Department of Transportation

Office of Project Development

700 E Broadway Avenue
Pierre, South Dakota 57501-2586 605/773-3268
FAX: 605/773-6608

April 11, 2014

ADDENDUM NO. 1

RE: Item #2, April 16, 2014 Letting - P 2255(09), PCN 01D5, Brown County - Grading, Storm Sewer, Curb & Gutter, Sidewalk, Lighting, PCC Surfacing, & Pavement Markings

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

BID ITEM FILE: **Quantities for Bid Items were changed:**
Bid Item 633E0030 “Cold Applied Plastic Marking, 24”” changed from 25 to 185 Ft
Bid Item 633E5015 “Grooving for Cold Applied Plastic Marking, 24”” changed from 25 to 185 Ft

PLANS: Please destroy sheets A1, B2, and M2 and replace with the enclosed sheets, dated 4/8/14 and 4/11/14.

Sheets A1 & M2: Quantities for Bid Item 633E0030 “Cold Applied Plastic Marking, 24”” changed from 25 to 185 Ft
Quantities for Bid Item 633E5015 “Grooving for Cold Applied Plastic Marking, 24”” changed from 25 to 185 Ft

Sheet B2: Quantities for Bid Item 451E4210 “10” Gate Valve with Box*” changed from 2 to 1 Each

Sincerely,

Brace Prouty, P.E.
Engineering Supervisor

BP/cj

CC: Jeff Senst, Aberdeen Region Engineer
Phil Dwight, Aberdeen Area Engineer

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 2255(09)	A1	A4

Revised April 8, 2014 by JWD

Grading – Section B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	2.964	Mile
009E3250	Miscellaneous Staking	0.988	Mile
009E3280	Slope Staking	0.988	Mile
009E3300	Three Man Survey Crew	40	Hour
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	722	Ft
120E0010	Unclassified Excavation	24,970	CuYd
120E0600	Contractor Furnished Borrow	1939	CuYd
120E2000	Undercutting	9,850	CuYd
120E6100	Water for Embankment	175.2	MGal
250E0010	Incidental Work	Lump Sum	LS
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	11,480.3	Ton
380E4050	8” PCC Fillet Section	1094.5	SqYd
450E0102	12” RCP Class 2, Furnish	1390	Ft
450E0110	12” RCP, Install	1390	Ft
450E0112	15” RCP Class 2, Furnish	1338	Ft
450E0120	15” RCP, Install	1338	Ft
450E0122	18” RCP Class 2, Furnish	1468	Ft
450E0130	18” RCP, Install	1468	Ft
450E0142	24” RCP Class 2, Furnish	1812	Ft
450E0150	24” RCP, Install	1812	Ft
450E0162	30” RCP Class 2, Furnish	24	Ft
450E0170	30” RCP, Install	24	Ft
450E2000	12” RCP Flared End, Furnish	4	Each
450E2001	12” RCP Flared End, Install	4	Each
450E2008	18” RCP Flared End, Furnish	1	Each
450E2009	18” RCP Flared End, Install	1	Each
451E0606	6” PVC Water Main*	56	Ft
451E0610	10” PVC Water Main*	84	Ft
451E1008	8” PVC Sewer Pipe*	20	Ft
451E1015	15” PVC Sewer Pipe*	65	Ft
451E2700	Tapping Tee*	2	Each
451E3010	10” Pipe Bend*	2	Each
451E3106	6” Pipe Cap*	1	Each
451E3108	8” Pipe Cap*	1	Each
451E3110	10” Pipe Cap*	1	Each
451E3115	15” Pipe Cap*	1	Each
451E4206	6” Gate Valve with Box*	1	Each
451E4210	10” Gate Valve with Box*	1	Each
451E6080	Adjust Water Valve Box*	9	Each
451E6085	Extend Water Valve Box*	5	Each
451E6505	Adjust Fire Hydrant with Valve and Box	1	Each
470E0020	Pipe Handrail	96	Ft
530E0300	Type C Concrete Retaining Wall	132	SqFt
600E0200	Type II Field Laboratory	1	Each
650E0080	B68 Concrete Curb and Gutter	8937	Ft
650E4680	Type P8 Concrete Gutter	568	Ft
651E0040	4” Concrete Sidewalk	38,653	Sq.Ft.
651E7000	Type I Detectable Warnings	160	Sq.Ft.
670E1010	2’ x 3’ Type B Drop Inlet	23	Each
670E1025	4’ x 4’ Type B Drop Inlet	11	Each

Grading – Section B (Continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
670E1200	Type B Frame and Grate Assembly	34	Each
670E5202	Special Frame and Grate	26	Each
670E9010	Type I Drop Inlet	26	Each
671E0050	5’ x 5’ Junction Box	1	Each
671E1048	48” Manhole	12	Each
671E6035	Special Manhole Frame and Lid	13	Each
671E7010	Adjust Manhole	13	Each
900E0010	Refurbish Single Mailbox	8	Each

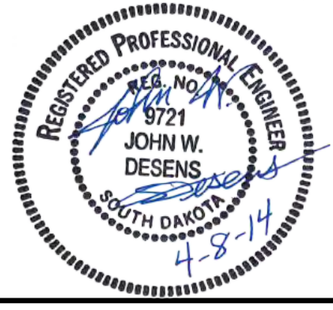
* Indicates items that are non-participating (not federally eligible).

Traffic Control – Section C

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
260E1010	Base Course	1550.5	Ton
632E3201	Flat Aluminum Sign, Nonremovable Copy Engineer Grade	18.0	SqFt
634E0010	Flagging	120	Hour
634E0100	Traffic Control	2479	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
831E0200	Woven Geotextile Separator	5,381	SqYd
900E2490	Blading	20	Hour

Erosion and Sediment Control – Section D

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	88	CuYd
110E1695	Remove Sediment Filter Bag	1482	Ft
110E1700	Remove Silt Fence	632	Ft
230E0010	Placing Topsoil	3475	CuYd
730E0206	Type D Permanent Seed Mixture	540	Lb
731E0200	Fertilizing	206	Lb
732E0250	Fiber Mulching	4129	Lb
734E0180	Sediment Filter Bag	1482	Ft
734E0604	High Flow Silt Fence	1266	Ft
734E0610	Mucking Silt Fence	44	CuYd
734E0620	Repair Silt Fence	158	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	32	Each
734E0855	Interim Sediment Control at Inlet	32	Each
734E5010	Sweeping	30	Hour
900E1320	Construction Entrance	4	Each



Surfacing – Section F

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	195.3	MGal
260E2010	Gravel Cushion	5234.3	Ton
260E2030	Gravel Cushion, Salvaged	11,480.3	Ton
260E3010	Gravel Surfacing	9.4	Ton
260E3030	Gravel Surfacing, Salvaged	39.2	Ton
270E0110	Salvage and Stockpile Granular Material	39.2	Ton
320E1200	Asphalt Concrete Composite	99.0	Ton
380E0050	8” Nonreinforced PCC Pavement	24,560.8	SqYd
380E3540	8” PCC Approach Pavement	512.6	SqYd
380E6000	Dowel Bar	16,258	Each
380E6110	Insert Steel Bar in PCC Pavement	49	Each
380E9000	Temporary Earth Crossing	8	Each
831E0200	Woven Geotextile Separator	29,904	SqYd

Signal & Lighting – Section L

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E0040	Breakaway Base Luminaire Pole with Arm 40’ Mounting Height	27	Each
635E3340	Roadway Luminaire, 400 Watt with Photoelectric Cell	27	Each
635E5020	2’ Diameter Footing	216	Ft
635E5400	Electrical Service Cabinet	2	Each
635E8020	2” Rigid Galvanized Steel Conduit	345	Ft
635E8120	2” Rigid Conduit, Schedule 40	4520	Ft
635E8220	2” Rigid Conduit, Schedule 80	590	Ft
695E9016	1/C #6 AWG Copper Wire	12,000	Ft
635E9020	1/C #10 AWG Copper Wire	6,000	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	1,560	Ft

Pavement Marking – Section M

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4”	12,479	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24”	185	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	48	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4”	12,479	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24”	185	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	48	Each

INDEX OF SHEETS

A1	Estimate of Quantities for Sections B,C,D,F,L, & M
A2 to A3	Environmental Commitments

Revised April 11, 2014 by JWD

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	2.964	Mile
009E3250	Miscellaneous Staking	0.988	Mile
009E3280	Slope Staking	0.988	Mile
009E3300	Three Man Survey Crew	40	Hour
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	722	Ft
120E0010	Unclassified Excavation	24,970	CuYd
120E0600	Contractor Furnished Borrow	1939	CuYd
120E2000	Undercutting	9,850	CuYd
120E6100	Water for Embankment	175.2	MGal
250E0010	Incidental Work	Lump Sum	LS
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450E0150	24” RCP, Install	1812	Ft
450E0162	30” RCP Class 2, Furnish	24	Ft
450E0170	30” RCP, Install	24	Ft
450E2000	12” RCP Flared End, Furnish	4	Each
450E2001	12” RCP Flared End, Install	4	Each
450E2008	18” RCP Flared End, Furnish	1	Each
450E2009	18” RCP Flared End, Install	1	Each
451E0606	6” PVC Water Main*	56	Ft
451E0610	10” PVC Water Main*	84	Ft
451E1008	8” PVC Sewer Pipe*	20	Ft
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670E1010	2’ x 3’ Type B Drop Inlet	23	Each
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* Indicates items that are non-participating (not federally eligible).

GRADING OPERATIONS

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

TYPE II FIELD LABORATORY

The lab shall be equipped with an internet connection such as DSL, cable modem, or other approved service. The internet connection shall be provided with a multi-port wireless router. The internet connection shall be a minimum speed of 512 Kb unless limited by job location and approved by the DOT. Prior to installing the wireless router the Contractor shall submit the wireless router’s technical data to the Area Office to check for compatibility with the state’s computer equipment. The internet connection is intended for state personnel usage only. The Contractor’s personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer.

All costs associated with the internet connection shall be incidental to the contract unit price per each for “Type II Field Laboratory”.

CONCRETE PIPE CONNECTIONS

Pipe connections to existing pipes, manholes, junction boxes, and drop inlets shall be done by breaking a hole into the existing structure and inserting the pipe. A concrete collar shall then be poured around the pipe in the area of the connection.

When it is not possible to use a normal pipe joint (male-female ends), connections to existing pipe shall be made by placing a 2’ wide by 6" thick M6 concrete collar around the outside of the connection. The concrete collar shall be reinforced with 6x6 W2.9 x W2.9 wire mesh.

All costs for constructing the concrete collars including materials and labor shall be incidental to the contract unit price per foot for the corresponding pipe bid item.

STORM SEWER

Reinforced concrete pipe may be either bell and spigot or tongue and groove. The pipe sections shall be adjoined such that the ends are fully entered and the inner surfaces are reasonably flush and even.

Lift holes in the reinforced concrete pipe shall be plugged with grout.

STORM SEWER (Continued)

Watertight joints are required for reinforced concrete pipe; drop inlets, manholes, and junction boxes where storm sewers run parallel to and within 10 feet horizontally from existing or proposed water mains.

Watertight joints are required where reinforced concrete pipes, drop inlets, manholes, or junction boxes cross water mains and are separated a distance of 18 inches or less, above or below, the water main.

If watertight joints are required then the watertight joints shall extend for a distance of 10 feet beyond the water main. This measurement shall be from the sealed concrete joint to the outer most surface of the water main.

Watertight joint seals shall conform to the following requirements:

1. Reinforced Concrete Pipe (Circular): Gasketed pipe shall conform to the requirements of ASTM C443. Non-gasketed concrete pipe shall be sealed with a mastic joint seal conforming to the requirements of ASTM C990 and encased with a minimum 2’ wide by 6” thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.

2. Reinforced Concrete Pipe (Arch): Joints shall be sealed with a waterstop seal meeting the requirements of ASTM C990. Waterstop seals shall consist of hydrophilic compounds such as Waterstop-RX or ConSeal CS-231.

3. Drop Inlets, Manholes, and Junction Boxes: Joints shall be sealed with a waterstop seal or seal wrap meeting the requirements of ASTM C990 or encased with a minimum 2’ wide by 6” thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh. Waterstop seal shall contain hydrophilic compounds such as Waterstop-RX or ConSeal CS-231. Seal wrap shall be a self-adhesive external joint wrap such as ConWrap CS-217 or Mar Mac Seal Wrap.

Gaskets and seals (mastic, waterstop, and seal wraps) shall be installed in accordance with the manufacturer’s recommendations.

The cost for furnishing and installing all gaskets, mastic joint seal, waterstop seal, seal wrap, concrete collars, and for plugging the lift holes shall be incidental to the contract unit price per foot for the corresponding pipe bid item. The cost for furnishing and installing all frames and castings shall be incidental to the contract unit price for the corresponding storm structure item.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 2255(09)	M2	M13

Revised April 8, 2014 by JWD

SECTION M ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4”	12,479	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24”	185	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	48	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4”	12,479	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24”	185	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	48	Each

GROOVING FOR COLD APPLIED PLASTIC PAVEMENT MARKING

All concrete pavement surfaces which require cold applied plastic tape shall be grooved prior to application.

The grooving operation shall provide the surface preparation required for application of the cold applied plastic tape.

The work shall generally consist of grooving the concrete or asphalt surface and subsequent application of pavement marking tape into the groove.

Care shall be taken on Portland cement concrete surface when performing grooving, removal and cleaning work to prevent damage to transverse and longitudinal joints. Any damage to joints shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the State.

The groove shall be made in a single pass dry cut using stacked diamond tipped cutting heads mounted on a floating head with controls capable of providing uniform depth and alignment. The equipment shall be self-vacuuming and leave the cut groove ready for pavement marking installation. Dry cut grooving, without a vacuum, shall **ONLY** be allowed if markings run perpendicular to the roadway, such as "STOP BARS". The bottom of the groove shall have a fine corduroy finish. The pavement marking shall be placed in the grooves the same day as the cut. Grooves shall be clean and dry prior to pavement marking application.

Cutting head: The spacing between each blade must be such that there is less than a 10-mil raise in the finished groove between the blades.

Groove length: Full length of marking + 3 inch grooving transition on each end.

Groove position: 2 inches from the edge of the longitudinal seam.

Groove cleaning: Grooves must be cleaned by using high-pressure compressed air, (90 PSI minimum.) A leaf blower will NOT be an acceptable substitute for compressed air.
If the cold applied plastic tape (including primer if required) does not immediately follow dry pavement grooving, the following shall apply:
Within 24 hours prior to placing the cold applied plastic tape, the groove shall be sandblasted and free of any residue and laitance. If the cold applied plastic tape is not placed within 24 hours of sandblasting, the groove shall be re-sandblasted.

COLD APPLIED PLASTIC PAVEMENT MARKING

New cold plastic pavement markings provided shall be type A pavement marking and applied by the Contractor utilizing the following procedures: 1. The Contractor shall apply the cold plastic pavement marking material as per manufacturer’s instructions. 2. Cold plastic pavement markings shall be grooved into the surface. 3. Grooving depth shall be as per the manufacturer’s recommendations.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 9721
JOHN W. DESENS
SOUTH DAKOTA
4-8-14