DEPARTMENT OF TRANSPORTATION

Planning & Engineering
Office of Project Development
700 E Broadway Avenue
Pierre, South Dakota 57501-2586
O: 605.773.3275 | F: 605.773.2614
dot.sd.gov

November 2, 2026

ADDENDUM NO. 3

RE: Item #1, November 4, 2026 Letting - NH-CR-EM 0037(156)125, PCN 06JA, Beadle County - Urban Grading, PCC Surfacing, Storm Sewer, Curb & Gutter, Sidewalk, Lighting, Signals

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:
Bid Item 635E5405 "Electrical Service Cabinet with Secondary Disconnect"

Quantities for Bid Items were changed:
Bid Item 110E0300 "Remove Concrete Curb and/or Gutter" changed from 6,731 to 6,762 Ft
Bid Item 110E1100 "Remove Concrete Pavement" changed from 23,821.4 to 24,143.6 SqYd
Bid Item 110E1140 "Remove Concrete Sidewalk" changed from 5,345.7 to 5,558.4 SqYd
Bid Item 110E1530 "Remove Signal Pole Footing" changed from 12 to 11 Each
Bid Item 380E4070 "9" PCC Fillet Section" changed from 1,423.2 to 1,455.3 SqYd
Bid Item 633E0225 "Preformed Thermoplastic Pavement Marking, 24"" changed from 1,675 to 1,915 Ft
Bid Item 633E5015 "Grooving for Cold Applied Pavement Marking, 24"" changed from 1,675 to 1,915 Ft
Bid Item 635E2145 "Signal Pole with 45' Mast Arm and Luminaire Arm" changed from 2 to 1 Each
Bid Item 635E5035 "3.5' Diameter Footing" changed from 149.0 to 137.0 Ft
Bid Item 635E5400 "Electrical Service Cabinet" changed from 6 to 4 Each
Bid Item 635E5910 "Pedestrian Push Button Pole" changed from 24 to 30 Each
Bid Item 635E5930 "Pedestrian Crossing Sign" changed from 24 to 30 Each
Bid Item 650E0090 "Type B69 Concrete Curb and Gutter" changed from 602 to 631 Ft
Bid Item 651E0040 "4" Concrete Sidewalk" changed from 26,906 to 27,913 SqFt
Bid Item 651E0540 "4" Colored Concrete Sidewalk" changed from 12,461 to 12,511 SqFt
Bid Item 651E7000 "Type 1 Detectable Warnings" changed from 1,130 to 1,194 SqFt

Bid Items were removed:
Bid Item 110E7230 "Remove Pedestrian Push Button for Reset"
Bid Item 635E7530 "Relocate Signal Equipment"

PLANS: Please destroy sheets A1, A2, B2, B14, B18, B20, B39, B59, B69, B79, L2-L4, L6, L13, L14, L21, L29,L34, M2 & M3 and replace with the enclosed sheets, dated 10/29/26, 10/30/26 & 11/2/26. Sheet L5-A was added.

Sheet A1 & B2: Section B – Grading

Quantities for Bid Items were changed:

Bid Item 110E0300 "Remove Concrete Curb and/or Gutter" changed from 6,731 to 6,762 Ft

Bid Item 110E1100 "Remove Concrete Pavement" changed from 23,511.4 to 23,833.6 SqYd

Bid Item 110E1140 "Remove Concrete Sidewalk" changed from 5,345.7 to 5,558.4 SqYd

Bid Item 380E4070 "9" PCC Fillet Section" changed from 1,423.2 to 1,455.3 SqYd

Bid Item 650E0090 "Type B69 Concrete Curb and Gutter" changed from 602 to 631 Ft

Bid Item 651E0040 "4" Concrete Sidewalk" changed from 26,906 to 27,913 SqFt

Bid Item 651E0540 "4" Colored Concrete Sidewalk" changed from 12,461 to 12,511 SqFt

Bid Item 651E7000 "Type 1 Detectable Warnings" changed from 1,130 to 1,194 SqFt

Sheets A2 & L2: Section L – Signal and Lighting

Bid Items were added:

Bid Item 635E5405 "Electrical Service Cabinet with Secondary Disconnect"

Quantities for Bid Items were changed:

Bid Item 110E1530 "Remove Signal Pole Footing" changed from 12 to 11 Each

Bid Item 635E2145 "Signal Pole with 45' Mast Arm and Luminaire Arm" changed from 2 to 1 Each

Bid Item 635E5035 "3.5' Diameter Footing" changed from 149.0 to 137.0 Ft

Bid Item 635E5400 "Electrical Service Cabinet" changed from 6 to 4 Each

Bid Item 635E5910 "Pedestrian Push Button Pole" changed from 24 to 30 Each

Bid Item 635E5930 "Pedestrian Crossing Sign" changed from 24 to 30 Each

Bid Items were removed:

Bid Item 110E7230 "Remove Pedestrian Push Button for Reset"

Bid Item 635E7530 "Relocate Signal Equipment"

Sheets A2 & M2: Section M – Pavement Marking

Quantities for Bid Items were changed:

Bid Item 633E0225 "Preformed Thermoplastic Pavement Marking, 24"" changed from 1,675 to 1,915 Ft

Bid Item 633E5015 "Grooving for Cold Applied Pavement Marking, 24"" changed from 1,675 to 1,915 Ft

Sheet B14: PAVEMENT REMOVAL QUANTITIES was revised.

Sheet B18 & B20: PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES table was revised.

Sheet B39: Layout was revised to include additional sidewalk and curb ramps.

Sheet B59: PAVEMENT REMOVAL LAYOUT was revised.

Sheet B69: CURB AND GUTTER LAYOUT was revised.

Sheet B79: CURB RAMP LAYOUT was revised.

Sheet L2: REMOVE AND RESET PEDESTRIAN PUSH BUTTONS AND POLES note was removed.

Sheet L3: TABLE OF FOOTING DATA was revised.

Sheet L4: ELECTRICAL SERVICE CABINET WITH SECONDARY DISCONNECT note was added.

Sheet L5A: JUNCTION BOX JA2 was added.

Sheets L6: CONDUIT AND CABLE QUANTITIES table was revised. Name of pole was changed to match plan sheets.

Sheet L13: EXISTING SIGNAL LAYOUT, SALVAGE SIGNAL EQUPMENT table, and ESTIMATE OF QUANTITIES table were revised. RELOCATE SIGNAL EQUIPMENT table was removed. EXISTING ITEMS (Do Not Disturb) table was added.

Sheet L14: SIGNAL LAYOUT, ESTIMATE OF QUANTITIES table and EXISTING ITEMS table were revised.

Sheet L21: CONDUIT LAYOUT, ESTIMATE OF QUANTITIES table and EXISTING ITEMS table were revised.

Sheet L29: ESTIMATED QUANTITIES table was revised.

Sheet L34: ESTIMATED QUANTITIES table was revised.

Sheet M3: PAVEMENT MARKINGS layout & ESTIMATE OF QUANTITIES table were revised.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/gp

CC: Mark Peterson, Aberdeen Region Engineer
Brad Letcher, Huron Area Engineer

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	A1	A5

Plotting Date: 11/02/2026 Revised 11/02/2026 MDJ

Section B - Grading

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	87	Each
009E3225	Reestablish Public Land Survey System Corner	3	Each
009E3230	Grade Staking	5.160	Mile
009E3250	Miscellaneous Staking	2.529	Mile
009E3280	Slope Staking	0.990	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	82	Each
110E0300	Remove Concrete Curb and/or Gutter	6,762	Ft
110E0400	Remove Drop Inlet	26	Each
110E0460	Remove Manhole	7	Each
110E0600	Remove Fence	31	Ft
110E1010	Remove Asphalt Concrete Pavement	4,278.4	SqYd
110E1100	Remove Concrete Pavement	23,833.6	SqYd
* 110E1100	Remove Concrete Pavement	310.0	SqYd
110E1130	Remove Concrete Driveway Pavement	5,040.7	SqYd
110E1140	Remove Concrete Sidewalk	5,558.4	SqYd
110E5720	Salvage Drop Inlet Frame and Grate Assembly	26	Each
110E7500	Remove Pipe for Reset	16	Ft
110E7510	Remove Pipe End Section for Reset	1	Each
120E0010	Unclassified Excavation	38,399	CuYd
120E0900	Contaminated Material Excavation	100	CuYd
120E2000	Undercutting	15,251	CuYd
120E6100	Water for Embankment	180.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0020	Salvage and Stockpile Asphalt Mix Material	7,902.0	Ton
270E0110	Salvage and Stockpile Granular Material	13,056.0	Ton
380E3520	6" PCC Approach Pavement	598.9	SqYd
380E3540	8" PCC Approach Pavement	2,349.1	SqYd
380E4070	9" PCC Fillet Section	1,455.3	SqYd
450E0122	18" RCP Class 2, Furnish	2,518	Ft
450E0130	18" RCP, Install	2,518	Ft
450E0142	24" RCP Class 2, Furnish	1,316	Ft
450E0150	24" RCP, Install	1,316	Ft
450E0162	30" RCP Class 2, Furnish	604	Ft
450E0170	30" RCP, Install	604	Ft
450E0182	36" RCP Class 2, Furnish	900	Ft
450E0190	36" RCP, Install	900	Ft
450E0192	42" RCP Class 2, Furnish	426	Ft
450E0200	42" RCP, Install	426	Ft
450E0202	48" RCP Class 2, Furnish	7,884	Ft
450E0210	48" RCP, Install	7,884	Ft

Section B - Grading

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E0408	18" RCP Bend, Furnish	1	Each
450E0409	18" RCP Bend, Install	1	Each
450E2036	48" RCP Flared End, Furnish	1	Each
450E2037	48" RCP Flared End, Install	1	Each
450E2304	18" RCP Safety End, Furnish	4	Each
450E2307	18" RCP Safety End, Install	4	Each
450E3002	18" RCP Arch Class 2, Furnish	1,082	Ft
450E3004	18" RCP Arch Class 4, Furnish	68	Ft
450E3010	18" RCP Arch, Install	1,150	Ft
450E3012	24" RCP Arch Class 2, Furnish	154	Ft
450E3020	24" RCP Arch, Install	154	Ft
450E3023	30" RCP Arch Class 3, Furnish	128	Ft
450E3030	30" RCP Arch, Install	128	Ft
450E4769	24" CMP 16 Gauge, Furnish	220	Ft
450E4770	24" CMP, Install	220	Ft
450E5410	24" CMP Safety End, Furnish	8	Each
450E5411	24" CMP Safety End, Install	8	Each
450E9000	Reset Pipe	16	Ft
450E9001	Reset Pipe End Section	1	Each
462E0100	Class M6 Concrete	263.5	CuYd
464E0100	Controlled Density Fill	6.4	CuYd
470E0020	Pipe Handrail	334.6	Ft
480E0100	Reinforcing Steel	43,240	Lb
480E0200	Epoxy Coated Reinforcing Steel	3,321	Lb
600E0300	Type III Field Laboratory	1	Each
650E0089	Modified Type B69 Concrete Curb and Gutter	7,252	Ft
650E0090	Type B69 Concrete Curb and Gutter	631	Ft
650E1560	Type R48 Concrete Curb and Gutter	92	Ft
650E4689	Modified Type P9 Concrete Gutter	1,562	Ft
650E4690	Type P9 Concrete Gutter	82	Ft
651E0040	4" Concrete Sidewalk	27,913	SqFt
651E0060	6" Concrete Sidewalk	36,800	SqFt
651E0080	8" Concrete Sidewalk	370	SqFt
651E0160	6" Reinforced Concrete Sidewalk	108	SqFt
651E0540	4" Colored Concrete Sidewalk	12,511	SqFt
651E0580	8" Colored Concrete Sidewalk	313	SqFt
651E0740	4" Reinforced Colored Concrete Sidewalk	331	SqFt
651E0780	8" Reinforced Colored Concrete Sidewalk	112	SqFt
651E7000	Type 1 Detectable Warnings	1,194	SqFt
670E1200	Type B Frame and Grate	62	Each
670E2030	4' x 5' Type C Drop Inlet	1	Each
670E2200	Type C Frame and Grate	4	Each
670E3300	Type E Frame and Grate	4	Each

Section B - Grading

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
670E5200	Special Frame and Grate Assembly	1	Each
670E5342	4' x 6' Precast Concrete Type S Drop Inlet Lid	9	Each
670E5400	Precast Drop Inlet Collar	62	Each
671E0046	4' x 11' Junction Box	2	Each
671E4548	48" Manhole Cone Section	68.0	Ft
671E6009	Type A9 Manhole Frame and Lid	19	Each
671E7010	Adjust Manhole	3	Each
700E0210	Class B Riprap	61.0	Ton
831E0110	Type B Drainage Fabric	68	SqYd
831E0300	Reinforcement Fabric (MSE)	5,111	SqYd

*** - Denotes Non-Participating**

Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
260E1010	Base Course	312.0	Ton
320E1200	Asphalt Concrete Composite	165.0	Ton
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	14	Gal
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	1,962.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	71	Each
634E0330	Temporary Raised Pavement Markers	7,000	Ft
634E0380	Tubular Marker	101	Each
634E0420	Type C Advance Warning Arrow Board	3	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	1,690	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	1,696	Ft
634E0640	Temporary Pavement Marking	5,460	Ft
634E0900	Portable Temporary Traffic Control Signal	4	Unit
634E1002	Detour and Restriction Signing	885.2	SqFt
634E1020	Temporary Business Signing	84.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E2000	Longitudinal Pedestrian Barricade	5,710	Ft
634E2020	Temporary Curb Ramp	24	Each
634E2025	Longitudinal Pedestrian Barrier	490	Ft
634E2052	Temporary Flexible Sidewalk	6,000	SqFt

Plot Scale - 1:200

Plotted From - TRSF12145

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	A2	A5

Plotting Date: 11/02/2026 Revised 11/02/2026 MDJ

Plot Scale - 1:200

Section D - Erosion and Sediment Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	24.8	CuYd
110E1695	Remove Sediment Filter Bag	3,144	Ft
110E1700	Remove Silt Fence	3,312	Ft
120E6300	Water for Vegetation	494.8	MGal
230E0010	Placing Topsoil	3,665	CuYd
730E0206	Type D Permanent Seed Mixture	2,078	Lb
731E0200	Fertilizing	5.05	Ton
732E0200	Fiber Mulching	6.8	Ton
734E0170	Temporary Sediment Barrier	500	Ft
734E0180	Sediment Filter Bag	3,144	Ft
734E0604	High Flow Silt Fence	3,312	Ft
734E0610	Mucking Silt Fence	230	CuYd
734E0620	Repair Silt Fence	828	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	82	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	64	Ft
734E5005	Dewatering	Lump Sum	LS
734E5010	Sweeping	15	Hour
900E1320	Construction Entrance	2	Each

Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	380.3	MGal
* 120E6200	Water for Granular Material	2.3	MGal
* 260E1030	Base Course, Salvaged	195.0	Ton
260E1030	Base Course, Salvaged	20,417.0	Ton
260E1080	Base Course, Salvaged, State Furnished	11,282.0	Ton
270E0220	Blend and Stockpile Granular Material	20,612.0	Ton
320E1200	Asphalt Concrete Composite	720.0	Ton
380E0070	9" Nonreinforced PCC Pavement	35,578.1	SqYd
* 380E0070	9" Nonreinforced PCC Pavement	310.0	SqYd
380E3020	6" PCC Driveway Pavement	245.8	SqYd
380E3040	8" PCC Driveway Pavement	1,157.5	SqYd
* 380E6000	Dowel Bar	119	Each
380E6000	Dowel Bar	22,675	Each
380E6110	Insert Steel Bar in PCC Pavement	177	Each
* 380E6110	Insert Steel Bar in PCC Pavement	143	Each

Section L - Signal and Lighting

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1520	Remove Signal Equipment	Lump Sum	LS
110E1530	Remove Signal Pole Footing	11	Each
110E1540	Remove Luminaire Pole Footing	29	Each
110E5100	Salvage Luminaire Pole	6	Each
110E5105	Salvage Luminaire	24	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	10	Each
635E2000	Pedestal Signal Pole	2	Each
635E2120	Signal Pole with 20' Mast Arm and Luminaire Arm	2	Each
635E2122	Signal Pole with 20' and 45' Mast Arms with Luminaire Arm	1	Each
635E2125	Signal Pole with 25' Mast Arm and Luminaire Arm	1	Each
635E2138	Signal Pole with 35' and 45' Mast Arms with Luminaire Arm	2	Each
635E2140	Signal Pole with 40' Mast Arm and Luminaire Arm	1	Each
635E2145	Signal Pole with 45' Mast Arm and Luminaire Arm	1	Each
635E2150	Signal Pole with 50' Mast Arm and Luminaire Arm	1	Each
635E2155	Signal Pole with 55' Mast Arm and Luminaire Arm	1	Each
635E2160	Signal Pole with 60' Mast Arm and Luminaire Arm	1	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	44	Each
635E4030	3 Section Vehicle Signal Head	47	Each
635E4050	5 Section Vehicle Signal Head	2	Each
635E4090	4 Section Directional Vehicle Signal Head	20	Each
635E5020	2' Diameter Footing	300.0	Ft
635E5035	3.5' Diameter Footing	137.0	Ft
635E5301	Type 1 Electrical Junction Box	16	Each
635E5302	Type 2 Electrical Junction Box	13	Each
635E5303	Type 3 Electrical Junction Box	4	Each
635E5400	Electrical Service Cabinet	4	Each
635E5405	Electrical Service Cabinet with Secondary Disconnect	2	Each
635E5430	Traffic Signal Controller	4	Each
635E5515	Battery Backup System for Traffic Signal	5	Each
635E5520	Video Detection System	4	Each
635E5560	Emergency Vehicle Preemption Unit	4	Each
635E5570	Optical Detector	16	Each
635E5880	Accessible Pedestrian Signal	32	Each
635E5910	Pedestrian Push Button Pole	30	Each
635E5922	Pedestrian Signal Head with Countdown Timer	32	Each
635E5930	Pedestrian Crossing Sign	30	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7500	Remove and Reset Luminaire Pole	22	Each
635E7510	Remove and Reset Signal Pole	3	Each
635E8110	1" Rigid Conduit, Schedule 40	645	Ft
635E8120	2" Rigid Conduit, Schedule 40	5,515	Ft

Section L - Signal and Lighting

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E8140	4" Rigid Conduit, Schedule 40	65	Ft
635E8150	5" Rigid Conduit, Schedule 40	15	Ft
635E8220	2" Rigid Conduit, Schedule 80	1,255	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,220	Ft
635E9010	1/C #0 AWG Copper Wire	50	Ft
635E9014	1/C #4 AWG Copper Wire	1,320	Ft
635E9016	1/C #6 AWG Copper Wire	17,470	Ft
635E9018	1/C #8 AWG Copper Wire	12,000	Ft
635E9024	1/C #14 AWG Copper Wire	2,660	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	6,040	Ft
635E9503	3/C #14 AWG Copper Tray Cable, K2	485	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1,790	Ft
635E9505	5/C #14 AWG Copper Tray Cable, K2	855	Ft
635E9506	6/C #14 AWG Copper Tray Cable, K2	55	Ft
635E9510	10/C #14 AWG Copper Tray Cable, K2	1,705	Ft
635E9525	25/C #14 AWG Copper Tray Cable, K2	3,085	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	2,860	Ft

Section M - Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0210	Preformed Thermoplastic Pavement Marking, 4"	15,300	Ft
633E0225	Preformed Thermoplastic Pavement Marking, 24"	1,915	Ft
633E0235	Preformed Thermoplastic Pavement Marking, Arrow	43	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	15,300	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	1,915	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	43	Each

Section S - Permanent Signing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	55	Each
110E7150	Remove Sign for Reset	40	Each
632E1320	2.0"x2.0" Perforated Tube Post	290.0	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	370.6	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	475.0	SqFt
632E3500	Reset Sign	40	Each

Plotted From - TRSF12145

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SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	87	Each
009E3225	Reestablish Public Land Survey System Corner	3	Each
009E3230	Grade Staking	5.160	Mile
009E3250	Miscellaneous Staking	2.529	Mile
009E3280	Slope Staking	0.990	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	82	Each
110E0300	Remove Concrete Curb and/or Gutter	6,762	Ft
110E0400	Remove Drop Inlet	26	Each
110E0460	Remove Manhole	7	Each
110E0600	Remove Fence	31	Ft
110E1010	Remove Asphalt Concrete Pavement	4,278.4	SqYd
110E1100	Remove Concrete Pavement	23,833.6	SqYd
* 110E1100	Remove Concrete Pavement	310.0	SqYd
110E1130	Remove Concrete Driveway Pavement	5,040.7	SqYd
110E1140	Remove Concrete Sidewalk	5,558.4	SqYd
110E5720	Salvage Drop Inlet Frame and Grate Assembly	26	Each
110E7500	Remove Pipe for Reset	16	Ft
110E7510	Remove Pipe End Section for Reset	1	Each
120E0010	Unclassified Excavation	38,399	CuYd
120E0900	Contaminated Material Excavation	100	CuYd
120E2000	Undercutting	15,251	CuYd
120E6100	Water for Embankment	180.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0020	Salvage and Stockpile Asphalt Mix Material	7,902.0	Ton
270E0110	Salvage and Stockpile Granular Material	13,056.0	Ton
380E3520	6" PCC Approach Pavement	598.9	SqYd
380E3540	8" PCC Approach Pavement	2,349.1	SqYd
380E4070	9" PCC Fillet Section	1,455.3	SqYd
450E0122	18" RCP Class 2, Furnish	2,518	Ft
450E0130	18" RCP, Install	2,518	Ft
450E0142	24" RCP Class 2, Furnish	1,316	Ft
450E0150	24" RCP, Install	1,316	Ft
450E0162	30" RCP Class 2, Furnish	604	Ft
450E0170	30" RCP, Install	604	Ft
450E0182	36" RCP Class 2, Furnish	900	Ft
450E0190	36" RCP, Install	900	Ft
450E0192	42" RCP Class 2, Furnish	426	Ft
450E0200	42" RCP, Install	426	Ft
450E0202	48" RCP Class 2, Furnish	7,884	Ft
450E0210	48" RCP, Install	7,884	Ft

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E0408	18" RCP Bend, Furnish	1	Each
450E0409	18" RCP Bend, Install	1	Each
450E2036	48" RCP Flared End, Furnish	1	Each
450E2037	48" RCP Flared End, Install	1	Each
450E2304	18" RCP Safety End, Furnish	4	Each
450E2307	18" RCP Safety End, Install	4	Each
450E3002	18" RCP Arch Class 2, Furnish	1,082	Ft
450E3004	18" RCP Arch Class 4, Furnish	68	Ft
450E3010	18" RCP Arch, Install	1,150	Ft
450E3012	24" RCP Arch Class 2, Furnish	154	Ft
450E3020	24" RCP Arch, Install	154	Ft
450E3023	30" RCP Arch Class 3, Furnish	128	Ft
450E3030	30" RCP Arch, Install	128	Ft
450E4769	24" CMP 16 Gauge, Furnish	220	Ft
450E4770	24" CMP, Install	220	Ft
450E5410	24" CMP Safety End, Furnish	8	Each
450E5411	24" CMP Safety End, Install	8	Each
450E9000	Reset Pipe	16	Ft
450E9001	Reset Pipe End Section	1	Each
462E0100	Class M6 Concrete	263.5	CuYd
464E0100	Controlled Density Fill	6.4	CuYd
470E0020	Pipe Handrail	334.6	Ft
480E0100	Reinforcing Steel	43,240	Lb
480E0200	Epoxy Coated Reinforcing Steel	3,321	Lb
600E0300	Type III Field Laboratory	1	Each
650E0089	Modified Type B69 Concrete Curb and Gutter	7,252	Ft
650E0090	Type B69 Concrete Curb and Gutter	631	Ft
650E1560	Type R48 Concrete Curb and Gutter	92	Ft
650E4689	Modified Type P9 Concrete Gutter	1,562	Ft
650E4690	Type P9 Concrete Gutter	82	Ft
651E0040	4" Concrete Sidewalk	27,913	SqFt
651E0060	6" Concrete Sidewalk	36,800	SqFt
651E0080	8" Concrete Sidewalk	370	SqFt
651E0160	6" Reinforced Concrete Sidewalk	108	SqFt
651E0540	4" Colored Concrete Sidewalk	12,511	SqFt
651E0580	8" Colored Concrete Sidewalk	313	SqFt
651E0740	4" Reinforced Colored Concrete Sidewalk	331	SqFt
651E0780	8" Reinforced Colored Concrete Sidewalk	112	SqFt
651E7000	Type 1 Detectable Warnings	1,194	SqFt
670E1200	Type B Frame and Grate	62	Each
670E2030	4' x 5' Type C Drop Inlet	1	Each
670E2200	Type C Frame and Grate	4	Each
670E3300	Type E Frame and Grate	4	Each

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
670E5200	Special Frame and Grate Assembly	1	Each
670E5342	4' x 6' Precast Concrete Type S Drop Inlet Lid	9	Each
670E5400	Precast Drop Inlet Collar	62	Each
671E0046	4' x 11' Junction Box	2	Each
671E4548	48" Manhole Cone Section	68.0	Ft
671E6009	Type A9 Manhole Frame and Lid	19	Each
671E7010	Adjust Manhole	3	Each
700E0210	Class B Riprap	61.0	Ton
831E0110	Type B Drainage Fabric	68	SqYd
831E0300	Reinforcement Fabric (MSE)	5,111	SqYd

*** - Denotes Non-Participating**

BID ITEMS FROM ENVIRONMENTAL COMMITMENTS

The following bid item(s) provided in this section of plans come from the Environmental Commitments in Section A: Contaminated Material Excavation (Commitment L).

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste.

Sections of the roadway different than the typical section(s) will be constructed to the limits shown on the cross sections. If significant changes to the cross sections are necessary during construction, the Engineer will contact the Designer for the proposed change.

A copy of the subsurface investigation for this project is available for review at the Aberdeen Region and Huron Area offices.

GENERAL GEOLOGY

The project alignment traverses glacial terrain typical of eastern South Dakota. Included within this terrain may be areas of loess, shale, sand, gravel, glacial till and boulder till. As is the case with most glacial terrain, the materials throughout the project can vary greatly in a short distance.

CLASSIFICATION OF EXCAVATION

Most of the material encountered should be able to be excavated using conventional methods associated with normal Unclassified Excavation.

Plot Scale - 1:200
Plotted From - TRSF12141
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PAVEMENT REMOVAL QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B14	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR

Station to Station		Concrete Pavement* SqYd	Concrete Driveway Pavement SqYd	Concrete Sidewalk SqYd	Concrete Curb and / or Gutter Ft	Asphalt Concrete Pavement SqYd
South of Grading Project						
11+24 R	14+00 R	697.6	37.4	126.8		
11+80 L	12+47 L			83.6	30.8	
21st St. to 19th St. SW						
14+00 R	21+76 R	940.7	672.5	432.9	694.3	171.0
14+00 L	21+86 L	857.4	368.1	127.6	842.8	1101.0
19th St. SW to 18th St. South						
21+76 R	26+35 R	660.2	185.3	276.2	421.9	
21+86 L	26+35 L	514.3	95.3	246.2	440.7	197.0
18th St. South to 17th St. SW						
26+35 R	30+61 R	478.2	376.7	165.1	422.2	
26+35 L	30+82 L	633.5	536.7	206.0	462.3	27.3
17th St. SW to 16th St. SW						
30+61 R	35+48 R	541.9	315.7	209.3	482.2	857.3
30+82 L	35+60 L	533.4	328.5	235.0	510.0	510.5
16th St. SW to 15th St. SW						
35+48 R	39+64 R	478.1	554.0	47.5	393.4	209.7
35+60 L	39+89 L	477.5	302.2	169.7	434.4	156.7
15th St. SW to 14th St. South						
39+64 R	44+04 R	472.0	131.9	320.5	454.9	
39+89 L	44+24 L	531.2	121.2	388.0	383.8	160.4
14th St. South to 13th St. SW						
44+04 R	47+84 R	680.8	20.4	229.0	322.6	
44+24 L	48+57 L	810.5	155.7	211.2	258.3	129.3
13th St. SW to 12th St. South						
47+84 R	52+60 R	1853.4	80.7	282.7		16.7
48+57 L	52+88 L	1701.1	66.2	238.5	46.0	36.7
12th St. South to 11th St. South						
52+60 R	57+18 R	1789.0	159.6	271.7		15.7
52+88 L	57+18 L	1682.1	107.4	222.0	42.0	105.1
11th St. South to 10th St. South						
57+18 R	61+47 R	1661.9	51.0	261.5		20.8
57+18 L	61+49 L	1701.9	110.3	235.4	10.0	35.5
10th St. South to End						
61+47 R	66+35 R	2119.8	28.0	292.6		16.3
61+49 L	66+50 L	2017.1	235.9	279.4	5.0	35.5
Storm Sewer						
108+00	175+00				104.2	475.9
		* 310 SqYd of this quantity is Non-Participating.				
Total:		23833.6	5040.7	5558.4	6761.8	4278.4

Plot Scale - 1:200

Plotted From - TRSF12141

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PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B18	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR

Station to Station		PCC Fillet Section	Concrete Curb and Gutter				Concrete Gutter			PCC Approach Pavement			Concrete Sidewalk			Colored Concrete Sidewalk			Reinforced Concrete Sidewalk			Reinforced Colored Concrete Sidewalk		Detectable Warning
			Type B	Modified Type B	Type R		Type P	Modified Type P		Type B	Type C													Type 1
		9"	69	69	48		9"	9"		8"	6"	8"	4"	6"	8"	4"	8"		6"		4"	8"		
		SqYd	Ft	Ft	Ft		Ft	Ft		SqYd	SqYd	SqYd	SqFt	SqFt	SqFt	SqFt	SqFt		SqFt		SqFt	SqFt		SqFt
																								34
Beginning to 20th St. S.																								
11+80.37 L	12+46.49 L		29.3										889.8											
13+46.40 L	14+29.41 L			62.6										545.6										
14+29.41 L	15+25.00 L			55.6				40.0		53.3				284.7										
15+25.00 L	15+71.00 L			26.0				20.0		35.6				48.0										
15+71.00 L	17+23.95 L			128.9				24.0		39.1			182.8	909.0		212.9								
11+40.57 R	12+59.21 R		77.5										551.6											27.8
13+13.44 R	15+17.00 R	44.3	46.3	117.1									1211.2			269.6								20.0
15+17.00 R	17+39.35 R	34.3	3.0	167.2				30.0		36.6			998.5			392.6								20.0
20th St. S. to 19th St.																								
17+23.95 L	18+10.95 L			47.0				40.0		47.4				281.0										
18+10.95 L	18+88.00 L			61.1				16.0		26.1				355.1										
18+88.00 L	20+14.00 L			110.0				16.0		32.0				720.0										
20+14.00 L	21+85.34 L	35.3	4.4	116.5			3.0	30.0		44.4			49.6	970.3					108.4					29.0
17+70.89 R	19+59.00 R	34.3	2.6	163.1									1119.1											20.0
19+59.00 R	21+44.00 R			157.0				28.0				60.0	785.0			1279.3					143.0			
21+44.00 R	22+38.00 R			64.0				30.0				63.3	456.0			410.0								10.0
19th St. N. to 18th St.																								
22+17.16 L	22+60.00 L	34.1	11.7	17.8									35.3	523.9										37.3
22+60.00 L	25+37.00 L			241.0				36.0				72.9		1916.0										
25+37.00 L	26+37.59 L	34.3	22.3	54.1				20.0				43.7	103.1	773.4										26.6
22+38.00 R	23+81.22 R		16.3	123.2				20.0				46.7	614.2											
23+81.22 R	26+00.10 R	34.0	17.0	153.9				40.0				81.0	1411.5											20.0
18th St. to 17th St.																								
26+70.51 L	27+71.00 L	32.6	22.6	74.5			34.6			29.6				960.0		505.4								40.8
27+71.00 L	28+76.00 L			65.0				40.0				81.4		520.0		424.0								
28+76.00 L	30+82.09 L	29.8	23.3	140.1			24.0	40.0			30.2	81.8	86.2	1381.0										26.0
26+35.77 R	27+20.00 R	33.9	1.0	59.2									557.3											20.0
27+20.00 R	29+33.00 R			189.0				24.0				53.3	949.3											
29+33.00 R	29+79.00 R			16.0				30.0				58.0			80.0		88.2							
29+79.00 R	30+25.00 R			16.0				30.0				58.0			80.0		88.2							
30+25.00 R	30+71.00 R			26.0				20.0				41.4			130.0		48.1					112.3		
30+71.00 R	31+17.00 R			16.0				30.0				58.0			80.0		88.1							
Subtotal:		347.0	277.3	2467.9	0.0		61.6	604.0		344.1	30.2	799.5	10000.5	10188.0	370.0	3493.8	312.6		108.4		143.0	112.3		331.5

Plot Scale - 1:200

Plotted From - TRSF12141

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PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B20	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR

Station to Station		PCC Fillet Section	Concrete Curb and Gutter				Concrete Gutter			PCC Approach Pavement			Concrete Sidewalk			Colored Concrete Sidewalk		Reinforced Concrete Sidewalk			Reinforced Colored Concrete Sidewalk		Detectable Warning
			Type B	Modified Type B	Type R		Type P	Modified Type P		Type B	Type C											Type 1
		9"	69	69	48		9"	9"		8"	6"	8"	4"	6"	8"	4"	8"		6"		4"	8"	
		SqYd	Ft	Ft	Ft		Ft	Ft		SqYd	SqYd	SqYd	SqFt	SqFt	SqFt	SqFt	SqFt		SqFt		SqFt	SqFt	SqFt
13th St. to 12th St.																							
48+83.02 L	51+24.00 L	34.3	10.2	216.0									65.2	2000.1		1194.9						26.0
51+24.00 L	52+88.09 L	33.7	37.1	122.7				16.0			29.8		257.5	1207.3								26.0
48+13.48 R	49+59.00 R	35.0		120.5									928.8									30.0
49+59.00 R	50+10.00 R			27.0				24.0			36.1		152.4									
50+10.00 R	50+92.00 R			66.0				16.0			24.4		368.0									
50+92.00 R	51+61.00 R			53.0				16.0			24.4		280.2									
51+61.00 R	52+58.93 R	33.3		56.9				16.0			24.4		680.4									20.0
12th St. to 11th St.																						
53+13.50 L	54+48.00 L	34.8	36.6	109.9									213.7	1118.5								26.0
54+48.00 L	55+70.00 L			90.0				32.0			59.6		4.6	720.0								
55+70.00 L	57+17.86 L	34.0	5.0	106.9				16.0			29.8		56.7	1130.2								26.0
52+88.45 R	54+09.00 R	34.3		95.5									936.5									20.0
54+09.00 R	54+79.00 R			54.0				16.0			24.4		312.1									
54+79.00 R	55+78.00 R			79.0				20.0			28.9		475.2									
55+78.00' R	56+27.00 R			33.0				16.0			24.4		202.7									
56+27.00' R	57+17.22 R	34.1		49.2				16.0			24.4		583.2									20.0
11th St. to 10th St.																						
57+43.45 L	58+05.00 L	34.7	5.0	36.5									75.1	562.4								26.0
58+05.00 L	58+45.00 L			24.0				16.0			29.8			192.5								
58+45.00 L	59+60.00 L			99.0				16.0			29.8		44.0	791.5								
59+60.00 L	61+48.83 L	33.9	5.0	143.9				20.0			35.6		50.1	1426.1								26.0
57+43.47 R	58+59.00 R	34.4		90.5									773.4									20.0
58+59.00 R	59+51.00 R			76.0				16.0			24.4		416.3									
59+51.00 R	61+46.71 R	34.2		154.7				16.0			24.4		1076.3									20.0
10th St. to 9th St.																						
61+74.32 L	63+07.00 L	34.6	5.0	107.6									91.0	1131.5								26.0
63+07.00 L	63+75.00 L			52.0				16.0			29.8		14.5	416.0								
63+75.00 L	64+42.00 L			51.0				16.0			29.8		10.5	408.0								
64+42.00 L	65+75.36 L	35.3	16.5	68.2				40.0				64.5	67.8	803.6								26.0
61+76.01 R	64+85.00 R	35.0		284.0										1946.5								20.0
64+85.00 R	65+77.00 R	32.1	10.2	50.9				16.0			34.5			571.7		234.4						20.0
9th St. to End																						
66+08.26 L	66+49.62 L	32.8	19.2										106.6	404.0		272.1						26.0
66+07.97 R	66+35.23 R	36.5	23.8	0.9									277.9									20.0
Storm Sewer																						
164+00	175+00		104.2																			
Subtotal:		617.0	277.8	2519.0	0.0		0.0	376.0		0.0	568.7	64.5	8520.7	14829.9	0.0	1701.4	0.0		0.0		0.0	0.0	424.0
Grand Total:		1455.3	630.8	7251.6	92.0		82.0	1562.0		344.1	598.9	2005.0	27912.6	36800.0	370.0	12510.9	312.6		108.4		331.3	112.3	1173.5

Plot Scale - 1:200
Plotted From - TPSF12141
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B39	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR

10+90-81' R to 12+61-81' R
Take Out 24"-162' RCP/CMP
& 1 End Section
(Incidental Work, Grading)

177+87.30-4.00'R (Storm Sewer)
Install 4'x5' Type C Drop Inlet
& Type C Frame and Grate

178+55.82-CL (Storm Sewer)
Install Special 4'x5' Type C Drop Inlet
& Type C Frame and Grate

Install Type B Drop Inlet
with 6" Concrete collar
and Type B Frame & Grate
at the following locations:
14+05.00-43.67'R (5.5'x5.5')
14+05.00-40.17'L (5.5'x5.5')
14+90.00-40.17'L (5.5'x3')
14+90.00-42.52'R (2'x3')

177+87.30-4.00'R to
178+55.82-CL (Storm Sewer)
Install 48"-66' RCP
(Between Drop Inlets)

178+55.82-CL to
179+82.48-2.00'L (Storm Sewer)
Install 48"-124' RCP
(Between Drop Inlet
& Jct. Box)

179+82.48-2.00'L to
180+50.23-CL (Storm Sewer)
Install Twin 30"-64' RCP Arch (Cl 3)
(Spaced 6' C to C)
(w / Controlled Density Fill)
(Between Jct. Boxes)

12+52.51-63.03'R to
12+60.72-92.08'R
Install 18"-26' RCP
& 1-4° Long Radius Bend
(Between Existing Pipe & Drop Inlet)

12+52.5-63.0' R to
12+60.7-81.3' R
Take Out 18"-18' RCP
(Incidental Work, Grading)

180+50.23-CL (Storm Sewer)
to 14+05.00-43.67'R (Mainline)
Install 42"-72' RCP
(Between Jct. Box &
Drop Inlet)

12+60.7-81.3' R to 94.6' R
Take Out 24"-12' RCP
(Incidental Work, Grading)

12+60.7-81.3' R
Take Out Drop Inlet

12+26.4-4.7' R to
12+52.5-63.0' R
Retain 18"-62' RCP

12+60.7-94.6' R to
12+61.1-181.8' R
Retain 24"-86' RCP

14+05.00-40.17'L to
14+05.00-43.67'R
Install 42"-80' RCP
(Between Drop Inlets)

14+05.00-40.17'L to
14+90.00-40.17'L
Install 42"-82' RCP
(Between Drop Inlets)

14+90.00-42.52'R to
14+90.00-40.17'L
Install 18"-80' RCP Arch
(Between Drop Inlets)

14+90.00-40.17'L to
16+84.00-40.17'L
Install 42"-192' RCP
(Between Drop Inlets)

14+00-48' L to 20+77-38' L
Take Out 18"x11" Concrete Utility Duct
(Incidental Work, Grading)

HURON

Sec 13 - T110N - R61W

VAN HALL'S OUTLOTS

OUTLOT 4

PDG Properties, LLC
(INFORMATION ONLY)

Twenty-First Street SW

Section Line

153 feet

12+85.46

100'

Sec 12 - T110N - R62W

OUTLOT 1

Art Pugsley
Construction
Company, Inc.
Parcel A2

Property Line

SE1/4 SE1/4 SE1/4

B Plus Properties, LLC
Parcel A3

PUGSLEY'S ADDITION

BLOCK 1

Lot 5

M.G. Oil Company
Parcel A1

Outlot 6

Outlot 5

13+56-54' L
Do Not
Disturb Sign

13+35.61-74.00'
13+35.63-66.98'
13+53.63-80.26'
13+54.56'
14+99.52-50.19'
14+99.55-57.00'
15+49.64-50.17'
15+49.69-57.00'
15+49.73-62.00'
15+90.00-62.00'

BEGIN GRADING
Station 13+99.63

100'

N 0°48'41" W

Section Line

Present SD Hwy 37

N 1°11'24" W

Dakota Avenue South

10+00 11+00 12+00 13+00 14+00 15+00 16+00

Retain

Retain

Take Out

Retain

177+00 178+00 179+00 180+00

TH3-45

TH1-46

TH2-01

TH01A

TH3-03

TH2-02

14+11-62'
14+10.92-49.98'

15+05-62'

15+15-78'
15+24.97-49.94'
15+25.32-78.00'

223.5 feet

15+72 R
Do Not
Disturb Sign

LOT 1

TRACT R

GRIFFITH'S
3RD SUBDIVISION

Vishveshwara LLC
Parcel A7

O'Reilly Auto Enterprises LLC
Parcel 2

Storm Sewer
PI 179+67.80
N 190419.11
E 2435762.83
Del 1°48'49" R

Mainline
PI 12+85.47
N 190447.03
E 2435688.47
Del 0°22'42" L

Storm Sewer
PI 180+50.23
N 190501.54
E 2435763.00
Del 26°58'05" L

13+19.43-103.89'
13+19.54-116.00'

66'

Twenty-First Street SE

12+60.72-92.08'R
Install 3'x4' Type C Drop Inlet
& Type C Frame and Grate

SANDERSON LOT 2

SANDERSON LOT 1

Rodney Frank Sanderson
(INFORMATION ONLY)

Install Special 4'x11' RC Jct. Box
Type A9 Manhole Frame & Lid
and 4' Eccentric Cone
at the following locations:
179+82.48-2.00'L (Storm Sewer)
180+50.23-CL (Storm Sewer)

Storm Sewer
PI 177+87.36
N 190238.75
E 2435768.15
Del 0°52'49" L

Sec 18 - T110N - R61W

BEACH, BRYANT AND DICKINSON'S OUTLOTS

Parcel A1
13+35.61 to 14+99.55 L
Temporary Easement containing
1042 sq ft, more or less

Parcel A2
14+99.52 to 15+49.69 L
Temporary Easement containing
342 sq ft, more or less

Parcel A3
15+49.64 to 17+50.11 L
Temporary Easement containing
1739 sq ft, more or less

Parcel 2
13+19.43 to 15+25.32 R
Temporary Easement containing
2725 sq ft, more or less

Parcel A7
15+24.97 to 17+25.09 R
Temporary Easement containing
4008 sq ft, more or less

Plot Scale - 1:40

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PAVEMENT REMOVAL LAYOUT

HURON

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B59	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR

Remove Concrete Pavement

Remove Concrete Driveway Pavement

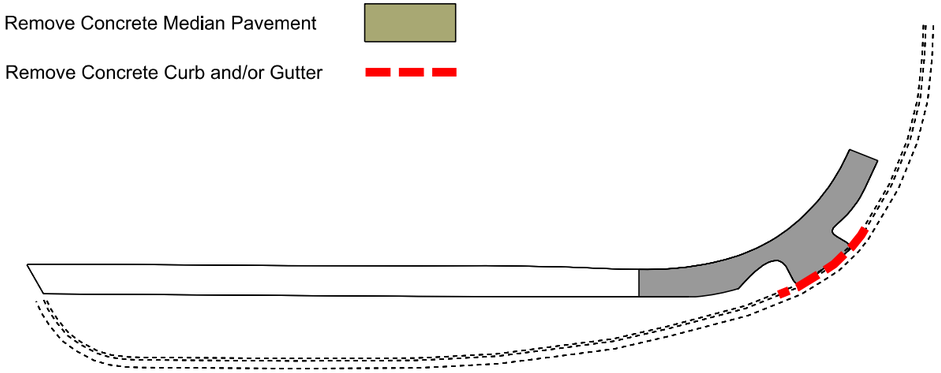
Remove Asphalt Concrete Pavement

Salvage Asphalt Concrete Pavement

Remove Concrete Sidewalk

Remove Concrete Median Pavement

Remove Concrete Curb and/or Gutter



** NOTE - There is approximately 6.3" of Asphalt Concrete Pavement on top of PCC Pavement. Quantities for removal of the Asphalt Concrete Pavement are included in the bid item "Salvage and Stockpile Asphalt Mix Material". See exisitng typical section on Sheet F7.

This section begins at 13+99.63.

Plot Scale - 1:40

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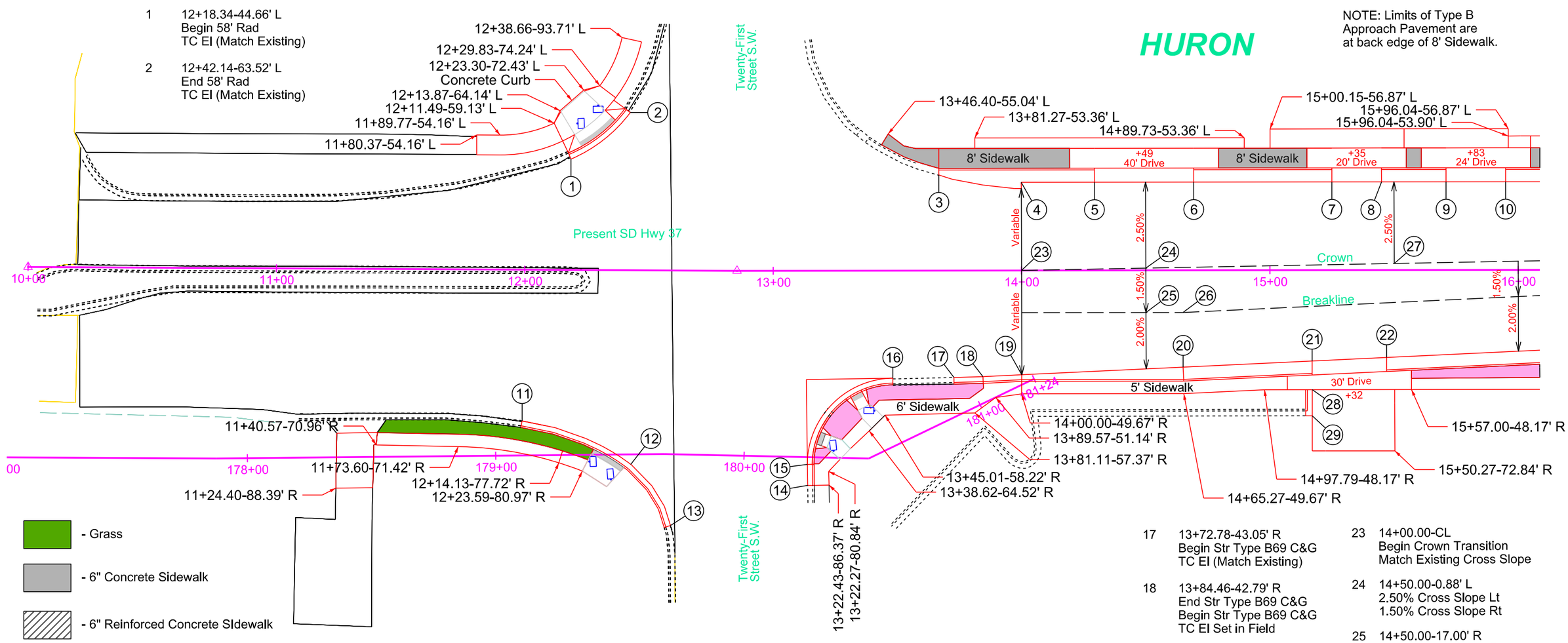
From 21st St. S. to 13th St. S.
All Approach pavement is 8" except as noted.

CURB AND GUTTER LAYOUT

Note: All curb and gutter shown on this sheet is Modfied Type B69 except as noted.
All Gutter is Modified Type P9 except as noted.
All Approach pavement is 8" except as noted.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B69	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR



3 13+66.77-38.50' L
Begin Str C&G Transition
TC EI (Match Existing)

4 13+99.95-35.50' L
End Str C&G Transition
Begin Str C&G
TC EI (Match Existing)

5 14+29.41-35.50' L
End Str C&G
Begin Type P Gutter
TC EI 84.04 (Theor)

6 14+69.41-35.50' L
End Type P Gutter
Begin Str C&G
TC EI 83.92 (Theor)

7 15+25.00-35.50' L
End Str C&G
Begin Type P Gutter
TC EI 83.78 (Theor)

8 15+45.00-35.50' L
End Type P Gutter
Begin Str C&G
TC EI 83.74 (Theor)

9 15+71.00-35.50' L
End Str C&G
Begin Type P Gutter
TC EI 83.71 (Theor)

10 15+95.00-35.50' L
End Type P Gutter
Begin Str C&G
TC EI 83.68 (Theor)

11 11+99.24-60.95' R
Begin 85' Rad
Type B69 C&G
TC EI (Match Existing)

12 12+43.11-78.22' R
End 85' Rad
Type B69 C&G
Begin 40' Rad
Type B69 C&G
TC EI Set in Field

13 12+59.21-102.73' R
End 40' Rad
Type B69 C&G
TC EI (Match Existing)

14 13+13.78-86.48' R
Begin Str Type B69 C&G
TC EI (Match Existing)

15 13+13.69-78.02' R
End Str Type B69 C&G
Begin 35' Rad Fillet
TC EI Set in Field

16 13+48.13-43.32' R
End 35' Rad Fillet
TC EI (Match Existing)

17 13+72.78-43.05' R
Begin Str Type B69 C&G
TC EI (Match Existing)

18 13+84.46-42.79' R
End Str Type B69 C&G
Begin Str Type B69 C&G
TC EI Set in Field

19 14+00.06-42.00' R
End Str Type B69 C&G
Begin Str C&G Transition
TC EI 84.21

20 14+65.03-39.00' R
End Str C&G Transition
Begin Str C&G
TC EI 84.08

21 15+17.00-36.60' R
End Str C&G
Begin Type P Gutter
TC EI 83.94 (Theor)

22 15+47.00-35.22' R
End Type P Gutter
Begin Str C&G
TC EI 83.86 (Theor)

23 14+00.00-CL
Begin Crown Transition
Match Existing Cross Slope

24 14+50.00-0.88' L
2.50% Cross Slope Lt
1.50% Cross Slope Rt

25 14+50.00-17.00' R
1.50% Cross Slope Rt
2.00% Cross Slope Rt

26 14+65.00-17.00' R
Begin Breakline Transition

27 15+50.00-2.63' L
2.50% Cross Slope Lt
Begin Cross Slope Transition

28 15+17.00-48.17' R
Begin Type B69 C&G
TC EI Set in Field (Theor)

29 15+17.00-58.71' R
End Type B69 C&G
TC EI (Match Existing)

Plot Scale - 1:40
Plotted From - TRSF12140
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CURB RAMP LAYOUT

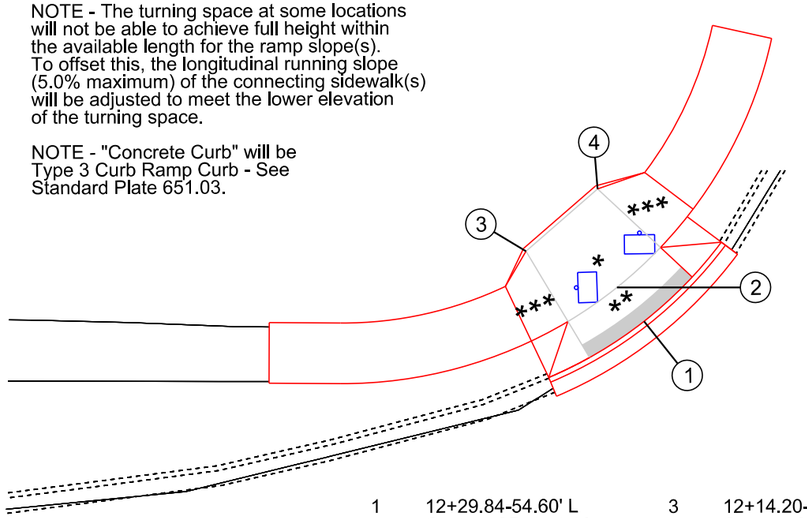
* Turning Space with 1.5% slope
** Curb Ramp with 7.5% slope and 1.5% cross slope.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.
*** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B79	B139

Plotting Date: 11/02/2026 Revised 11/02/2026 AR

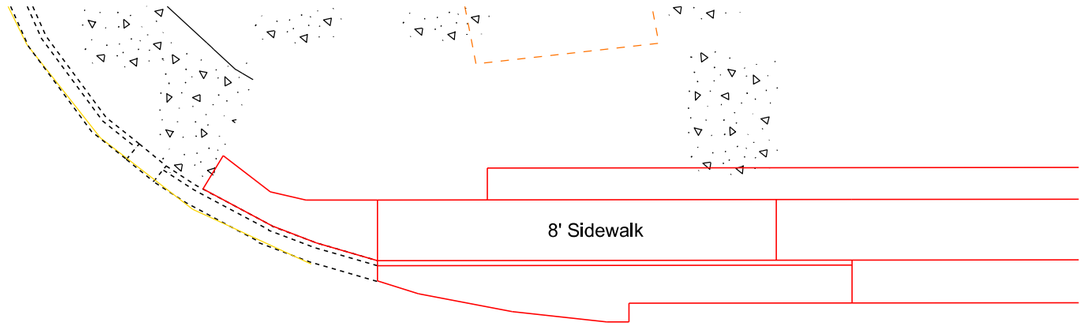
NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.



HURON

Twenty-first Street SW



Present SD Hwy 37

1 12+29.84-54.60' L
Center of Detectable Warning & Blended Transition

2 12+26.24-56.06' L
End Ramp Slope

3 12+14.20-63.77' L
Corner of Turning Space

4 12+23.62-72.04' L
Corner of Turning Space



5 12+28.05-72.24' R
Corner of Detectable Warning & Turning Space
2% Maximum Slope

6 12+40.33-79.48' R
Corner of Detectable Warning & Turning Space
2% Maximum Slope

7 12+23.59-80.97' R
Corner of Turning Space
2% Maximum Slope

8 12+33.42-87.22' R
Corner of Turning Space
2% Maximum Slope



9 13+18.29-67.44' R
Center of Detectable Warning & Type 1 Curb Ramp

10 13+22.45-68.94' R
End Ramp Slope

11 13+33.47-49.87' R
Center of Detectable Warning & Type 1 Curb Ramp

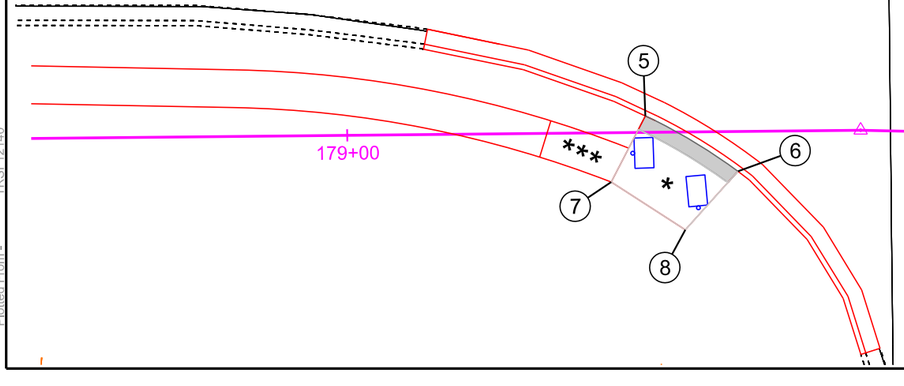
12 13+36.29-55.17' R
End Ramp Slope

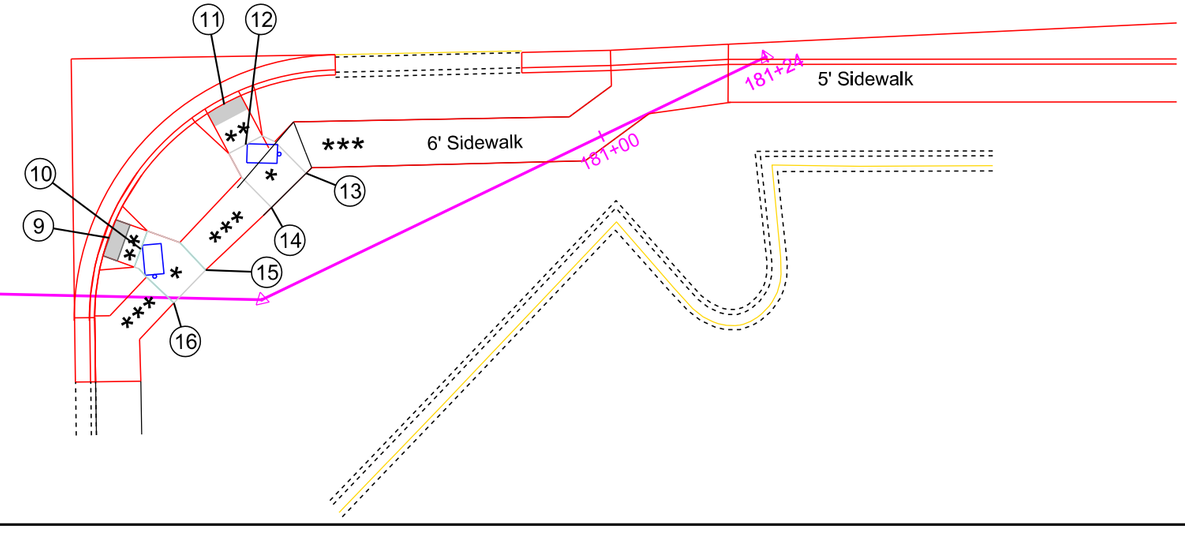
13 13+44.26-58.97' R
Corner of Turning Space

14 13+39.69-63.47' R
Corner of Turning Space

15 13+31.01-71.72' R
Corner of Turning Space

16 13+26.81-76.05' R
Corner of Turning Space





Twenty-first Street SE

Plot Scale - 1:20

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SECTION L ESTIMATE OF QUANTITIES

Bead06JA

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1520	Remove Signal Equipment	Lump Sum	LS
110E1530	Remove Signal Pole Footing	11	Each
110E1540	Remove Luminaire Pole Footing	29	Each
110E5100	Salvage Luminaire Pole	6	Each
110E5105	Salvage Luminaire	24	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	10	Each
635E2000	Pedestal Signal Pole	2	Each
635E2120	Signal Pole with 20' Mast Arm and Luminaire Arm	2	Each
635E2122	Signal Pole with 20' and 45' Mast Arms with Luminaire Arm	1	Each
635E2125	Signal Pole with 25' Mast Arm and Luminaire Arm	1	Each
635E2138	Signal Pole with 35' and 45' Mast Arms with Luminaire Arm	2	Each
635E2140	Signal Pole with 40' Mast Arm and Luminaire Arm	1	Each
635E2145	Signal Pole with 45' Mast Arm and Luminaire Arm	1	Each
635E2150	Signal Pole with 50' Mast Arm and Luminaire Arm	1	Each
635E2155	Signal Pole with 55' Mast Arm and Luminaire Arm	1	Each
635E2160	Signal Pole with 60' Mast Arm and Luminaire Arm	1	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	44	Each
635E4030	3 Section Vehicle Signal Head	47	Each
635E4050	5 Section Vehicle Signal Head	2	Each
635E4090	4 Section Directional Vehicle Signal Head	20	Each
635E5020	2' Diameter Footing	300.0	Ft
635E5035	3.5' Diameter Footing	137.0	Ft
635E5301	Type 1 Electrical Junction Box	16	Each
635E5302	Type 2 Electrical Junction Box	13	Each
635E5303	Type 3 Electrical Junction Box	4	Each
635E5400	Electrical Service Cabinet	4	Each
635E5405	Electrical Service Cabinet with Secondary Disconnect	2	Each
635E5430	Traffic Signal Controller	4	Each
635E5515	Battery Backup System for Traffic Signal	5	Each
635E5520	Video Detection System	4	Each
635E5560	Emergency Vehicle Preemption Unit	4	Each
635E5570	Optical Detector	16	Each
635E5880	Accessible Pedestrian Signal	32	Each
635E5910	Pedestrian Push Button Pole	30	Each
635E5922	Pedestrian Signal Head with Countdown Timer	32	Each
635E5930	Pedestrian Crossing Sign	30	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7500	Remove and Reset Luminaire Pole	22	Each
635E7510	Remove and Reset Signal Pole	3	Each
635E8110	1" Rigid Conduit, Schedule 40	645	Ft
635E8120	2" Rigid Conduit, Schedule 40	5,515	Ft
635E8140	4" Rigid Conduit, Schedule 40	65	Ft
635E8150	5" Rigid Conduit, Schedule 40	15	Ft
635E8220	2" Rigid Conduit, Schedule 80	1,255	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,220	Ft
635E9010	1/C #0 AWG Copper Wire	50	Ft
635E9014	1/C #4 AWG Copper Wire	1,320	Ft
635E9016	1/C #6 AWG Copper Wire	17,470	Ft
635E9018	1/C #8 AWG Copper Wire	12,000	Ft
635E9024	1/C #14 AWG Copper Wire	2,660	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	6,040	Ft
635E9503	3/C #14 AWG Copper Tray Cable, K2	485	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1,790	Ft
635E9505	5/C #14 AWG Copper Tray Cable, K2	855	Ft
635E9506	6/C #14 AWG Copper Tray Cable, K2	55	Ft
635E9510	10/C #14 AWG Copper Tray Cable, K2	1,705	Ft
635E9525	25/C #14 AWG Copper Tray Cable, K2	3,085	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	2,860	Ft

SUPPLYING AS BUILT PLANS

If the traffic signal system(s) or roadway lighting system(s) are constructed differently than what is stated in the plans, the Contractor will supply as built plans to the Engineer and a copy will be sent to the Traffic Design Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor will submit shop drawings and catalog cuts in accordance with Section 985 of the Specifications.

PDF submittals will be sent to the following email addresses:

Stacy.Bartlett@state.sd.us
Ryley.Rapp@state.sd.us

ON-SITE INSPECTION

An on-site inspection of the traffic signals will be conducted before acceptance of the project once the traffic signals are completed and operational. The on-site inspection will be conducted by the Project Engineer or Region Traffic Engineer with the Contractor, and the Traffic Design Engineer present.

REMOVE SIGNAL POLE FOOTING

The footings of existing signal poles EA1,EA3-EA4, EB1, EB3, EC1, EC3, ED1-ED4 will be removed by the Contractor to a minimum of 2 feet below the ground surface. Restoration of the disturbed area will be to the satisfaction of the Engineer.

All costs for removing the footings of the existing signal poles will be incidental to the contract unit price per each for “Remove Signal Pole Footing”.

SALVAGE SIGNAL EQUIPMENT

The existing signal equipment identified on the plans will be salvaged and delivered to the City of Huron by the Contractor. The Contractor will notify the city 5 days before the delivery of the salvaged signal equipment for a time and location of delivery. The city contact is Brett Runge at (605) 530-9607.

Any equipment damaged during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

All costs for work involved in the salvage and delivery of the existing signal equipment will be incidental to the contract lump sum price for “Salvage Signal Equipment”.

REMOVE AND RESET SIGNAL POLES AND SIGNAL EQUIPMENT AT 27TH STREET

Existing signal poles EF1-EF2 (27th Street) will be taken down to reduce loading on the footings during the construction of the storm sewer along the east side of SD37. Signal poles will be reinstalled on the existing footing and returned to working operation after completion of the storm sewer work and all necessary backfilling.

Signal equipment damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

All cost for the disconnecting and removal of the signal equipment, removal and resetting of the signal poles, and reinstallation of all the signal equipment will be incidental to the lump sum cost for “Remove and Reset Signal Pole”.

See Section C for information pertaining to temporary traffic control while poles are down.

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REMOVE AND RESET SIGNAL POLE AND SIGNAL EQUIPMENT AT 21st STREET

Existing signal pole EA5 (21ST Street) will be taken down to reduce loading on the footings during the construction of the storm sewer along the east side of SD37. Signal pole will be reinstalled on the existing footing and returned to working operation after completion of the storm sewer work and all necessary backfilling.

Signal equipment damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

All cost for removal and resetting of the signal poles will be incidental to the contract unit price for each “Remove and Reset Signal Pole”.

SIGNAL POLES

The pole fabricator will be responsible for determining the diameter, length, and number of anchor bolts.

Signal poles will have rotatable mast arms.

Luminaire extension(s) will have a 50-foot mounting height with 8-foot arm.

TABLE OF FOOTING DATA

Site Designation	Footing Diameter	* Footing Depth	**Spiral Diameter	**Spiral Length	Vertical Reinforcement
A2, C3	2’ - 0”	6’ - 0”	1’ - 8”	44’ - 3”	8-#7 x 5’ - 6”
REL1-REL18, L1-L10, B2, B4, C5, REL25	2’ - 0”	9’ - 0”	1’ - 8”	60’ - 0”	8-#7 x 8’ - 6”
C2, D2, D4	3’ - 6”	11’ - 0”	3’ - 2”	133’ - 6”	18-#8 x 10’ -6”
A4, C1, D3	3’ - 6”	12’ - 0”	3’ - 2”	143’ - 6”	18-#8 x 11’ -6”
A1, D1	3’ - 6”	13’ - 0”	3’ - 2”	153’ - 6”	18-#8 x 12’ -6”
B1, B3, C4	3’ - 6”	14’ - 0”	3’ - 2”	163’ - 3”	18-#8 x 13’ -6”

* Footing depth will be below ground level.
** The size of all spirals will be #3.

SUBSURFACE

Soils along the project corridor consist of clay sand to silty sand. Groundwater was encountered at a depth of 5.8 feet during the soils investigation conducted in August 2022.

Groundwater and caving soils are likely to be encountered during the installation of the cylindrical footings. Concrete placement operations should closely follow excavation procedures. The longer the excavations are left open, the more likely caving may occur. Operations should be sequenced so that concrete placement operations closely follow excavation procedures but at a minimum placed the same working day.

If caving soils are encountered, it may be necessary to use casing or drilling fluids to maintain an open excavation. Casing will be of sufficient strength to withstand handling and installation procedures. Casing material may consist of Sonotube, corrugated metal pipe, PVC, smooth metal pipe or any other material as approved by the Engineer. Drilling fluids can be water or other slurries as approved by the Engineer. Concrete placed through drilling fluids will be tremied.

ELECTRICAL SERVICE

The Contractor will be responsible for coordinating the installation of the electrical services and connection to the electrical service. The Contractor will contact the utility company at least 2 weeks prior to needing the electrical service installed.
Contact:

Kirby Wicks
Northwestern Energy
605-668-4602
605-353-7609

All cost for contacting the utility company and coordinating the electrical service installations and all hookup fees will be incidental to the contract unit price per each for “Electrical Service Cabinet.”

ELECTRICAL SERVICE CABINET

An externally mounted receptacle and accompanying enclosure will not be required at electrical service cabinets.

METER SOCKETS FOR TRAFFIC SIGNALS

The meter sockets provided for traffic signals by the Contractor will be a 200-amp, positive by-pass.

PEDESTAL SIGNAL POLES

Pedestal signal poles may be aluminum. Aluminum poles will conform to the following requirements:

Aluminum will conform to ASTM B221, Alloy 6061, and Temper T6.

Poles will be round with a minimum outside pole diameter of 4 inches, and the pole assembly will have a square, cast aluminum base with aluminum access door. The base will conform to the breakaway requirements of NCHRP 350 or MASH. A grounding lug will be provided in the base.

The pole to base connection will be a threaded connection; threads will be 8 TPI, NPT. A collar (integral or non-integral) to prevent wind-induced loosening of pole will be provided. All bolt and connection threads will be coated with a commercially available anti-seize compound intended for use in aluminum-to-aluminum and steel-to-aluminum connections.

The pole finish will either be brushed satin or spun. The top of the pole will be sealed by the traffic signal head mounting hardware or by an aluminum cap.

Measurement and payment for aluminum poles will be as specified in Specifications Section 635.

SIGNAL BACKPLATES

All new vehicle signal heads will have backplates with retroreflective border. The vehicle signal head backplates will have a factory applied 3-inch-wide yellow retroreflective border. Sheeting for the border will be Type XI or Type IX in conformance with ASTM D4956. Backplates will be polycarbonate, aluminum, or aluminum-composite. Minimum material thicknesses are:

Polycarbonate, 0.10-inch
Aluminum, 0.06-inch
Aluminum-Composite, 0.08-inch

Signal backplates will extend not less than 5 inches from the edge of the signal head at the top, bottom, and sides. The bottom of the backplate on vehicle signal faces mounted directly above pedestrian signal indications will be sized to permit the separate adjustment of the vehicle and pedestrian signal indication and may be less than 4 inches.

All costs involved with furnishing and installing backplates with retroreflective border for the new vehicle signal heads will be incidental to the contract unit price per each for “3 Section Vehicle Signal Head”, “4 Section Directional Vehicle Signal Head”, and “5 Section Vehicle Signal Head”.

TRAFFIC SIGNAL CONTROLLER

The new Traffic Signal Controllers will be Econolite Cobalt or EOS.

The Contractor is responsible for programming controllers with the signal timings provided in these plans.

Controllers and flashers are not required to have dimming capability.

Anchor bolts for traffic signal cabinets may have hooked ends.

All costs for the detector units necessary to operate the signal as shown in these plans, constructing the concrete pad and footing, GPS clock, materials, labor, and furnishing and installing the controller cabinet will be incidental to the contract unit price per each for “Traffic Signal Controller”.

VIDEO DETECTION SYSTEM

The video detection system will be Autocope AIS-IV:

Product	Manufacturer
Autoscope AIS-IV or Vision	Econolite Anaheim, CA 92807 Phone: 1-714-630-3700 www.econolite.com

All cabling and hardware necessary to make the detection system operational will be incidental to the contract unit price per each for “Video Detection System”.

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REMOTE COMMUNICATION SYSTEMS

The Remote Communication System (RCS) for the Traffic Signals and ITS Devices will provide a secure, cellular communications system for traffic signal cabinets and cabinet-resident ITS devices, enabling remote monitoring, diagnostics, and operational access through a cloud-hosted platform. This equipment will be compatible, and will have a matched component system, with the existing Cloud-Based ATMS operated in Sturgis by the SDDOT. The RCS will support on-demand and/or live video streaming via cellular communications and will provide secure passthrough communication to allow remote connectivity to third-party, IP-addressable devices located within the cabinet. The RCS will support web services that enable agency users to access installed thick-client traffic management applications hosted within a secure remote desktop environment. The RCS will additionally be capable of supporting traffic management and/or signal control software hosted in the cloud, including integration capabilities for central traffic signal control and management platforms using secure communications methods.

An RCS will be installed in each traffic signal controller cabinet. The RCS in-field hardware will be equipped with built-in cellular modems, which support 4G LTE communication. The RCS will automatically update the central monitoring platform in real-time upon detecting significant events or changes. The RCS will offer a web-based monitoring platform, accessible via any standard web browser. No additional software will be permitted. The RCS will feature a mobile-friendly platform design, with real-time fault alerts and status updates. The RCS's mapping platform will be easily configurable and remotely accessible, enabling real-time adjustments for improved system optimization. The RCS will include remote power cycle capabilities for intersection units, allowing system administrators to remotely reset or power down/up devices as needed to ensure system integrity and quick response to operational issues. The RCS will include hyperlinks for IP-addressable devices in the traffic cabinet within the monitoring platform, simplifying access to device-specific information and controls.

The RCS will support remote front panel display capabilities for traffic signal controllers, allowing remote observation and control over traffic signal operations. The system will support Econolite, Siemens, McCain, Intelight, Trafficware, and PEEK at minimum. The RCS will be compatible with leading traffic signal controller central systems, including Centracs, Tactics, MaxTime, MaxView, ATMS.now, and Transparity. The RCS will support integration with battery backup systems (BBS), enabling monitoring of power-related status and faults and supporting continuity of communications during power outages. The RCS will be camera agnostic and will support integration with IP-addressable video cameras from multiple manufacturers without requiring proprietary camera hardware.

The RCS will retrieve and display real-time Signal Phase and Timing (SPaT) data from traffic signal controllers, when supported by the controller. Signal indications will be represented by directional arrows colored to match the active signal phase on each approach, with sub-second resolution. The RCS will display detailed signal timing parameters when viewing an individual intersection, including cycle length, offset, split times, and plan numbers, when supported by the traffic controller. The RCS will provide a color-coded Traffic Signal State Indicator to display the following controller operating modes: Coordinated, Preemption Active, Transition, and Free Operation. The RCS will allow users to toggle between local and master cycle timers at each intersection. These live countdown timers will reflect active coordination and support verification of offset and timing plan synchronization. The RCS will incorporate Google Maps traffic overlays to display live roadway congestion and incident data on the monitoring platform. The RCS will provide Time–Space Diagram functionality for signalized corridors to support visualization of progression, coordination performance, and traffic flow over time. The Time–Space Diagram will be viewable through the monitoring platform and will support user selection of corridor limits, direction, and time range.

The RCS will ensure data integrity and privacy through secure VPN connectivity and encrypted communication channels between field devices, hosted services, and the central monitoring platform. The RCS will support IPsec tunneling to enable secure encrypted communications between field devices, cloud-hosted services, and agency networks. The RCS will adhere to industry-standard cybersecurity practices, including HTTPS/TLS secure. The RCS field hardware will be NEMA TS2 certified. All remote access to field devices and hosted applications will occur through authenticated and encrypted connections. The RCS will support role-based user access control, allowing administrators to define permissions based on user roles and responsibilities. All operational and system data collected and transmitted by the RCS will remain the property of the Agency. The RCS monitoring platform functions will be accessible using an Application Programming Interface (API). The RCS will offer a 10-year connectivity and support plans, including full hardware warranty coverage and over-the-air software and security updates. The RCS hardware will be covered under a no questions asked warranty for the duration of the active connectivity and support plan, allowing for replacement of failed hardware without fault attribution or return analysis requirements.

All cost for installation of the RCS and ensuring it works as intended will be incidental to the contract unit price per each for “Traffic Signal Controller”.

BATTERY BACKUP CABINET

The Contractor will supply cabinets with concrete pad and footing for housing the battery backup system for traffic signal systems at the intersections of:

SD37 & 27TH Street
SD37 & 21ST Street
SD 37 & 18TH Street
SD 37 & 14TH Street
SD 37 & 9TH Street

The cabinets will be an aluminum NEMA 3R type. The cabinet will have a thermostatically controlled exhaust fan. The cabinet will be securely attached to the concrete pad with steel anchors and to the back wall of the controller cabinet using chase nipples as approved by the Engineer. Anchor bolts for battery backup cabinets may have hooked ends.

All costs for constructing the concrete pad and footing, materials, labor, and furnishing and installing the battery backup cabinet will be incidental to the contract unit price per each for “Battery Backup System for Traffic Signal.”

MULTICONDUCTOR CONTROL CABLE FOR SIGNAL CIRCUITS

The Conductor Jackets for the multiconductor control cables will be color coded in accordance with ICEA S-73-532 Table E2.

ACCESSIBLE PEDESTRIAN SIGNAL

The work will consist of furnishing and installing accessible pedestrian signals (APS). Each APS will consist of an interactive vibrotactile pedestrian push button with speaker, an informational sign, a latching light emitting diode (LED) indicator light, a solid-state electronic control board, a power supply, wiring, and all necessary mounting hardware. The operation and performance of the APS units will meet the requirements of the current edition of the MUTCD and the applicable sections of NEMA Standards Publication TS-2.

The APS units will be capable of supporting a minimum of 16 push button stations.

The traffic signal cabinet must have four dedicated load switches for the pedestrian phases. If the traffic signal cabinet does not have four dedicated load switches for the pedestrian phases, then the Contractor will furnish and install the necessary number of load switches. All costs associated with furnishing and installing any additional load switches will be incidental to the contract unit price per each for “Accessible Pedestrian Signal”.

All mounting fasteners will be stainless steel; all threads will be coated with anti-seize compound meeting the requirements of USA Dept. of Defense specification MIL-PRF-907F.

The push button component of APS will meet the requirements of Section 985.1 S of the Specifications except that all housings and external hardware will be aluminum, powder coated yellow.

The APS control unit will include capability to monitor the push buttons and pedestrian signal head displays. Conflicts will cause the channel to be powered off.

The APS control unit will include capability to monitor communications with the push buttons. Communication faults will automatically reset the control unit.

Two licensed copies of any APS programming software will be furnished. All software programming, firmware updates, and audio message programming of the APS will be through USB port or Ethernet connection.

All costs for furnishing and installing the accessible pedestrian signal including labor, materials, and equipment, will be incidental to the contract unit price per each for “Accessible Pedestrian Signal”.

ELECTRICAL SERVICE CABINET WITH SECONDARY DISCONNECT

The electrical service cabinet will be a standard electrical service cabinet located adjacent to the power source.

The Contractor will install a NEMA 3R rainproof, 60 amp rated, non-fused safety switch (with lock) adjacent to the traffic signal cabinet. The secondary disconnect will be mounted on a galvanized steel post in accordance with standard plate 635.35.

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L5-A	L61

Revised 11/02/2026- RR

JUNCTION BOX JA2

Junction box JA2 will be placed at the location of the existing signal junction box on the northwest corner of 21st Street. The existing conduits from existing signal pole EA2 and existing push button poles EPA3 and EPA4 will not be disturbed. The new junction box will be placed over the existing conduits so that they can be reused. Once the new junction box has been placed, new wires will be pulled from the traffic signal controller to EA2, EPA3 and EPA4 as shown on the plans.

All costs for removing existing wires and modifying existing conduit to enter JA2 will be incidental to the cost unit price for “Type 1 Electrical Junction box”.

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CONDUIT AND CABLE QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L6	L61

Revised 11/02/2026 - RR

		Rigid Conduit Schedule 40				Rigid Conduit Schedule 80		Copper Wire					Copper Tray Cable, K2 #14 AWG							Preemption Cable (Not a bid Item)	Pole and Bracket Cable
Location to Location		1" Ft	2" Ft	4" Ft	5" Ft	2" Ft	3" Ft	1/C #8 AWG Ft	1/C #6 AWG Ft	1/C #4 AWG Ft	1/C #0 AWG Ft	1/C #14 AWG Ft	2/C Ft	3/C Ft	4/C Ft	5/C Ft	10/C Ft	25/C Ft	6/C Ft		2/C #10 AWG Ft
SD 37 & 21st Street																					
Exist Elec. Service	JA1		15					110	110												
Controller	JA1				15				110				290				110	180		145	
JA1	A1		60					220										75		75	
JA1	A2		25															30			
JA1	JA2						105	330					220				110	110		110	
JA1	EPA1	10											15								
JA1	EPA2	25											30								
JA2	A3		10					45									15	15		15	
JA2	EPA3	10											15								
JA2	EPA4	25											30								
JA1	JA4						165	510					680				340	340		340	
JA4	EA5		20					65									25	25		25	
JA4	EPA7	10											15								
JA4	EPA8	15											20								
JA4	JA3						110	375					250				125	125		125	
JA4	A4		20														35	35		35	
JA4	EPA5	15											25								
JA4	EPA6	15											25								
Poles																					
A1	Signal Pole														90	90			35	45	65
A2	Pedestal Pole													35		20			20		
EA2	Signal Pole													35	40	90				45	65
A4	Signal Pole													35	120	110				45	65
EA5	Removed and Reset Signal Pole													35	105	80				45	65
PA1	Ped. Pushbutton												10								
PA2	Ped. Pushbutton												10								
EPA3	Ped. Pushbutton												10								
EPA4	Ped. Pushbutton												10								
PA5	Ped. Pushbutton												10								
PA6	Ped. Pushbutton												10								
PA7	Ped. Pushbutton												10								
PA8	Ped. Pushbutton												10								
Subtotal:		125	150	0	0	15	0	380	0	1,655	220	0	0	0	1,695	140	355	390	760	935	55	1,050	260

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L13	L61

Revised 10/30/2026- RR

EXISTING SIGNAL LAYOUT
SD HWY 37 & 21st STREET

SALVAGE SIGNAL EQUIPMENT

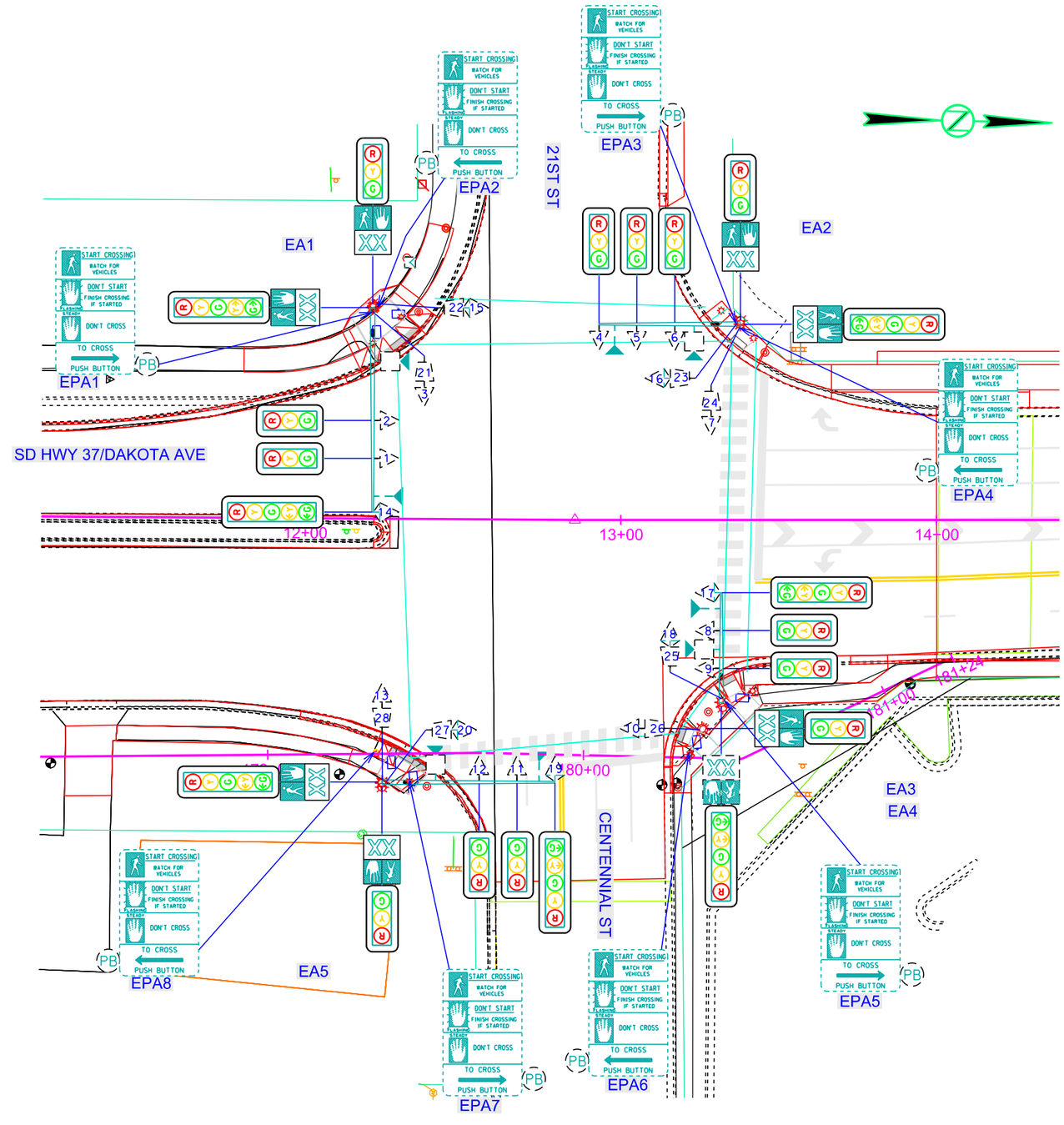
KEY	ITEM
	3 Section Vehicle Signal Head (1-13)
	5 Section Vehicle Signal Head (14-20)
	Video Detection Camera (And Video Detection System)
	Pedestal Signal Pole (EA4)
	Signal Pole w/65' Mast Arm & 8' Lumin Arm (EA1)
	Signal Pole w/35' Mast Arm & 8' Lumin Arm (EA3)
	Traffic Signal Controller
	Roadway Luminaire, 400w with P.E. (EA1,EA2,EA3,EA5)
	Video Detection Camera
	Emergency Vehicle Preemption Unit (4-Channel)
	Optical Detector
PB	Accessible Pedestrian Signal
	Pedestrian Signal Head w/Countdown Timer (21-28)
	Pedestrian Push Button Pole (EPA1,EPA2, EPA5-EPA8)

EXISTING ITEMS (Do Not Disturb)

KEY	ITEM
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (EA2)
	Pedestrian Push Button Pole (EPA3-EPA4)

ESTIMATE OF QUANTITES

KEY	ITEM	EST QUANT	UNIT
	Remove Signal Pole Footing (EA1,EA3-EA4)	3	EACH
	Remove and Reset Signal Pole (EA5)	1	EACH
	Salvage Signal Equipment	LUMP SUM	LS



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SIGNAL LAYOUT

SD HWY 37 & 21st STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L14	L61

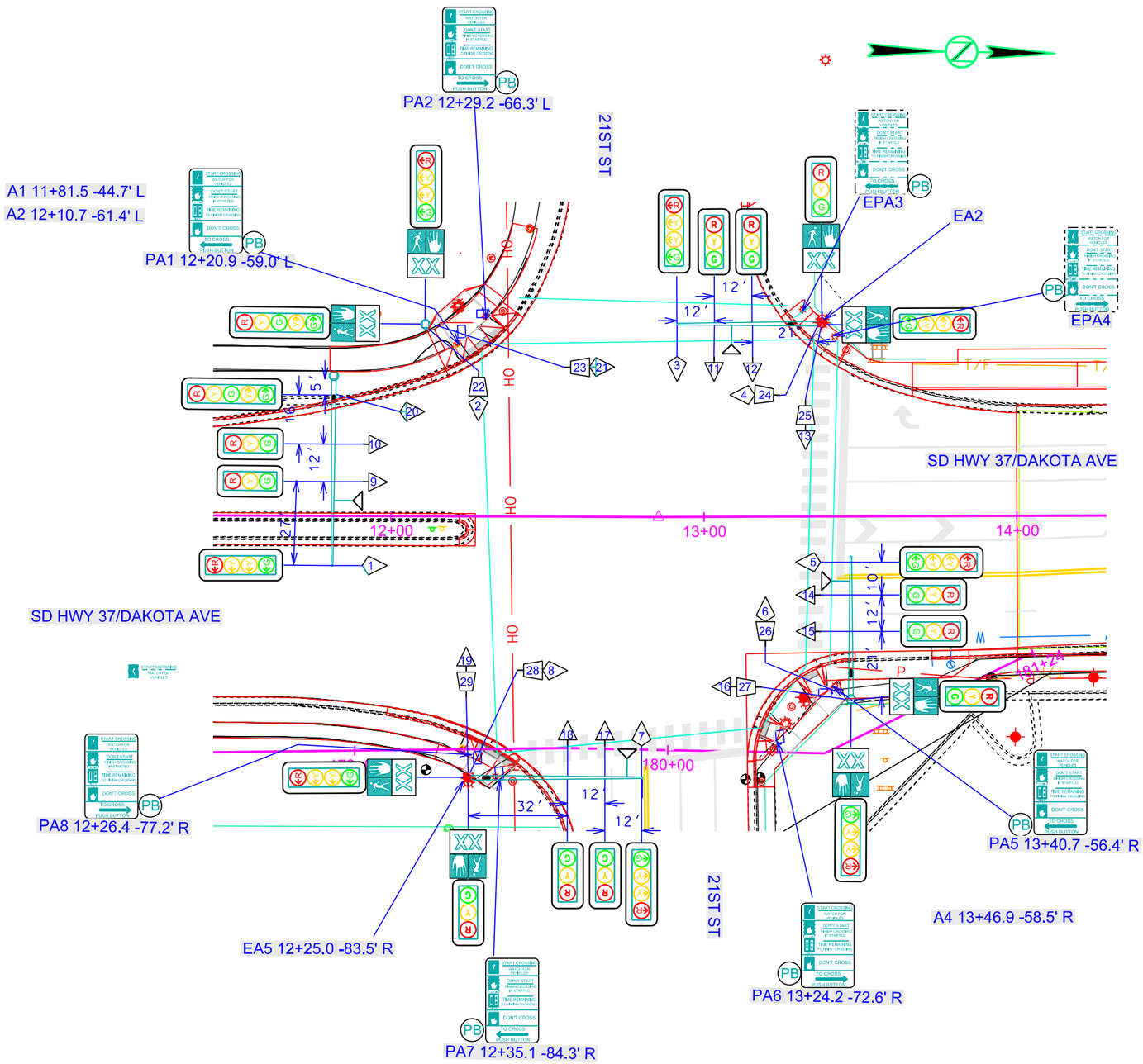
Revised 11/2/2026 - RR

ESTIMATE OF QUANTITIES

KEY	ITEM	EST QUANT	UNIT
	Pedestal Signal Pole (A2)	1	EACH
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (A4)	1	EACH
	Signal Pole w/60' Mast Arm & 8' Lumin Arm (A1)	1	EACH
	Roadway Luminaire, LED with P.E. (A1,EA2,A4-A5)	4	EACH
	3 Section Vehicle Signal Head (9-19)	11	EACH
	4 Section Directional Vehicle Signal Head (1-8)	8	EACH
	5 Section Vehicle Signal Head (20-21)	2	EACH
	Pedestrian Signal Head w/Countdown Timer (22-29)	8	EACH
	Emergency Vehicle Preemption Unit (4-Channel)	1	EACH
	Optical Detector	4	EACH
PB	Accessible Pedestrian Signal	8	EACH
	Pedestrian Push Button Pole (PA1-PA2, PA5-PA8)	6	EACH
	Pedestrian Crossing Sign R10-3e (Left -3 / Right -3)	6	EACH

EXISTING ITEMS

KEY	ITEM
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (EA2)
	Pedestrian Push Button Pole (EPA3-EPA4)
	Pedestrian Crossing Sign R10-3e (Left -1 /Right -1)



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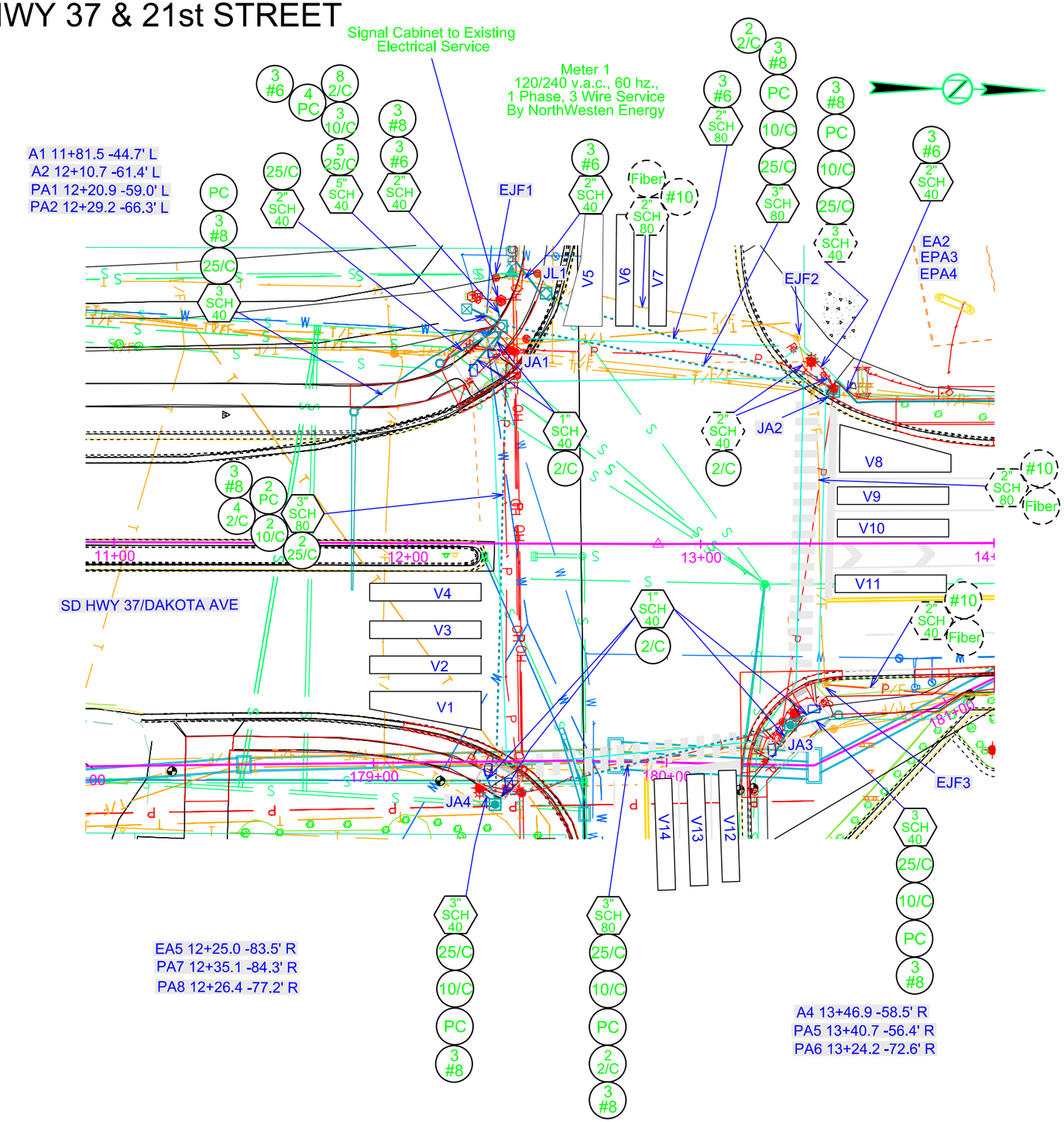
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L21	L61

Revised 11/2/2026 - RR

CONDUIT LAYOUT
SD HWY 37 & 21st STREET

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	2' Diameter Footing (A2)	6	FT
	3.5' Diameter Footing (A1, A4)	25	FT
	Type 2 Electrical Junction Box (JA2-JA4)	3	EACH
	Type 3 Electrical Junction Box (JA1)	1	EACH
	Traffic Signal Controller	1	EACH
	Remote Communication System (Incidental to Traffic Signal Controller)	1	EACH
	Video Detection System	1	EACH
	Video Detection Zones (V1-V14) Not a Bid Item	14	EACH
	Battery Backup System for Traffic Signal	1	EACH
1" SCH 40	1" Rigid Conduit, Schedule 40	125	FT
2" SCH 40	2" Rigid Conduit, Schedule 40	150	FT
3" SCH 80	3" Rigid Conduit, Schedule 80	380	FT
5" SCH 40	5" Rigid Conduit, Schedule 40	15	FT
#8	1/C #8 AWG Copper Wire	1655	FT
#6	1/C #6 AWG Copper Wire	220	FT
2/C	2/C #14 AWG Copper Tray Cable, K2	1695	FT
3/C	3/C #14 AWG Copper Tray Cable, K2	140	FT
4/C	4/C #14 AWG Copper Tray Cable, K2	355	FT
5/C	5/C #14 AWG Copper Tray Cable, K2	390	FT
6/C	6/C #14 AWG Copper Tray Cable, K2	55	FT
10/C	10/C #14 AWG Copper Tray Cable, K2	760	FT
25/C	25/C #14 AWG Copper Tray Cable, K2	935	FT
PC	Preemption Cable (Not a Bid Item)	1050	FT
	2/C #10 AWG Copper Pole & Bracket Cable	260	FT

EXISTING ITEMS	
KEY	ITEM
	Pedestrian Pushbutton Pole (EPA1-EPA5)
M	Electrical Serivce for Signal Controller (Reusing exising service)
	Electrical Junction Box, 18" (EJF1-EJF8)
2" SCH 40	2" Rigid Conduit, Schedule 40
2" SCH 80	2" Rigid Conduit, Schedule 80
3" SCH 40	3" Rigid Conduit, Schedule 40
#10	1/C #10 AWG Copper Wire
Fiber	48 Strand Fiber Optic Cable



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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L29	L61

Revised 10/29/2026-RR

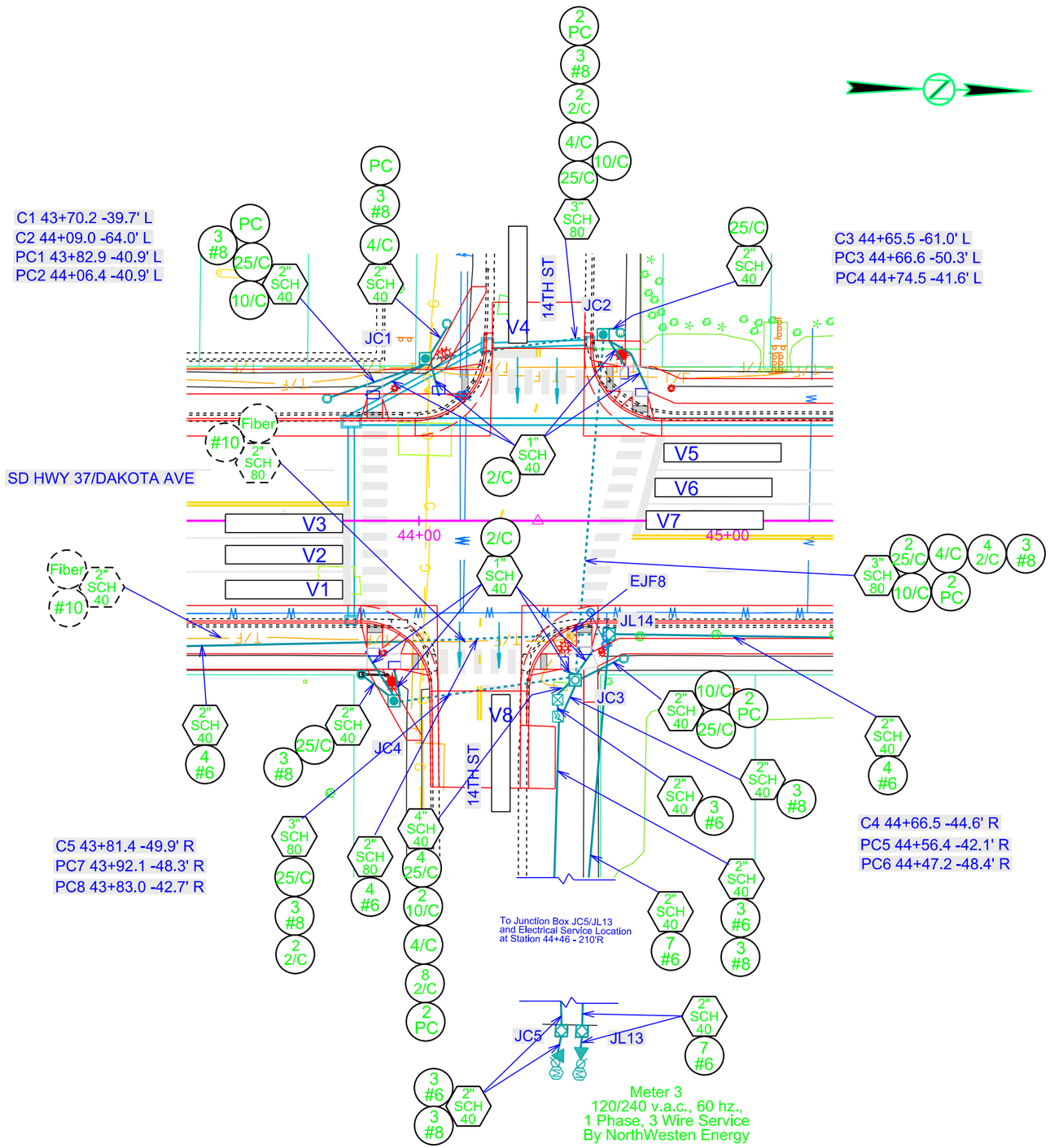
CONDUIT LAYOUT
SD HWY 37 & 14th STREET

ESTIMATE OF QUANTITIES

KEY	ITEM	EST	UNIT
	2' Diameter Footing C3, C5)	15	FT
	3.5' Diameter Footing (C1,C2,C4)	37	FT
	Type 2 Electrical Junction Box (JC1,JC2,JC4)	3	EACH
	Type 3 Electrical Junction Box (JC3)	1	EACH
	Electrical Service Cabinet with Secondary Disconnect	1	EACH
	Galvanized Steel Utility Pole Not a Bid Item	1	EACH
	Meter Socket Not a Bid Item	1	EACH
	Traffic Signal Controller	1	EACH
	Remote Communication System (Incidental to Traffic Signal Controller)	1	EACH
	Battery Backup System for Traffic Signal	1	EACH
	Video Detection System	1	EACH
	Video Detection Zones (V1-V8) (Not a Bid Item)	8	EACH
1" SCH 40	1" Rigid Conduit, Schedule 40	175	FT
2" SCH 40	2" Rigid Conduit, Schedule 40	325	FT
4" SCH 40	4" Rigid Conduit, Schedule 40	25	FT
3" SCH 80	3" Rigid Conduit, Schedule 80	255	FT
#8	1/C #8 AWG Copper Wire	1655	FT
#6	1/C #6 AWG Copper Wire	545	FT
2/C	2/C #14 AWG Copper Tray Cable, K2	1290	FT
3/C	3/C #14 AWG Copper Tray Cable, K2	120	FT
4/C	4/C #14 AWG Copper Tray Cable, K2	595	FT
5/C	5/C #14 AWG Copper Tray Cable, K2	190	FT
10/C	10/C #14 AWG Copper Tray Cable, K2	335	FT
25/C	25/C #14 AWG Copper Tray Cable, K2	630	FT
	2/C #10 AWG Copper Pole & Bracket Cable	260	FT
PC	Preemption Cable (Not a Bid Item)	760	FT

EXISTING ITEMS

KEY	ITEM
	Electrical Junction Box, 18" (EJF1-EJF8)
2" SCH 40	2" Rigid Conduit, Schedule 40
2" SCH 80	2" Rigid Conduit, Schedule 80
#10	1/C #10 AWG Copper Wire
Fiber	48 Strand Fiber Optic Cable



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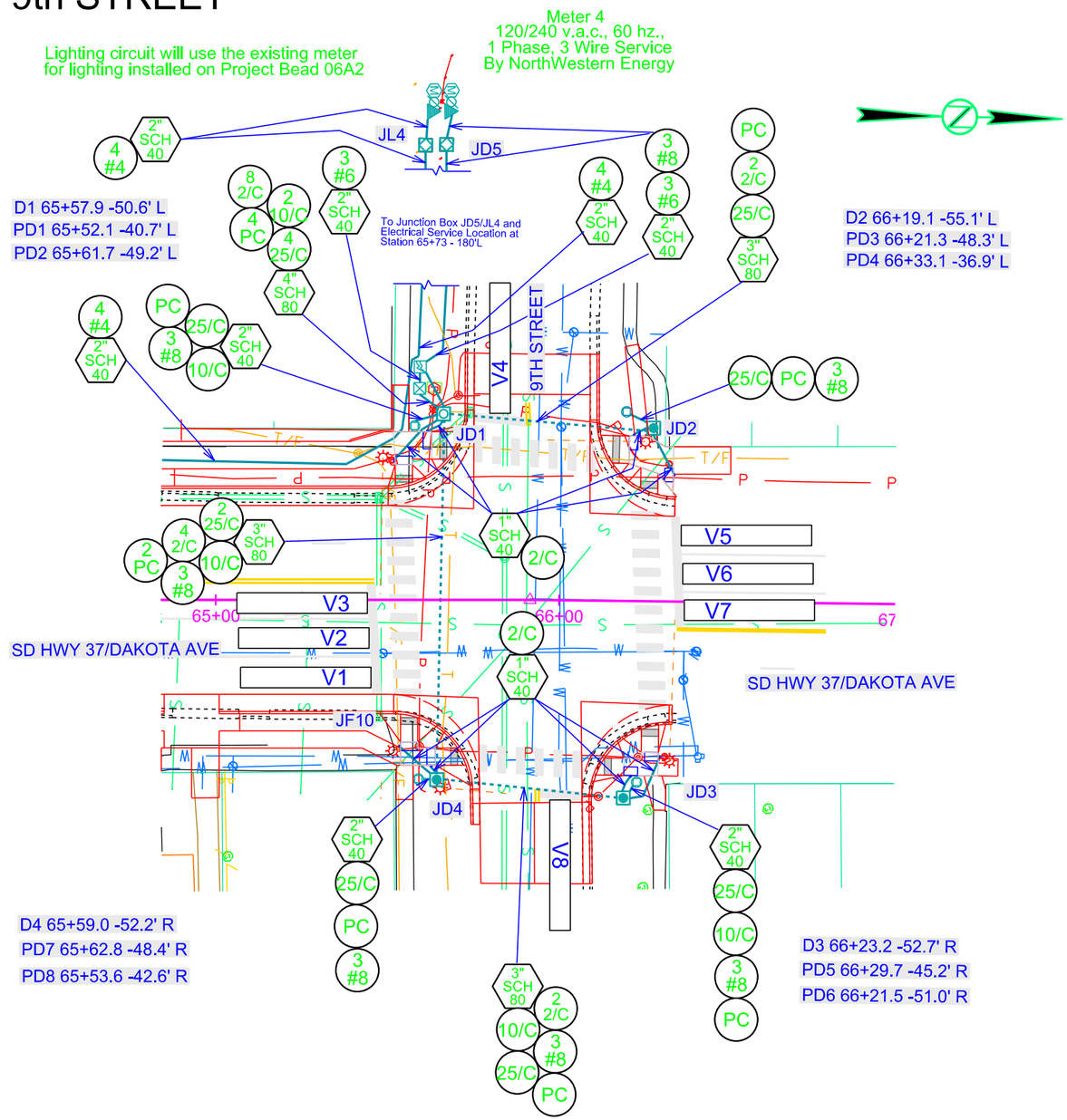
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L34	L61

Revised 10/29/2026- RR

CONDUIT LAYOUT
SD HWY 37 & 9th STREET

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST	UNIT
	3.5' Diameter Footing (D1-D4)	47	FT
	Type 2 Electrical Junction Box (JD2-JD5)	4	EACH
	Type 3 Electrical Junction Box (JD1)	1	EACH
	Electrical Service Cabinet with Secondary Disconnect	1	EACH
	Galvanized Steel Utility Pole Not a Bid Item	1	EACH
M	Meter Socket Not a Bid Item	1	EACH
	Traffic Signal Controller	1	EACH
	Remote Communication System (Incidental to Traffic Signal Controller)	1	EACH
	Battery Backup System for Traffic Signal	1	EACH
	Video Detection System	1	EACH
	Video Detection Zones (V1-V8) (Not a Bid Item)	8	EACH
1" SCH 40	1" Rigid Conduit, Schedule 40	165	FT
2" SCH 40	2" Rigid Conduit, Schedule 40	210	FT
4" SCH 40	4" Rigid Conduit, Schedule 40	20	FT
3" SCH 80	3" Rigid Conduit, Schedule 80	240	FT
#8	1/C #8 AWG Copper Wire	1180	FT
#6	1/C #6 AWG Copper Wire	495	FT
2/C	2/C #14 AWG Copper Tray Cable, K2	1215	FT
3/C	3/C #14 AWG Copper Tray Cable, K2	105	FT
4/C	4/C #14 AWG Copper Tray Cable, K2	450	FT
5/C	5/C #14 AWG Copper Tray Cable, K2	130	FT
10/C	10/C #14 AWG Copper Tray Cable, K2	260	FT
25/C	25/C #14 AWG Copper Tray Cable, K2	660	FT
	2/C #10 AWG Copper Pole & Bracket Cable	260	FT
PC	Preemption Cable (Not a Bid Item)	675	FT



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SECTION M ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0210	Preformed Thermoplastic Pavement Marking, 4"	15,300	Ft
633E0225	Preformed Thermoplastic Pavement Marking, 24"	1,915	Ft
633E0235	Preformed Thermoplastic Pavement Marking, Arrow	43	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	15,300	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	1,915	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	43	Each

PAVEMENT MARKING PAINT

All materials will be applied as per the manufacturer's recommendations.

GROOVING FOR PREFORMED THERMOPLASTIC PLASTIC PAVEMENT MARKING

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. The cleaning of the residue for grooving will be to the satisfaction of the Engineer and may require more than one pass to adequately remove material. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per foot or each for "Grooving for Cold Applied Plastic Pavement Marking" contract items.

PREFORMED THERMOPLASTIC PAVEMENT MARKING

General

- Made of prefabricated retroreflective, resilient thermoplastic material;
- Contains glass beads uniformly distributed through the entire cross-sectional area;
- Capable of being affixed to bituminous or concrete pavement by heating;
- Resistant to deterioration due to exposure to sunlight, water, salt, and adverse weather conditions;
- Under traffic wear, shows no appreciable fading in accordance with the color requirements, lifting, or shrinkage throughout the life of the marking;
- Capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures;
- Possesses resealing characteristics, such that it is capable of fusing with itself and previous thermoplastic markings when heated; and
- Protected during shipment and in storage.

Apply the preformed thermoplastic pavement marking as recommended by the manufacturer to provide a neat, durable marking that will not flow, distort, or crack due to temperature if the pavement surface remains stable. Use equipment and application methods specified by the manufacturer. Primer as required by the manufacturer will be provided with the material.

Application of the markings will include the use of any manufacturer recommended sealers. Sealers may be required on concrete pavements, inside grooves, or on older asphalt pavements. Prior to placing any markings on new concrete, the Contractor will remove any curing compounds. Removal will be by sandblasting or other standard industry methods.

Any required primers or sealers will be included in the contract unit price for the various preformed thermoplastic pavement marking items.

Provide precut messages and symbols meeting the requirements of the MUTCD and the Standard Signs Manual in custom kits. Use separate pieces or segments to form individual letters or symbols only to the extent supplied by the manufacturer. Provide shapes, sizes, and colors as required by the contract.

Color

- Will meet the color specification limits and luminance factors for Cold Applied Plastic Pavement Marking and Legends (Section 983.2 D, Tables 1 and 2).

Glass Beads

- Ensure the preformed thermoplastic pavement marking contains a minimum 30% intermixed glass beads by weight and a minimum 80% true spheres.
- Ensure preformed thermoplastic pavement markings contain only clear beads.

Skid Resistance

- Ensure the surface of the preformed thermoplastic pavement marking provides a skid resistance value of at least 45 British Pendulum Number (BPN) when tested in accordance with ASTM E303.

Retroreflectivity

- Provide preformed thermoplastic pavement marking meeting the minimum initial pavement marking retroreflectivity values using 30 m geometry and meeting the testing procedures of ASTM E1710:

Minimum Initial Pavement Marking Retroreflectivity		
	White	Yellow
Thermoplastic	400 mcd/sq. ft./ft.	250 mcd/sq. ft./ft.
Thermoplastic, enhanced skid resistance (ESR)	250 d/sq. ft./ft.	150 d/sq. ft./ft.

Thickness

- A longitudinal marking is a minimum 90 mils thick at the edges, and a maximum 125 mils thick at the center of the stripe.
- Transverse markings and symbols are a minimum 125 mils thick at the edges, and a maximum 160 mils thick at the center.

Sample

- Prior to application, the Contractor will provide a sample of the preformed thermoplastic pavement marking to be used on the project to the Region Traffic Engineer for inspection and approval.
- Do not begin application of the preformed thermoplastic pavement marking prior to obtaining the Region Traffic Engineer's approval of the preformed thermoplastic pavement marking material. The Region Traffic Engineer's approval of the preformed thermoplastic pavement marking does not void other preformed thermoplastic pavement marking requirements specified.

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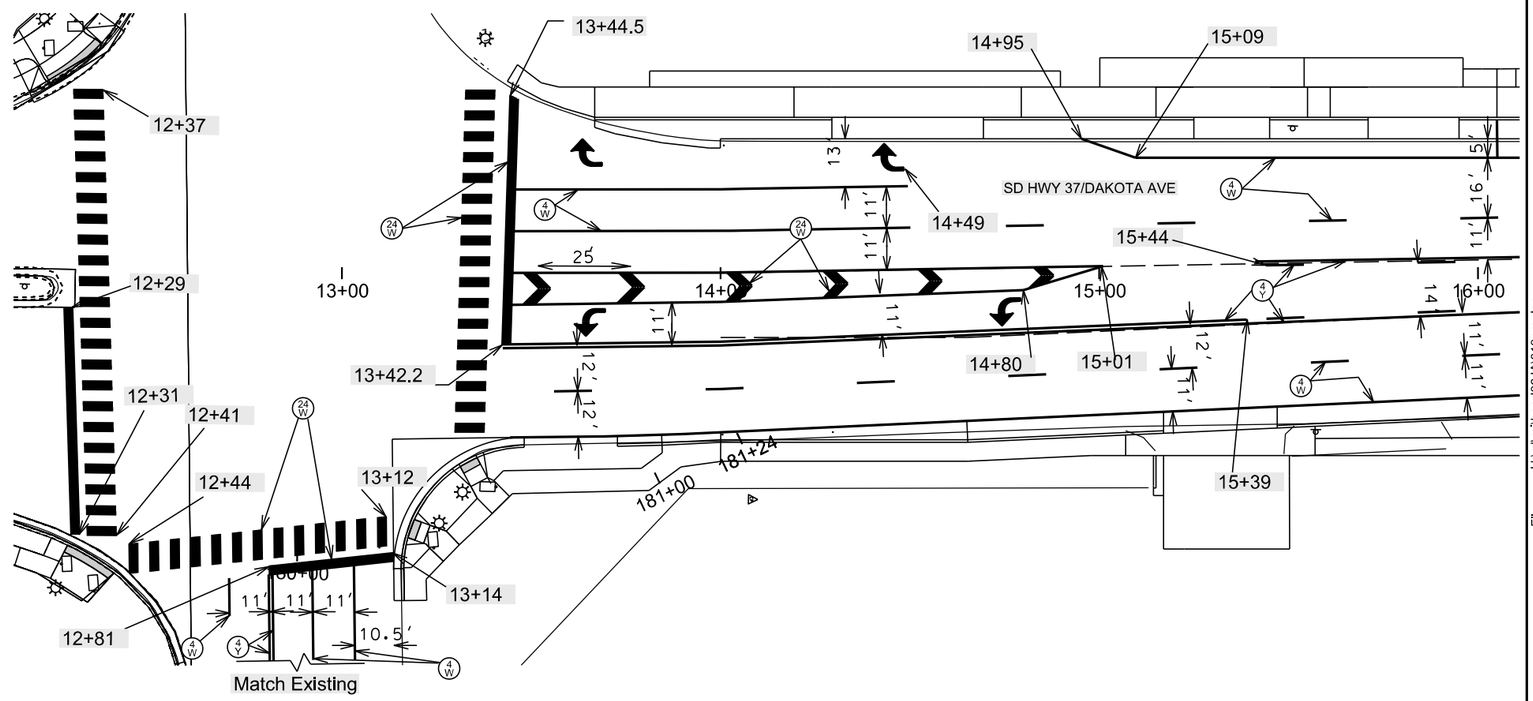
PAVEMENT MARKINGS
SD HWY 37/DAKOTA AVE & 21ST ST

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	M3	M14

Revised 11/02/2026 - RR

ESTIMATE OF QUANTITIES

KEY	ITEM	EST QUANT	UNIT
(4 W)	Preformed Thermoplastic Pavement Marking, 4" White	5,040	FT
(4 Y)	Preformed Thermoplastic Pavement Marking, 4" Yellow	10,260	FT
(24 W)	Preformed Thermoplastic Pavement Marking, 24" White	1,915	FT
	Preformed Thermoplastic Pavement Marking, Arrow (Left - 38 , Right - 3, Thru - 2)	43	EACH
	Grooving For Cold Applied Plastic Pavement Marking, 4"	15,300	FT
	Grooving For Cold Applied Plastic Pavement Marking, 24"	1,915	FT
	Grooving For Cold Applied Plastic Pavement Marking, Arrow (Left - 38 , Right - 3, Thru - 2)	43	EACH



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