

# Department of Transportation

## Aberdeen Region Office

West Highway 12

PO Box 1767

Aberdeen, South Dakota 57402-1767 605/626-2244

FAX: 605/626-7875

June 1, 2016

### **ADDENDUM NO. 2**

Re: **000P-151, PCN i3P0**  
**Brown County**  
**PCC Pavement, Sidewalk, & Traffic Signal**

#### **TO WHOM IT MAY CONCERN:**

**PROPOSAL:** Please destroy the DOT-123 and replace with the enclosed sheets, dated 6/1/16.

**DOT-123:** The quantity of Preformed Detector Loop and Sawed-In, Preformed Detector Loop has been revised.

**PLANS:** Please destroy sheets 2, 44 and 47 replace with the enclosed sheet, dated 6/1/16.  
Please add sheet 41A to the plans, dated 6/1/16.

**Sheet 2 & 44:** The quantity of Preformed Detector Loop and Sawed-In, Preformed Detector Loop has been revised.

**Sheet 47:** The DETECTOR SETTINGS table was revised to reflect the change in Detector Type.

**Sheet 41A:** This is a new sheet that was inadvertently not included in the plans.

**When sending in your sealed bid please state on the front of the envelope that Addendum No. 2 was received.**

Sincerely,

DEPARTMENT OF TRANSPORTATION

---

Jeff Senst, P.E.  
Region Engineer

cc: **P. Dwight** J. Humphrey J. Hansen J. Steen File

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION  
CONTRACT PROPOSAL

CODE	PROJECT			MAINT UNIT	CONTROL REFERENCE	AFE	FUNCTION	BEGIN MRM	END MRM
	FRE	ROUTE	AGR						
	0001			1		14.0	2490	955	2935
	012			13		14.2	2125	87	2894

CITY AND/OR COUNTY: Aberdeen/Brown County BUDGET SOURCE: FY2016 Contract Maintenance

FINALS ENGINEER REVIEW REQUIRED: x YES      NO

REGION MATERIALS CERTIFICATION REQUIRED: x YES      NO

CERTIFIED INSPECTORS/TESTERS REQUIRED: x YES      NO

TO BE INSTALLED ON CM&P: x YES      NO

TYPE, PURPOSE AND LOCATION OF WORK: PCC Pavement, Sidewalk, Traffic Signals, Sidewalk Repair

ESTIMATE OF QUANTITIES AND COST

BID ITEM NUMBER	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
009E0010	Mobilization	Lump Sum	LS	Lump Sum	
110E0130	Remove Traffic Sign	5	Each		
110E0300	Remove Concrete Curb & Gutter	31	Ft		
110E0400	Remove Drop Inlet	4	Each		
110E1140	Remove Concrete Sidewalk	22	SqYd		
110E1530	Remove Signal Pole Footing	4	Each		
110E1540	Remove Luminaire Pole Footing	3	Each		
110E1690	Remove Sediment	1.0	CuYd		
110E1693	Remove Erosion Control Wattle	50	Ft		
110E1950	Remove Sediment Filter Bag	1	Ft		
110E2110	Salvage Sign Equipment	Lump Sum	LS	Lump Sum	
120E0010	Unclassified Excavation	2,653	CuYd		
120E2000	Undercutting	677	CuYd		
230E0100	Remove and Replace Topsoil	Lump Sum	LS	Lump Sum	
250E0010	Incidental Work	Lump Sum	LS	Lump Sum	
250E0020	Incidental Work, Grading	Lump Sum	LS	Lump Sum	
260E1010	Base Course	1,255.6	Ton		
260E2010	Gravel Cushion	324.8	Ton		
320E1200	Asphalt Concrete Composite	155.5	Ton		
380E0080	9.5" Nonreinforced PCC Pavement	949.1	SqYd		
380E4080	9.5" PCC Fillet Section	49.6	SqYd		
380E6000	Dowel Bar	744	Each		
380E6110	Insert Steel Bar in PCC Pavement	210	Each		
450E0102	12" RCP Class 2, Furnish	6	Ft		
450E0110	12" RCP, Install	6	Ft		

450E0122	18" RCP Class 2, Furnish	46	Ft		
450E0130	18" RCP, Install	46	Ft		
450E0408	18" RCP Bend, Furnish	2	Each		
450E0409	18" RCP Bend, Install	2	Each		
462E0100	Class M6 Concrete	3.7	CuYd		
480E0100	Reinforcing Steel	404	Lb		
632E1320	2.0"x2.0" Perforated Tube Post	10.0	Ft		
632E3203	Flat Aluminum Sign, Nonremovable Conv. High Intensity	51.3	SqFt		
632E3520	Remove, Salvage, Relocate, and Rest. Traffic Sign	1	Each		
633E0010	Cold Applied Plastic Pavement Marking, 4"	1,690	Ft		
633E0030	Cold Applied Plastic Pavement Marking, 24"	750	Ft		
633E0040	Cold Applied Plastic Pavement Marking, Arrow	9	Each		
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	1,690	Ft		
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	750	Ft		
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	9	Each		
634E0010	Flagging	420	Hour	24.19	10,159.80
634E0110	Traffic Control Signs	472	SqFt		
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS	Lump Sum	
634E0285	Type 3 Barricade, 8' Double Sided	21	Each		
634E0420	Type C Advance Warning Arrow Board	2	Each		
634E0500	4" Temporary Pavement Marking, Fine Gravel	40	Ft		
634E0900	Portable Temporary Traffic Control Signal	3	Unit		
634E1002	Detour Signing	12.0	SqFt		
634E1210	State Furnished Portable Changeable Message Sign	2	Each		
634E2000	Longitudinal Pedestrian Barricade	212	Ft		
634E2015	Temporary Pedestrian Access Route	Lump Sum	LS	Lump Sum	
634E2020	Temporary Curb Ramp	3	Each		
634E2025	Longitudinal Pedestrian Barrier	100	Ft		
635E2000	Pedestal Signal Pole	1	Each		
635E3340	Roadway Luminaire, 400 Watt with Photoelectric Cell	4	Each		
635E4030	3 Section Vehicle Signal Head	16	Each		
635E5020	2' Diameter Footing	14.0	Ft		
635E5025	2.5' Diameter Footing	30.0	Ft		
635E5030	3' Diameter Footing	48.0	Ft		
635E5301	Type 1 Electrical Junction Box	5	Each		

635E5302	Type 2 Electrical Junction Box	6	Each		
635E5303	Type 3 Electrical Junction Box	1	Each		
635E5400	Electrical Service Cabinet	1	Each		
635E5430	Traffic Signal Controller	1	Each		
635E5515	Signal Head Battery Backup and Flash System	1	Each		
635E5530	Preformed Detector Loop	5	Each		
635E5535	Sawed-In, Preformed Detector Loop	20	Each		
635E5550	Detector Unit	11	Each		
635E5560	Emergency Vehicle Preemption Unit	1	Each		
635E5570	Optical Detector	4	Each		
635E5900	Pedestrian Push Button	8	Each		
635E5910	Pedestrian Push Button Pole	8	Each		
635E5922	Pedestrian Signal Head with Countdown Timer	8	Each		
635E5930	Pedestrian Crossing Sign	8	Each		
635E7018	Install Signal Pole with Mast Arm and Luminaire Arm	4	Each		
635E7500	Remove and Reset Luminaire Pole	3	Each		
635E8120	2" Rigid Conduit, Schedule 40	1,285	Ft		
635E8130	3" Rigid Conduit, Schedule 40	55	Ft		
635E8150	5" Rigid Conduit, Schedule 40	25	Ft		
635E8220	2" Rigid Conduit, Schedule 80	315	Ft		
635E8230	3" Rigid Conduit, Schedule 80	110	Ft		
635E8240	4" Rigid Conduit, Schedule 80	40	Ft		
635E9014	1/C #4 AWG Copper Wire	615	Ft		
635E9016	1/C #6 AWG Copper Wire	3,650	Ft		
635E9018	1/C #8 AWG Copper Wire	1,605	Ft		
635E9504	4/C #14 AWG Copper Tray Cable, K2	2,157	Ft		
635E9507	7/C #14 AWG Copper Tray Cable, K2	230	Ft		
635E9519	19/C #14 AWG Copper Tray Cable, K2	100	Ft		
635E9524	24/C #14 AWG Copper Tray Cable, K2	410	Ft		
635E9600	#16 AWG Copper Twisted Shielded Pair	2,610	Ft		
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	260	Ft		
635E9800	Preemption Cable	1,880	Ft		
650E0060	Type B66 Concrete Curb and Gutter	560	Ft		
650E0095	Type B69.5 Concrete Curb and Gutter	505	Ft		
651E0050	5" Concrete Sidewalk	3139	SqFt		
651E5000	Sidewalk Drain	6.7	Ft		
651E7000	Type 1 Detectable Warnings	60	SqFt		

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION  
CONTRACT PROPOSAL

DOT-123  
(5/05)

670E1200	Type B Frame and Grate Assembly	4	Each		
670E3400	Precast Drop Inlet Collector	4	Each		
734E0000	Erosion Control	1	LS		
734E0154	12" Diameter Erosion Control Wattle	50	Ft		
734E0180	Sediment Filter Bag	24	Ft		
734E0604	High Flow Silt Fence	24	Ft		
734E0845	Sediment Control at Inlet with Frame and Grate	2	Each		
734E5010	Sweeping	50	Hour		
900E1320	Construction Entrance	1	Each		
TOTAL					

CONTRACTORS PROPOSAL STATEMENT

The undersigned does hereby agree to furnish the labor and/or material in the quantities, at the unit price, for the purpose, in the place and in accordance with attached provisions upon approval of this Proposal by the State Transportation Commission. This document becomes the contract when signed by the Contractor and a Department of Transportation Representative. The Contractor agrees to provide services in compliance with the Americans with Disabilities Act of 1990. The Contractor agrees to provide a certificate of insurance prior to commencing work, for liability coverage for the duration of the work as per the current edition of the SDDOT Standard Specifications for Roads and Bridges.

PROPOSED START DATE June 20, 2016

OVERALL COMPLETION DATE October 14, 2016

SUBSCRIBED AND SWORN TO BEFORE ME THE  
DAY OF , 20

SIGNATURE  
COMPANY  
ADDRESS

NOTARY Public Commission Expires FEB. TAX ID NUMBER

RECOMMENDED FOR APPROVAL:

CONSTRUCTION & MAINTENANCE ENGINEER DATE

REGION ENGINEER DATE DIRECTOR OF OPERATIONS DATE

APPROVED FOR THE TRANSPORTATION COMMISSION

NAME TITLE DATE

APPROVED as per Federal Highway Stewardship Provisions this day of , 20

PROJECT DEVELOPMENT ENGINEER

ESTIMATE OF QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	000P-151	2	83
	Revised 06-01-16 BG		

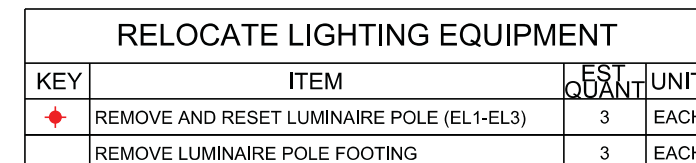
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0130	Remove Traffic Sign	5	Each
110E0400	Remove Drop Inlet	4	Each
110E1530	Remove Signal Pole Footing	4	Each
110E1540	Remove Luminaire Pole Footing	3	Each
110E1690	Remove Sediment	1.0	CuYd
110E1693	Remove Erosion Control Wattle	50	Ft
110E1695	Remove Sediment Filter Bag	24	Ft
110E5110	Salvage Signal Equipment	Lump Sum	LS
120E0010	Unclassified Excavation	2,653	CuYd
120E2000	Undercutting	677	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
260E1010	Base Course	1,286.6	Ton
260E2010	Gravel Cushion	324.8	Ton
320E1200	Asphalt Concrete Composite	155.5	Ton
380E0080	9.5" Nonreinforced PCC Pavement	949.1	SqYd
380E4080	9.5" PCC Fillet Section	49.6	SqYd
380E6000	Dowel Bar	744	Each
380E6110	Insert Steel Bar in PCC Pavement	210	Each
450E0102	12" RCP Class 2, Furnish	6	Ft
450E0110	12" RCP, Install	6	Ft
450E0122	18" RCP Class 2, Furnish	46	Ft
450E0130	18" RCP, Install	46	Ft
450E0408	18" RCP Bend, Furnish	2	Each
450E0409	18" RCP Bend, Install	2	Each
462E0100	Class M6 Concrete	3.7	CuYd
480E0100	Reinforcing Steel	404	Lb
632E1320	2.0"x2.0" Perforated Tube Post	10.0	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	54.3	SqFt
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	1	Each
633E0010	Cold Applied Plastic Pavement Marking, 4"	1,690	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	750	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	9	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	1,690	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	750	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	9	Each
634E0010	Flagging	400.0	Hour
634E0110	Traffic Control Signs	308.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	20	Each
634E0420	Type C Advance Warning Arrow Board	1	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0600	4" Temporary Pavement Marking Tape Type I	360	Ft
634E0900	Portable Temporary Traffic Control Signal	3	Unit
634E1002	Detour Signing	12.0	SqFt
634E1210	State Furnished Portable Changeable Message Sign	2	Each
634E2000	Longitudinal Pedestrian Barricade	200	Ft
634E2015	Temporary Pedestrian Access Route	Lump Sum	LS
634E2020	Temporary Curb Ramp	3	Each
634E2025	Longitudinal Pedestrian Barrier	100	Ft
635E2000	Pedestal Signal Pole	1	Each
635E3340	Roadway Luminaire, 400 Watt with Photoelectric Cell	4	Each
635E4030	3 Section Vehicle Signal Head	16	Each
635E5020	2' Diameter Footing	14.0	Ft
635E5025	2.5' Diameter Footing	30.0	Ft
635E5030	3' Diameter Footing	48.0	Ft
635E5301	Type 1 Electrical Junction Box	5	Each
635E5302	Type 2 Electrical Junction Box	6	Each
635E5303	Type 3 Electrical Junction Box	1	Each
635E5400	Electrical Service Cabinet	1	Each
635E5430	Traffic Signal Controller	1	Each
635E5515	Signal Head Battery Backup and Flash System	1	Each
635E5530	Preformed Detector Loop	5	Each
635E5535	Sawed-In, Preformed Detector Loop	20	Each
635E5550	Detector Unit	11	Each
635E5560	Emergency Vehicle Preemption Unit	1	Each
635E5570	Optical Detector	4	Each
635E5900	Pedestrian Push Button	8	Each
635E5910	Pedestrian Push Button Pole	8	Each
635E5922	Pedestrian Signal Head with Countdown Timer	8	Each
635E5930	Pedestrian Crossing Sign	8	Each
635E7018	Install Signal Pole with Mast Arm and Luminaire Arm	4	Each
635E7500	Remove and Reset Luminaire Pole	3	Each
635E8120	2" Rigid Conduit, Schedule 40	1,285	Ft
635E8130	3" Rigid Conduit, Schedule 40	55	Ft
635E8150	5" Rigid Conduit, Schedule 40	25	Ft
635E8220	2" Rigid Conduit, Schedule 80	315	Ft
635E8230	3" Rigid Conduit, Schedule 80	110	Ft
635E8240	4" Rigid Conduit, Schedule 80	240	Ft
635E9014	1/C #4 AWG Copper Wire	615	Ft
635E9016	1/C #6 AWG Copper Wire	3,650	Ft
635E9018	1/C #8 AWG Copper Wire	1,605	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	2,157	Ft
635E9507	7/C #14 AWG Copper Tray Cable, K2	230	Ft
635E9519	19/C #14 AWG Copper Tray Cable, K2	605	Ft
635E9524	24/C #14 AWG Copper Tray Cable, K2	410	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E9600	#16 AWG Copper Twisted Shielded Pair	2,610	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	260	Ft
635E9800	Preemption Cable	1,880	Ft
650E0060	Type B66 Concrete Curb and Gutter	560	Ft
650E0095	Type B69.5 Concrete Curb and Gutter	474	Ft
651E0050	5" Concrete Sidewalk	2,941	SqFt
651E7000	Type 1 Detectable Warnings	60	SqFt
670E1200	Type B Frame and Grate Assembly	4	Each
670E5400	Precast Drop Inlet Collar	4	Each
734E0010	Erosion Control	Lump Sum	LS
734E0154	12" Diameter Erosion Control Wattle	50	Ft
734E0180	Sediment Filter Bag	24	Ft
734E0604	High Flow Silt Fence	24	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	2	Each
734E5010	Sweeping	50	Hour
900E1320	Construction Entrance	1	Each

Index of Sheets

Sheet 1	Title Sheet
Sheet 2	Estimate of Quantities
Sheet 3	Environmental Commitments
Sheets 4-8	Typical Sections
Sheet 9	Table of Conduit Quantities
Sheet 10	Table of Permanent Signs
Sheets 11-21	Plan Notes
Sheets 22-30	Traffic Control
Sheets 31-32	SUE & Control Data
Sheets 33-35	Removals
Sheets 36-37	Excavation
Sheets 38-41	C&G & Sidewalk
Sheet 41A	Joint Spacing Layout
Sheets 42-43	Signal Layout
Sheets 44-45	Conduit Layout
Sheet 46	Wiring Diagram
Sheet 47	Signal Timing
Sheets 48-53	Signing
Sheets 54-55	Pavement Markings
Sheets 56-83	Details & Standard Plates



Plot Scale - 1"=100'

Plot From - TR001000

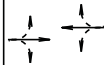
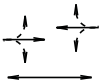


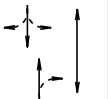
# SIGNAL TIMING









## US HWY 12 / 6TH AVENUE SE & LAMONT STREET

Revised 06/01/2016 CJP

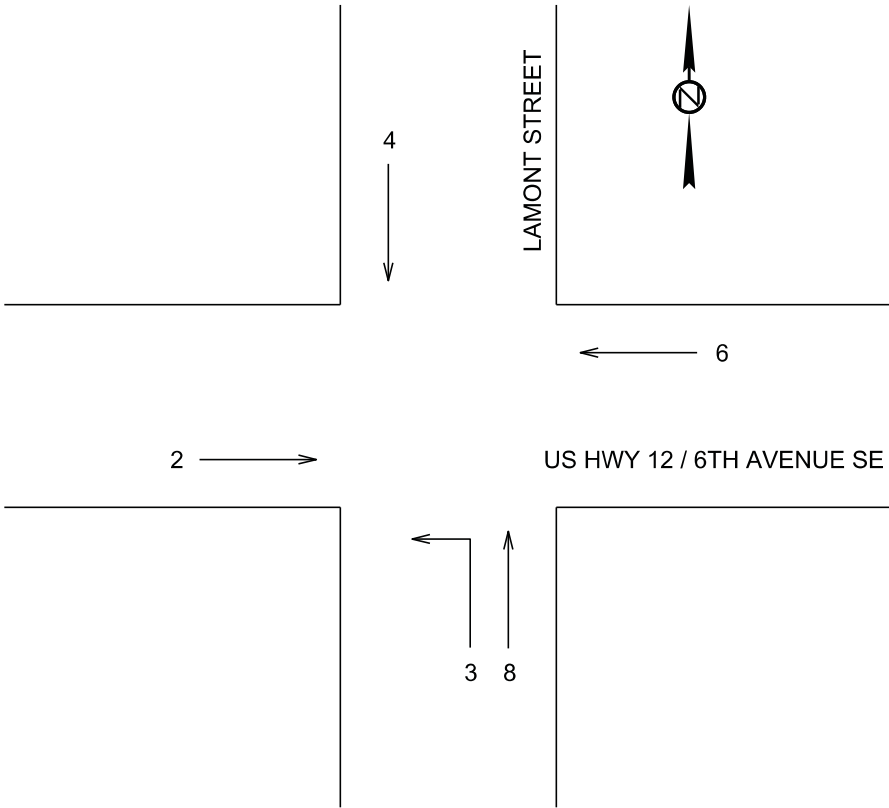
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	000P-151	47	83
Plotting Date:		06/01/2016	

TIMING PLAN 1	
TIME OF DAY (TOD)	PATTERN (C/S/O)
6:00 -23:00	FREE
23:00 - 6:00	FLASH

PHASING AND SEQUENCING																		
INTERVAL  SIGNAL HEAD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	FLASH DISPLAY
	1,2,3,4	G	Y		G	G	Y											Y
10,11,12,13	G	Y		G	G	Y												Y
6,7								<G	<Y									R
5,8,9								G	G	G	G	Y		G	G	Y		R
14,15,16											G	Y		G	G	Y		R
17,18,21,22	DW	DW	DW	W	F DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	NO DISPLAY
19,20,23,24	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	F DW	DW	DW	NO DISPLAY
MOVEMENTS	2&6		2&6 W/PED								4&8		4&8 W/PED					
PHASES																		

CONTROLLER TIMINGS (FREE OPERATION)								
MOVEMENT	1	2	3	4	5	6	7	8
PHASE								
MIN GREEN		15	10	10		15		10
ADDED INITIAL								
MAX INITIAL								
PASSAGE TIME		4	3	3		4		3
MAXIMUM		20	14	14		20		14
TIME BEFORE		10				10		
TIME TO REDUCE		5				5		
MINIMUM GAP		3.5				3.5		
YELLOW CHANGE		4		4		4		4
RED CLEARANCE		2		2		2		2
WALK		8		8		8		8
PED CLEARANCE		25		24		25		24
RECALL		SOFT		NONE		SOFT		NONE

WEEKLY PROGRAM							
	SUN	MON	TUE	WED	THU	FRI	SAT
TIMING PLAN	1	1	1	1	1	1	1



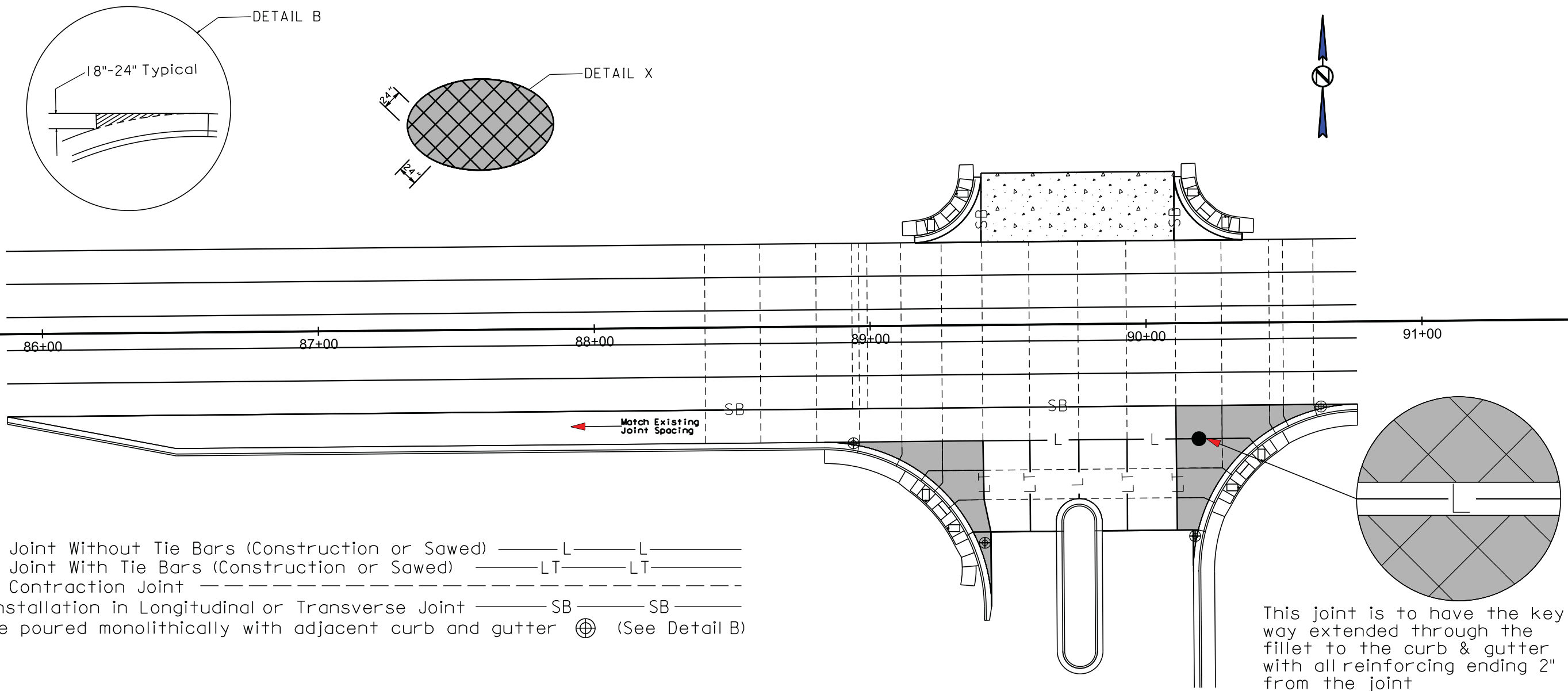
DETECTOR SETTINGS								
DETECTOR LABEL	AMPLIFIED CHANNEL DETECTOR	DETECTOR TYPE	DETECTOR OPERATION			LOCKING CALL	MOVEMENT CALLED	MOVEMENT EXTENDED
			CALLS & EXTENDS	CALLS ONLY	EXTENDS ONLY			
W1,W2,W3	1	SAWED-IN PREFORMED	X				2	2&6
W4	2	SAWED-IN PREFORMED	X			X	2	2&6
W5	3	SAWED-IN PREFORMED	X			X	2	2&6
N1,N2,N3	4	SAWED-IN PREFORMED	X				4	4&8
N4,N5,N6	5	SAWED-IN PREFORMED	X				4	4&8
E1,E2,E3	6	SAWED-IN PREFORMED	X				6	2&6
E4	7	SAWED-IN PREFORMED	X			X	6	2&6
E5	8	SAWED-IN PREFORMED	X			X	6	2&6
S1,S2,S3	9	PREFORMED (S1) SAWED-IN PREFORMED (S2-S3)	X				3	3
S4,S5,S6	10	PREFORMED (S4) SAWED-IN PREFORMED (S5-S6)	X				3	3
S7,S8,S9	11	PREFORMED	X				8	4&8

PLOT NAME - 1

FILE - ..\BROWNSON\SECTION\TANGAL\90TIME.DGN

# PCC PAVEMENT JOINT LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	000P-151	41A	83
Revised 06-01-16 BG			



LEGEND:

- Longitudinal Joint Without Tie Bars (Construction or Sawed) ——— L ——— L ———
- Longitudinal Joint With Tie Bars (Construction or Sawed) ——— LT ——— LT ———
- Transverse Contraction Joint - - - - -
- Steel Bar Installation in Longitudinal or Transverse Joint ——— SB ——— SB ———
- Areas to be poured monolithically with adjacent curb and gutter ⊕ (See Detail B)

■ Fillet area shall be reinforced with #4 rebar 24 inches on center both directions. Cost for furnishing and placing the rebar shall be incidental to the contract unit price per square yard for 9.5 INCH NONREINFORCED PCC PAVEMENT (See Detail X). No dowel bar assemblies shall be placed in these areas.

▤ 9.5 inches nonreinforced pcc pavement in place.

LOCATION OF CONCRETE PAVEMENT JOINTS

The location of joints, as shown and/or designated on pcc pavement joint layout sheets are only approximate locations to be used as a guide in the final location of the joints and to afford bidders a basis for estimating the construction cost of the joints. The final location of the joints are to be designated by the Engineer during construction.