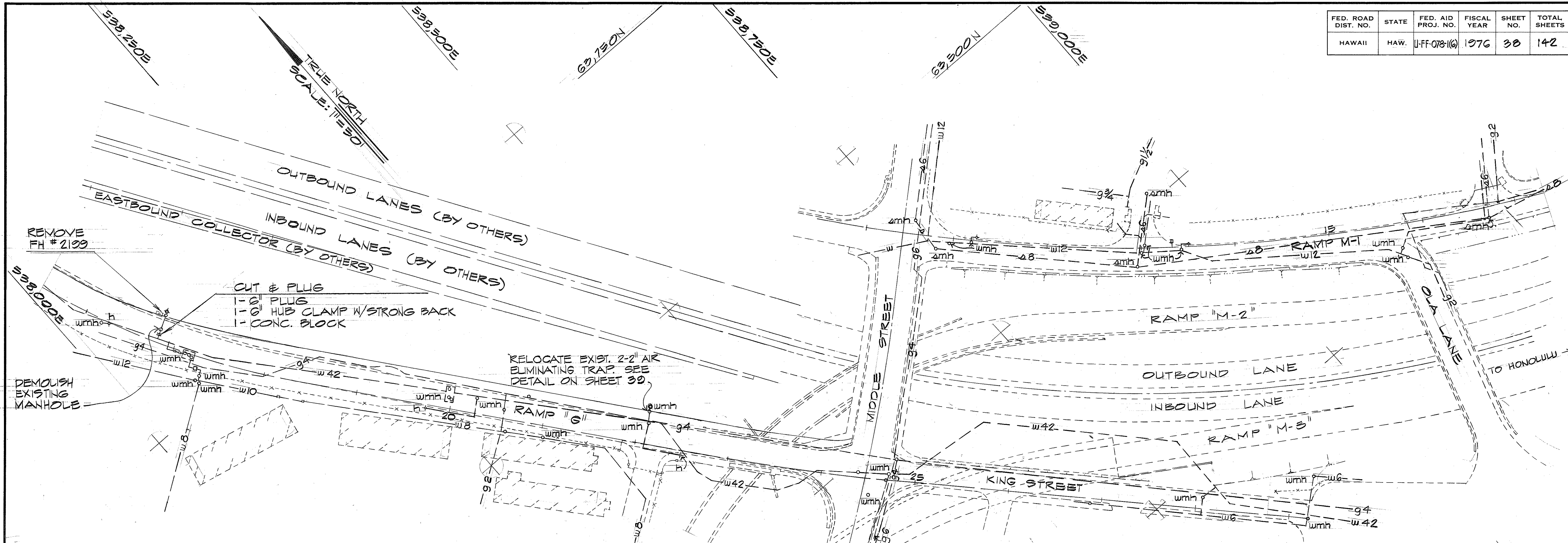


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-1(6)	1976	38	142



GENERAL NOTES:

- 1. ELEVATION DATUM BASED ON MEAN SEA LEVEL DATUM.
- 2. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
- 3. SERVICES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ALTERATIONS TO SERVICE LINES SHALL BE DONE WITH THE LEAST AMOUNT OF DISTURBANCE TO THE EXISTING SERVICES.
- 4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES, APPURTENANCES AND STRUCTURES SHOWN ARE BASED ON AVAILABLE RECORDS VERIFIED WHENEVER POSSIBLE BY FIELD SURVEYS. THE CONTRACTOR SHALL VERIFY LOCATIONS AND INVERTS OF EXISTING LINES AND SHALL BE REQUIRED TO MAKE ADJUSTMENTS TO ANY NEW OR EXISTING SYSTEMS AS NECESSARY WITH THE APPROVAL OF THE ENGINEER OR WHENEVER DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL NOT ASSUME THAT WHERE NO EXISTING UTILITIES ARE SHOWN, THAT NONE EXIST.
- 5. ALL EXISTING WATER, SEWER AND GAS LINES TO REMAIN UNLESS OTHERWISE NOTED.

GENERAL WATER NOTES:

- 1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 1976 AS AMENDED, OF THE HAWAII HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION.
- 2. PRIOR TO EXCAVATING FOR NEW DRAIN, SEWER AND OTHER UTILITY LINES, THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATION OF EXISTING WATER MAINS AND APPURTENANCES. WHERE THE INSTALLATION OF NEW DRAIN, SEWER OR OTHER UTILITY LINES ARE TO CROSS OVER OR UNDER EXISTING WATER MAINS, THE CONTRACTOR SHALL EXPOSE THE EXISTING WATER MAINS PRIOR TO TRENCHING. EXCAVATION AROUND WATER MAINS SHALL BE DONE BY HAND.
- 3. ITEMS INDICATED AS "RELOCATE" ON THE PLANS SHALL BE REMOVED, CLEANED, PAINTED AND REINSTALLED AT THE NEW LOCATION BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
- 4. THE MINIMUM CLEARANCE BETWEEN FIRE HYDRANTS AND UTILITY POLES OR LIGHT STANDARDS SHALL BE 3.0 FEET.
- 5. THE CONTRACTOR SHALL NOTIFY THE BOARD OF WATER SUPPLY IN WRITING ONE WEEK PRIOR TO COMMENCING WORK ON THE MAIN.
- 6. APPROVAL BY THE BOARD OF WATER SUPPLY IS BASED SOLELY ON THE ADEQUACY OF THE WATER SUPPLY. DISCREPANCIES, IF ANY, OF ALIGNMENTS, GRADES, FITTINGS, ETC. SHALL BE THE RESPONSIBILITY OF THE ENGINEER WHO PREPARED THE PLANS.
- 7. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA BUT IS NOT GUARANTEED AS TO ACCURACY OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
- 8. UNLESS OTHERWISE SPECIFIED, CONNECTIONS TO EXISTING WATER MAINS AND CHLORINATION OF NEW MAINS SHALL BE DONE BY THE CONTRACTOR, WITH THE BWS INSPECTOR COORDINATING THE WORK. FOR DETAILS, CONTACT BWS ENGINEERING DIVISION, CONSTRUCTION SECTION.

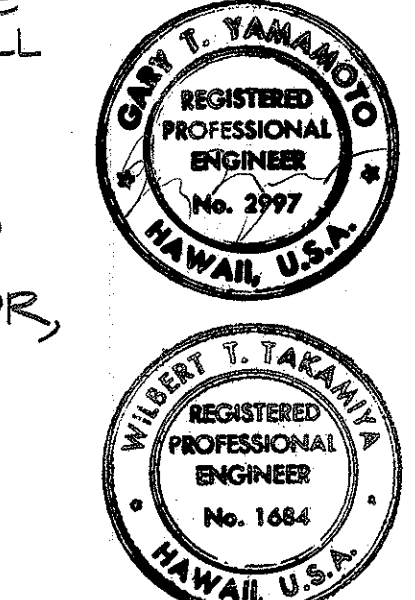
LEGEND

- g4-- EXISTING GAS LINE
- w12-- EXISTING WATER LINE
- s8-- EXISTING SEWER
- ◻ wmh EXISTING WATER MANHOLE
- +h EXISTING FIRE HYDRANT
- smh EXISTING SEWER MANHOLE
- - - - - EXISTING CHAIN LINK FENCE

PLAN
SCALE: 1"=50'

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTE BOOK	
NO.	

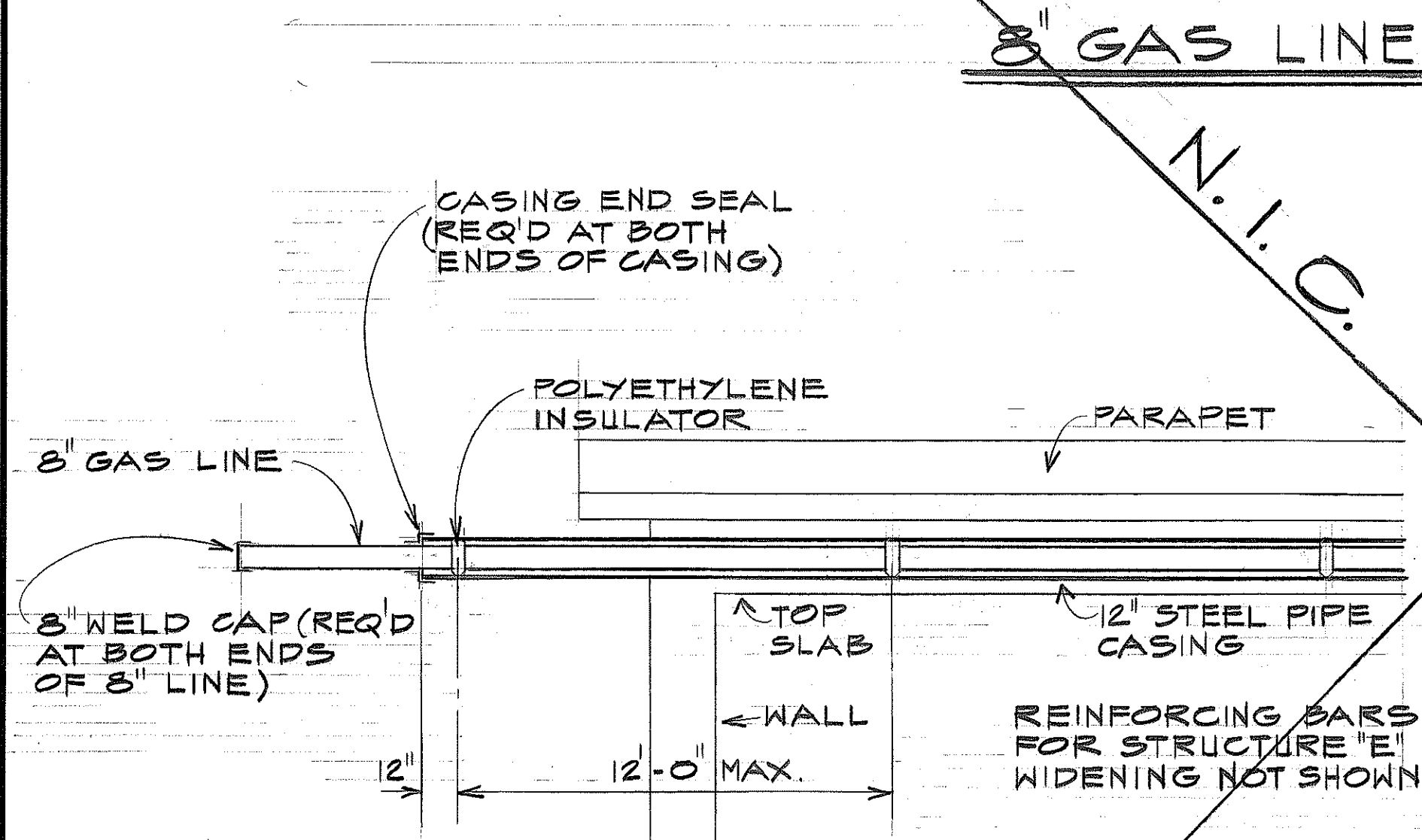
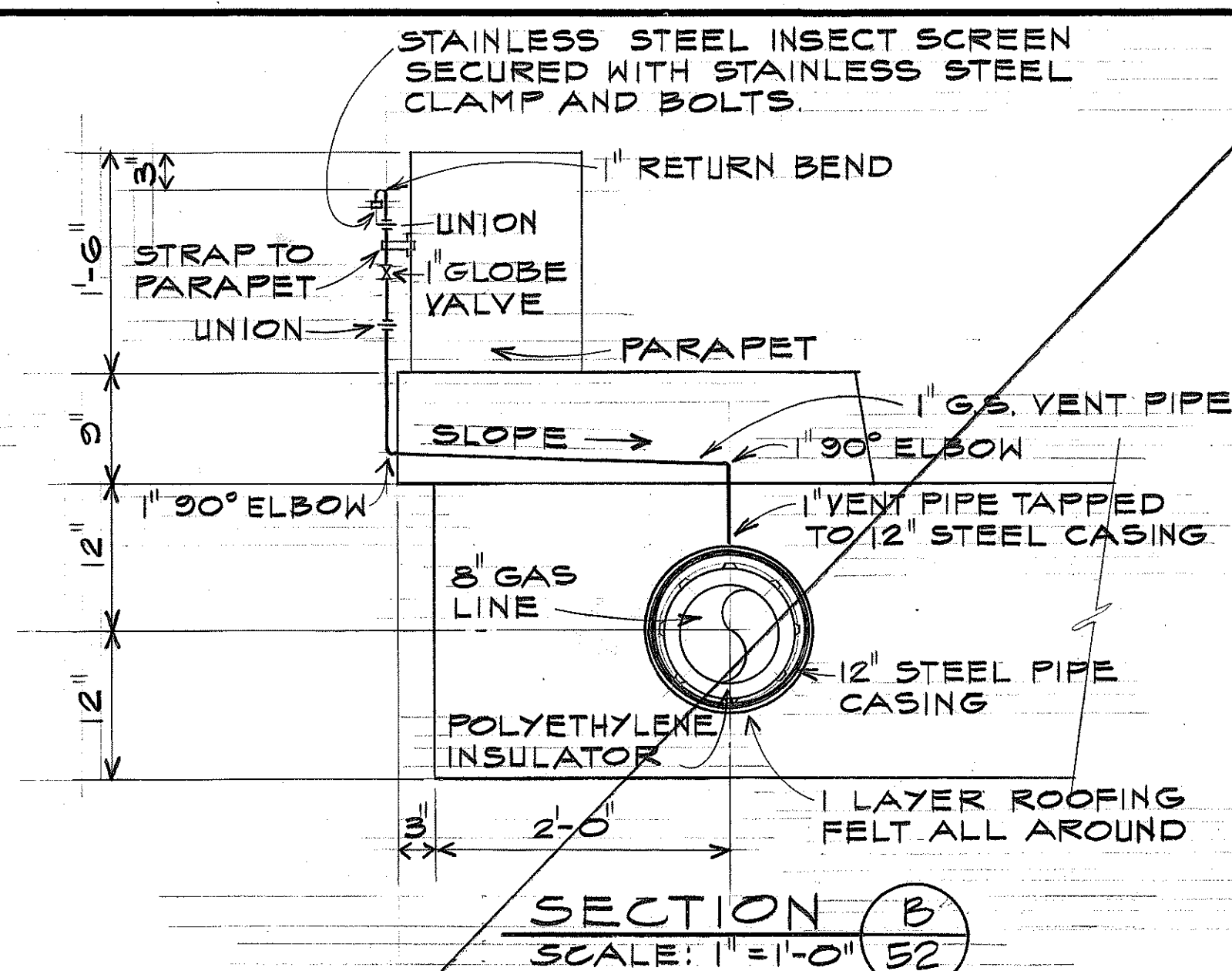
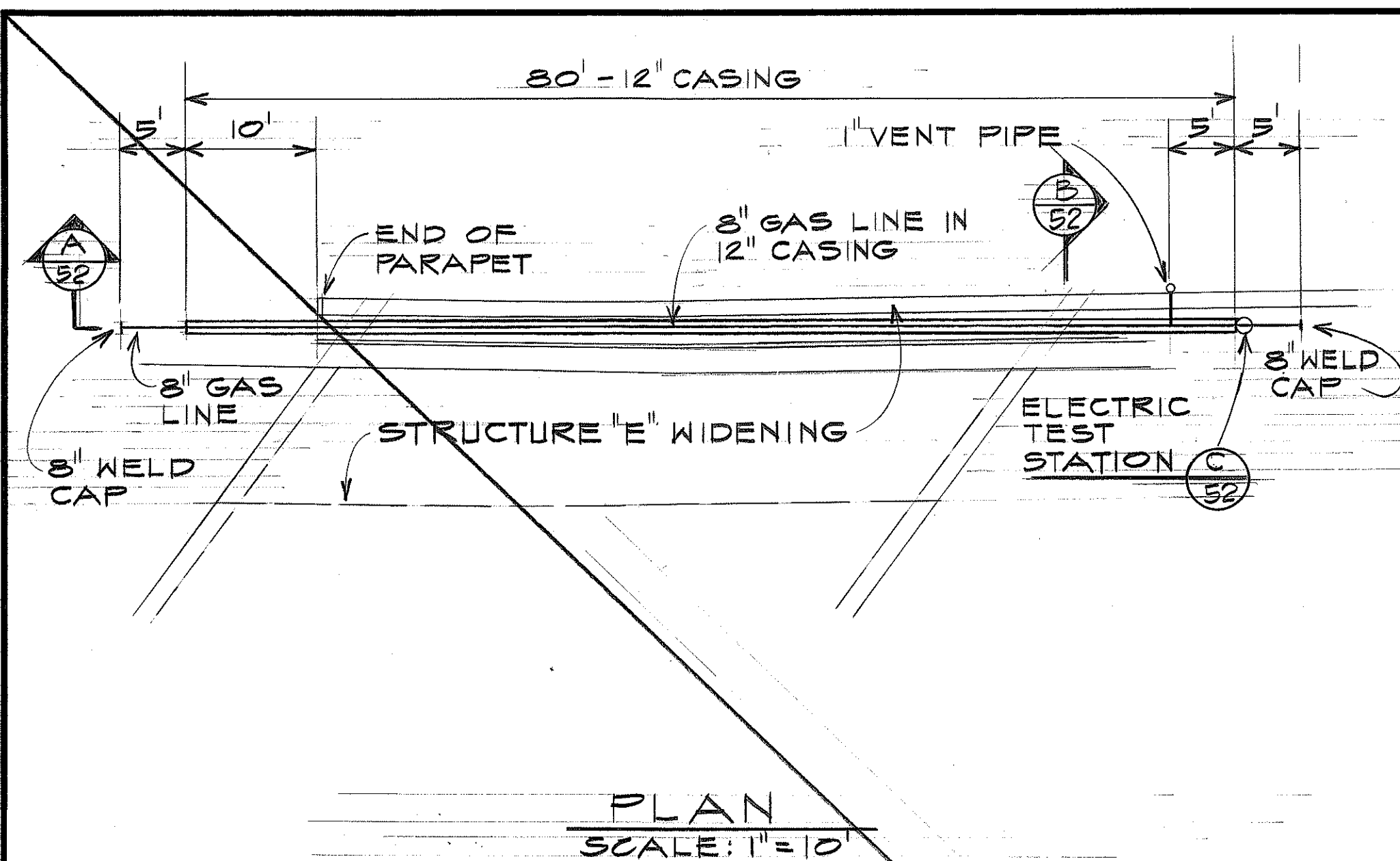
APPROVED BY
[Signature]
ASSISTANT CHIEF ENGINEER
BOARD OF WATER SUPPLY
7/20/76
DATE



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**UTILITY LAYOUT PLAN
WATER**
MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT I
F.A. Proj. No. U-FF-078-1(6)
SCALE: AS SHOWN DATE: JUNE 25, 1976
SHEET NO. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-FF-078-1(6)	1976	39	142



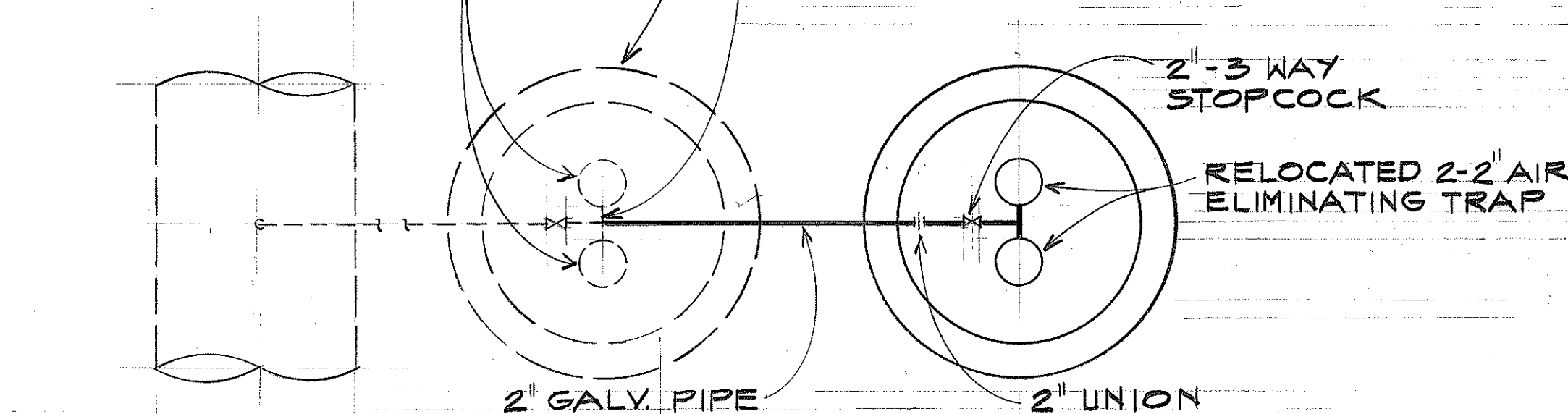
GENERAL NOTES

- PAYMENT FOR ELECTRIC TEST STATION, VENT PIPE AND APPURTENANCES TO BE INCIDENTAL TO "INSTALLING OF 8" GAS LINE."
- GASCO WILL FURNISH 8" GAS LINE, 8" WELL CAP, POLYETHYLENE INSULATOR AND 12" STEEL 12" STEEL PIPE CASING CONTRACTOR TO INSTALL.
- FOR STRUCTURE "E" WIDENING SEE SHEET 111.

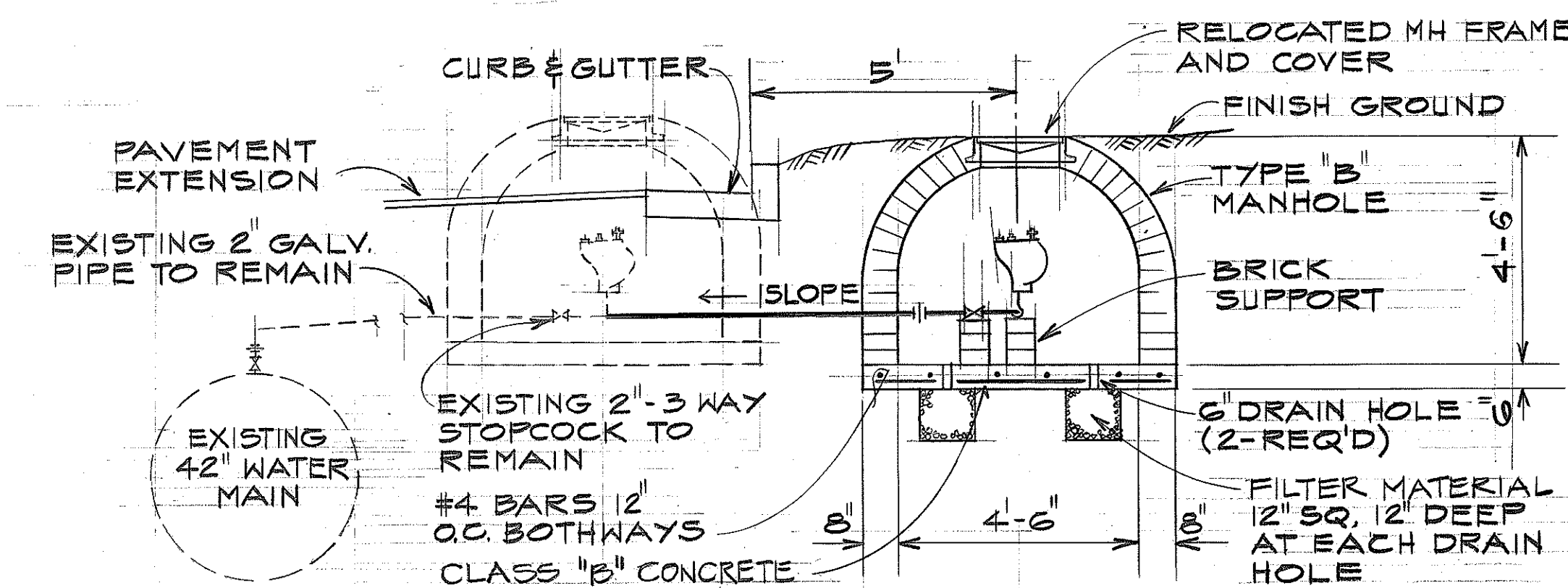
DEMOLISH EXISTING WMH. RELOCATE EXISTING 20" MH FRAME AND COVER

EXISTING 2-2" AIR ELIMINATING TRAP TO BE RELOCATED

REMOVE EXISTING 2" TEE AND CONNECT NEW 2" PIPE TO EXISTING PIPE



PLAN



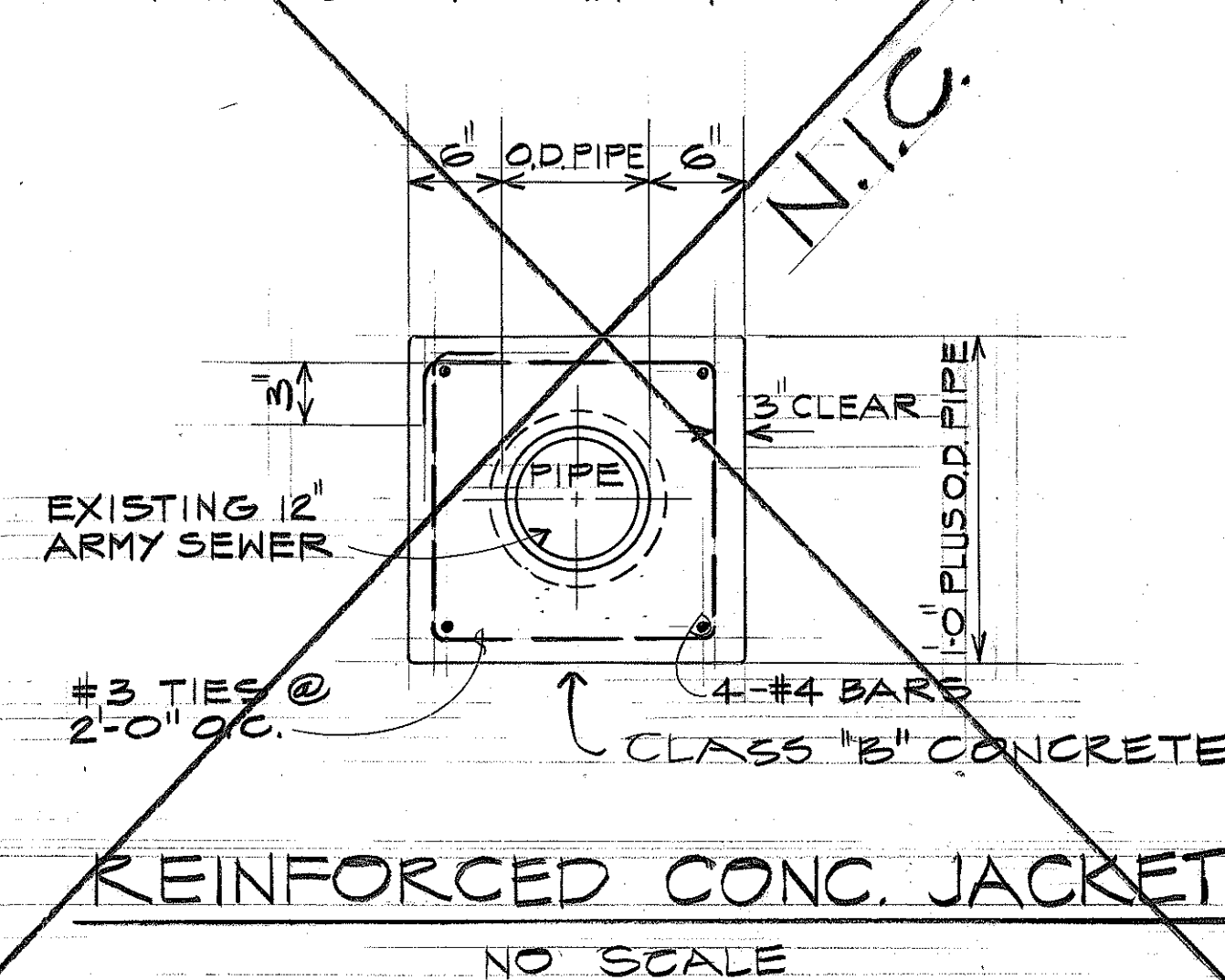
SECTION

AIR ELIMINATING TRAP

NO SCALE

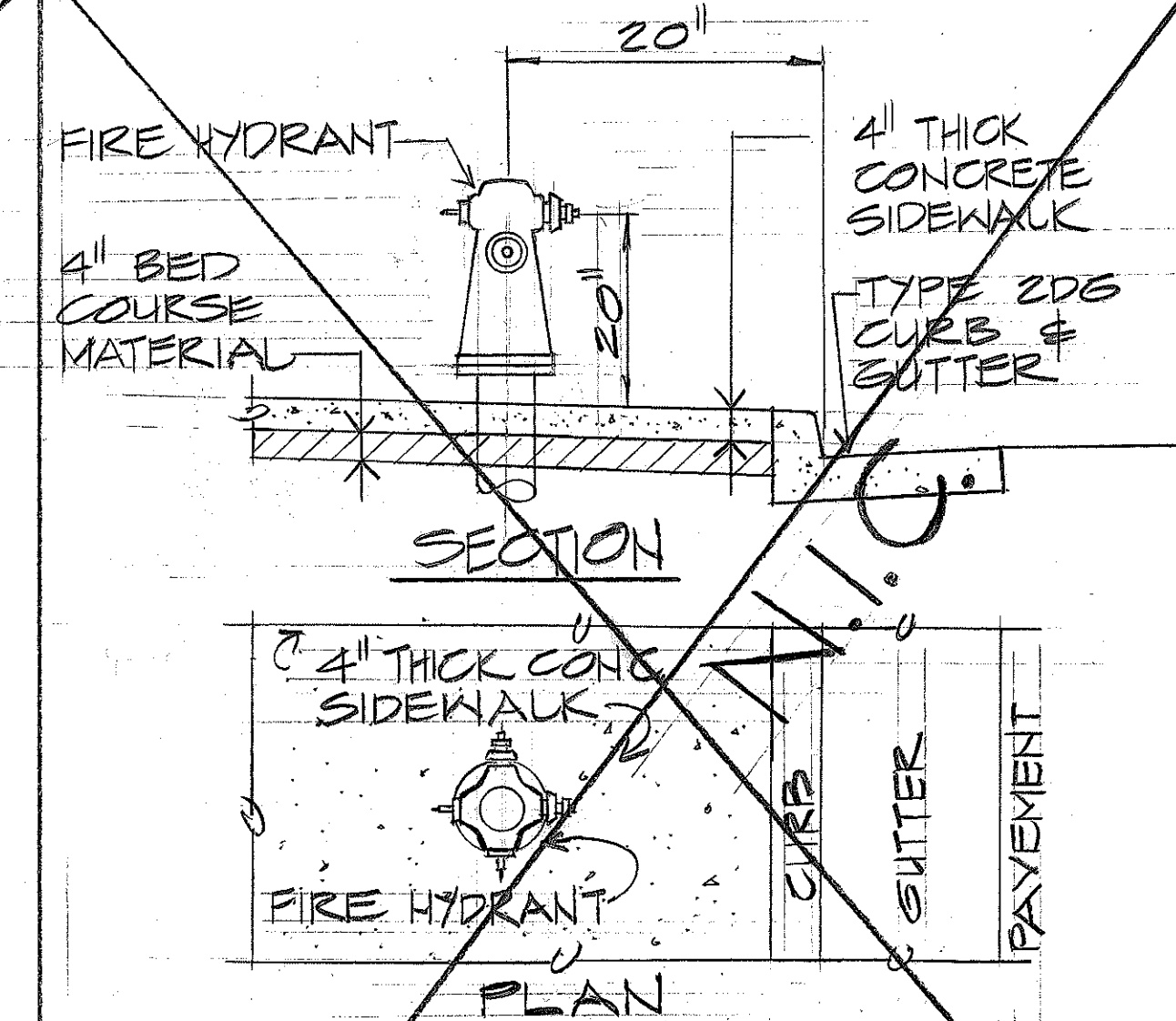
NOTES:

- ALL REINFORCING STEEL TO BE DEFORMED BARS AND LAPPED 14" AT SPLICES.
- FOR PLAN SEE FORT SHAFTER SCHOOL GRADING PLAN SHEET 10.



REINFORCED CONC. JACKET

NO SCALE



SECTION

DETAIL OF FIRE HYDRANT IN SIDEWALK

NO SCALE

APPROVED BY
Assistant Chief Engineer
BOARD OF WATER SUPPLY
7/10/76
DATE

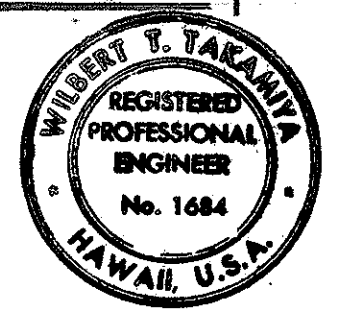
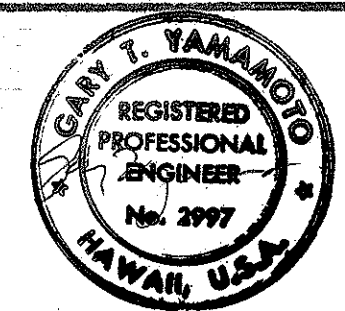
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY DETAILS WATER

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 1
F.A. Proj. No. U-FF-078-1(6)

SCALE: AS SHOWN DATE: JUNE 25, 1976

SHEET NO. 2 OF 2 SHEETS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.