

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

February 18, 2025

ADDENDUM NO. 5

RE: Item #1, February 19, 2025 Letting - IM-B-CR 2292(101)3, PCN 05HN, Minnehaha County - Grading, PCC Surfacing, Structures (10x4 RCBC extension, 163' Temporary Bridge, (2) 400' Steel Girder, (2) 12x8 CIP RCBC), Retaining Walls, Curb & Gutter, Storm Sewer, Signals, Lighting

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:

OPOSAL: 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.

Quantities for Bid Items were changed:

Bid Item 635E5020 "2' Diameter Concrete Footing" changed from 580.0 to 805.0 Ft Bid Item 635E5030 "3' Diameter Concrete Footing" changed from 52.0 to 46.0 Ft Bid Item 635E5400 "Electrical Service Cabinet" changed from 3 to 6 Each

PLANS: Please destroy sheets A5, B26-B28, B212, L2, L5, L12, L27 &L32 and replace with the enclosed sheets, dated 2/18/25.

Sheets A5 & L2: Quantities for Bid Items were changed:

Bid Item 635E5020 "2' Diameter Concrete Footing" changed from 580.0 to 805.0 Ft Bid Item 635E5030 "3' Diameter Concrete Footing" changed from 52.0 to 46.0 Ft Bid Item 635E5400 "Electrical Service Cabinet" changed from 3 to 6 Each

Sheets B26, B27 & B28: TABLE OF STORM SEWER DROP INLETS AND QUANTITIES was revised. Informational notes were revised.

Sheet B212: Standard Plate 670.82 was added.

Sheet L5: TABLE OF FOOTING DATA was revised.

Sheet L12: ELECTRICAL SERVICE CABINET note was revised.

Sheet L27 & L32: ESTIMATE OF QUANTITIES was revised.

Sincerely,

Sam Weisgram Engineering Supervisor

SW/cj

CC: Travis Dressen, Mitchell Region Engineer Harry Johnston, Sioux Falls Area Engineer

Section L – Signal & Lighting

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1530	Remove Signal Pole Footing	9	Each
110E1540	Remove Luminaire Pole Footing	18	Each
110E1550	Remove Light Tower	5	Each
110E5100	Salvage Luminaire Pole	15	Each
110E5105	Salvage Luminaire	23	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
110E7200	Remove Luminaire Pole for Reset	4	Each
635E0030	Breakaway Base Luminaire Pole with Arm, 30' Mounting Height	1	Each
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	35	Each
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	29	Each
635E0150	Breakaway Base Luminaire Pole with Twin Arms, 50' Mounting Height	28	Each
635E0650	Fixed Base Luminaire Pole with Arm, 50' Mounting Height	4	Each
635E2000	Pedestal Signal Pole	15	Each
635E2025	Signal Pole with 25' Mast Arm	1	Each
635E2030	Signal Pole with 30' Mast Arm	1	Each
635E2135	Signal Pole with 35' 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	2	Each
635E2155	Signal Pole with 55' Mast Arm and Luminaire Arm	2	Each
635E3545	Under Bridge Deck Luminaire, LED	8	Each
635E3585	Tunnel Luminaire, LED	11	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	127	Each
635E4030	3 Section Vehicle Signal Head	39	Each
635E4040	4 Section Vehicle Signal Head	17	Each
635E5020	2' Diameter Footing	805.0	Ft
635E5025	2.5' Diameter Footing	13.3	Ft
635E5030	3' Diameter Footing	46.0	Ft
635E5040	4' Diameter Footing	9.0	Ft
635E5310	Special Electrical Junction Box	84	Each
635E5360	Surface Mounted Junction Box	8	Each
635E5400	Electrical Service Cabinet	6	Each
635E5430	Traffic Signal Controller	3	Each
635E5450	Side Mounted Cabinet	6	Each
635E5515	Battery Backup System for Traffic Signal	3	Each
635E5520	Video Detection System	3	Each
635E5560	Emergency Vehicle Preemption Unit	3	Each
635E5570	Optical Detector	12	Each
635E5600	Surveillance Camera	2	Each
635E5880	Accessible Pedestrian Signal	24	Each
635E5910	Pedestrian Push Button Pole	13	Each
635E5922	Pedestrian Signal Head with Countdown Timer	24	Each
635E5930	Pedestrian Crossing Sign	24	Each

Section L – Signal & Lighting (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E5980	Rectangular Rapid Flashing Beacon System	4	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7505	Reset Luminaire Pole	2	Each
635E8008	0.75" Rigid Galvanized Steel Conduit	270	Ft
635E8010	1" Rigid Galvanized Steel Conduit	211	Ft
635E8020	2" Rigid Galvanized Steel Conduit	655	Ft
635E8108	0.75" Rigid Conduit, Schedule 40	568	Ft
635E8110	1" Rigid Conduit, Schedule 40	6,790	Ft
635E8120	2" Rigid Conduit, Schedule 40	19,493	Ft
635E8130	3" Rigid Conduit, Schedule 40	386	Ft
635E8140	4" Rigid Conduit, Schedule 40	365	Ft
635E8150	5" Rigid Conduit, Schedule 40	25	Ft
635E8220	2" Rigid Conduit, Schedule 80	3,806	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,010	Ft
635E8240	4" Rigid Conduit, Schedule 80	200	Ft
635E8250	5" Rigid Conduit, Schedule 80	60	Ft
635E8420	1.5" Innerduct, SDR 13.5	4,630	Ft
635E8830	2/2/2/4 Aluminum Wire	8,728	Ft
635E9012	1/C #2 AWG Copper Wire	13,476	Ft
635E9014	1/C #4 AWG Copper Wire	6,574	Ft
635E9016	1/C #6 AWG Copper Wire	38,893	Ft
635E9018	1/C #8 AWG Copper Wire	13,201	Ft
635E9020	1/C #10 AWG Copper Wire	9,672	Ft
635E9022	1/C #12 AWG Copper Wire	6,059	Ft
635E9302	2/C #14 AWG IMSA Copper Cable, K1	1,020	Ft
635E9303	3/C #14 AWG IMSA Copper Cable, K1	480	Ft
635E9305	5/C #14 AWG IMSA Copper Cable, K1	1,285	Ft
635E9307	7/C #14 AWG IMSA Copper Cable, K1	8,345	Ft
635E9312	12/C #14 AWG IMSA Copper Cable, K1	1,990	Ft
635E9325	25/C #14 AWG IMSA Copper Cable, K1	2,270	Ft
635E9800	Preemption Cable	7,990	Ft
635E9906	6 Strand Fiber Optic Cable	1,133	Ft
635E9924	24 Strand Fiber Optic Cable	4,745	Ft

		STATE OF	PROJI	ECT	SHEET	TOTAL
		SOUTH DAKOTA	IM-B-CR 22	292(101)3	A5	A11
				Revised Da	te: 02/1	8/2025
	Section M -	Davo	mont Mar	Initials:	NBC	3
	Section wi-	- Pavei		King		
	1					
NUMBER	л 	EM		QUANTITY	UNIT	5
633E0010	Cold Applied Plastic Pavemen	it Marking, 4"		38,711	Ft	
633E0019	Cold Applied Plastic Pavemen Border	t Marking, 4"	with Contrast	27,663	Ft	
633E0021	Cold Applied Plastic Pavemen Border	t Marking, 8"	with Contrast	750	Ft	
633E0025	Cold Applied Plastic Pavemen	it Marking, 12	•	2,687	Ft	
633E0030	Cold Applied Plastic Pavemen	it Marking, 24		214	Ft	
633E0040	Cold Applied Plastic Pavemen	it Marking, Arr	row	57	Each	
633E0045	Cold Applied Plastic Pavemen	it Marking, Co	mbination Arrow	9	Each	
633E0210	Preformed Thermoplastic Pav	ement Markin	ig, 4"	936	Ft	
633E0211	Preformed Thermoplastic Pave Contrast Border	ement Markin	g, 4" with	2,432	Ft	
633E0215	Preformed Thermoplastic Pav	ement Markin	g, 8"	322	Ft	
633E0216	Preformed Thermoplastic Pave Contrast Border	ement Markin	g, 8" with	2,242	Ft	
633E0225	Preformed Thermoplastic Pav	ement Markin	g, 24"	1,500	Ft	
633E0230	Preformed Thermoplastic Pav	ement Markin	g, Area	57	SqFt	
633E0235	Preformed Thermoplastic Pav	ement Markin	g, Arrow	14	Each	
633E1100	Epoxy Pavement Marking Pair	nt, 4" White		1,159	Ft	
633E5000	Grooving for Cold Applied Pla	stic Pavemen	t Marking, 4"	29,298	Ft	
633E5004	Grooving for Cold Applied Plas Contrast Border	stic Pavemen	t Marking, 4" with	28,336	Ft	
633E5005	Grooving for Cold Applied Plan	stic Pavemen	t Marking, 8"	322	Ft	
633E5008	Grooving for Cold Applied Plas Contrast Border	stic Pavement	t Marking, 8" with	2,992	Ft	7
633E5010	Grooving for Cold Applied Pla	stic Pavemen	t Marking, 12"	2,687	Ft	
633E5015	Grooving for Cold Applied Plan	stic Pavemen	t Marking, 24"	1,714	Ft	
633E5020	Grooving for Cold Applied Plan	stic Pavemen	t Marking, Area	57	SqFt	
633E5025	Grooving for Cold Applied Plan	t Marking, Arrow	80			
633E5050	Surface Preparation for Paver		9,413 Ft			
634E0560	Remove Pavement Marking, 4	" or Equivale	nt	1,642	Ft	
634E0565	Remove Pavement Marking, /	4	Each			



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	ABLE ()I	- STORM	l SE	-VVF	-R I)K(л ч(ISA	ANI) ()UAI	ΝΗΙ	IES		DAKOTA	IM-B-CI	R 2292(1	01)3	B26	B225
																Plotting Date:	2/18/2025	5	Revised Date Initials:	: 2/18/: NBG	2025
									Fra	ame and Gra	te/Lid										
			Class M6 Ccncrete	Reinforcing Steel	¹ Type A	² Type M	³ 4'x11' Precast Concrete Type S Drop Inlet Lid	⁴ Type A4	⁵ SF Type B Inlet, 3 Grates, 8'	⁶ SF 2'x2' Catch Basin	⁷ SF Type 1 Junction Box 4x4	⁸ SF Type 1 Junction Box 5x5	⁹ 6'-0" SF Type Inlet (18"-24") Type Y F&G	¹⁰ 10'-0" SF Type Inlet (18"-24") Type Y F&G	¹¹ 10'-0" SF Type Inlet (48"-60") Type Y F&G						
Station	Offset (L/R)	Inlet Type	(CuYd)	(Lb)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)						
41st Street																					
21+83.00	22.00' L	SF 6'-0" Type Inlet	2.8	412									1								
22+25.00	19.25' L	SF 10'-0" (48"-60") Type Inlet	4.5	708											1						
23+40.00	19.00' L	SF 6'-0" Type Inlet	3.0	440									1								
25+00.00	19.00' L	SF 6'-0" Type Inlet	2.8	417									1								
22+10.00	24.20' L	SF 6'-0" Type Inlet	2.9	420									1								
22+24.00	23.50' R	SF 10'-0" (18"-24") Type Inlet	4.5	715										1							
30+65.00	19.00' R	SF 6'-0" Type Inlet	3.3	479									1								
31+30.00	19.00' R	SF 10'-0" (18"-24") Type Inlet	5.7	857										1							
31+80.00	19.00' R	SF 6'-0" Type Inlet	3.6	516									1								
30+65.00	19.00' L	SF 6'-0" Type Inlet	3.3	476									1								
31+30.00	19.00' L	SF 10'-0" (18"-24") Type Inlet	5.1	797										1							
31+60.00	19.00' L	SF 6'-0" Type Inlet	3.3	483									1								
34+00.00	19.00' L	SF 6'-0" Type Inlet	4.0	564									1								
34+00.00	37.00' R	SF 6'-0" Type Inlet	4.1	571									1								
NB I-229																					
205+96.00	8.83' L	DOT 2'x3' Type B	1.3	193	1																
210+82.00	8.83' L	DOT 2'x3' Type B	1.3	196	1																
220+39.00	69.00' R	DOT 5'x5' Junction Box	5.0	933				1													
219+03.00	49.00' R	DOT Type M Median Drain	2.2	264		1															
230+00.00	31.00' L	DOT Type M Median Drain	0.6	78		1															
	•																				
SB I-229																				-+	\neg
206+81.00	44.83' L	DOT 2'x3' Type B	1.3	207	1																\neg
214+20.00	60.00' L	SF Type 1 Junction Box 5'x5'	9.1	493								1									\neg
211+68.00	45.00' L	DOT 2'x3' Type B	1.3	199	1																\neg
211+68.00	16.00' R	SF Type 1 Junction Box 4'x4'	3.8	227							1										\neg
	•																			-+	
	Subto	otal:	78.8	10.645	4	2		1	1	İ	1	1	10	3	1		+ +		+ +	-+	
				,		-	1							-							

For Informational Purposes:

¹ Paid for as Bid Item No. 670E0200 - Type A Frame and Grate

² Paid for as Bid Item No. 670E4205 - Type M Frame and Grate Assembly

³ Paid for as Bid Item No. 670E5340 - 4' x 11' Precast Concrete Type S Drop Inlet Lid

⁴ Paid for as Bid Item No. 671E6040 - Manhole Frame and Bid Item No. 671E6050 - Manhole Lid

⁵ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly

⁶ Paid for as Bid Item No. 671E6008 - Type A8 Manhole Frame and Lid

⁷ Paid for as Bid Item No. 671E6035 - Special Manhole Frame and Lid

⁸ Paid for as Bid Item No. 671E6035 - Special Manhole Frame and Lid

⁹ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly

¹⁰ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly

¹¹ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly



L/R) Inlet Type SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type I Junction Box 5'x5'	Class M6 Ccncrete (CuYd)	Reinforcing Steel (Lb)			³ 4'x11' Precast			AN[) Q te/Lid	UAI	NTIT	IES		SOUTH DAKOTA Plotting Date:	IM-B-C 2/18/20	2292(1 25	01)3 Revised Dat Initials:	B27 e: 2/18/2 NBG
L/R) Inlet Type SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	Class M6 Ccncrete (CuYd)	Reinforcing Steel (Lb)	¹ Type A (Each)	2T. mo M	³ 4'x11' Precast		Fra	ame and Gra	te/Lid	. • /			I	Plotting Date:	2/18/20	25	Revised Dat Initials:	e: 2/18/2 NBG
L/R) Inlet Type SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	Class M6 Ccncrete (CuYd)	Reinforcing Steel (Lb)	¹ Type A (Each)	² T. m. M.	³ 4'x11' Precast		Fra	Frame and Grate/Lid				1	Flotting Date.					
L/R) Inlet Type SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	Class M6 Concrete (CuYd) 5.0	Reinforcing Steel (Lb)	¹ Type A (Each)	² Turne M	³ 4'x11' Precast							I I					_	
L/R) Inlet Type SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	(CuYd)	(Lb)	(Each)	Турети	S Drop Inlet Lid	⁴ Type A4	⁵ SF Type B Inlet, 3 Grates, 8'	⁶ SF 2'x2' Catch Basin	⁷ SF Type 1 Junction Box 4x4	⁸ SF Type 1 Junction Box 5x5	⁹ 6'-0" SF Type Inlet (18"-24") Type Y F&G	¹⁰ 10'-0" SF Type Inlet (18"-24") Type Y F&G	¹¹ 10'-0" SF Type Inlet (48"-60") Type Y F&G					
SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	5.0		, ,	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)					
SF 10'-0" (48"-60") Type Inlet SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	5.0																	
SF Type B Inlet 3 Grates, 8' SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	5.0	775											1					
SF Type B Inlet 3 Grates, 8' SF Type 1 Junction Box 5'x5'	5.2	1,242					1											
SF Type 1 Junction Box 5'x5'	4.3	1,382					1											
	4.5	294								1								
SF 6'-0" Type Inlet	3.1	454									1							
SF 6'-0" Type Inlet	3.1	454									1							-+
SF 6'-0" Type Inlet	3.5	500									1							-+
SF 6'-0" Type Inlet	3.5	501									1							-+
SF 6'-0" Type Inlet	3.8	538									1							-+
SF 6'-0" Type Inlet	3.5	503									1							-+
SF 6'-0" Type Inlet	3.5	507		<u> </u>							1							-+
SF 10'-0" (18"-24") Type Inlet	4.9	772		<u> </u>								1						-+
SE 6'-0" Type Inlet	32	463									1							-+
SE 6'-0" Type Inlet	2.9	424									1				+			-+
SE 6'-0" Type Inlet	32	464									1				+			-+
SE 6'-0" Type Inlet	3.2	467									1				+ +			-+
SF 10'-0" (18"-24") Type Inlet	5.4	833									'	1		+++				-+
SE 6'-0" Type Inlet	4.2	595									1			+	+			
	7.2	000									'			++				-+
															+ +	-+		-+
SE 6' 0" Type lolet	2.0	EEC									1				+ +	_		-+
	3.9	556									1			-+-+			_	\vdash
	2.1	28	1											-+-+			_	\vdash
SF 10-0" (18"-24") Type Inlet	5.0	//5					1					1		\rightarrow			_	\vdash
SF Type B Inlet 3 Grates, 8	8.9	2,832					1							-+-+	+		_	\vdash
SF Type B Inlet 3 Grates, 8'	9.3	2,983					1							-+	+ +			⊢ −+
SF Type B Inlet 3 Grates, 8'	9.3	2,968					1							-+	+			⊢ −+
	3.1	453									1			\rightarrow	+			⊢ −+
	3.1	453									1				+			⊢−−∔−
SF 6'-0" Type Inlet	3.1	454									1			-+	+			⊢−−∔−
SF 6'-0" Type Inlet	3.2	465		l	↓						1				+			⊢−−
SF 6'-0" Type Inlet	3.7	531		l							1				+			⊢ −− ↓ −
SF 6'-0" Type Inlet	2.8	418			<u> </u>						1				+			\vdash
SF 10'-0" (18"-24") Type Inlet	5.0	782			ļ							1		-+	+			\vdash
SF 6'-0" Type Inlet	3.2	459									1			-+	+			\vdash
DOT 2'x3' Type B	1.5	28	1		ļ									-+	+		_	\vdash
SF 6'-0" Type Inlet	4.8	668									1				+			\vdash
															+			\vdash
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	3.4	488									1							
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nai Purposes

¹ Paid for as Bid Item No. 670E0200 - Type A Frame and Grate

² Paid for as Bid Item No. 670E4205 - Type M Frame and Grate Assembly

³ Paid for as Bid Item No. 670E5340 - 4' x 11' Precast Concrete Type S Drop Inlet Lid

⁴ Paid for as Bid Item No. 671E6040 - Manhole Frame and Bid Item No. 671E6050 - Manhole Lid

⁵ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly

⁶ Paid for as Bid Item No. 671E6008 - Type A8 Manhole Frame and Lid

⁷ Paid for as Bid Item No. 671E6035 - Special Manhole Frame and Lid

⁸ Paid for as Bid Item No. 671E6035 - Special Manhole Frame and Lid

⁹ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly

¹⁰ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly

¹¹ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly



	ΔRΙΕΩ	E STORM	SF	=\//F	ER [)R(ND IN		TS /	ΔΝΓ	$\neg \cap$	ΙΔΙΙ	$\nabla \mathbf{T}$	IFS			SOUTH DAKOTA	IM-B	-CR 229	92(101)3	B28
17				_	_ \ L				107							PI	otting Date:	2/18/2	2025	Revised Dat Initials:	te: 2/ N
									Fra	ame and Gra	ite/Lid										
			Class M6 Ccncrete	Reinforcing Steel	¹ Type A	² Type M	³ 4'x11' Precast Concrete Type S Drop Inlet Lid	⁴ Type A4	⁵ SF Type B Inlet, 3 Grates, 8'	⁶ SF 2'x2' Catch Basin	⁷ SF Type 1 Junction Box 4x4	⁸ SF Type 1 Junction Box 5x5	⁹ 6'-0" SF Type Inlet (18"-24") Type Y F&G	¹⁰ 10'-0" SF Type Inlet (18"-24") Type Y F&G	¹¹ 10'-0" SF Type Inlet (48"-60") Type Y F&G						
Station	Offset (L/R)	Inlet Type	(CuYd)	(Lb)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)						
p A																					
57.00	10.50' R	DOT Type M Median Drain	2.3	265		1															
97.00	45.00' R	DOT Type M Median Drain	1.9	233		1															<u> </u>
75.00	16.50' R	DOT 4'x11' Type S Drop Inlet	4.3	705			1														<u> </u>
00.00	16.00' R	DOT 2'x3' Type B	1.4	209	1													_			—
n B																$\left \right $		_			├──
35.00	37.00' I	SE 2'x2' Catch Basin	1.6	16						1								_			├──
30.00	4.00' L	SF 6'-0" Type Inlet	3.2	468			+			<u> </u>			1								<u> </u>
73.00	1.50' L	DOT 2'x3' Type B	1.8	262	1																<u> </u>
np C																					
40.00	6.00' L	DOT Type M Median Drain	2.3	269		1															
75.00	25.50' L	DOT 2'x3' Type B	1.4	210	1																<u> </u>
75.00	37.50' L	SF 2'x2' Catch Basin	1.3	16						1								_			<u> </u>
00.00	28.50' L	DOT 4'x11' Type S Drop Inlet	3.9	655			1											_			—
n D																		_			──
57.00	4 50' R	DOT 4'x11' Type S Drop Inlet	4.8	759			1														├──
51.00	4.00 1		4.0	155			· ·			<u> </u>								_			├──
np E																					<u> </u>
0.64	27.20' L	DOT 2'x3' Type B	1.4	216	1																
np F																					
-51.00	26.00' R	SF Type 1 Junction Box 4'x4'	6.3	354							1										\square
-50.00	24.80' R	DOT 4'x11' Type S Drop Inlet	4.8	764			1														<u> </u>
44.00	4.00' L	SF Type 1 Junction Box 4'x4'	5.9	333							1							_			<u> </u>
an C Now																		_			┣──
23.00	39.00' P	DOT 4'x11' Type S Drop Inlet	43	710			1														├──
38.00	28.00' R	SF 2'x2' Catch Basin	1.3	16			· ·			1								_			├──
	20.00 11																				<u> </u>
1																					
1.00	9.00' R	DOT Type M Median Drain	1.5	184		1															
2.00	8.00' R	DOT Type M Median Drain	1.7	209		1															
2.00	16.50' L	SF 2'x2' Catch Basin	0.8	16						1											\square
7.00	27.40' R	DOT Type M Median Drain	2.0	234		1															—
																					—
70.00	15.00' P	SE 6'-0" Type lalet	3.0	460									1			$\left \right $		_			├──
70.00	15.00 K	SF 6'-0" Type Inlet	3.2	409			1			<u> </u>			1			+			-		├──
0.00	91.30' R	SF 6'-0" Type Inlet	2.9	423									1			+		_			<u> </u>
*			2.0	.20			1														<u> </u>
	Subto	tal:	69.5	8,459	4	6	5	İ		4	2		4			+					<u> </u>
					-		-	+	+	-			1	-		++		_			

⁴ Paid for as Bid Item No. 671E6040 - Manhole Frame - 1 Each and Bid Item No. 671E6050 - Manhole Lid - 1 Each

⁵ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly - 15 Each (3 Grates per Inlet)

⁶ Paid for as Bid Item No. 671E6008 - Type A8 Manhole Frame and Lid - 4 Each

⁷ Paid for as Bid Item No. 671E6035 - Special Manhole Frame and Lid - 5 Each (3 Each size 4' x 4')

⁸ Paid for as Bid Item No. 671E6035 - Special Manhole Frame and Lid - 5 Each (2 Each size 5' x 5')

⁹ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly - 45 Each (36 Each size 6'-0" for 18"-24" Pipe)

¹⁰ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly - 45 Each (7 Each size 10'-0" for 18"-24" Pipe)

¹¹ Paid for as Bid Item No. 670E5200 - Special Frame and Grate Assembly - 45 Each (2 Each size 10'-0" for 48"-60" Pipe)







SECTION L ESTIMATE OF QUANTITIES

BID ITEM	ITEM	QUANTITY	UNIT
110E1530	Remove Signal Pole Footing	9	Each
110E1540	Remove Luminaire Pole Footing	18	Each
110E1550	Remove Light Tower	5	Each
110E5100	Salvage Luminaire Pole	15	Each
110E5105	Salvage Luminaire	23	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
110E7200	Remove Luminaire Pole for Reset	4	Each
635E0030	Breakaway Base Luminaire Pole with Arm, 30' Mounting Height	1	Each
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting	35	Each
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	29	Each
635E0150	Breakaway Base Luminaire Pole with Twin Arms, 50' Mounting Height	28	Each
635E0650	Fixed Base Luminaire Pole with Arm, 50' Mounting Height	4	Each
635E2000	Pedestal Signal Pole	15	Each
635E2025	Signal Pole with 25' Mast Arm	1	Each
635E2030	Signal Pole with 30' Mast Arm	1	Each
635E2135	Signal Pole with 35' 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	2	Each
635E2155	Signal Pole with 55' Mast Arm and Luminaire Arm	2	Each
635E3545	Under Bridge Deck Luminaire, LED	8	Each
635E3585	Tunnel Luminaire, LED	11	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	127	Each
635E4030	3 Section Vehicle Signal Head	39	Each
635E4040	4 Section Vehicle Signal Head	17	Each
635E5020	2' Diameter Footing	805.0	Ft
635E5025	2.5' Diameter Footing	13.3	Ft
635E5030	3' Diameter Footing	46.0	Ft
635E5040	4' Diameter Footing	9.0	Ft
635E5310	Special Electrical Junction Box	84	Each
635E5360	Surface Mounted Junction Box	8	Each
635E5400	Electrical Service Cabinet	6	Each
635E5430	Traffic Signal Controller	3	Each
635E5450	Side Mounted Cabinet	6	Each
635E5515	Battery Backup System for Traffic Signal	3	Each
635E5520	Video Detection System	3	Each
635E5560	Emergency Vehicle Preemption Unit	3	Each
635E5570	Optical Detector	12	Each
635E5600	Surveillance Camera	2	Each
635E5880	Accessible Pedestrian Signal	24	Each
635E5910	Pedestrian Push Button Pole	13	Each
635E5922	Pedestrian Signal Head with Countdown Timer	24	Each
635E5930	Pedestrian Crossing Sign	24	Each

BID ITEM	ITEM	QUANTITY	UNIT
635E5980	Rectangular Rapid Flashing Beacon System	4	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7505	Reset Luminaire Pole	2	Each
635E8008	0.75" Rigid Galvanized Steel Conduit	270	Ft
635E8010	1" Rigid Galvanized Steel Conduit	211	Ft
635E8020	2" Rigid Galvanized Steel Conduit	655	Ft
635E8108	0.75" Rigid Conduit, Schedule 40	568	Ft
635E8110	1" Rigid Conduit, Schedule 40	6,790	Ft
635E8120	2" Rigid Conduit, Schedule 40	19,493	Ft
635E8130	3" Rigid Conduit, Schedule 40	386	Ft
635E8140	4" Rigid Conduit, Schedule 40	365	Ft
635E8150	5" Rigid Conduit, Schedule 40	25	Ft
635E8220	2" Rigid Conduit, Schedule 80	3,806	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,010	Ft
635E8240	4" Rigid Conduit, Schedule 80	200	Ft
635E8250	5" Rigid Conduit, Schedule 80	60	Ft
635E8420	1.5" Innerduct, SDR 13.5	4,630	Ft
635E8830	2/2/2/4 Aluminum Wire	8,728	Ft
635E9012	1/C #2 AWG Copper Wire	13,476	Ft
635E9014	1/C #4 AWG Copper Wire	6,574	Ft
635E9016	1/C #6 AWG Copper Wire	38,893	Ft
635E9018	1/C #8 AWG Copper Wire	13,201	Ft
635E9020	1/C #10 AWG Copper Wire	9,672	Ft
635E9022	1/C #12 AWG Copper Wire	6,059	Ft
635E9302	2/C #14 AWG IMSA Copper Cable, K1	1,020	Ft
635E9303	3/C #14 AWG IMSA Copper Cable, K1	480	Ft
635E9305	5/C #14 AWG IMSA Copper Cable, K1	1,285	Ft
635E9307	7/C #14 AWG IMSA Copper Cable, K1	8,345	Ft
635E9312	12/C #14 AWG IMSA Copper Cable, K1	1,990	Ft
635E9325	25/C #14 AWG IMSA Copper Cable, K1	2,270	Ft
635E9800	Preemption Cable	7,990	Ft
635E9906	6 Strand Fiber Optic Cable	1,133	Ft
635E9924	24 Strand Fiber Optic Cable	4,745	Ft

() THE REC



BRIDGE / BARRIER MOUNTED LUMINAIRE POLE

Luminaire Poles L14, L15, L16, and L17 are barrier mounted poles. The anchor bolt will be designed by the pole fabricator and will not exceed the barrier height. Refer to Section E for mounting details.

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

SOILS INFORMATION

Location	Subsurface Soils Below Proposed Signal Location	Anticipated Groundwater Depth
Cliff Ave and 41 st St (SP-A1)	0' - 11' Brown clay silt 11'-14' Brown sand and gravel 14' Refusal, quartzite	10'
Cliff Ave and 41 st St (SP-A2)	0' - 3' Brown silt clay 3' - 7' Brown clay 7' - 12.5' Brown sand and gravel 12.5' - 13.5' Cobbles and fractured quartzite 13.5' Refusal, quartzite	8'
Cliff Ave and 41 st St (SP-A3)	0' - 10' Brown clay 10' - 16' Cobbles and fractured quartzite 16' Refusal, quartzite	Below 7'
Cliff Ave and 41 st St (SP-A4)	0' - 9' Brown clay 9' - 15' Brown sand and gravel 15' Refusal, quartzite	Below 12'
Cliff Ave and 38th St (SP-A5)	0' - 2.5' Brown silt clay 2.5' - 5' Brown clay 5' - 7' Cobbles and fractured quartzite 7' Refusal, quartzite	Below 6'
Cliff Ave and 38th St (SP-A6)	0' - 1.2' Concrete and gravel surfacing 1.2' - 3.8' Gray to brown clay 3.8' - 4.2' Cobbles and fractured quartzite 4.2' Refusal, quartzite	2.0'
Cliff Ave and 38th St (SP-A7)	0' - 1.7' Concrete and gravel surfacing 1.7' - 8.0' Gray to brown clay 8' - 11.5' Cobbles and fractured quartzite 11.5' Refusal, quartzite	8.0'
Cliff Ave and 38th St (SP-A8)	0' - 2' Brown silty sand and gravel 2' - 7' Brown to gray clay silt 7' - 8' Cobbles and fractured quartzite 8' Refusal, quartzite	Below 7'

1. Footing locations that have high water tables or contain sand, gravel, or cobbles are potential candidates for caving soils. During construction of the cylindrical footings, concrete placement operations will closely follow excavation procedures. The longer the excavations are left open, the more likely caving will occur. 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 will 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 will not be dropped through standing water. Concrete placed through drilling fluids will be tremied. If caving is not an issue but water is present, it must be removed prior to concrete placement, or the concrete will be tremied.

2. At signal pole location A7, the Contractor will first attempt to install a 4' x 9' cylindrical footing. Drilling operations at this location may require pre-bore with a smaller bit before to the final footing diameter. If intact guartzite is encountered at a depth less than 9' below finished ground a spread footing alternative provided by the Office of Bridge Design will be utilized for the signal pole at this location.

TABLE OF FOOTING DATA

De	Site signation	Fo Dia
A9 A13 A17 A20 A24	, A10, A12, 3, A14, A15, 7, A18, A19, 0, A22, A23, 4, A26, A27	2'
CF CFL CFL 41	L1 – CFL8, _11, CFL14, CFL15, 18 – CFL24, L1 – 41L12	2'
A E C D	L1 – AL7, BL1 – B7, L1 – CL7, DL1 – DL8	2'
L HS	_1 – L13, 18 – L32, SL1, HSL2	2'
A11	, A16, A21, A25	2'
	A3	3'
A	1, A2, A4	3'
	**** A7	4'
A	5, A6, A8	

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

For HSL1 & HSL2, 2' of the 9' tall footings will be installed above ground. **** See Section E for spread footing alternative.

During construction 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.

Concrete will not be dropped through standing water. If water is present in the excavation, it will be removed prior to concrete placement, or the concrete will be tremied.

SPREAD FOOTING ON ROCK

The rock surface will be cleaned of all soil and debris prior to placing rock dowels and reinforcing steel for the spread footing. Cleaning will be accomplished by water washing and/or air jetting. Material washed from the rock surface will be directed into a sump or low area and physically removed from the exposed rock surface.

The cost of cleaning the rock will be included in the unit price bid for Structure Excavation. Payment will be considered full compensation for all materials, labor, equipment, and incidentals necessary to satisfactorily complete the work.

The steel dowel for use with the item Install Dowel in Rock is included in the Reinforcing Schedule and will be paid for at the unit price bid for Reinforcing Steel. Install Dowel in Rock will not be measured unless a change is ordered. Payment will be for the lineal foot of embedment into the rock, and will be considered full compensation for all materials, labor, equipment, and incidentals necessary to satisfactorily complete the work.

Dowel bond material will be suitable for bonding steel dowel bars to rock in the existing moisture conditions. The Contractor will submit dowel bonding material product data to the Engineer for approval. Site mixed and cartridge resins will be commercially available and manufactured for rock dowel installation in this rock type. The diameter of the hole, drilled into the rock, will be a maximum of 3/8 inch larger than the diameter of the steel dowel, or as specified by the dowel bond material manufacturer. The drilled holes will be blown out with compressed air using a device that will reach the bottom of the hole to ensure that all debris or loose material has been removed prior to epoxy injection.



STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	IM-B-CR 2292(101)3	L5	L73
	Revised Date	e: 02/18	3/2025

Spiral * Footing **Spiral oting Vertical Diameter Depth Length Reinforcement meter - 0" 4' - 0" 1' - 8" 33' - 9" 8-#7 x 3' - 6" - 0" 7' - 0" 1' - 8" 49' - 6" 8-#7 x 6' - 6" - 0" 8' - 0" 1' - 8" 54' - 9" 8-#7 x 7' - 6" 9' - 0" * - 0" 1' - 8" 60' - 0" 8-#7 x 8' - 6" - 0" 10' - 0" 1' - 8" 65' - 3" 8-#7 x 9' - 6" - 0" 10' - 0" 2' - 8" 104' - 3" 14-#8 x 9' - 6" - 0" 12' - 0" 2' - 8" 120' - 9" 14-#8 x 11' - 6" - 0" 9' - 0" 3' - 8" 131' - 9" 23-#8 x 8' - 6" SEE SECTION E FOR SPREAD FOOTING DATA

FIBER OPTIC CABLE

Fiber optic cable will be furnished and installed by the Contractor. Fiber optic cable will meet all requirements discussed in the City's specifications. Each fiber optic cable will have buffer tubes containing 12 fiber strands.

25 feet of fiber cable coil will be installed in the side mounted cabinet. The fiber optic cable will be installed continuous from traffic cabinet to traffic cabinet. No splices will be allowed in the fiber optic cable, except in the cabinets. All terminations and/or splicing will be completed by the City of Sioux Falls fiber optic specialist. For questions regarding the fiber optic cabling, contact Matt Rock at (605) 941-1143.

Note that fisheye cameras with power cable runs greater than 300 feet from traffic signal cabinet to camera will require that 6 strand single mode fiber optic cables be used instead of CAT 5 cables.

The fiber optic cable will be installed in accordance with the manufacturer's recommendations and the NEC. Slack cable will be left in each controller and junction box. All junction boxes will have 50-feet of slack. Slack cable will be over / under coiled. Tying will be loose and kept to a minimum to prevent damage when operating lid. No splices will be allowed in the fiber optic cable except in the controllers. Splices will be of the fusion splice type. All fusion splices will be placed in a splice tray. Terminations will be of the epoxy/polish type, or fusion splice to pig tail type.

No testing will be completed on the fiber optic cable by the Contractor. All testing will be completed by the City outside of this project / contract. If repairs are needed to be completed by the Contractor due to deficiencies found by the City during their testing, the Contractor will repair the fiber optic cable as required to correct these deficiencies at no cost to the City.

INNERDUCT

Innerduct will meet the following requirements:

- Compliant with NFPA70, National Electric Code
- UL listed
- Meets NEMA TC-7
- Have smooth exterior and longitudinally ribbed interior.

The innerduct conduit will be orange in color and longitudinally ribbed on the inside wall.

The innerduct bid items will include furnishing and installing the innerduct, as well as all work to seal the traffic interconnect conduit within the junction boxes.

Innerduct ends will be sealed using a mastic style tape wrapped around the end of the innerduct and fiber optic cable. If innerduct is empty, a heat shrinkable cap will be installed over the end of the innerduct.

All costs for the innerduct will be included in the contract unit price per foot for "1.5" Innerduct SDR 13.5".

TRAFFIC AND FIBER OPTIC CABLE CONDUIT

All nonmetallic conduit open ends will have an approved bell end or bushing installed to prevent damage to cable or conductors, per the City's specifications Section 635A.3.G.6. #12 AWG Tracer wire will be installed in all traffic conduit and interconnect. The tracer wire will be paid for separately under its respective bid item, unless noted otherwise.

SIGNAL AIMING

Signals will be aimed such that all signals for each approach will be continuously visible for the minimum distance listed in the table in Section 4D-12 of the MUTCD.

All costs required for this work are incidental to the "3 Section Vehicle Head" and "4 Section Vehicle Head" pay items.

ELECTRICAL SERVICE CABINET

All costs to furnish and install the Electrical Service Cabinets as shown on the plans and as discussed below will be incidental to the contract unit price per each for "Electrical Service Cabinet".

(Meter 1, 2, 3, 4, 5 and 6)

The electrical service cabinets will be U6281-XL-200-5T9 as manufactured by Milbank or approved equal. The electrical service cabinets will be mounted to 8'-6"x6" ground-contact pressure treated wood post, 3' burial depth. Conduits will be attached to post with strut and clamps at 6" above ground. The City of Sioux Falls standard plates #635.41 and #635.42 are shown in the plans for general guidance for these electrical service cabinets.

There are a total of 6 Electrical Service Cabinets required for signals and lighting. Three of the cabinets are shown on the plans for the lighting system, the other three will be located adjacent to the traffic signal controller cabinets and meter sockets (CC1, CC2, and CC3).





SIGNAL LAYOUT **CLIFF AVENUE & 41ST STREET**



STATE OF	PROJECT		SHEET	TOTAL SHEETS
DAKOTA	IM-B-CR 2292((101)3	L27	L73
Plotting Date:	2/18/2025	2/18/2025 Revised Date Initials:		
SCALE IN 0 20	40	(

ESTIMATE OF QUANTITIES		
ITEM	UNIT	EST QUANT
e w/45' Mast Arm & 8' Lumin Arm, 40' Mt Ht	EACH	1
e w/50' Mast Arm & 8' Lumin Arm, 40' Mt Ht	EACH	1
e w/55' Mast Arm & 8' Lumin Arm, 40' Mt Ht	EACH	2
Vehicle Signal Head 12,13,16,17,18)	EACH	10
Vehicle Signal Head),11,14,15,19)	EACH	9
tector	EACH	4
Pedestrian Signal Push Button	EACH	8
n Signal Head w/Countdown Timer 23,24,25,26,27)	EACH	8
Signal Camera and Equipment (1 Processor)	EACH	2
n Push Button Pole PB3,PB4,PB5)	EACH	5
n Crossing Sign eft - 4/Right - 4)	EACH	8
y Vehicle Preemption Unit	EACH	1
A4)	FT	46.0



(LIGHTING)											-
KEY	ITEM	EST QUANT	UNIT	KEY	ITEM	EST QUANT	UNIT	KEY	ITEM	EST QUANT	UNIT
6	Breakaway Base Luminaire Pole, 30' Mounting Height W/8' Arm (CFL 14)	1	EACH		Type 2 Electrical Junction Box (Lighting) (JL1 - JL50)	50	EACH	(SCH)	2" Rigid Conduit, Schedule 80	3,081	FT
œ—•	Breakaway Base Luminaire Pole, 40' Mounting Height W/8' Arm (CEL1 - CEL13, CEL15 - CEL24, 41L1 - 41L12)	35	EACH		Surface Mounted Junction Box (JSM1 - JSM6)	6	EACH		Quadruplex Aluminum 2/2/2/4 Wire	8,728	FT
	Breakaway Base Luminaire Pole,		FAOL	\bigotimes	Not a Bid Item	3	EACH				
	(AL1 - AL7, BL1 - BL7, CL1 - CL7, DL1 - DL8)	29	EACH		Electrical Service Cabinet (ESC1_ESC2_ESC3)	3	EACH	$\left \begin{pmatrix} \# \\ \# 2 \end{pmatrix} \right $	1/C #2 AWG Copper Wire	13,476	FT
	Breakaway Base Luminaire Pole, 50' Mounting Height W/8' Twin Arm (L1 - L13, L18 - L32)	28	EACH	$\left< \begin{array}{c} 3/4 \\ RG \\ SC \end{array} \right>$	3/4" Rigid Galvanized Steel Conduit	270	FT		1/C #4 AWG Copper Wire	6,574	FT
	Roadway Underpass Luminaire, LED (CFLU1 - CFLU8)	8	EACH	/3/4"\		500			1/C #6 AWG Copper Wire		
	Roadway Luminaire, LED with Photoelectric Cell	407	FACIL		3/4" Rigid Conduit, Schedule 40	568				38,338	FT
0	BL1 - BL7, CL1 - CL7, DL1 - DL8, HSL1 - HSL2)	127	EACH		1" Rigid Galvanized Steel Conduit	211	FT	(#)	1/C #8 AWG Copper Wire	13 201	ст
	Pedestrian Underpass Luminaire, LED (NPUL1 - NPUL6, SPUL1 - SPUL5)	11	EACH					#8		13,201	
6	Reset Luminaire Pole, (HSL1 - HSL2)	2	EACH	$\begin{pmatrix} 1''\\ SCH\\ 40 \end{pmatrix}$	1" Rigid Conduit, Schedule 40	99	FT	(# #10	1/C #10 AWG Copper Wire	2,584	FT
0	2' Diameter Footing (L1 - 13, L18 - L32, AL1 - AL7, BL1 - BL7, CL1 - CL7, DL1 - DL8, CFL1 - CFL8, CFL11, CFL14, CFL15, CFL18 - CFL24, 411 1 - 411 12, HSL1 - HSL2)	705	FT	2" SCH 40	2" Rigid Conduit, Schedule 40	18,788	FT	* Inside pole	12/2 UF Copper Wire	8,190	FT
6 —•	Fixed Base Luminaire Pole with Arm, 50' Mounting Height (L14 - L17)	4	EACH	$\begin{pmatrix} 3"\\ SCH\\ 40 \end{pmatrix}$	3" Rigid Conduit, Schedule 40	31	FT				