

December 3, 2024

ADDENDUM NO. 1

RE: Item #1, December 11, 2024 Letting - NH-CR 0014(185)229, PCN 026Z, Hughes County - Urban Grading, Curb & Gutter, Sidewalk, Signals, Storm Sewer, Lighting, Asphalt Concrete Surfacing, PCC Surfacing

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 330E2000 "Sand for Flush Seal"
Bid Item 634E2025 "Longitudinal Pedestrian Barrier"

Quantities for Bid Items were changed:

Bid Item 634E0330 "Temporary Raised Pavement Markers" changed from 18,743 to 21,589 Ft

Bid Items were removed:

Bid Item 330E3000 "Sand for Fog Seal"
Bid Item 360E0042 "CRS-2P Asphalt for Surface Treatment"
Bid Item 360E1200 "Modified Cover Aggregate"
Bid Item 634E3000 "Traffic Control Barrier"
Bid Item 670E4448 "7' x 11' Concrete Type S Drop Inlet Base"

PLANS: Please destroy sheets A1, A2, B2, B30, C2, C6, C7, C11, F2, F5, F6, F7, F8, F11 and F12 and replace with the enclosed sheets, dated 11/22/24, 12/2/24, and 12/3/24.

Sheet A1: Quantities for Bid Items were changed:

Bid Item 634E0330 "Temporary Raised Pavement Markers" changed from 18,743 to 21,589 Ft

Bid Items were removed:

Bid Item 634E3000 "Traffic Control Barrier"
Bid Item 670E4448 "7' x 11' Concrete Type S Drop Inlet Base"

Sheets A2 & F2:

Bid Items were added:

Bid Item 330E0210 "SS-1h or CSS-1h Asphalt for Flush Seal"

Bid Item 330E2000 "Sand for Flush Seal"

Bid Items were removed:

Bid Item 330E0300 "SS-1h or CSS-1h Asphalt for Fog Seal"

Bid Item 330E3000 "Sand for Fog Seal"

Bid Item 360E0042 "CRS-2P Asphalt for Surface Treatment"

Bid Item 360E1200 "Modified Cover Aggregate"

Sheet B2: Bid Item 670E4448 "7' x 11' Concrete Type S Drop Inlet Base" was removed.

Sheet B30: Install note for 7'x11' Concrete Type S Drop Inlet at 13+92.19-30.00' R was removed.

Sheet C2: **Bid Items were added:**

Bid Item 634E2025 "Longitudinal Pedestrian Barrier"

Quantities for Bid Items were changed:

Bid Item 634E0330 "Temporary Raised Pavement Markers" changed from 18,743 to 21,589 Ft

Bid Items were removed:

Bid Item 634E3000 "Traffic Control Barrier"

MAINLINE PHASE 1A/1B/1C/1D/1E notes and MAINLINE PHASE 2A/2B/2C/2D notes were revised.

Sheet C6: LONGITUDINAL PEDESTRIAN BARRIER note was added. Phase 1C ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS table was moved to Sheet C7.

Sheet C7: Phase 1C ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS table was moved to Sheet C7.

Sheet C11: TABLE OF TRAFFIC CONTROL DEVICES was revised.

Sheet F5: ALKALI SILICA REACTIVITY table was revised.

Sheet F6: APPLICATION RATES FOR ASPHALT SURFACE TREATMENT MATERIALS, ASPHALT FOR SURFACE TREATMENT, MODIFIED COVER AGGREGATE, FOG SEAL AND SAND FOR FOG SEAL notes were removed.
SAND FOR FLUSH SEAL note was added.

Sheets F7 & F8: TABLE OF QUANTITIES was revised.

Sheets F11 & F12: TYPICAL SURFACING SECTIONS were revised. Reference to Asphalt Surface Treatment were removed.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/cj

CC: Jason Humphrey, Pierre Region Engineer
Dean VanDeWiele, Pierre Area Engineer

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	A1	A7

Section B - Grading

REV 05-31-24 GE
REV 07-09-24 GE
REV 08-27-24 GE
REV 11-22-24 GE
REV 12-03-24 GE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	152	Each
009E3230	Grade Staking	2,902	Mile
009E3250	Miscellaneous Staking	1,392	Mile
009E3301	Engineer Directed Surveying/Staking	80.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
009E4330	Project Management, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	70	Each
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	15,215	Ft
110E0400	Remove Drop Inlet	39	Each
110E1100	Remove Concrete Pavement	1,433.0	SqYd
110E1130	Remove Concrete Driveway Pavement	2,711.3	SqYd
110E1140	Remove Concrete Sidewalk	9,383.3	SqYd
110E5720	Salvage Drop Inlet Frame and Grate Assembly	5	Each
120E0010	Unclassified Excavation	41,396	CuYd
120E6000	Water for Dust Control	50.0	MGal
120E6100	Water for Embankment	14.5	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
260E6010	Granular Material	2,241.0	Ton
270E0022	Salvage Asphalt Mix Material	11,612.1	Ton
270E0112	Salvage Granular Material	21,353.1	Ton
380E2564	4" Barrier Type Colored Median PCC Pavement	344.6	SqYd
380E3540	8" PCC Approach Pavement	3,736.7	SqYd
380E4050	8" PCC Fillet Section	1,542.0	SqYd
450E0122	18" RCP Class 2, Furnish	4,214	Ft
450E0130	18" RCP, Install	4,214	Ft
450E0142	24" RCP Class 2, Furnish	2,028	Ft
450E0150	24" RCP, Install	2,028	Ft
450E0162	30" RCP Class 2, Furnish	542	Ft
450E0170	30" RCP, Install	542	Ft
450E0182	36" RCP Class 2, Furnish	826	Ft
450E0190	36" RCP, Install	826	Ft
450E0192	42" RCP Class 2, Furnish	2,064	Ft
450E0200	42" RCP, Install	2,064	Ft
450E0212	54" RCP Class 2, Furnish	162	Ft
450E0220	54" RCP, Install	162	Ft
450E0222	60" RCP Class 2, Furnish	64	Ft
450E0230	60" RCP, Install	64	Ft
450E2044	60" RCP Flared End, Furnish	1	Each
450E2045	60" RCP Flared End, Install	1	Each
450E3062	54" RCP Arch Class 2, Furnish	398	Ft
450E3070	54" RCP Arch, Install	398	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E4798	42" CMP 14 Gauge, Furnish	302	Ft
450E4800	42" CMP, Install	302	Ft
450E5030	42" CMP Elbow, Furnish	2	Each
450E5031	42" CMP Elbow, Install	2	Each
451E0518	8" PVC Pipe	28	Ft
451E3118	18" Pipe Cap	1	Each
462E0100	Class M6 Concrete	334.1	CuYd
480E0100	Reinforcing Steel	63,179	Lb
600E0300	Type III Field Laboratory	1	Each
650E0060	Type B66 Concrete Curb and Gutter	13,563	Ft
650E0080	Type B68 Concrete Curb and Gutter	1,843	Ft
650E4660	Type P6 Concrete Gutter	1,272	Ft
650E4680	Type P8 Concrete Gutter	70	Ft
650E6280	8" Concrete Valley Gutter	333.5	SqYd
651E0040	4" Concrete Sidewalk	24,073	SqFt
651E0060	6" Concrete Sidewalk	84,113	SqFt
651E0560	6" Colored Concrete Sidewalk	29,250	SqFt
651E5000	Sidewalk Drain	23.0	Ft
651E7000	Type 1 Detectable Warnings	1,737	SqFt
670E1200	Type B Frame and Grate	84	Each
670E5340	4' x 11' Precast Concrete Type S Drop Inlet Lid	3	Each
670E5400	Precast Drop Inlet Collar	84	Each
671E4048	48" Manhole Riser Section	41.3	Ft
671E6009	Type A9 Manhole Frame and Lid	33	Each
900E0010	Refurbish Single Mailbox	7	Each
900E1150	Right of Way Marker	6	Each
900E5145	Bollard	2	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

INDEX OF SHEETS

A1 to A3 Estimate of Quantities for Sections B, C, D, F, L,
M and S
A4 to A7 Environmental Commitments

Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E6005	Pavement Marking Masking, 5"	885	Ft
633E6035	Pavement Marking Masking, Combination Arrow	4	Each
634E0010	Flagging	1,000.0	Hour
634E0110	Traffic Control Signs	1,178.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	58	Each
634E0330	Temporary Raised Pavement Markers	21,589	Ft
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0640	Temporary Pavement Marking	28,858	Ft
634E0700	Traffic Control Movable Concrete Barrier	17	Each
634E1002	Detour and Restriction Signing	1,492.5	SqFt
634E1020	Temporary Business Signing	98.4	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	3	Each
634E2000	Longitudinal Pedestrian Barricade	348	Ft
634E2015	Temporary Pedestrian Access Route	Lump Sum	LS
634E2020	Temporary Curb Ramp	5	Each
634E2025	Longitudinal Pedestrian Barrier	1,705	Ft



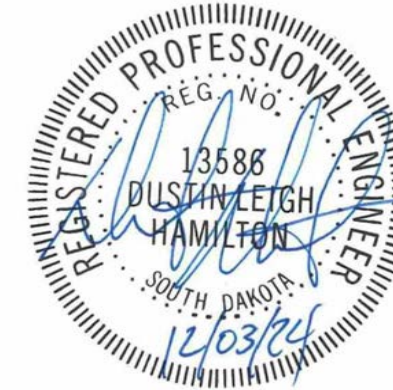
Section D - Erosion and Sediment Control

Section F - Surfacing

REV 06-07-24 GE
REV 06-11-24 GE
REV 08-29-24 GE
REV 12-03-24 GE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	31,9	CuYd
110E1693	Remove Erosion Control Wattle	830	Ft
110E1695	Remove Sediment Filter Bag	3,692	Ft
110E1700	Remove Silt Fence	2,796	Ft
120E6300	Water for Vegetation	144,3	MGal
230E0010	Placing Topsoil	1,203	CuYd
730E0206	Type D Permanent Seed Mixture	448	Lb
730E0251	Special Permanent Seed Mixture 1	2	Lb
730E0252	Special Permanent Seed Mixture 2	29	Lb
731E0200	Fertilizing	1,10	Ton
732E0500	Fiber Reinforced Matrix	2.5	Ton
734E0101	Type 1 Erosion Control Blanket	250	SqYd
734E0103	Type 3 Erosion Control Blanket	260	SqYd
734E0154	12" Diameter Erosion Control Wattle	830	Ft
734E0165	Remove and Reset Erosion Control Wattle	208	Ft
734E0170	Temporary Sediment Barrier	2,241	Ft
734E0180	Sediment Filter Bag	3,692	Ft
734E0185	Remove and Reset Sediment Filter Bag	923	Ft
734E0604	High Flow Silt Fence	2,796	Ft
734E0610	Mucking Silt Fence	194	CuYd
734E0620	Repair Silt Fence	699	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	117	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	52	Ft
734E5005	Dewatering	Lump Sum	LS
734E5010	Sweeping	15	Hour
900E1320	Construction Entrance	2	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E0010	Unclassified Excavation	482	CuYd
120E6200	Water for Granular Material	661.5	MGal
120E9000	Pit Run	652.4	Ton
260E1010	Base Course	21,415.1	Ton
260E1030	Base Course, Salvaged	32,965.2	Ton
270E0220	Blend and Stockpile Granular Material	32,965.2	Ton
320E1200	Asphalt Concrete Composite	588,6	Ton
320E3000	Compaction Sample	9	Each
330E0010	MC-70 Asphalt for Prime	59,8	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	34,0	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	10,0	Ton
330E1000	Blotting Sand for Prime	10,0	Ton
330E2000	Sand for Flush Seal	170,4	Ton
380E0050	8" Nonreinforced PCC Pavement	7,285.8	SqYd
380E3020	6" PCC Driveway Pavement	143,6	SqYd
380E3040	8" PCC Driveway Pavement	139,2	SqYd
380E6000	Dowel Bar	11,875	Each
380E6110	Insert Steel Bar in PCC Pavement	163	Each
450E4748	15" CMP 14 Gauge, Furnish	190	Ft
450E4750	15" CMP, Install	190	Ft
450E5402	15" CMP Safety End, Furnish	2	Each
450E5403	15" CMP Safety End, Install	2	Each
831E0210	Non-woven Separator Fabric	848	SqYd
831E0300	Reinforcement Fabric (MSE)	46,429	SqYd



Alternate A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	855,7	Ton
320E1060	Class G Asphalt Concrete	14,875,4	Ton
320E4000	Hydrated Lime	147,5	Ton

Alternate B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	756,1	Ton
320E1060	Class G Asphalt Concrete	15,275,9	Ton
320E4000	Hydrated Lime	152,2	Ton

SECTION B ESTIMATE OF QUANTITIES

REV 4-16-24 GE
 REV 7-9-24 GE
 REV 08-27-24 GE
 REV 11-22-24 GE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	152	Each
009E3230	Grade Staking	2,902	Mile
009E3250	Miscellaneous Staking	1,392	Mile
009E3301	Engineer Directed Surveying/Staking	80.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
009E4330	Project Management, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	70	Each
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	15,215	Ft
110E0400	Remove Drop Inlet	39	Each
110E1100	Remove Concrete Pavement	1,433.0	SqYd
110E1130	Remove Concrete Driveway Pavement	2,711.3	SqYd
110E1140	Remove Concrete Sidewalk	9,383.3	SqYd
110E5720	Salvage Drop Inlet Frame and Grate Assembly	5	Each
120E0010	Unclassified Excavation	41,396	CuYd
120E6000	Water for Dust Control	50.0	MGal
120E6100	Water for Embankment	14.5	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
260E6010	Granular Material	2,241.0	Ton
270E0022	Salvage Asphalt Mix Material	11,612.1	Ton
270E0112	Salvage Granular Material	21,353.1	Ton
380E2564	4" Barrier Type Colored Median PCC Pavement	344.6	SqYd
380E3540	8" PCC Approach Pavement	3,736.7	SqYd
380E4050	8" PCC Fillet Section	1,542.0	SqYd
450E0122	18" RCP Class 2, Furnish	4,214	Ft
450E0130	18" RCP, Install	4,214	Ft
450E0142	24" RCP Class 2, Furnish	2,028	Ft
450E0150	24" RCP, Install	2,028	Ft
450E0162	30" RCP Class 2, Furnish	542	Ft
450E0170	30" RCP, Install	542	Ft
450E0182	36" RCP Class 2, Furnish	826	Ft
450E0190	36" RCP, Install	826	Ft
450E0192	42" RCP Class 2, Furnish	2,064	Ft
450E0200	42" RCP, Install	2,064	Ft
450E0212	54" RCP Class 2, Furnish	162	Ft
450E0220	54" RCP, Install	162	Ft
450E0222	60" RCP Class 2, Furnish	64	Ft
450E0230	60" RCP, Install	64	Ft
450E2044	60" RCP Flared End, Furnish	1	Each
450E2045	60" RCP Flared End, Install	1	Each
450E3062	54" RCP Arch Class 2, Furnish	398	Ft
450E3070	54" RCP Arch, Install	398	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E4798	42" CMP 14 Gauge, Furnish	302	Ft
450E4800	42" CMP, Install	302	Ft
450E5030	42" CMP Elbow, Furnish	2	Each
450E5031	42" CMP Elbow, Install	2	Each
451E0518	8" PVC Pipe	28	Ft
451E3118	18" Pipe Cap	1	Each
462E0100	Class M6 Concrete	334.1	CuYd
480E0100	Reinforcing Steel	63,179	Lb
600E0300	Type III Field Laboratory	1	Each
650E0060	Type B66 Concrete Curb and Gutter	13,563	Ft
650E0080	Type B68 Concrete Curb and Gutter	1,843	Ft
650E4660	Type P6 Concrete Gutter	1,272	Ft
650E4680	Type P8 Concrete Gutter	70	Ft
650E6280	8" Concrete Valley Gutter	333.5	SqYd
651E0040	4" Concrete Sidewalk	24,073	SqFt
651E0060	6" Concrete Sidewalk	84,113	SqFt
651E0560	6" Colored Concrete Sidewalk	29,250	SqFt
651E5000	Sidewalk Drain	23.0	Ft
651E7000	Type 1 Detectable Warnings	1,737	SqFt
670E1200	Type B Frame and Grate	84	Each
670E5340	4' x 11' Precast Concrete Type S Drop Inlet Lid	3	Each
670E5400	Precast Drop Inlet Collar	84	Each
671E4048	48" Manhole Riser Section	41.3	Ft
671E6009	Type A9 Manhole Frame and Lid	33	Each
900E0010	Refurbish Single Mailbox	7	Each
900E1150	Right of Way Marker	6	Each
900E5145	Bollard	2	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

GRADING OPERATIONS

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

The estimated cubic yards of excavation and/or embankment required to construct outlet ditches, ditch blocks, and approaches are included in the earthwork balance notes on the profile sheets.

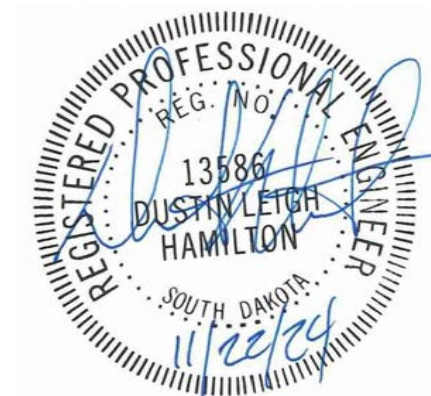
Special ditch grades and other sections of the roadway different than the typical section(s) will be constructed to the limits shown on the cross sections. If significant changes to the cross sections are necessary during construction, the Engineer will contact the Designer for the proposed change.

Generally, all shallow inlet and outlet ditches as noted on the plan sheets will be cut with a 10-foot wide bottom with 5:1 backslopes. However, the Engineer may direct the Contractor to adjust the ditch width for proper alignment with the drainage structure.

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

Table for Water for Embankment

Water for Embankment		Embankment (CuYd)
Station to	Station	
Mainline		
10+00	29+93	181
29+93	61+50	178
61+50	80+45	1,076
	Total Mainline	1,435
	Subtotal Mainline Water at 10gal/cy	14.4
Elizabeth Street		
698+07	701+50	14
	Total Elizabeth Street	14
	Subtotal Mainline Water at 10gal/cy	0.1
	Total Project	1,449
	Water at 10 gal/cy Total Project	14.5



10+30 - 9' R to 10+39 - 10' R
Take Out 55" - 9' RCP
(Incidental Work, Grading)

10+34 - 18' R to 10+39 - 10' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

10+34 - 18'R to 10+39 - 10'R
Take Out 18" - 9' RCP
(Incidental Work, Grading)

10+34 - 18'R to 10+53 - 33'R
Take Out 15" - 24' RCP
(Incidental Work, Grading)

10+34 - 18'R to 10+35 - 63'R
Take Out 12" - 45' PVC
(Incidental Work, Grading)

10+39-10' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

10+39 - 10'R to 10+83 - 34'L
Take Out 12" - 62' PVC
(Incidental Work, Grading)

10+39 - 10'R to 11+70 - 13'R
Take Out 30" - 132' RCP
(Incidental Work, Grading)

11+70-13' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

11+70 - 13'R to 12+08 - 10'R
Take Out 30" - 38' RCP
(Incidental Work, Grading)

11+83 - 12'R to 11+84 - 33'R
Take Out 10" - 21' PVC
(Incidental Work, Grading)

11+90 - 34'L to 11+93 - 11'R
Take Out 6" - 45' PVC
(Incidental Work, Grading)

12+08-10' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

12+08 - 10'R to 12+09 - 15'L
Take Out 20" - 25' RCP
(Incidental Work, Grading)

12+08 - 10'R to 12+85 - 11'R
Take Out 30" - 76' RCP
(Incidental Work, Grading)

12+09 - 15'L to 12+09 - 51'L
Take Out 20" - 36' RCP
(Incidental Work, Grading)

12+09-15' L
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

12+85 - 11'R to 12+85 - 44'R
Take Out 15" - 33' RCP
(Incidental Work, Grading)

12+85 - 11'R to 13+71 - 10'R
Take Out 30" - 86' RCP
(Incidental Work, Grading)

13+71-10' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

12+85-11' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

13+71 - 10'R to 13+91 - 9'R
Take Out 28" - 21' RCP
(Incidental Work, Grading)

12+84.39-32.11' R to 12+84.39-52' R
Install 18"-22' RCP
(Between Junction Box and Existing Pipe)

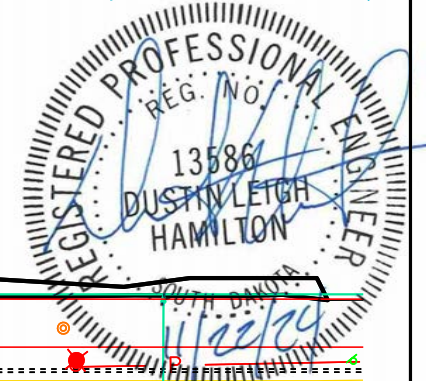
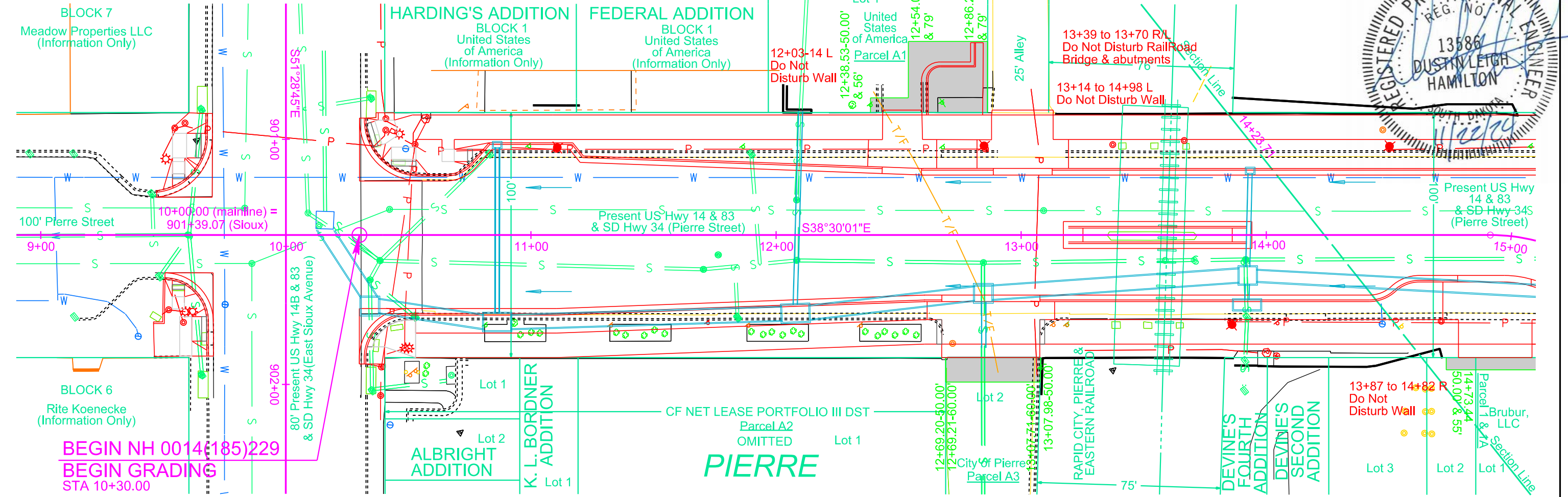
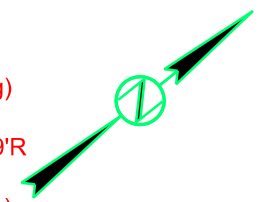
12+84.39-32.11' R to 13+92.19-26.50' R
Install 65"x40"-104' RCP Arch
(Between Junction Box and Drop Inlet)

13+93.45-26.18' L to 13+92.19-24.39' R
Install 18"-38' RCP
(Between Drop Inlets)

13+92.19-20.60' R to 13+92.20-26.17' R
Install 18"-6' RCP
(Between Drop Inlet and Junction Box)

REV 09-17-23 DBT
REV 04-16-24 GE
REV 06-17-24 GE
REV 08-27-24 GE
REV 11-22-24 GE

Clear and Grub Tree at the following locations:
10+93-36' R



Remove Drop Inlets with Frame and Grate at the following locations:
10+53-33' R
11+84-33' R
11+90-34' L
13+91-51' R
13+92-33' R

10+15.91-6.10' L to 10+34.27-28.94' R
Install 65"x40"-33' RCP Arch
(Between Existing 9x8 Junction Box and Proposed Junction Box)

10+34.17-28.94' R to 10+86.22-32.00' R
Install 65"x40"-48' RCP Arch
(Between Junction Box and Drop Inlet)

10+86.23-36.70' L to 10+86.22-32.00' R
Install 18"-67' RCP
(Between Drop Inlets)

Parcel A1
12+38.53 to 12+86.24 L
Temporary Easement Containing
1,028 Sq Ft, more or less

10+86.22-32.00' R to 12+07.88-26.07' R
Install 65"x40"-120' RCP Arch
(Between Junction Box and Drop Inlet)

12+39.93-39.11' L to 12+07.88-28.42' R
Install 18"-67' RCP
(Between Existing Pipe and Drop Inlet)

12+07.88-28.42' R to 12+84.39-32.11' R
Install 65"x40"-78' RCP Arch
(Between Drop Inlet and Junction Box)

Install 7' x 11' Concrete Type S Drop Inlet Base and 4' x 11' Precast Concrete Type S Drop Inlet Lid at the following locations:
10+86.22-35.50' R
12+07.88-31.92' R

13+91.84-39.50' R
Install 10 LF Sidewalk Drain

Install 4' x 11' Concrete Type S Drop Inlet Base and 4' x 11' Precast Concrete Type S Drop Inlet Lid at the following locations:
13+92.19-28.50' R

13+91-9' R
Take Out Manhole with Frame & Cover
(Incidental Work, Grading)

13+91 - 51'R to 13+92 - 33'R
Take Out 18" - 18' CMP
(Incidental Work, Grading)

Install 2' x 3' Type B Drop Inlet with 6" Concrete Collar and Type B Frame & Grate at the following locations:
10+86.23-36.70' L
13+93.45-26.18' L

Parcel A3
12+69.20 to 13+07.98 R
Temporary Easement Containing
386 Sq Ft, more or less

13+91 - 9'R to 13+92 - 33'R
Take Out 18" - 24' RCP
(Incidental Work, Grading)

13+91 - 9'R to 15+25 - 1'R
Take Out 28" - 134' RCP
(Incidental Work, Grading)

13+92.19-24.39' R to 15+54.21-0' L
Install 54" - 162' RCP
(Between Drop Inlet and Junction Box)

Install 7' x 7' Junction Box with 15" Riser Section & Type A9 Manhole Frame & Lid at the following locations:
10+15.14-21.70' L
10+34.27-28.94' R
12+84.39-32.11' R
13+92.19-16.50' R



SECTION C ESTIMATE OF QUANTITIES*

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E6005	Pavement Marking Masking, 5"	885	Ft
633E6035	Pavement Marking Masking, Combination Arrow	4	Each
634E0010	Flagging	1,000.0	Hour
634E0110	Traffic Control Signs	1,178.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	58	Each
634E0330	Temporary Raised Pavement Markers	21,589	Ft
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0640	Temporary Pavement Marking	28,858	Ft
634E0700	Traffic Control Movable Concrete Barrier	17	Each
634E1002	Detour and Restriction Signing	1,492.5	SqFt
634E1020	Temporary Business Signing	98.4	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	3	Each
634E2000	Longitudinal Pedestrian Barricade	348	Ft
634E2015	Temporary Pedestrian Access Route	Lump Sum	LS
634E2020	Temporary Curb Ramp	5	Each
634E2025	Longitudinal Pedestrian Barrier	1,705	Ft

*Some quantities are based on the maximum number of TC phases that can be implemented simultaneously. See "Mainline Phases" notes below.

SEQUENCE OF OPERATIONS

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

Work on this project will consist of pavement removal, grading, storm sewer, utility relocation, traffic signal removal and installation, ADA improvements, PCC installation, asphalt concrete resurfacing, and permanent pavement marking.

The Contractor will be required to maintain all detour routes throughout the length and duration of the project to the satisfaction of the Engineer. Locations for repair will be determined by the Engineer. See Section F for quantities.

Details in the traffic control plans are based on the following sequence of operations for construction of the project. The sequencing is based on anticipated areas of construction. Mainline Phases 1 & 2 can be worked on concurrently, and the side-street phases (Wynoka St. and Elizabeth St.) can be worked on in conjunction with any mainline phase. Additional concurrent work will be allowed if resources are proven available, concurrent work is supported by the construction schedule, and the work is ultimately approved by the Engineer. The work will be divided into the following phases:

MAINLINE PHASE 1A/1B/1C/1D/1E

Phase 1 will consist of work on the Sioux Ave./South Pierre St. intersection as well as mainline S Pierre St./Pleasant Dr. Work on Sioux Ave will be in the westbound lane from approximately Sta. 900+91.25 to Sta. 901+91.70. Work on S Pierre St. will be from approximately Sta. 10+00 to Sta. 32+70. Work on Pleasant Dr. will be from approximately Sta. 906+00 to Sta. 910+55.

- During Phase 1A, the Contractor will set up two-way traffic in the westbound lanes of Sioux Ave. to complete all work on the south side of the S Pierre St./Sioux Ave. intersection. Work from approximately Sta. 10+37 to 12+66 will be allowed on S Pierre St. as a full road closure. This work will continue into Phases 1B and 1C. The two-way traffic will be set up for continuous flow in both directions, with no turning movements allowed. S Pierre St. south of the intersection will be given two-way functionality. Phase 1A will consist of work from approximately Sta. 9+50 to Sta. 10+00 (S Pierre St. alignment).

- o During phases 1A-1C, S Pierre St. will be open to southbound traffic from Pleasant Dr. in order to access the Federal Building and Walgreens. A U-turn will be implemented just north of the work zone in order to return traffic to Pleasant Dr., and a temporary access will be set up from the alley north of the Federal Building to provide access to the parking lot. Direct access to the Federal Building from S Pierre St. will be closed.
- o Traffic intending to access S Pierre St. south of the intersection will be detoured to Highland Ave. and Central Ave., with access then provided off Dakota Ave. This portion of S Pierre St. will be reconfigured as a two-way road for the duration of Phases 1A-1C, with a U-turn at the north end to return traffic back to Dakota Ave. See sheets C16, C32, and C44 for detailing.

- During Phase 1B, the Contractor will set up continuous two-way traffic in the eastbound lanes of Sioux Ave. No turning movements from Sioux Ave. will be allowed, as in Phase 1A. Phase 1B will consist of work from approximately Sta. 10+00 to Sta. 12+66.

- During Phase 1C, the Contractor will set up two-way traffic in the outermost lanes of Sioux Ave. to accommodate resurfacing work in the middle of the intersection. The two-way functionality of S Pierre St. will be removed, and access re-opened from Sioux Ave., following completion of Phase 1C work. No turning movements from Sioux Ave. will be allowed, as in Phase 1A.

- During Phase 1D, the U-turn at the Federal Building/Walgreens will be flipped and placed facing south at roughly Sta. 12+66. S Pierre St. will be closed in its entirety from Sta. 12+66 to Pleasant Dr. Two-way traffic will be implemented in the existing westbound lanes of Pleasant. The gravel access through the alley to the Federal Building will be maintained, and access to Walgreens and the alley will be closed off. Work will extend past the limits of S Pierre St. onto Pleasant Dr. Phase 1D will consist of work from approximately Sta. 12+66 to Sta. 18+00 on S Pierre St., and from Sta. 906+00 to 910+55 on Pleasant Dr.

- During Phase 1E, Pleasant Dr. will be closed off at the west intersection with S Pierre St. Two-way traffic will be implemented in the eastbound lanes, with ingress/egress allowed only onto S Pierre St. south of Pleasant Dr. and onto Pleasant Dr. east of the work zone. The U-turn will be moved to roughly Sta. 18+10 facing north to return traffic to Capitol Ave. Phase 1E will consist of work from approximately Sta. 12+50 to Sta. 18+80 on S Pierre St., and from Sta. 906+00 to 910+55 on Pleasant Dr.

Phase 1 will consist of removal and installation of storm sewer reinforced concrete pipe/inlets, removal and installation of manholes, installation of junction boxes, traffic signal replacement, pedestrian push buttons, grading, curb and gutter, sidewalk, city utility work, PCC and asphalt resurfacing, and permanent pavement markings. Work will also include tying new storm sewer into the existing storm sewer system in all directions to maintain drainage on the project at all times.

Revised 12/03/2024 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	C2	C46

The Contractor will take the following additional considerations into account during Phase 1 operations:

1. OVERWIDTH DETOUR – During Phases 1A-1C, overwidth traffic on Sioux Ave. will be diverted north around the Oahe Dam as detailed on sheets C33-C36.
2. Work on Phase 1D will not begin until work on Phase 1C is completed.
3. Phase 1E can be worked on concurrently with Phases 1A-1C. If the Contractor elects to do this, Phase 1D will take place after 1E, and existing road width will be utilized to allow egress onto Pleasant Dr. west of the work zone. Phase 2A will not be worked on if 1E is closed.

MAINLINE PHASE 2A/2B/2C/2D

Phase 2 will consist of sequential full-width closures on Euclid Ave. between Pleasant Dr. and Wynoka St. from approximately Sta. 18+80 to Sta. 32+70. These closures are allowed to take place concurrently with Phases 1A-1C. Phase 2 closures will only be worked south to north. Egress onto at least one of the side streets within Phase 2 work limits (Capitol Ave, Prospect Ave, Broadway Ave) will be maintained at all times. If the Contractor elects to close any side street/Euclid intersection at half-intersection width, traffic control will be set up in accordance with Standard Plate 634.25. Block closure phases are as follows:

- o Phase 2A – Approx. Sta 18+80 to Sta. 22+11
- o Phase 2B – Approx. Sta. 22+11 to Sta. 26+18
- o Phase 2C – Approx. Sta. 26+18 to Sta. 30+47
- o Phase 2D – Approx. Sta. 30+47 to Sta. 32+70

Phase 2 will consist of removal and installation of storm sewer reinforced concrete pipe/inlets, removal and installation of manholes, installation of junction boxes, grading, curb and gutter, sidewalk, city utility work, asphalt concrete resurfacing, and permanent pavement markings. Work will also include tying new storm sewer into the existing storm sewer system in all directions to maintain drainage on the project at all times.

The Contractor will take the following additional considerations into account during Phase 2 operations:

1. Phase 2A will not be worked on concurrently with Phase 1E.
2. Only 2 sub-phases (i.e. 2A and 2B) will be worked on at a time. All surfacing on the first closure will be completed prior to beginning another phase (i.e. 2A is surfaced before 2C is closed to traffic).
3. A detour as detailed on sheet C38 will be established during all full-width closures to divert thru traffic to Garfield Ave.

MAINLINE PHASE 3A/3B/3C

Phase 3 will consist of work from approximately Sta. 32+70 to Sta. 61+50 on Euclid Ave. Phase 3A will consist of a block closure from approximately Sta. 32+70 to Sta. 47+00. Phases 3B/3C will consist of two-way traffic from approximately Sta. 47+00 to 61+50, with Phase 3B being the southbound lane closures and Phase 3C being the northbound lane closures. 3A can be worked on concurrently with 3B and 3C.

Utility adjustments on the south side of the Euclid/4th St intersection will require a full road closure of Euclid. This closure will be implemented at a time during Phase 3B or 3C where it is suitable to work on the existing utilities south of the intersection. Traffic control will be set up to allow stop-controlled traffic on 4th St., and full access to Euclid north of the intersection. This closure will be limited to 3 weeks, and will not take place during school season. See sheet C23 for detailing.

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

Concrete barriers will be provided by the State and are available for pickup from the SDDOT Murdo Maintenance Yard. The barriers will be hauled back to the SDDOT Murdo Maintenance Yard when they are no longer needed on the project.

Barriers to be adjusted or moved will be disconnected from adjacent barriers to minimize damage to connecting pins. Pins damaged by the Contractor will be replaced at no cost to the Department.

Concrete barrier sections will be placed as depicted in the plans to comply with clear zone requirements and as required by the Engineer. The barriers will be pinned and bolted together as directed by the Engineer.

All costs associated with picking the barriers up from the SDDOT Maintenance Yard, transporting, setting, connecting, and hauling them back to the SDDOT Maintenance Yard will be incidental to the contract unit price per each for Traffic Control Movable Concrete Barrier.

After the initial placement, the concrete barriers may need to be adjusted. Adjustment of the barriers, where they do not need to be loaded on a truck for transport, will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier". All costs associated with removing, loading, unloading, and resetting of the barriers at a new site, will be incidental to the contract unit price per each for Remove and Reset Traffic Control Movable Concrete Barrier. No additional payment will be made for barriers that are not immediately reset at a new location on the project and stored on-site until they are either reset on the project or returned to the SDDOT as indicated in these plans.

BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system (LDS) panel will be attached to each barrier section. The color will be the same as the nearest pavement marking, white along outside edgelines or yellow for the left side on one way traffic sections. The LDS will be 34 inches long and 6 inches in height and be constructed of aluminum formed into a shape to provide retroreflective properties across a wide range of angles. It will be sheeted with sheeting meeting the requirements of ASTM D4956 Type XI. The panels will be evenly spaced, with the top of the panel 4 inches below the top of the barrier. Installation will be as per the manufacturer's recommendations. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor will furnish and install one panel along each side of the barrier if any panels are missing from the barriers. Replacement of damaged linear delineation system panels will be furnished and replaced by the Contractor. All costs associated with furnishing, installing, and replacing, if needed, will be incidental to the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All LDS panels will remain attached to the barrier sections and will become the property of the State of South Dakota upon completion of the project.

The Contractor will verify the number of LDS panels that will need to be installed or replaced on the Traffic Control Movable Concrete Barriers. The contract amount of LDS panels is an estimate and the full contract amount may not be needed.

Maintaining the linear delineation system, including moving LDS panels from one side of the barrier to the other side of the barrier to match the applicable color of the nearest pavement marking will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

LONGITUDINAL PEDESTRIAN BARRIER

When used to separate pedestrians from vehicular traffic for TPARs in the roadway, longitudinal pedestrian barrier must meet or exceed the crashworthy requirements of NCHRP 350 or MASH Test Level 1. The bottom and top surfaces of the traffic side of devices will have retroreflective sheeting or delineation for improved nighttime visibility.

When longitudinal pedestrian barriers are combined in a series, the maximum gap between devices that do not interlock will be one inch. Joints between devices that do interlock should be closed and flush to prevent canes or small wheels from being trapped and to facilitate safe hand trailing. Channelizing devices should provide a color contrasting pattern. Black should not be used to color any base on a device. The devices should comply with the general color and stripe pattern requirements of Chapter 6F of the MUTCD.

Longitudinal pedestrian barriers will have continuous bottom and top surfaces. The top surface will be smooth to allow safe hand trailing. All costs will be incidental to the contract unit price per foot for "Longitudinal Pedestrian Barrier".

Ballastable Jersey Barriers used to separate two-way traffic from the work zone as displayed in the plans will be paid for under the contract unit price per foot for "Longitudinal Pedestrian Barrier". Refer to the Table of Traffic Control Devices on sheet C11 and the Traffic Control Typical Section on sheet C42.

KEEP RIGHT SIGNS

Keep Right signs that are used in two-way traffic control situations will be "Safe-Hit RubberTough 360" with a heavy-duty signpost, or an approved equal. The sign post will be predominantly orange in color and will be reflectorized. The back side of the sign panel will also be sheeted with high-intensity retroreflective sheeting for visibility.

Keep Right signs will be maintained in a like-new condition as directed by the Engineer.

Keep Right symbol signs will be placed at intersections as appropriate and as directed by the Engineer. Keep Right signs have been included in the Itemized List for Traffic Control Signs.

Payment for Keep Right signs will fall under the contract unit price per square foot for Traffic Control Signs. Payment will be full compensation for furnishing, installing, maintaining, replacing, and removal of the Keep Right signs as required by the Engineer.

TEMPORARY BUSINESS SIGNING

The Contractor will provide special business access signing during construction for downtown businesses whose access is affected during Phases 1A-1C of construction. The Engineer and Contractor will coordinate with these businesses to determine that sign placement is adequate. See sheet C39 for sign layout and sheet C10 for sign legend. Temporary business signs will be placed such that they are visible to traffic in both directions along the roadway.

Temporary business access signs will have a black legend on orange background. Temporary business signs will not block or obscure existing or temporary traffic control signing. All costs for furnishing, installing, maintaining, relocating, and removal of business access signing and supports will be paid for by the contract unit price per square foot for "Temporary Business Signing".

Revised 12/03/2024 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	C6	C46

TABLE OF TEMPORARY BUSINESS SIGNING

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
SPECIAL	DOWNTOWN BUSINESS ACCESS LT ARROW	3	42" x 42"	12.3	36.9
SPECIAL	DOWNTOWN BUSINESS ACCESS RT ARROW	3	42" x 42"	12.3	36.9
SPECIAL	DOWNTOWN BUSINESS ACCESS AHEAD ARROW	2	42" x 42"	12.3	24.6
BUSINESS ACCESS SIGNING (SQFT)					98.4

TABLES OF TRAFFIC CONTROL SIGNS BY PHASE

Phase 1A

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R2-1	SPEED LIMIT 10	1	24" x 30"	5.0	5.0
R3-1	RIGHT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R4-7	KEEP RIGHT (symbol)	3	24" x 30"	5.0	15.0
R7-8	RESERVED PARKING (HANDICAP)	1	18" x 24"	3.0	3.0
R8-3a	NO PARKING	2	24" x 24"	4.0	8.0
W1-4	REVERSE CURVE (L or R) (one each)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol) (one each)	2	48" x 48"	16.0	32.0
W11-1	U-TURN (symbol)	2	48" x 48"	16.0	32.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	2	30" x 30"	6.3	12.6
W16-8P	PIERRE ST	5	24" x 12"	2.0	10.0
W20-1	ROAD WORK AHEAD	5	48" x 48"	16.0	80.0
W20-3	ROAD CLOSED AHEAD	5	48" x 48"	16.0	80.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD (one each)	2	48" x 48"	16.0	32.0
W20-5a	LEFT or RIGHT LANE CLOSED 350 FT (one each)	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT 1/2 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					407.6

Phase 1B

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R2-1	SPEED LIMIT 10	1	24" x 30"	5.0	5.0
R3-1	RIGHT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R4-7	KEEP RIGHT (symbol)	3	24" x 30"	5.0	15.0
R7-8	RESERVED PARKING (HANDICAP)	1	18" x 24"	3.0	3.0
R8-3a	NO PARKING	2	24" x 24"	4.0	8.0
W1-4	REVERSE CURVE (L or R) (one each)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol) (one each)	2	48" x 48"	16.0	32.0
W11-1	U-TURN (symbol)	2	48" x 48"	16.0	32.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	2	30" x 30"	6.3	12.6
W16-8P	PIERRE ST	5	24" x 12"	2.0	10.0
W20-1	ROAD WORK AHEAD	5	48" x 48"	16.0	80.0
W20-3	ROAD CLOSED AHEAD	5	48" x 48"	16.0	80.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD (one each)	2	48" x 48"	16.0	32.0
W20-5a	LEFT or RIGHT LANE CLOSED 350 FT (one each)	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT 1/2 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					407.6

TABLES OF TRAFFIC CONTROL SIGNS BY PHASE (CONT.)

Revised 12/03/2024 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	C7	C46

Phase 1C

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R2-1	SPEED LIMIT 10	1	24" x 30"	5.0	5.0
R3-1	RIGHT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R4-7	KEEP RIGHT (symbol)	3	24" x 30"	5.0	15.0
R7-8	RESERVED PARKING (HANDICAP)	1	18" x 24"	3.0	3.0
R8-3a	NO PARKING	2	24" x 24"	4.0	8.0
W4-2	LEFT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W11-1	U-TURN (symbol)	2	48" x 48"	16.0	32.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	2	30" x 30"	6.3	12.6
W16-8P	PIERRE ST	5	24" x 12"	2.0	10.0
W20-1	ROAD WORK AHEAD	5	48" x 48"	16.0	80.0
W20-3	ROAD CLOSED AHEAD	5	48" x 48"	16.0	80.0
W20-5	LEFT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-5a	LEFT LANE CLOSED 350 FT	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT 1/2 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 375.6					

Phase 2A/2B/2C/2D (Block Closures)

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-2	ROAD CLOSED	6	48" x 30"	10.0	60.0
W20-1	ROAD WORK AHEAD	8	48" x 48"	16.0	128.0
W20-3	ROAD CLOSED AHEAD	10	48" x 48"	16.0	160.0
G20-2	END ROAD WORK	6	36" x 18"	4.5	27.0
W16-8P	EUCLID AVE	10	24" x 12"	2.0	20.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 395.0					

Phase 3 Utility Relocation Closure

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	3	30"	5.2	15.6
R4-7	KEEP RIGHT (symbol)	4	24" x 30"	5.0	20.0
R11-2	ROAD CLOSED	3	48" x 30"	10.0	30.0
W3-1	STOP AHEAD (symbol)	1	48" x 48"	16.0	16.0
W4-2	LEFT or RIGHT LANE ENDS (one each) (symbol)	2	48" x 48"	16.0	32.0
W20-3	ROAD CLOSED AHEAD	1	48" x 48"	16.0	16.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD (one each)	2	48" x 48"	16.0	32.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 161.6					

Phase 1D

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	1	30"	5.2	5.2
R3-1	RIGHT TURN PROHIBITION (symbol)	1	24" x 24"	4.0	4.0
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R4-7	KEEP RIGHT (symbol)	6	24" x 30"	5.0	30.0
W1-4	REVERSE CURVE (L or R) (one each)	2	48" x 48"	16.0	32.0
W3-1	STOP AHEAD (symbol)	1	48" x 48"	16.0	16.0
W4-2	LEFT or RIGHT LANE ENDS (symbol) (one each)	2	48" x 48"	16.0	32.0
W8-17	SHOULDER DROP-OFF (symbol)	1	48" x 48"	16.0	16.0
W11-1	U-TURN (symbol)	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	2	30" x 30"	6.3	12.6
W16-8P	PIERRE ST	6	24" x 12"	2.0	12.0
W20-1	ROAD WORK AHEAD	3	48" x 48"	16.0	48.0
W20-3	ROAD CLOSED AHEAD	6	48" x 48"	16.0	96.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD (one each)	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 368.8					

Phase 3A (Block Closure)

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-2	ROAD CLOSED	7	48" x 30"	10.0	70.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	4	60" x 30"	12.5	50.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 120.0					

Phase 4A/4B

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R4-7	KEEP RIGHT (symbol)	12	24" x 30"	5.0	60.0
R11-2	ROAD CLOSED	4	48" x 30"	10.0	40.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	3	60" x 30"	12.5	37.5
W1-4	REVERSE CURVE (L or R) (one each)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol) (one each)	2	48" x 48"	16.0	32.0
W8-17	SHOULDER DROP-OFF (symbol)	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	2	30" x 30"	6.3	12.6
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD (one each)	2	48" x 48"	16.0	32.0
W20-5a	LEFT or RIGHT LANE CLOSED 200 FT (one each)	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT 1/2 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 376.1					

Phase 1E

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	1	30"	5.2	5.2
R2-1	SPEED LIMIT 25	1	24" x 30"	5.0	5.0
R3-1	RIGHT TURN PROHIBITION (symbol)	1	24" x 24"	4.0	4.0
R3-2	LEFT TURN PROHIBITION (symbol)	1	24" x 24"	4.0	4.0
R4-7	KEEP RIGHT (symbol)	1	24" x 30"	5.0	5.0
R11-2	ROAD CLOSED	3	48" x 30"	10.0	30.0
W1-4	REVERSE CURVE (L)	1	48" x 48"	16.0	16.0
W8-17	SHOULDER DROP-OFF (symbol)	1	48" x 48"	16.0	16.0
W11-1	U-TURN (symbol)	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	1	30" x 30"	6.3	6.3
W20-1	ROAD WORK AHEAD	1	48" x 48"	16.0	16.0
W20-3	ROAD CLOSED AHEAD	5	48" x 48"	16.0	80.0
W20-5	RIGHT LANE CLOSED AHEAD	1	48" x 48"	16.0	16.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
W16-8P	PIERRE ST	5	24" x 12"	2.0	10.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 238.5					

Phase 3B/3C

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	3	30"	5.2	15.6
R2-1	SPEED LIMIT 25	1	24" x 30"	5.0	5.0
R4-7	KEEP RIGHT (symbol)	10	24" x 30"	5.0	50.0
R11-2	ROAD CLOSED	11	48" x 30"	10.0	110.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	8	60" x 30"	12.5	100.0
W1-4	REVERSE CURVE (L)	1	48" x 48"	16.0	16.0
W4-2	LEFT LANE ENDS (symbol)	1	48" x 48"	16.0	16.0
W8-17	SHOULDER DROP-OFF (symbol)	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED (25 MPH) (plaque)	1	30" x 30"	6.3	6.3
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-3	ROAD CLOSED AHEAD	8	48" x 48"	16.0	128.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD (one each)	2	48" x 48"	16.0	32.0
W20-5a	LEFT or RIGHT LANE CLOSED 200 FT (one each)	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT 1/2 MILES	1	36" x 18"	4.5	4.5
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
W16-8P	PIERRE ST	8	24" x 12"	2.0	16.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 588.4					

TABLE OF TRAFFIC CONTROL DEVICES*

Revised 12/03/2024 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	C11	C46

PHASE	FOR TRAFFIC CONTROL DELINEATION AND MARKING (TOTAL APPLICATION ESTIMATES)							
	TEMPORARY RAISED PAVEMENT MARKER (4" YELLOW UNLESS OTHERWISE SPECIFIED)		BALLASTABLE JERSEY BARRIER (EDGE LINE)	TUBULAR MARKER (CENTERLINE) (N.A.B.I.)	TRAFFIC CONTROL DRUM (EDGE LINE/TAPERS) (N.A.B.I.)	TRAFFIC CONTROL MOVABLE CONCRETE BARRIER	TYPE 3 BARRICADE	TRAFFIC CONTROL CANDLESTICK (DELINEATOR) (N.A.B.I.)
	(ft)		(ft)	(each)	(each)	(each)	(each)	(each)
1A	1971 (yellow)	290 (white)	-	44	98	17	8	37
1B	985		-	44	98	12	8	37
1C	842		-	37	65	4	14	37
1D	692		455	15	20	-	9	-
1E	1005		315	22	17	-	9	-
2A/2B/2C/2D	-		-	-	-	-	20	-
3A	2846		-	-	-	-	31	-
3B	2534		1410	51	12	-	17	-
3C	2396		1410	51	12	-	18	-
3 UTIL RELOC	468		-	15	10	-	16	-
4A	3638		1705	79	45	-	14	-
4B	3922		1705	79	45	-	24	-
TOTALS:	21589		7000	437	422	33	188	37

TABLE OF TEMPORARY PAVEMENT MARKING

*S. Pierre St. configuration quantities included in Phase 1A, 1B, and 1C entries.

PHASE	FOR PERMANENT PAVEMENT MARKING				
	TEMPORARY PAVEMENT MARKING (4" WHITE)	TEMPORARY PAVEMENT MARKING (4" YELLOW)	TEMPORARY PAVEMENT MARKING (24" WHITE)	TEMPORARY PAVEMENT MARKING (24" YELLOW)	TEMPORARY PAVEMENT MARKING (ARROW)
	(ft)	(ft)	(ft)	(ft)	(each)
1A/1B/1C/1D/1E	1262	2631	582	96	6
2A/2B/2C/2D	2607	3462	877	-	24
3A	1942	2813	-	68	-
3B/3C	688	2835	840	-	3
4A/4B	1891	5023	-	88	13
ELIZABETH ST.	201	928	-	24	2
TOTALS:	8591	17692	2299	276	48
	26283		2575		

Revised 12-02-2024 LLA

SECTION F ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E0010	Unclassified Excavation	482	CuYd
120E6200	Water for Granular Material	661.5	MGal
120E9000	Pit Run	652.4	Ton
260E1010	Base Course	21,415.1	Ton
260E1030	Base Course, Salvaged	32,965.2	Ton
270E0220	Blend and Stockpile Granular Material	32,965.2	Ton
320E1200	Asphalt Concrete Composite	588.6	Ton
320E3000	Compaction Sample	9	Each
330E0010	MC-70 Asphalt for Prime	59.8	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	34.0	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	10.0	Ton
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	170.4	Ton
380E0050	8" Nonreinforced PCC Pavement	7,285.8	SqYd
380E3020	6" PCC Driveway Pavement	143.6	SqYd
380E3040	8" PCC Driveway Pavement	139.2	SqYd
380E6000	Dowel Bar	11,875	Each
380E6110	Insert Steel Bar in PCC Pavement	163	Each
450E4748	15" CMP 14 Gauge, Furnish	190	Ft
450E4750	15" CMP, Install	190	Ft
450E5402	15" CMP Safety End, Furnish	2	Each
450E5403	15" CMP Safety End, Install	2	Each
831E0210	Non-woven Separator Fabric	848	SqYd
831E0300	Reinforcement Fabric (MSE)	46,429	SqYd

SECTION F ESTIMATE OF QUANTITIES – ALTERNATE A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	855.7	Ton
320E1060	Class G Asphalt Concrete	14,875.4	Ton
320E4000	Hydrated Lime	147.5	Ton

SECTION F ESTIMATE OF QUANTITIES – ALTERNATE B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	756.1	Ton
320E1060	Class G Asphalt Concrete	15,275.9	Ton
320E4000	Hydrated Lime	152.2	Ton

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

RECYCLED CONCRETE AGGREGATE (RCA)

Portland cement concrete pavement (RCA) removed from the mainline within the project limits may be crushed and reused as granular material provided it meets the requirements for the granular material it is replacing.

All in-place steel reinforcement (including rebar, wire mesh and welded wire fabric) will be separated and removed from the RCA. The Contractor will dispose of this material at a site approved by the Engineer.

There is an estimated 6,888.1 tons of PCC Pavement on this project that can be crushed and reused. This quantity is based on a unit weight of 118 lbs. per cubic foot for the recycled concrete aggregate.

Payment for the recycled concrete aggregate will be at the contract unit price per ton for the granular material that it is replacing.

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Base Course, Salvaged / Base Course spread rates and taking the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway.

The Contractor will compute the required spread rates for each typical surfacing section and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the Contractor's calculations and spread charts. The station to station spread will be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each day's shift, the Contractor will verify the following:

- All tickets are present and accounted for,
- The quantity summary for each item is calculated,
- The amount of material wasted if any,
- Each day's ticket summary is marked with the corresponding 'computed by',
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary by item will be given to the Engineer no later than the following morning.

If the checker is not properly and accurately performing the required duties, the Contractor will correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of the work.

The Department will perform depth checks. The Contractor will be responsible for placement of material to the correct depth unless otherwise directed by the Engineer. If the placed material is not within a tolerance of $\pm 1/2$ inch of the plan shown depth, the Contractor will correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for. Achieving the correct depth may require picking up and moving material or other action as required by the Engineer. All costs for providing the Contractor furnished checker and performing all related duties will be incidental to the contract lump sum price for the "Checker". No allowances will be made to the contract lump sum price for "Checker" due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25 percent. Payment for the Checker will then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

BLEND AND STOCKPILE GRANULAR MATERIAL

An Estimated 11,612.1 tons (for informational purposes only) of salvaged asphalt mix material will be blended with 21,353.1 tons of salvaged granular material and stockpiled at the Contractor's furnished stockpile site.

The Contractor will use a portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale to control the blending and weighing of the salvage material.

The salvaged asphalt mix material will be crushed to meet the requirements of Section 884.2 D.2 prior to blending into the stockpile.

Salvaged asphalt mix material will be blended with salvaged granular material at a rate of no more than 50% salvaged asphalt mix material and at least 50% salvaged granular material to obtain stockpile material. Material will be uniformly blended to the satisfaction of the Engineer.

No further gradation testing of the blended material will be required.

All costs for crushing the salvaged asphalt mix material, stockpiling, and blending the materials will be incidental to the contract unit price per ton for Blend and Stockpile Granular Material.

REINFORCEMENT FABRIC (MSE)

18 inches of material below the bottom of the proposed Asphalt Concrete in designed cut sections will be excavated and backfilled with Base Course, Salvaged or Base Course. 16 inches of material below the bottom of the proposed Portland Cement Concrete in designed cut sections will be excavated and backfilled with Base Course, Salvaged or Base Course. The excavation will extend from behind the curb to behind the opposite curb. The distance behind the curb will be determined based on the paving operation. Excess material excavated from the earthen subgrade during this process will be wasted and disposed of at a site approved by the Engineer. Shallow embankment sections, fills less than 18 inches in height measured at the finished subgrade shoulders, will be excavated to assure a minimum height of 18 inches of base course for the entire width of the roadbed.

Prior to placing granular surfacing materials, the upper 6 inches of subgrade will be reworked and recompact to moisture and density requirements as per Standard Specifications. It is anticipated portions of the subgrade will require additional drying effort to meet moisture and density requirements. The Contractor is advised that smaller equipment may be necessary for reworking the subgrade due to the poor soil conditions, especially over storm sewer and utilities.

TABLE OF 6" NONREINFORCED PCC PAVEMENT FOR DRIVEWAYS

STATION	L/R	6" PCC DRIVEWAY PAVEMENT (SqYd)
28+54	R	0.9
28+89	R	1.0
29+23	R	1.1
32+18	L	3.3
41+28	R	6.0
41+61	R	18.9
42+07	R	15.6
49+18	L	2.0
62+40	R	3.9
70+62	L	24.2
699+26	R	3.9
700+33	L	22.4
700+72	R	14.1
700+97	L	26.3
	Total:	143.6

TABLE OF DOWEL BARS

Location	1 1/4" Bars
South Euclid Avenue	1900
East Pleasant Drive	1177
West Pleasant Drive	164
South Pierre Street	8095
Sioux Avenue	539
Total Dowel Bars:	11,875

MANHOLE BOX-OUT DETAILS

The Contractor will construct box-outs for all manholes in the 8" Concrete Pavement according to the Box-Out Detail. Locations of Proposed Manholes and water valve boxes are shown on the Pavement Joint Layout Sheets.

ALKALI SILICA REACTIVITY

Fine aggregate will conform to Section 800.2 D Alkali Silica Reactivity (ASR) Requirements.

Below is a list of known fine aggregate sources and the average corresponding 14-day expansion values (as of 09-18-2024):

Source	Location	Expansion Value
Bachman	Winner, SD	0.335*
Bitterman	Delmont, SD	0.316*
Concrete Materials	Corson, SD	0.146
Concrete Materials - Vellek Pit	Yankton, SD	0.411**
Croell	Hot Springs, SD	0.089
Croell	Wasta, SD	0.212
Emme Sand & Gravel	Oneil, NE	0.217
Fisher S&G - Blair Pit	W of Vale, SD	0.171
Fisher S&G - Mickelson Pit	E of Nisland, SD	0.129
Fisher S&G - Vallery Pit	Nisland, SD	0.110
Fisher S&G	Rapid City, SD	0.092
Fisher S&G	Spearfish, SD	0.053
Fisher S&G	Wasta, SD	0.159
Fuchs	Pickstown, SD	0.275*
Henning - Tiistra Pit	Ash Creek, MN	0.199
Higman	Hudson, SD	0.187
Jensen	Herried, SD	0.276*
L.G. Everist	Akron, IA	0.257*
L.G. Everist	Brookings, SD	0.297*
L.G. Everist - Ode Pit	E Sioux Falls, SD	0.222
L.G. Everist - Nelson Pit	NE Sioux Falls, SD	0.156
L.G. Everist	Hawarden, IA	0.211
L.G. Everist	Summit, SD	0.184
Mark's S&G - Moerke Pit	Underwood, MN	0.165
Morris - Birdsall	Blunt, SD	0.229
Morris - Leesman	Blunt, SD	0.231
Morris - Richards Pit	Onida, SD	0.188
Morris - Shawn's Pit	E of Sturgis, SD	0.186
Northern Concrete Agg.	Rauville, SD	0.113
Northern Concrete Agg.	Luverne, MN	0.154
Opperman - Gunvordahl Pit	Burke, SD	0.363*
Opperman - Cahoy Pit	Herrick, SD	0.307*
Opperman - Jones Pit	Burke, SD	0.321*
Opperman - Randall Pit	Pickstown, SD	0.230
Pete Lien & Sons	Creston, SD	0.158
Pete Lien & Sons	Oral, SD	0.157
Pete Lien & Sons	Wasta, SD	0.255*
Simon Materials - Beltline Pit	Scottsbluff, NE	0.277*
Thorpe Pit	Britton, SD	0.098
Valley S&G - Van Beek Pit	Rock Valley, IA	0.228
Wagner Building Supplies	Pickstown (Wagner), SD	0.251*
Winter Brothers- Whitehead Pit	Brookings, SD	0.197

* These sources will require Type II cement with a fly ash content of 25% in the concrete mix.

** These sources will not be used.

The Department will use the running average of the last three or fewer known expansion test results for determining acceptability of the source. These expansion results are reported in the preceding table. Additional testing, when requested by the Contractor, will be performed by the Department at the Contractor's expense.

Revised 12-02-2024 LLA

The values listed in the table are intended for use in bidding. If a previously tested pit by SDDOT with a test value less than 0.250 is discovered after letting to be 0.250 or greater, then the Department will accept financial responsibility if higher costs are incurred due to higher percent of fly ash requirement.

CLASS G ASPHALT CONCRETE

Mineral Aggregate for Class G Asphalt Concrete - Alternate A will conform to the requirements for Class G, Type 1.

Mineral Aggregate for Class G Asphalt Concrete - Alternate B will consist of a minimum of eighty percent crushed limestone ledge rock and will conform to the requirements for Class G, Type 1.

Mix Design Criteria - Alternate B:

Mix Design requirements for the Class G Hot Mixed Asphalt Concrete will conform to the requirements of Class G except as modified by the following:

Fine Aggregate Angularity:

	Minimum Uncompacted Void Content (%):
Class G	43.0

When directed by the Engineer, the Contractor will saw and remove a total of three undamaged compaction cores (4" dia. min.) per asphalt concrete lift from designated area(s) and repair the hole(s) to the satisfaction of the Engineer. All costs associated with the compaction cores will be incidental to the contract unit price per each for Compaction Sample.

All other requirements for Class G will apply.

1:200
Plot Scale -

Plotted From - TRPR18387

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0014(185)229	SHEET F6	TOTAL SHEETS F34
-----------------------	-------------------------------	-------------	---------------------

Plotting Date: 12/03/2024

Revised 12-02-2024 LLA

SUMMARY OF CLASS G ASPHALT CONCRETE - ALTERNATE A

Class G Asphalt Concrete Locations	With Specified Density Compaction (Ton)	Without Specified Density Compaction (Ton)
Mainline		
Sta. 19+07 to Sta. 30+77	2,089.2	---
Sta. 30+77 to Sta. 34+43	709.5	---
Sta. 34+43 to Sta.43+38	1,893.6	---
Sta. 43+38 to Sta. 77+74	7,009.8	---
Sta. 77+74 to Sta.80+45	479.7	---
Intersecting Streets	---	2,179.8
East Wynoka Street	288.0	---
5" AC Driveways - 13 each	---	225.8
Totals:	12,469.8	2,405.6
Grand Total:	14,875.4	

SUMMARY OF CLASS G ASPHALT CONCRETE - ALTERNATE B

Class G Asphalt Concrete Locations	With Specified Density Compaction (Ton)	Without Specified Density Compaction (Ton)
Mainline		
Sta. 19+07 to Sta. 30+77	2,145.6	---
Sta. 30+77 to Sta. 34+43	728.7	---
Sta. 34+43 to Sta.43+38	1,944.9	---
Sta. 43+38 to Sta. 77+74	7,199.1	---
Sta. 77+74 to Sta.80+45	492.6	---
Intersecting Streets	---	2,237.4
East Wynoka Street	295.8	---
5" AC Driveways - 13 each	---	231.6
Totals:	12,806.7	2,469.0
Grand Total:	15,275.7	

ASPHALT CONCRETE COMPOSITE

Section 324 will apply except that Class G Hot Mixed Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for Asphalt Concrete Composite regardless of the class of asphalt concrete used at such locations.

Included in the Estimate of Quantities are 300 tons of Asphalt Concrete Composite for the Maintenance of Detour Routes to be used in areas designated by the Engineer.

Sta. 82+56 - MEDIAN CROSSOVER ITEMS

Component	Quantity	Units
15" CMP Safety End	2	Each
15" CMP	190	Feet
Non-woven Separator Fabric	848	Square Yards
Unclassified Excavation	482.0	Cubic Yards
Asphalt Concrete Composite	288.6	Tons
Base Course	547.7	Tons
Pit Run	652.4	Tons
Water for Granular Material	14.4	Mgal

SAND FOR FLUSH SEAL

The sand application will be placed 10' wide in each lane, leaving each lane line free of sand.

BLOTTING SAND FOR PRIME

Included in the Estimate of Quantities are 10 tons of Blotting Sand for Prime to be used where necessary for maintenance of traffic as directed by the Engineer. (Rate = 10 pounds per square yard)

BROOMING

All material will be broomed off curb & gutter areas. Care will be taken to ensure no material is broomed into any drop inlets. Materials from curb & gutter areas will be disposed of in a manner satisfactory to the Engineer.

File - ...apj\hugh0262\NotesSectionF.dgn

Plotting Date: 12/03/2024

Revised 12-02-2024 LLA

TABLE OF QUANTITIES

LOCATION	WATER FOR GRANULAR MATERIAL (MGal)	BASE COURSE or BASE COURSE, SALVAGED (Ton)	ALTERNATE A CLASS G ASPHALT CONCRETE			ALTERNATE A PG 64-34 ASPHALT BINDER 5.8%			ALTERNATE B CLASS G ASPHALT CONCRETE			ALTERNATE B PG 64-34 ASPHALT BINDER 5.0%			ASPHALT FOR PRIME (Ton)	ALTERNATE A HYDRATED LIME			ALTERNATE B HYDRATED LIME			ASPHALT FOR TACK			ASPHALT FOR FLUSH SEAL (Ton)	SAND FOR FLUSH SEAL (Ton)		
			1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)		1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)				
S Pierre Street/US Hwy 14 - PCC																												
9 + 49.00 to 13 + 17.24	24.9	2,073.0																										
13 + 17.24 to 13 + 94.13	3.9	325.0																										
13 + 94.13 to 15 + 50.10	10.1	842.0																										
S Euclid Avenue/US Hwy 14 - PCC																												
17 + 82.69 to 19 + 07.00	8.2	684.0																										
S/N Euclid Avenue/US Hwy 14 - AC																												
19 + 07.00 to 30 + 77.00	80.9	6,740.0	696.4	696.4	696.4	40.0	40.0	40.0	715.2	715.2	715.2	35.4	35.4	35.4	8.5	6.9	6.9	6.9	7.1	7.1	7.1	1.6	1.6	1.6	1.3	24.9		
30 + 77.00 to 34 + 43.00	27.3	2,277.0	236.5	236.5	236.5	13.6	13.6	13.6	242.9	242.9	242.9	12.0	12.0	12.0	2.9	2.3	2.3	2.3	2.4	2.4	2.4	0.5	0.5	0.5	0.5	8.4		
34 + 43.00 to 43 + 38.00	72.2	6,017.0	631.2	631.2	631.2	36.3	36.3	36.3	648.3	648.3	648.3	32.1	32.1	32.1	7.5	6.3	6.3	6.3	6.4	6.4	6.4	1.4	1.4	1.4	1.2	22.5		
43 + 38.00 to 77 + 74.00	268.2	22,349.0	2,336.6	2,336.6	2,336.6	134.2	134.2	134.2	2,399.7	2,399.7	2,399.7	118.8	118.8	118.8	28.0	23.1	23.1	23.1	23.8	23.8	23.8	5.3	5.3	5.3	4.4	83.4		
77 + 74.00 to 80 + 45.00	10.7	892.0	159.9	159.9	159.9	9.2	9.2	9.2	164.2	164.2	164.2	8.1	8.1	8.1	1.1	1.6	1.6	1.6	1.6	1.6	1.6	0.4	0.4	0.4	0.3	5.7		
W/E Pleasant Drive/US Hwy 14 - PCC																												
906 + 00.00 to 910 + 53.79	26.0	2,165.0																										
8" PCC Driveways - 20 each	2.0	120.0																										
6" PCC Driveways - 15 each	1.5	90.9																										
5" AC Driveways - 16 each	3.2	296.3	112.9		112.9	6.6		6.6	115.9		115.9	5.8		5.8	0.5	1.1		1.1	1.1		1.1	0.2		0.2	0.2			
4" Base Course Driveways - 12 each	1.2	63.4																										
East Wynoka Street	9.7	809.0	144.0		144.0	8.3		8.3	147.9		147.9	7.3		7.3	1.5	1.4		1.4	1.5		1.5	0.3		0.3	0.6			
Temporary Granular Crossings	2.4	200.0																										

1:200

Plot Scale -

TRPR18387

Plotted From -

File - ...apj\hugh0202\NotesSectionF.dgn

TABLE OF QUANTITIES - CONTINUED

LOCATION	WATER FOR GRANULAR MATERIAL (MGal)	BASE COURSE or BASE COURSE, SALVAGED (Ton)	ALTERNATE A CLASS G ASPHALT CONCRETE			ALTERNATE A PG 64-34 ASPHALT BINDER 5.8%			ALTERNATE B CLASS G ASPHALT CONCRETE			ALTERNATE B PG 64-34 ASPHALT BINDER 5.0%			ASPHALT FOR PRIME (Ton)	ALTERNATE A HYDRATED LIME			ALTERNATE B HYDRATED LIME			ASPHALT FOR TACK			ASPHALT FOR FLUSH SEAL (Ton)	SAND FOR FLUSH SEAL (Ton)		
			1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)		1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)	1st Lift (Ton)	2nd Lift (Ton)	Top Lift (Ton)				
Intersecting Streets																												
West Pleasant Drive - Tie In	0.6	51.0	6.1	6.1	6.1	0.4	0.4	0.4	6.2	6.2	6.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
East Pleasant Drive - Tie In	0.7	57.0	6.8	6.8	6.8	0.4	0.4	0.4	6.9	6.9	6.9	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
South Pierre Street	1.2	97.0																										
E Capitol Avenue - West	3.5	289.0	29.9	29.9	29.9	1.7	1.7	1.7	30.7	30.7	30.7	1.5	1.5	1.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	1.1
E Capitol Avenue - East	3.6	298.0	30.5	30.5	30.5	1.8	1.8	1.8	31.3	31.3	31.3	1.6	1.6	1.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	1.1
E Prospect Avenue - West	2.6	217.0	22.2	22.2	22.2	1.3	1.3	1.3	22.8	22.8	22.8	1.1	1.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1		0.8
E Prospect Avenue - East	3.3	271.0	27.7	27.7	27.7	1.6	1.6	1.6	28.5	28.5	28.5	1.4	1.4	1.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	1.0
E Broadway Avenue - West	3.4	287.0	24.8	24.8	24.8	1.4	1.4	1.4	25.5	25.5	25.5	1.3	1.3	1.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.9
E Broadway Avenue - East	3.9	329.0	33.7	33.7	33.7	1.9	1.9	1.9	34.6	34.6	34.6	1.7	1.7	1.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	1.2
E Wynoka Street - West	1.8	152.0	10.4	10.4	10.4	0.6	0.6	0.6	10.7	10.7	10.7	0.5	0.5	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.4
E Wynoka Street - East	2.3	190.0	17.5	17.5	17.5	1.0	1.0	1.0	17.9	17.9	17.9	0.9	0.9	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2					0.6
E Oak Street - West	2.4	198.0	15.5	15.5	15.5	0.9	0.9	0.9	15.9	15.9	15.9	0.8	0.8	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2					0.6
E Oak Street - East	2.8	235.0	22.8	22.8	22.8	1.3	1.3	1.3	23.4	23.4	23.4	1.2	1.2	1.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1		0.8
E Seneca Street - West	3.2	270.0	22.4	22.4	22.4	1.3	1.3	1.3	23.0	23.0	23.0	1.1	1.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1		0.8
E Seneca Street - East	2.3	189.0	18.3	18.3	18.3	1.1	1.1	1.1	18.8	18.8	18.8	0.9	0.9	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2					0.7
E Elizabeth Street - West	18.1	1,506.0	141.8	141.8	141.8	8.1	8.1	8.1	145.7	145.7	145.7	7.2	7.2	7.2	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.3	0.3	0.3	0.3	5.1
E Elizabeth Street - East	1.5	128.0	8.5	8.5	8.5	0.5	0.5	0.5	8.7	8.7	8.7	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.3
E 1st Street - West	1.8	151.0	10.2	10.2	10.2	0.6	0.6	0.6	10.4	10.4	10.4	0.5	0.5	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.4
E 1st Street - East	1.7	141.0	12.3	12.3	12.3	0.7	0.7	0.7	12.6	12.6	12.6	0.6	0.6	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.4
E 2nd Street - West	1.3	112.0	6.8	6.8	6.8	0.4	0.4	0.4	7.0	7.0	7.0	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.2
E 2nd Street - East	1.7	139.0	12.1	12.1	12.1	0.7	0.7	0.7	12.4	12.4	12.4	0.6	0.6	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.4
E 3rd Street - West	1.2	100.0	8.9	8.9	8.9	0.5	0.5	0.5	9.1	9.1	9.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					0.3
E 4th Street - West	3.2	270.0	26.3	26.3	26.3	1.5	1.5	1.5	27.0	27.0	27.0	1.3	1.3	1.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.9
E 4th Street - East	4.6	381.0	34.3	34.3	34.3	2.0	2.0	2.0	35.2	35.2	35.2	1.7	1.7	1.7	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	1.2
E 5th Street - West	3.8	317.0	31.0	31.0	31.0	1.8	1.8	1.8	31.8	31.8	31.8	1.6	1.6	1.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	1.1
E 5th Street - East	2.5	209.0	17.1	17.1	17.1	1.0	1.0	1.0	17.5	17.5	17.5	0.9	0.9	0.9	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2					0.6
N Euclid Avenue - West	5.0	419.0	44.7	44.7	44.7	2.6	2.6	2.6	45.9	45.9	45.9	2.3	2.3	2.3	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	1.6
E 6th Street - East	3.6	299.0	25.3	25.3	25.3	1.5	1.5	1.5	26.0	26.0	26.0	1.3	1.3	1.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.9
E 7th Street - West	2.9	241.0	24.1	24.1	24.1	1.4	1.4	1.4	24.8	24.8	24.8	1.2	1.2	1.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.9
E 8th Street - West	4.2	346.0	34.6	34.6	34.6	2.0	2.0	2.0	35.5	35.5	35.5	1.8	1.8	1.8	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	1.2
Totals	647.1	53,832.6	5,044.1	4,787.2	5,044.1	290.2	275.3	290.2	5,179.9	4,916.1	5,179.9	256.4	243.3	256.4	59.8	50.0	47.5	50.0	51.6	49.0	51.6	11.5	11.0	11.5	10.0		170.4	
Grand Totals:	647.1	53,832.6	14,875.4			855.7			15,275.9			756.1			59.8	147.5			152.2			34.0			10.0	170.4		

*Hydrated Lime is required for placement of Class G Asphalt Concrete.

1:200

Plot Scale -

Plotted From -

TRPR18387

File - ...:\pjhugh0262\NotesSectionF.dgn

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0014(185)229	SHEET F11	TOTAL SHEETS F34
-----------------------	-------------------------------	--------------	---------------------

Plotting Date: 12/03/2024

Revised: 12/02/2024 RTS

PLOT SCALE - 1+6.00001

PLOT NAME - 11

FILE - ... \0262_TYPICAL SECTIONS.DGN

PLOTTED FROM - TRPRI8387

Section 7

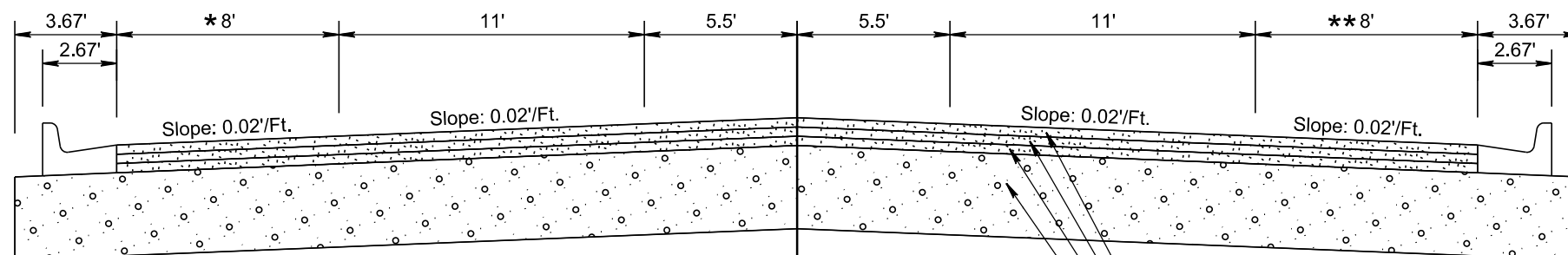
SOUTH EUCLID/ NORTH EUCLID AVENUE MAINLINE

Sta. 19+07 to Sta. 30+77

Transitions:

Sta. 19+07 to Sta. 29+50
* 8'

Sta. 29+50 to Sta. 30+77
* 8' to 1'



Section 8

NORTH EUCLID AVENUE MAINLINE

Sta. 30+77 to Sta. 34+43

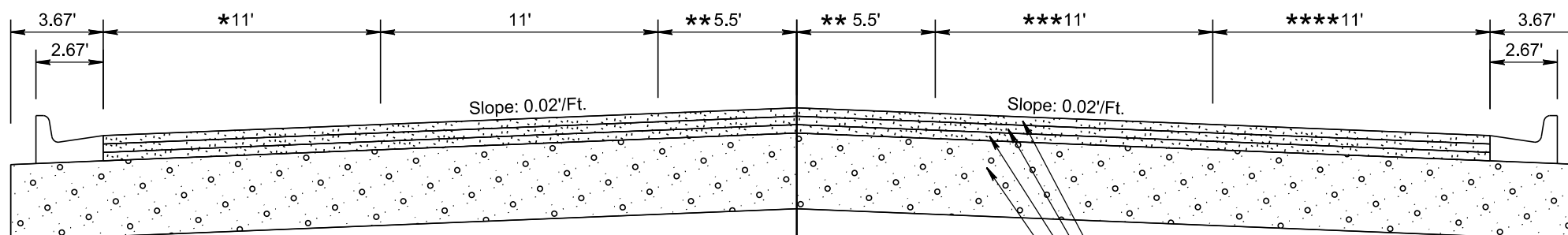
Sta. 43+38 to Sta. 77+74

Transitions:

Sta. 30+77 to Sta. 33+06
* 1' to 11'

Sta. 43+38 to Sta. 44+08
** 0'

Sta. 44+08 to Sta. 45+22
** 0' to 5.5'



Section 9

NORTH EUCLID AVENUE MAINLINE

Sta. 34+43 to Sta. 43+38

Transitions:

Sta. 34+43 to Sta. 37+69
* 0'

Sta. 37+69 to Sta. 37+89
* 0' to 8'

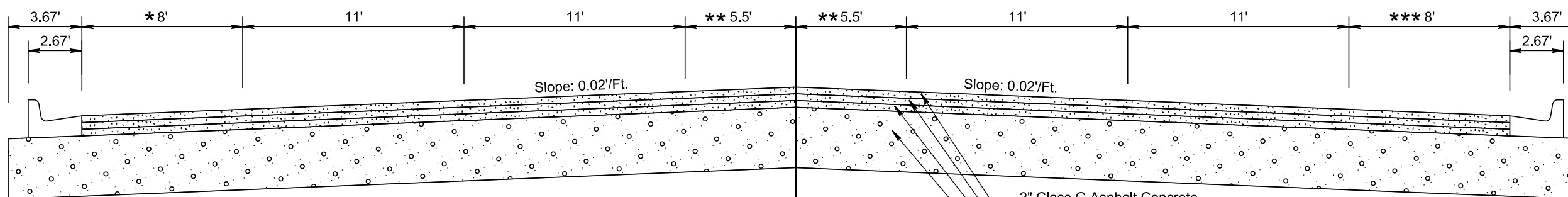
Sta. 38+76 to Sta. 38+96
* 8' to 0'

Sta. 38+96 to Sta. 40+00
* 0'

Sta. 40+00 to Sta. 40+20
* 0' to 8'

Sta. 42+61 to Sta. 42+82
* 8' to 0'

Sta. 42+82 to Sta. 43+38
* 0'



Transitions:

Sta. 19+07 to Sta. 25+56
** 8'

Sta. 25+56 to Sta. 26+31
** 8' to 15.6'

Sta. 26+31 to Sta. 26+84
** 15.6' to 8'

Sta. 26+84 to Sta. 27+70
** 8'

Sta. 27+70 to Sta. 27+90
** 8' to 0'

Sta. 27+90 to Sta. 30+77
** 0' to 11'

Transitions:

Sta. 77+28 to Sta. 77+74
*** 11' to 12'

Sta. 77+28 to Sta. 77+52
**** 11' to 12'

Sta. 77+52 to Sta. 77+74
**** 12'

Transitions:

Sta. 38+79 to Sta. 38+99
*** 8' to 0'

Transitions:

Sta. 36+54 to Sta. 39+69
** 5.5' to 0'

Sta. 37+69 to Sta. 43+38
** 0'

Sta. 34+43 to Sta. 34+60
*** 0'

Sta. 34+60 to Sta. 34+80
*** 0' to 8'

Sta. 38+99 to Sta. 40+03
*** 0'

Sta. 40+03 to Sta. 40+23
*** 0' to 8'

Sta. 42+61 to Sta. 42+82
*** 8' to 0'

Sta. 42+82 to Sta. 43+38
*** 0'

- 2" Class G Asphalt Concrete
- 2" Class G Asphalt Concrete
- 2" Class G Asphalt Concrete
- 18" Base Course or Base Course, Salvaged

- 2" Class G Asphalt Concrete
- 2" Class G Asphalt Concrete
- 2" Class G Asphalt Concrete
- 18" Base Course or Base Course, Salvaged

- 2" Class G Asphalt Concrete
- 2" Class G Asphalt Concrete
- 2" Class G Asphalt Concrete
- 18" Base Course or Base Course, Salvaged

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F12	F34

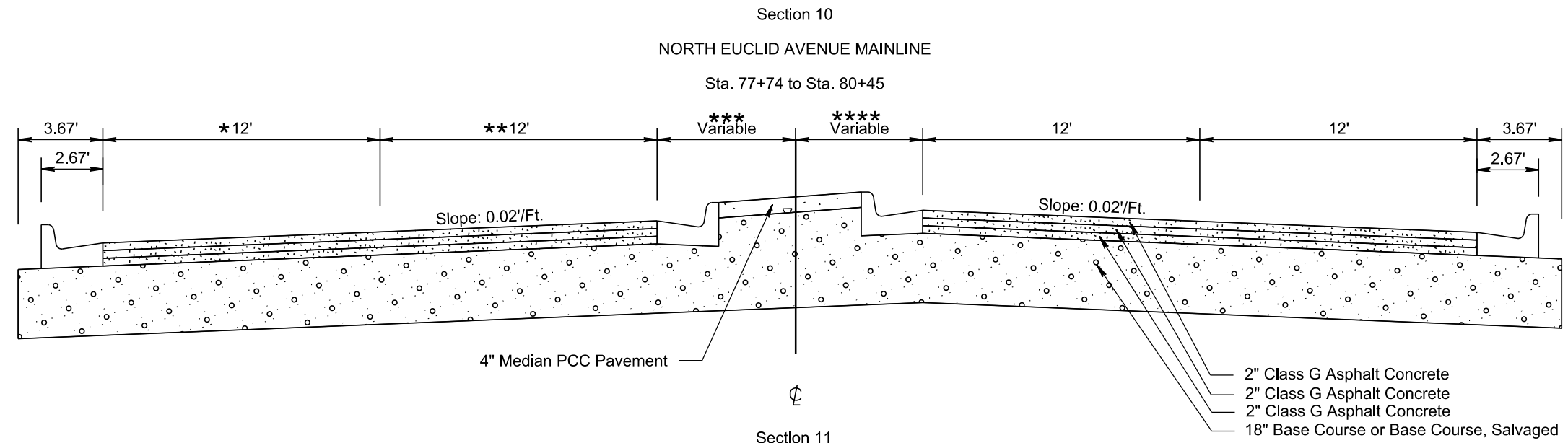
Plotting Date: 12/03/2024

Revised: 12/02/2024 RTS

PLOT SCALE - 1+6.00001

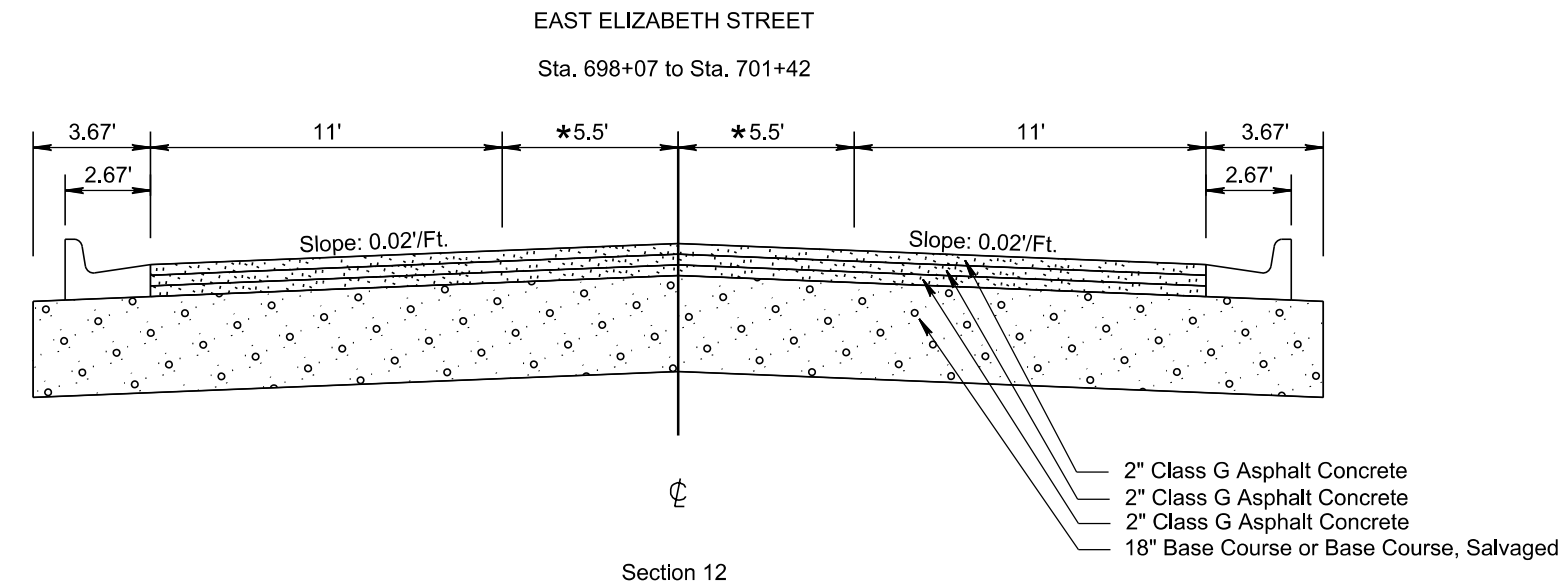
PLOT NAME - 12
FILE - ... \026Z_TYPICAL SECTIONS.DGN

Transitions:
 Sta. 77+74 to Sta. 78+33
 * 11'
 Sta. 78+33 to Sta. 78+56
 * 11' to 12'
 Sta. 77+74 to Sta. 78+56
 ** 11'
 Sta. 78+56 to Sta. 78+79
 ** 11' to 12'

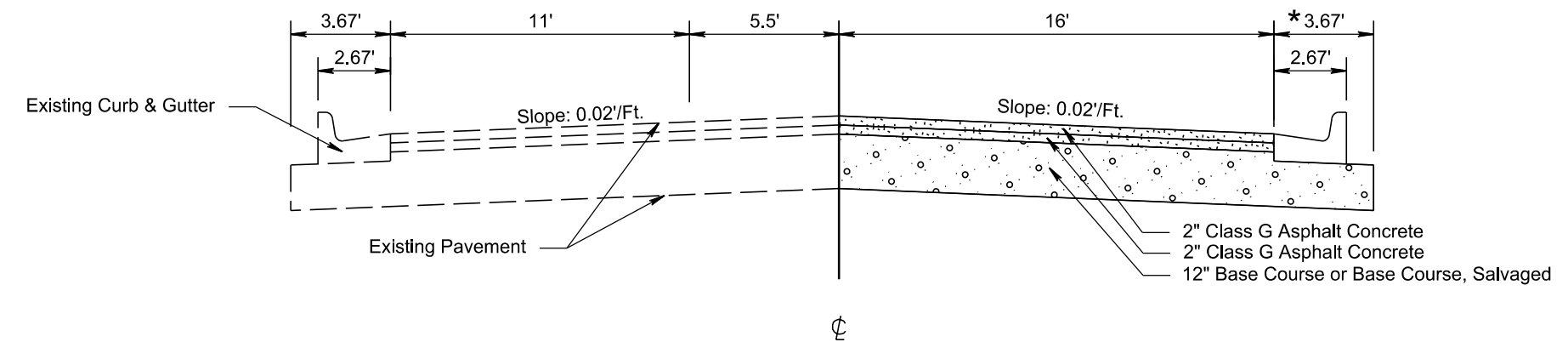


Transitions:
 Sta. 77+74 to Sta. 80+45
 *** 5.5' to 12.8'
 Sta. 77+74 to Sta. 80+45
 **** 5.5' to 16.8'

Transitions:
 Sta. 698+07 to Sta. 698+71
 * 2' to 5.5'



Section 12
 EAST WYNOKA STREET
 Sta. 926+79.32 to Sta. 934+01.67



* New Curb & Gutter @ Southwest corner of Highland Ave. & Wynoka St.

PLOTTED FROM - TRPR18387