STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
DEEP-CUT INDUCTIVE DETECTION LOOPS
(FOR INSTALLATION PRIOR TO MILLING)

NOTES

- OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.

- MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.

- WIRE LOOPS CONNECTED TO THE SAME DETECTOR IN SERIES.

- LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS.

- USE A SERIES OF ONE INCH PIECES OF BACKER ROD SPACED ONE FOOT APART ALONG THE ENTIRE LENGTH OF THE FEEDER SLOT AND LOOP SAW SLOT.

- CONSULT LOOP SEALANT MANUFACTURER TO DETERMINE CURING TIME REQUIRED PRIOR TO MILLING.

- REFER TO STANDARD DRAWING 1725.01 SHEETS 2 AND 3 FOR ADDITIONAL REQUIREMENTS.

SAW SLOT DEPTH CHART

ASSUMING 2" MILLING DEPTH

DEPTH (IN)	MAX NO. OF WIRE LAYERS				
	2	3	4	5	6
SAW SLOT DEPTH	4.0	4.5	5.0	5.0	5.0
MINIMUM TOTAL ASPHALT DEPTH REQUIRED	5.0	5.5	6.0	6.0	6.0

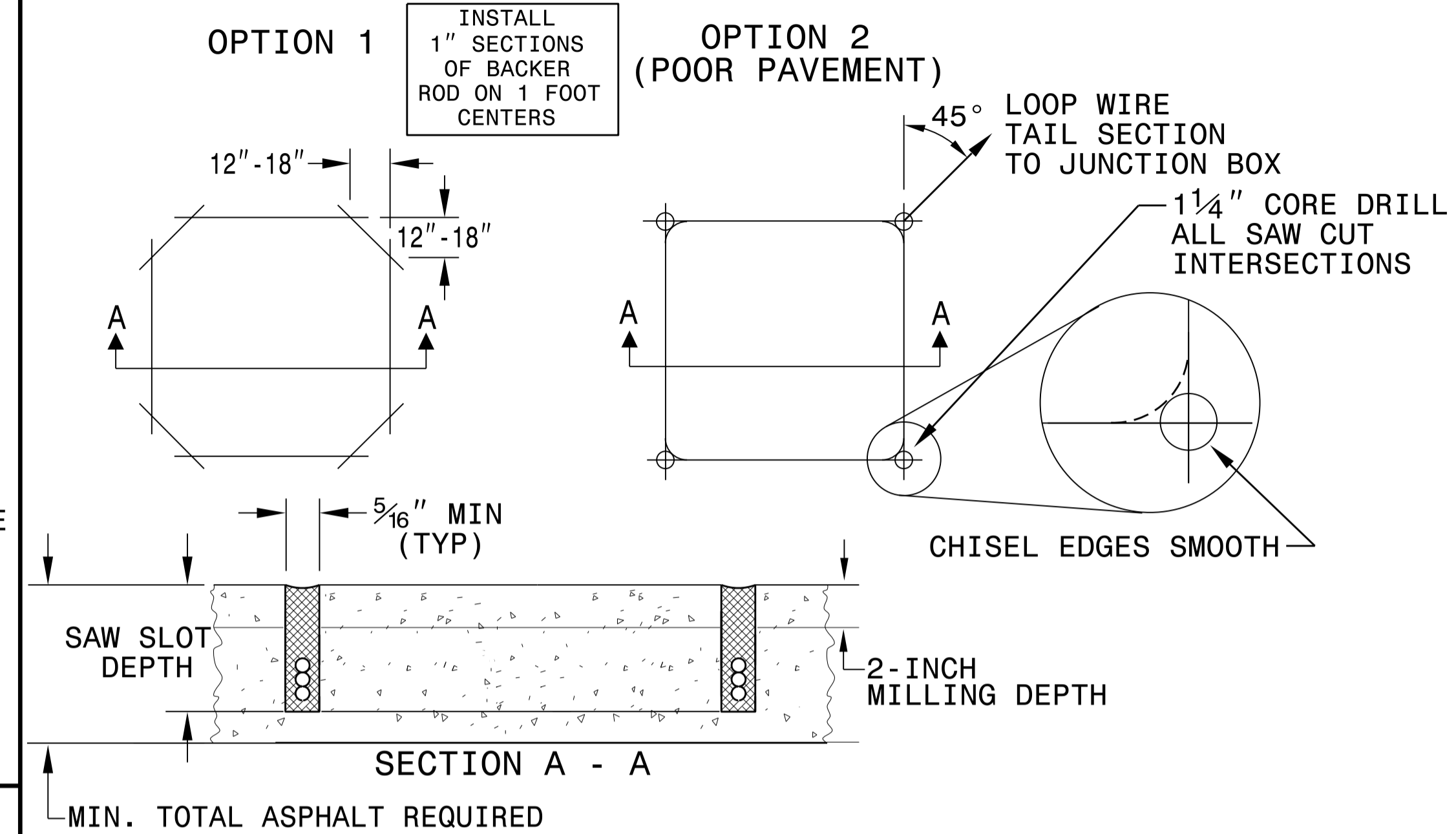## LOOP WIRE TWISTING METHOD

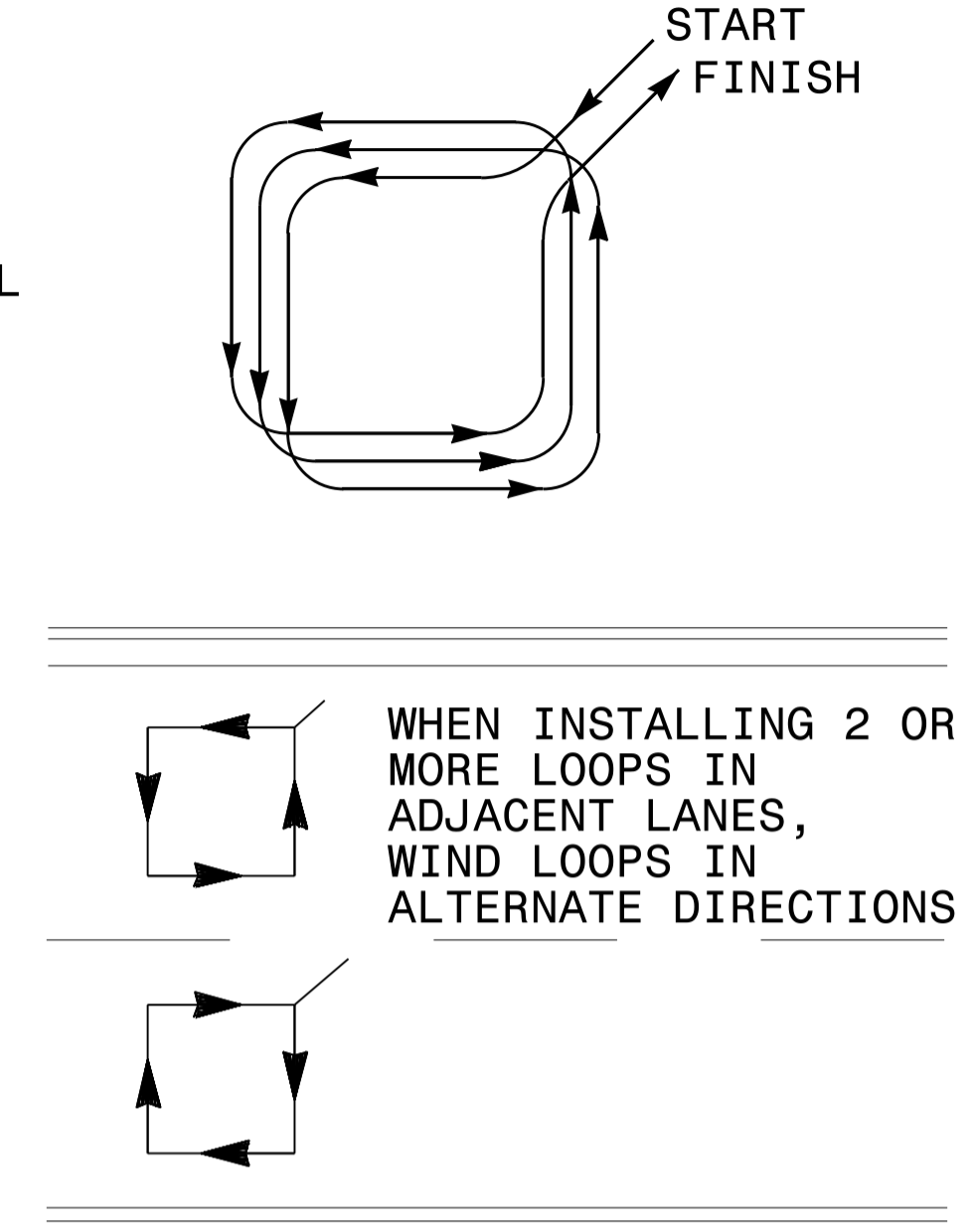INCORRECT WAY TO TWIST WIRE

CORRECT WAY TO TWIST WIRE

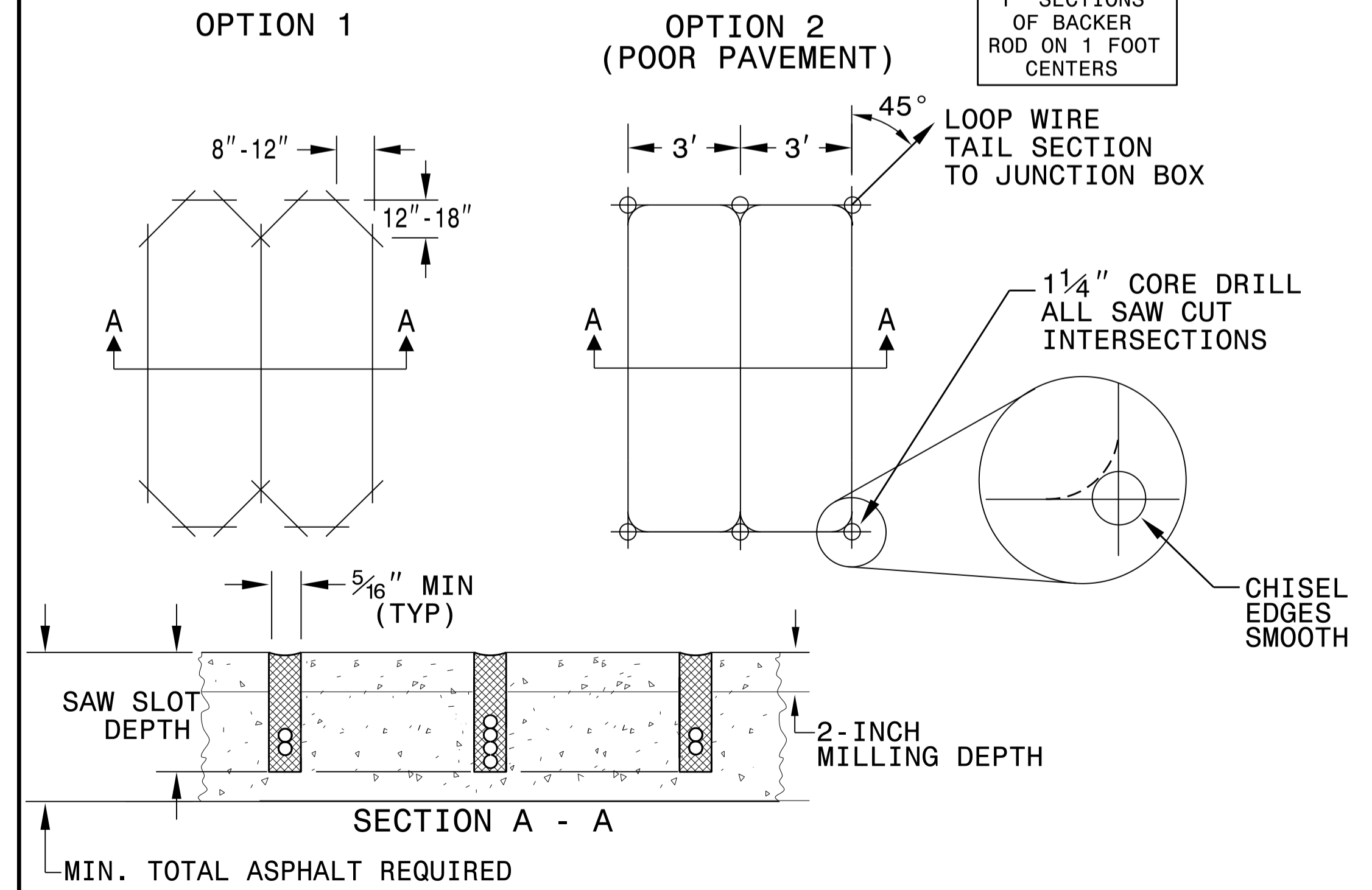## CONVENTIONAL 4-SIDED LOOP

SAW CUT OPTIONS

OPTION 1

INSTALL 1" SECTIONS OF BACKER ROD ON 1 FOOT CENTERS

12"-18"
12"-18"
A   A

OPTION 2 (POOR PAVEMENT)

45° LOOP WIRE TAIL SECTION TO JUNCTION BOX

1¼" CORE DRILL ALL SAW CUT INTERSECTIONS

A   A

CHISEL EDGES SMOOTH

5/16" MIN (TYP)

SAW SLOT DEPTH

2-INCH MILLING DEPTH

SECTION A - A

MIN. TOTAL ASPHALT REQUIRED

LOOP WINDING METHOD

START
FINISH

WHEN INSTALLING 2 OR MORE LOOPS IN ADJACENT LANES, WIND LOOPS IN ALTERNATE DIRECTIONS

QUADRUPOLE LOOP

SAW CUT OPTIONS

OPTION 1

INSTALL 1" SECTIONS OF BACKER ROD ON 1 FOOT CENTERS

8"-12"
12"-18"
A   A

OPTION 2 (POOR PAVEMENT)

3'   3'

45° LOOP WIRE TAIL SECTION TO JUNCTION BOX

1¼" CORE DRILL ALL SAW CUT INTERSECTIONS

A   A

CHISEL EDGES SMOOTH

5/16" MIN (TYP)

SAW SLOT DEPTH

2-INCH MILLING DEPTH

SECTION A - A

MIN. TOTAL ASPHALT REQUIRED

LOOP WINDING METHOD

FINISH
START

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
DEEP-CUT INDUCTIVE DETECTION LOOPS
(FOR INSTALLATION PRIOR TO MILLING)
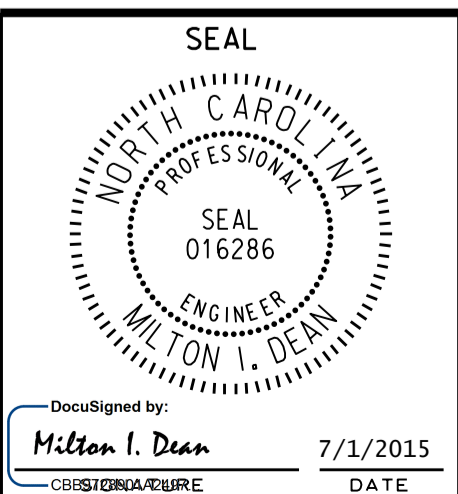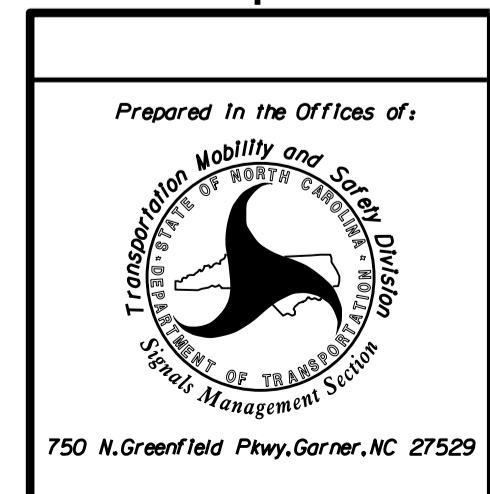
REVISIONS

1. REMOVED TWISTING NOTES FROM TAIL SECT. TO JUNCTION BOX. 2/26/08 MWH
2. REVISED SECTION A - A DETAILS. 6/29/15 JTP

SEAL

Prepared In the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
Signal Management Section

750 N.Greenfield Pkwy,Garner,NC 27529

NORTH CAROLINA
PROFESSIONAL
SEAL
016286
ENGINEER
MILTON I. DEAN

DocuSigned by:
Milton I. Dean   7/1/2015
SIGNATURE   DATE

SHEET 1 OF 1

SHEET 8 OF