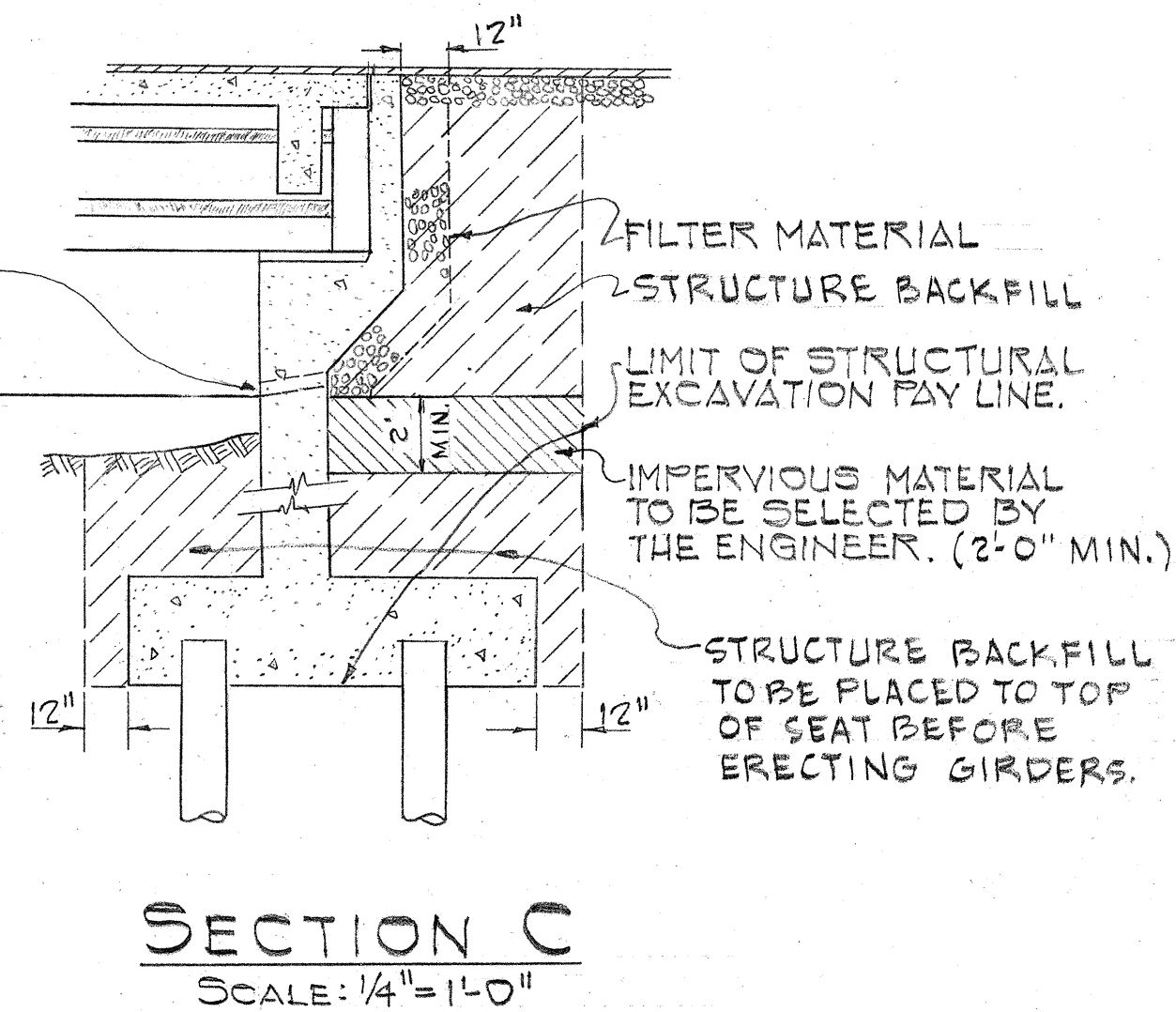
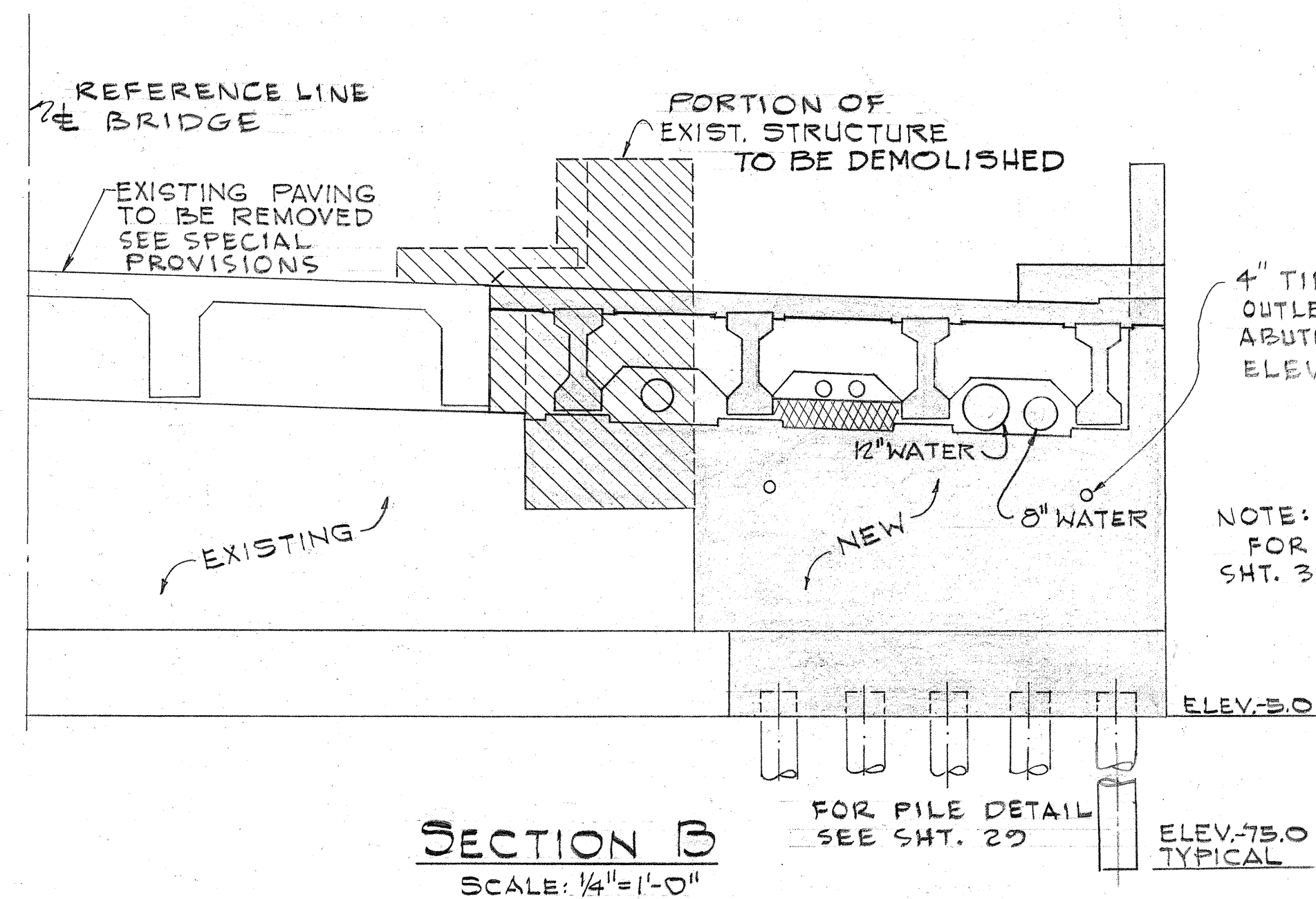
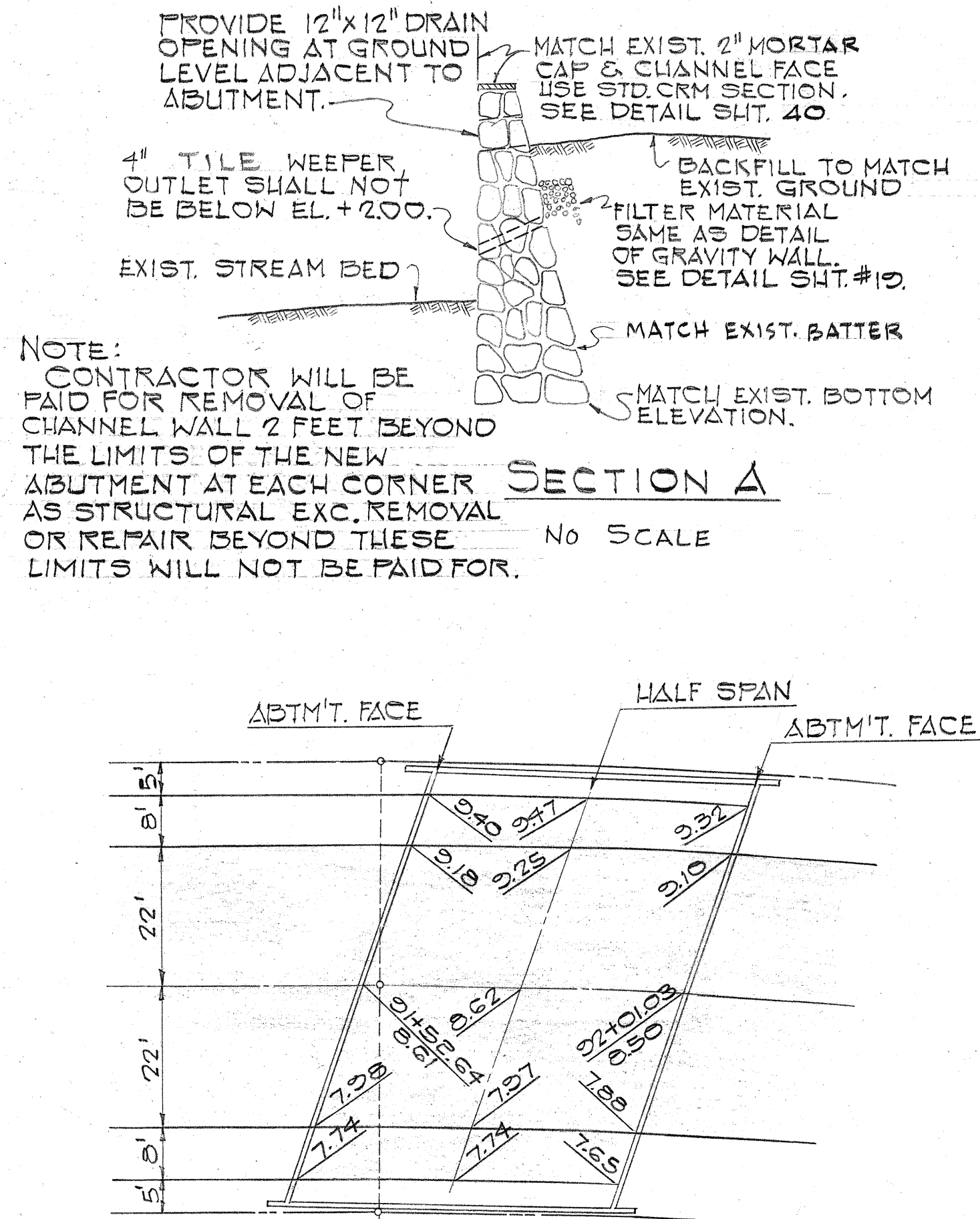
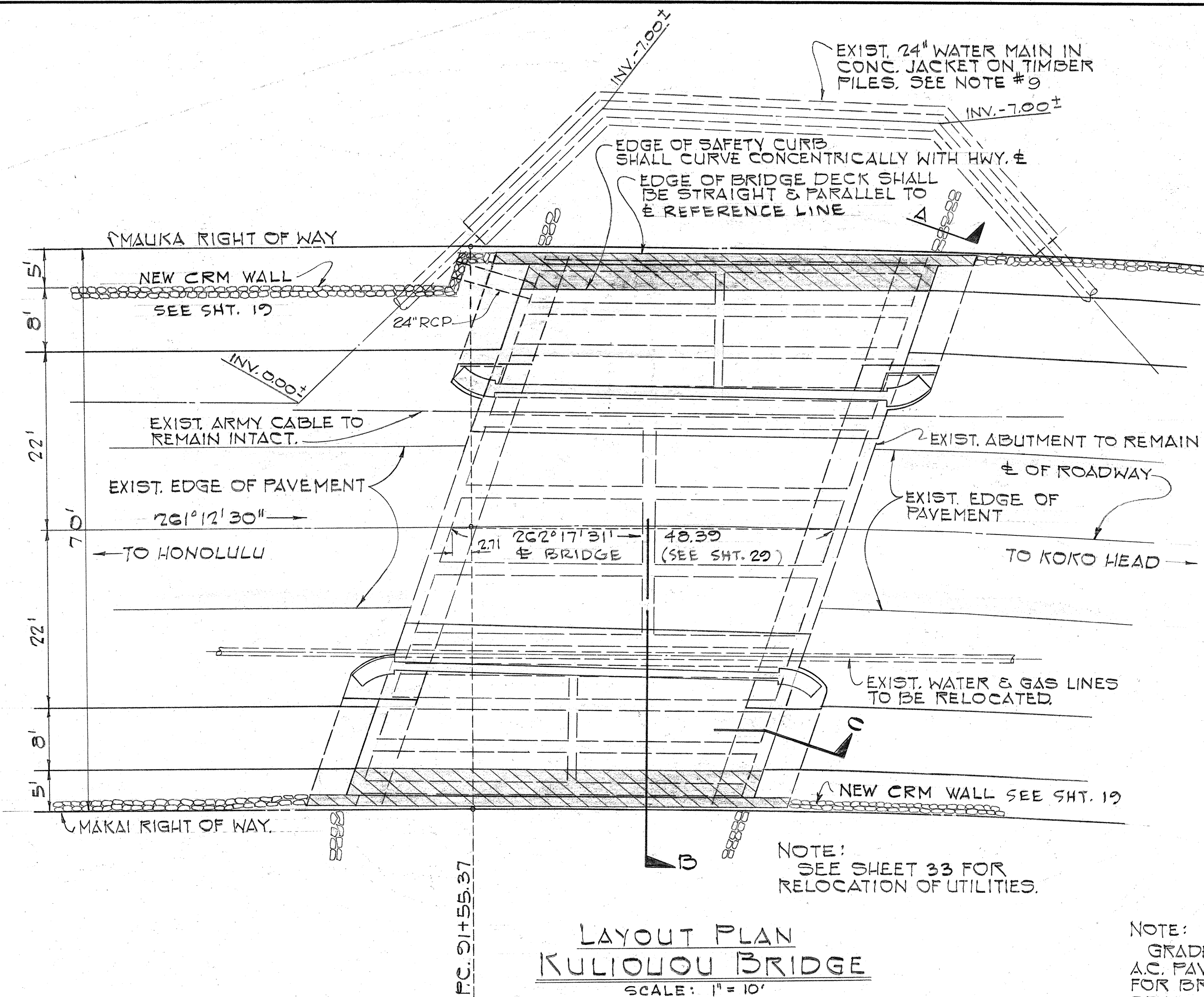


GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEV. & EXIST. CONDITIONS AND SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES BEFORE COMMENCING WORK.
2. TIMBER PILES SHALL BE UNTREATED.
3. CONC. SHALL BE CLASS A-1, UNLESS OTHERWISE SPECIFIED.
4. ROD REINF. SHALL BE INTERMEDIATE GRADE DEFORMED BARS AS PER ASTM A-15 & A-305.
5. DETAILS AND GENERAL PROCEDURE: AS PER "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, T. OF HAWAII, TH. DEPT. MAY, 1957."
6. BAR LENGTHS ON PLAN & DETAILS DO NOT INCLUDE HOOKS OR BENDS.
7. PRESTRESSED GIRDERS:
CONC. 4000 PSI @ TIME OF TRANSFER. $f_c' = 6000$ p.s.i
TENDONS - 7 WIRE - $\frac{7}{16}$ & STRANDS.
8. DESIGN CODE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES A.A. S.H.O. 8TH ED. 1961.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE EXIST. WATER SYSTEM WITHIN THE CONSTRUCTION AREA. PRIOR TO START OF PILE DRIVING, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO EXPOSE THE UPPER PORTION OF THE CONC. JACKET FOR THE EXIST. 24" WATER MAIN AS REQ'D. BY THE ENGR. TO VERIFY THE LOCATION OF NEW PILES WITH RESPECT TO THE EXIST. JACKET AND ADEQUATE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO DETERMINE WHETHER DISTURBANCE HAS OCCURED.



ESTIMATED QUANTITIES		
ITEM	CONC. CY. CLASS A-1	REINFORCEMENT LBS.
ABUTMENTS	20.5	7,418
CONC. DECK, CURB & DIAPHRAGMS	67.2	12,012
CONC. RAILING & END POSTS	8.2	813
TOTALS	105.9	20,143

ALUMINUM RAILING	96.7	97 L.F.
PRESTRESSED GIRDERS	412	L.F.
EXCAVATION	246.7	330 C.Y.
CRM WALLS	4.4	5.8 C.Y.
TIMBER PILING	2,928.5	2,840 L.F.

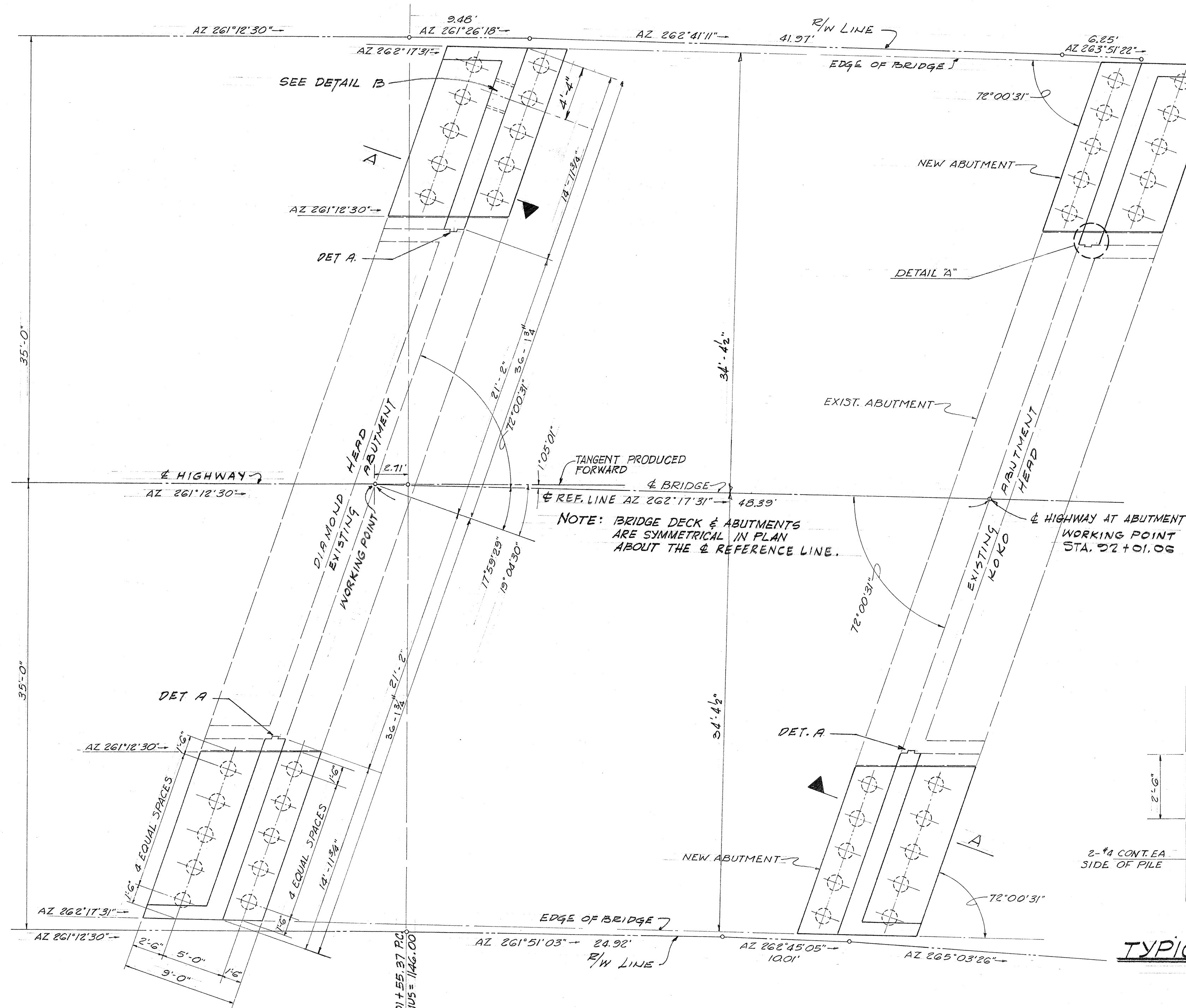
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KALANIANA'OLE HIGHWAY WIDENING
KULIOUO U BRIDGE

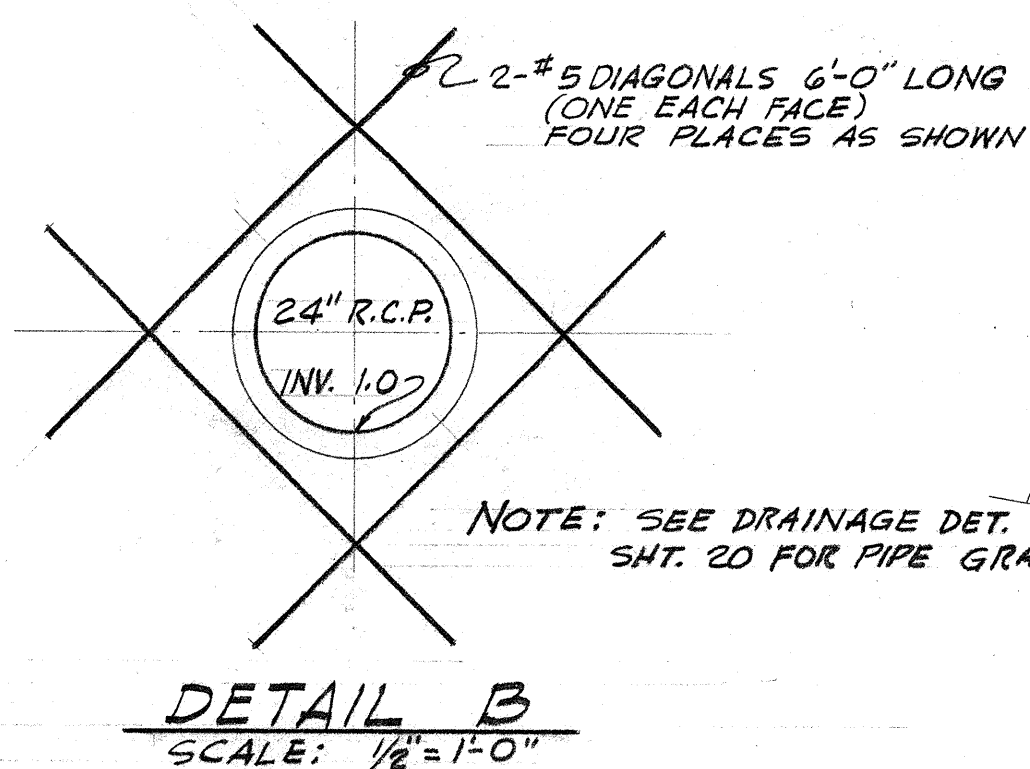
PLAN
AND
GENERAL DETAILS

PROJECT NO. C72-01-63

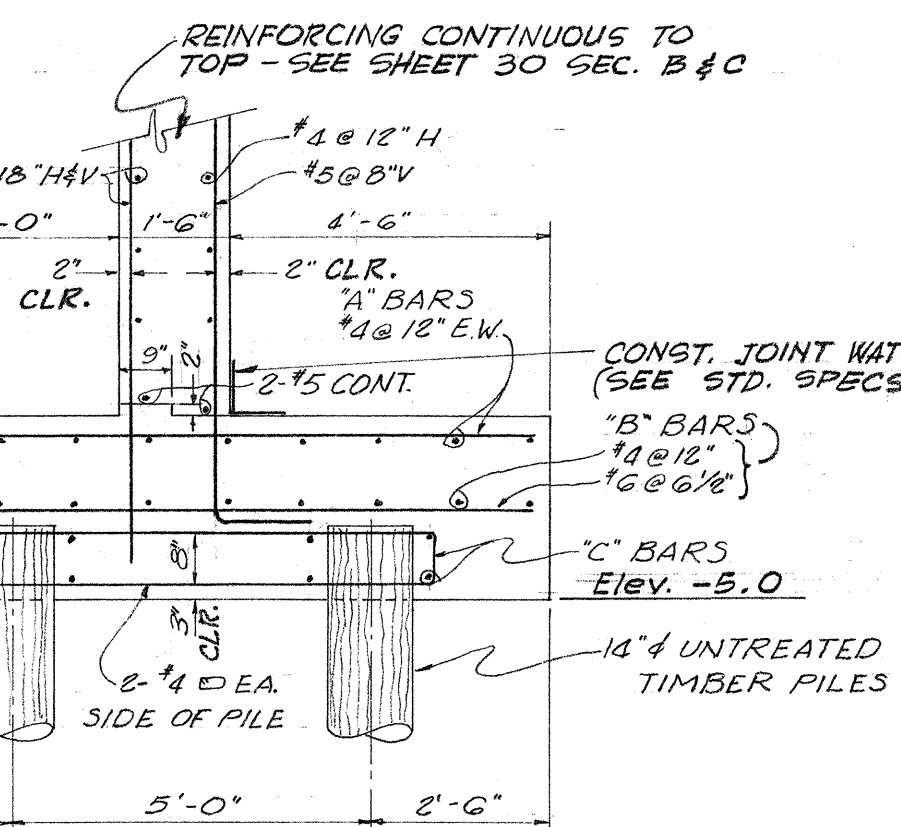
SHEET No. 28 OF 42 SHEETS



FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



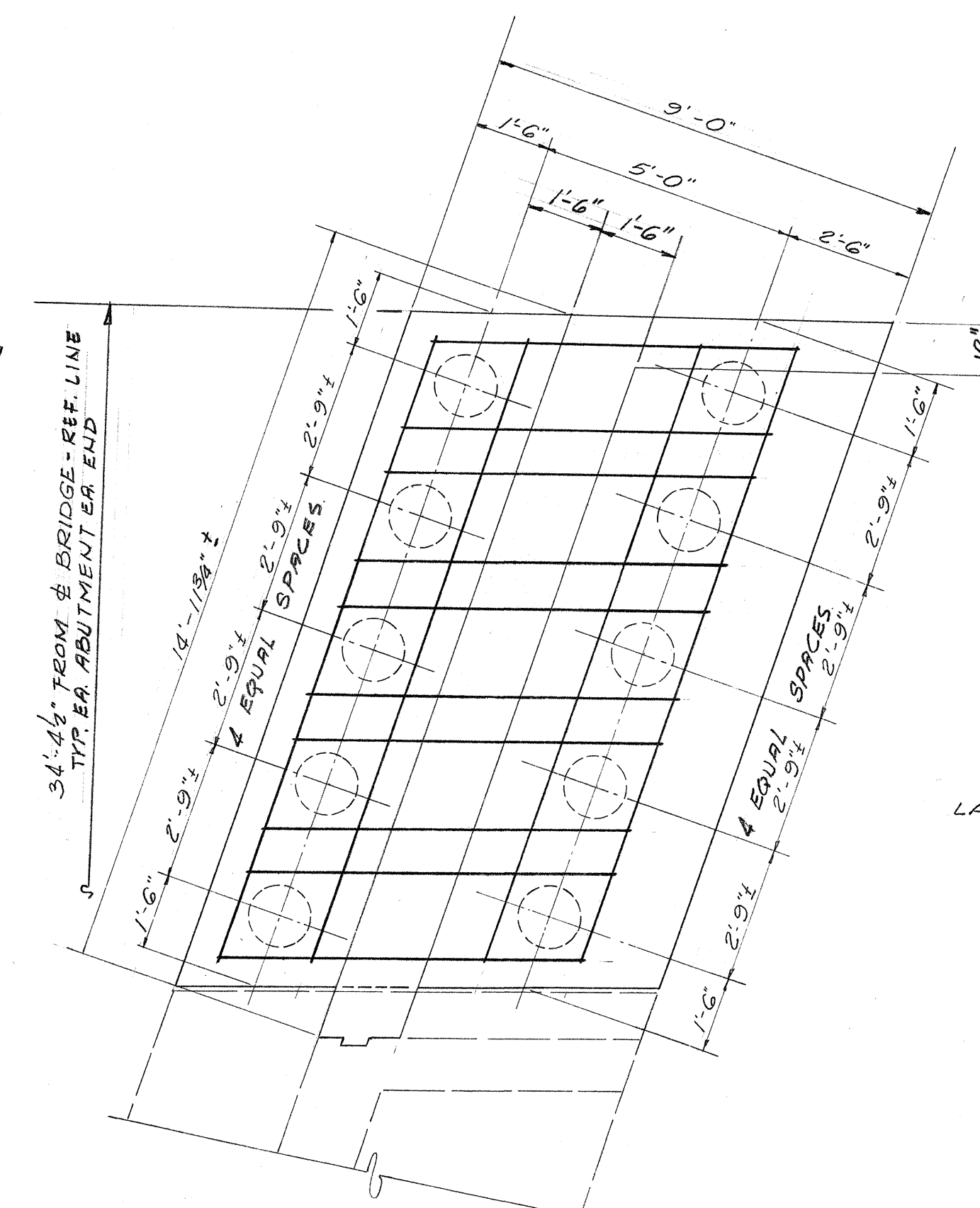
DETAIL B
SCALE: 1/8" = 1'-0"



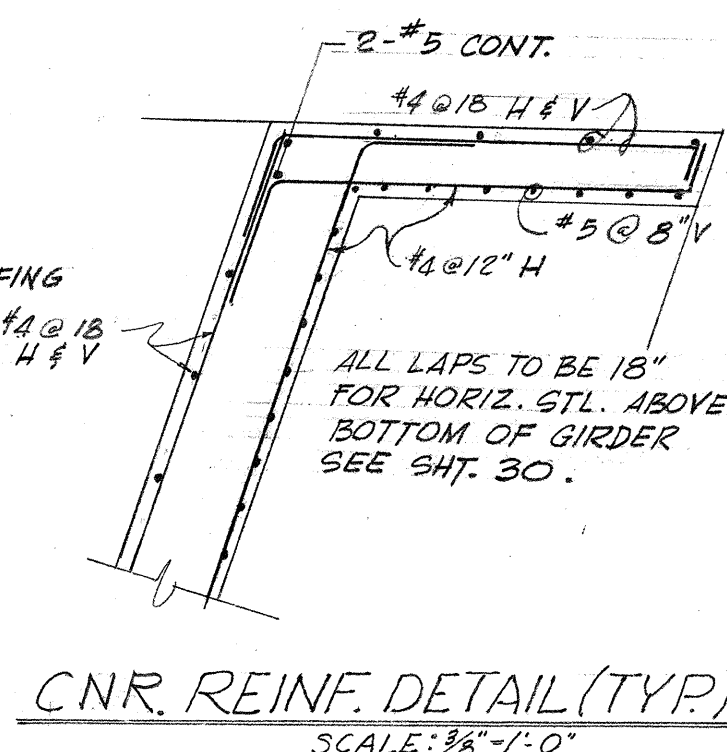
SECTION A
TYPICAL SECTION THRU ABUTMENT
SCALE: 3/8" = 1'-0"

DETAIL A
SCALE: 1/8" = 1'-0"

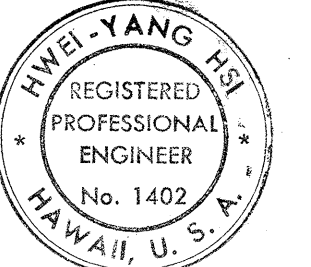
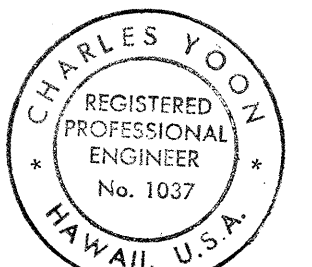
"C" BARS - LAYOUT PLAN
ALL BARS TO BE 3" CLR. FROM PILES



PILE CAP REINF. DETAIL (TYPICAL)
SCALE: 3/8" = 1'-0"

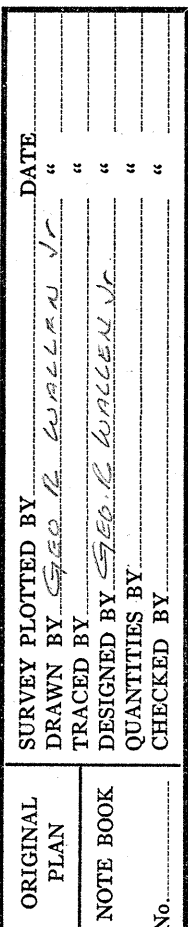


CNR REINF. DETAIL (TYP.)
SCALE: 3/8" = 1'-0"

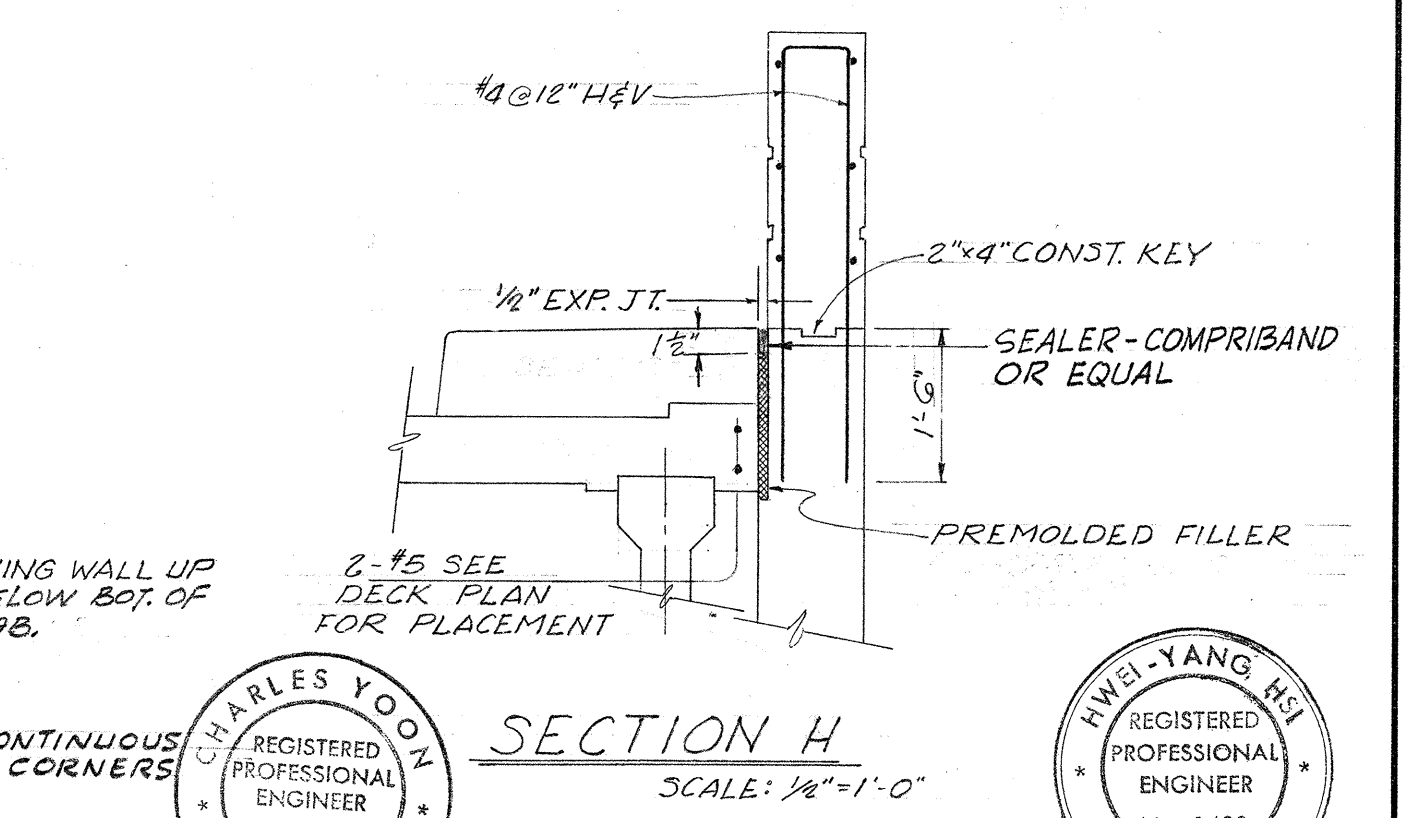
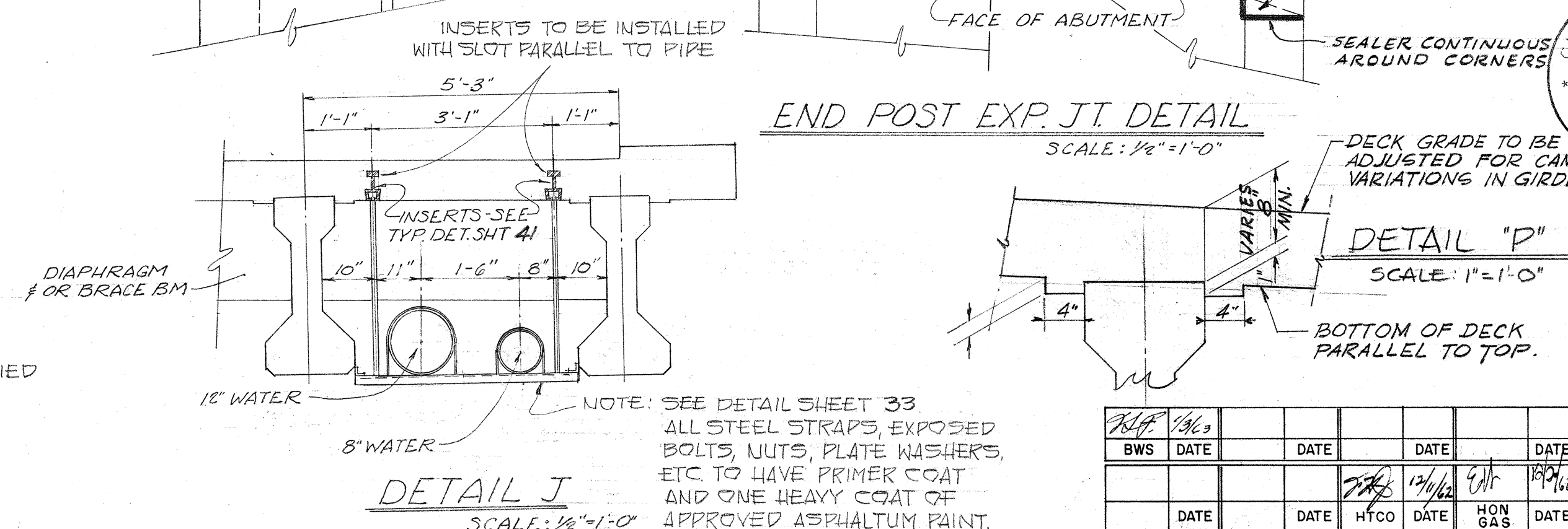
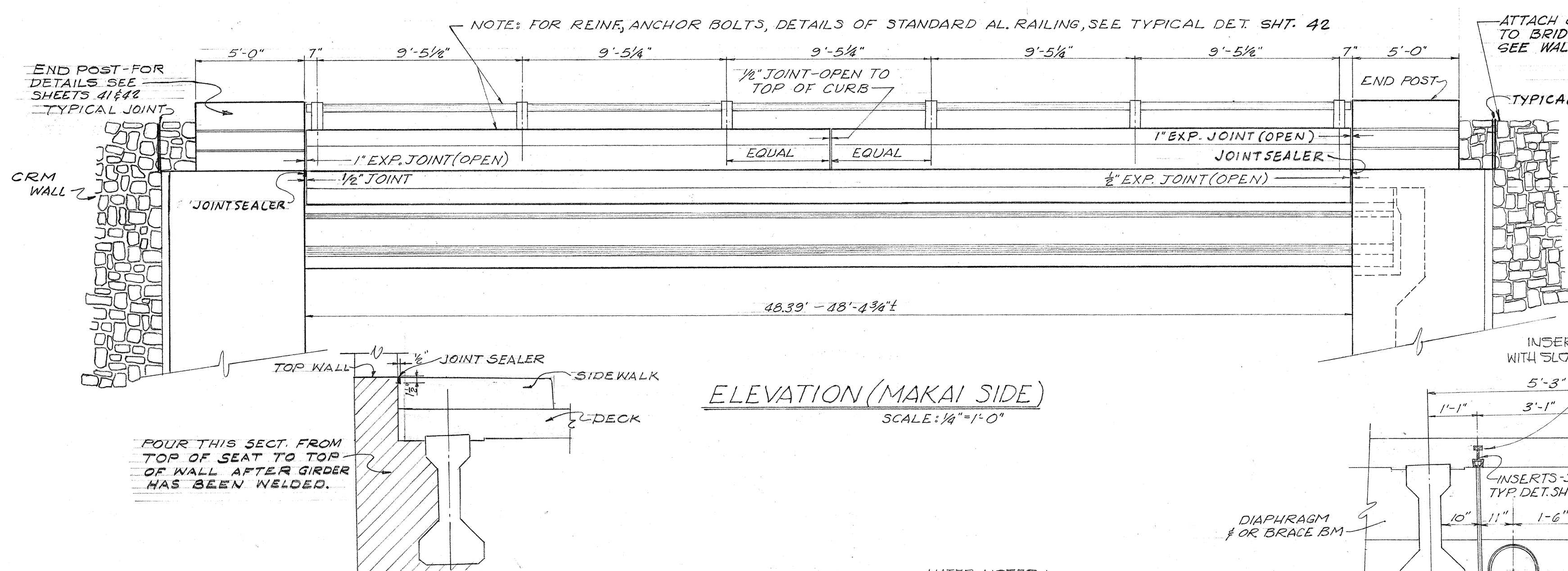
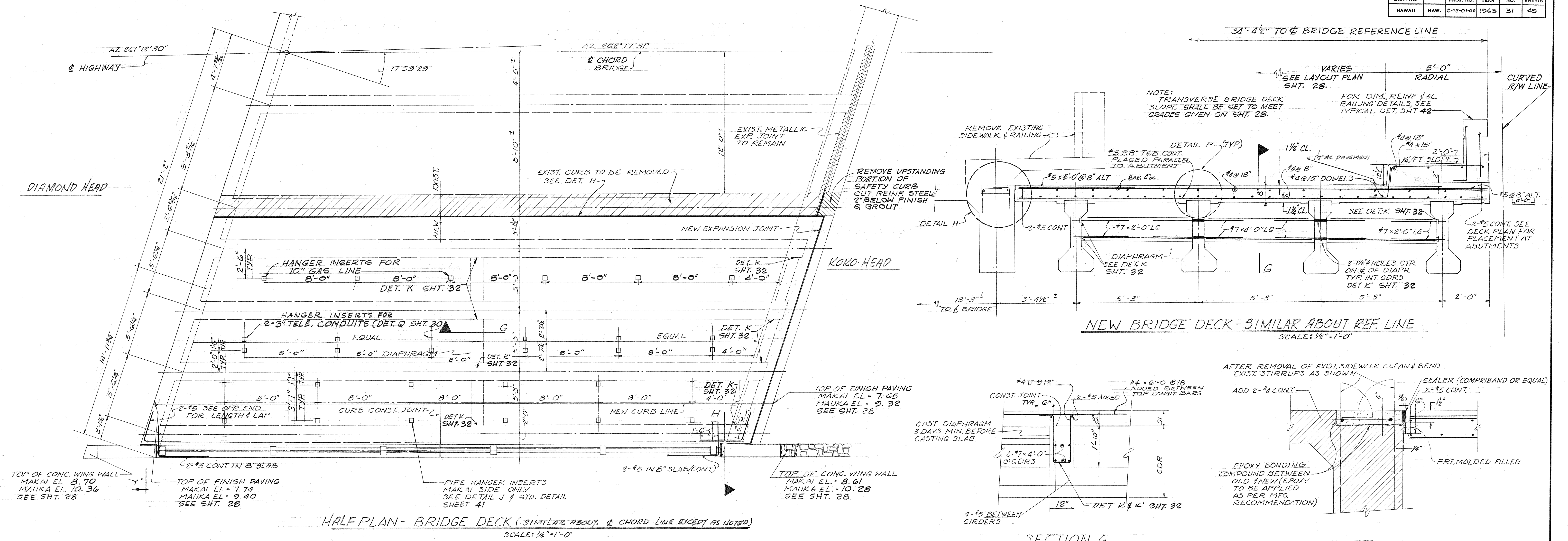


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KALANIANA'OLE HIGHWAY WIDENING
KULIOUOU BRIDGE
PILE CAP AND ABUTMENT
DETAILS
PROJECT No. C72-01-63
SHEET No. 29 OF 49 SHEETS

DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	C-72-01-63	1963	31	49



WATER NOTES:
ALL DIMENSIONS TO BE VERIFIED
IN FIELD PRIOR TO START OF
FABRICATION WORK FOR PIPE
HANGERS

ALL STEEL STRAPS, EXPOSED BOLTS, NUTS, PLATE WASHERS, ETC. TO HAVE PRIMER COAT AND ONE HEAVY COAT OF APPROVED ASPHALTUM PAINT.

DETAIL "P"
SCALE: 1"=1'-0"
BOTTOM OF DECK
PARALLEL TO TOP.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KALANIANA'OLE HIGHWAY WIDENING
KULIOUO U BRIDGE
BRIDGE DECK & RAILING
DETAILS

PROJECT No. C72-01-63

SHEET No. 31 OF 40 SHEETS

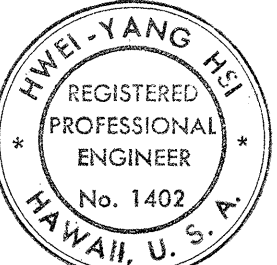
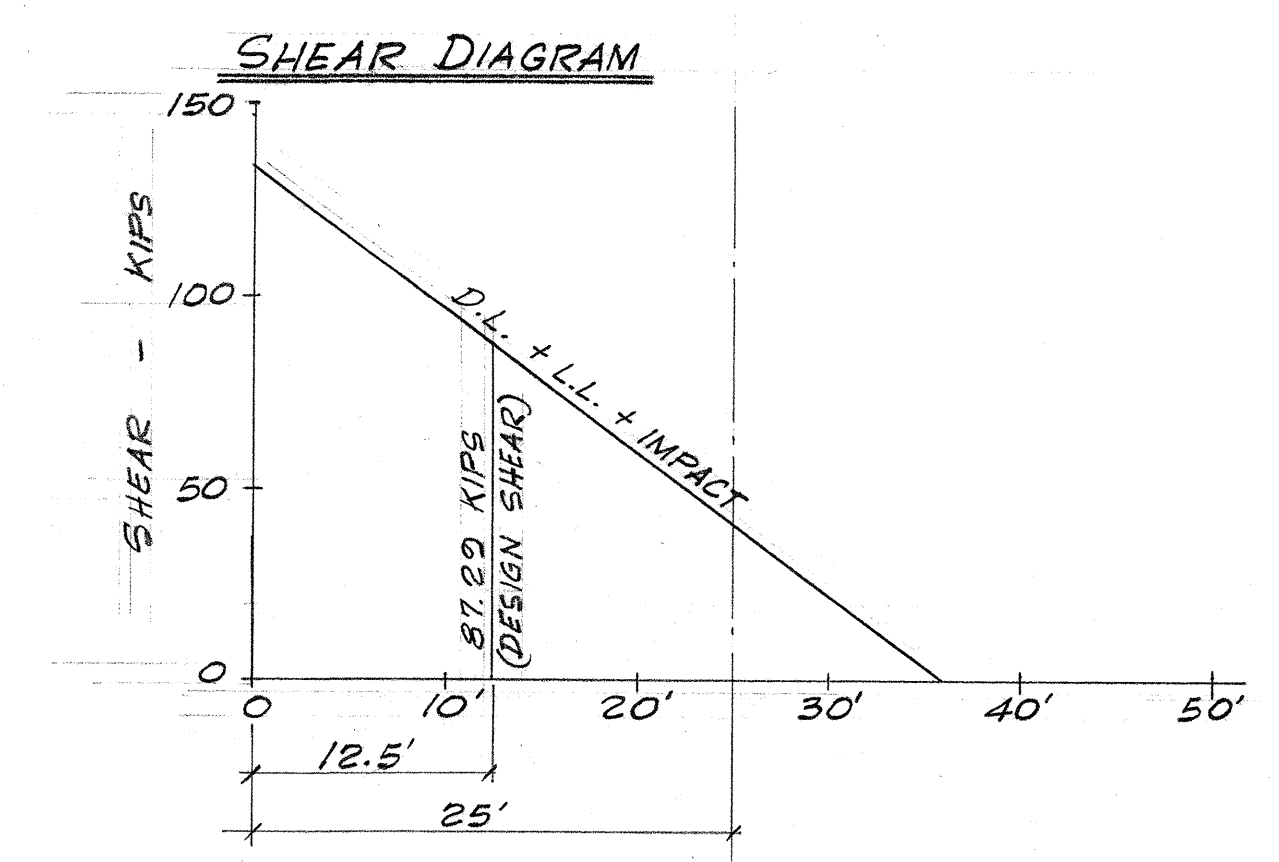
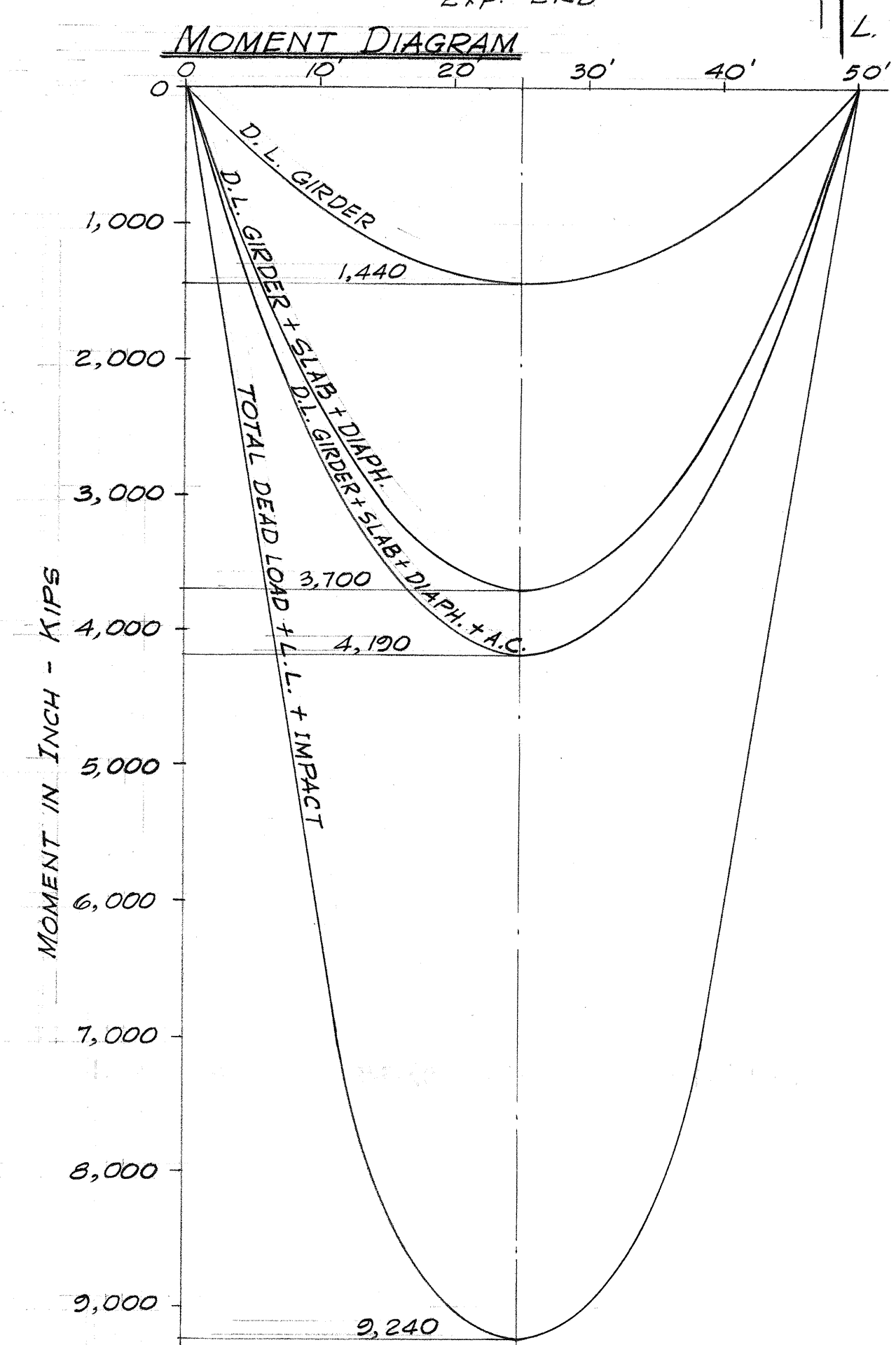
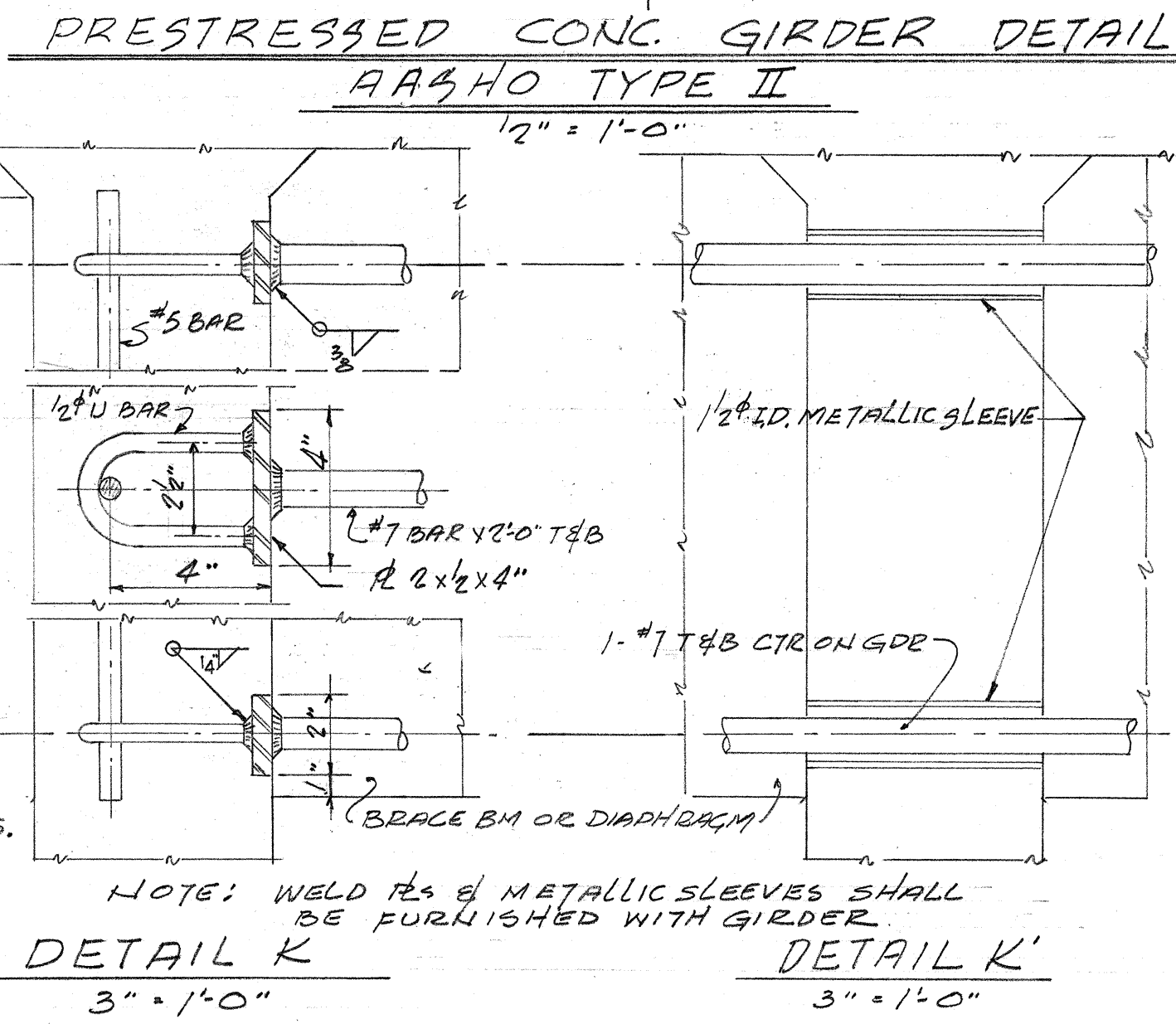
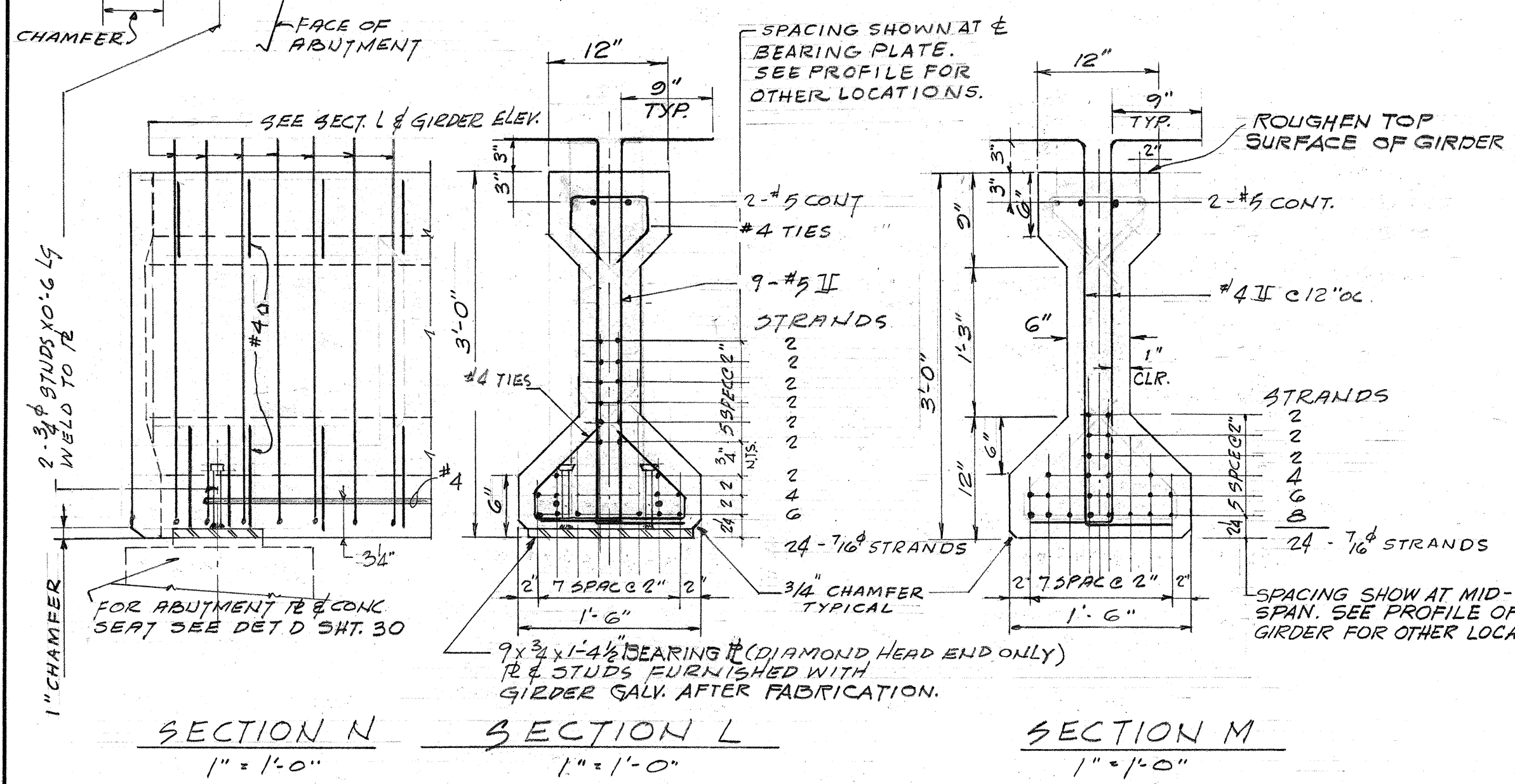
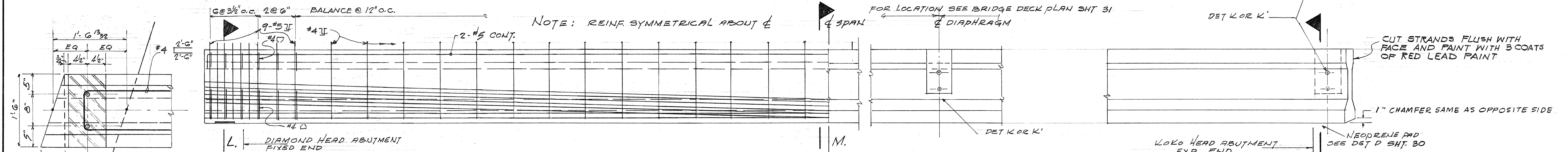
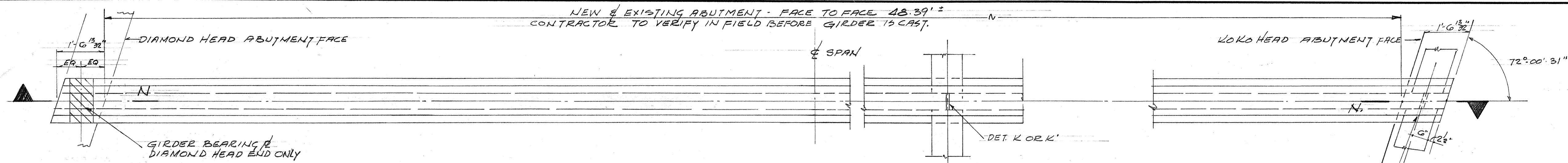


A circular professional engineer seal for Charles Yoon. The outer ring contains the text "CHARLES YOON" at the top and "HAWAII U.S.A." at the bottom, separated by two small stars. The inner circle contains the text "REGISTERED PROFESSIONAL ENGINEER" and "No. 1037".

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	α
	DESIGNED BY	α
NOTE BOOK	QUANTITIES BY	α
No.	CHECKED BY	

PRINTED ON CLEARPRINT 1000-H

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	072-01-03	1963	32	40



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KALANIANA'OLE HIGHWAY WIDENING
KULIOUOU BRIDGE

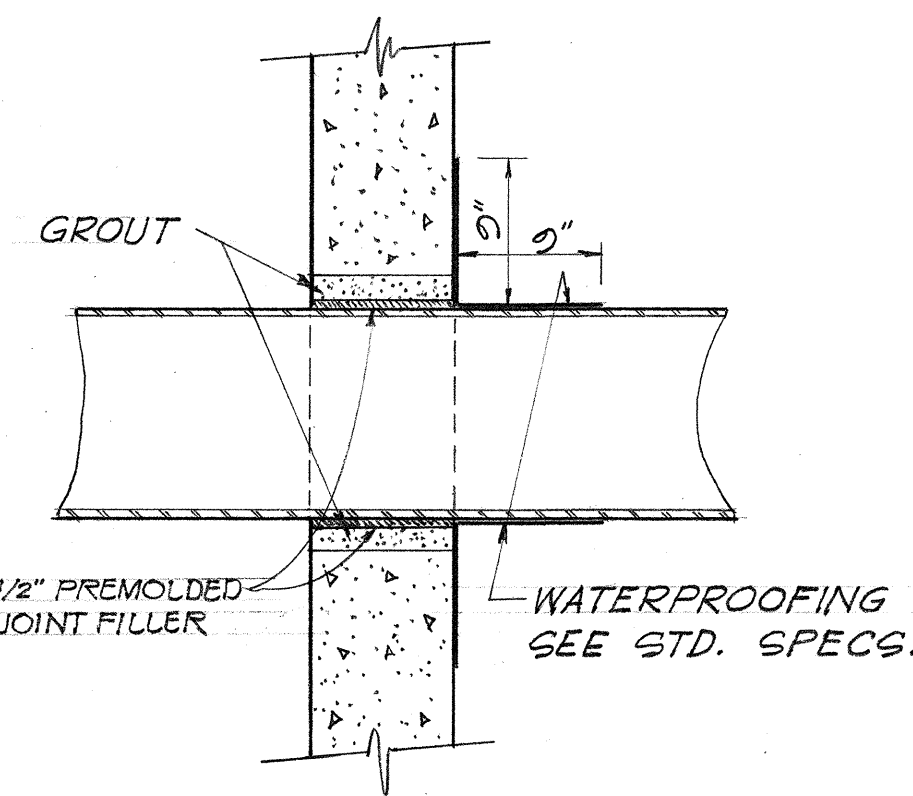
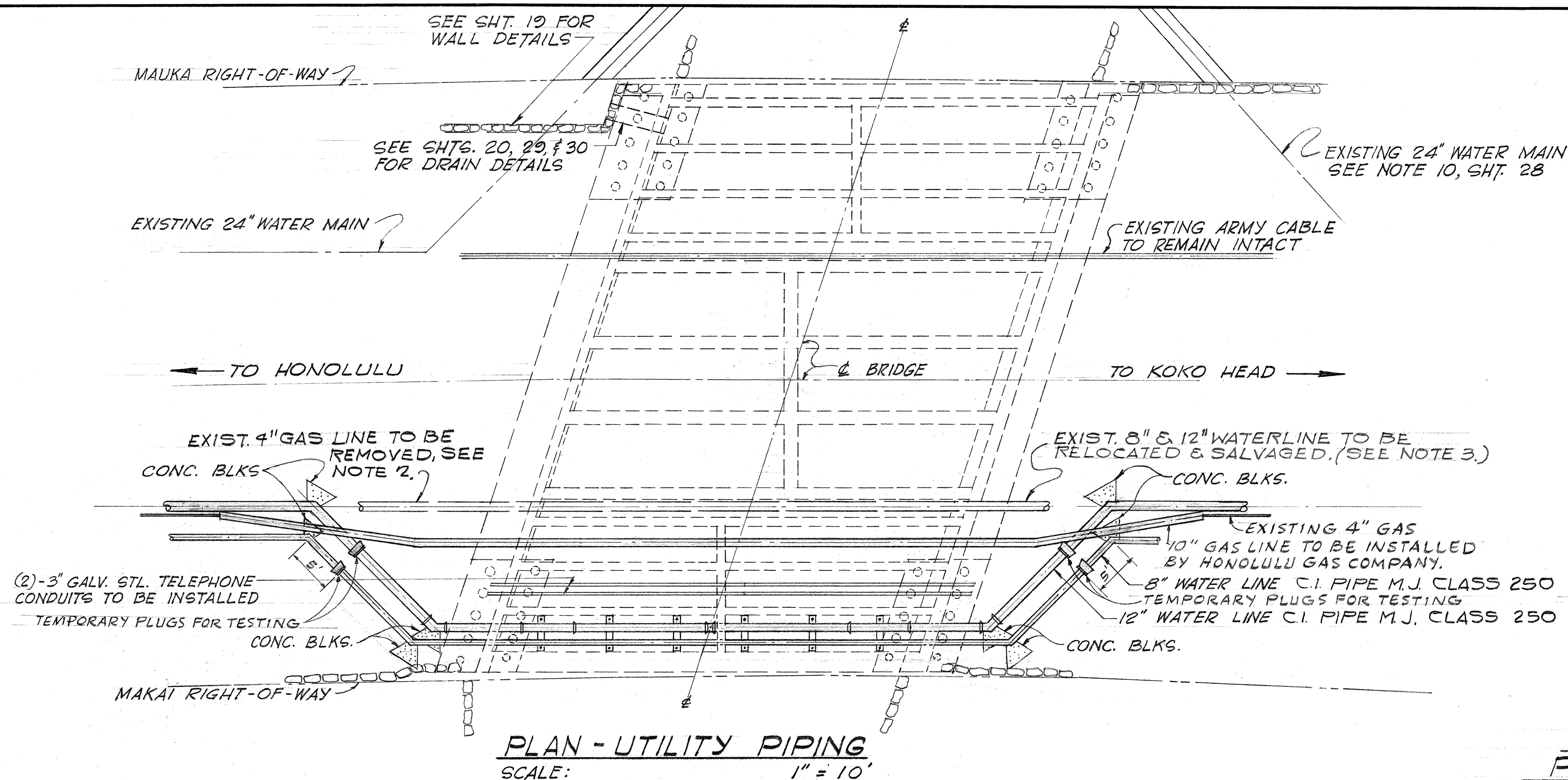
PRESTRESSED CONCRETE GIRDER
DETAILS

PROJECT No. 072-01-03

SHEET No. 32 OF 40 SHEETS

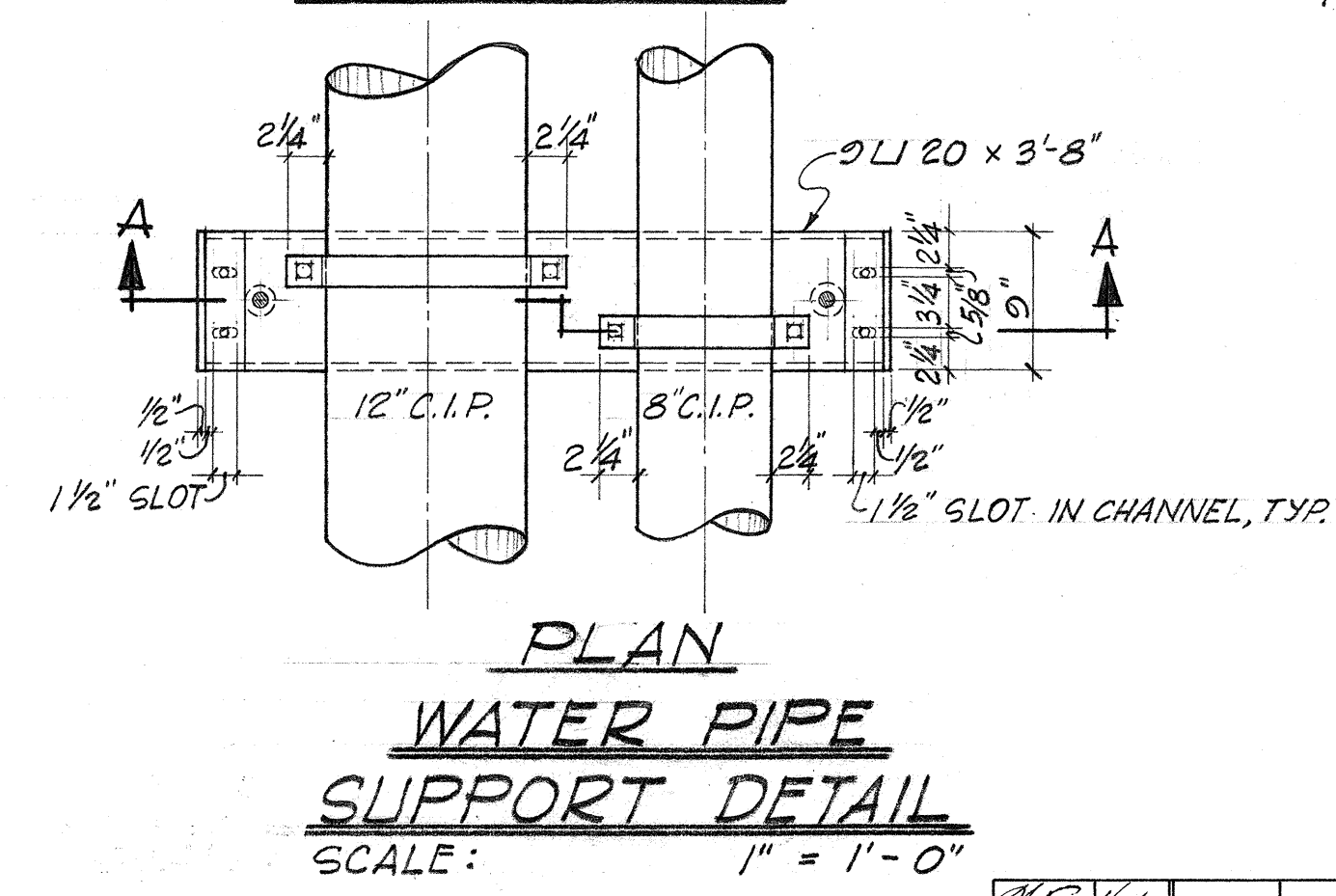
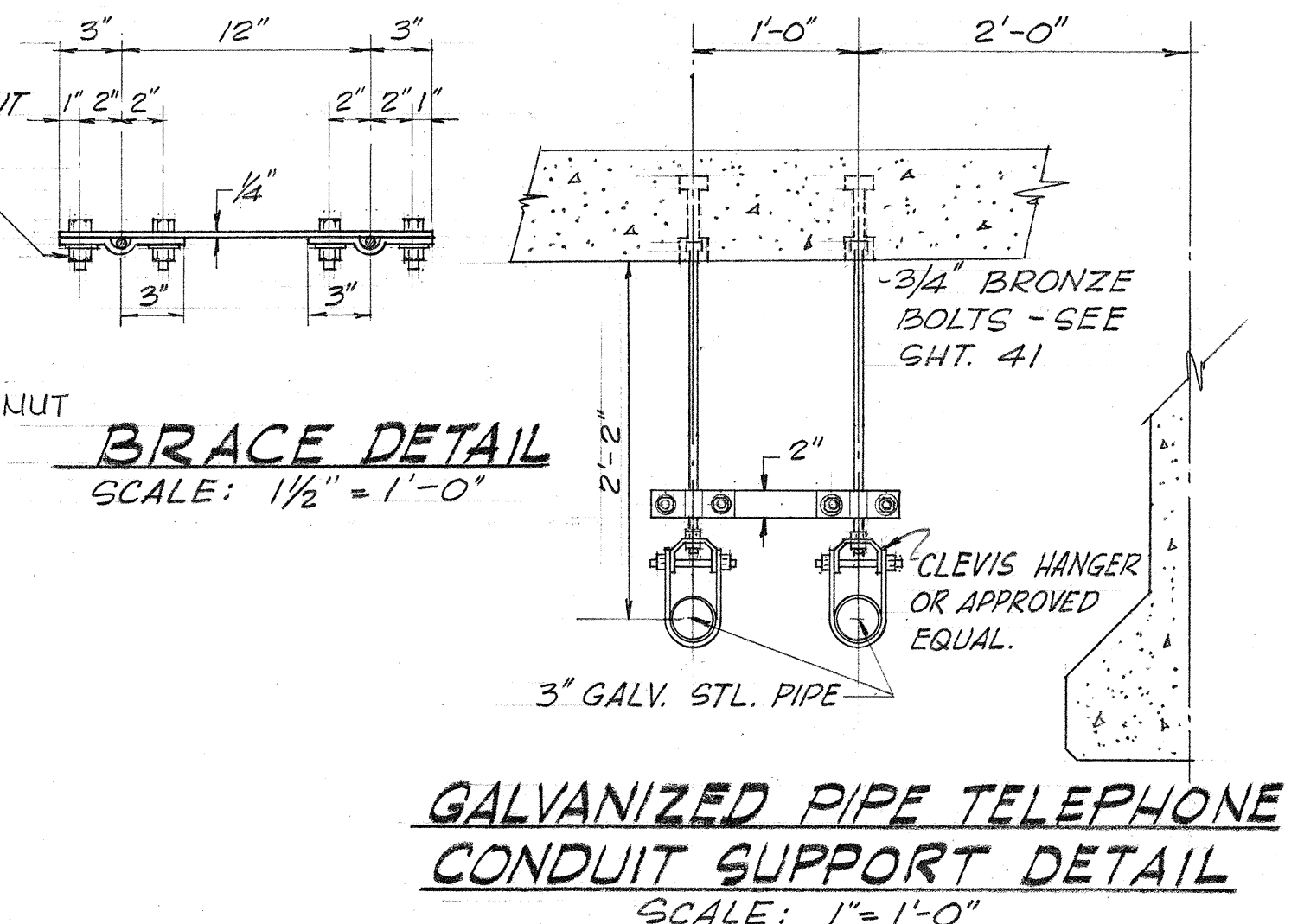
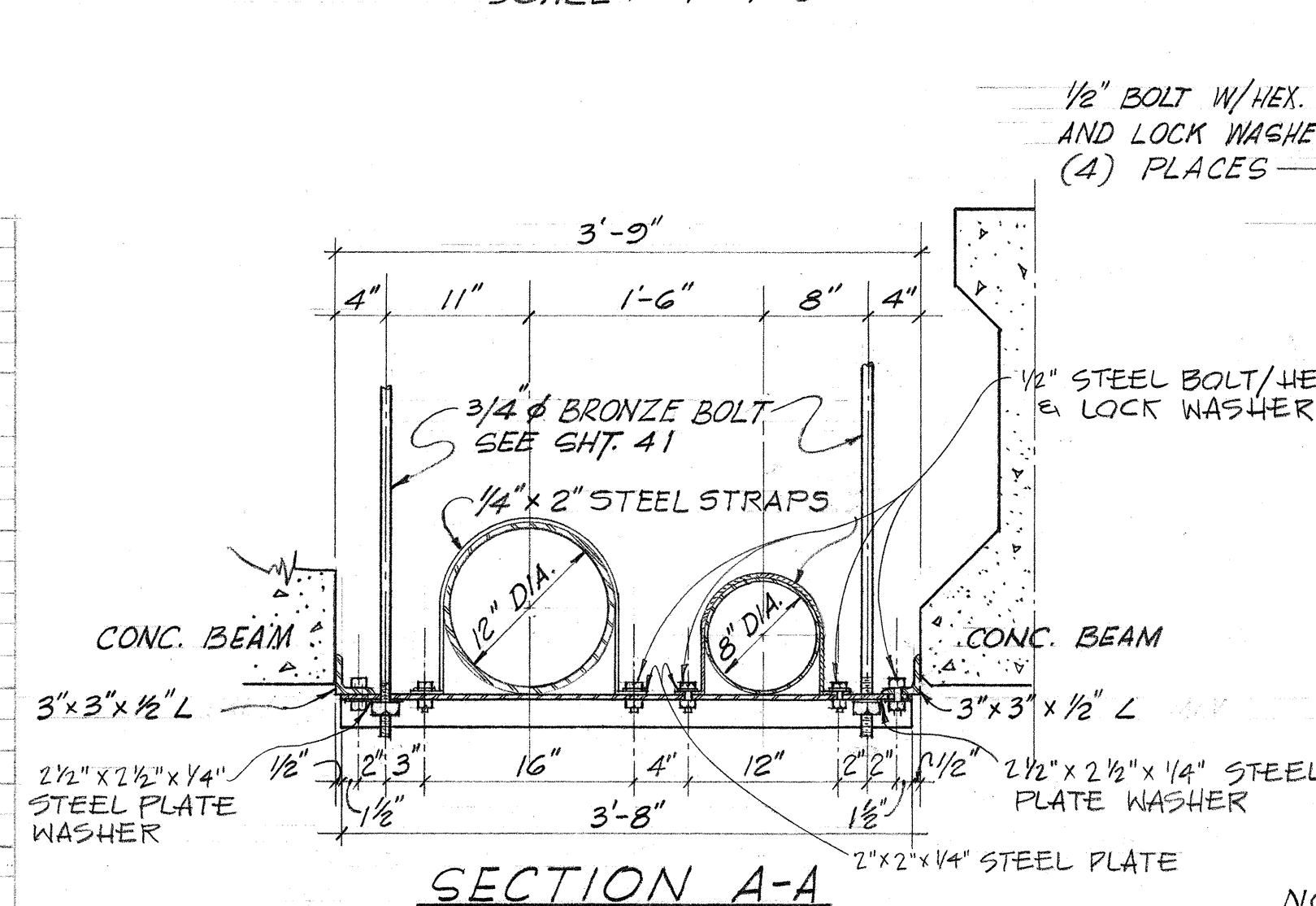
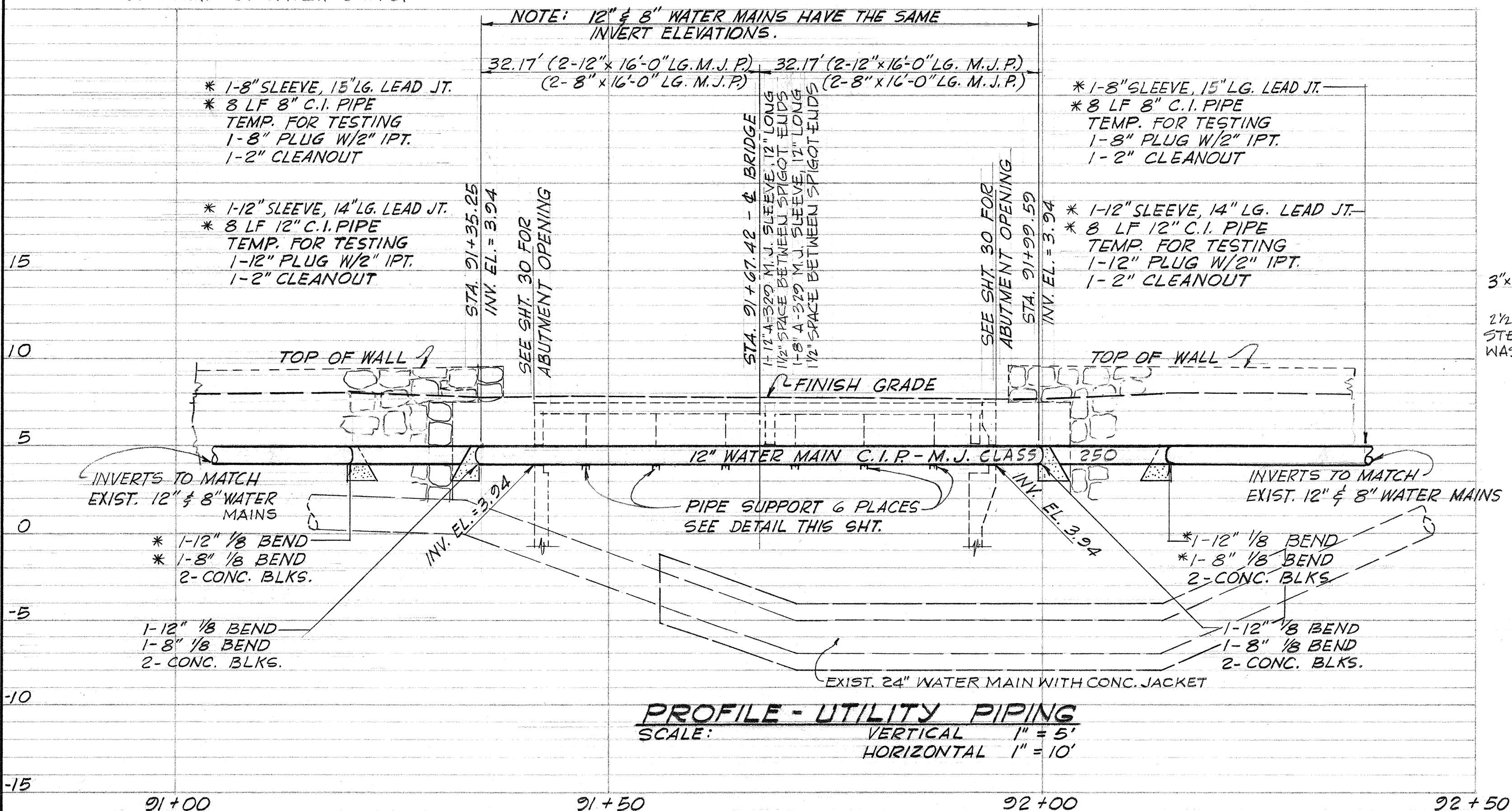
ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	C-72-01-63	1963	53	49



- NOTES:**
1. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT THE EXISTING ARMY SIGNAL CORPS CABLES DURING CONSTRUCTION AND SHALL CONTACT THE OFFICE OF THE SIGNAL CORPS OFFICER, USARHAW, PRIOR TO THE BEGINNING OF WORK.
 2. THE CONTRACTOR SHALL CONTACT THE HONOLULU GAS COMPANY, AND SHALL MAKE ARRANGEMENTS FOR THE TEMPORARY RELOCATION OF THE EXISTING GAS LINE DURING THE CONSTRUCTION PERIOD.
 3. THE CONTRACTOR SHALL CONTACT THE BOARD OF WATER SUPPLY PRIOR TO THE BEGINNING OF WORK NECESSARY TO RELOCATE THE EXISTING 12" & 8" WATER LINES.
 4. SEE NOTE 10, SHEET 28.
 5. CONTRACTOR SHALL PROVIDE ABUTMENT OPENINGS AND HANGER INSERTS FOR A 10" GAS LINE AS SHOWN ON SHTS 30 & 31. THE HONOLULU GAS COMPANY WILL SUPPLY AND INSTALL THE 10" PIPE & PIPE HANGERS.
 6. ALL HOLES LEFT IN THE ABUTMENT AS A RESULT OF THE REMOVAL, EXISTING PIPES SHALL BE PLUGGED WITH CLASS "B-1" CONCRETE. (INCIDENTAL TO THE BRIDGE CONSTRUCTION)

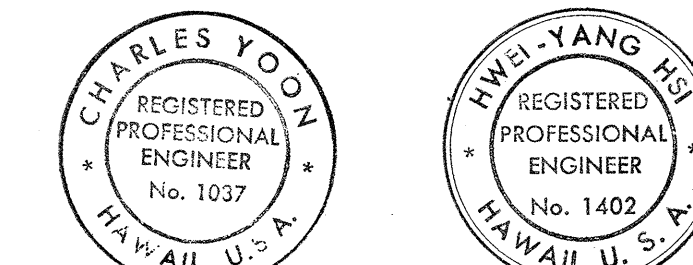
NOTE: * MATERIALS TO BE FURNISHED BY CONTRACTOR AND INSTALLED BY BOARD OF WATER SUPPLY



NOTE: All steel straps, exposed portion of bolt, nuts, plate washers, etc. to have primer coat, and one heavy coat of approved asphaltum paint.

GALVANIZED PIPE TELEPHONE CONDUIT SUPPORT DETAIL
SCALE: 1" = 1'-0'

DATE	10/1/63
SURVEY PLOTTED BY	W. J. H.
DRAWN BY	W. J. H.
DESIGNED BY	W. J. H.
CHECKED BY	W. J. H.
ORIGINAL PLAN	
NOTE BOOK	
NO.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KALANIANA'OLE HIGHWAY WIDENING
KULIOUOU BRIDGE
PIPING RELOCATION
DETAILS

PROJECT C72-01-63

SHEET No. 33 OF 49 SHEETS

BWS	DATE	DATE	DATE	DATE
ARMY	DATE	DATE	DATE	DATE
SC	DATE	DATE	DATE	DATE