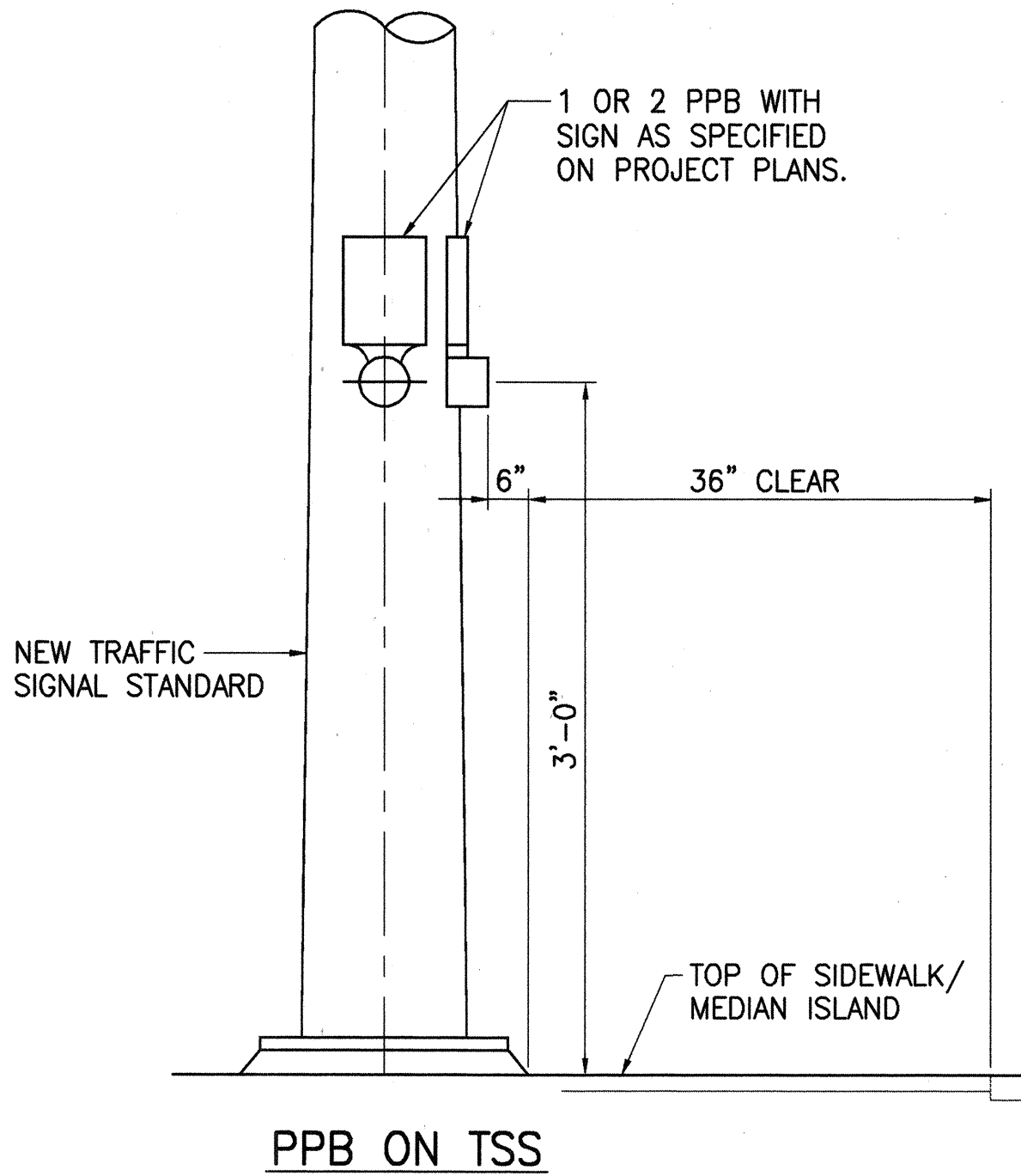
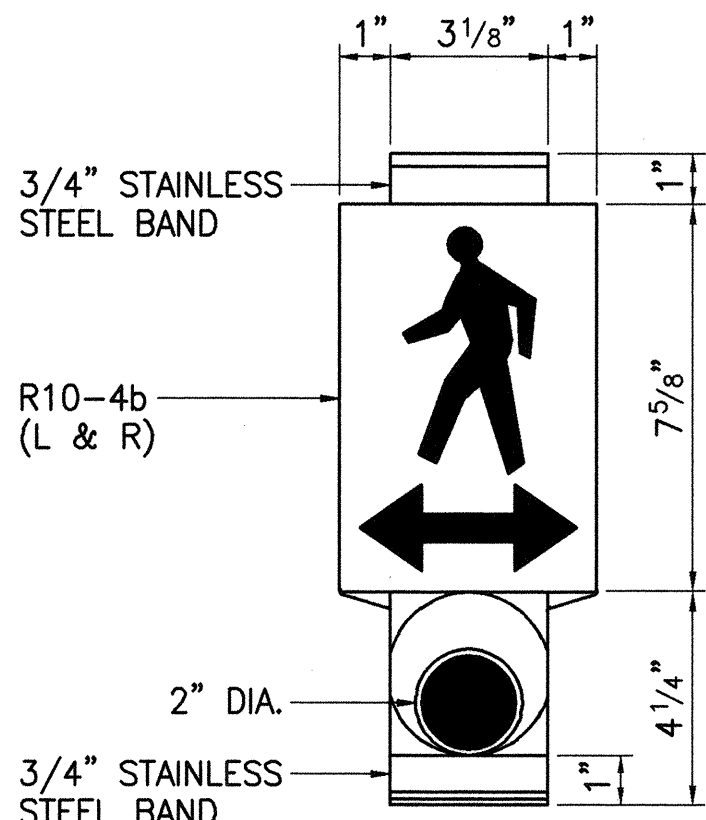
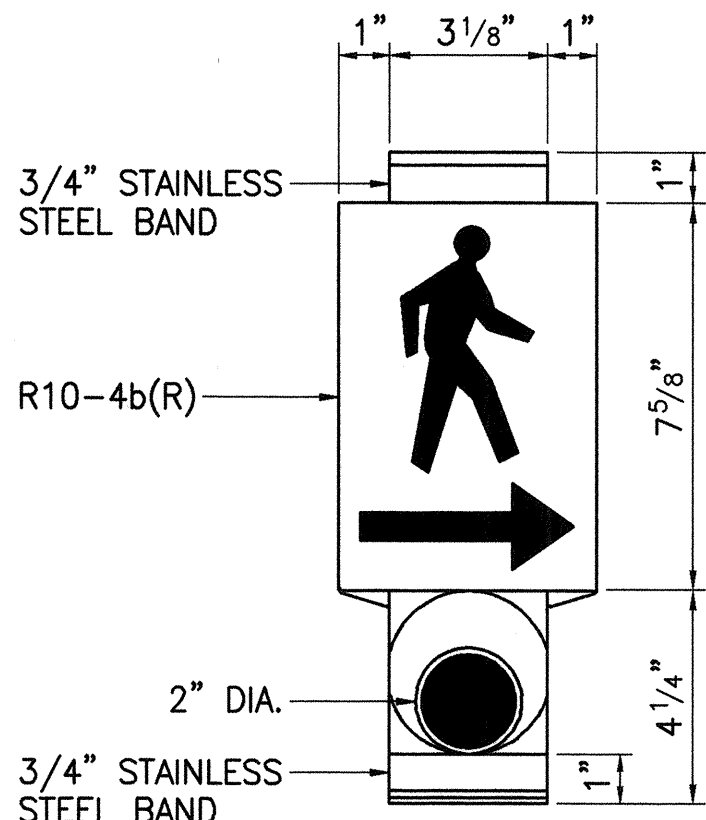
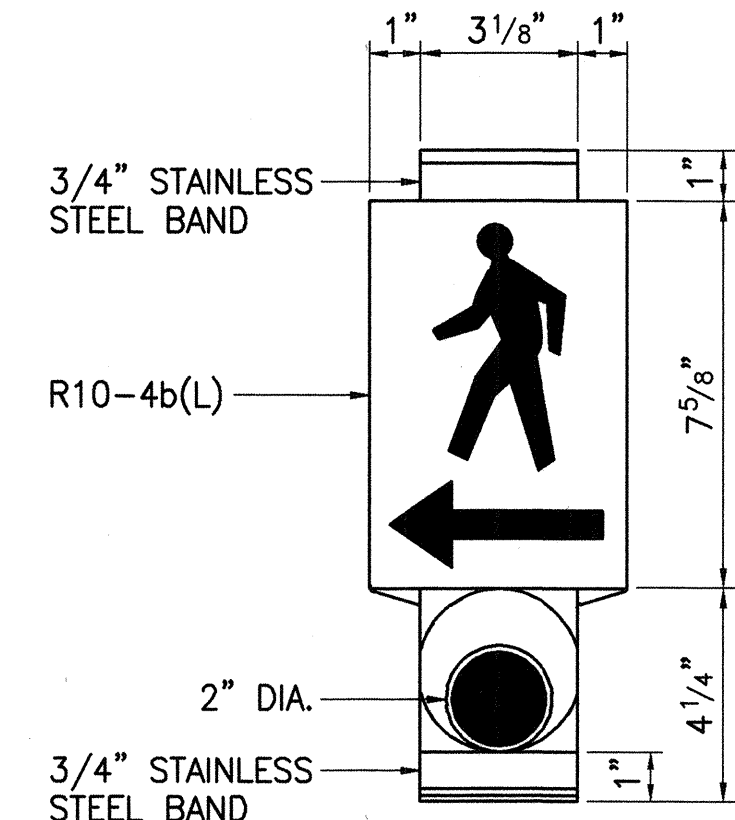


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-036-1(12)	2000	20	30

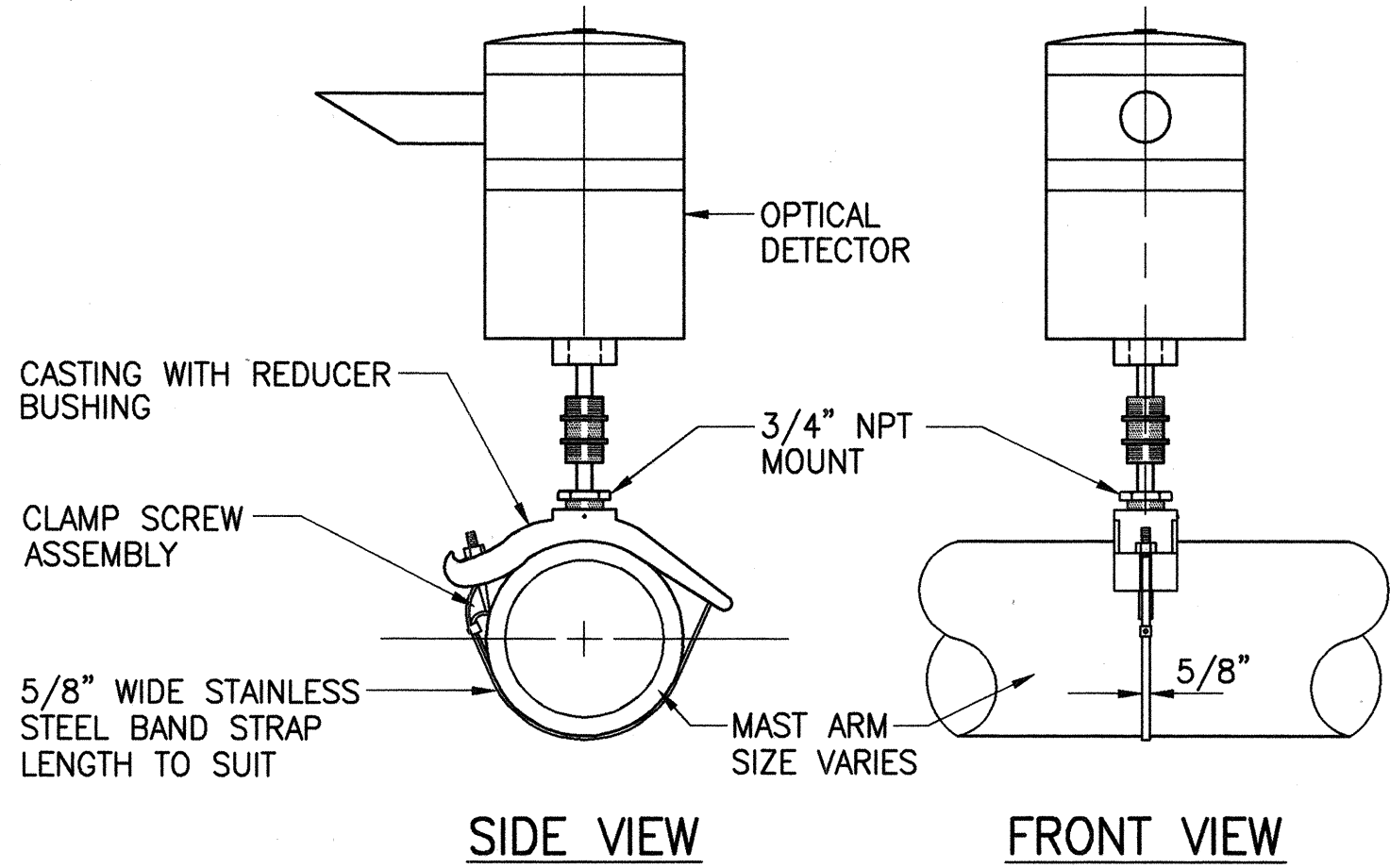
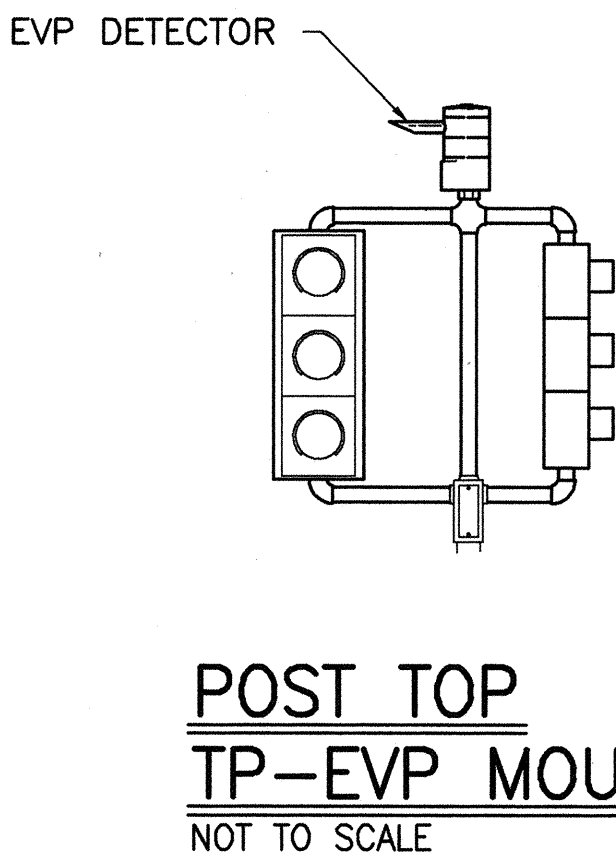
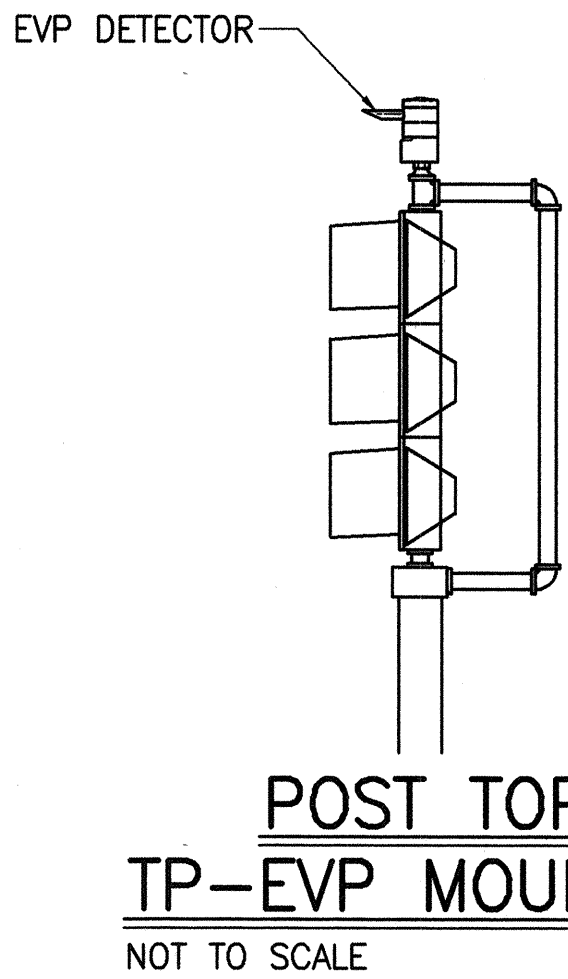


NOTE: ON PLAN SHEET, USE APPLICABLE DETAIL.

THE COLOR SCHEME SHALL BE:  
 WHITE - MAN, ARROW AND PUSH BUTTON  
 BLACK - BACKGROUND



PEDESTRIAN PUSH BUTTON DETAILS  
 NOT TO SCALE



- NOTES:
1. OPTICAL DETECTOR SHALL BE "MODEL 711 PREEMPTION DETECTOR", OR APPROVED EQUAL, UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
  2. SUPPORT SADDLE ASSEMBLY SHALL BE "ASTRO MINI-BRAC, AB-0132-29", OR APPROVED EQUAL, UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.

OPTICAL DETECTOR FOR MAST ARM MOUNTING  
 NOT TO SCALE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

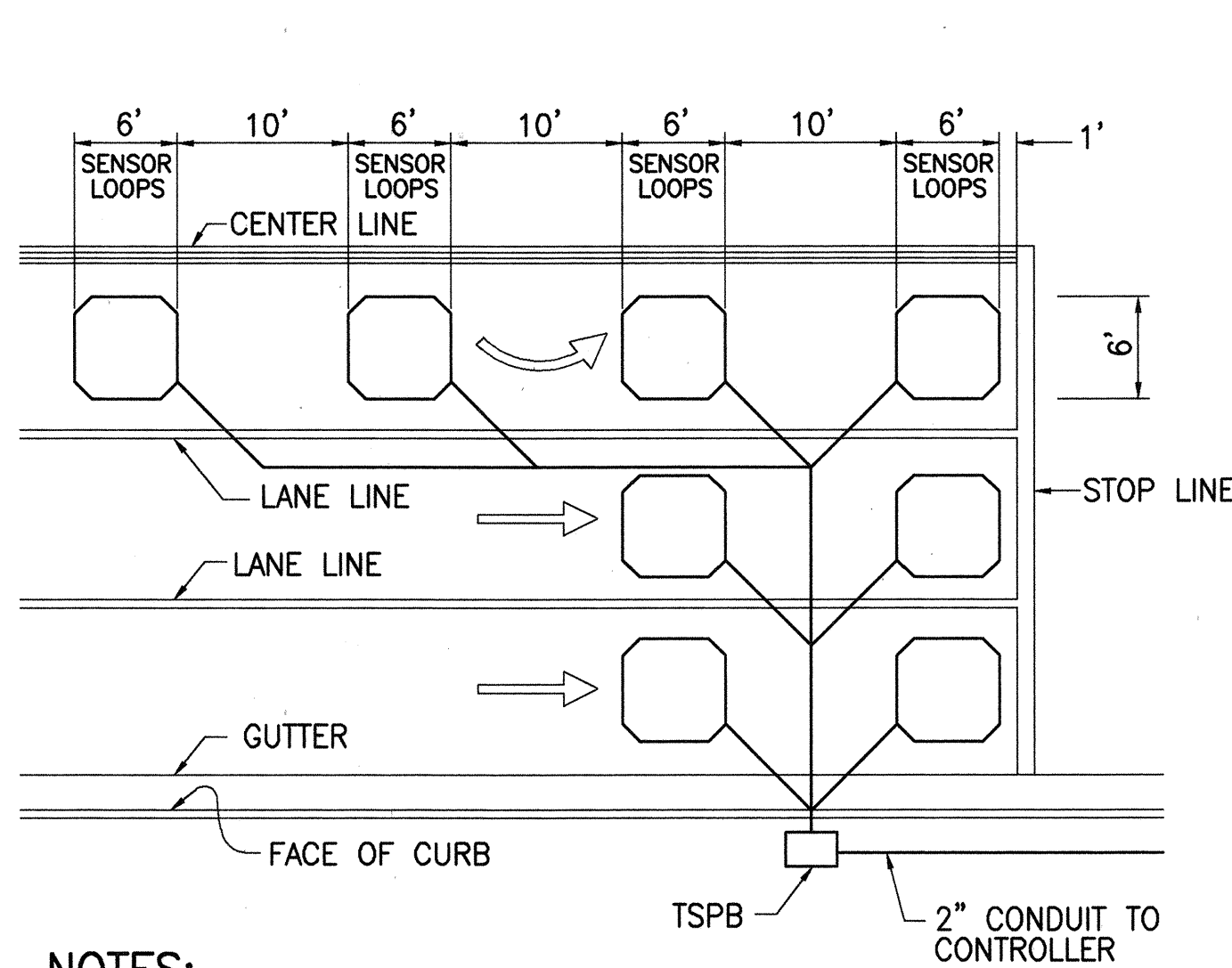
MISCELLANEOUS DETAILS

HANA HIGHWAY  
INTERSECTION IMPROVEMENTS  
AT HOBRON AVENUE  
FAP NO. STP-036-1(12)

SCALE: AS NOTED
DATE: MAR. 1999

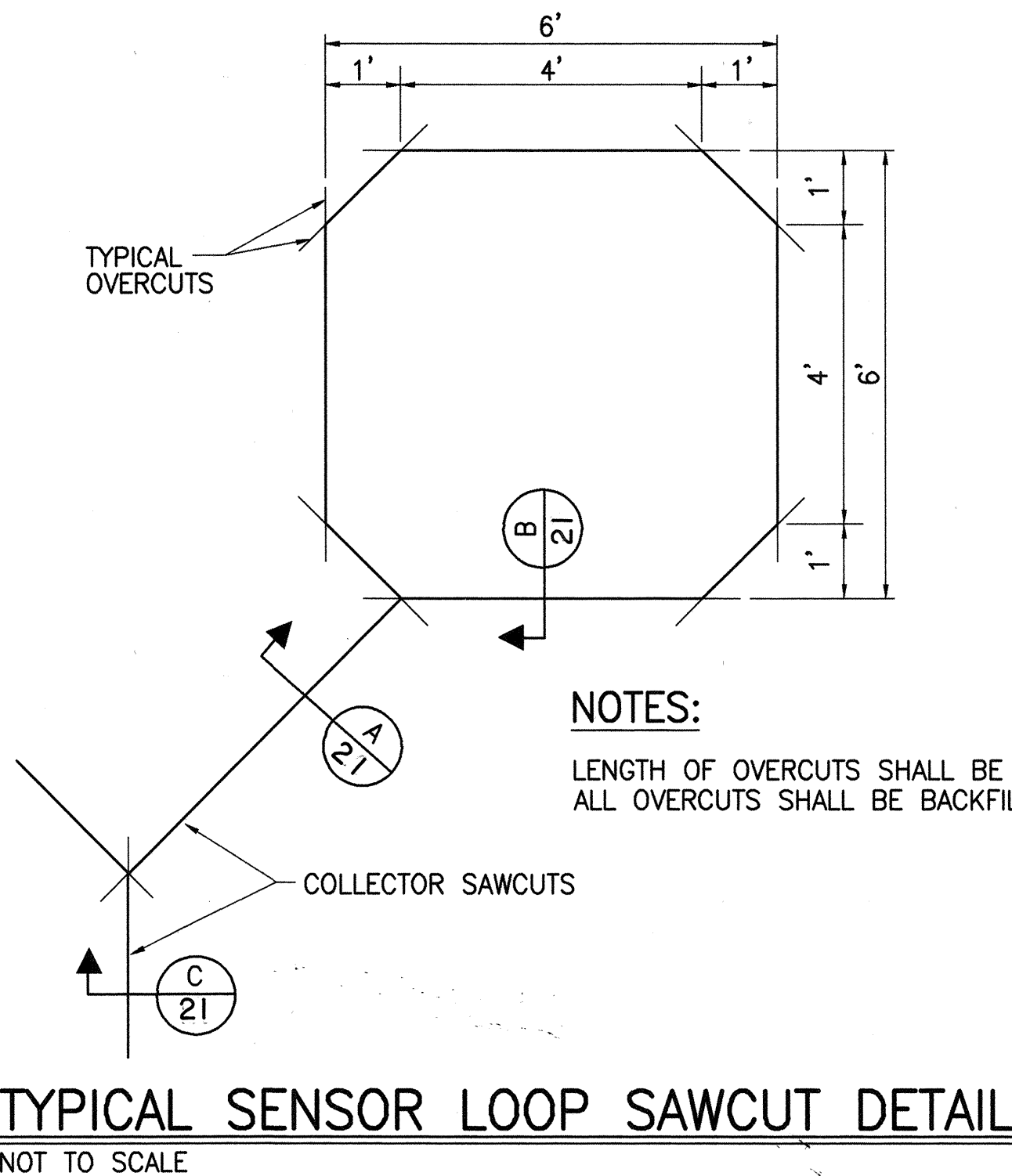
SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-036-1(12)	2000	21	30

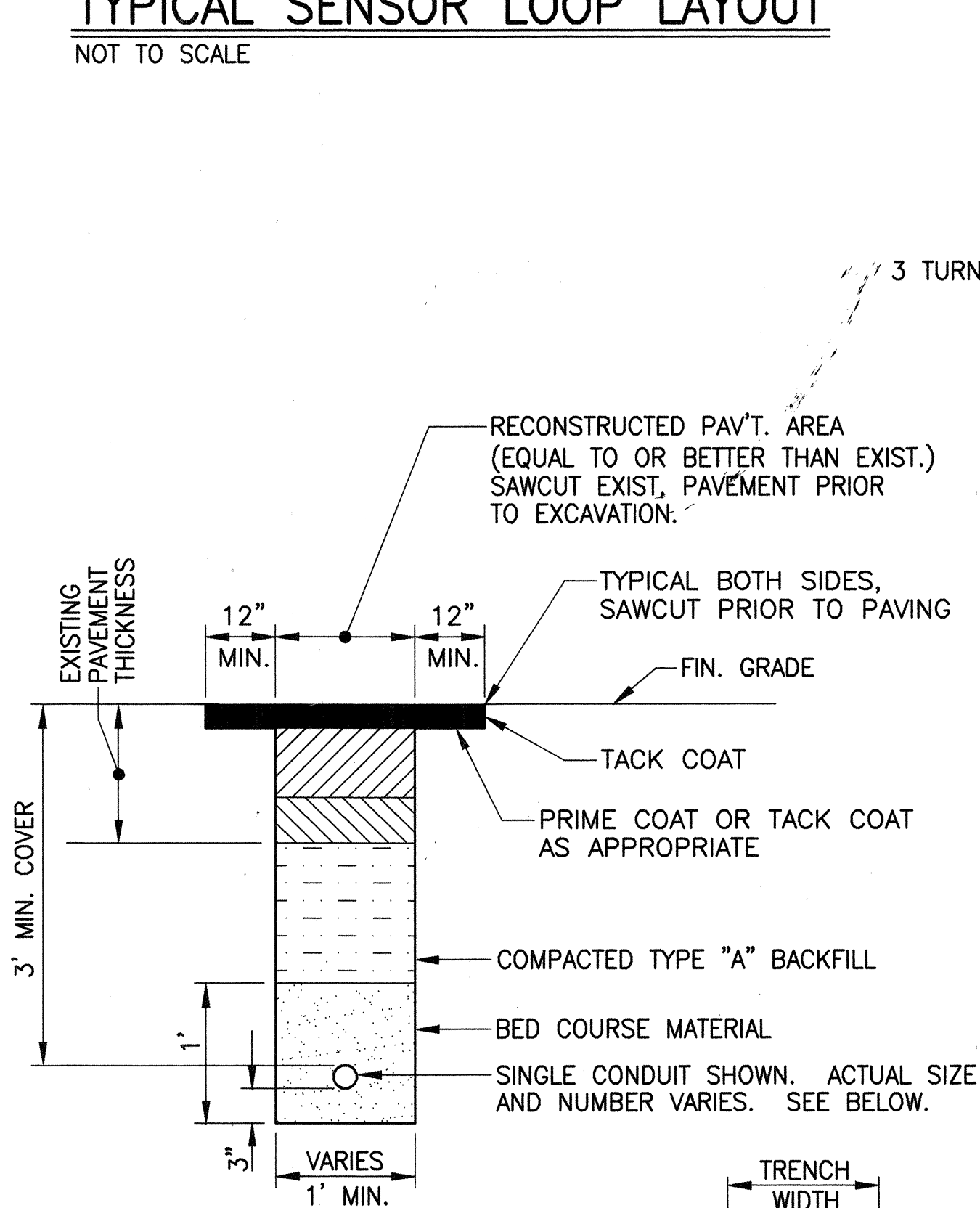


- NOTES:**
1. CENTER SENSOR LOOPS IN LANES.
  2. COLLECTOR CABLES SHALL BE TWISTED 2 TURNS PER FOOT.
  3. NUMBER OF LOOPS AND LOCATIONS VARY. SEE PROJECT PLANS.
  4. NUMBER AND LOCATIONS OF COLLECTOR SAWCUTS MAY BE VARIED IN THE FIELD TO SUIT.

**TYPICAL SENSOR LOOP LAYOUT**  
NOT TO SCALE

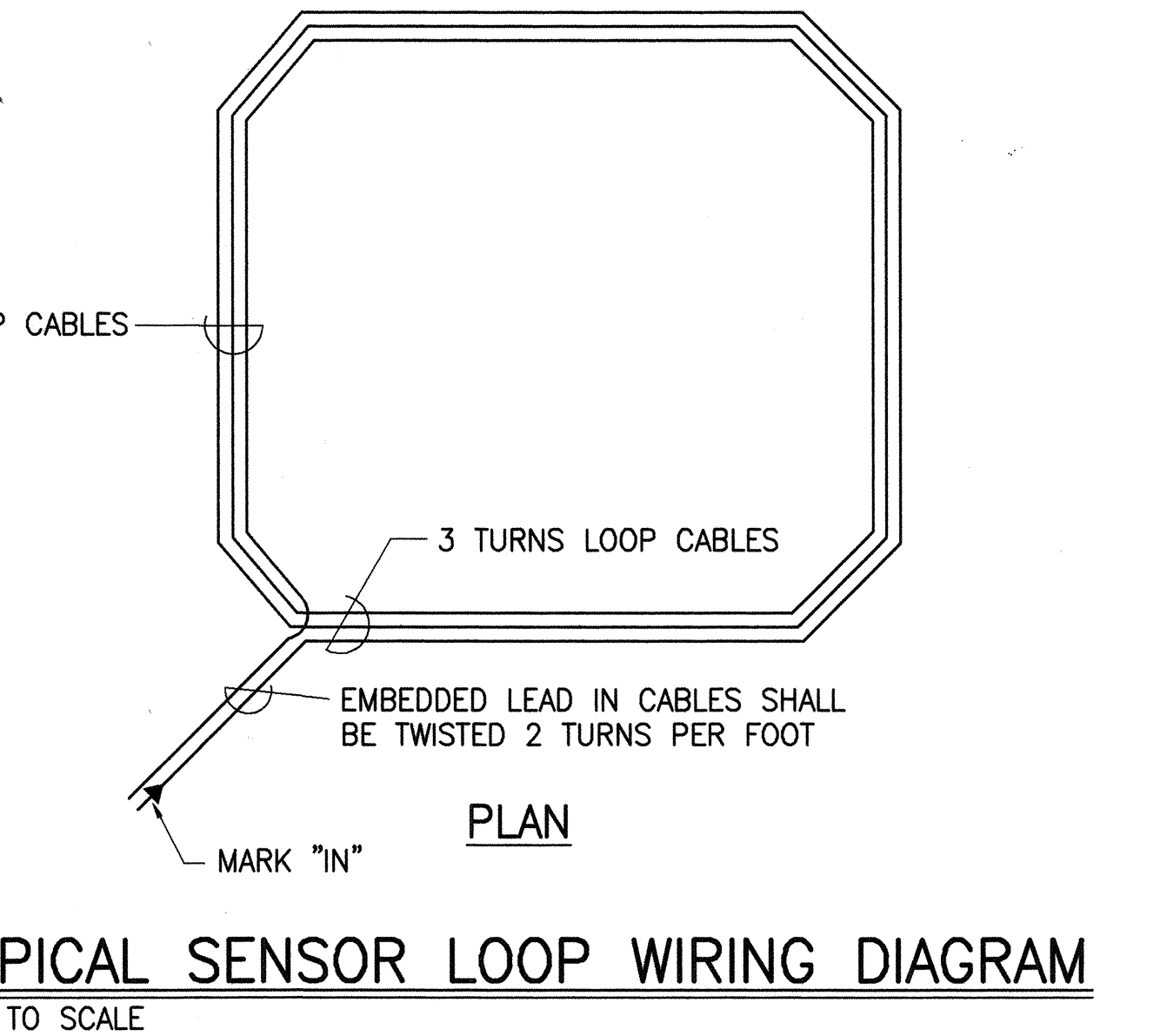


**TYPICAL SENSOR LOOP SAWCUT DETAIL**  
NOT TO SCALE

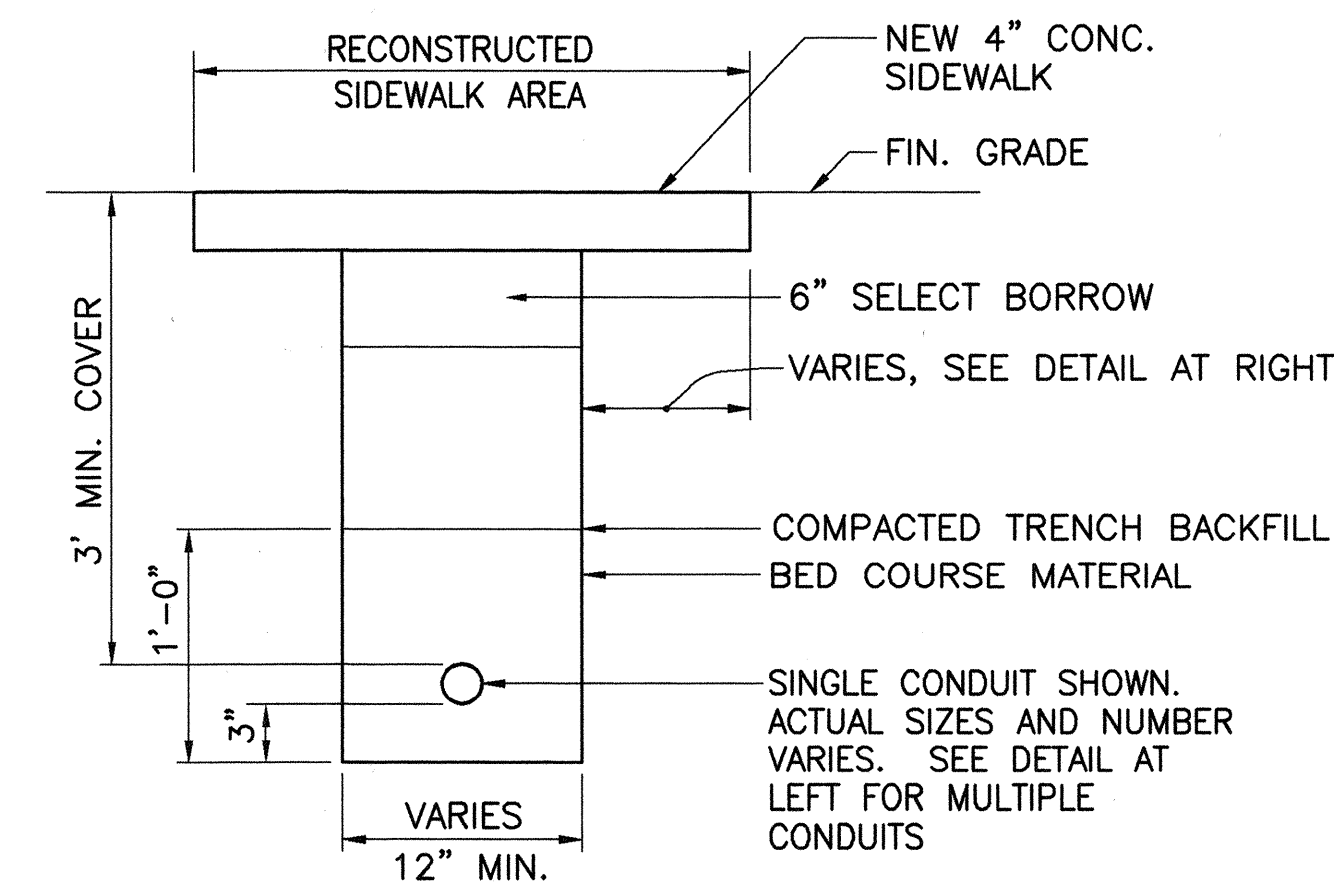


**TYPICAL TRENCH DETAIL IN PAVEMENT AREAS**  
NOT TO SCALE

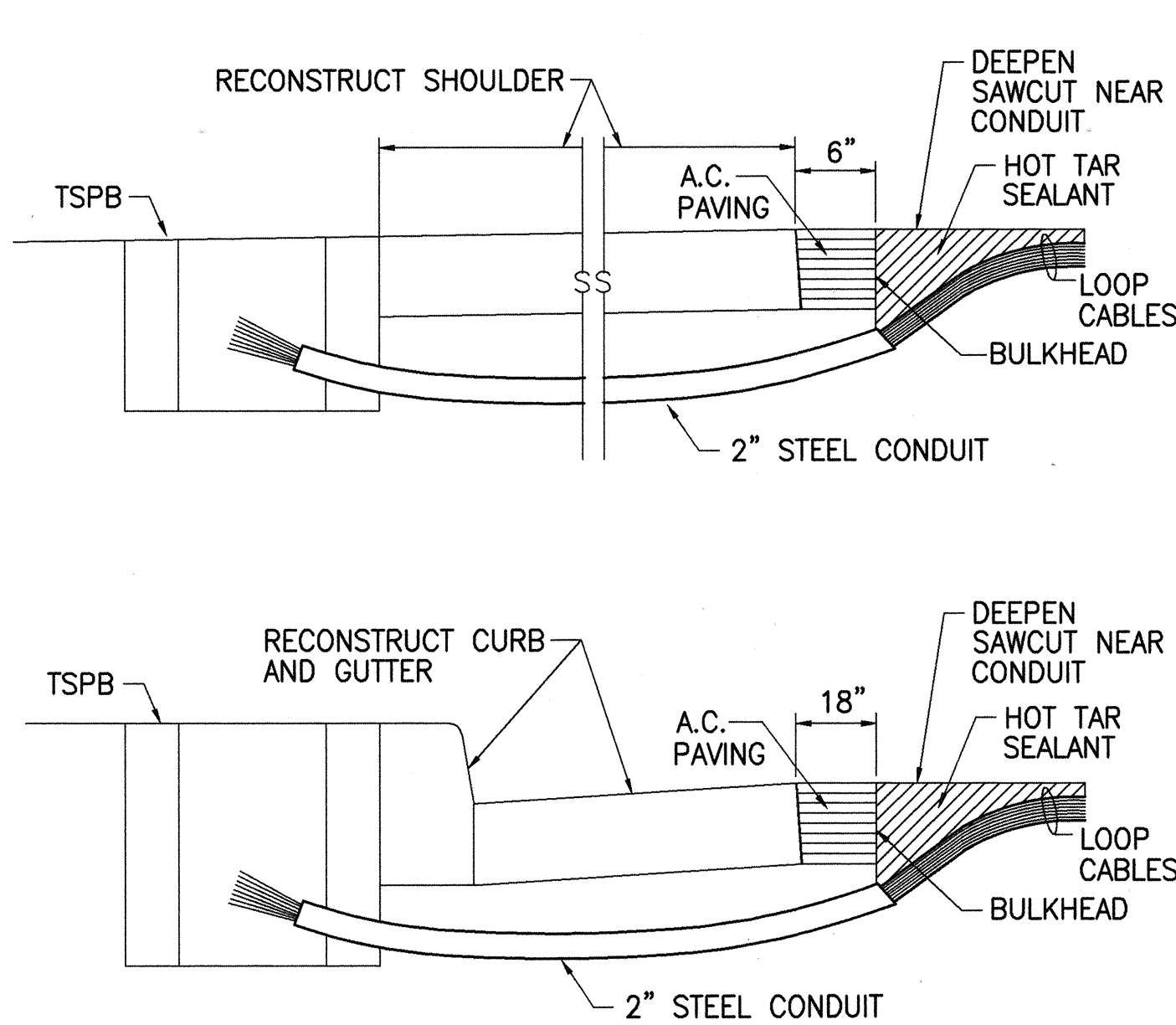
- NOTES:**
1. DETAIL FOR MULTIPLE CONDUIT TRENCHES SHALL BE SIMILAR. PROVIDE 3" MIN. CLEAR SPACING BETWEEN CONDUITS.
  2. BED COURSE MATERIAL SHALL BE BLACK SAND, BEACH SAND, CRUSHED ROCK, OR FINELY GRADED CORAL PASSING A 1/2 INCH SIEVE.



**TYPICAL SENSOR LOOP WIRING DIAGRAM**  
NOT TO SCALE



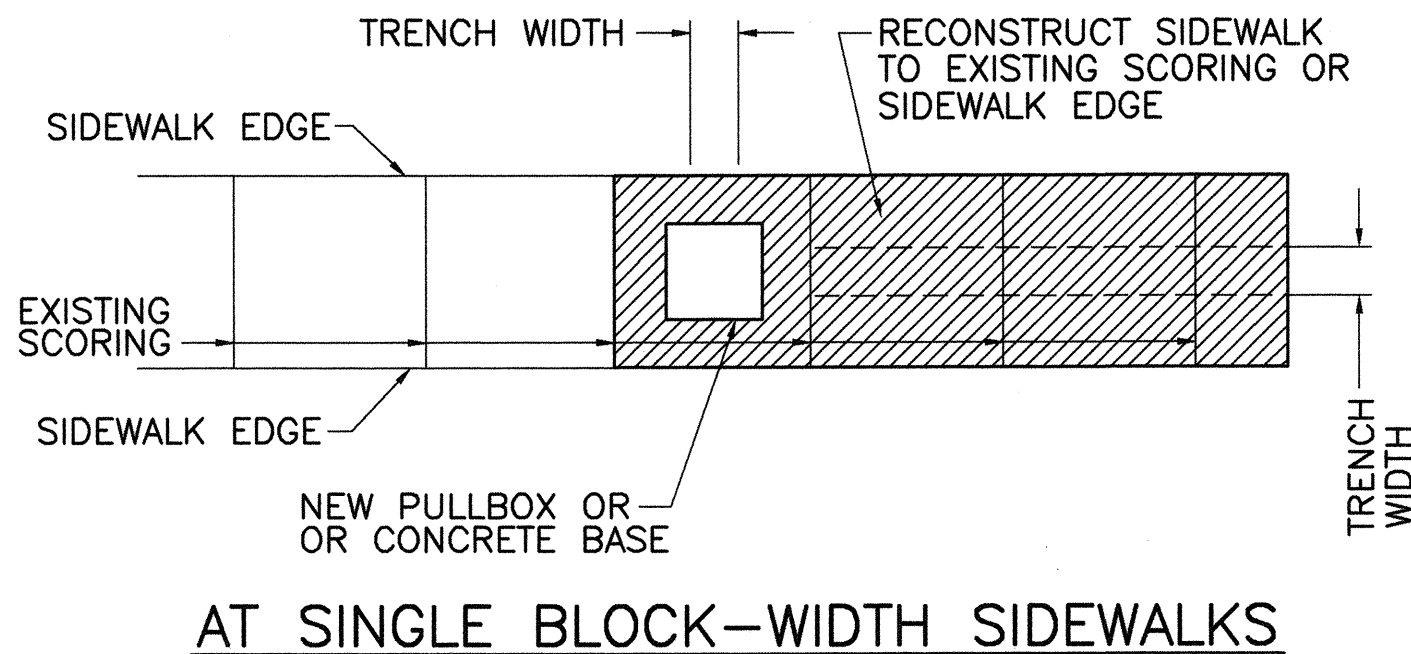
**TYPICAL TRENCH DETAIL IN SIDEWALK AREAS**  
NOT TO SCALE



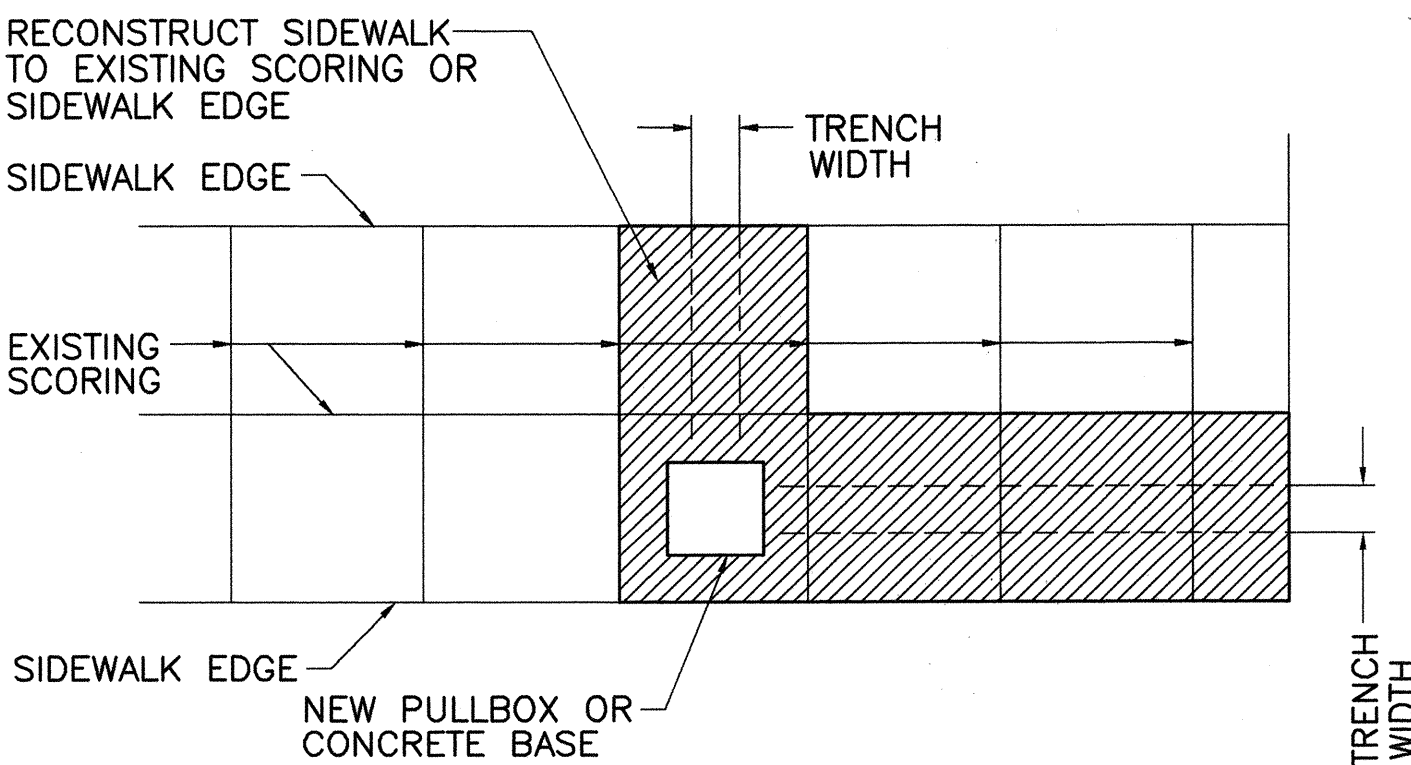
**NOTES ON CONSTRUCTION AT END OF SAWCUT**

1. SEAL ROADWAY END OF CONDUIT AFTER INSTALLATION OF CONDUCTORS
2. INSTALL BULKHEAD ACROSS CONDUIT TRENCH.
3. PLACE HOT TAR IN SAWCUT.
4. BACKFILL OVER CONDUIT WITH NEW A.C.
5. RECONSTRUCT CURB AND GUTTER AS REQUIRED.

**DETAIL OF SENSOR LOOP INSTALLATION AT EDGE OF ROADWAY**  
NOT TO SCALE

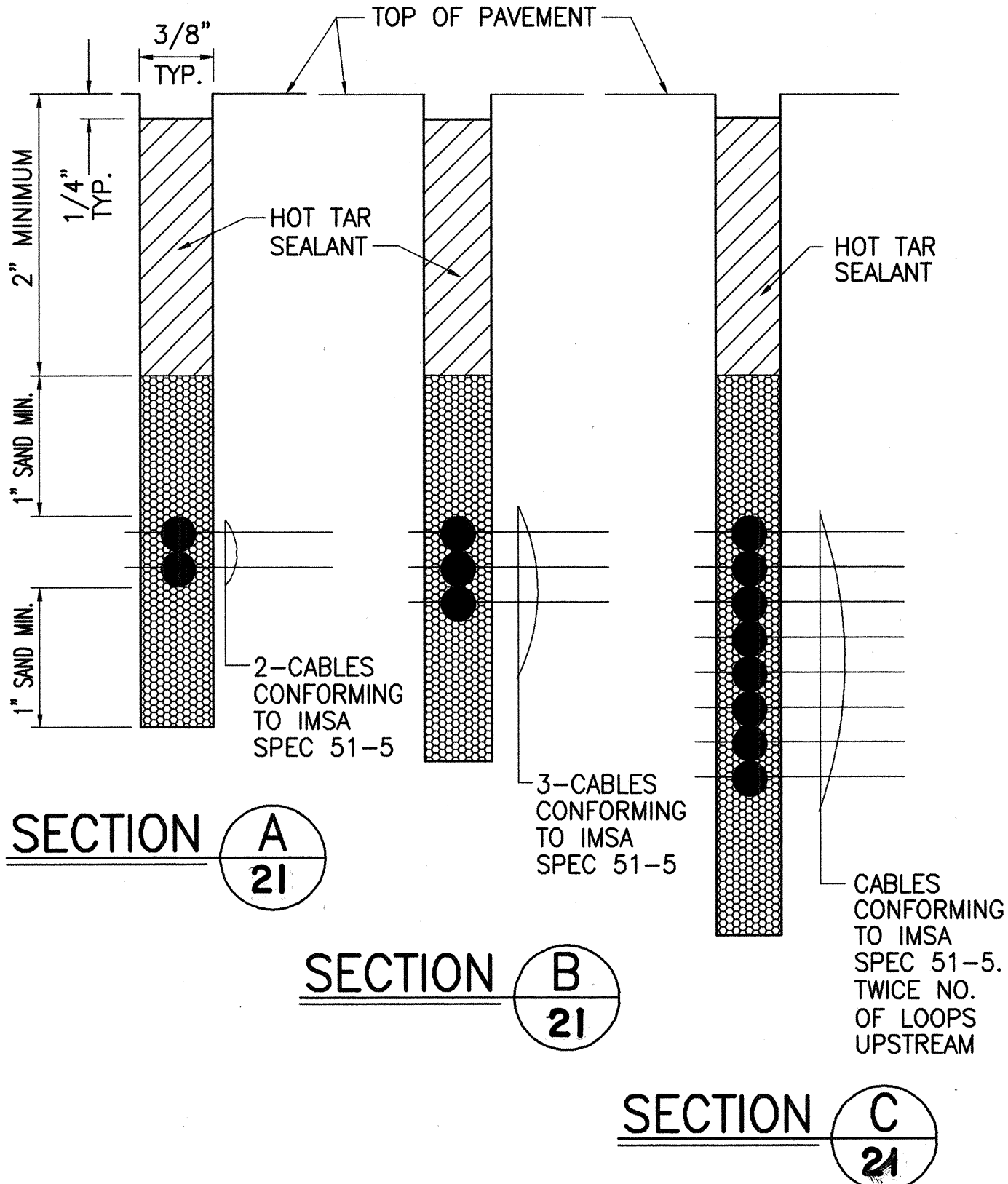


**AT SINGLE BLOCK-WIDTH SIDEWALKS**



**AT MULTIPLE BLOCK-WIDTH SIDEWALKS**

**SIDEWALK RECONSTRUCTION DETAILS**  
NOT TO SCALE



STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

HANA HIGHWAY

INTERSECTION IMPROVEMENTS

AT HOBRON AVENUE

FAP NO. STP-036-1(12)

SCALE: AS NOTED

DATE: MAR. 1999