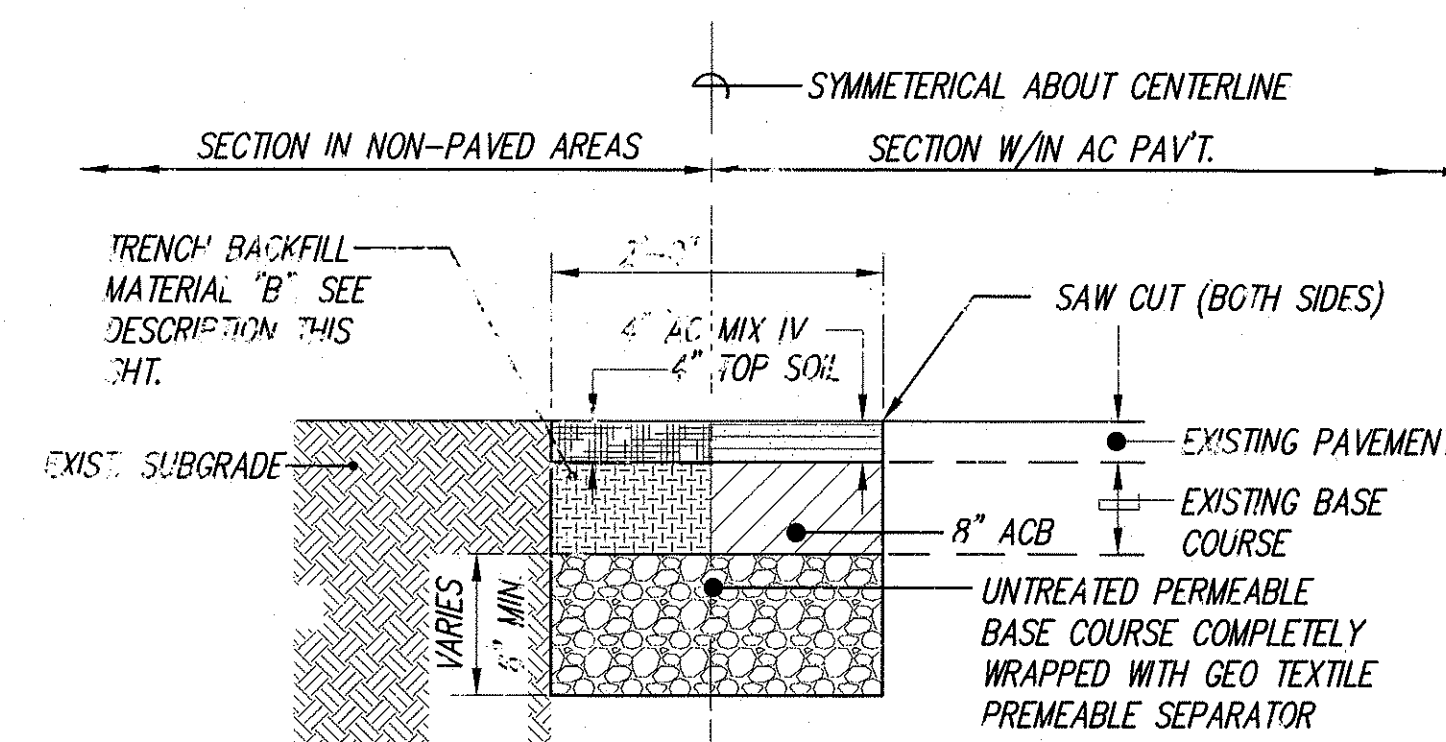


### ASPHALT PAVEMENT RESTORATION OVER TRENCH EXCAVATIONS FOR EXISTING PAVEMENTS WITHOUT PERMEABLE BASE W/IN STATE R/W

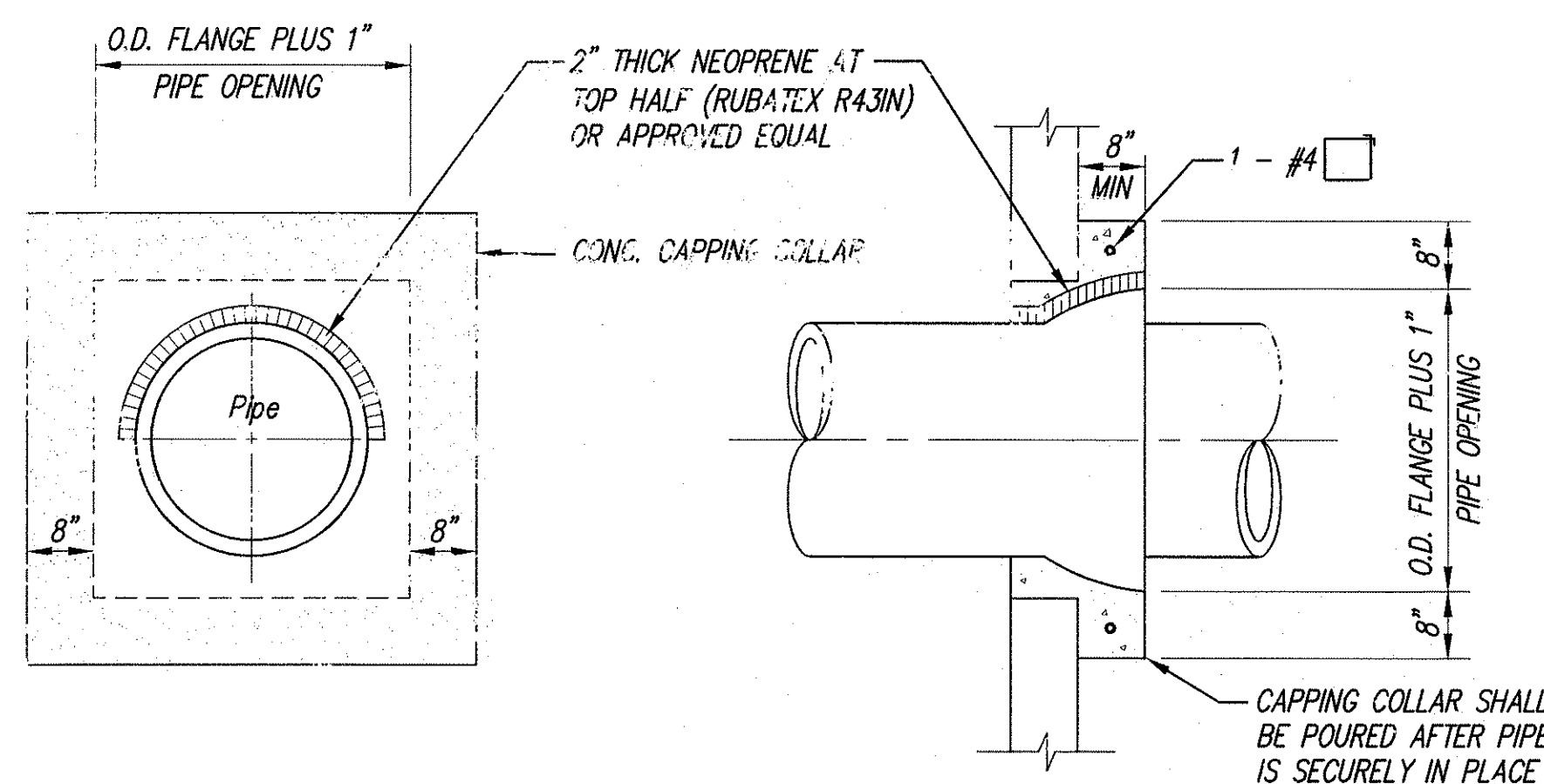
NOT TO SCALE



- NOTES FOR UTILITY TRENCH DETAIL:**
1. ALIGN THE OUTLET TO SUIT EXISTING FIELD CONDITIONS.
  2. AT THE EXISTING STRUCTURE, LOCATE THE OUTLET CONNECTION AWAY FROM THE MANHOLE RUNGS.
  3. RESTORE AC PAVEMENT OVER OUTLET TRENCH TO MATCH EXISTING GRADE AND PROVIDE A SMOOTH RIDING CONNECTION.

### SECTION "B" UTILITY TRENCH DETAIL

NOT TO SCALE



### ELEVATION SECTION CONCRETE CAPPING COLLAR DETAIL

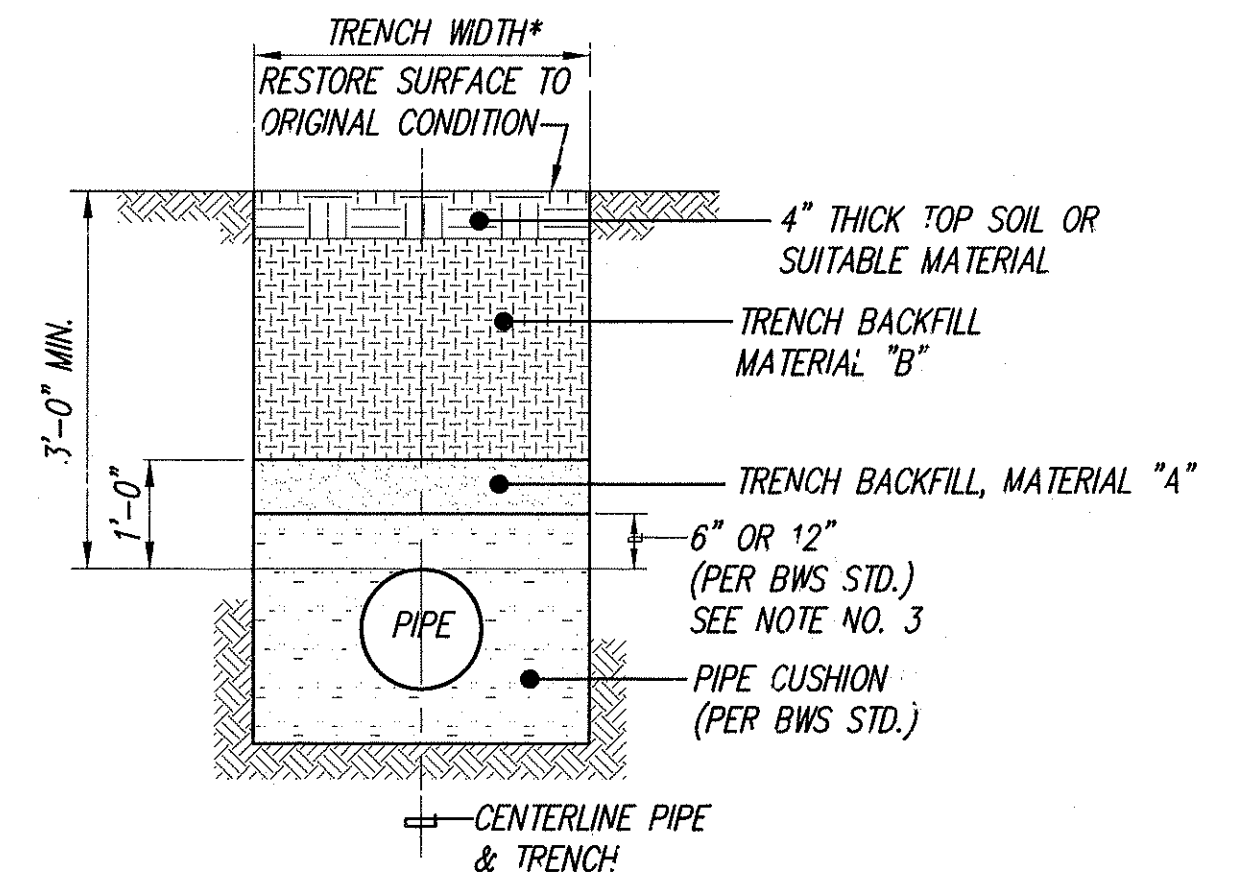
NOT TO SCALE

- TRENCH BACKFILL MATERIAL "A"**
1. SAND EQUIVALENT (S.E.) >20
  2. 8" MAXIMUM LIFTS
  3. 95% COMPACTION

- TRENCH BACKFILL MATERIAL "B"**
1. S.E. MUST NOT BE LESS THAN THE AREA BEING FILLED AND IN NO CASE SHALL THE S.E. BE < 2 REGARDLESS OF WHERE IT IS USED
  2. 8" MAXIMUM LIFTS
  3. 95% COMPACTION

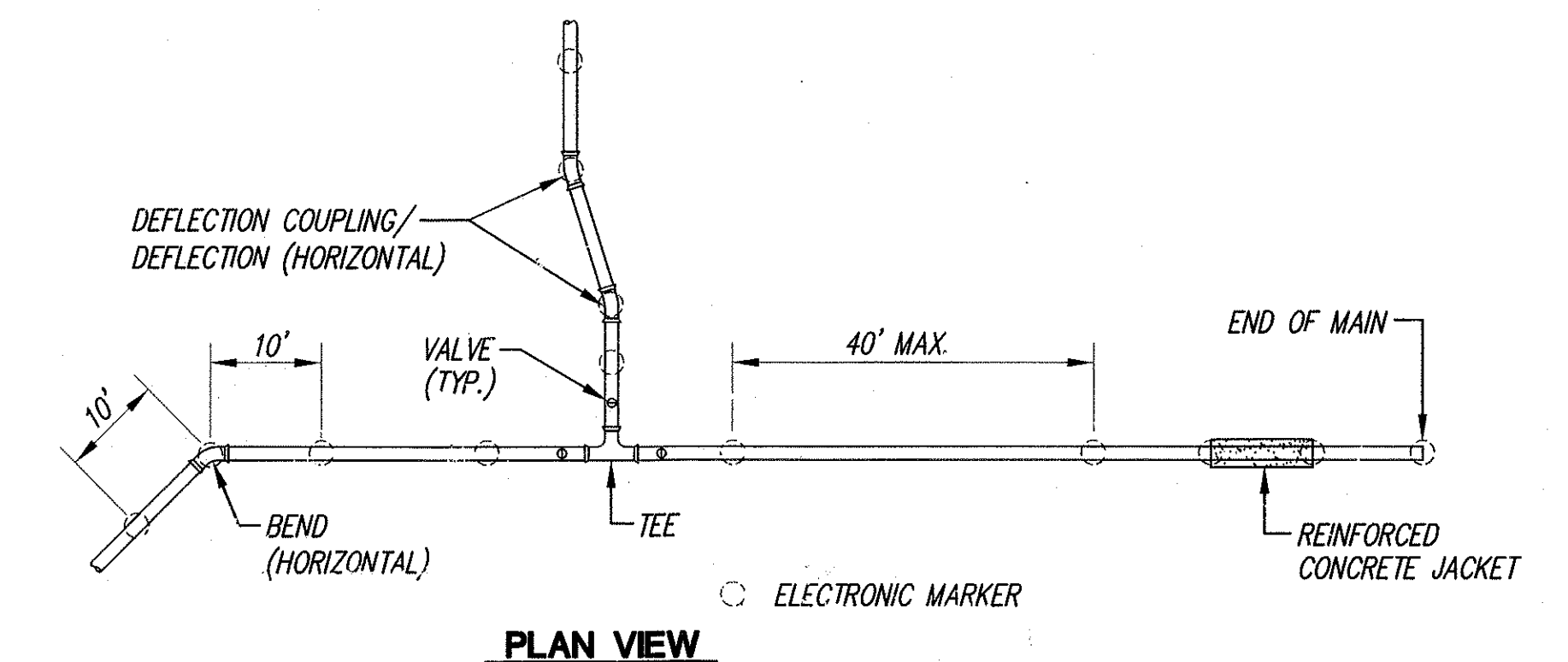
- SUBBASE COURSE**
1. S.E. > 25
  2. 8" MAXIMUM LIFTS
  3. 95% COMPACTION

- WATER SERVICE LATERAL CUSHION MATERIAL**
1. PROVIDE 6" MINIMUM CUSHION MATERIAL AROUND WATER SERVICE LATERALS
  2. CUSHION MATERIAL SHALL BE NO. 4 SAND OR OTHER MATERIAL APPROVED BY THE CITY & COUNTY OF HONOLULU, BOARD OF WATER SUPPLY

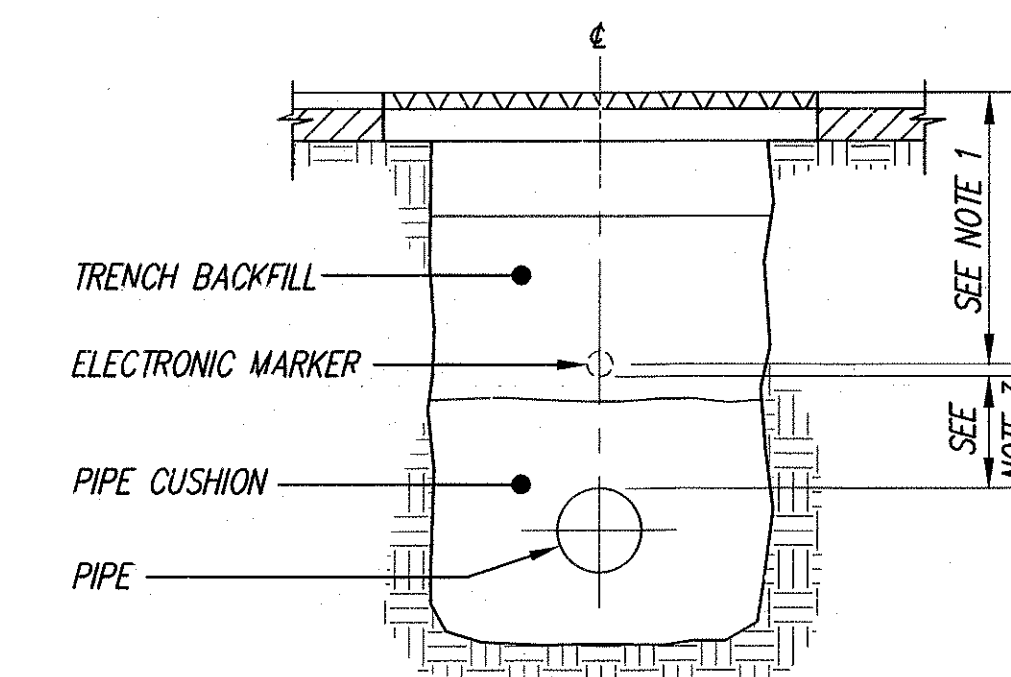


### TYPICAL SECTION FOR EXISTING UNPAVED SHOULDER SECTION WITHIN STATE RIGHT OF WAY

NOT TO SCALE



### PLAN VIEW



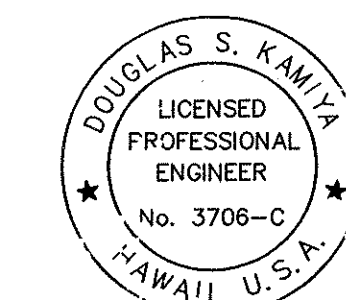
### SECTION VIEW

### TYPICAL ELECTRONIC MARKER INSTALLATION

NOT TO SCALE

- NOTE:**
1. INSTALL ELECTRONIC MARKER OVER CENTERLINE OF PIPE AT A MINIMUM DEPTH OF 2 FEET AND A MAXIMUM DEPTH OF 3 FEET FROM FINISH GRADE.
  2. INSTALL TRENCH BACKFILL AND PIPE CUSHION MATERIAL IN ACCORDANCE TO THE PLANS AND SPECIFICATIONS.
  3. INSTALL ELECTRONIC MARKER AT A MINIMUM CLEARANCE OF 6-INCHES WHERE POSSIBLE. INSTALL MARKERS ON OR ABOVE CONCRETE JACKETS.

5-11-07	REV. PAYT. REST. DET.		
REVISION DATE	DESCRIPTION	MADE BY	APPROVED
<b>Community Planning and Engineering, Inc.</b> Engineering Design   Construction Management   Infrastructure Planning 1100 Alakea Street, Sixth Floor Honolulu, Hawaii			
<b>EAST KAPOLEI WATER TRANSMISSION MAIN</b> HONOLULU, EWA, OAHU, HAWAII OWNER & DEVELOPER: DEPARTMENT OF HAWAIIAN HOME LANDS TAX MAP KEYS: 9-1-16:109, 9-1-17:4 & 9-1-18:3			
<b>MISCELLANEOUS DETAILS</b>			
DRAWN BY: VN	ENGINEER: SS	CHECKED BY: MS	
APPROVED:			
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 6/30/08			



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. LICENSE EXPIRATION DATE: 6/30/08