Department of Transportation

Rapid City Region Office
2300 Eglin Street
P.O. Box 1970
Rapid City, SD 57709-1970
Phone: 605/394-2244
FAX: 605/394-1904

March 3, 2011

ADDENDUM NO. 1

RE: March 15, 2011 Rapid City Region Office Informal Letting – 090EF-452, 044-452, 016EB-452 & 016WB-452, PCNs i24a, i23u, i24b, & i24c – Meade & Pennington Counties – ADA Detectable Warning Repair

TO WHOM IT MAY CONCERN:

The following addendum to the plans shall be inserted and made a part of your proposal for the above referenced project. The reason for the addendum is to change the plan notes and modify bid items for replacing detectable warnings located on the bridge deck on US 16B. The bid item "Remove and Replace Deteriorated Concrete" was added. The following bid item quantities were reduced: "Remove Concrete Sidewalk", "Insert Steel Bar in PCC Pavement" and "4" Concrete Sidewalk".

PROPOSAL:

- Replace DOT-123

PLANS:

- Replace sheets 2, 4, 5 and 6 with revised sheets dated 3/3/2011 GDS

Sincerely,

_____
John Rehorst
Region Design Engineer

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL

DOT-123
(5/05)

CODE	PRE	PROJECT ROUTE	AGR	MAINT UNIT	CONTROL REFERENCE	AFE	FUNCTION	BEGIN MRM	END MRM
		090EF		452		I24A		0476	0476
		044		452		I23U		0434	0440
		016EB		452		I24B		0676	0676
		016WB		452		I24C		0676	0676

CITY AND /OR COUNTY Meade & Pennington BUDGET SOURCE FY11 Cont. Maint.
FINALS ENGINEER REVIEW REQUIRED ☒ YES ☐ NO
REGION MATERIALS CERTIFICATION REQUIRED ☒ YES ☐ NO
CERTIFIED INSPECTORS/TESTERS REQUIRED ☒ YES ☐ NO
TO BE INSTALLED ON THE CM&P ☒ YES ☐ NO
TYPE, PURPOSE AND LOCATION OF WORK ADA Detectable Warning Repair on various routes in Meade & Pennington County

ESTIMATE OF QUANTITIES AND COST

BID ITEM NUMBER	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	090EF-452 (I24A)				
009E0010	Mobilization	Lump Sum	LS		
110E1140	Remove Concrete Sidewalk	11.2	SqYd		
380E6110	Insert Steel Bar in PCC Pavement	24	Each		
634E0010	Flagging	10	Hour	$22.16	$221.60
634E0100	Traffic Control	512	Unit		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
634E0420	Type C Advance Warning Arrow Panel	2	Each		
651E0040	4" Concrete Sidewalk	100	SqFt		
651E7000	Type 1 Detectable Warnings	40	SqFt		
	044-452 (I23U)				
009E0010	Mobilization	Lump Sum	LS		
110E1140	Remove Concrete Sidewalk	95.2	SqYd		
380E6110	Insert Steel Bar in PCC Pavement	196	Each		
634E0010	Flagging	10	Hour	$22.16	$221.60
634E0100	Traffic Control	1032	Unit		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
634E0420	Type C Advance Warning Arrow Panel	2	Each		
651E0040	4" Concrete Sidewalk	853	SqFt		
651E7000	Type 1 Detectable Warnings	304	SqFt		
	016EB-452 (I24B)				
009E0010	Mobilization	Lump Sum	LS		
110E1140	Remove Concrete Sidewalk	11.2	SqYd		
380E6110	Insert Steel Bar in PCC Pavement	24	Each		
491E0100	Remove and Replace Deteriorated Concrete	2.2	SqYd		
634E0010	Flagging	5	Hour	$22.16	$110.80
634E0100	Traffic Control	567	Unit		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
634E0420	Type C Advance Warning Arrow Panel	1	Each		
651E0040	4" Concrete Sidewalk	100	SqFt		
651E7000	Type 1 Detectable Warnings	60	SqFt		

ESTIMATE OF QUANTITIES AND COST (CONT.)

	016WB-452 (I24C)				
009E0010	Mobilization	Lump Sum	LS		
110E1140	Remove Concrete Sidewalk	11.2	SqYd		
380E6110	Insert Steel Bar in Pavement	24	Each		
491E0100	Remove and Replace Deteriorated Concrete	2.2	SqYd		
634E0010	Flagging	5	Hour	$22.16	110.80
634E0100	Traffic Control	567	Unit		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
634E0420	Type C Advance Warning Arrow Panel	1	Each		
651E0040	4" Concrete Sidewalk	100	SqFt		
651E7000	Type 1 Detectable Warnings	60	SqFt		
				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 and in the place all 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_____ OVERALL COMPLETION DATE May 27, 2011 and 30 working days

SUBSCRIBED AND SWORN TO BEFORE ME THE _____ DAY OF_____ , 20 _____

SIGNATURE_____

COMPANY _____

ADDRESS _____

NOTARY – My Commission Expires_____FED. TAX ID NUMBER_____

RECOMMENDED FOR APPROVAL:

CONSTRUCTION/MAINTENANCE ENGR. 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

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	090EF-452, 044-452. 016EB-452, 016WB-452	2	24

Revised 3/3/2011 GDS

ESTIMATE OF QUANTITIES

PCN I24A

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	11.2	SqYd
380E6110	Insert Steel Bar in PCC Pavement	24	Each
634E0010	Flagging	10	Hour
634E0100	Traffic Control	512	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	2	Each
651E0040	4" Concrete Sidewalk	100	SqFt
651E7000	Type 1 Detectable Warnings	40	SqFt

PCN I23U

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	95.2	SqYd
380E6110	Insert Steel Bar in PCC Pavement	196	Each
634E0010	Flagging	10	Hour
634E0100	Traffic Control	1,032	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	2	Each
651E0040	4" Concrete Sidewalk	853	SqFt
651E7000	Type 1 Detectable Warnings	304	SqFt

PCN I24B

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	11.2	SqYd
380E6110	Insert Steel Bar in PCC Pavement	24	Each
491E0100	Remove and Replace Deteriorated Concrete	2.2	SqYd
634E0010	Flagging	5	Hour
634E0100	Traffic Control	567	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
651E0040	4" Concrete Sidewalk	100	SqFt
651E7000	Type 1 Detectable Warnings	60	SqFt

I24C

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	11.2	SqYd
380E6110	Insert Steel Bar in PCC Pavement	24	Each
491E0100	Remove and Replace Deteriorated Concrete	2.2	SqYd
634E0010	Flagging	5	Hour
634E0100	Traffic Control	567	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
651E0040	4" Concrete Sidewalk	100	SqFt
651E7000	Type 1 Detectable Warnings	60	SqFt

SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

GENERAL MAINTENANCE OF TRAFFIC

1. Traffic control shall be in accordance with MUTCD Standards, the Standard Specifications and the layouts contained in these plans.
2. All Contractors' vehicles or equipment entering or leaving a closed work area shall display a flashing amber light.
3. The Contractor shall at all times, keep the project in a condition that will adequately and safely accommodate traffic and pedestrians.
4. One side of the roadway shall remain open to pedestrians at all times.
5. The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.
6. Non-applicable signing will be covered or removed and reset during periods of in-activity. All costs to do this work shall be incidental to Traffic Control, Miscellaneous.
7. The quantity of signs paid for will be for the most installations per sign in place at any one time regardless of the number of set-ups at this project site.
8. The Contractor shall be required to have a person available 24 hour/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting.
9. Work activities shall only be during daylight hours. Daylight hours are considered to be ½ hour before sunrise until ½ hour after sunset.
10. The Contractor shall coordinate his operations such that during non-working hours the roadway shall be open to normal traffic for the entire width of the road. Lane closures shall be removed prior to nightfall.
11. During removal and construction of sidewalks/ADA panels, orange construction fence shall be placed around the work zone perimeter to keep pedestrians from entering work areas.
12. All work activities shall be conducted so that pedestrian access is maintained at all times. At street crossing locations, pedestrian traffic shall be detoured to the next available crossing during panel replacement activities. It is the Contractor's responsibility to provide temporary ADA-compliant access at all times

INVENTORY OF TRAFFIC CONTROL DEVICES

PCN I24A

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
R9-9	24" x 12"	SIDEWALK CLOSED	4	4	16
R9-10	24" x 12"	SIDEWALK CLOSED, USE OTHER SIDE	4	4	16
R9-11	24" x 12"	SIDEWALK CLOSED AHEAD, CROSS HERE	4	4	16
W16-7P	30" x 18"	SUPPLEMENTAL DIAGONAL ARROW	4	15	60
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	2	34	68
W21-5	48" x 48"	SHOULDER WORK	2	34	68
W11-2	48" x 48"	PEDESTRIAN	4	34	136
W16-9P	30" x 18"	AHEAD	2	15	30
				TOTAL UNITS	512

PCN I23U

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	8	17	136
R9-9	24" x 12"	SIDEWALK CLOSED	4	4	16
R9-10	24" x 12"	SIDEWALK CLOSED, USE OTHER SIDE	4	4	16
R9-11	24" x 12"	SIDEWALK CLOSED AHEAD, CROSS HERE	4	4	16
W4-1	48" x 48"	MERGE (SYMBOL)	1	34	34
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	1	34	34
W16-7P	30" x 18"	SUPPLEMENTAL DIAGONAL ARROW	4	15	60
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	8	34	272
W20-5	48" x 48"	LT. OR RT. LANE CLOSED #### FT. OR AHEAD	1	34	34
W20-7a	48" x 48"	FLAGGER	2	34	68
W21-5	48" x 48"	SHOULDER WORK	2	34	68
W11-2	48" x 48"	PEDESTRIAN	4	34	136
W16-9P	30" x 18"	AHEAD	2	15	30
*****	*****	TYPE III BARRICADE - 8 FT. DOUBLE SIDED	2	56	112
				TOTAL UNITS	1032

PCN I24B

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
R9-9	24" x 12"	SIDEWALK CLOSED	2	4	8
R9-10	24" x 12"	SIDEWALK CLOSED, USE OTHER SIDE	2	4	8
R9-11	24" x 12"	SIDEWALK CLOSED AHEAD, CROSS HERE	2	4	8
W4-1	48" x 48"	MERGE (SYMBOL)	1	34	34
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	1	34	34
W16-7P	30" x 18"	SUPPLEMENTAL DIAGONAL ARROW	2	15	30
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	4	34	136
W20-5	48" x 48"	LT. OR RT. LANE CLOSED #### FT. OR AHEAD	1	34	34
W20-7a	48" x 48"	FLAGGER	1	34	34
W21-5	48" x 48"	SHOULDER WORK	1	34	34
W11-2	48" x 48"	PEDESTRIAN	2	34	68
W16-9P	30" x 18"	AHEAD	1	15	15
*****	*****	TYPE III BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
				TOTAL UNITS	567

TABLE OF SIDEWALK REMOVAL ((CONTINUED)

US 16B EASTBOUND - PCN I24B

Station	Offset	L/R	L x W	Quantity (SqYd)
181+45.0	73.0	R	5' x 5'	2.8
182+28.0	73.0	R	5' x 5'	2.8
1+34.0	73.0	R	5' x 5'	2.8
2+09.0	73.0	R	5' x 5'	2.8
		Total:		11.2

US 16B WESTBOUND - PCN I24C

Station	Offset	L/R	L x W	Quantity (SqYd)
181+45.0	73.0	L	5' x 5'	2.8
182+28.0	73.0	L	5' x 5'	2.8
1+34.0	73.0	L	5' x 5'	2.8
2+09.0	73.0	L	5' x 5'	2.8
		Total:		11.2

STEEL BAR INSERTION

Locations and quantities of concrete repair are subject to change in the field at the discretion of the Engineer. The Contractor will be responsible for ordering the actual quantity of steel bars necessary to complete the work.

The Contractor shall insert the steel bars (No. 4 x 12" epoxy coated deformed tie bars) into drilled holes in the existing concrete sidewalk pavement. An epoxy resin adhesive must be used to anchor the steel bar in the drilled hole. The bars shall be drilled in 6 inches deep into adjacent sidewalk and aprons. Two bars per side shall be evenly spaced horizontally along each side of the sidewalk repair.

Steel bars shall be cut to the specified length by sawing and shall be free from burring or other deformations. Shearing will not be permitted.

Epoxy resin adhesive shall be of the type intended for horizontal applications, and shall conform to the requirements of ASTM C 881, Type IV, Grade 3 (equivalent to AASHTO M235, Type IV, Grade 3).

The diameter of the drilled holes in the existing concrete pavement for the steel bars shall not be less than 1/8 inch nor more than 3/8 inch greater than the overall diameter of the steel bar. Holes drilled into the existing concrete sidewalk pavement shall be located at mid-depth of the slab and true and normal. The drilled holes shall be blown out with compressed air using a device that will reach to the back of the hole to ensure that all debris or loose material has been removed prior to epoxy injection.

A rigid frame or mechanical device will be required to guide the drill to ensure proper horizontal and vertical alignment of the steel bars in the drilled holes.

Mix the epoxy resin as recommended by the manufacturer and apply by an injection method approved by the Engineer. If an epoxy pump is utilized, it shall be capable of metering the components at the manufacturer's designated rate and be equipped with an automatic shut-off. The pump shall shut off when any of the components are not being metered at the designated rate.

STEEL BAR INSERTION (CONTINUED)

Fill the drilled holes 1/3 to 1/2 full of epoxy, or as recommended by the manufacturer, prior to insertion of the steel bar. Care shall be taken to prevent epoxy from running out of the horizontal holes prior to steel bar insertion. Rotate the steel bar during insertion to eliminate voids and ensure complete bonding of the bar. Insertion by the dipping method will not be allowed.

Cost for the epoxy resin adhesive, steel bars, drilling of holes, inserting the steel bars into the drilled holes and all other items incidental to the insertion of the steel bars shall be included in the contract unit price per each for Insert Steel Bar In PCC Pavement.

TABLE OF STEEL BAR INSERTION

I-90 SERVICE ROAD - PCN I24A

Station	Offset	L/R	QUANTITY OF BARS No. 4
215+30.0	34.0	L	6
215+82.0	34.0	L	6
215+22.0	34.0	R	6
215+73.0	34.0	R	6
		Totals:	24

TABLE OF STEEL BAR INSERTION (CONTINUED)

HIGHWAY 44 - PCN I23U

Station	Offset	L/R	QUANTITY OF BARS No. 4
5+27.5	46.3	L	8
5+94.0	46,3	L	8
7+14.5	39.7	L	8
7+14.5	7.1	L	6
7+14.5	5.4	L	6
11+03.0	44.7	L	8
11+11.5	54.5	L	8
11+75.9	54.5	L	8
11+84.0	55.8	L	6
12+11.5	77.7	L	6
20+08.5	44,5	L	6
21+17.0	61.5	L	6
26+43.7	46.2	L	6
26+65.8	46.2	L	6
29+01.3	75.3	L	6
29+17.3	41.4	L	6
29+19.0	57.9	L	6
7+14.5	27.7	R	6
11+03.0	27.7	R	6
18+54.7	44.5	R	8
18+84.9	56.5	R	8
19+89.6	47.1	R	6
21+05.0	36.2	R	6
26+46.0	49.6	R	6
26+62.7	49.6	R	6
29+09.3	104.3	R	6
29+13.2	61.1	R	6
29+17.0	44.1	R	6
29+31.3	54.0	R	6
30+09.7	50.8	R	6
		Totals:	196

US 16B EASTBOUND - PCN I24B

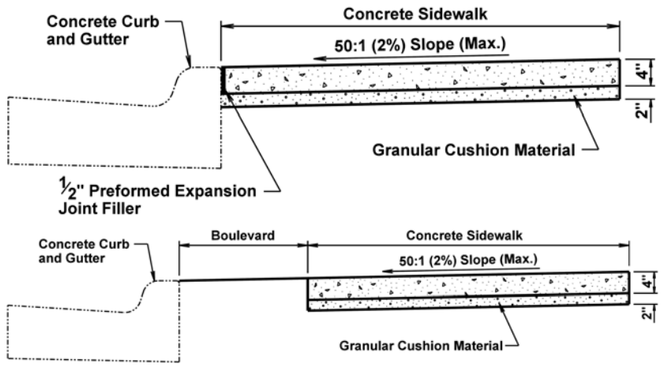
Station	Offset	L/R	QUANTITY OF BARS No. 4
181+45.0	73.0	R	6
182+28.0	73.0	R	6
1+34.0	73.0	R	6
2+09.0	73.0	R	6
		Totals:	24

TABLE OF STEEL BAR INSERTION (CONTINUED)

US 16B WESTBOUND - PCN I24C

Station	Offset	L/R	QUANTITY OF BARS No. 4
181+45.0	73.0	L	6
182+28.0	73.0	L	6
1+34.0	73.0	L	6
2+09.0	73.0	L	6
		Totals:	24

CONCRETE SIDEWALK



The concrete sidewalk shall be constructed in accordance with Section 651 of the Standard Specifications. The sidewalk details shown above are typical of this project; however, the sidewalk widths, boulevard widths, and other special details are shown on the Curb and Gutter Layout sheets.

Any ramps that are not constructed according to Section 651 of the Standard Specifications will be removed and replaced at the contractor's expense.

TABLE OF SIDEWALK

I-90 SERVICE ROAD - PCN I24A

Station	Offset	L/R	Quantity (SqFt)
215+30.0	34.0	L	25.0
215+82.0	34.0	L	25.0
215+22.0	34.0	R	25.0
215+73.0	34.0	R	25.0
		Total:	100.0

HIGHWAY 44 - PCN I23U

Station	Offset	L/R	Quantity (SqFt)
5+27.5	46.3	L	39.6
5+94.0	46,3	L	39.6
7+14.5	39.7	L	39.6
7+14.5	7.1	L	12.6
7+14.5	5.4	L	12.6
11+03.0	44.7	L	39.6
11+11.5	54.5	L	39.6
11+75.9	54.5	L	36.9
11+84.0	55.8	L	17.1
12+11.5	77.7	L	25.0
20+08.5	44,5	L	25.0
21+17.0	61.5	L	25.0
26+43.7	46.2	L	25.0
26+65.8	46.2	L	25.0
29+01.3	75.3	L	25.0
29+17.3	41.4	L	25.0
29+19.0	57.9	L	25.0
7+14.5	27.7	R	25.0
11+03.0	27.7	R	25.0
18+54.7	44.5	R	39.6
18+84.9	56.5	R	39.6
19+89.6	47.1	R	25.0
21+05.0	36.2	R	25.0
26+46.0	49.6	R	36.0
26+62.7	49.6	R	36.0
29+09.3	104.3	R	25.0
29+13.2	61.1	R	25.0
29+17.0	44.1	R	25.0
29+31.3	54.0	R	25.0
30+09.7	50.8	R	25.0
		Total:	853.4

US 16B EASTBOUND - PCN I24B

Station	Offset	L/R	Quantity (SqFt)
181+45.0	73.0	R	25.0
182+28.0	73.0	R	25.0
1+34.0	73.0	R	25.0
2+09.0	73.0	R	25.0
		Total:	100.0

TABLE OF SIDEWALK (CONTINUED)

US 16B WESTBOUND - PCN I24C

Station	Offset	L/R	Quantity (SqFt)
181+45.0	73.0	L	25.0
182+28.0	73.0	L	25.0
1+34.0	73.0	L	25.0
2+09.0	73.0	L	25.0
		Total:	100.0

TYPE 1 DETECTABLE WARNING PANELS

Detectable warnings shall be in compliance with the Americans with Disability Act regulations.

The detectable warnings shall be installed according to the manufacturer's installation instructions.

A concrete thickness equal to the adjacent concrete sidewalk thickness and 2 inches of granular cushion material shall be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness shall be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

The detectable warnings shall be a brick red color for application in concrete curb ramps. Cast iron plates may be a natural patina (weathered steel).

The detectable warning panels shall be protected during placement to avoid any damage or concrete sticking to the top surface. Any damaged panels shall be replaced at the contractor's expense to remove and replace damaged panels.

The contractor is responsible for consolidating the concrete under the panels to avoid air pockets or voids underneath the panels after placement.

The Type 1 Detectable Warning Panels shall be selected from one of the approved suppliers in the following list.

TYPE 1 DETECTABLE WARNING PANELS (CONTINUED)

Type 1 Detectable Warnings	
Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 http://www.deeter.com/
Detectable Warning Plate Cast Iron Plate	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com
Detectable Warning Tile Composite Replaceable Wet-Set	ADA Solutions, Inc. North Billerica, MA 01862 800-372-0519 http://www.adatile.com
Access Tile Composite Replaceable Cast in Place	Access Products Inc. 241 Main Street, Suite 100 Buffalo, NY 14203 888-679-4022 http://www.accesstile.com/
Armorcast Detectable Warning Tile Composite Replaceable Wet-Set	Armorcast Products Company 13230 Saticoy Street North Hollywood, CA 91605 818-982-3600 http://www.armorcastprod.com/

TABLE OF TYPE 1 DETECTABLE WARNINGS

I-90 SERVICE ROAD - PCN I24A

Station	Offset	L/R	Quantity (SqFt)
215+30.0	34.0	L	10
215+82.0	34.0	L	10
215+22.0	34.0	R	10
215+73.0	34.0	R	10
		Total:	40

HIGHWAY 44 - PCN I23U

Station	Offset	L/R	Quantity (SqFt)
5+27.5	46.3	L	10
5+94.0	46,3	L	10
7+14.5	39.7	L	10
7+14.5	7.1	L	10
7+14.5	5.4	L	10
11+03.0	44.7	L	10
11+11.5	54.5	L	10
11+75.9	54.5	L	10
11+84.0	55.8	L	10
12+11.5	77.7	L	10
20+08.5	44,5	L	10

TABLE OF TYPE 1 DETECTABLE WARNINGS

HIGHWAY 44 - PCN I23U (CONTINUED)

21+17.0	61.5	L	10
26+43.7	46.2	L	10
26+65.8	46.2	L	10
29+01.3	75.3	L	10
29+17.3	41.4	L	10
29+19.0	57.9	L	10
7+14.5	27.7	R	10
11+03.0	27.7	R	10
18+54.7	44.5	R	10
18+84.9	56.5	R	10
19+89.6	47.1	R	10
21+05.0	36.2	R	10
26+46.0	49.6	R	12
26+62.7	49.6	R	12
29+09.3	104.3	R	10
29+13.2	61.1	R	10
29+17.0	44.1	R	10
29+31.3	54.0	R	10
30+09.7	50.8	R	10
		Total:	304

US 16B EASTBOUND - PCN I24B

Station	Offset	L/R	Quantity (SqFt)
181+45.0	73.0	R	10
182+28.0	73.0	R	10
182+64.0	73.0	R	10
0+78.0	73.0	R	10
1+34.0	73.0	R	10
2+09.0	73.0	R	10
		Total:	60

US 16B WESTBOUND - PCN I24C

Station	Offset	L/R	Quantity (SqFt)
181+45.0	73.0	L	10
182+28.0	73.0	L	10
182+64.0	73.0	L	10
0+78.0	73.0	L	10
1+34.0	73.0	L	10
2+09.0	73.0	L	10
		Total:	60

REPLACEMENT OF DETECTABLE WARNINGS ON THE US16B STRUCTURE

The replacement of the detectable warnings on the US 16B structure shall consist of removing the existing precast concrete detectable warnings and breaking out enough concrete so that a minimum depth of 2" of new concrete can be placed for the installation of new detectable warnings. Detectable warnings on the structure shall be replaced at the following locations:

Station 182+64 – 73'R, US 16B Eastbound
Station 0+78 – 73'R, US 16B Eastbound
Station 182+64 – 73'L, US 16B Westbound
Station 0+78 – 73'L, US 16B Wastbound

The existing deck concrete shall be broken out to the limits needed for placement of new detectable warnings. The existing dimensions of the detectable warning panels are 2' long x 5' wide on the structure.

All costs associated with breaking out concrete and placing 2" of new concrete shall be shall be incidental to the contract unit price per square yard "Remove and Replace Deteriorated Concrete". Field measurement will not be required and plans quantity shall be the basis of payment.