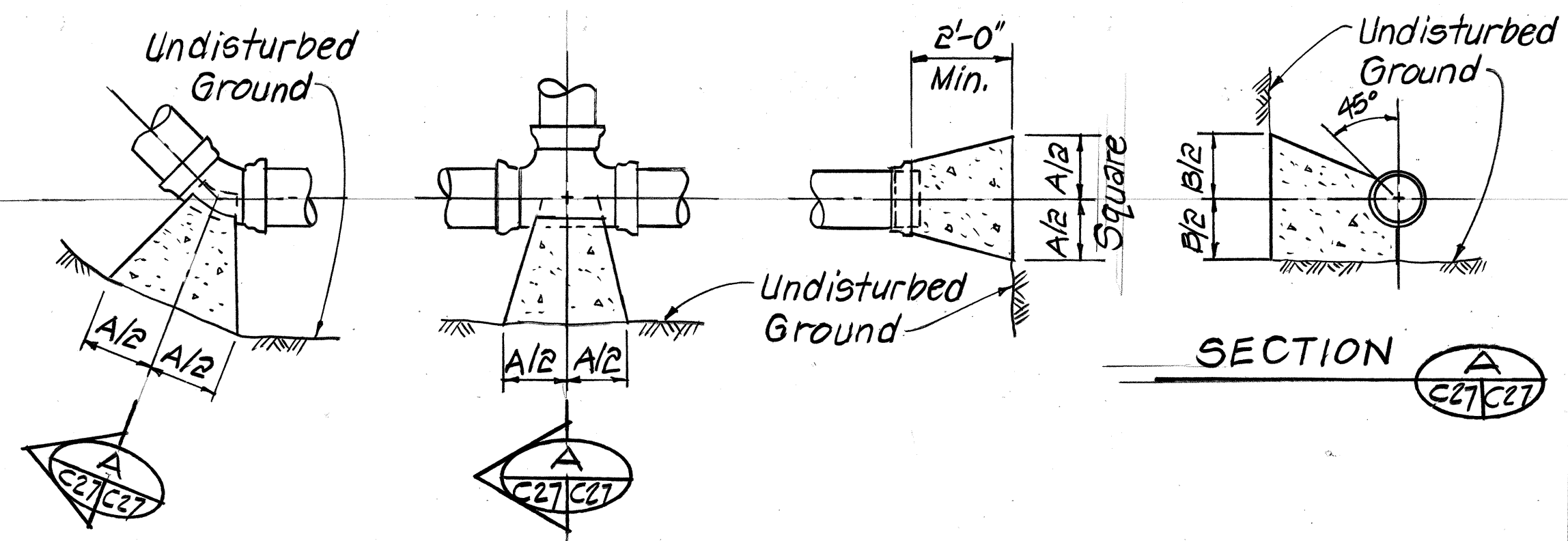
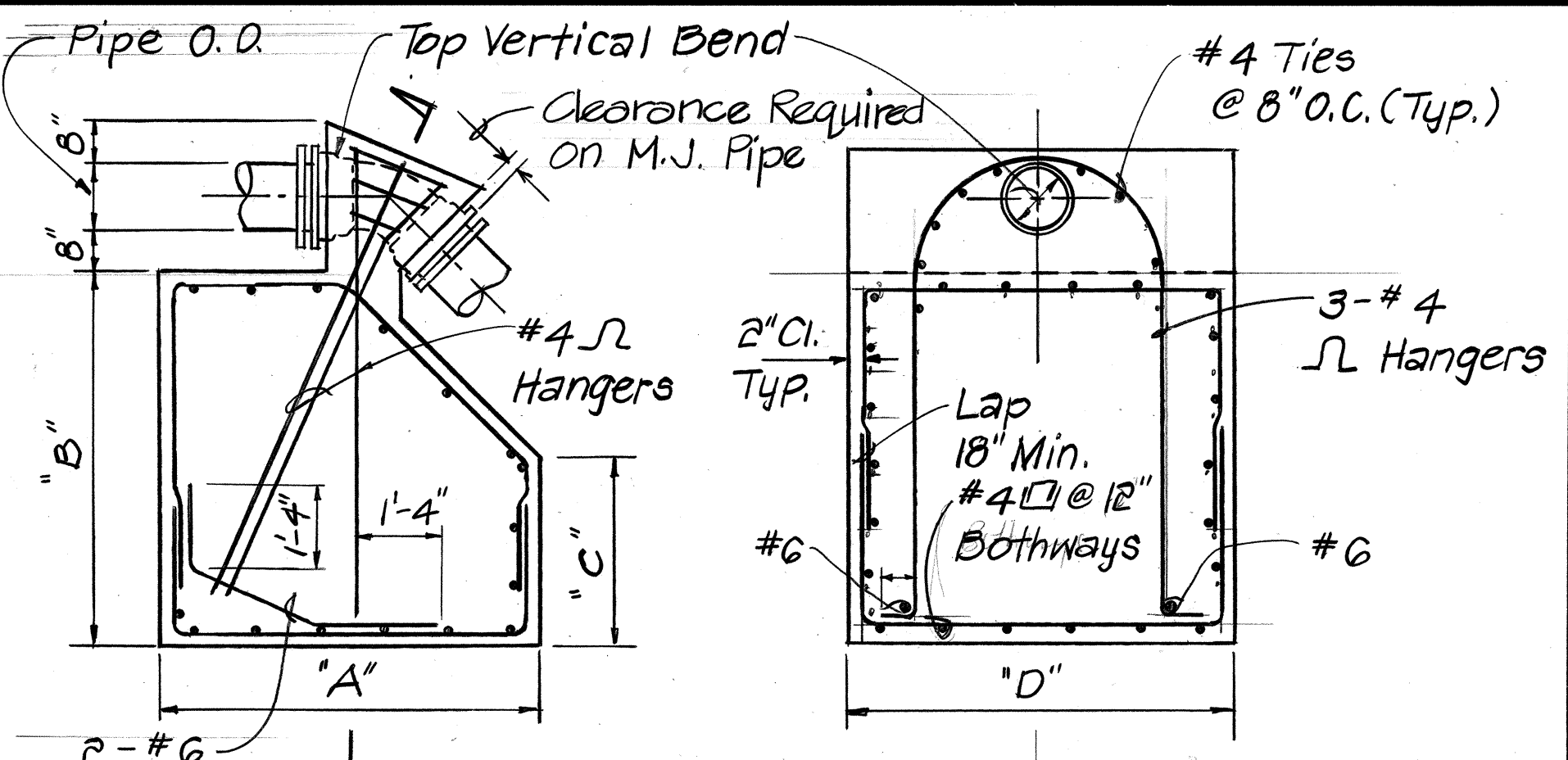


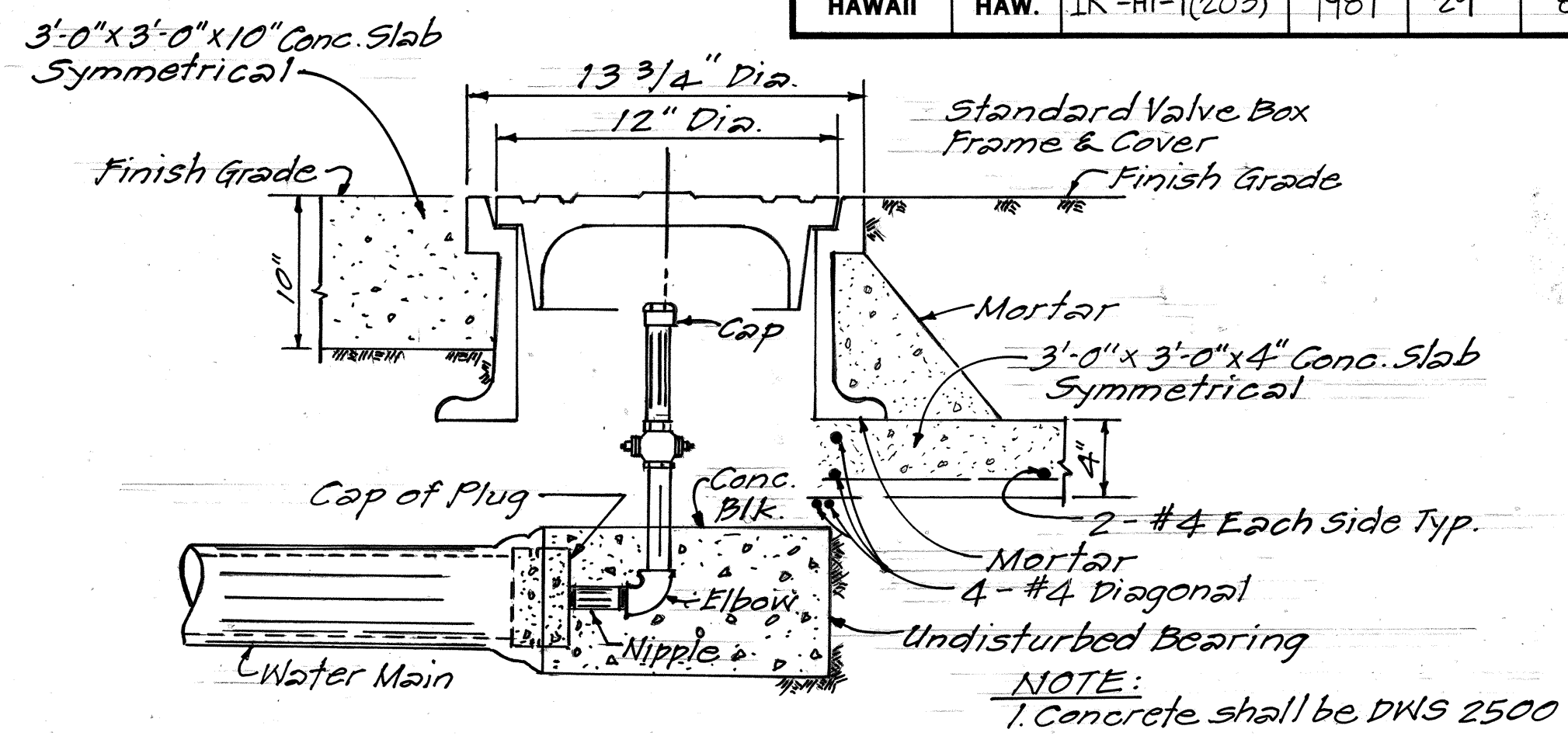
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(203)	1987	29	87



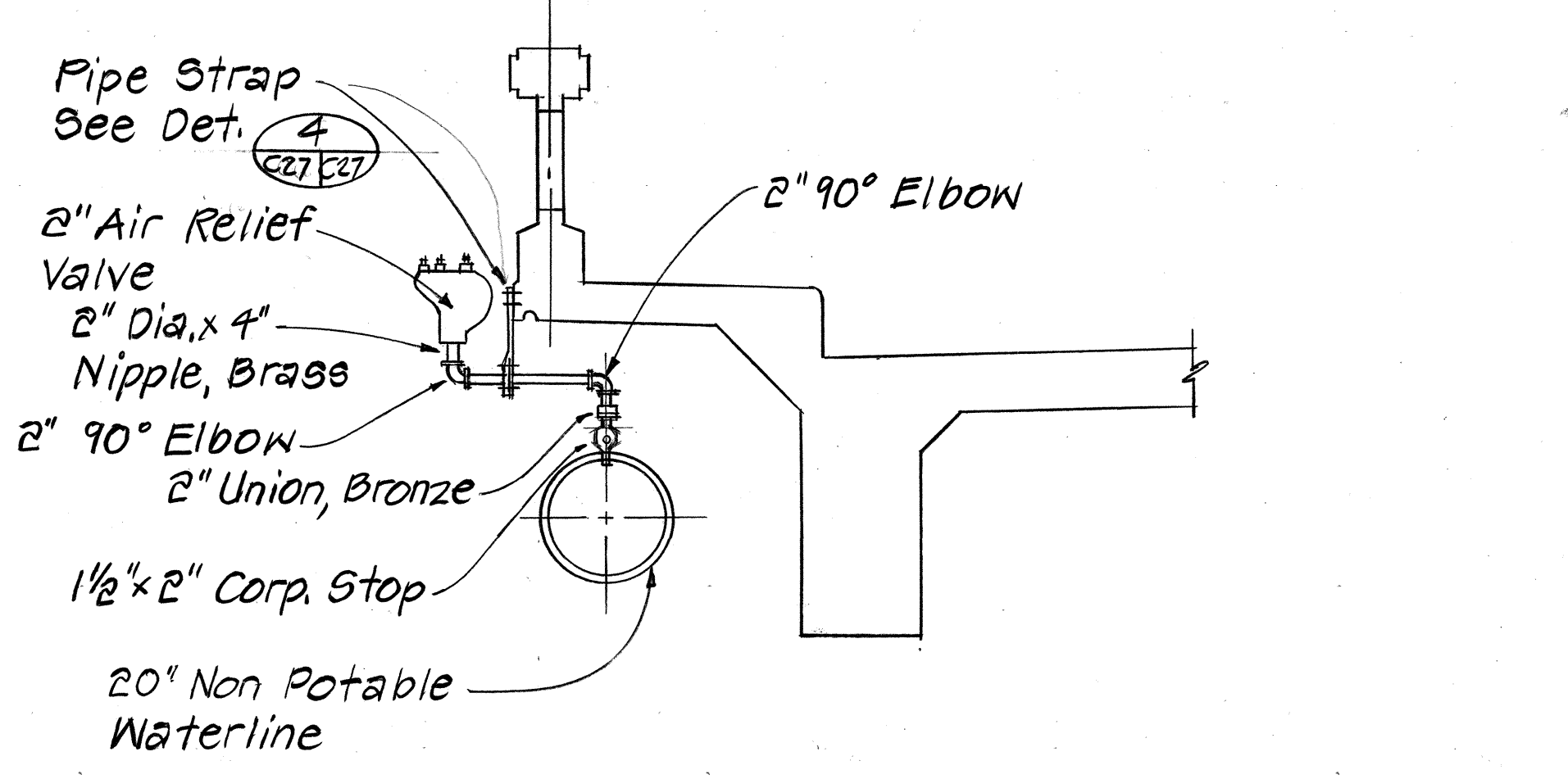
DETAIL - THRUST BLOCKS
Not To Scale
C12 to C26
C30, C31, C36
C27



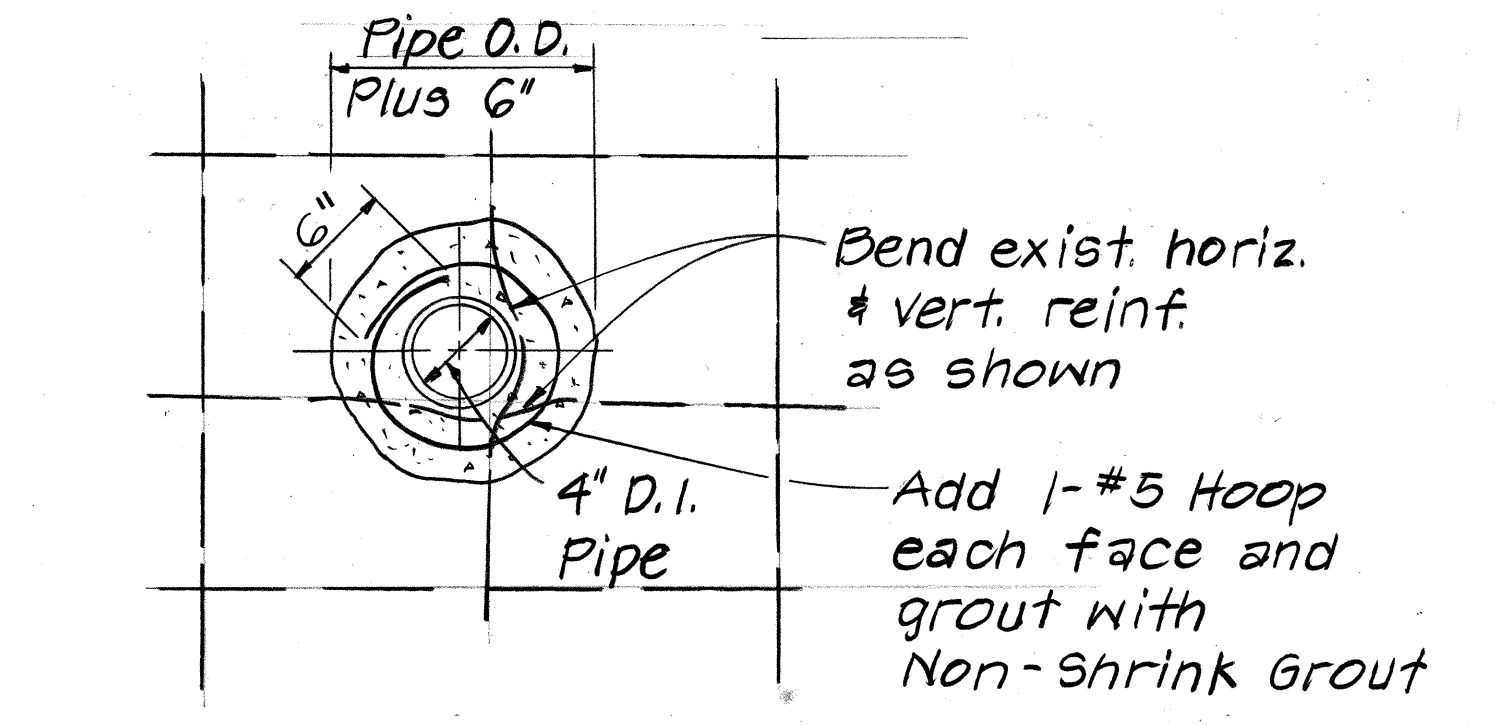
DETAIL - TOP VERTICAL BEND
Note: Dimensions "A", "B", "C" and "D" will be determined in the field.
C12 to C26
C30, C31, C36
C27



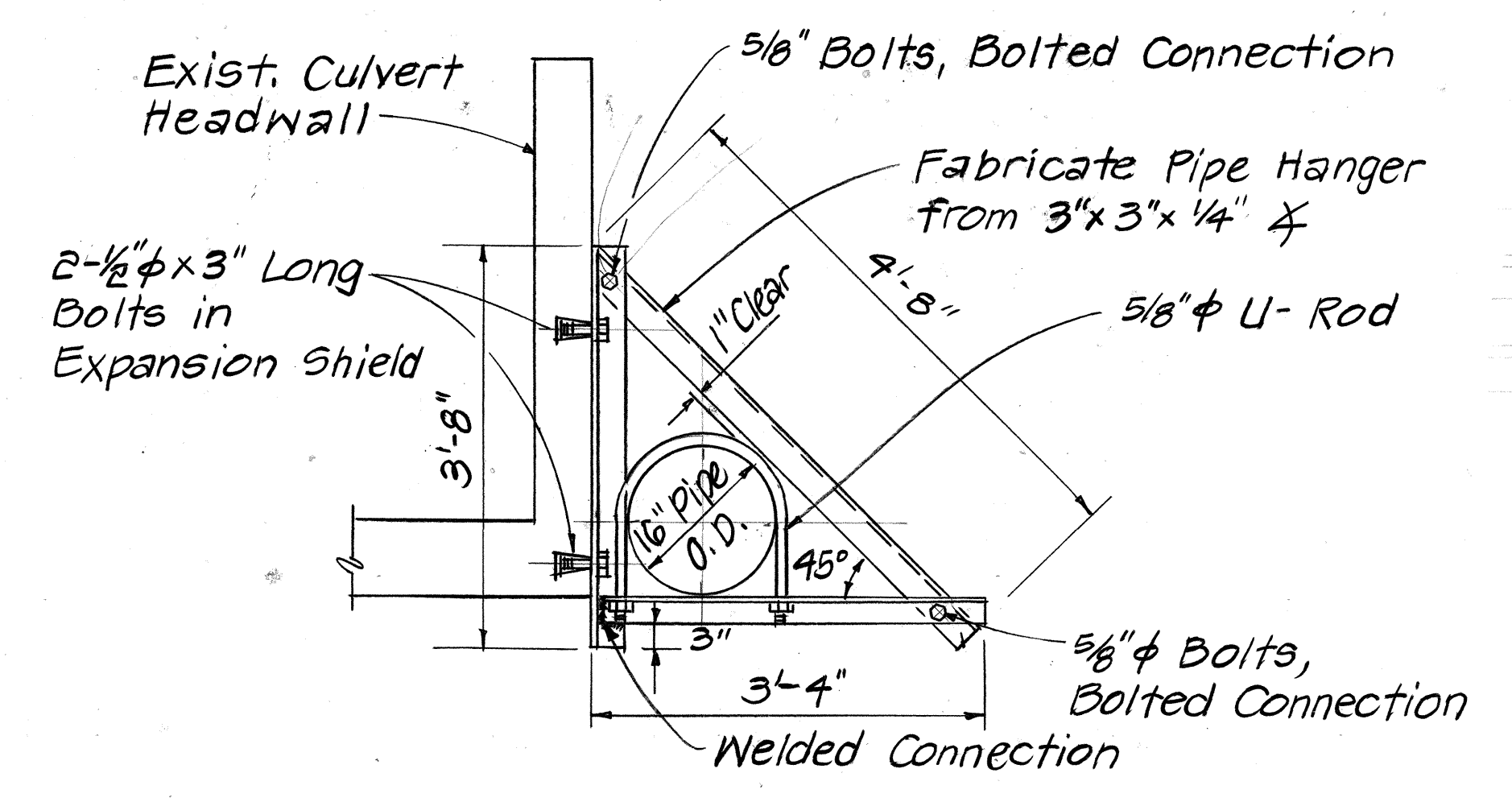
TYPICAL VALVE BOX INSTALLATION FOR TEMPORARY CLEANOUT
NOTE: This Tracings/Detail prepared during "As-Built" posting
STA. 29+00, RT.
STA. 31+50
NOT TO SCALE
C14, C27, C19



AIR RELIEF VALVE CONNECTION DETAIL
Not To Scale
C13
C12, C27

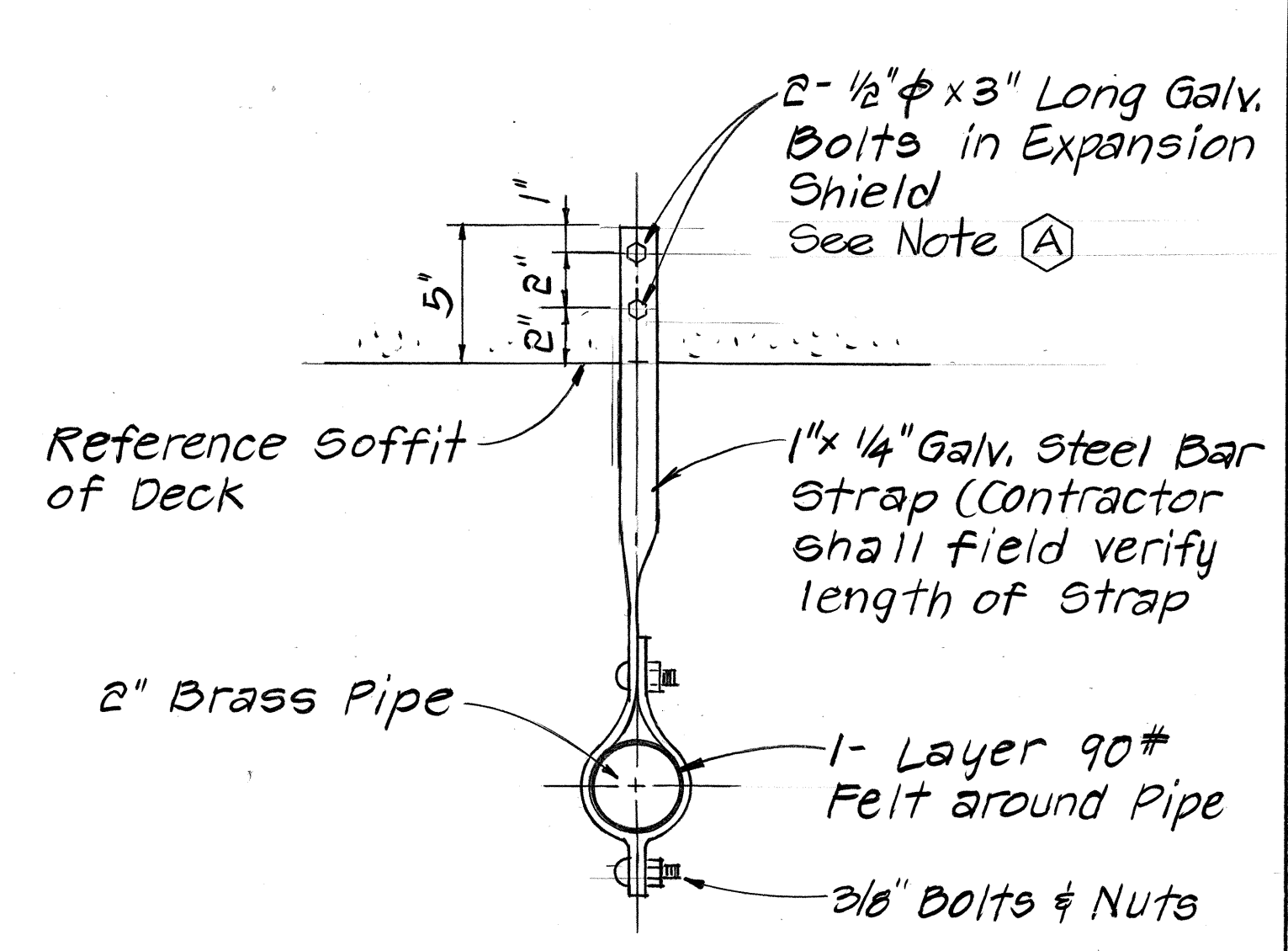


TYPICAL PIPE OPENING DET.
Not To Scale
C27, C27

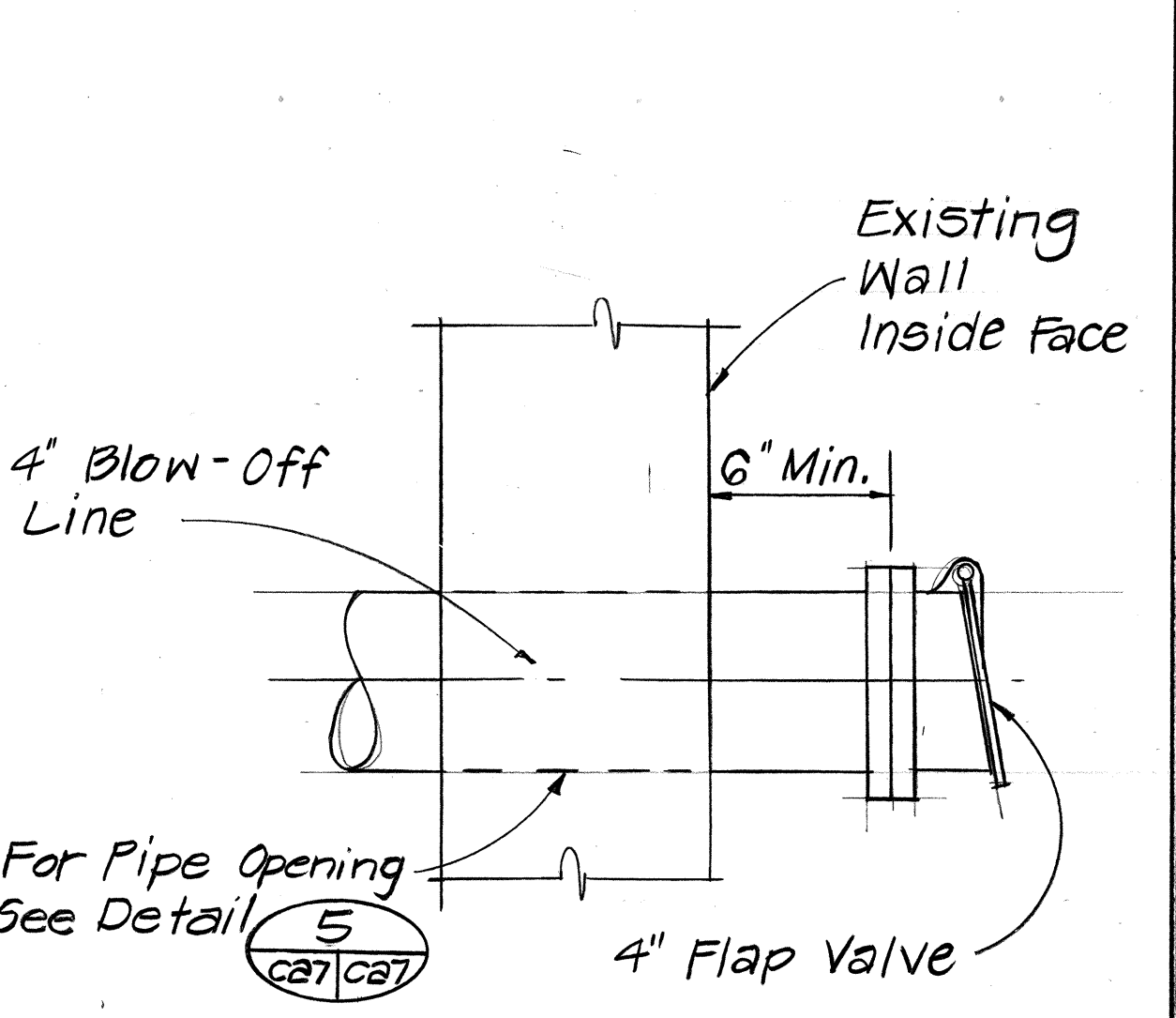


PIPE HANGER DETAIL
Not To Scale
C22, C27

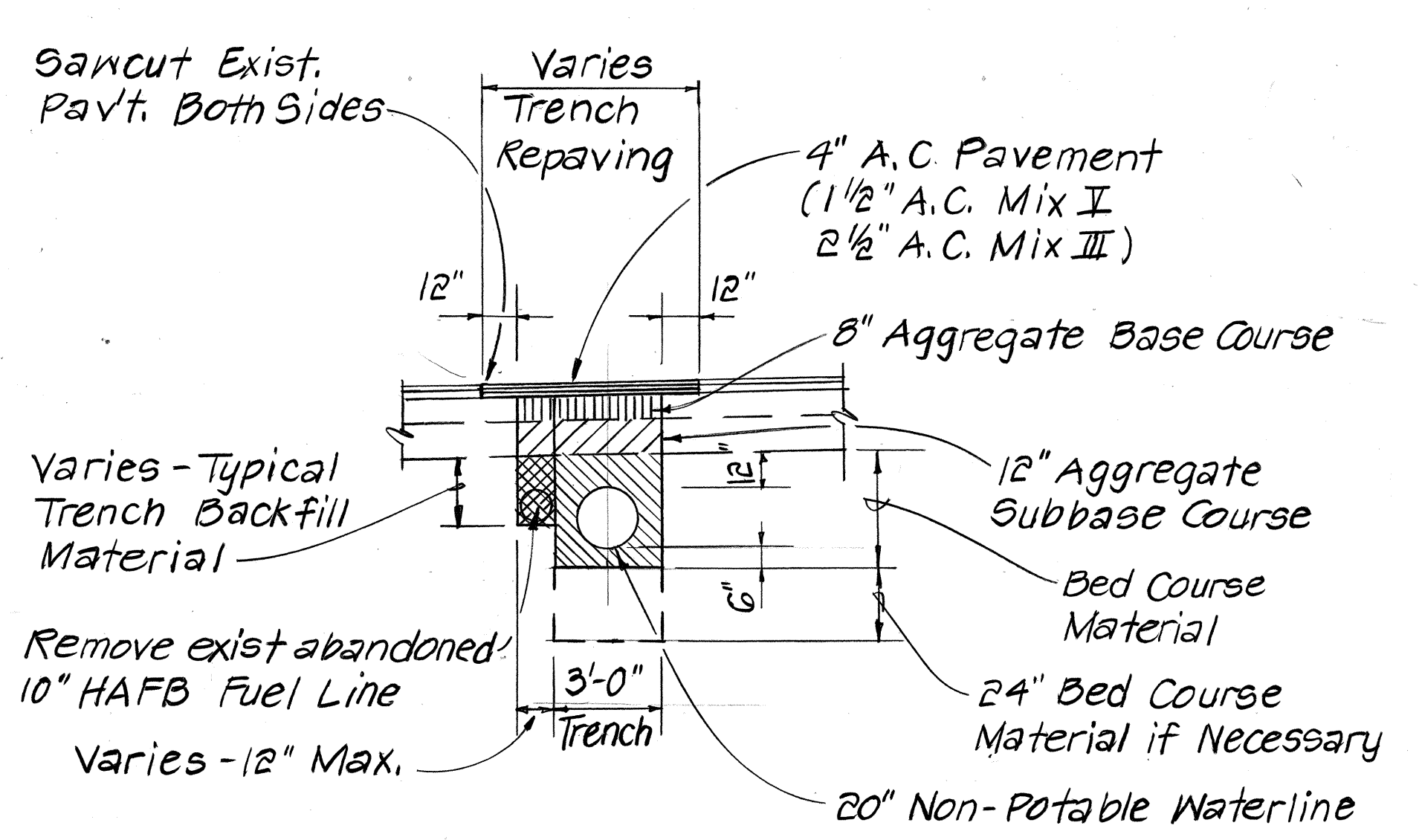
Notes:
(A) Care shall be taken to not damage existing reinforcing. Any damage to existing reinforcing shall be repaired.
(B) All metals shall be hot dipped galvanized.



STRAP DETAIL
Not To Scale
C27, C27



4" FLAP VALVE DET.
Not To Scale
C25
C15, C27



TRENCH & RESTORATION DET. FOR REMOVAL OF HAFB 10" FUEL LINE
C13, C14, C15
C12, C27

APPROVED: _____ DATE: 9/3/86
 CHIEF PLANNING & ENGINEERING DIV., DWS

RONALD T. YAMA
 REGISTERED PROFESSIONAL ENGINEER
 No. 2254-C
 HAWAII, U.S.A.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WATER DETAILS

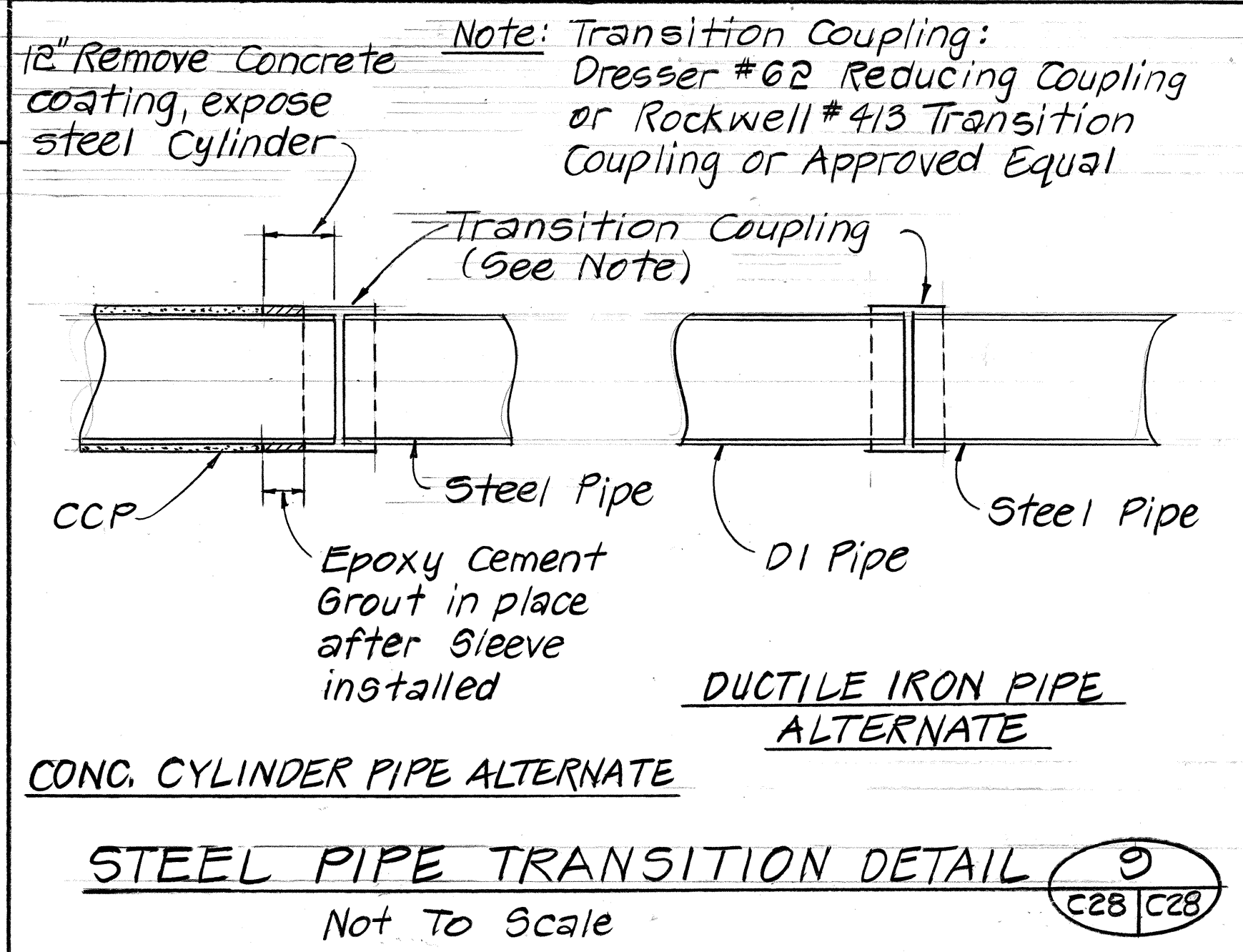
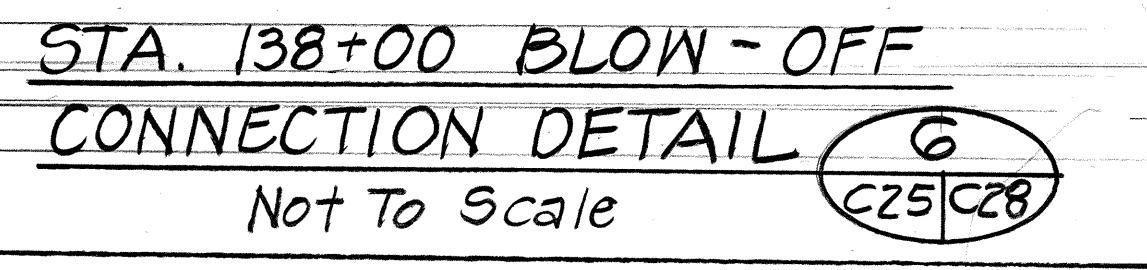
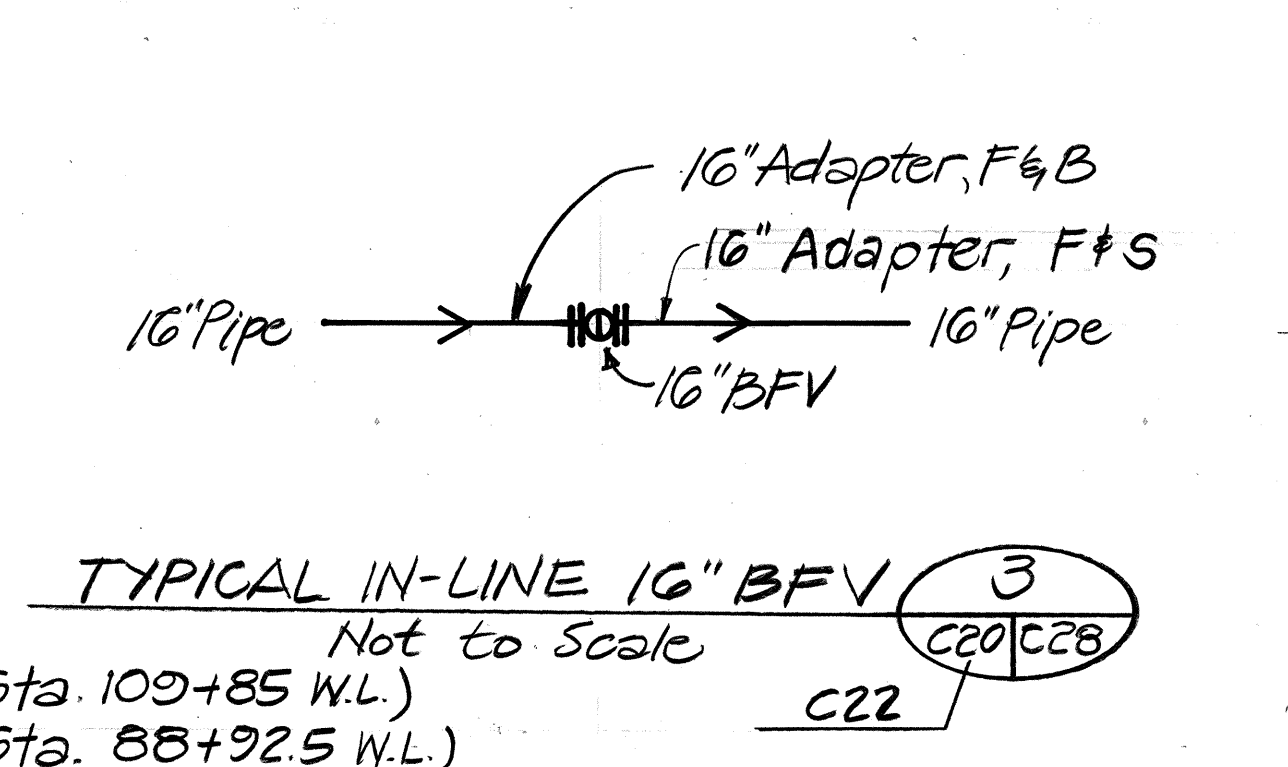
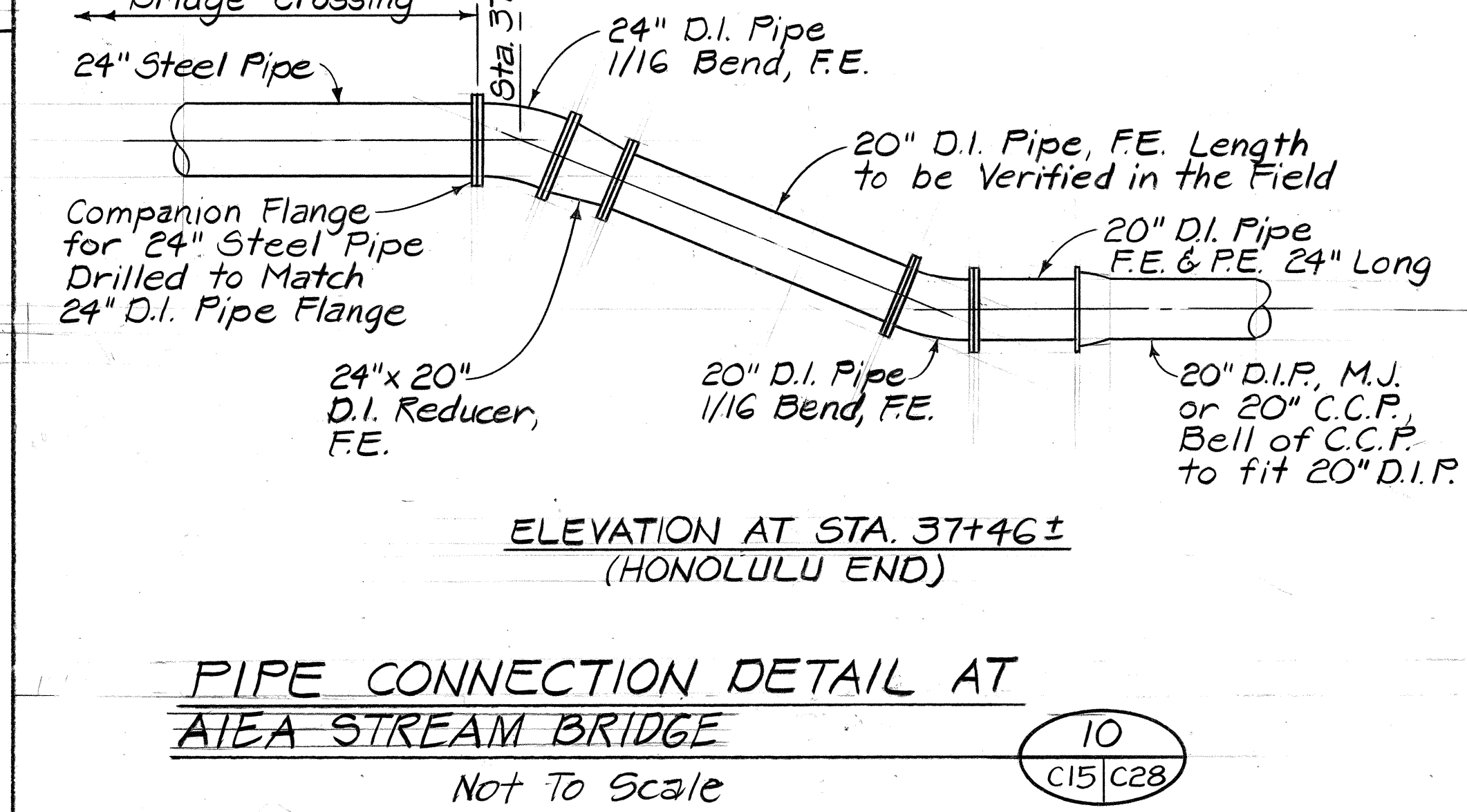
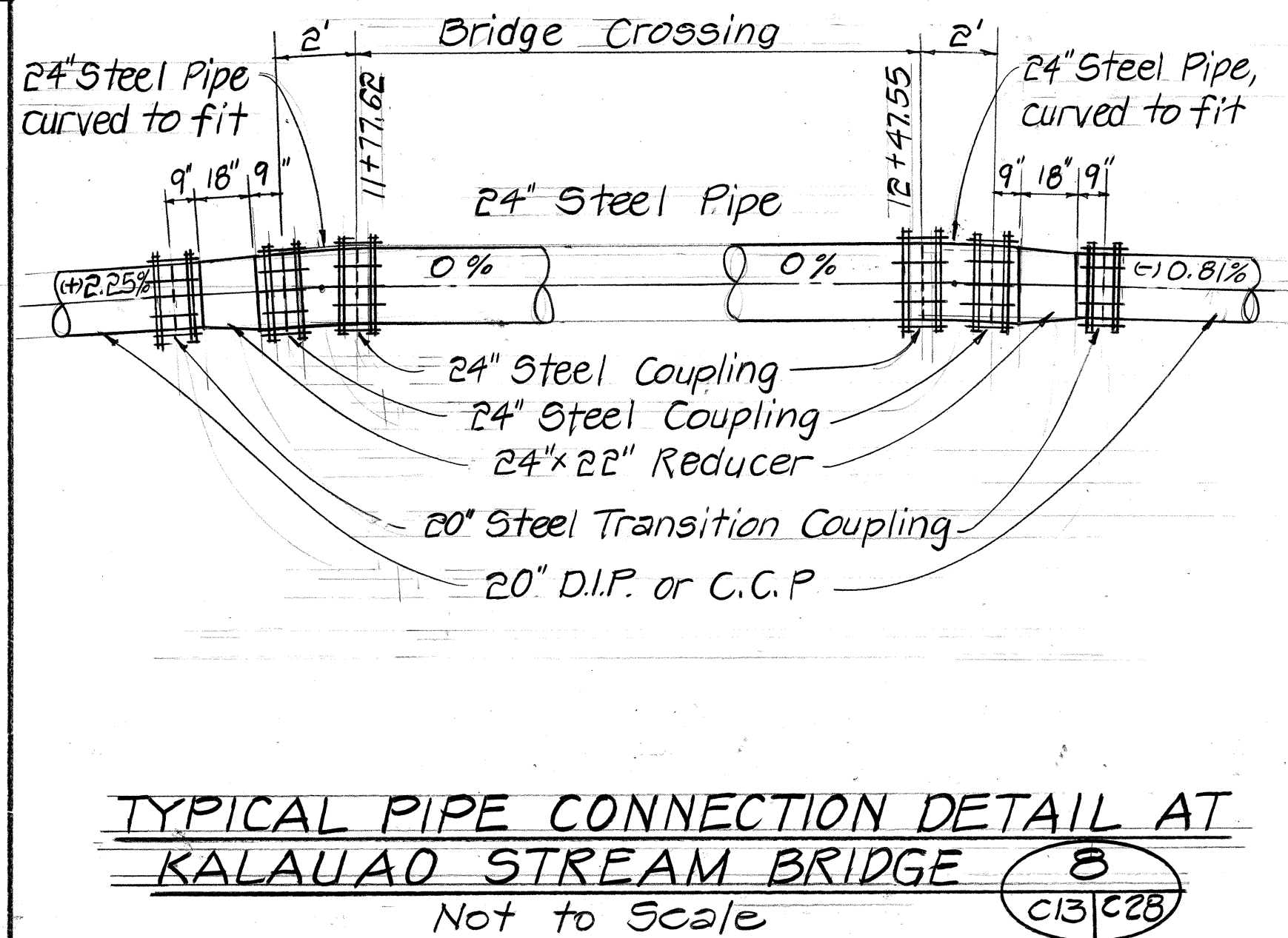
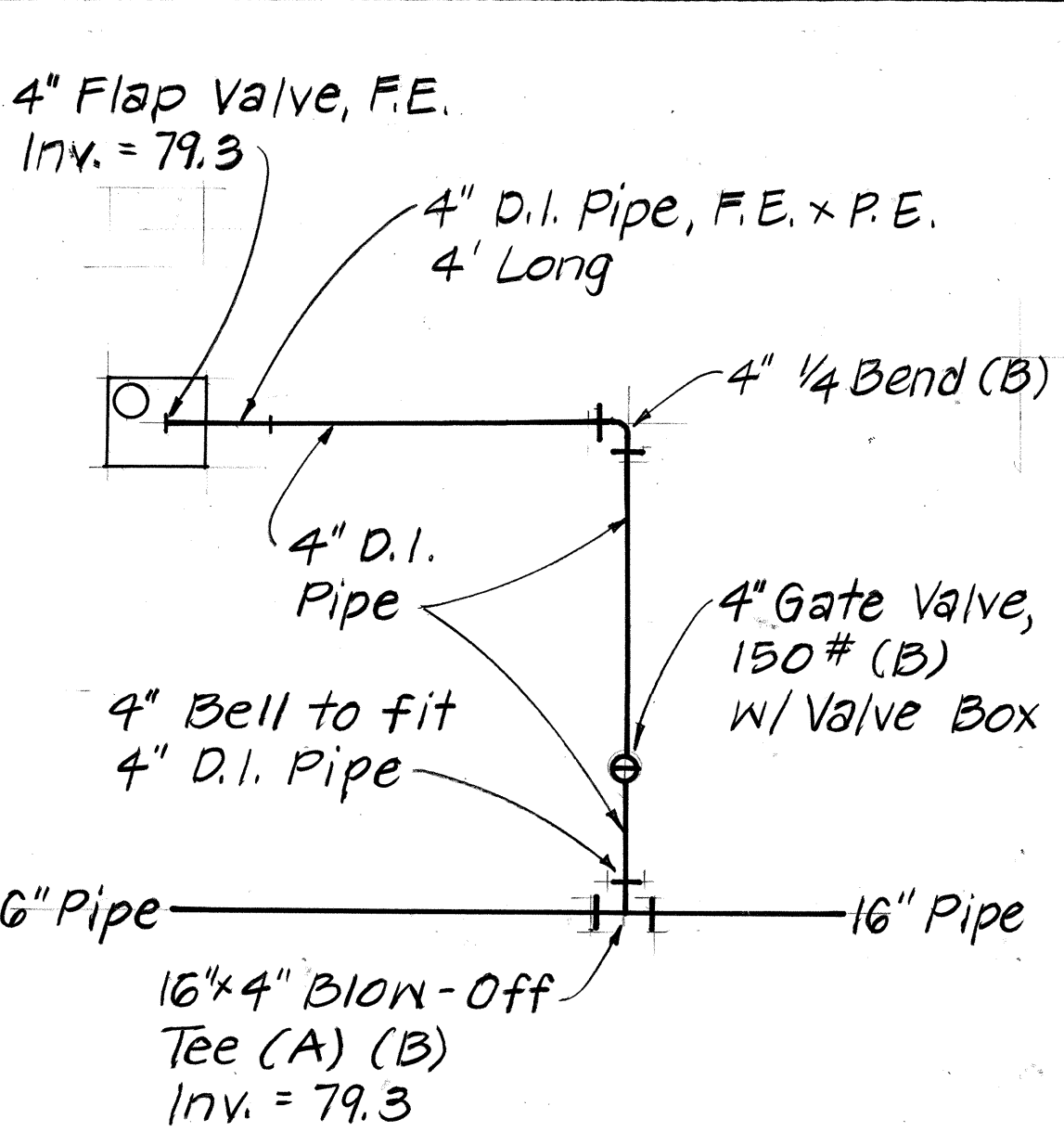
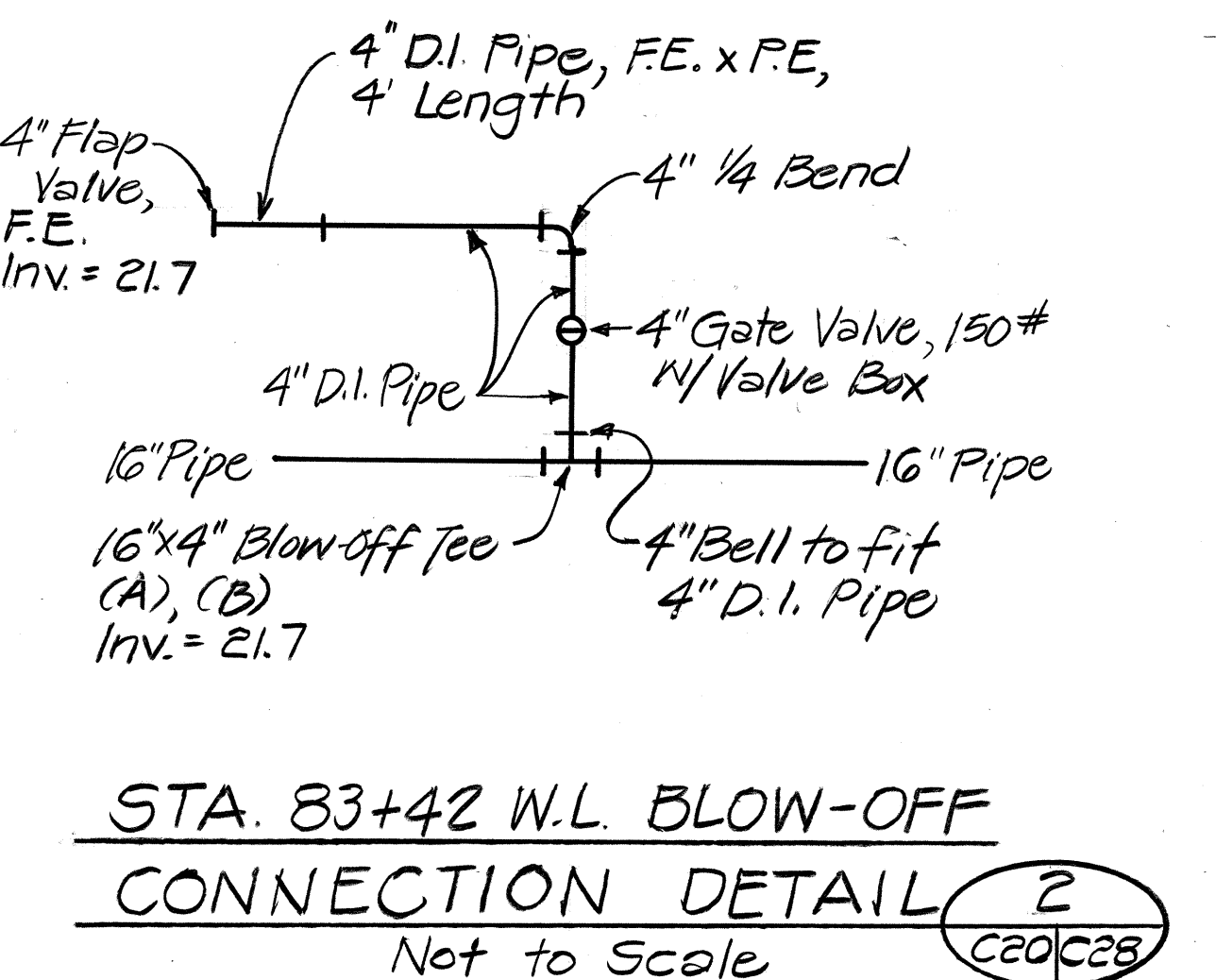
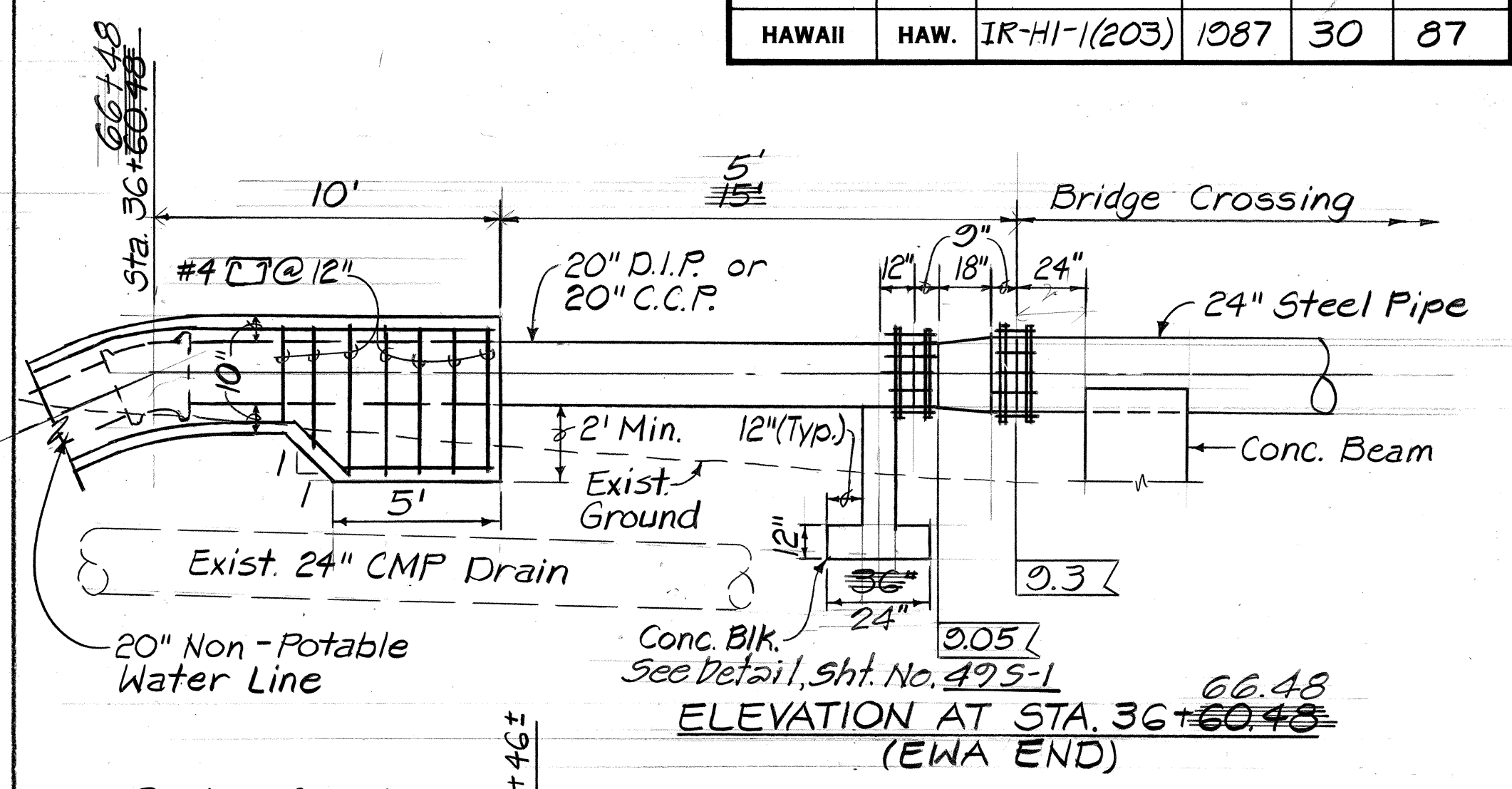
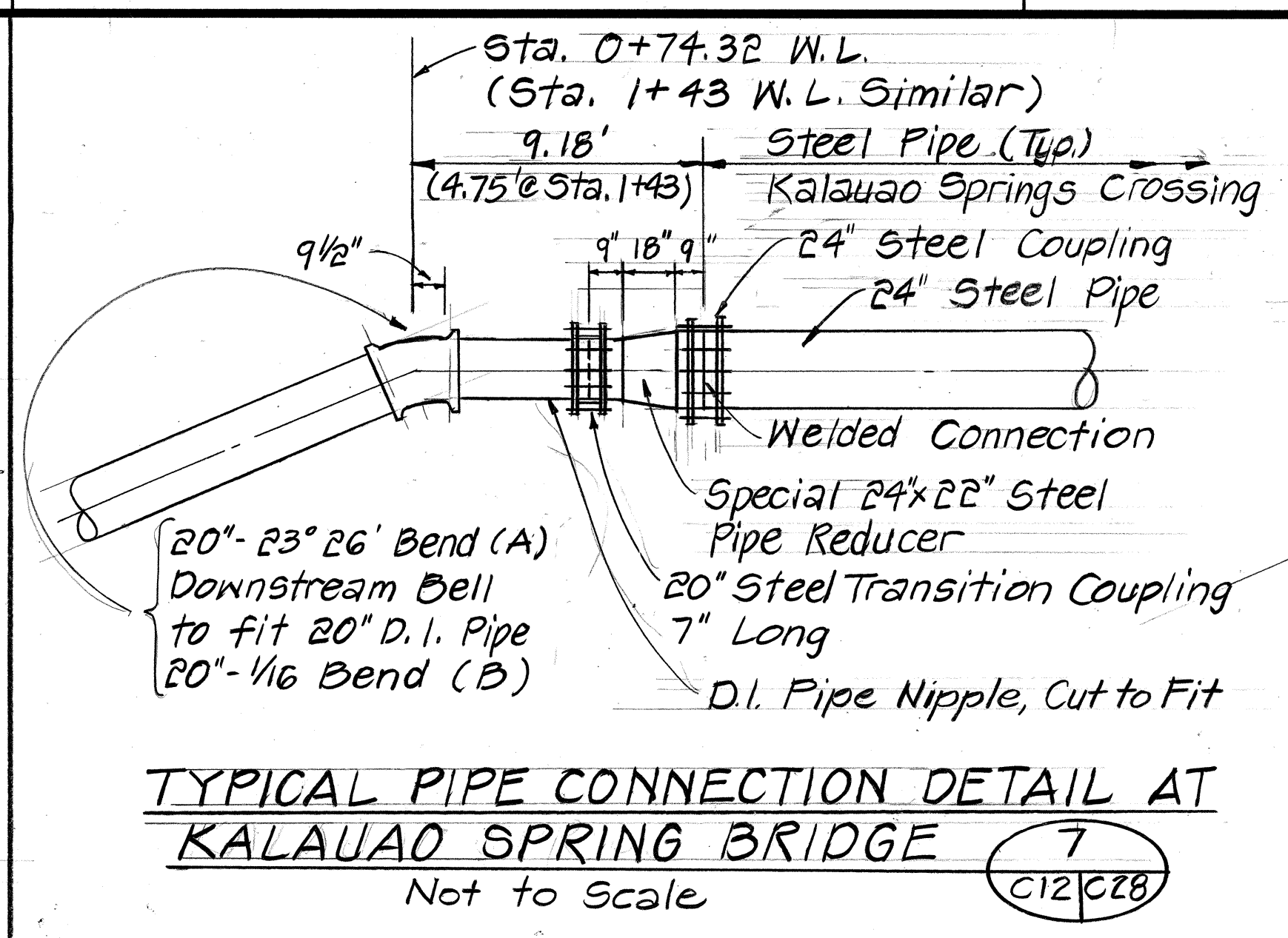
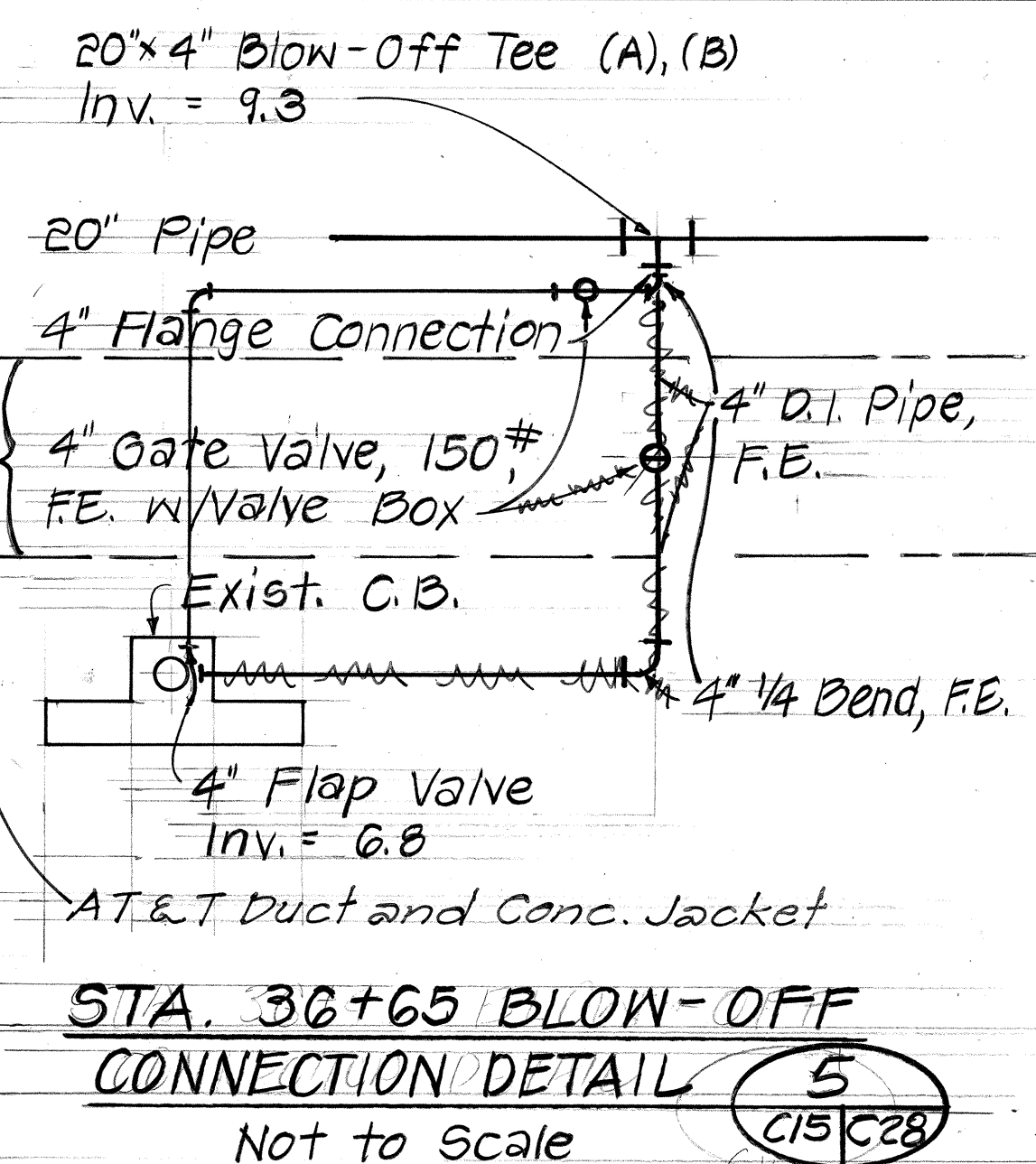
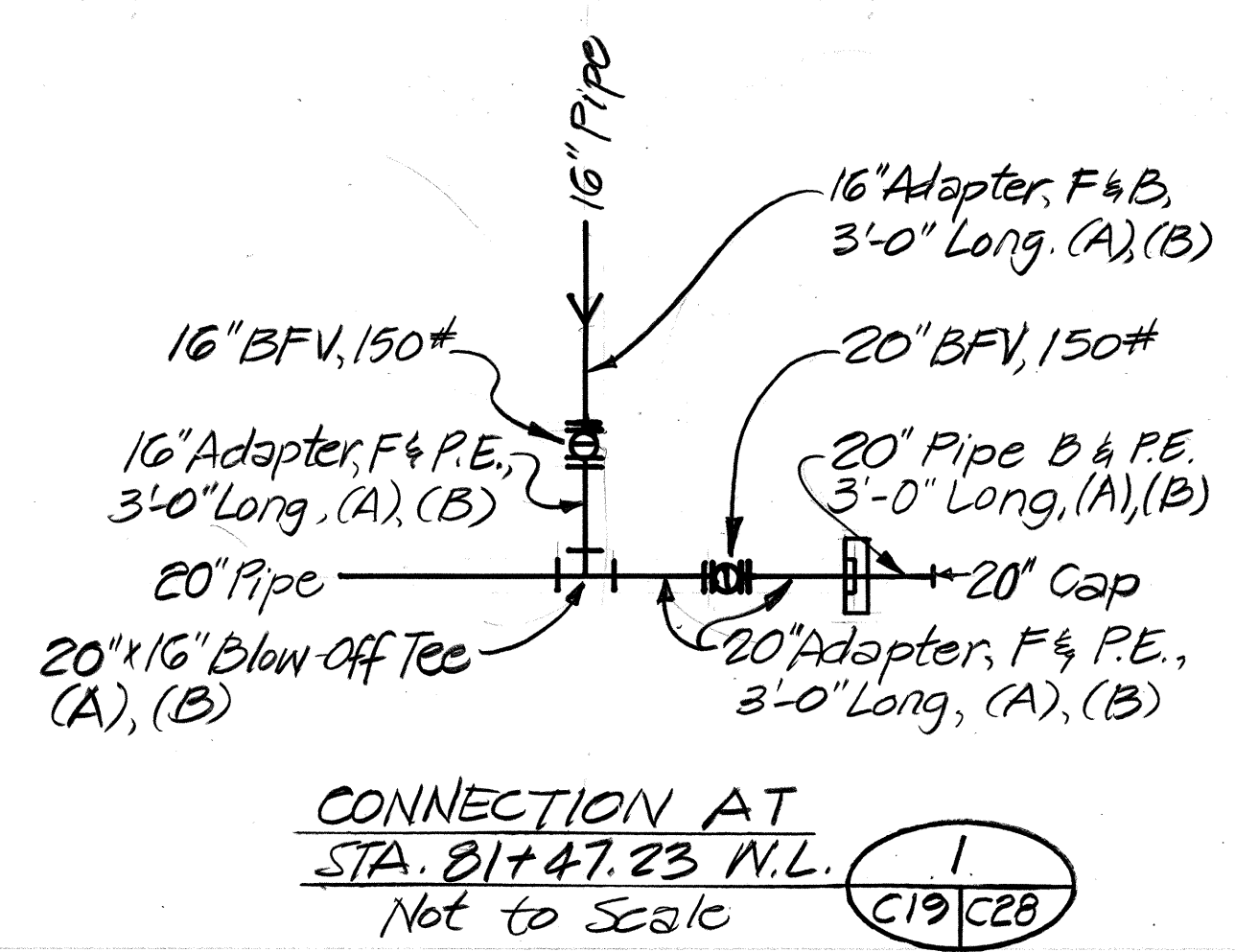
H-I NON-POTABLE WATER SYSTEM
 KALAUAO SPRINGS TO HALAWA RESERVOIR
 F.A.I. PROJ. NO. IR-HI-1 (203)

SCALE: AS SHOWN DATE: 1/20/87
 SHEET No. C-27 OF 64 SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Ronald T. Yama

DATE: _____
 SURVEY PLOTTED BY: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 QUANTITIES BY: _____
 CHECKED BY: _____
 ORIGINAL PLAN NO. _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(203)	1987	30	87



APPROVED: *Ronald T. Yama* 9/3/87
 CHIEF, PLANNING & ENGINEERING DIV., BWS DATE

RONALD T. YAMA
 REGISTERED PROFESSIONAL ENGINEER
 No. 2254-C
 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Ronald T. Yama

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WATER DETAILS

H-I NON-POTABLE WATER SYSTEM
 KALAUAO SPRINGS TO HALAWA RESERVOIR
 F.A.I. PROJ. NO. IR-HI-1 (203)

SCALE: AS SHOWN DATE: 1/20/87
 SHEET No. C-28 OF 64 SHEETS

DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
QUANTITIES BY	
NOTE BOOK	
CHECKED BY	
NO.	