

ADDENDUM NO. 1

COUNTY OF KAUA'I
DEPARTMENT OF WATER

PLANS, PROPOSAL, SPECIFICATIONS
CONTRACT AND BOND
FOR

JOB NO. 23-01
KŌLOA WELL A PUMP REPLACEMENT
KAUA'I, HAWAI'I

NOTICE TO PROSPECTIVE PROPOSERS

This addendum is hereby made a part of the PLANS, PROPOSAL, SPECIFICATIONS, CONTRACT AND BOND for the subject project and it shall amend the said contract documents in the following respects:

Item 1

Kōloa Well A Pump Replacement - Plans

End of Addendum No. 1

If there are any questions, please contact Val Reyna by email at vreyna@kauaiwater.org



Joseph E. "Joe" Tait
Manager and Chief Engineer
August 23, 2022

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM NO. 1

Receipt Acknowledged:

Organization

Received by

Date

Title

(Please sign and return this acknowledgement.)

EXISTING ALL-WEATHER ENCLOSURE

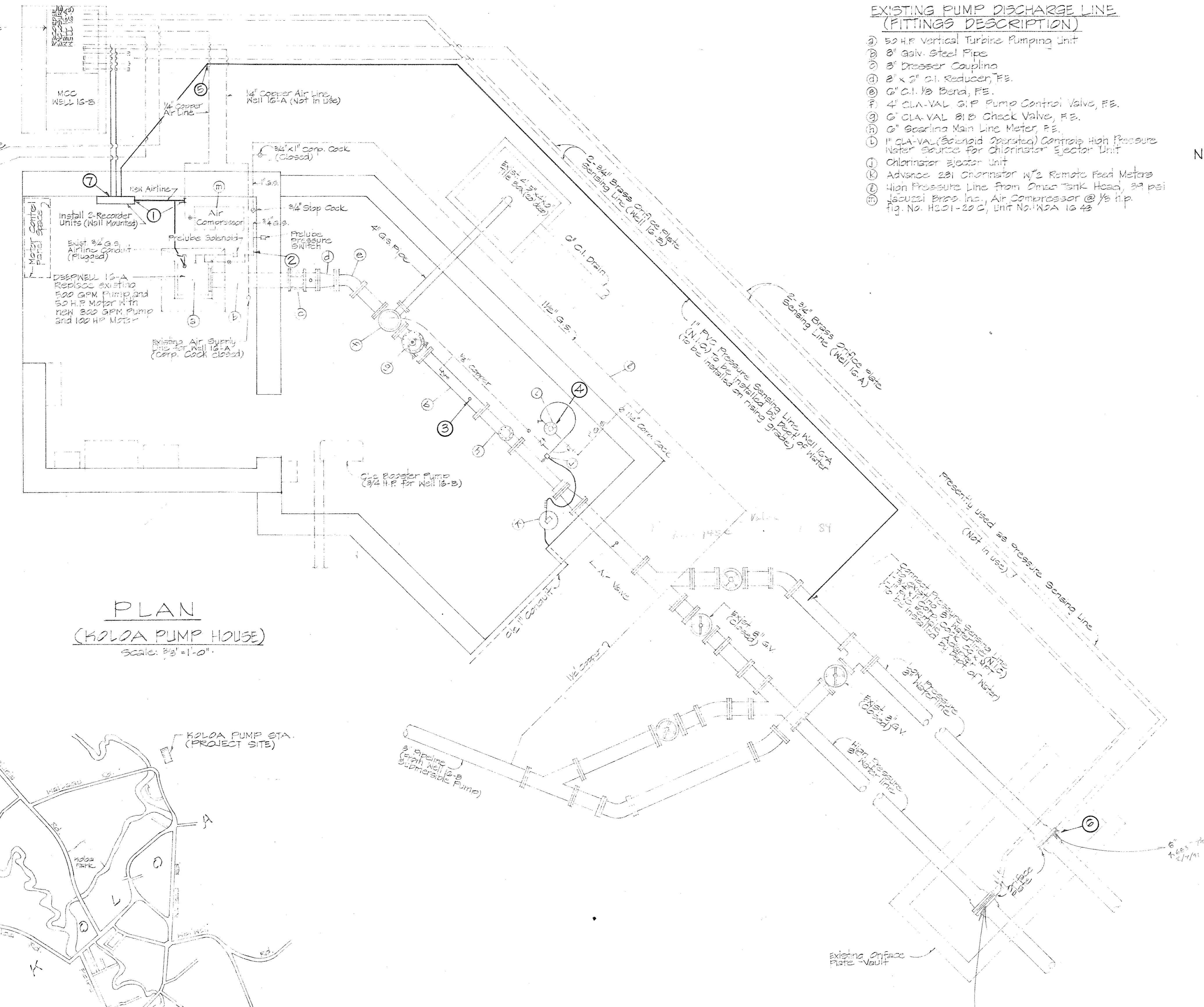
EXISTING PUMP DISCHARGE LINE (FITTINGS DESCRIPTION)

- ⓐ 50 H.P. Vertical Turbine Pumping Unit
- ⓑ 8" Galv. Steel Pipe
- ⓒ 8" Dresser Coupling
- ⓓ 2" x 2" O.I. Reducer, F.E.
- ⓔ 6" C.I. 1/2 Bend, F.E.
- ⓕ 4" CLA-VAL G.P. Pump Control Valve, F.E.
- ⓖ 6" CLA-VAL 8" Check Valve, F.E.
- ⓗ 6" Searing Main Line Meter, F.E.
- ⓓ 1" CLA-VAL (Soloid Operated) Control High Pressure Water Source For Chlorinator Ejector Unit
- ⓓ Chlorinator Ejector Unit
- ⓓ Advance 281 Chlorinator 1/2" Remote Feed Meters
- ⓓ High Pressure Line from Omega Tank Head, 200 psi
- ⓓ Jacuzzi Bros. Inc., Air Compressor @ 1/2 h.p. fig. No. H321-20 C, Unit No. WDA 12 43

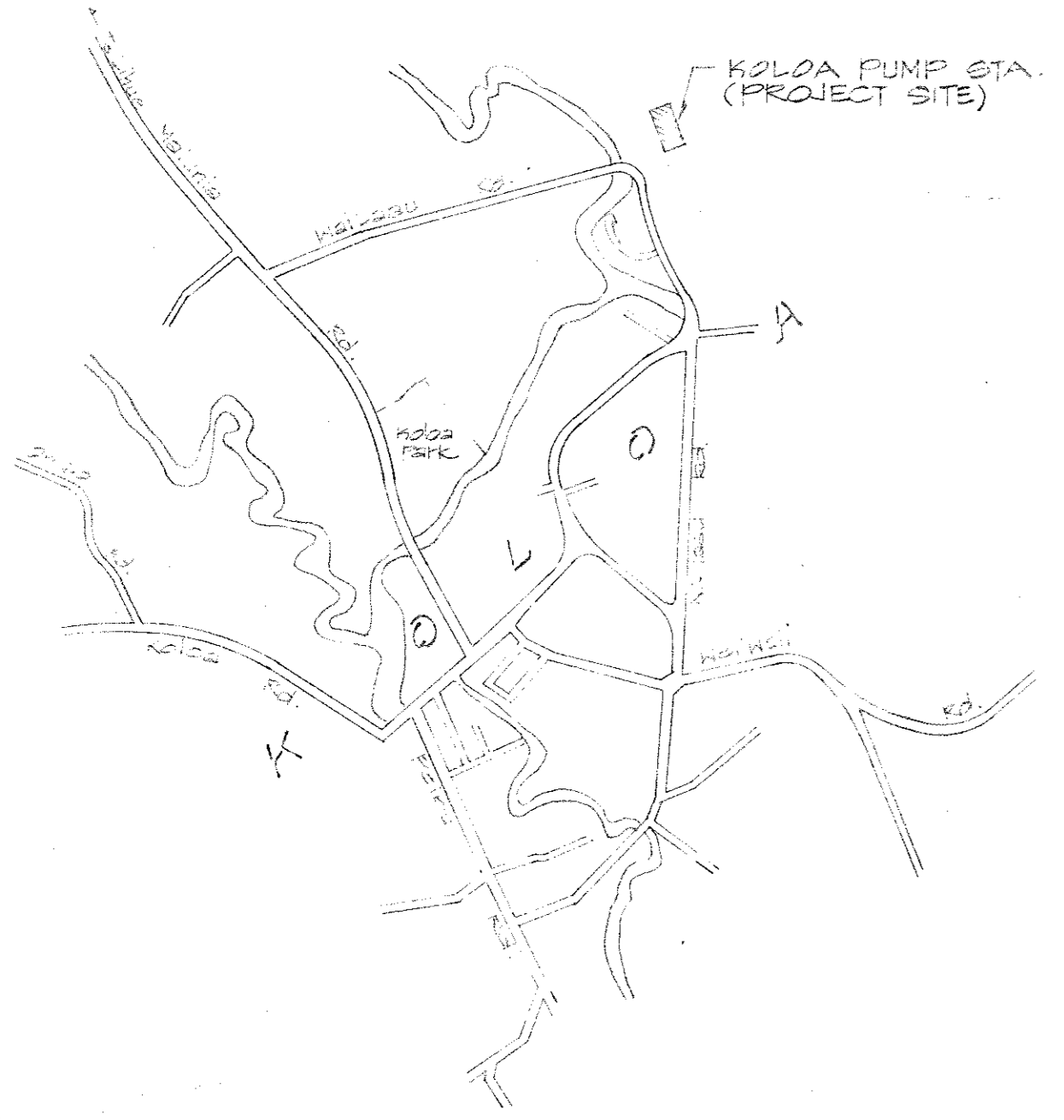
EXISTING PUMP DISCHARGE LINE (PROPOSED REVISIONS)

- ① CONNECT NEW AIR LINE FOR DEEPWELL PUMP TO EXISTING AIR SUPPLY AND TO NEW WELL LEVEL RECORDER TO BE INSTALLED IN PUMP HOUSE
- ② REPLACE EXISTING PRELUBE PIPING WITH NEW PRELUBE ASSEMBLY (SEE PRELUBE DETAIL)
- ③ INSTALL VANE TYPE FLOW SWITCH, "FLOW TEK" OR APPROVED EQUAL.
- ④ REMOVE HIGH PRESSURE SOLENOID OPERATED CLAYTON VALVE ASSEMBLY AND REPLACE WITH CL2 BOOSTER PUMP (SEE BOOSTER PUMP DETAIL)
- ⑤ CONNECT PRESSURE SENSING LINE (FOR WELL 16-A) TO NEW PRESSURE RECORDER (SEE RECORDER DETAIL) (N.I.C. TO BE INSTALLED BY DEPARTMENT OF WATER)
- ⑥ REPLACE ORIFICE PLATE FOR WELL 16-A WITH ONE SIZED FOR 800 GPM @ A MAX. WATER DIFFERENTIAL OF 100 INCHES (N.I.C. TO BE INSTALLED BY DEPT. OF WATER)
- ⑦ CONNECT EXISTING ORIFICE PLATE SENSING LINES TO NEW FLOW RECORDER (N.I.C. TO BE INSTALLED BY DEPT. OF WATER)

N.I.C.

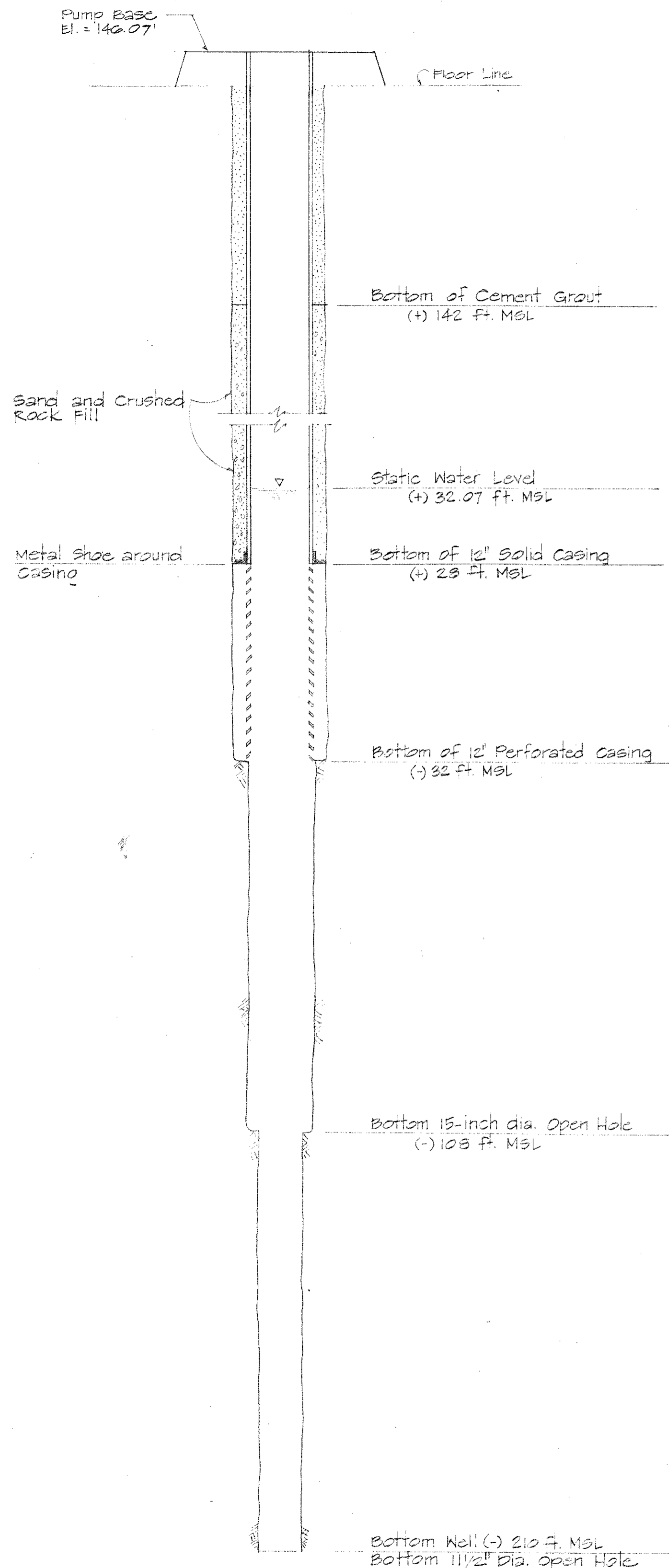


PLAN
(KOLOA PUMP HOUSE)
Scale: 3/8" = 1'-0"

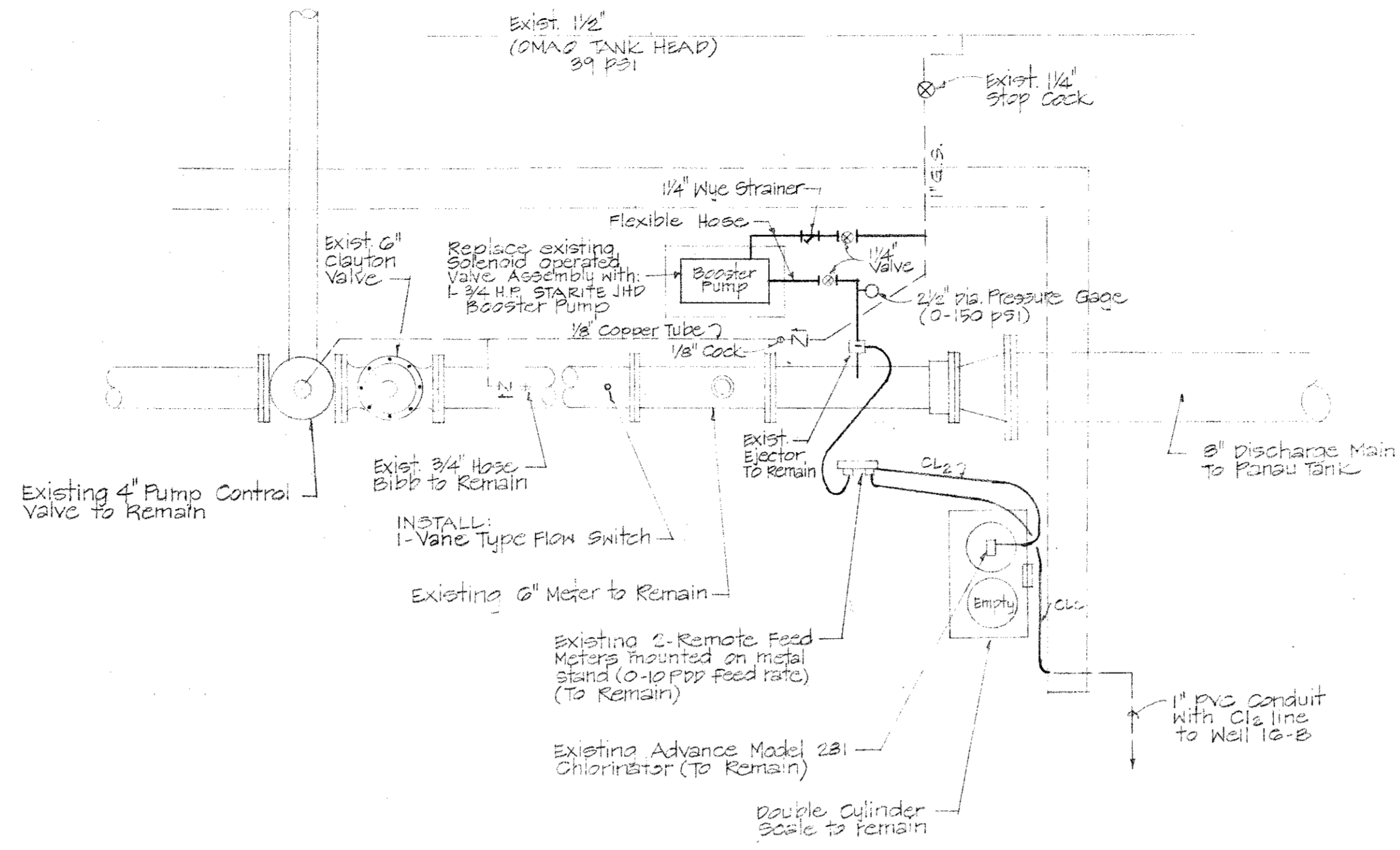


PROJECT LOCATION

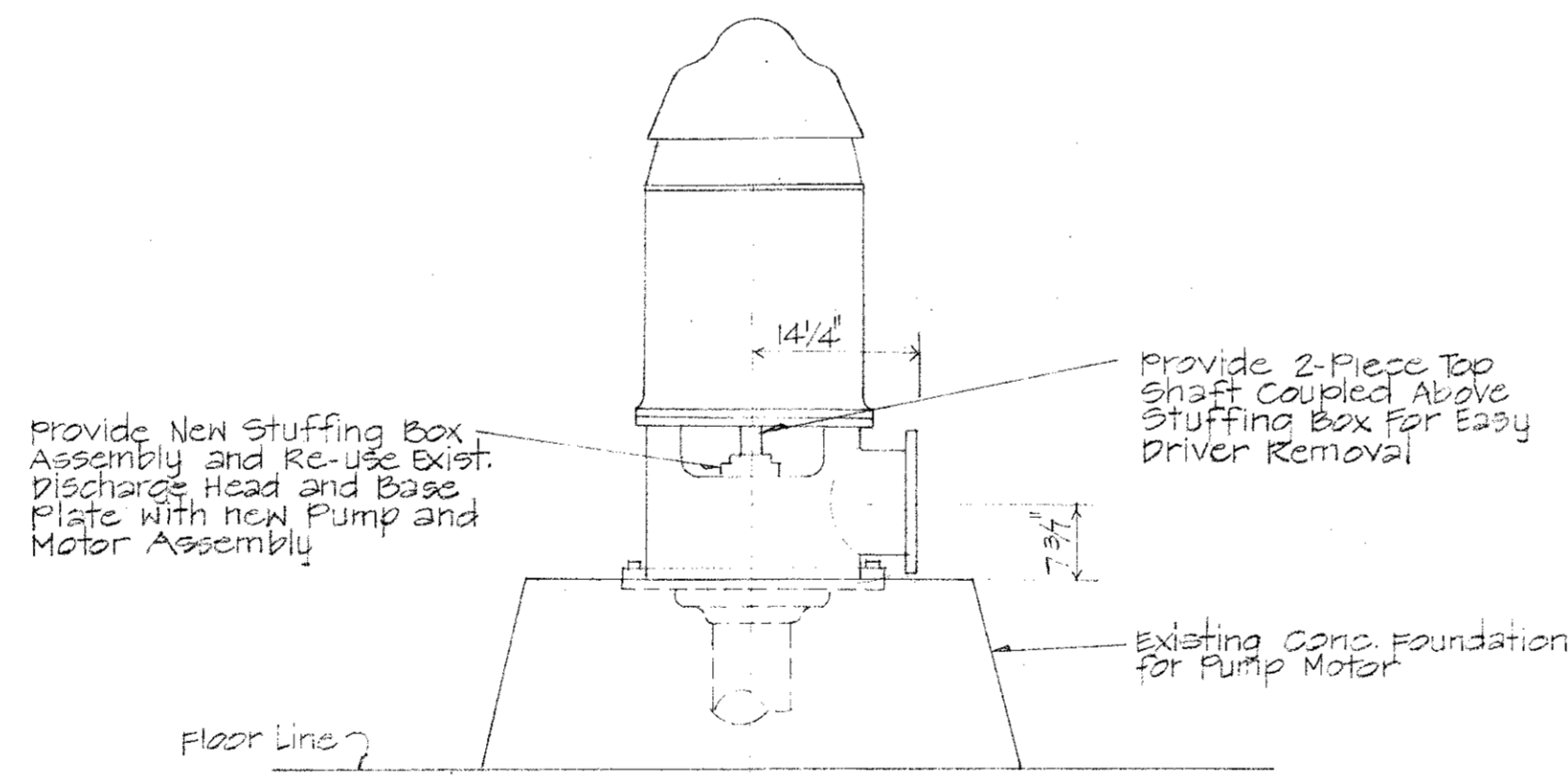
DEPARTMENT OF WATER			
COUNTY OF KAUAI			
REPLACEMENT OF KOLOA WELL PUMP, WELL 16-A			
POIWA WATER SYSTEM			
KAPAA, KAUAI, KAUAI			
JOB NO. 73-12			
PUMP HOUSE SITE PLAN			
SCALE: AS NOTED		DATE: OCT 1973	
DRAWN BY: FA	F.B.	C.B.	SHEET 1
TRACED BY:			
CHECKED BY: GP			OF 2 SHEETS
APPROVED: _____ MANAGER-CHIEF ENGINEER, DOW			



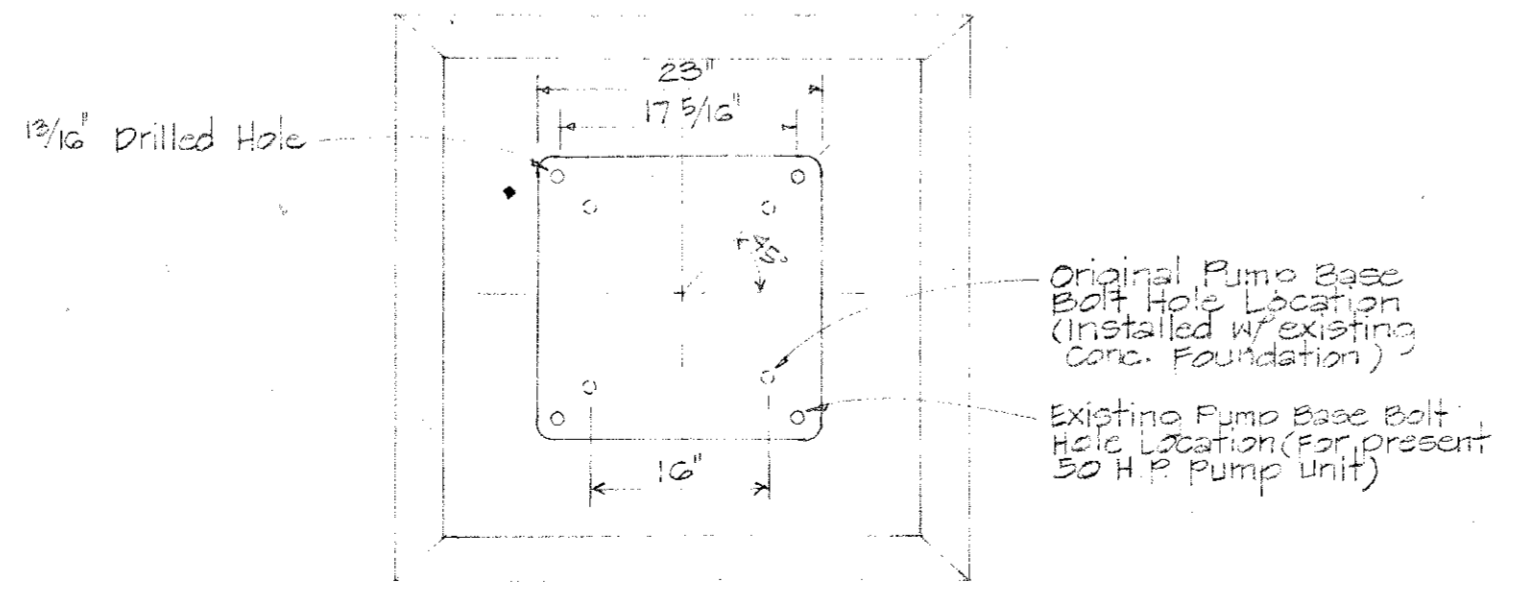
**EXISTING SECTION
KOLA WELL 16-A**
Not to Scale



**PUMP CONTROL VALVE-CHLORINATOR
BOOSTER PUMP DETAIL**
Not to Scale

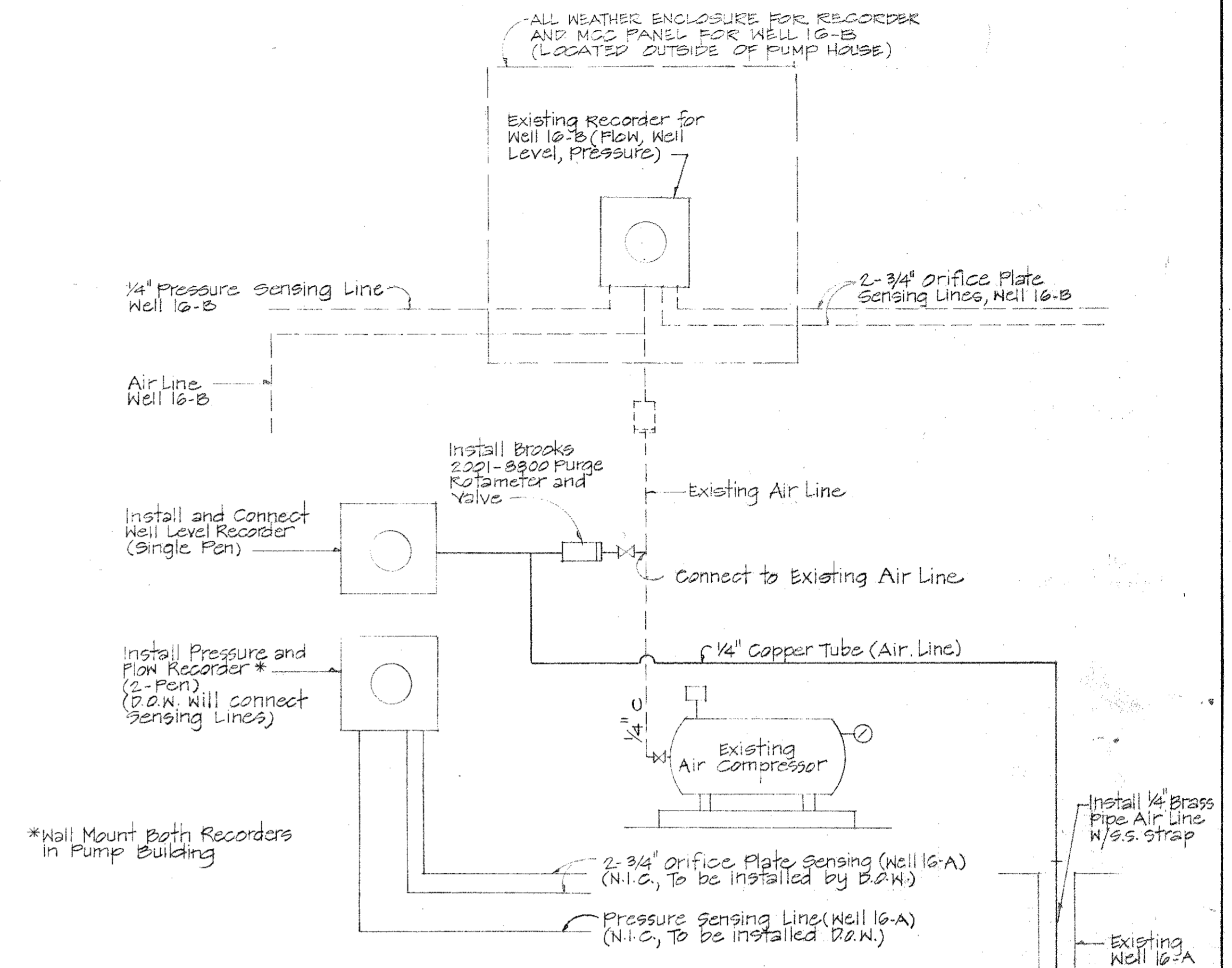


ELEVATION

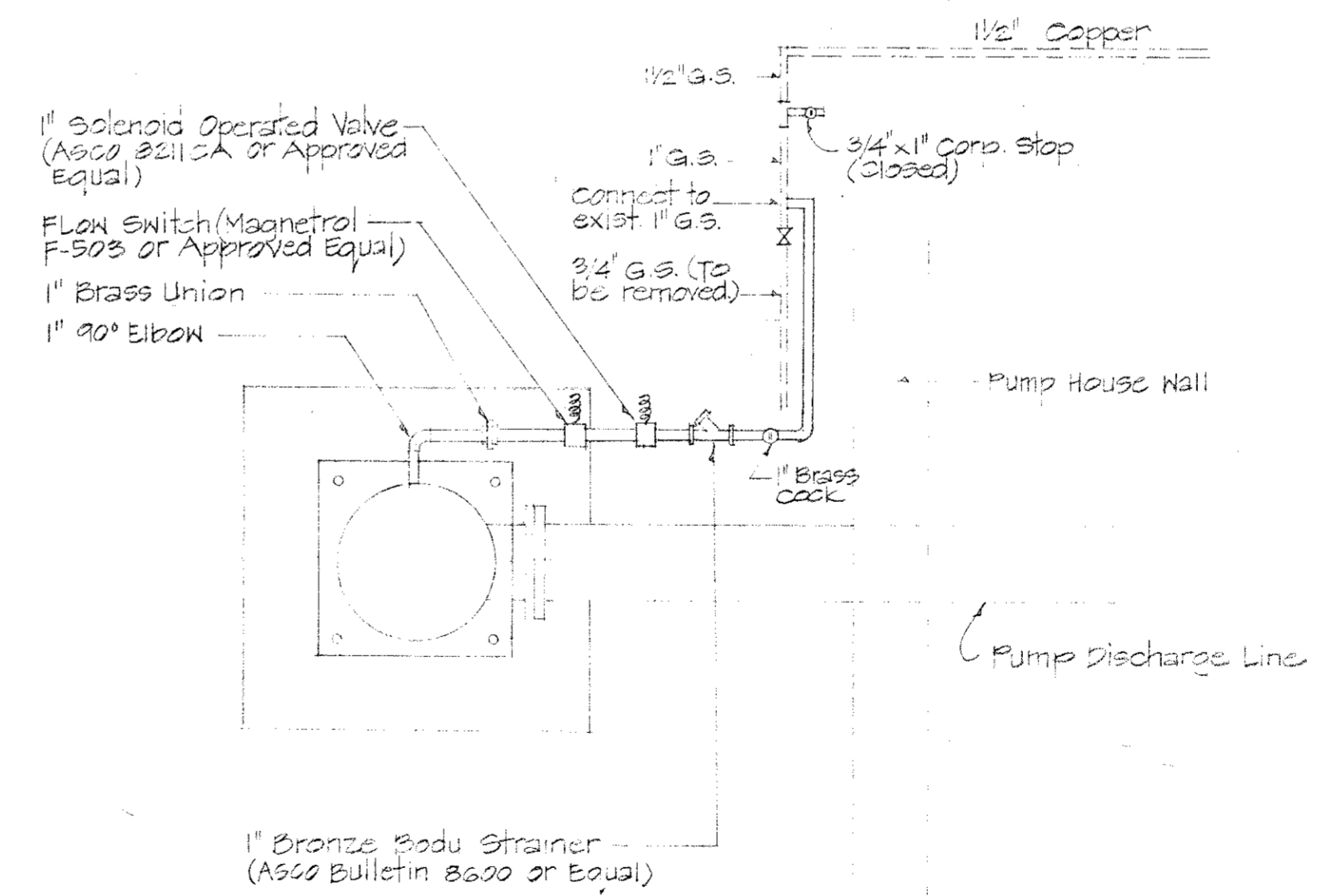


PLAN

**EXISTING PUMP HEAD
BASE DIMENSIONS**
Not to Scale

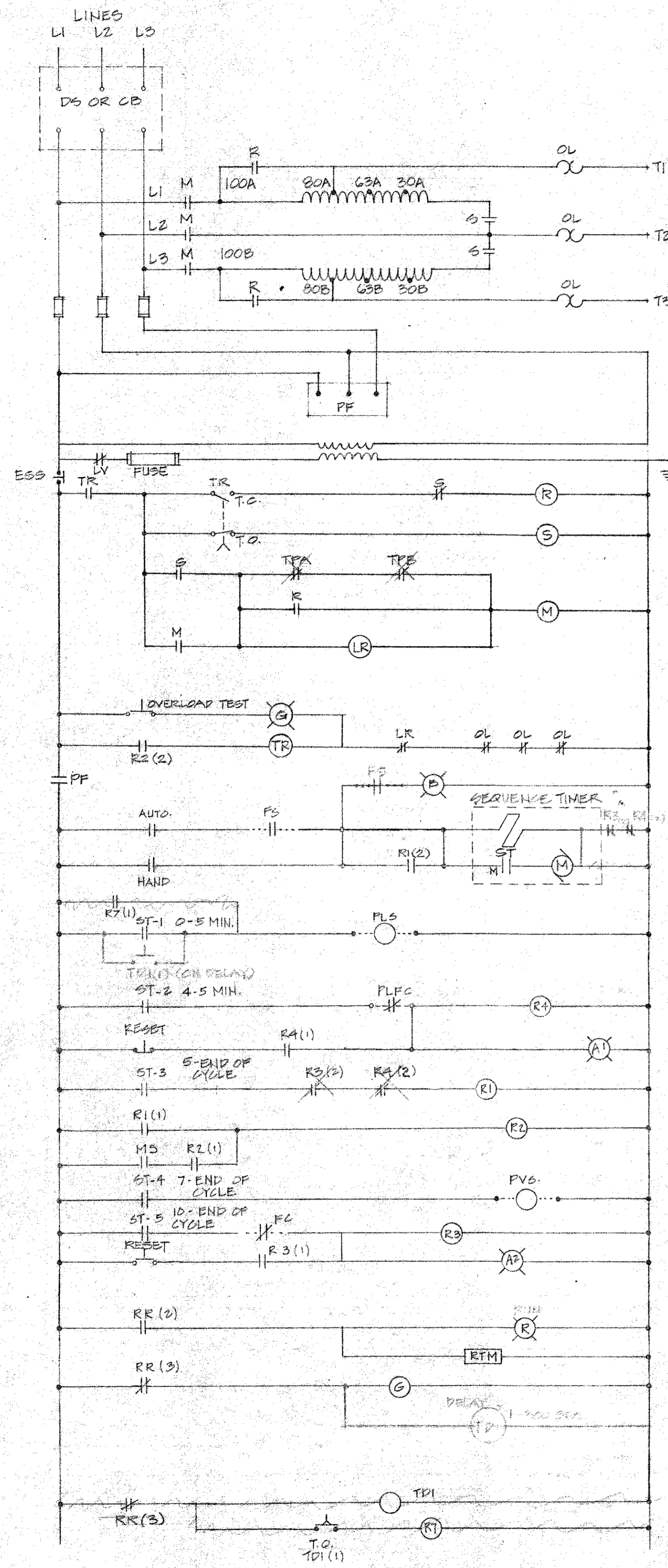


**SCHEMATIC DIAGRAM FOR FLOW,
WELL LEVEL AND PRESSURE RECORDER**
Not to Scale



PRELUBE ASSEMBLY DETAIL
Not to Scale

DEPARTMENT OF WATER			
COUNTY OF KAUAI			
REPLACEMENT OF KOLA WELL PUMP, WELL 16-A			
KOLA WATER SYSTEM			
KOLA KAUAI HOUSE			
JOB NO. 78-12			
PUMP DISCHARGE LINE DETAILS			
SCALE: AS NOTED		DATE: Oct. 1978	
DRAWN BY: PA	FB	C.B.	
TRACED BY:			
CHECKED BY: GP		SHEET 2	
APPROVED:		OF 2 SHEETS	
MANAGER-CHIEF ENGINEER - DOW			



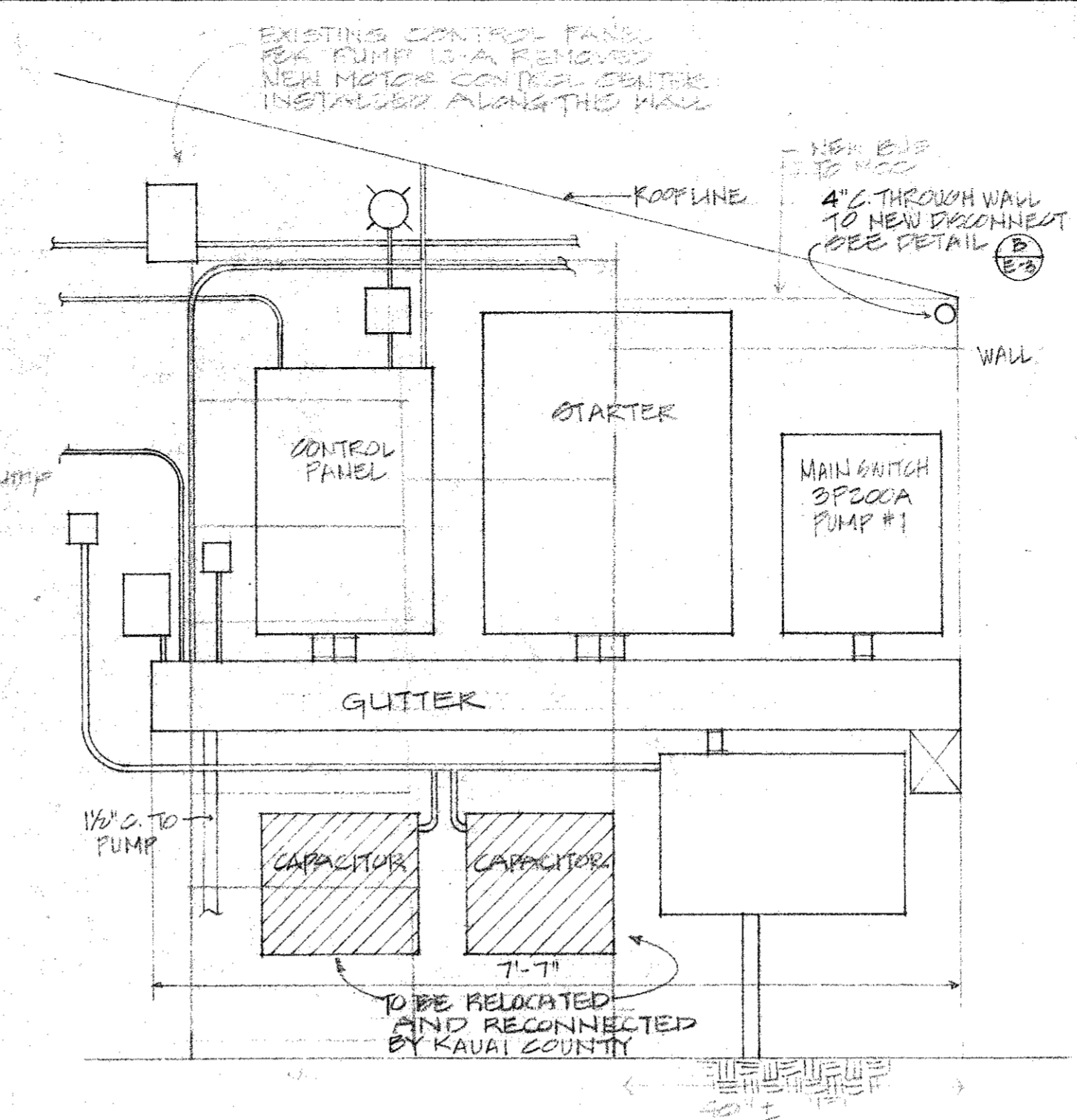
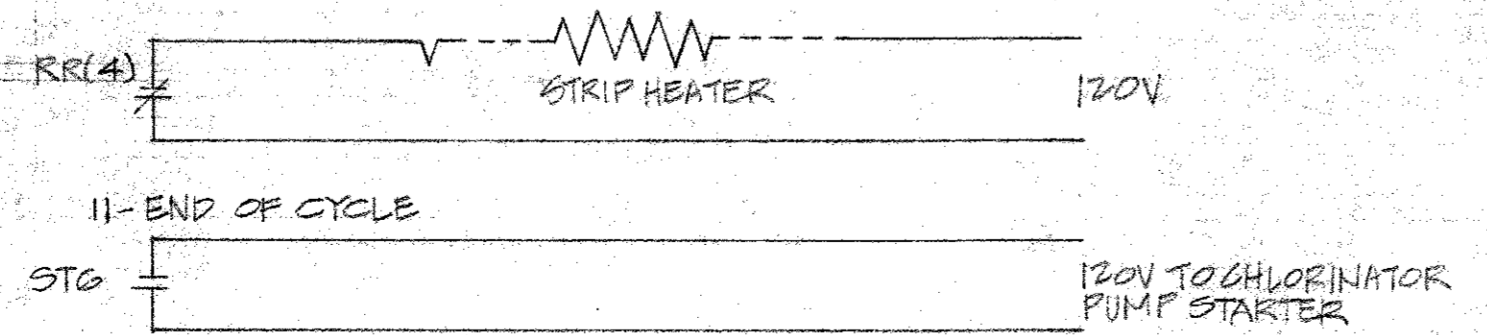
(A) PUMP CONTROL SCHEMATIC
N.T.S.
SCHEMATIC INDICATE FUNCTIONS REQUIRED. OTHER METHODS MAY BE USED UPON WRITTEN PERMISSION FROM ENGINEER.

CONTROL SEQUENCE

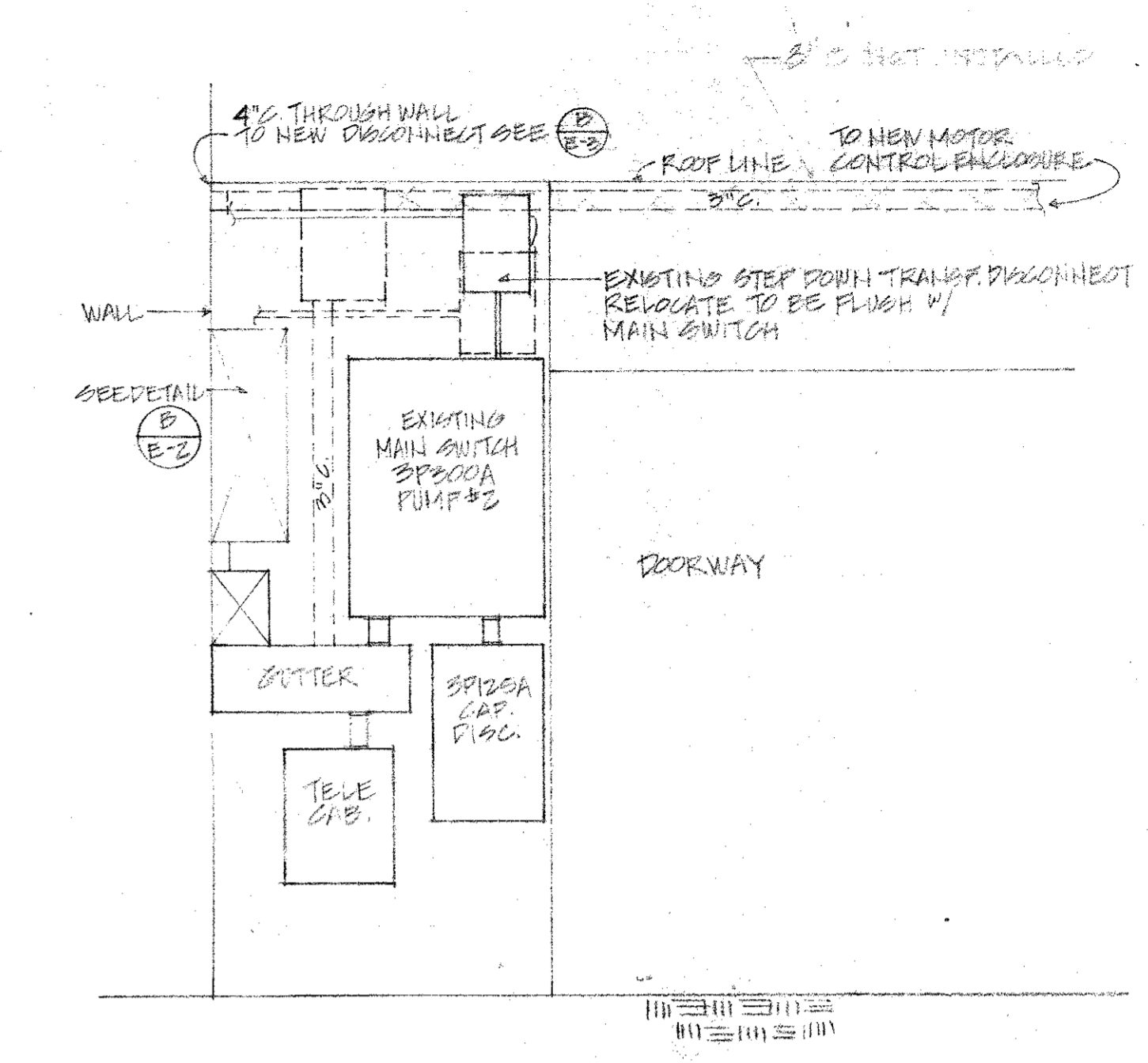
- ON START UP, FLOAT SWITCH, "PF" CLOSING AND ENERGIZES TIMER "ST-1". AT LAMP "ST-1" ENERGIZES IMMEDIATELY.
- "ST-1" STARTS THE PRELUDE SOLENOID "PLS" WHICH REMAINS ENERGIZED FOR 3-5 MINUTES, AND OPENS.
- "ST-2" TESTS WHETHER THERE IS SUFFICIENT FLOW IN PRELUDE LINE. IF THERE IS INSUFFICIENT FLOW IN PRELUDE LINE, "PLFC" WILL NOT OPEN, ENERGIZING "R4" AND STOPPING PUMP FROM STARTING. THIS WILL LOCK OUT THE PUMPS AND ENERGIZE ALARMS UNDER LIGHT UNTIL RESET.
- IF SUFFICIENT PRELUDE FLOW, "ST-3" ENERGIZES R1, WHICH CLOSING R1 (1), R2 IS ENERGIZED AND STARTS PUMP THROUGH R2 (2). MS HOLDS IN THE CIRCUIT. WHICH ENERGIZES CONTROL TR CONTACT STARTS PUMP.
- "ST-4" ENERGIZES PVS - PUMP CONTROL VALVE.
- AFTER 3-5 MINUTES OF DISCHARGE, "ST-5" TESTS FOR SUFFICIENT MAIN FLOW.
- "ST-5" TESTS FOR SUFFICIENT MAIN FLOW IF INSUFFICIENT FLOW, R3 (2) WILL DEACTIVATE R1, R1 (2) WILL DEACTIVATE R2 CAUSING PUMP TO STOP. IF THERE IS SUFFICIENT MAIN FLOW, ST-6 WILL START CHLORINATOR PUMP.
- AT END OF CYCLE, "PF" OPENS AND DE-ENERGIZES. "ST-1" WHICH STARTS PUMP CONTROL VALVE "PVS" OPENING. WHEN "MS" OPENS, IT RELEASES "R2" WHICH STOPS THE PUMP MOTOR.
- R2 (2) ALSO DE-ENERGIZES "RR."
- ON "RR" DE-ENERGIZATION, "RR" (3) CLOSING AND "TD1" STARTS TO TIME. "R7" IS ENERGIZED AND "R7" (1) STARTS POST LUBE (PLS).
- WHEN "TD1" TIMES OUT, TD1 (1) OPENS AND DE-ENERGIZES R7 WHICH OPENS RT (1) STOPPING POST LUBE.
- WHEN PUMP SHUT DOWN, TD1 RELAY IS ENERGIZED AND TD1 CONTACT CLOSING AND PVS SOLENOID VALVE IS ENERGIZED TO START POST LUBE. AFTER DELAY COMPLETED TD1 CONTACT OPENS, CAUSING THE PRELUDE SOLENOID VALVE

DEVICE LETTER DESIGNATION

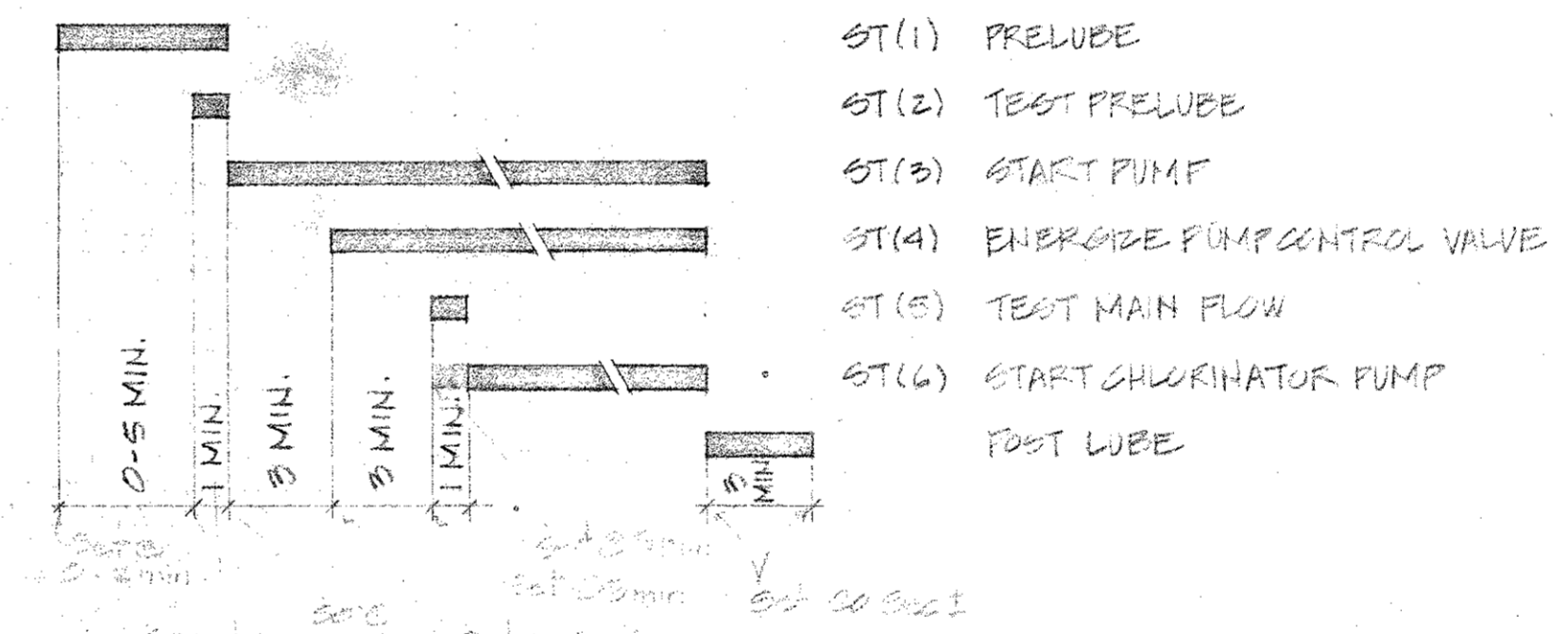
- LV UNDER VOLTAGE
- ESS EMERGENCY STOP SWITCH
- OL OVERLOAD
- R1, R2 RELAYS
- R3, R4, R5 RELAYS
- ST SEQUENCE TIMER
- TDA BACKSPIN TIMER
- (G) GREEN LIGHT, MOTOR STOPPED OR OVERLOADS WORKING
- (R) RED LIGHT, MOTOR RUNNING
- (A) AMBER LIGHT, INCOMPLETE SEQUENCE - INSUFFICIENT PRELUDE
- (M) AMBER LIGHT, INCOMPLETE SEQUENCE - INSUFFICIENT MAIN FLOW
- (B) BLUE LIGHT, RESERVOIR CALLING FOR WATER
- PVS CONTROL VALVE SOLENOID
- PLS PRELUDE SOLENOID OR POST LUBE
- FS RESISTIVE SENSITIVE RELAY (CUTLER HAMMER 13535 H 93)
- FC FLOW SWITCH (MAIN LINE) - OPENS WITH SUFFICIENT FLOW
- RTM RUNNING TIME METER
- TK TIME DELAY RELAYS
- PLF2 PRELUDE FLOW SWITCH - OPENS WHEN SUFFICIENT FLOW
- TD1 TIME DELAY RELAY (ON ENERGIZATION) ADJUSTABLE 0-5 MINUTES
- TD2 TIME DELAY RELAY (ON ENERGIZATION) ADJUSTABLE 0-5 MINUTES
- PF PHASE FAILURE/REVERSAL RELAY
- LR LOCKOUT RELAY
- MS CONTROL VALVE MICROSWITCH
- RR AUXILIARY CONTACT



(B) EXISTING SWITCH CONTROL BOARD
N.T.S.

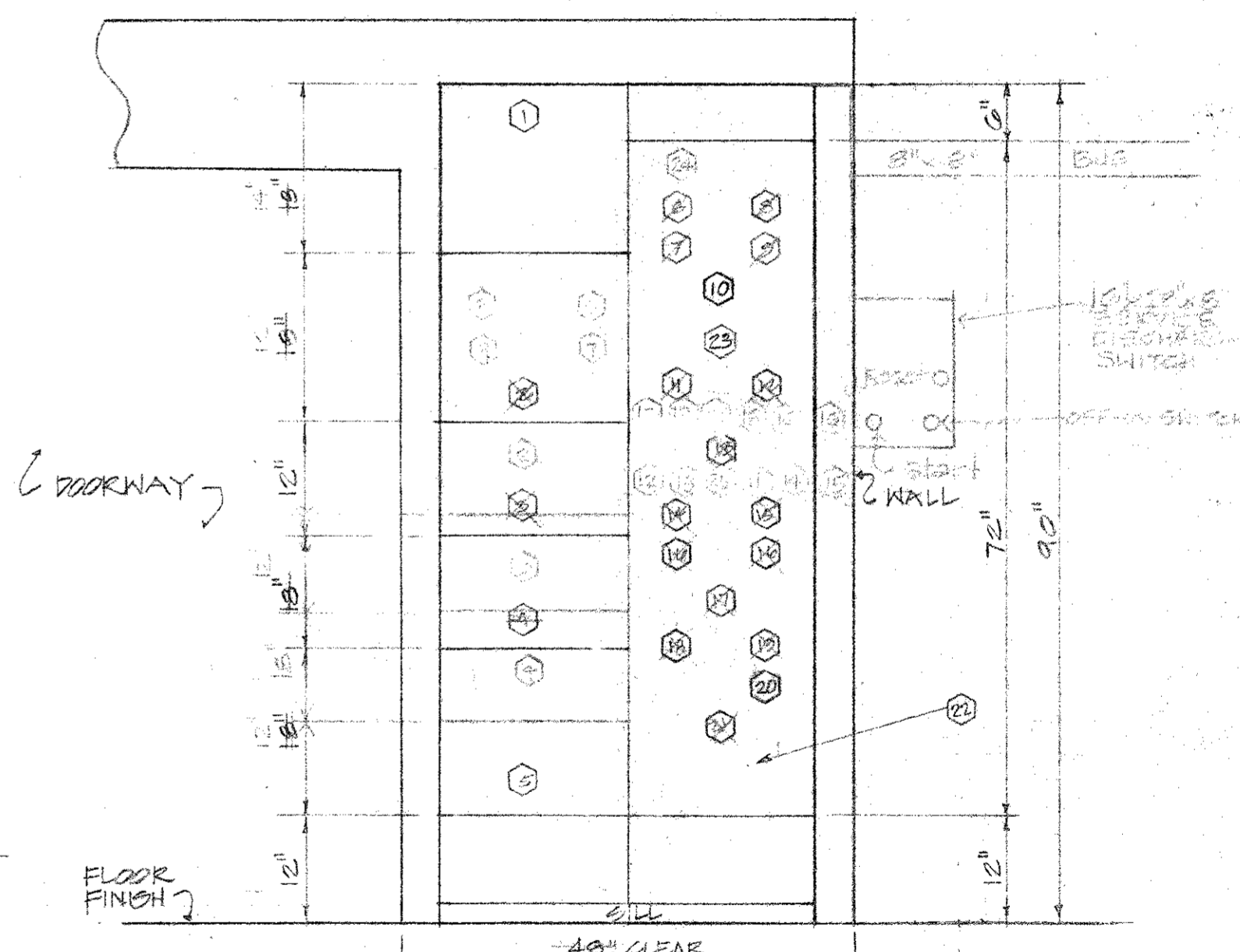


(C) EXISTING SWITCH CONTROL BOARD
N.T.S.



(D) PUMP CYCLE
N.T.S.

NUMBER	ITEM	RATING	NAME PLATE
1	MAIN LUGS		
2	SEQUENCE TIMER		SEQUENCE TIMER
3	CIRCUIT BREAKER	2P40A	2P40A CB
4	PANELBOARD		PANEL
5	TRANSFORMER	10KVA	10 KVA TRANSFORMER
6	AMMETER	0-200A	AMMETER
7	AMMETER SWITCH		AMMETER SWITCH
8	VOLTMETER	0-600V	VOLTMETER
9	VOLTMETER SWITCH		VOLTMETER SWITCH
10	RUNNING TIME METER		RUNNING TIME METER
11	EMERGENCY STOP SWITCH	NCP 4	EMERGENCY STOP SWITCH DEEPWELL PUMP NO 3
12	HANDS-OFF-AUTO SWITCH		HANDS-OFF-AUTO
13	O.L. TEST SWITCH		O.L. TEST SWITCH
14	RESET-INSUFF. PRE-LUBE		RESET
15	RESET-INSUFF. MAIN FLOW		RESET
16	AMBER LIGHT		NO FLOW-PRELUDE NO FLOW-MAIN LINE
17	BLUE LIGHT - CALL FOR WATER		TANK CALL
18	GREEN LIGHT - MOTOR STOP		MOTOR STOPPED
19	GREEN LIGHT - O.L. WORKING		O.L. OPERATING
20	O.L. TEST SWITCH		O.L. TEST SWITCH RESET
21	RED LIGHT - MOTOR RUNNING		MOTOR RUNNING
22	100 HP STARTER		
23	CONTROL CIRCUIT TEST SWITCH		CONTROL CIRCUIT TEST
24	PUMP CIRCUIT BREAKER	MCP 4	DEEPWELL PUMP NO 3
25	NORMAL SWITCH		NORMAL



(E) MOTOR CONTROL ENCLOSURE ELEVATION
SCALE: 3/4" = 1'-0" (FOR WELL 10-A)
APPROVED:

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
1-177

MANAGER, ENGINEERING DEPARTMENT
KAUAI ELECTRIC DIVISION
CITIZENS UTILITIES CO.

DEPARTMENT OF WATER
COUNTY OF KAUAI

REPLACEMENT OF KOLOA
DEEP WELL PUMP
KOLOA WELL 10-A JOB NO. 73-12

SCALE: AS SHOWN DATE: _____

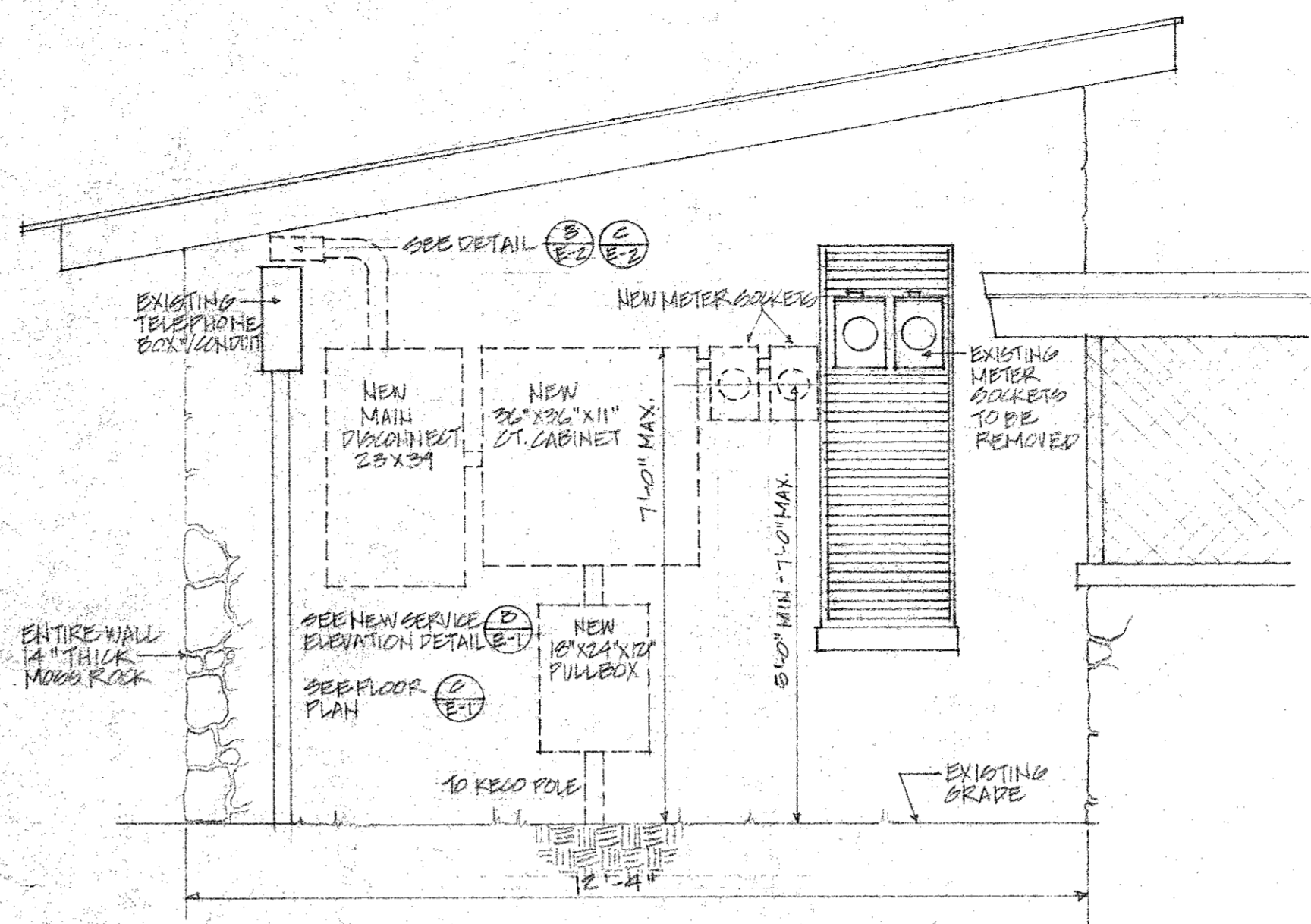
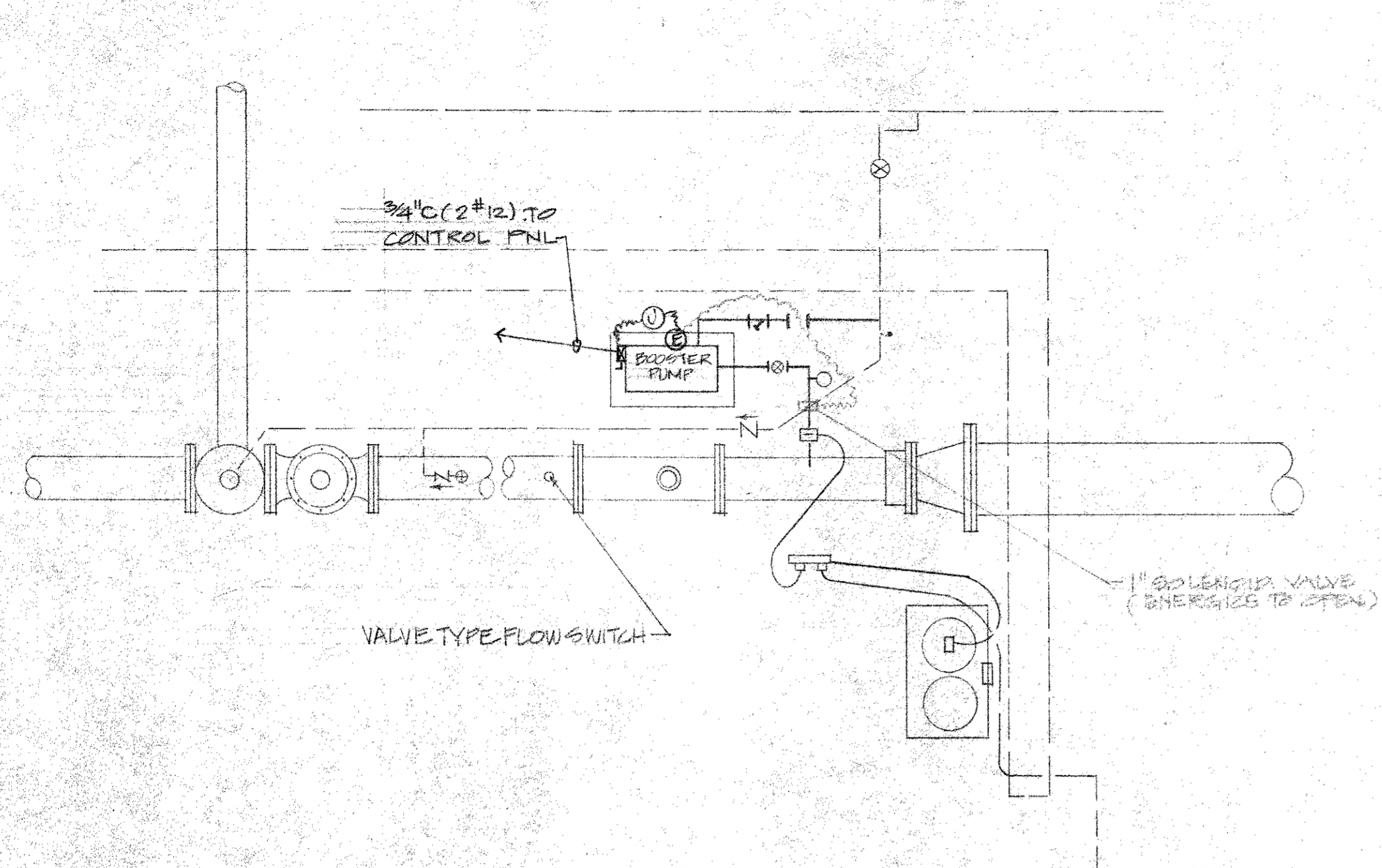
DRAWN BY: CA FB CB
TRACED BY: D.K.
CHECKED BY: R.H.

APPROVED: _____
MANAGER-CHIEF ENGINEER, DOW

SHEET _____ OF _____ SHEETS

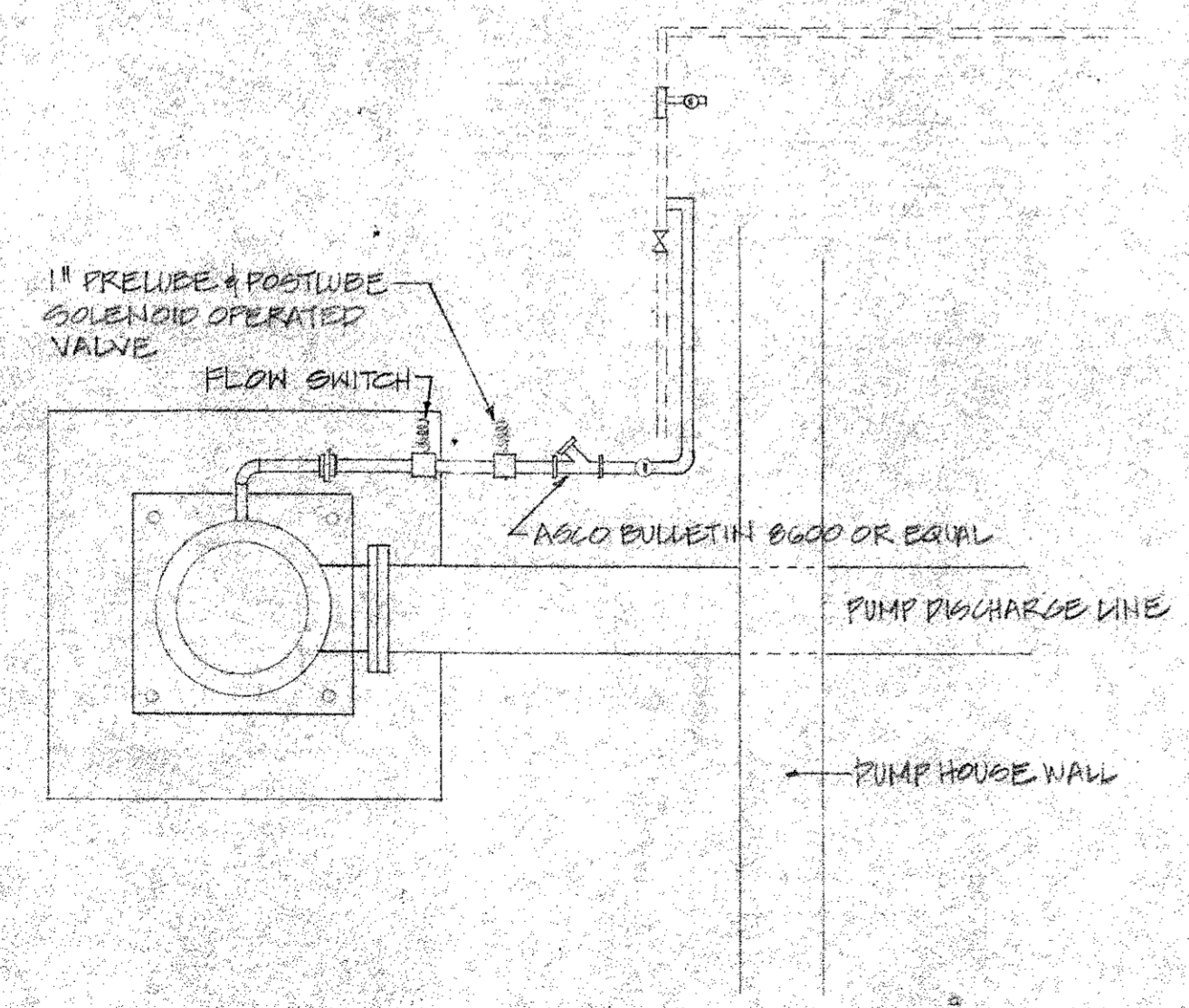
PUMP CONTROL LEGEND

TD1	TIME DELAY RELAY (ON ENERGIZATION ADJUSTABLE 0-5 MINUTES)
	CONTACT NORMALLY OPEN WHEN COIL IS ENERGIZED & SWITCH IS IN OPEN POSITION
⌵	CONTACT NORMALLY CLOSED WHEN COIL IS DE-ENERGIZED & SWITCH IS IN CLOSED POSITION
Ⓞ	COIL OF CONTACTOR, RELAY OR STARTER
Ⓡ	INDICATING LIGHT, LETTER DENOTES COLOR
⌵	PUSHBUTTON, MOMENTARY CONTACT
--- ---	EXTERNAL CONTACTS
---○---	EXTERNAL SOLENOID
⌵	TIME DELAY CONTACTS



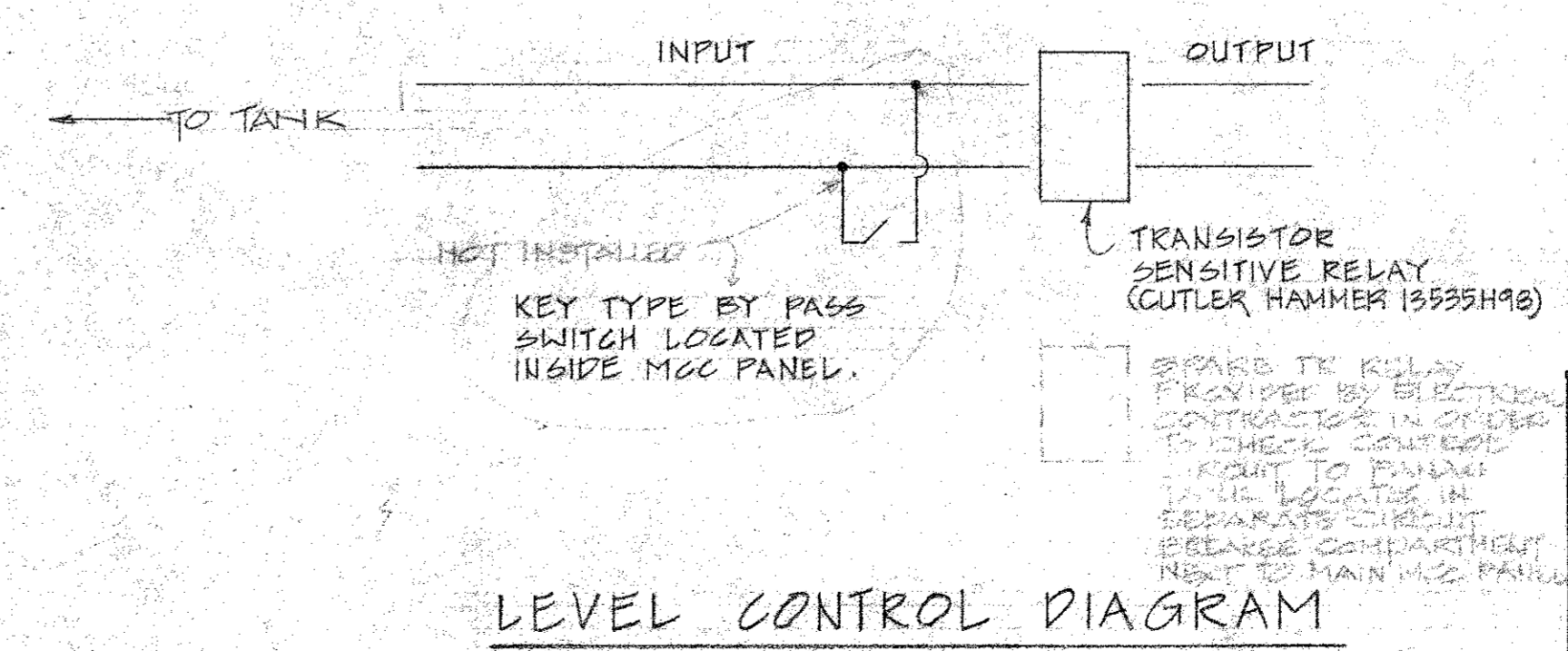
B
E-3 NEW SERVICE ELEVATION
APPROX. SCALE: 1/2" = 1'-0"

A
E-3 PUMP CONTROL VALVE - CHLORINATOR BOOSTER PUMP DETAIL
N.T.G.



C
E-3 PRELUDE ASSEMBLY DETAIL
N.T.G.

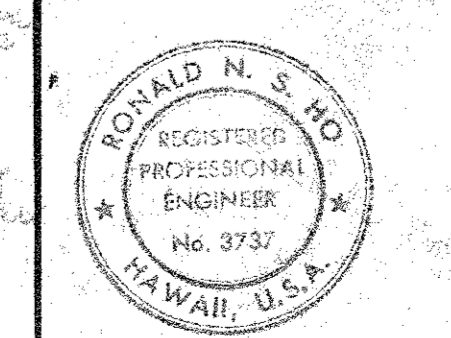
NOTE
CONTRACTOR SHALL PROVIDE NEW TRANSISTOR SENSITIVE RELAY AND DISCONNECT EXISTING LEADED LINE FROM EXISTING RESISTANCE SENSITIVE RELAY AND CONNECT TO NEW RELAY. PROVIDE CONDUIT AND WIRE AS NECESSARY. NEW TRANSISTOR SENSITIVE RELAY SHALL BE INSTALLED IN MCC.



LEVEL CONTROL DIAGRAM

- NOTES:**
- PROVIDE THE FOLLOWING SPARE PARTS:
 - STARTER AND RELAY COIL, ONE FOR EACH DIFFERENT TYPE
 - SET OF ALL MOVING CONTACTS FOR EACH STARTER
 - OVERLOAD RELAY FOR EACH STARTER
 - BACKSPIN TIMER
 - LAMPS FOR EACH INDICATOR LIGHT

APPROVED:
[Signature]
MANAGER ENGINEERING DEPARTMENT
KAUAI ELECTRIC DIVISION
CITIZENS UTILITIES CO.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature]
12/72

DEPARTMENT OF WATER
COUNTY OF KAUAI

REPLACEMENT OF KOLOA DEEP WELL PUMP
KOLOA WELL 16-A JOB NO. 78-12

SCALE: AS NOTED DATE: _____

DRAWN BY: CA. TRACED BY: PK. CHECKED BY: PH.

APPROVED: _____
MANAGER-CHIEF ENGINEER, DOW

SHEET 10 OF 17 SHEETS