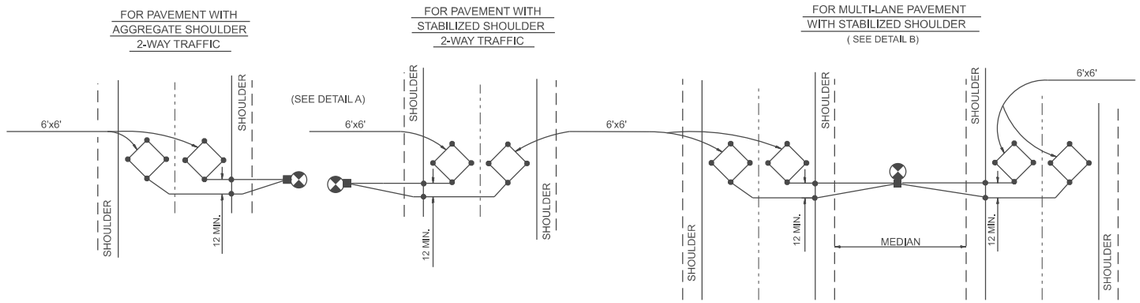
TYPICAL APPLICATIONS FOR TRAFFIC COUNTER USING TERMINAL FACILITY



LEGEND

- 4 x 4 TREATED WOOD POST
- TERMINAL FACILITY
- INDICATES 1 HOLE DRILLED AT DETECTOR LOOP CORNER

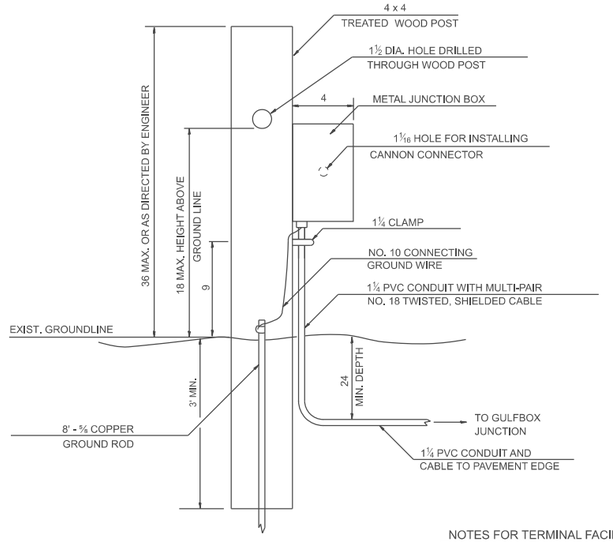
SCHEDULE OF QUANTITIES		
ITEM	QUANTITY	UNIT
DETECTOR LOOP, SPECIAL		FEET
CONDUIT IN TRENCH, 30 mm DIA., PVC		FEET
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.18 3 PAIR		FEET
TRENCH AND BACKFILL FOR ELECTICAL WORK		FEET
TRENCH AND BACKFILL FOR ELECTICAL WORK (SPECIAL)		FEET
TERMINAL FACILITY		EACH
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.18 6 PAIR		FEET

GENERAL NOTES

1. EACH DETECTOR LOOP USED SHALL BE WIRED INDEPENDENTLY TO THE TERMINAL.
2. DIAMOND SHAPED LOOPS SHALL BE CENTERED IN THE PAVEMENT LANES.
3. EACH 6' X 6' DETECTOR LOOP SHALL HAVE A MINIMUM OF 4 OR 5 TURNS OF CABLE OR AS DIRECTED BY THE ENGINEER.
4. DETECTOR LOOPS MAY BE LOCATED AS DIAMONDS IN THE PAVEMENT AS DIRECTED BY THE ENGINEER. ALL LOOPS SHALL BE ORIENTED THE SAME DIRECTION.
5. THE RESIDENT ENGINEER AND OR CONTRACTOR SHALL NOTIFY THE TRAFFIC STUDIES TECHNICIAN IN PROGRAM DEVELOPMENT AT LEAST ONE WEEK PRIOR TO THE INSTALLATION TO DETERMINE EXACT LOCATION. CONTACT TRAFFIC STUDIES IN THE D4 PROGRAMMING UNIT PH # 309-671-3370

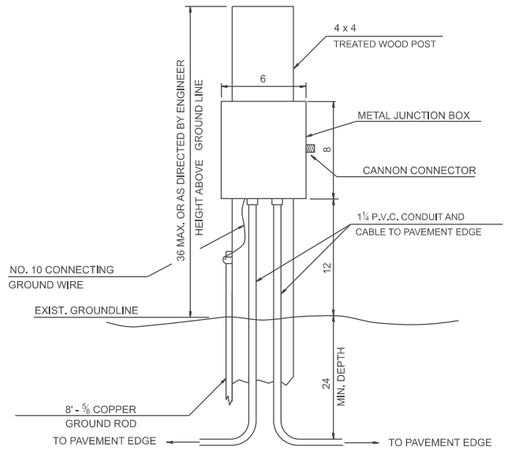
DETAIL A

TERMINAL FACILITY DETAIL



DETAIL B

TERMINAL FACILITY DETAIL



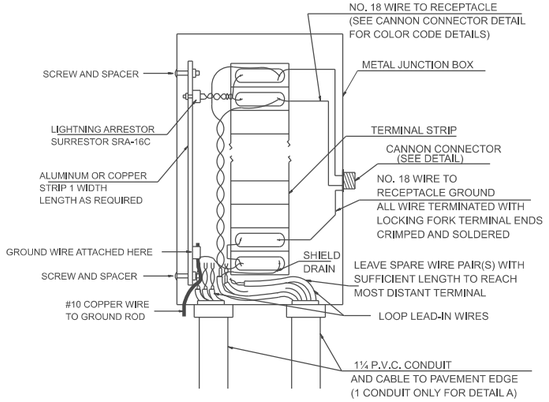
LOCATION(S)

NOTES FOR TERMINAL FACILITY

1. GROUND ROD SHALL BE CONNECTED TO THE JUNCTION BOX WITH NO.10 AWG COPPER WIRE AS SHOWN IN THE JUNCTION BOX DETAIL.
2. POST FOR TERMINAL FACILITY SHALL BE A MINIMUM DISTANCE OF_____ FROM EDGE OF _____.

JUNCTION BOX DETAIL

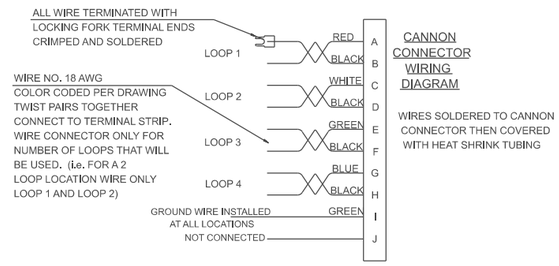
FOR DETAIL A AND B



NOTES FOR JUNCTION BOX

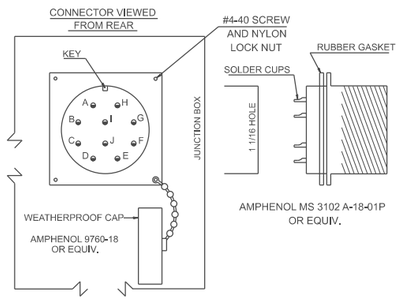
1. ONE LIGHTNING ARRESTOR FOR EACH LOOP.
2. NUMBER OF TERMINALS ON TERMINAL STRIP TO BE DETERMINED BY NUMBER OF LOOPS. TERMINAL STRIP SHALL BE CINCH BARRIER TYPE 140 OR EQUIVALENT.
3. JUNCTION BOX SHALL BE WEATHER PROOF WITH SIZE DETERMINED BY NUMBER OF COMPONENTS. JUNCTION BOX SHALL BE A MINIMUM 4x6x8 METAL HOFFMAN BOX WITH KEY ENTRY OR EQUIVALENT.
4. TERMINAL WITH MORE THAN 4 LOOPS WILL REQUIRE THE USE OF 2 CANNON CONNECTORS WITH LOOPS GROUPED BY DIRECTION OR AS DIRECTED BY THE ENGINEER.
5. THE COST OF INSTALLING THE TERMINAL FACILITY INCLUDES ALL VERTICAL WIRING, BOXES, CONNECTORS, VERTICAL CONDUIT, POST, GROUND ROD, SURRESTORS, AND LABOR, AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR TERMINAL FACILITY.
6. THE METAL MOISTURE-PROOF MOUNTING BOX SHALL BE HINGED AND HAVE A KEYED ENTRY.

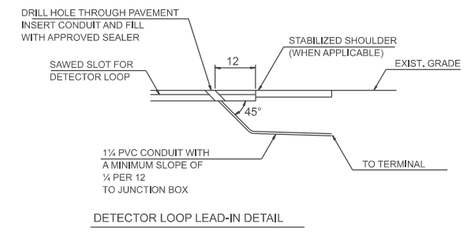
CANNON CONNECTOR DETAIL



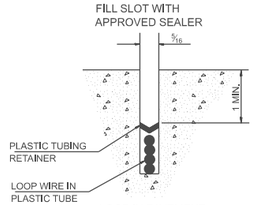
CANNON CONNECTOR WIRING DIAGRAM

WIRES SOLDERED TO CANNON CONNECTOR THEN COVERED WITH HEAT SHRINK TUBING



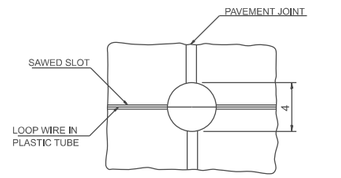


DETECTOR LOOP LEAD-IN DETAIL

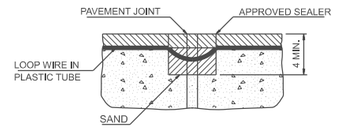


LOOP IN PAVEMENT

DETECTOR LOOP INSTALLATION



PLAN



VERTICAL SECTION

NOTE: LOOP WIRE MUST FOLLOW SAW CUT TO BOTTOM, FORMING SLACK SECTION AT JOINT.

DETECTOR LOOP DETAIL AT PAVEMENT JOINT OR PAVEMENT CRACK

All dimensions are in inches unless otherwise noted.

DESIGNER NOTES:
1. Include District Special Provisions.
2. Check with Programing Section John Fentem.

MODEL: SHT_PLAN
FILE NAME: C:\Bentley\CONNECT\01\Organization\Civil\DOT_Standards\Civil\DOT_Sheets.cel

USER NAME = Eric.Thomas	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL FOR TRAFFIC COUNTERS USING TERMINAL FACILITY	
	DRAWN -	REVISED -			
	CHECKED -	REVISED -			
PLOT DATE = 12/7/2022	DATE -	REVISED -		SCALE: NOT TO SCALE | SHEET OF SHEETS | STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DISTRICT 4 DETAIL NO.836002		CONTRACT NO.		
ILLINOIS | FED. AID PROJECT				