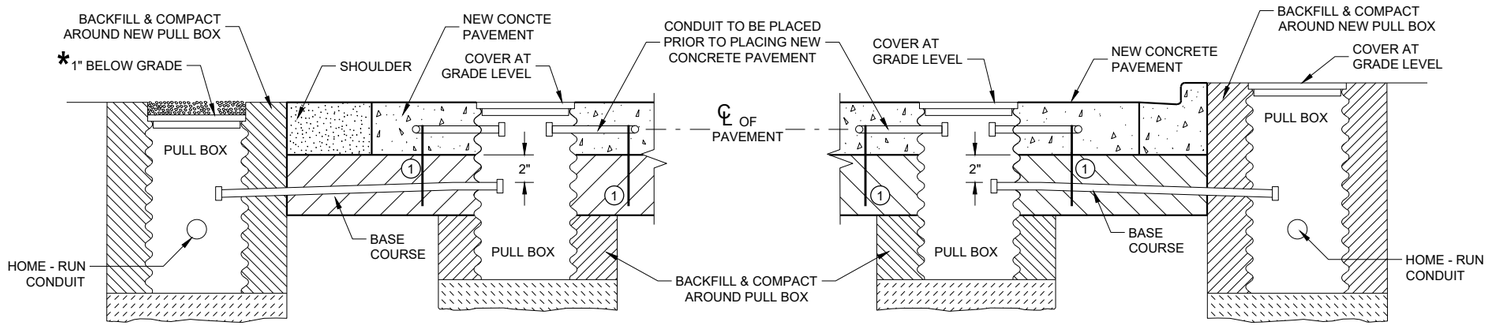
SDD 09F14 Loop Detector Installed in New Concrete Pavement Round CSCP Pull Box 45 Degree Elbows to Pull Box



SECTION A - A
NO CURB AND GUTTER
LOOP DETECTOR INSTALLATION DETAIL

SECTION B - B
CURB AND GUTTER
LOOP DETECTOR INSTALLATION DETAIL

* RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

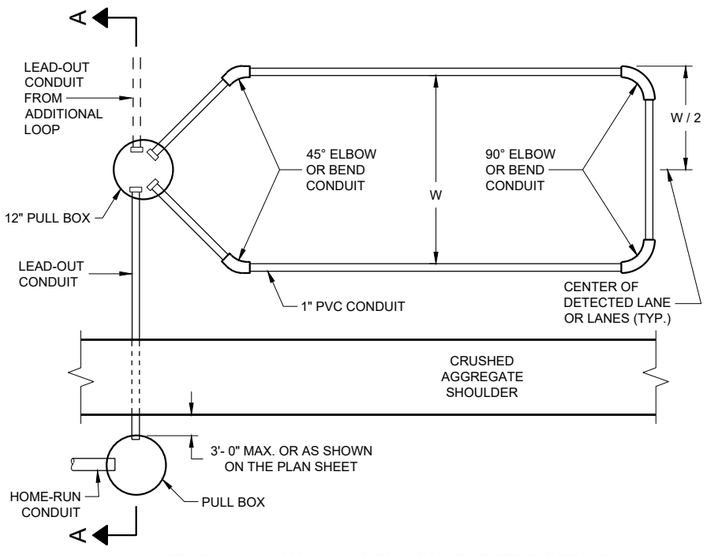
ANY PVC LEAD-OUT CONDUIT CONTAINING MORE THAN TWO TWISTED PAIRS OF LOOP LEAD-IN WIRE SHALL BE 2 INCHES.

PROTECTION OF THE PULL BOX IN THE BASE COURSE AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED. ANY DAMAGE THAT OCCURS DUE TO FAILURE TO PROTECT THE INSTALLATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

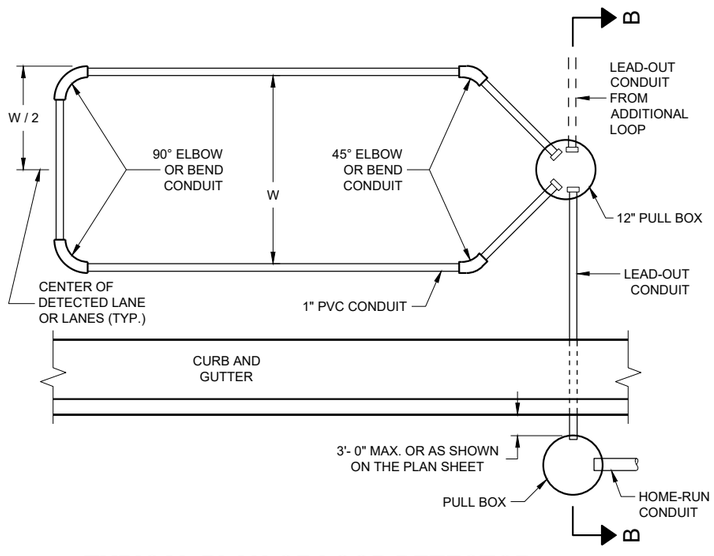
SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE ACCOMPLISHED UNDER THE DIRECTION OF THE PROJECT ENGINEER.

12 INCH PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.

(1) HOLD DOWN PINS TO HOLD CONDUIT DURING POUR. HOLD DOWN PINS ARE REQUIRED TO STABILIZE THE LOOP TOI MEET THE DIMENSIONAL CONSTRUCTION REQUIREMENTS OF THE PLANS. THE NUMBER OF HOLD DOWN PINS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULL BOX



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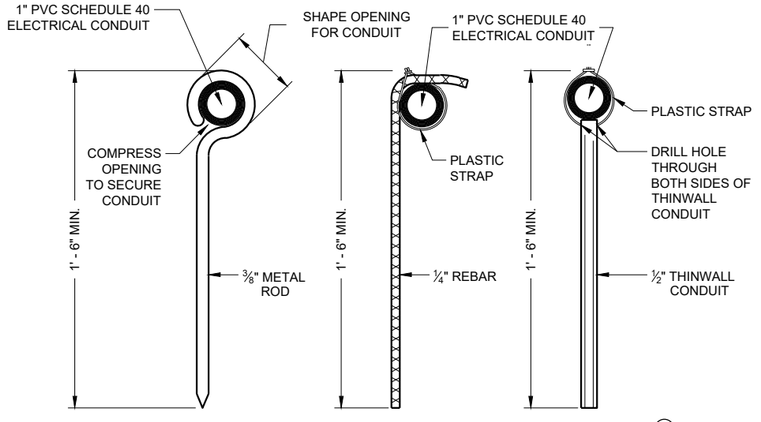

TYPICAL DETAILS FOR HOLD DOWN PINS (1)

LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULL BOX 45° ELBOWS TO PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

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SDD 09F14 - 03

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SDD 09F14 - 03

Version 3 **Standard Detail Drawing 9F14** *September 19, 2014*

Loop Detector Installed in New Concrete Pavement Round CSCP Pull Box 45 Degree Elbows to Pull Box

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec. 655 Electrical Wiring

Standard Spec. 675 Controllers and Detectors

Bid items associated with this drawing:

ITEM NUMBER	DESCRIPTION	UNIT
652.0800	Conduit Loop Detector	LF
653.0100 - 0150	Pull boxes Steel (inch)	EACH
653.0151 - 0179	Pull Boxes Non-Conductive (inch)	EACH
655.0700	Loop Detector Lead In Cable	LF
655.0800	Loop Detector Wire	LF

Standardized Special Provisions associated with this drawing:

STSP NUMBER	TITLE
NONE	

Other SDDs associated with this drawing:

SDD 9B2	Conduit
SDD 9B4	Pull Box
SDD 9B16	Pull Box Non-Conductive

Design Notes:

NONE

Contact Person:

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(414) 322-9606 (Mobile)