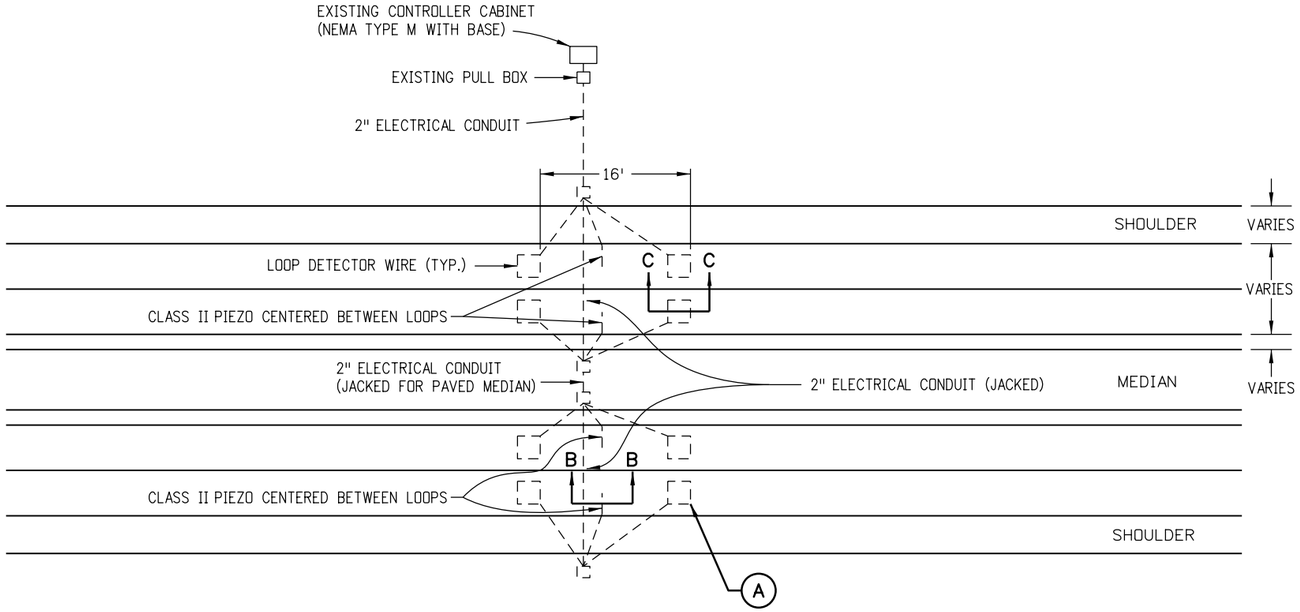
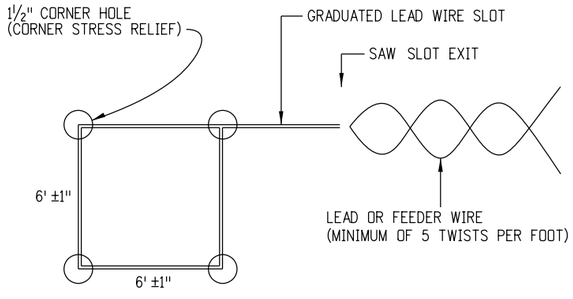


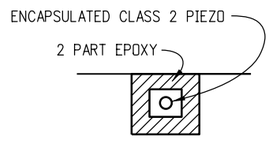
PLAN VIEW

LOOP GEOMETRICS AND INSTALLATION



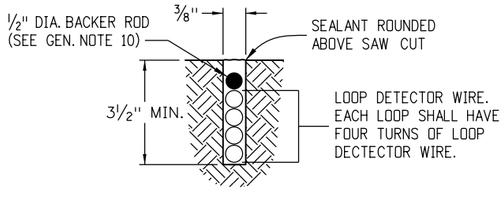
DETAIL (A)

LOOP DETECTOR WIRE



SECTION B-B

TYPICAL PIEZO SECTION



SECTION C-C

LOOP DETECTOR WIRE INSTALLATION

GENERAL NOTES

1. ALL DETECTOR LOOPS SHALL MEASURE 6 FT. X 6 FT. (WITHIN 1 INCH TOLERANCE).
2. LOOPS SHALL BE CENTERED IN THE TRAVEL LANE WITH TWO SIDES PARALLEL TO THE LANE STRIPING.
3. ALL LOOP, LOOP LEAD, AND FEEDER WIRE SAW SLOTS SHALL BE CUT TO A MINIMUM DEPTH OF 3½ INCHES.
4. SLOTS SHALL BE SAWED AFTER PLANING AND BEFORE LAYING OF THE FIRST LIFT OF PAVEMENT WHEN APPLICABLE.
5. ALL LOOP CORNERS SHALL BE ROUNDED USING A 1½ INCH HOLE DRILLED TO A MINIMUM DEPTH OF 3½ INCHES.
6. MINIMUM SAW SLOT WIDTH SHALL BE ⅜ INCH.
7. BEFORE INSTALLATION OF THE WIRE, ALL SAW SLOTS SHALL BE CLEANED OF DEBRIS USING WATER AND COMPRESSED AIR. SURFACE AND SLOTS MUST BE ALLOWED TO DRY.
8. ALL LOOPS SHALL BE FOUR TURNS OF THE ABOVE SPECIFIED LOOP WIRE. THE WIRE SHALL BE SEATED IN THE BOTTOM OF THE SAW SLOT.
9. WIRE SPLICES WILL NOT BE PERMITTED IN THE SAW SLOTS. ALL LOOPS SHALL BE CONTINUOUS IN THE PAVEMENT AND TO THE PULL BOX.
10. A BACKER ROD WITH ½ INCH DIA. SHALL BE INSTALLED TO INSURE WIRES DO NOT FLOAT TO THE SURFACE DURING GROUTING.
11. ALL SAW SLOTS AND DRILL HOLES SHALL BE SEALED USING A TWO-PART SELF CURING, SELF BONDING WEATHERPROOF EPOXY. EXCESS EPOXY SHALL BE REMOVED TO AVOID UNNECSSARY HIGH SPOTS.
12. PIEZO SENSORS SHALL BE INSTALLED AT THE EXACT MIDPOINT BETWEEN THE LOOPS IN EACH LANE AND TO THE RIGHT OR LEFT SIDE OF THE LINE, CENTERED IN THE WHEEL PATH.
13. PIEZO SENSORS SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUFACTURER'S SPCIFICATIONS, A COPY OF WHICH SHALL BE SUPPLIED TO THE ENGINEER PRIOR TO INSTALLATION.
14. LOOP SETS (TWO LOOPS IN A SERIES) WITHIN A SINGLE LANE SHALL BE SEPARATED BY 10 FEET RESULTING IN A DISTANCE OF 16 FEET FROM LEADING EDGE TO LEADING EDGE (WITHIN 1 INCH TOLERANCE).
15. NO MORE THAN ONE SET OF LOOP LEAD WIRES SHALL BE PLACED IN A SAW SLOT.
16. PULL BOXES MUST CONTAIN AN ADDITIONAL 3 FEET OF LOOP WIRE WHICH ENTERS AND/OR EXITS THE PULL BOX.
17. ALL LOOPS AND LOOP LEADS SHALL BE CLEARLY LABELED IN EACH PULL BOX.
18. MULTIPLE PAIR BELDEN CABLE MAY BE USED IN CONDUIT.
19. COORDINATE INSTALLATION WITH MIKE DELCUPP, CDOT DIVISION OF TRANSPORTATION DEVELOPMENT, AT 303-757-9816. CALL 5 DAYS IN ADVANCE FOR LAYOUT ASSISTANCE.

PIEZO LOOP DETECTOR INSTALLATION DETAIL
D-614-2

APPLICATION: ON EDGE OF PAVEMENTS.

HISTORY:

DESIGNER NOTES:

PLEASE CALL THE STANDARDS ENGINEER AT 303-757-9021 FOR ANY QUESTIONS.

PLEASE DELETE THIS BLOCK BEFORE USING THIS DETAIL ON A PROJECT. DATE: APRIL 26, 2011 DD/LTA

Computer File Information
Creation Date: 07/31/19
Designer Initials: DD
Last Modification Date: 07/31/19
Detailer Initials: LTA
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions			
R-X	mm/dd/yy	XXXXXXX	XXXXXX
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Colorado Department of Transportation
Street Address
Office location
City, CO Zip code
Phone: XXX-XXX-XXXX Fax: XXX-XXX-XXXX
Region, Unit Intials/Intials

As Constructed	
No Revisions:	mm/dd/yy
Revised:	mm/dd/yy
Void:	mm/dd/yy

PIEZO LOOP DETECTOR INSTALLATION DETAIL

Designer:	XXXXXXXX		
Detailer:	XXXXXXXX		
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Project No./Code
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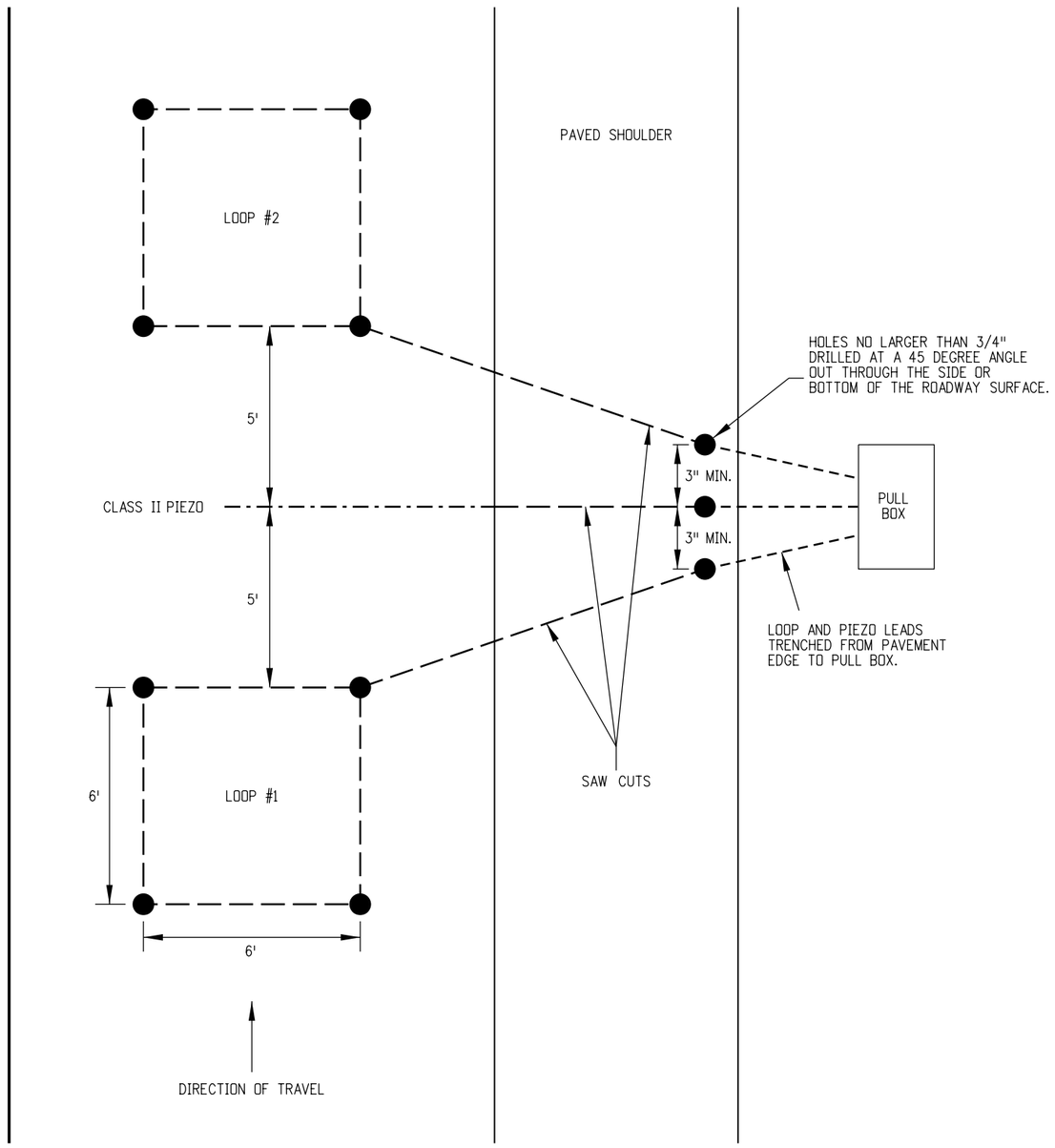
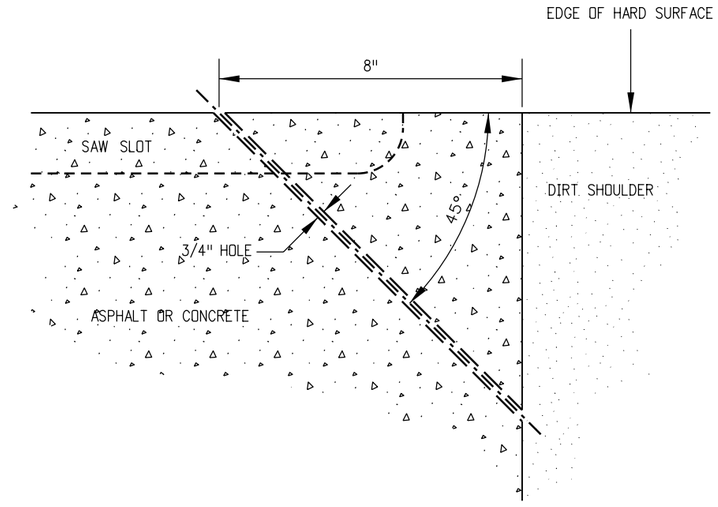
D-614-2
Sheet Number: 1 of 2
Project Sheet Number: XX



PIEZO PLACEMENT AND SAW CUTTING
FOR AN ATR AXLE CLASSIFICATION SITE



SECTION VIEW
DRILL DETAIL

PIEZO LOOP DETECTOR INSTALLATION DETAIL
D-614-2

APPLICATION: ON EDGE OF PAVEMENTS.

HISTORY:

DESIGNER NOTES:

PLEASE CALL THE STANDARDS ENGINEER AT 303-757-9021 FOR ANY QUESTIONS.

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Computer File Information	Sheet Revisions				
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Designer Initials: DD	R-X	mm/dd/yy	XXXXXXX	XXXXXX	
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Colorado Department of Transportation
Street Address
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As Constructed	
No Revisions:	mm/dd/yy
Revised:	mm/dd/yy
Void:	mm/dd/yy

PIEZO LOOP DETECTOR INSTALLATION DETAIL

Designer:	XXXXXXXX		
Detailer:	XXXXXXXX		
Sheet Subset:	XXXXXXX	Subset Sheets:	XXX of XXX

Project No./Code
XXXXX/XXXX
D-614-2
Sheet Number: 2 of 2
Project Sheet Number: XX