------|--------------|
| | IM0293(96)73/IM2292(90)0 | A7 | A8 |

Plotting Date: 9/1/2015 Revised: 9/30/2015

COMMITMENT E: STORM WATER

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State".

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: <http://www.sddot.com/business/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at:

<http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".
2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

This commitment is required for all projects where there are earth disturbing activities due to borrow sites, waste disposal sites, staging areas, or plant sites.

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the proposed site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for historic or cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

| | | | |
|-----------------------------|--------------------------|--------------------|-----------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | IM0293(96)73/IM2292(90)0 | A8 | A8 |
| Plotting Date: 9/1/2015 | | Revised: 9/30/2015 | |

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the US Army Corps of Engineers for the permanent actions associated with this project.

Action Taken/Required:

The Contractor shall comply with all requirements contained in the Section 404 permit.

The Contractor shall also be responsible for obtaining a Section 404 permit for any dredge, excavation, or fill activities associated with staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands or waters of the United States.

COMMITMENT S: MIGRATORY BIRDS WORK RESTRICTION

Migratory birds are known to use the project area for nesting, which primarily occurs from April 1st to July 15th.

Action Taken/Required:

Tree removal due to construction activities should not occur the migratory bird work restriction listed in the below table without prior approval from the SDDOT Environmental Office to avoid conflicts with nesting migratory birds.

| Station | Migratory Bird Restriction |
|---------------------|----------------------------|
| Project work limits | April 1 to July 15 |

If any trees need to be removed during this time period, the Project Engineer will need to contact the SDDOT Environmental Engineer at 605-773-3180 so that a survey for nests can occur prior to the initiation of work and to determine if offsetting measures to compensate for impacts to migratory birds needs to be incorporated with the project action.