

- GENERAL NOTES**
1. ALL CONSTRUCTION WORK AND INSTALLATIONS SHALL CONFORM TO THE COUNTY OF SAN LUIS OBISPO STANDARDS AND SPECIFICATIONS. ANY CHANGES SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY.
 2. THE SAN LUIS OBISPO COUNTY ENGINEERING DEPARTMENT SHALL BE GIVEN 24 HOURS NOTICE PRIOR TO ANY WORK.
 3. SEWERS TO HAVE MINIMUM 30" COVER IN OFF STREET LOCATIONS AND A MINIMUM OF 36" COVER IN STREETS.
 4. ALL METAL SPECIFIED OR FABRICATED SHOWN ON PLANS TO BE GALV. DIPPED BEFORE INSTALLATION AS SHOWN ON THE DRAWINGS.
 5. BEFORE STARTING TRENCHING, THE CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF ALL EXISTING LINES AFFECTING THIS AREA. ALL LINES SHOWN ARE NEW UNLESS OTHERWISE SHOWN AS EXISTING.
 6. ALL CUT AND FILL SLOPES TO BE HYDROMULCHED.
 7. ALL MECHANICAL SYSTEMS TO BE COMPLETED, TESTED AND OPERATING TO THE SATISFACTION OF THE SAN LUIS OBISPO COUNTY ENGINEERS PRIOR TO ACCEPTANCE.
 8. SLOPE AREA DRAINAGE AND CHANNELIZATION AT THE EFFLUENT DISPOSAL SITE SHALL BE COMPLETED TO THE SATISFACTION OF SAN LUIS OBISPO COUNTY ENGINEERS. LINES TO BE FIELD LOCATED TO PROVIDE PAVING AT DIKE TO DIKE.

- LEGEND**
- P.O.T. = Point of Tangency
 - E.O.P. = End of Pipe
 - P.O.C. = Point of Connection
 - STA = Station distance out along
 - RT = Perpendicular distance out from & to right
 - LT = Perpendicular distance out from & to left
 - R = Radius of Curve
 - T.D.H. = Total dynamic head
 - C.O.S. = Corner of slab
 - ↔ = Butterfly valve or as Noted.
 - = Direction of Flow
 - P.V.C. = Polyvinylchloride
 - T.B. = Thrust Block (see details sheet 32x5)
 - B.E. = Bottom of Lagoon Elevation
 - W.S. = Normal Elevation of Water Surface
 - R/W = Road Right of way
 - T.O.S. = Top of Slab
 - T.M.H. = Top of manhole
 - Shaded Areas = Either Exist. A.C. Pavement or 2" A.C. Pavement to be placed by this contract.
 - = Sewer Pipe (Either Force Main or Gravity)
 - W = Water Pipe
 - = Electric power Lines & Telephone cables
 - = Electrical Conduits
 - FM = FORCE MAIN
 - ▲ = HIGH WATER ALARM
 - = CLEAN-OUT TOP GRADE
 - △ = Concrete Thrust Block Typical

Engineer in Responsible Charge
J. Caballero
 Caballero RE 25366
 Registered Civil Engineer

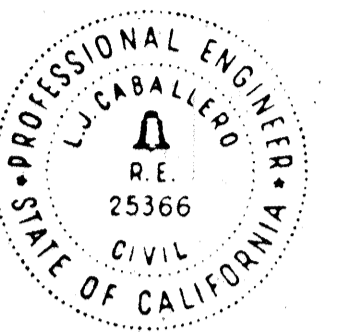
SCALE 1" = 40 FT

REVISED	DATE	BY	JOB # 7 372	SAN LUIS ENGINEERING, INC. P. O. Box 1127 132 BRIDGE Arroyo Grande Calif 93420 Phone 805/489-4343
APPROVAL CERTIFICATES			HERITAGE RANCH SEWAGE TREATMENT FACILITY PLOT PLAN L-8	
DRAWN BY	DATE	SHEET #		
D.W.	MAY - 1978	2	10	

300ACRE PARCEL AS Described in Grant Deed
 Recorded as Document No. 21148-A.R. Vol. 1680 Pg. 686
 San Luis Obispo County Recorder's Office.

HERITAGE RANCH

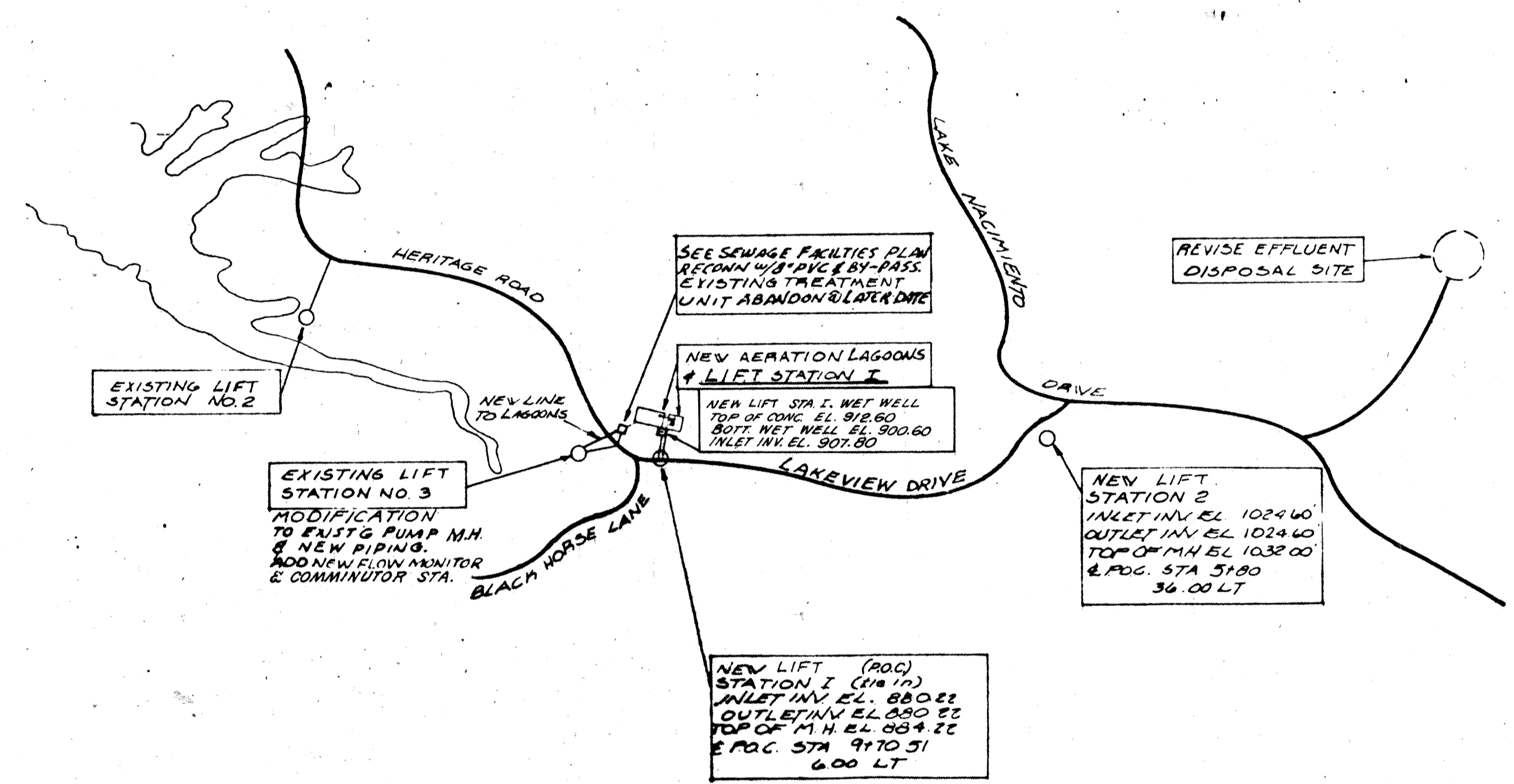
4.00 x 10⁶ G SEWAGE AERATION PONDS, PUMP STATIONS and EFFLUENT DISPOSAL SITE



QUANTITIES

NO.	ITEM	QTY.	
1	POND ECAVATION	17750	C.Y.
2	POND EMBANKMENT	17700	C.Y.
3	POND LINER	2093	S.Y.
4	EROSION CONTROL SEEDG	LUMP	SUM
5	SUBGD. PREP ACCESS RD.	756	S.Y.
6	4" CL. 3" AB ACCESS RD.	756	S.Y.
7	2" TYPE B AC ACCESS RD.	756	S.Y.
8	6" STD. CHAIN LINK FENCE	2640	L.F.
9	DOUBLE CHAIN LINK GATES	1	PR.
10	6" PVC PIPE CLASS 160	932	L.F.
11	8" PVC PIPE ABV. GR.	165	L.F.
12	8" PVC PIPE CLASS 160 BEL. GR.	790	L.F.
13	8" CHECK VALVES	9	EA.
14	8" PLUG VALVES	12	EA.
15	8" PIPE EXPANSION JOINTS	8	EA.
16	8" PVC BUTTERFLY VALVE	6	EA.
17	1 1/2" POTABLE WATER LINE PVC. CL. 40	260	L.F.
18	4" PVC CLASS 160	160	L.F.
19	4" PLUG VALVE	1	EA.
20	4" PRESSURE RELIEF VALVE	2	EA.
21	2" GATE VALVE	4	EA.
22	4 1/2" FACE PRESS. GUAGE	4	EA.
23	1 1/4" AIR VENT	4	EA.
24	SPECIAL MANHOLES	3	EA.
25	10 H.P. AERATORS	3	EA.
26	AERATOR ANCHOR ASSEMBLIES	9	EA.
27	40 H.P. PUMP STATION No 2	1	EA. (2 PUMPS)
28	1" POTABLE WATER BACKFLOW PREVENTER	1	EA.
29	ELECTRICAL	LUMP	SUM
30	GUNITE DITCH	650	S.Y.
31	ABANDON EXIST FACILITY	LUMP	SUM
32	1" POTABLE WATER PVC. SCHED. 40	500	L.F.
33	CYPRESS TREE SCREEN	LUMP	SUM
34	BARBED WIRE FENCE REMVL	1390	L.F.
35	1/3 H.P. SUMP PUMP	1	EA.
36	1/25 H.P. F.A. SUPPLY FAN & CONT.	1	EA.
37	RELOCATION OF EXISTG 25 H.P. PUMPS	1	EA. (2 PUMPS)
38	COMMUNUTOR, 6" DIA. 3 H.P.	1	EA.
39	SONIC-FLOW METER SENSOR & TRANS	1	EA.
40	FLOW CHART RECORDER & FLOW TOTALIZER	1	EA.
41	WETWELL PRECAST CONC. VAULT BROOKS 690	1	EA.
42	COMMUNUTOR VAULT BROOKS 700	1	EA.
43	1 1/4" GALV. IRON PIPE RAILING	72	LINE FT.
44	CONCRETE GRADE BEAM & FOOTINGS	5.5	CU. YDS.
54	DISPOSAL SPRINKLER SYS. PVC. CL. 100	163	HEADS (10.57 Acres)
55	HI-WATER LEVEL ALARM SYSTEM	1	EA. (2 PROBES)
56	AERATOR SERV. DOCK-TREAT-LUMBER	72	SQ. FT.
57	AUTOMATIC CHLORINE STATION	2	-CYLINDER

1977



SHEET INDEX

NO.	ITEM
1	INDEX & VICINITY MAP
2	GENERAL SITE PLAN
3	PLAN OF DETAILS OF EFFLUENT PUMP STA. No. 1 AND LAGOON VOLUME CHART PUMP OPERATIONS
4	LAGOON I & II PROFILES DETAILS LIFT STA. No. 3
5	LAGOON PROFILES, DETAILS & NOTES
6	PUMP SCHEDULE - AERATOR DETAILS & SERVICE DOCK LINER DETAILS - BACK-FLOW PREVENTER
7	PUMP STATION No. 2 DETAILS & NOTES
8	MANHOLE & PIPING DETAILS PUMP ELECTRICAL OPERATION

SUBMITTED BY *L.J. Caballeo*
SAN LUIS ENGINEERING
L.J. CABALLEO R.E. 25366

APPROVED BY: *Warren Reeder*
HERITAGE RANCH - WARREN REEDER

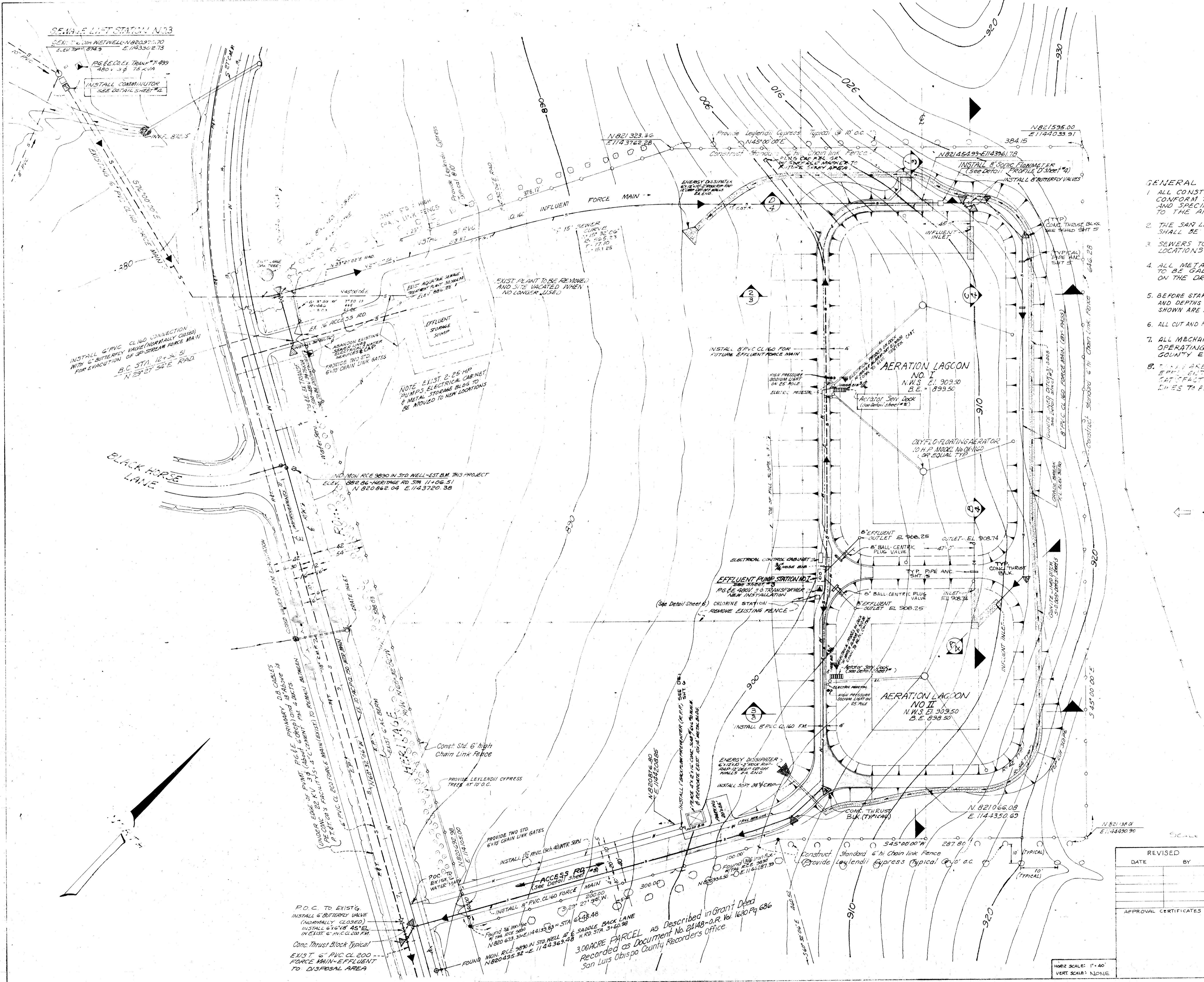
George C. Protopapas by *M. 9/26/78*
SAN LUIS OBISPO COUNTY ENGINEER
GEORGE C. PROTOPAPAS R.E. 10197

NORTH VICINITY MAP

NO SCALE

REVISED DATE	BY	JOB # 7-372 SAN LUIS ENGINEERING, INC. P.O. Box 1127 132 Bridge Street Arroyo Grande, Ca. 93420 Phone 805 489-4343
APPROVAL CERTIFICATES		HERITAGE RANCH SEWAGE TREATMENT FACILITY INDEX MAP
DRAWN BY <i>NEILSON</i>	DATE MAY 1978	
SHEET #		18

Horiz. Scale 1"=100'
Vert. Scale 1"=10'



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 8. ALL HEADWORK AND DRAINAGE CHANNEL LAYOUT AT THE EFFLUENT END OF THE SITE SHALL BE COMPLETED TO THE SATISFACTION OF THE COUNTY ENGINEERS. LINES TO BE FIRMLY SET TO PROTECT REMAINING AT DIKE TO DIKE.

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 - = HIGH WATER ALARM
 - = CLEAN-OUT TOP GRADE
 - = Concrete Thrust Block Typical

Engineer in Charge: *J. Caballero*
 J. Caballero RE 25364
 Registered Civil Engineer

REVISED	DATE	BY	JOB # 7-372	SAN LUIS OBISPO ENGINEERING, INC. 132 E 11th St Arroyo Grande, Calif. 93420 Phone 805/489-4343
APPROVAL CERTIFICATES			DRAWN BY: D.W. DATE: MAY - 1978 SHEET # 8	P. O. Box 1127 132 E 11th St Arroyo Grande, Calif. 93420 Phone 805/489-4343

300-ACRE PARCEL AS Described in Grant Deed Recorded as Document No. 2148-A.R. Vol. 1680 Pg. 686 San Luis Obispo County Recorder's Office

HORIZ. SCALE: 1" = 40'
 VERT. SCALE: 1" = 10'

PLANT OPERATIONS

PHASE I

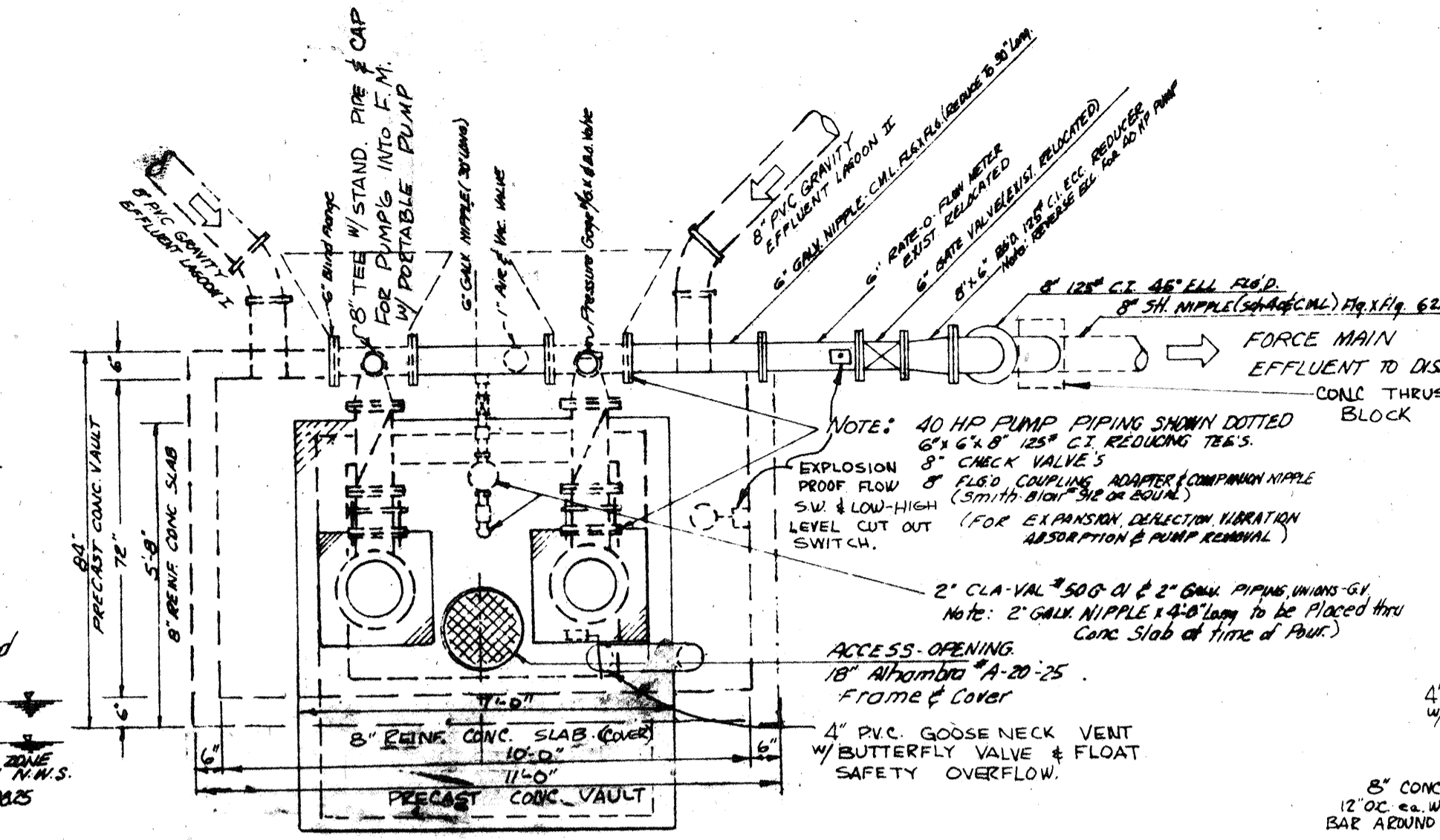
LAGOON NO II ONLY - Power Req. 1-10 HP AERATOR
Capacity - 1,459,781 Gallons - 10 day detention - Max. Daily Flow 145,000 gal.
USE FOR AVG DAILY SEWAGE FLOWS 50,000 TO 145,000 GALLONS
NOTE: 3 FT FREEBOARD: Volume 15 FT Above Normal Water Surface is
314,282 Gal. / 145,000 = 2.17 Day Storage for Emergency & Peak Flows

PHASE II

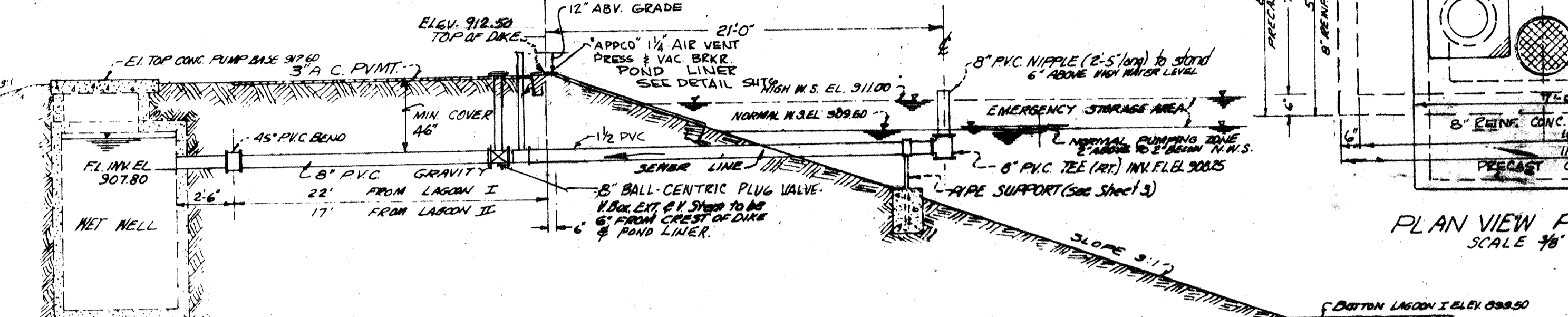
LAGOON NO I ONLY - Power Req. 2-10 HP AERATORS
Capacity - 2,661,156 Gallons - 10 day detention - Max. Daily Flow 266,000 gal.
USE FOR AVG DAILY SEWAGE FLOWS 145,000 TO 266,000 GALLONS
NOTE: Volume 15 FT Above Normal Water Surface is 560,000
Gal. / 266,000 = 2.11 day Storage for Emergency & absorbs all Peak Flows

PHASE III

FULL PLANT LAGOONS NO I & NO II - Power Req. 3-10 HP AERATORS
Capacity - 4,120,937 Gallons - 10 day detention - Max. Daily Flow 412,000 gal.
USE FOR AVG DAILY SEWAGE FLOWS 266,000 TO 412,000 GALLONS
NOTE: 2.12 Days Storage Above Normal W.S @ Full Flow.

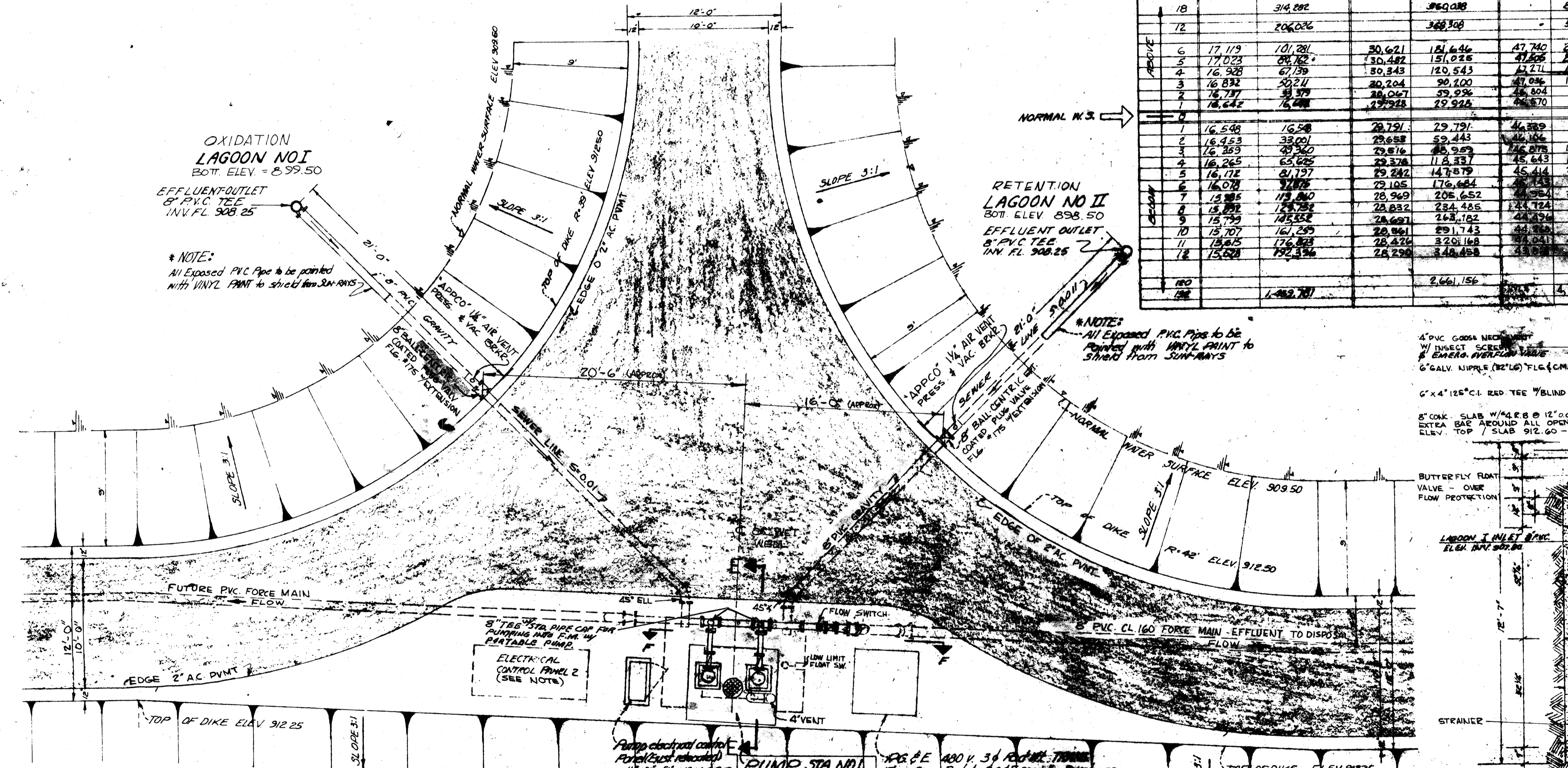


PLAN VIEW PUMP STA NO 1
SCALE 3/16" = 1'-0"



PROFILE VIEW GRAVITY EFFLUENT FROM LAGOONS NO I & NO II
SCALE 3/16" = 1'-0"

PLANT VOLUME CHART						
WATER DEPTH INCHES	LAGOON NO II		LAGOON NO I		FULL PLANT	
	GALLONS PER INCH	TOTAL GALLONS FROM NORMAL W.S.	GALLONS PER INCH	TOTAL GALLONS FROM NORMAL W.S.	GALLONS PER INCH	TOTAL GALLONS FROM NORMAL W.S.
18		314,282		560,000		874,282
12		209,521		373,333		582,854
6	17,119	101,281	30,621	181,446	47,740	282,727
5	17,119	85,736	30,482	151,228	47,602	236,964
4	16,258	67,290	29,843	120,543	46,141	187,833
3	16,258	50,714	29,374	90,100	45,632	140,814
2	16,258	34,138	28,905	60,000	45,126	94,138
1	16,258	17,562	28,436	30,000	44,620	47,562
0						
7	16,548	16,548	29,791	29,791	46,339	46,339
6	16,548	33,096	29,443	59,238	45,882	92,126
5	16,263	81,264	29,816	149,259	45,879	230,523
4	16,263	65,628	29,378	118,381	45,643	183,964
3	16,172	51,197	29,242	87,874	45,414	137,668
2	16,081	36,766	29,106	57,367	45,184	107,174
1	15,990	22,335	28,969	26,860	44,954	77,184
0						
10	15,707	161,259	28,561	291,743	44,506	452,002
9	15,615	145,683	28,424	261,319	44,276	405,633
8	15,524	130,107	28,287	230,895	44,046	359,264
7	15,432	114,531	28,150	200,471	43,816	312,895
6	15,341	98,955	28,013	170,047	43,586	266,526
5	15,250	83,379	27,876	139,623	43,356	220,157
4	15,159	67,803	27,739	109,199	43,126	173,788
3	15,068	52,227	27,602	78,775	42,896	127,419
2	14,977	36,651	27,465	48,351	42,666	81,050
1	14,886	21,075	27,328	17,927	42,436	34,681
0						
180		1,469,781		2,661,156		4,120,937



PLAN VIEW PLANT CONTROL CENTER
SCALE 3/16" = 1'-0"

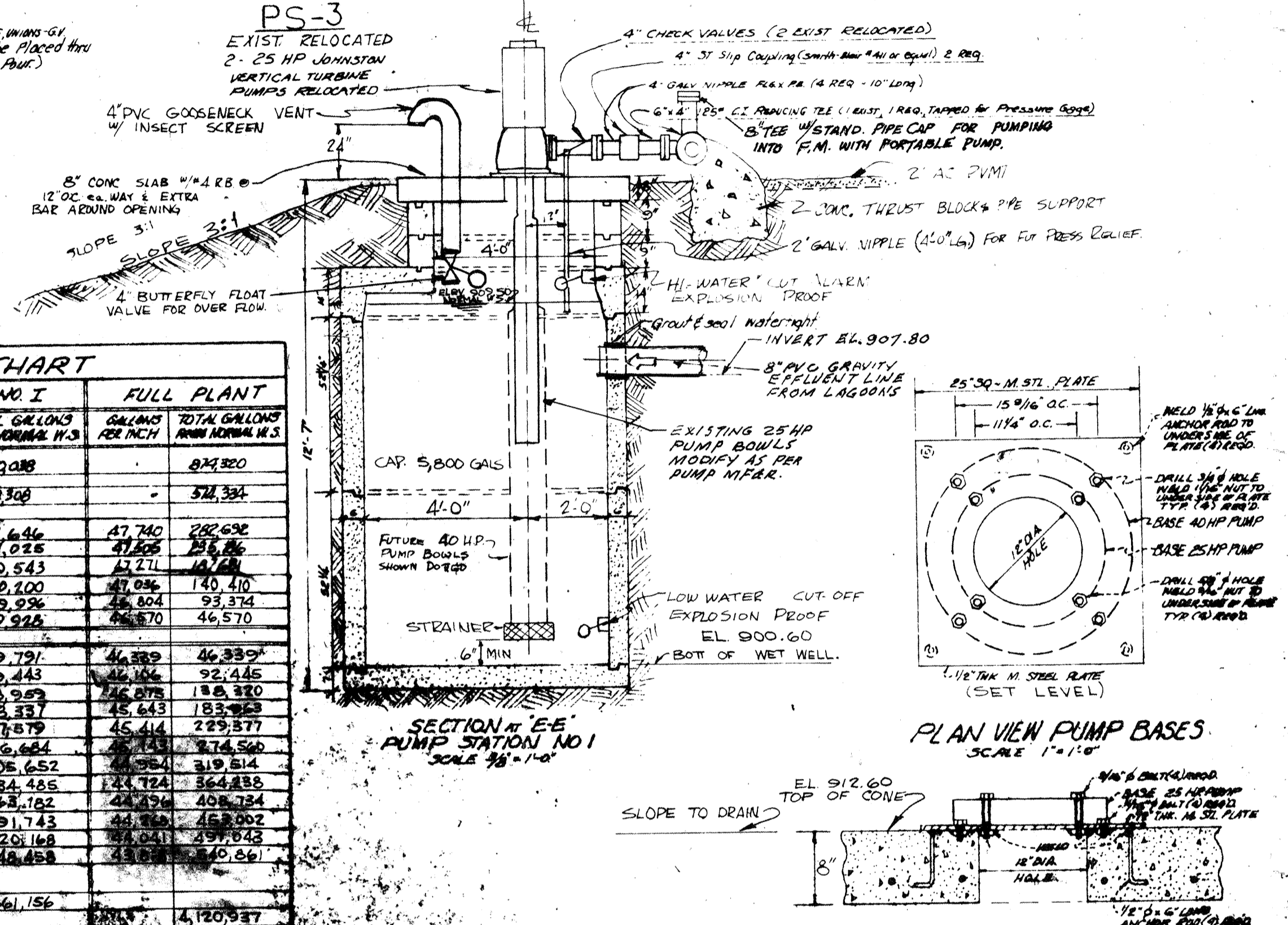
ELECTRICAL CONTROL PANEL NO 2 NOTE:
will house:
1. METER (P.G.E.) AND MAIN CIRCUIT BREAKERS
2. ALL CONTROLS FOR 10 HP AERATORS NOS I, II, III
3. Power Supply & Recording Equip for Sparling series 500 FLOWMETER (SEE SHT. 4 FOR CONT.)
4. LIGHTING PANAL
5. ELECTRICAL HI-WATER ALARM SYSTEM

PUMPING STATION NO 1 OPERATIONS

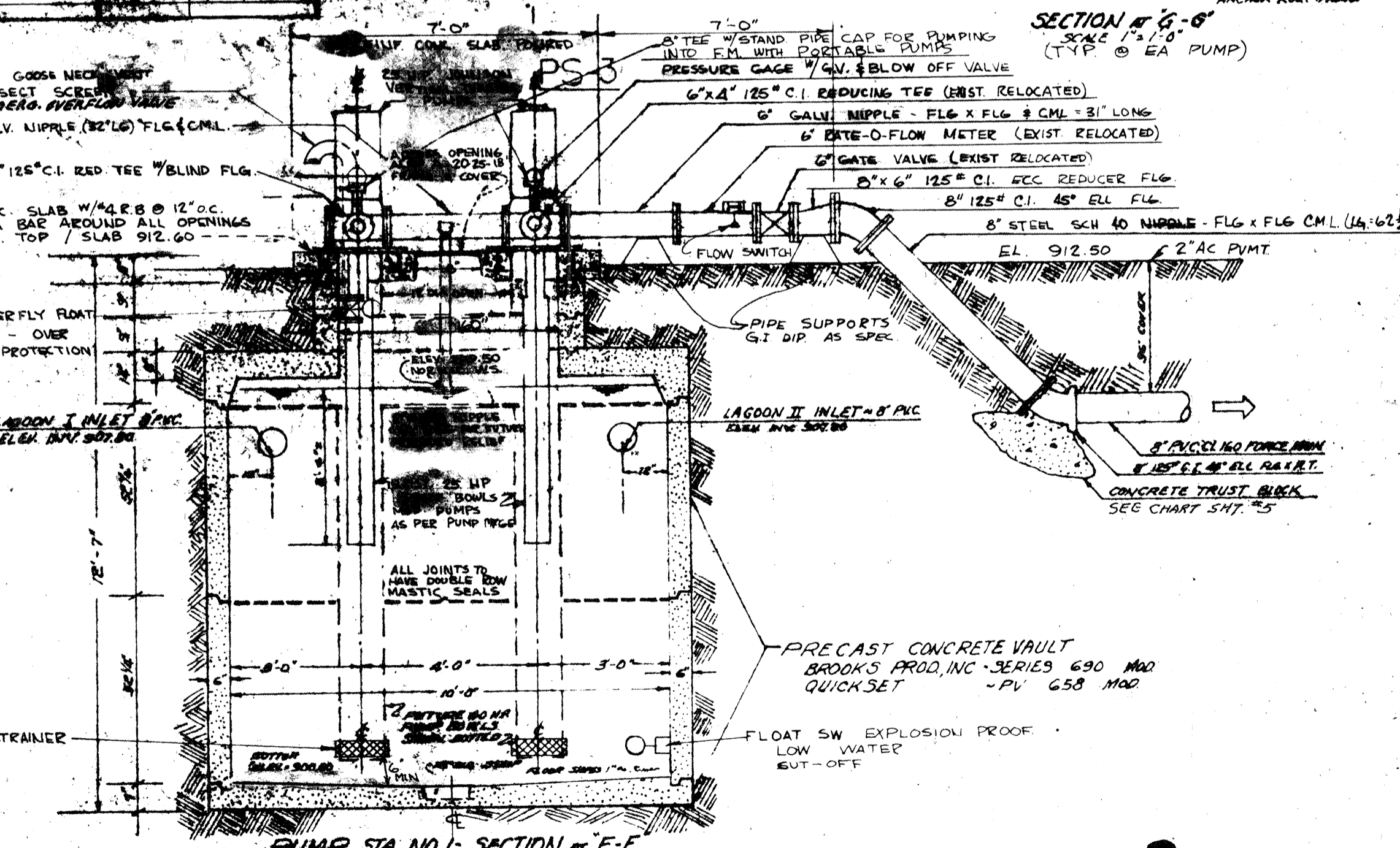
2 Vertical turbine Pumps ONE PUMP ONLY ON THE LINE. Alternator shall automatically sequence the pumps after each operation, should either Pump fail to answer a call to run, pumps will alternate. individual running time meters will alert operator of malfunction of either pump.

Since the vertical change in water level is so minute in comparison to the volume in gallons, as demonstrated on the PLANT VOLUME CHART, the Effluent pumping control shall be by Time Clock. The Plant Operator, using values from the Influent Daily Flow Monitoring system, sets Time Clock to operate Effluent Pumps to pump X-number of gallons per day to disposal Area.

NOTE: CHARTS AND GRAPHS for this purpose will be prepared from measured Pump Flows and included in the Manual for Operations.



SECTION AT 'E-E' PUMP STATION NO 1
SCALE 3/16" = 1'-0"



SECTION AT 'F-F' PUMP STATION NO 1
SCALE 3/16" = 1'-0"

REVISID
DATE BY

JOB # 7-312

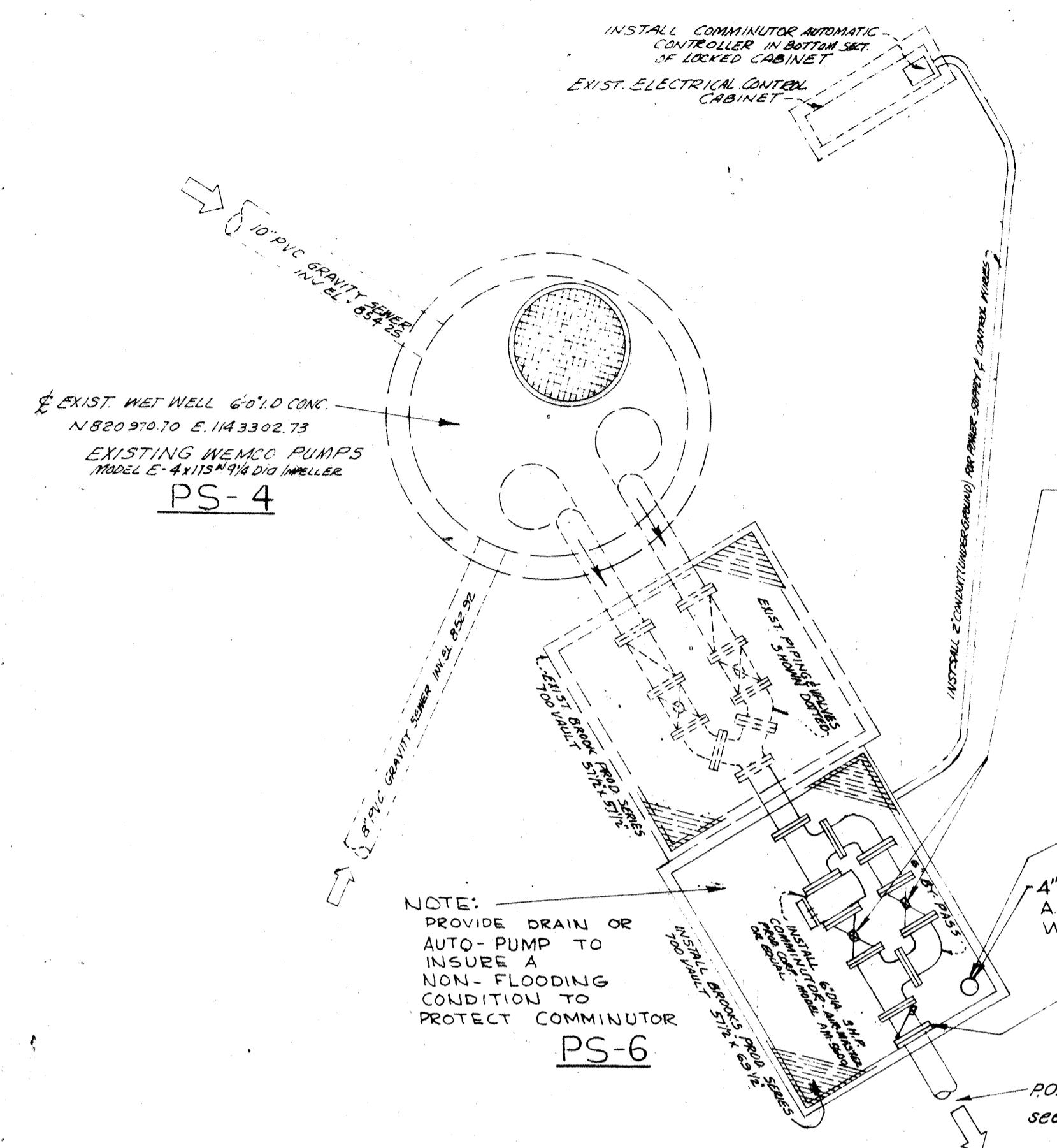
SAN LUIS ENGINEERING, INC.
132 BELLOGE
ARROYO GRANDE, CALIF 93420
PHONE 805/489-4343

HERITAGE RANCH
SEWAGE TREATMENT FACILITY
PLANT VOLUME CHART PUMP OPERATIONS

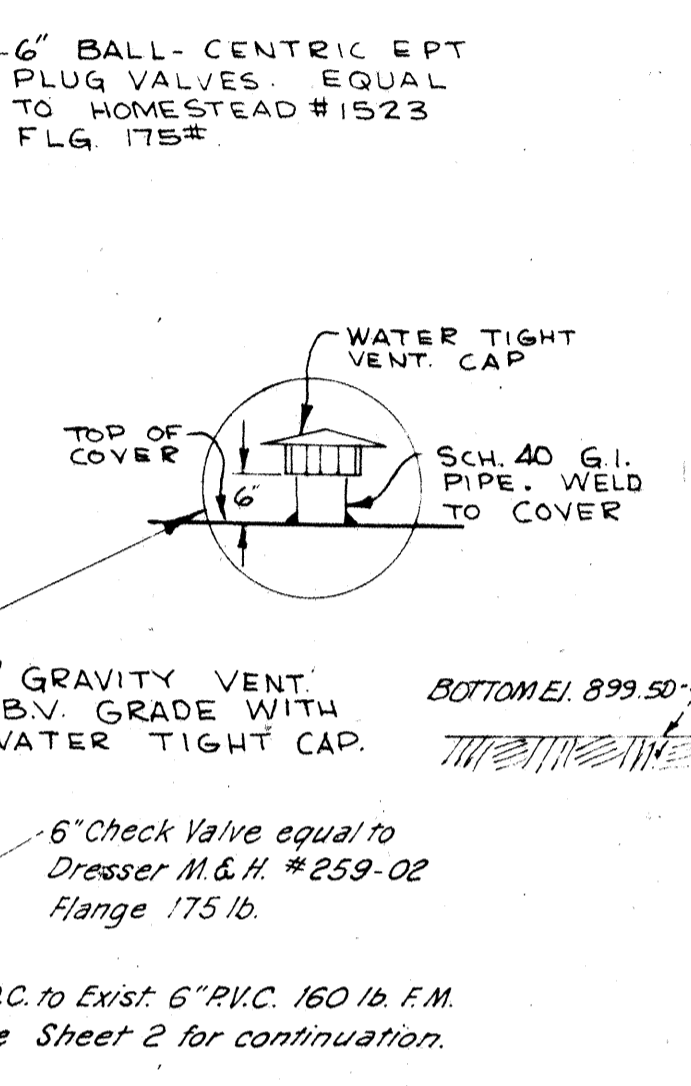
APPROVAL CERTIFICATES

DRAWN BY: [Signature] DATE: MAY 1978 SHEET # 8

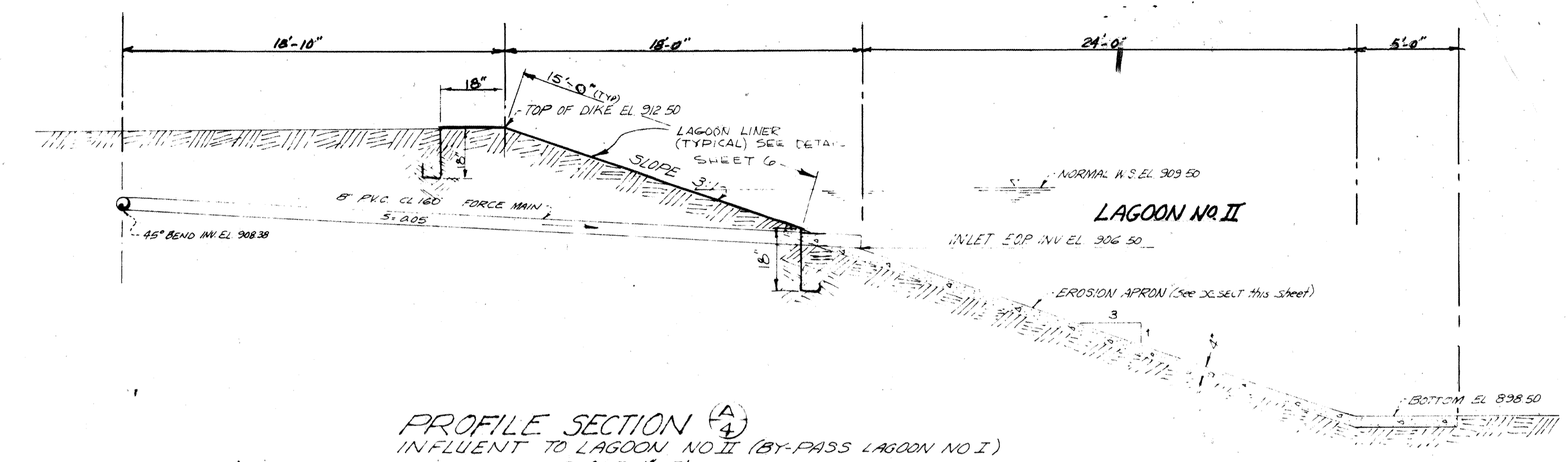
Engineer in Charge: J. P. Callow
Registered Civil Engineer



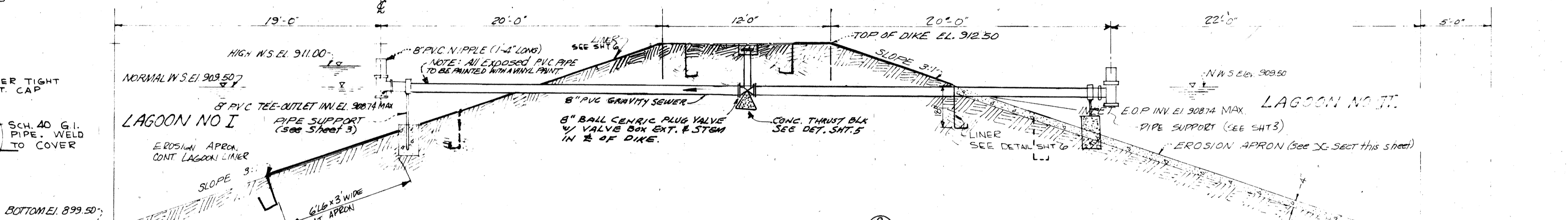
PLAN VIEW SEWAGE LIFT STATION NO 3
SCALE 3/8"=1'-0"



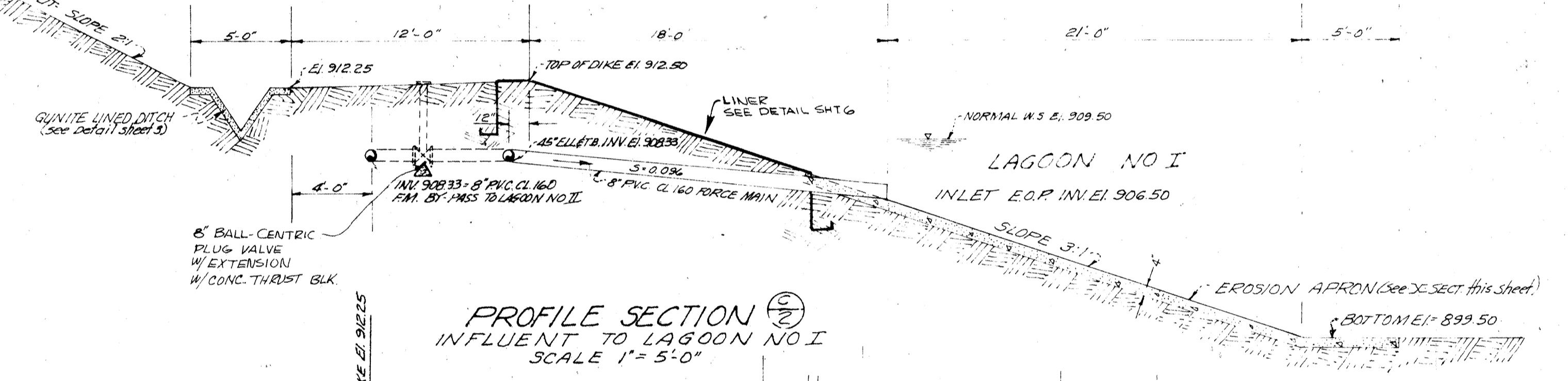
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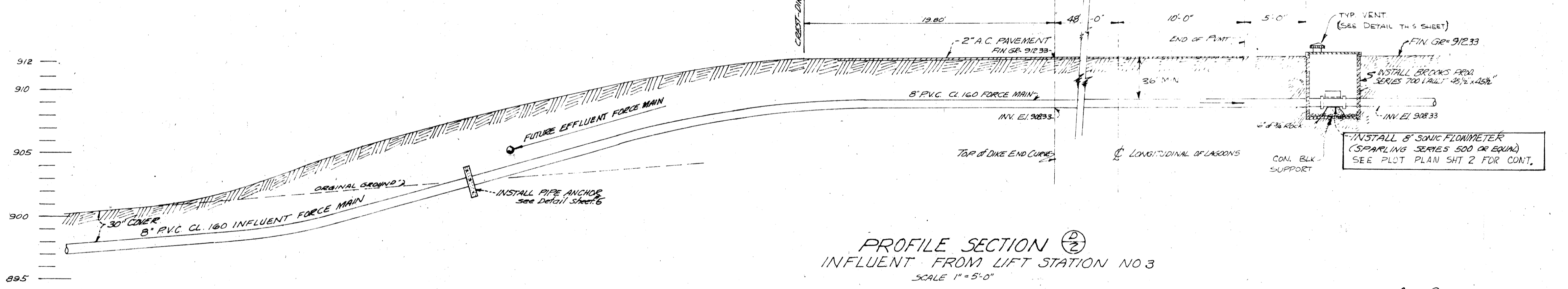
PROFILE SECTION (A)
INFLUENT TO LAGOON NO II (BY-PASS LAGOON NO I)
SCALE 1"=5'-0"



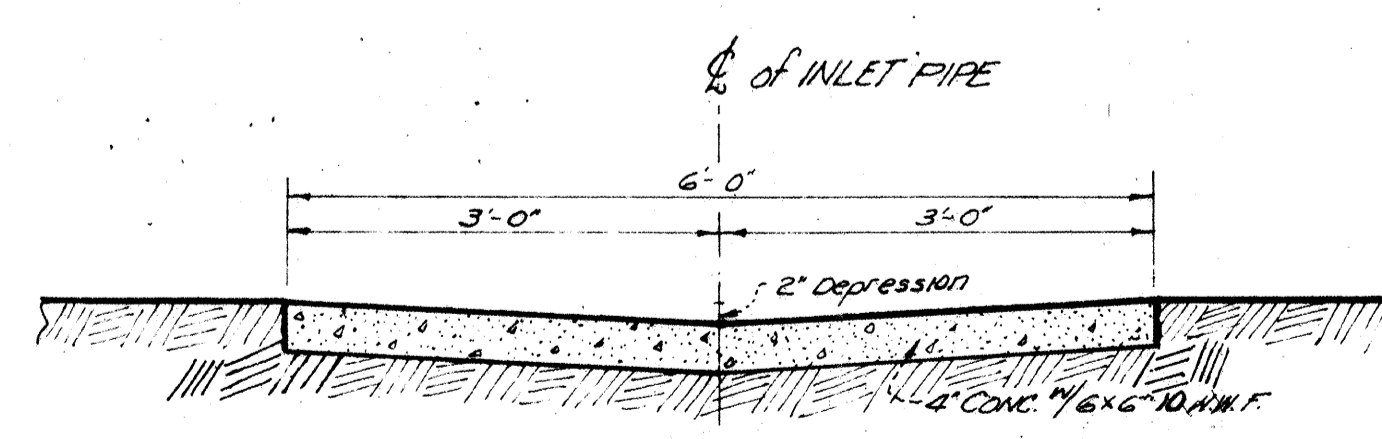
PROFILE SECTION (B)
INFLUENT TO LAGOON NO II FROM LAGOON NO I
SCALE 1"=5'-0"



PROFILE SECTION (C)
INFLUENT TO LAGOON NO I
SCALE 1"=5'-0"



PROFILE SECTION (D)
INFLUENT FROM LIFT STATION NO 3
SCALE 1"=5'-0"

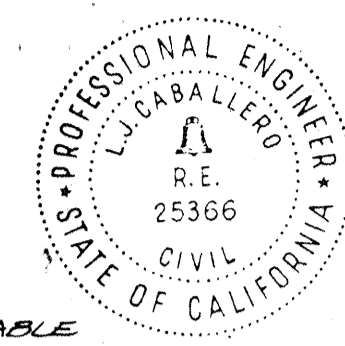


EROSION APRON
DETAIL "X"
SCALE 3/4"=1'-0"

Engineer in Responsible Charge
L. J. Caballero
L. J. Caballero RE 28366
Registered Civil Engineer

REVISED	DATE	BY	JOB # 2-372	SAN LUIS ENGINEERING, INC. P. O. Box 1127 Arroyo Grande, Calif 93420 Phone 805/489-4343
APPROVAL CERTIFICATES			HERITAGE RANCH SEWAGE TREATMENT FACILITY LAGOON I & II PROFILES, DETAILS OF LIFT STA. NO 3	
DRAWN BY	DATE	SHEET #	TOTAL	
D.W.	MAY 1978	4	8	

HORIZ SCALE: AS SHOWN
VERT SCALE: AS SHOWN



GENERAL NOTES

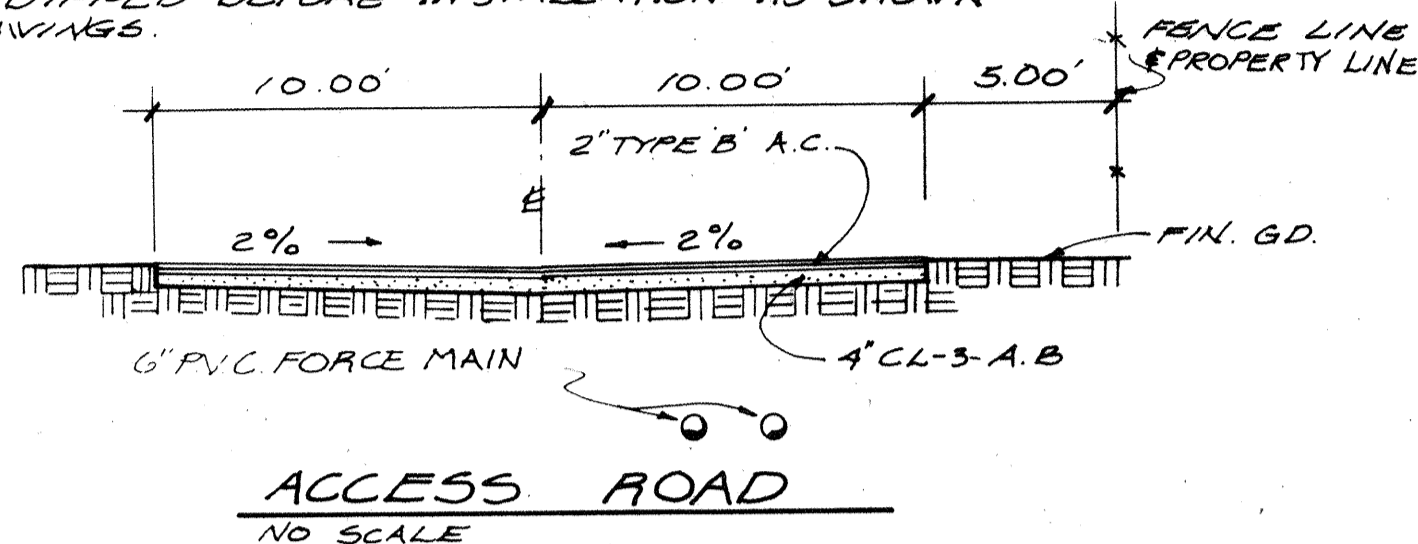
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THRUST BLOCK TABLE

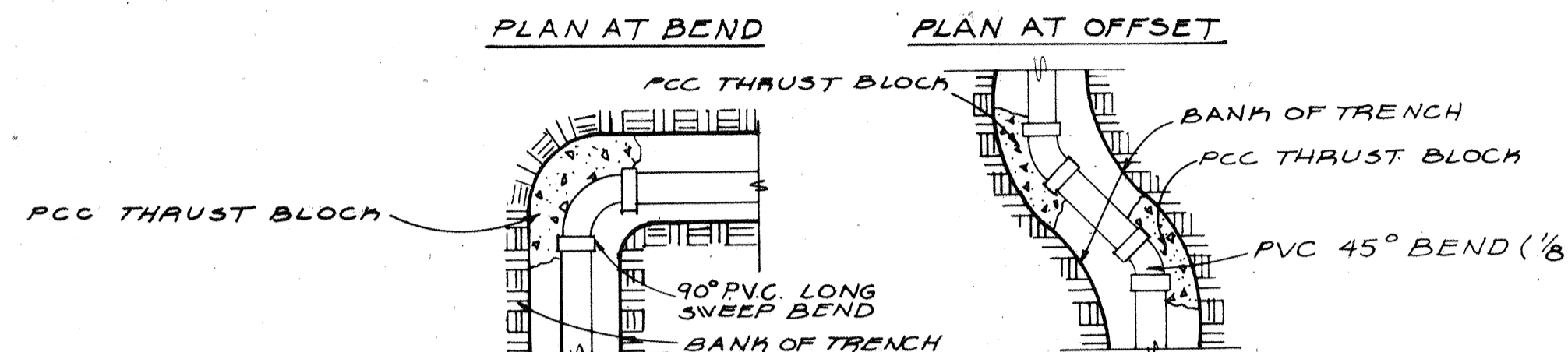
REQ'D BEARING AREA (SQ. FT.)

PIPE SIZE	TEE	90°	45°	22 1/2°
8" - 150	26.3	37.2	20.2	10.2
6" - 150	15.2	21.3	11.6	5.2

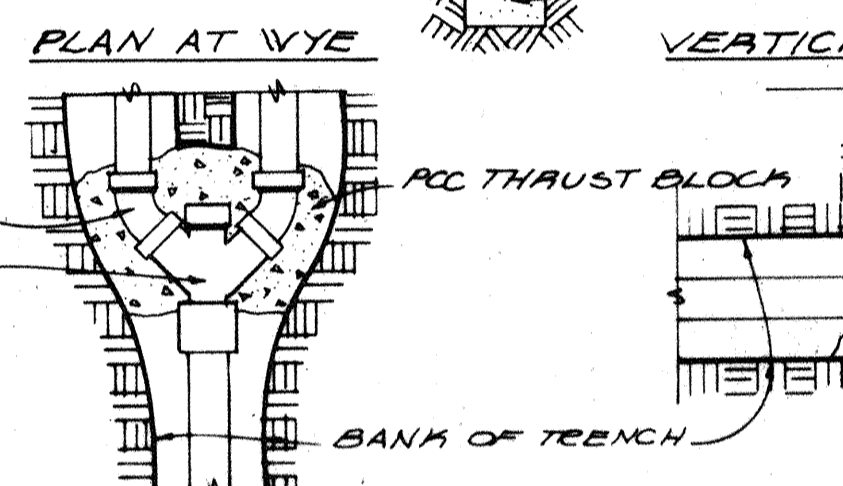
THRUST BLOCKS SHALL BE CLASS B P.C.C. POURED ON UNDISTURBED SOIL.



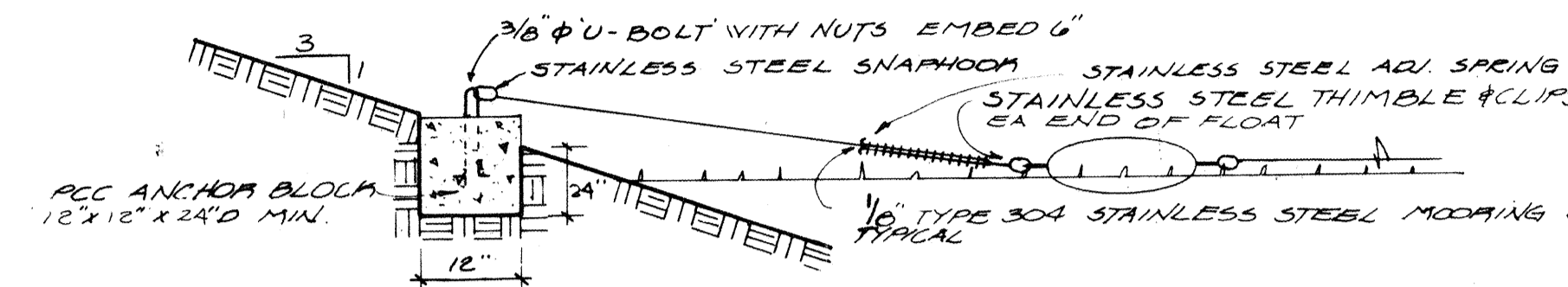
ACCESS ROAD
NO SCALE



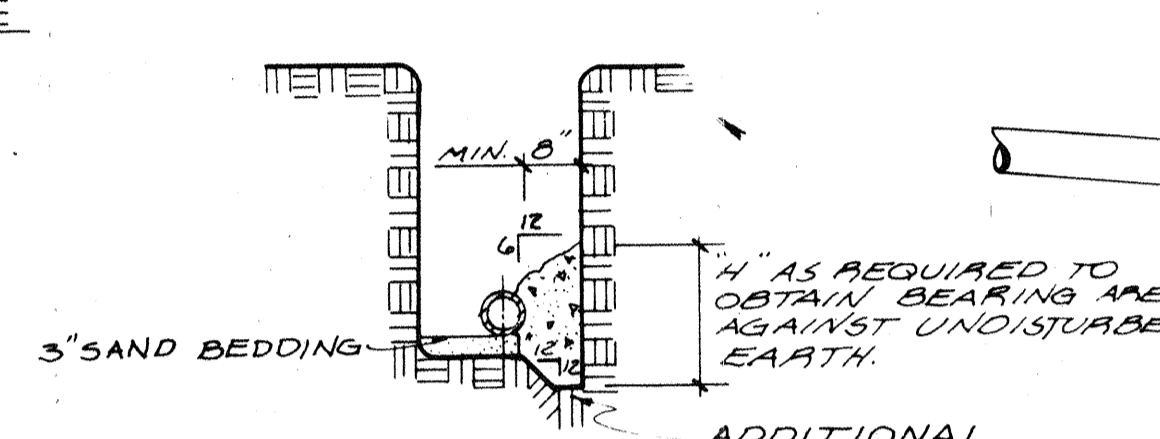
THRUST BLOCK DETAILS



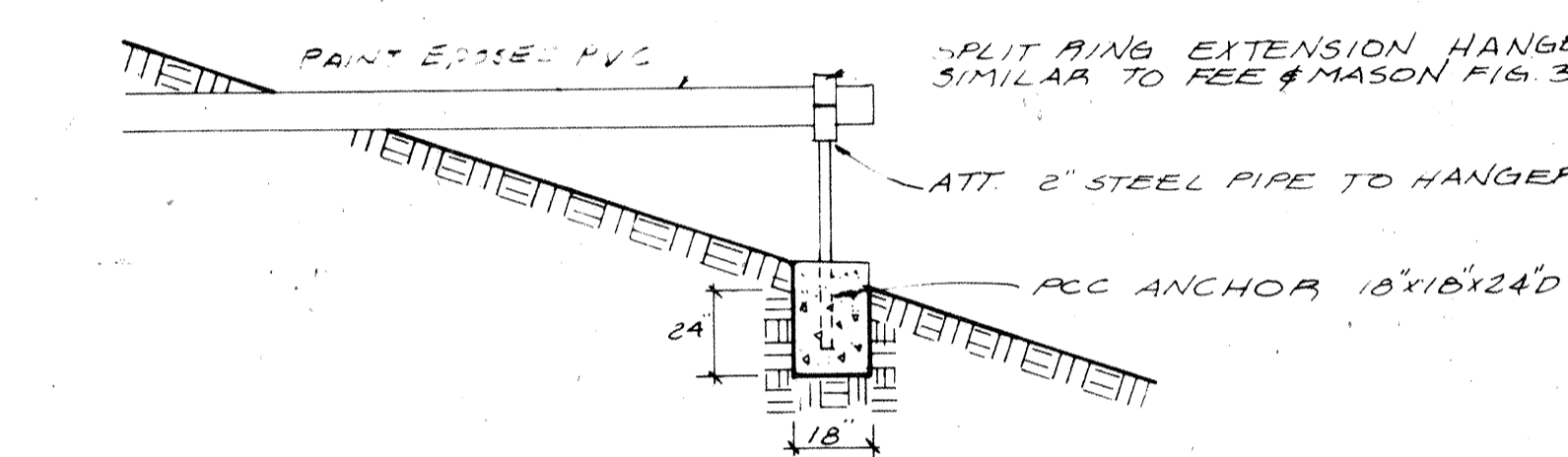
THRUST BLOCK DETAILS
NO SCALE - SEE TABLE ABOVE FOR REQ'D BEARING AREA



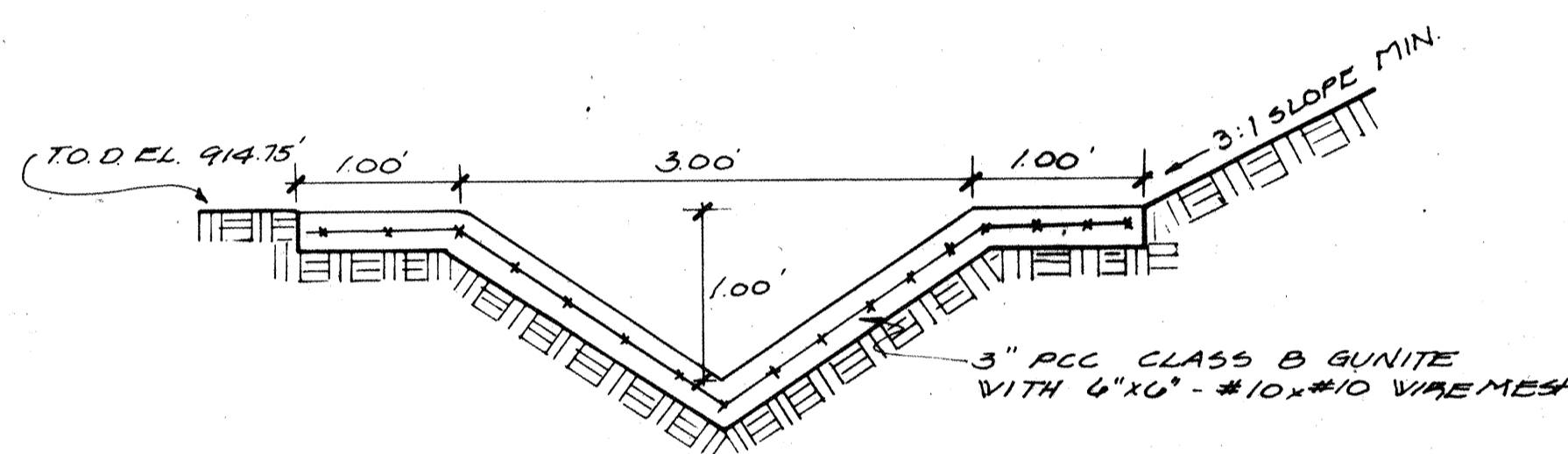
AERATOR ANCHORAGE
NO SCALE



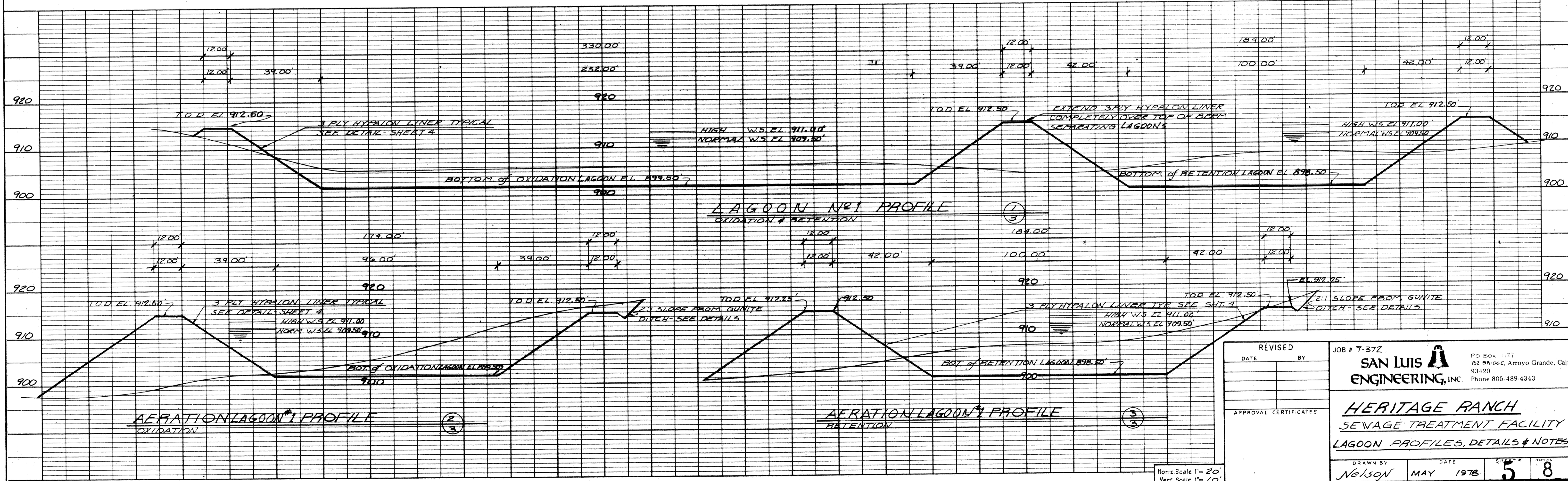
PIPE ANCHORS @ 25' O.C. MAX
NO SCALE



PIPE SUPPORT
NO SCALE



GUNITE DITCH
NO SCALE



LAGOON NO. 1 PROFILE
OXIDATION & RETENTION

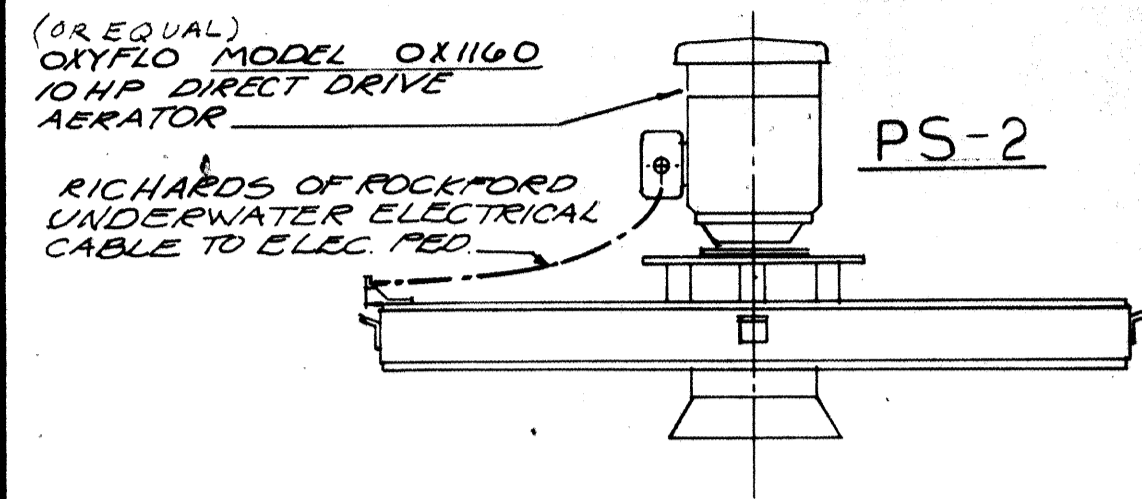
AERATION LAGOON #1 PROFILE
OXIDATION

AERATION LAGOON #1 PROFILE
RETENTION

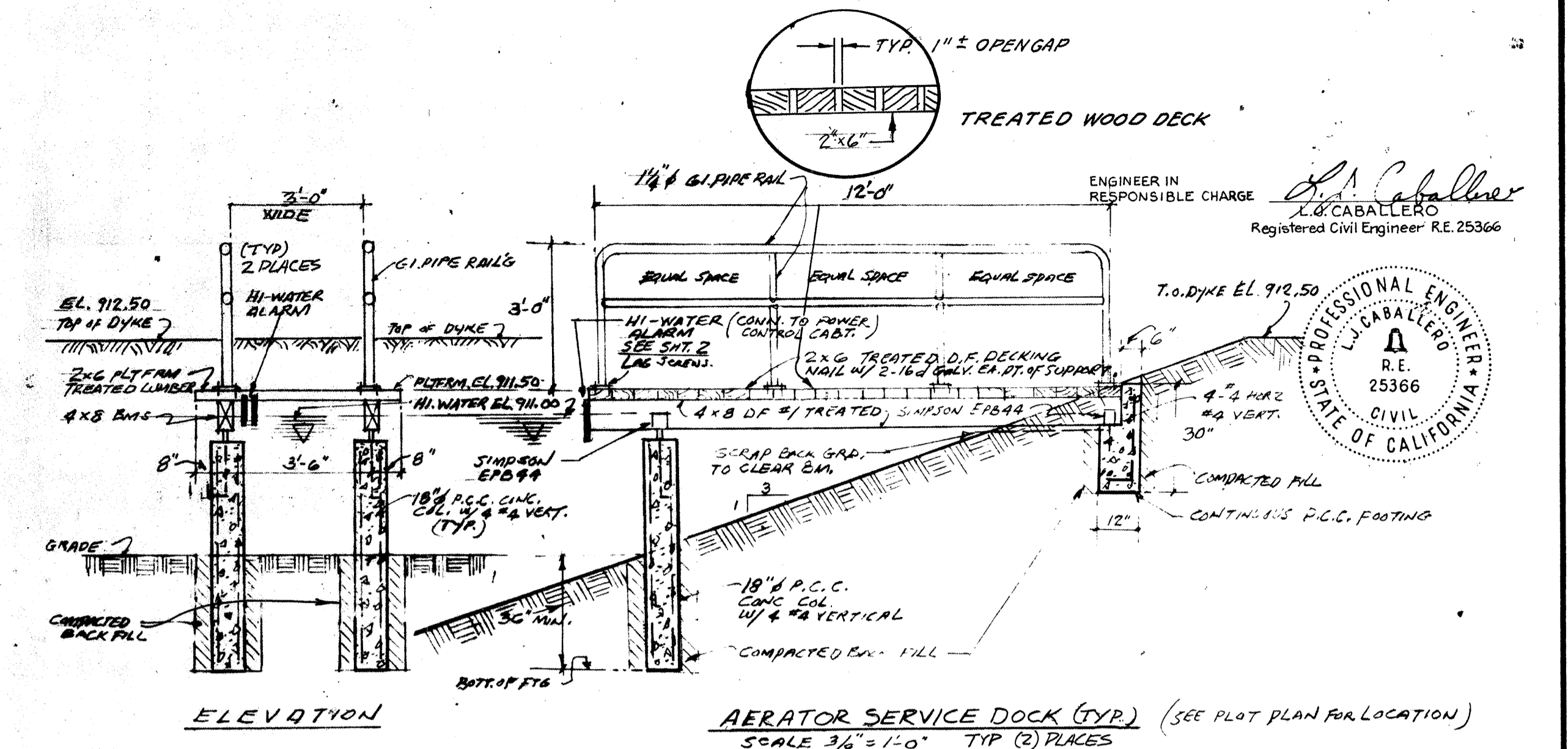
REVISED	DATE	BY	JOB # 7-372
<p>SAN LUIS ENGINEERING, INC.</p> <p>PO Box 1127 152 Alamo, Arroyo Grande, Calif. 93420 Phone 805 489-4343</p>			<p>HERITAGE RANCH</p> <p>SEWAGE TREATMENT FACILITY</p> <p>LAGOON PROFILES, DETAILS & NOTES</p>
APPROVAL CERTIFICATES	<p>DRAWN BY: Nelson</p> <p>DATE: MAY 1978</p> <p>SHEET # 5</p> <p>TOTAL 8</p>		<p>Horizontal Scale 1" = 20'</p> <p>Vertical Scale 1" = 10'</p>

DATE: _____ BY: _____
 PLAN NOTE BOOK NO. _____
 CHECKED: _____
 REVISIONS: _____

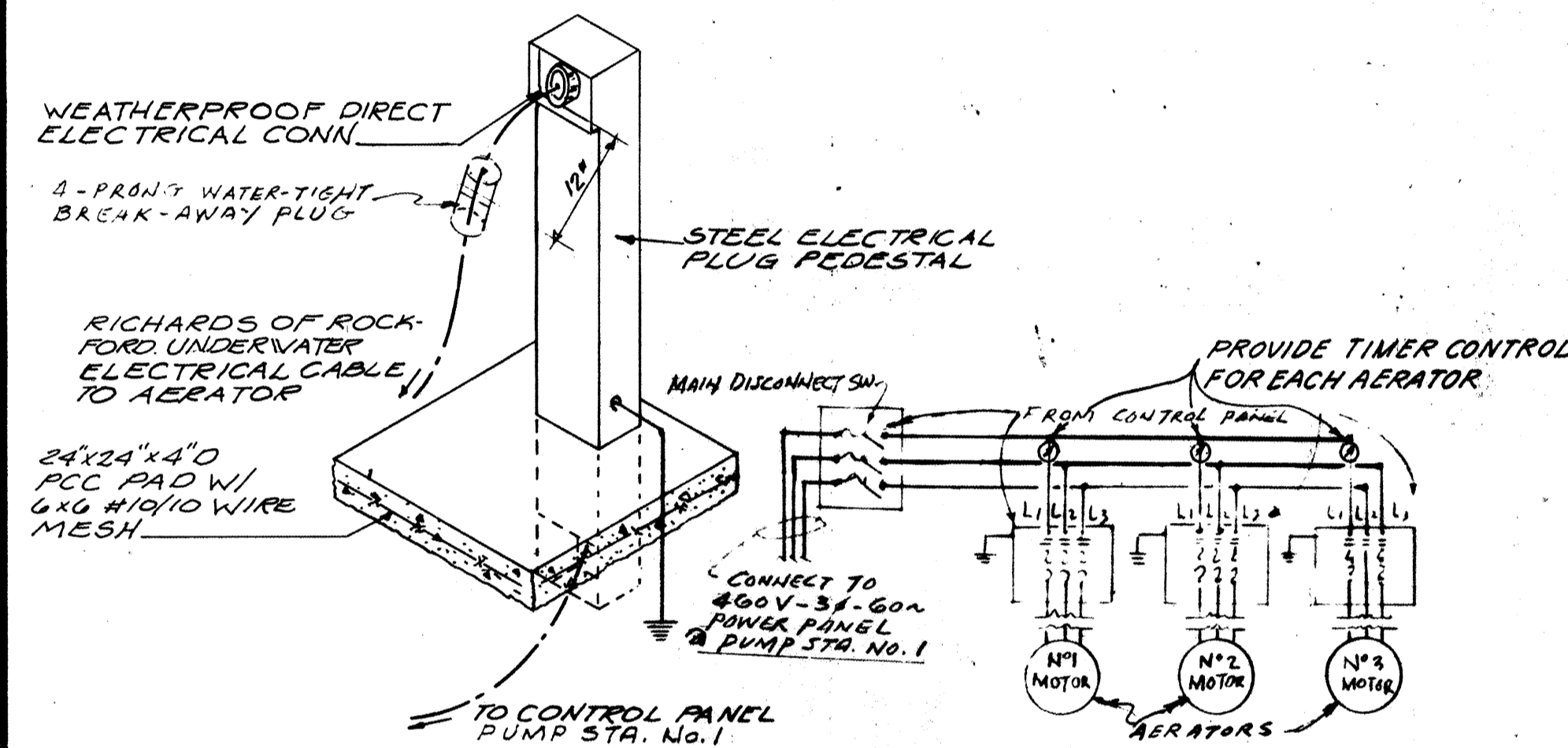
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 PROFILE NOTE BOOK NO. _____
 CHECKED: _____
 REVISIONS: _____



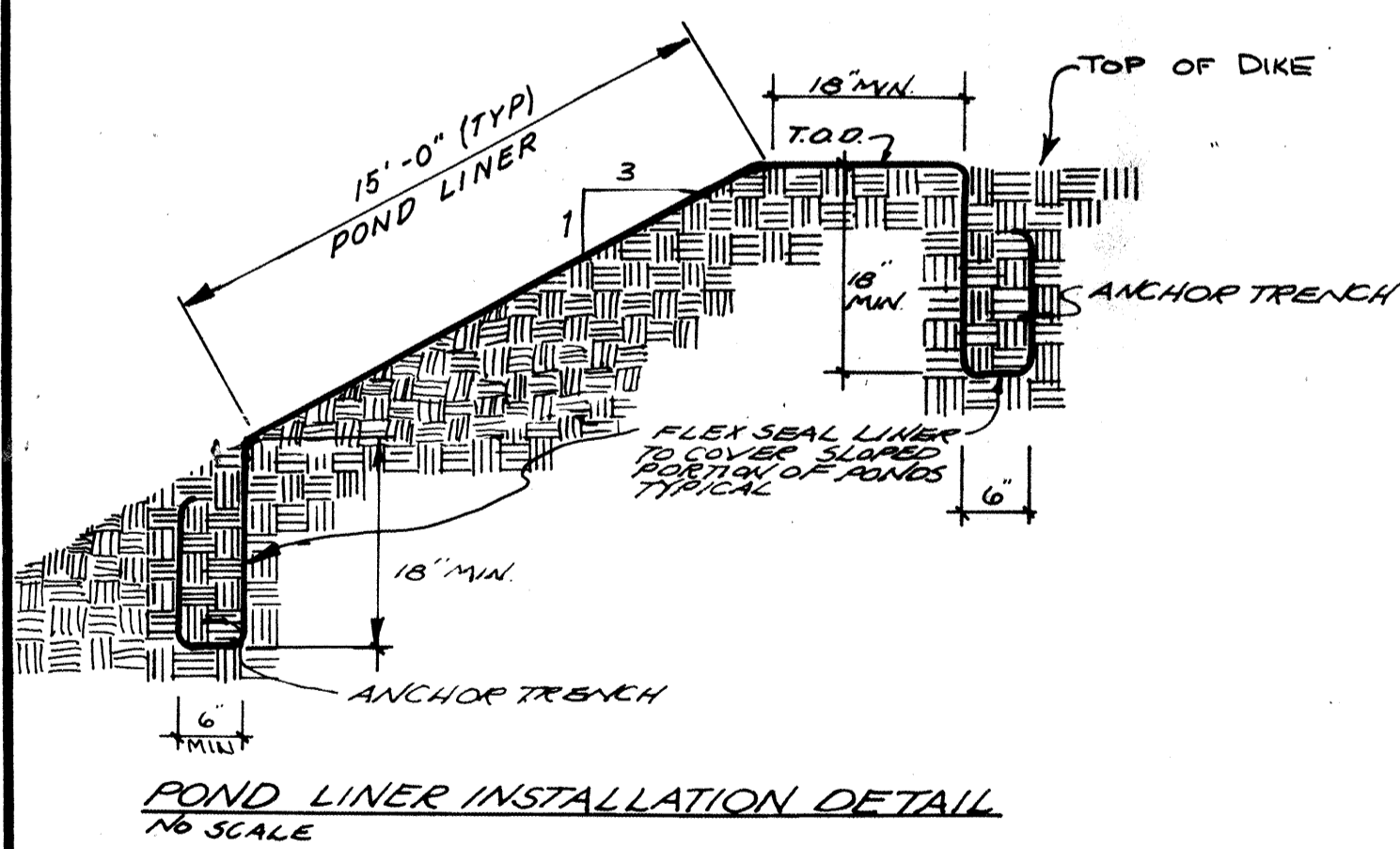
TYPICAL AERATOR DETAIL
NO SCALE



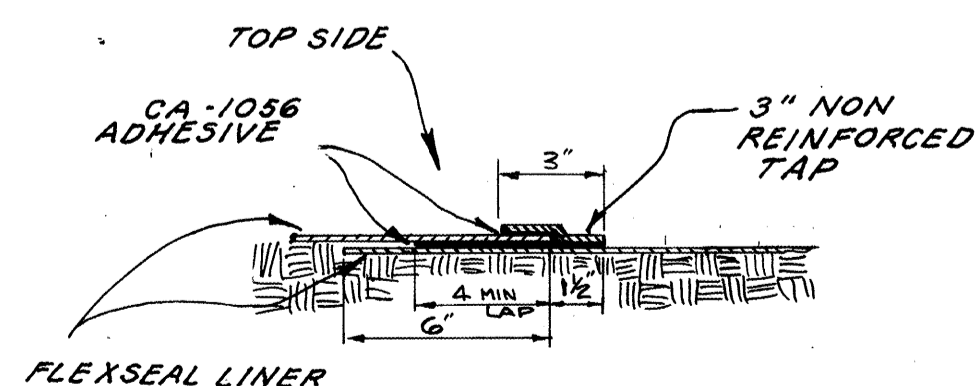
ELEVATION
AERATOR SERVICE DOCK (TYP.) (SEE PLOT PLAN FOR LOCATION)
SCALE 3/8" = 1'-0" TYP (2) PLACES



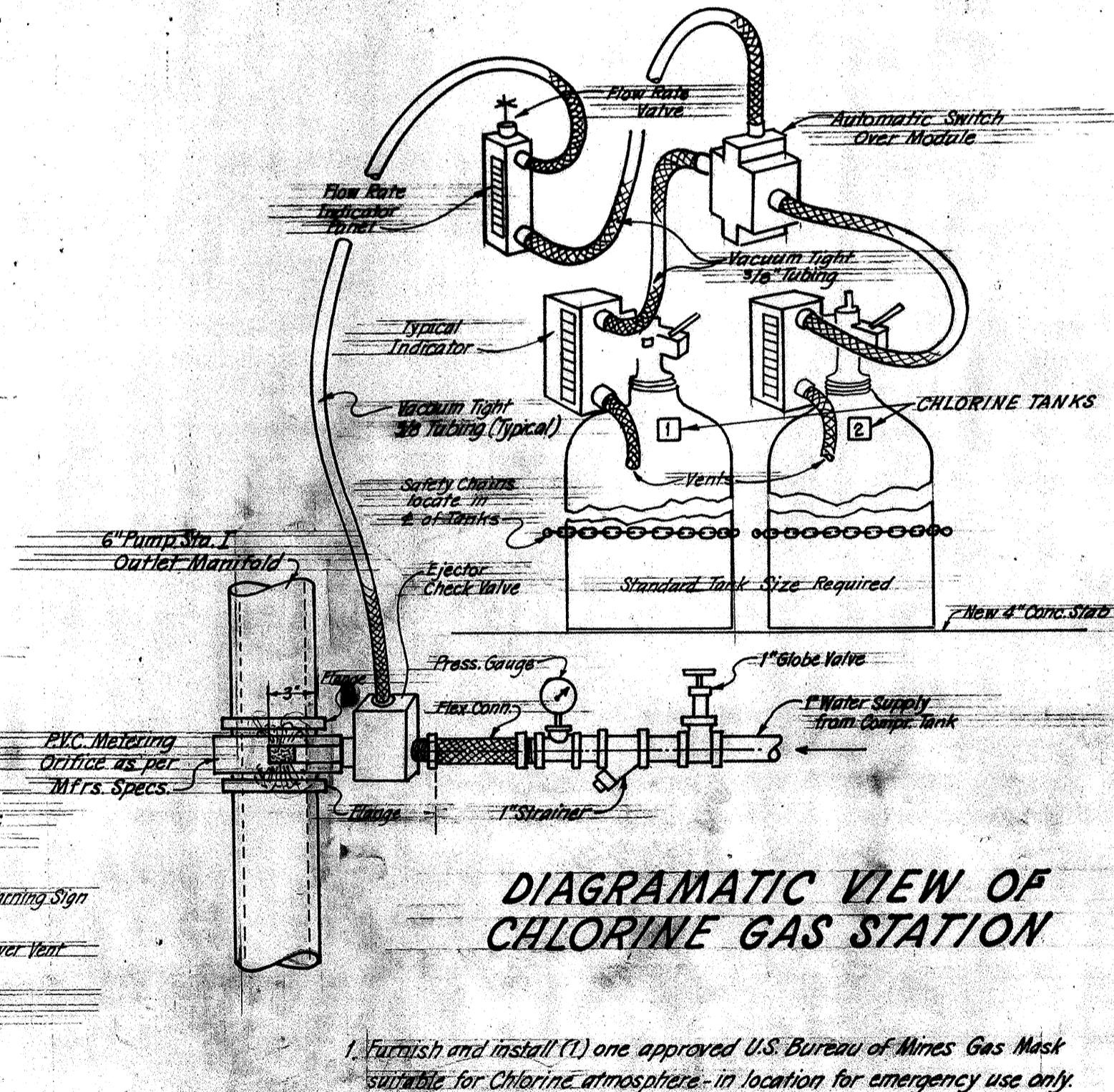
TYPICAL ELECTRICAL PEDESTAL
NO SCALE
TYP AERATOR INSTALLATION FROM CONTROL PANEL
NO SCALE



POND LINER INSTALLATION DETAIL
NO SCALE



FIELD SEAM DETAIL



DIAGRAMATIC VIEW OF
CHLORINE GAS STATION

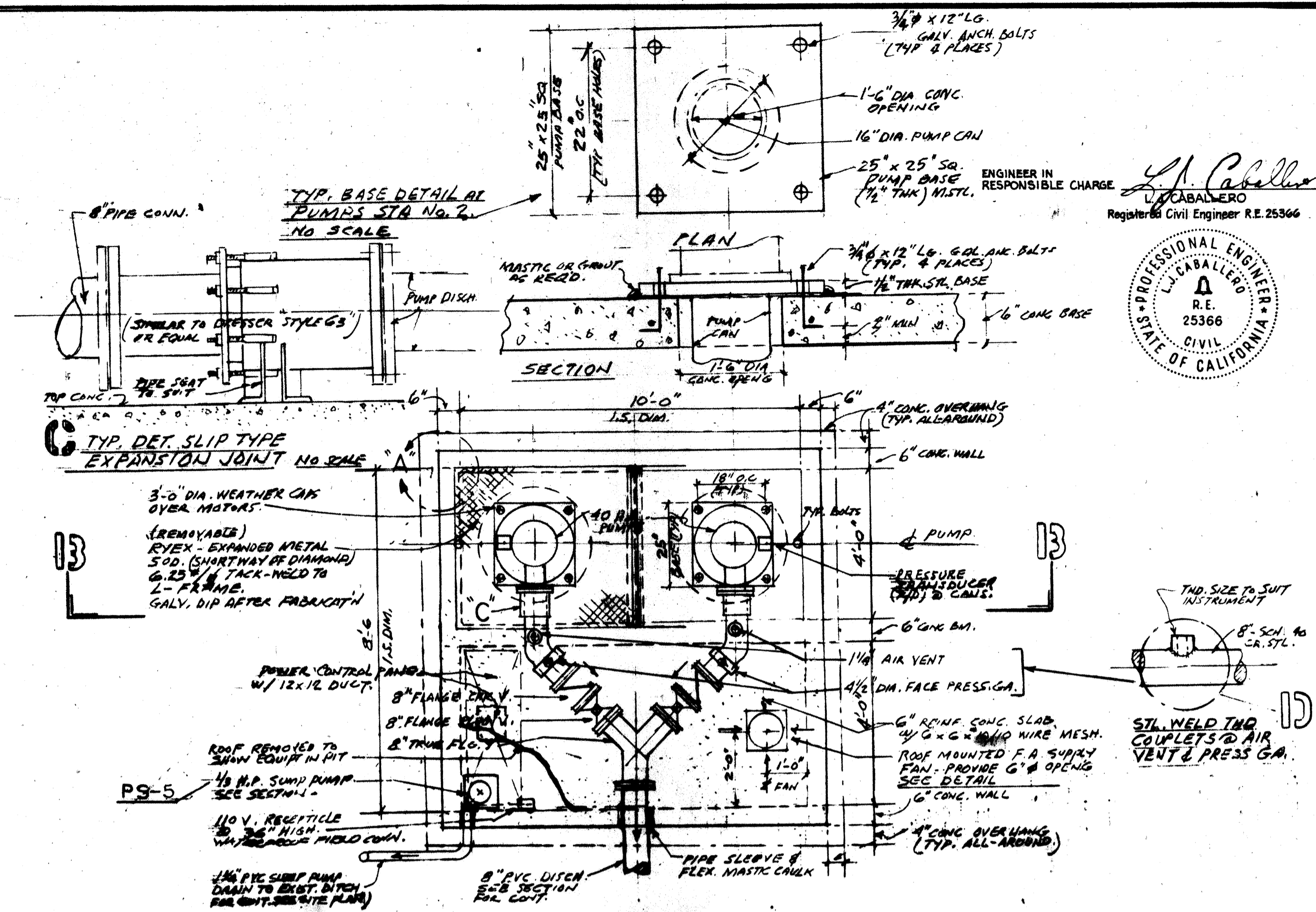
- 1. Furnish and install (1) one approved U.S. Bureau of Mines Gas Mask suitable for Chlorine atmosphere - in location for emergency use only.
- 2. Electric heater equal to Chromalox No. PHH-15-1700 BTU/Hr. 500 Watts 120V-19-20 with built in thermostat.
- 3. Chlorination (2) station vacuum operated equal to "Regal" Mod. 215 with auto switch over - gas type (2) cylinder sta as shown. Provide Calorimeter - Cl test kit - gravity roof exhaust - install 12x12 louvre door vent. Std. 2'6" wood door with 12x16" clear plastic gl area and corrosive proof security lock and hardware. Install Cl Gas Mask in pump room.

DESIGN	MAKE	MODEL	TYPE	LOCATION	SERVICE	GPM	T.D.H. FT.	RPM	HP	POWER V	CV	WT LBS	REMARKS
PS-1	JOHNSTON PUMP (2) REED	8 ES	VERTICAL TURBINE CAN TYPE	PUMP STA. No. 2	EFFLUENT PUMPING	450	280	1750	40	460	3	60	1300 # TO DISPOSAL FIELD
PS-2	RICHARDS OF ROCKFORD INC.	OKYFLO	FLOATING AREATORS	OXIDATION & METABOLISM LAGOONS	AEREATION	4450		1745	10	460	3	60	480 # TIME CONTROL FOR OPERATION OF POND
PS-3	JOHNSTON PUMP (2) REED	8 AC	VERTICAL TURBINE	PUMP STA I BETWEEN LAGOONS & STILL	EFFLUENT PUMPING	175	345	1800	25	460	3	60	120 # MODIFY EXIST PUMPS TO SUIT NEW WETWELL
PS-4	WEMCO PUMPS	11 S	SUB-MERSIBLE	EXISTING M.H. STA #3	SEWAGE PUMP TO NEW LAGOON	450	81	1750	20	460	3	60	208 # MODIFICATION OF PIPING & CONTROLS
PS-5	PEABODY - BARBER OR EWB	SSB31D	SUB-MERSIBLE	PUMP ENCLOSURE STA. II	PUMP COMP. PUMP - OUT	517	5		1/3	110	1/4	60	25 # COMPLETE W/ SOLID STATE SW & TIE-IN BAR
PS-6	AIR MASTER PRODUCTS CO. (PENDING)	AM5600	MOTOR BELT-DRIVE	EXISTING M.H. PUMP STA. No. 3	SEWAGE DISINTEGRATOR TO LAGOON	800	4	1200	3	460	3	60	270 # COMPLETE W/ CONTROLLER & REVERSE SW

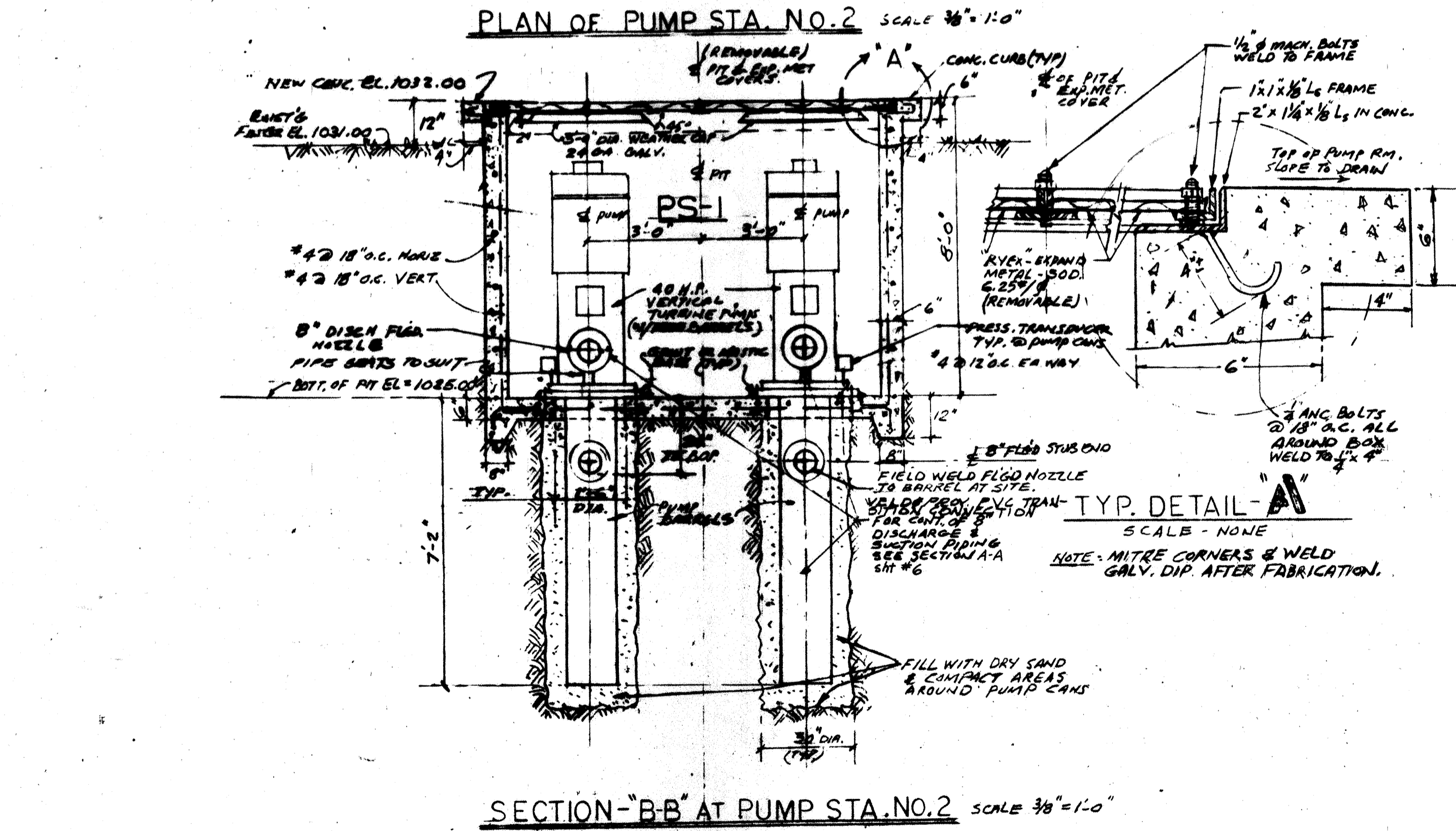
GENERAL NOTES

- 1. ALL CONSTRUCTION WORK AND INSTALLATIONS SHALL CONFORM TO THE COUNTY OF SAN LUIS OBISPO STANDARDS AND SPECIFICATIONS. ANY CHANGES SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY.
- 2. THE SAN LUIS OBISPO COUNTY ENGINEERING DEPARTMENT SHALL BE GIVEN 24 HOURS NOTICE PRIOR TO ANY WORK.
- 3. SEWER TO HAVE A MINIMUM OF 30" COVER IN OFF STREET LOCATIONS AND A MINIMUM OF 36" COVER IN STREETS.
- 4. ALL METAL SPECIFIED OR FABRICATED SHOWN ON PLANS TO BE GALV. DIPPED BEFORE INSTALLATION AS SHOWN ON THE DRAWINGS.

REVISED		DATE BY		JOB # 7-372	SAN LUIS ENGINEERING, INC.	P. O. Box 1127 182 BRIDGE, Arroyo Grande, Calif. 93420 Phone 805 / 489-4343
APPROVAL CERTIFICATES		DRAWN BY Nelson				



ENGINEER IN CHARGE
L. Caballero
L. CABALLERO
REGISTERED CIVIL ENGINEER R.E. 25366
PROFESSIONAL ENGINEER
R.E. 25366
CIVIL
STATE OF CALIFORNIA



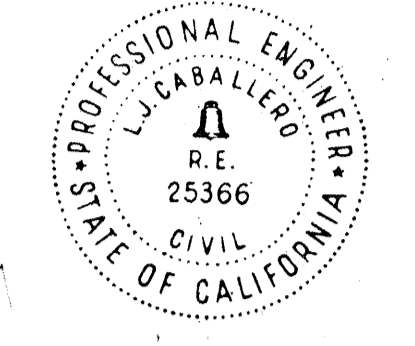
- GENERAL NOTES**
1. ALL CONSTRUCTION WORK & INSTALLATIONS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF SANITARY SEWERAGE SYSTEMS & TREATMENT PLANTS. ALL CONTRACTORS SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY.
 2. THE COUNTY ENGINEERING DEPARTMENT SHALL BE ADVISED IN WRITING PRIOR TO ANY WORK.
 3. COVER TO PIPE A MINIMUM OF 30" COVER IN ARE STREET TREATMENT PLANTS & 36" COVER AT STREETS.
 4. ALL ITEMS SPECIFIED OR FABRICATED SHOWN ON PLANS SHALL BE FIELD WELDED UNLESS OTHERWISE SPECIFIED AS SHOWN ON THE DRAWINGS.
 5. ALL SHUT-OFF VALVES SHOWN SHALL BE PLUG TYPE AS SPEC.
 6. PIPING ABOVE GRADE TO BE CR. STL. SCH. 40 1/2" FLGS. AS SPEC. PIPING BELOW GRADE TO BE PVC. CLASS 160" AS SPEC.

SCALE AS NOTED.

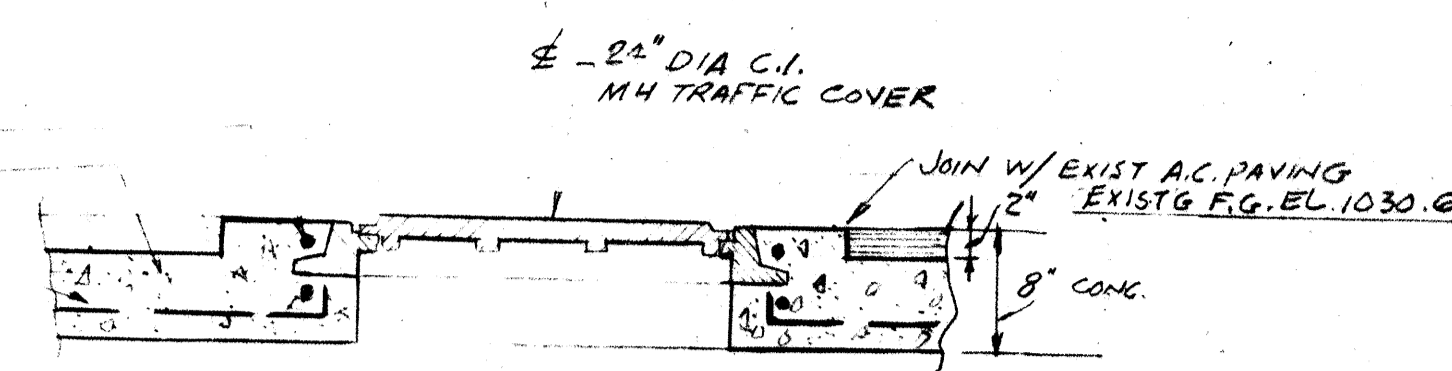
REVISED		DATE	BY
DATE	BY		

APPROVAL CERTIFICATES:

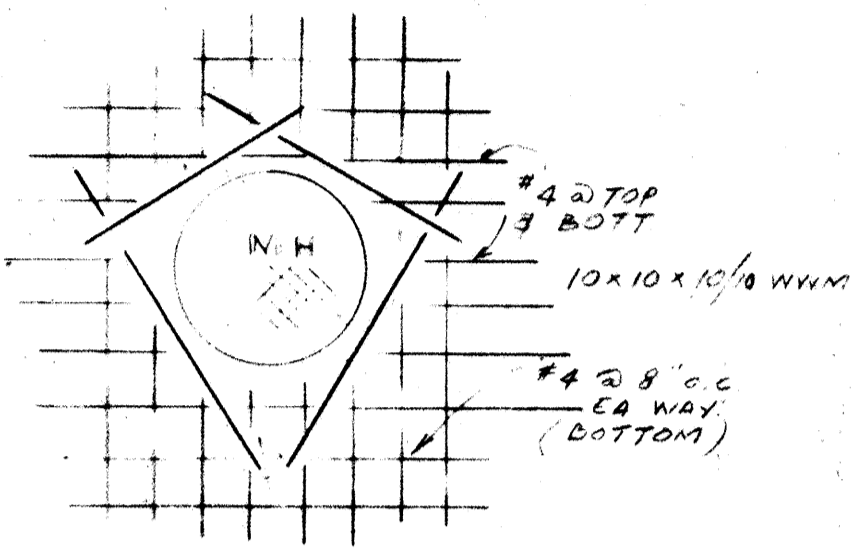
JOB # 7-372			
SAN LUIS ENGINEERING, INC.			
P. O. Box 1127 132 Bridge Arroyo Grande, Calif. 93420		Phone 805 / 489-4343	
HERITAGE RANCH			
SEWAGE TREATMENT FACILITY			
PUMP STATION NO. 1 & NO. 2 DETAILS			
DRAWN BY M.A.C.	DATE MAY 1978	SHEET 7	TOTAL 8



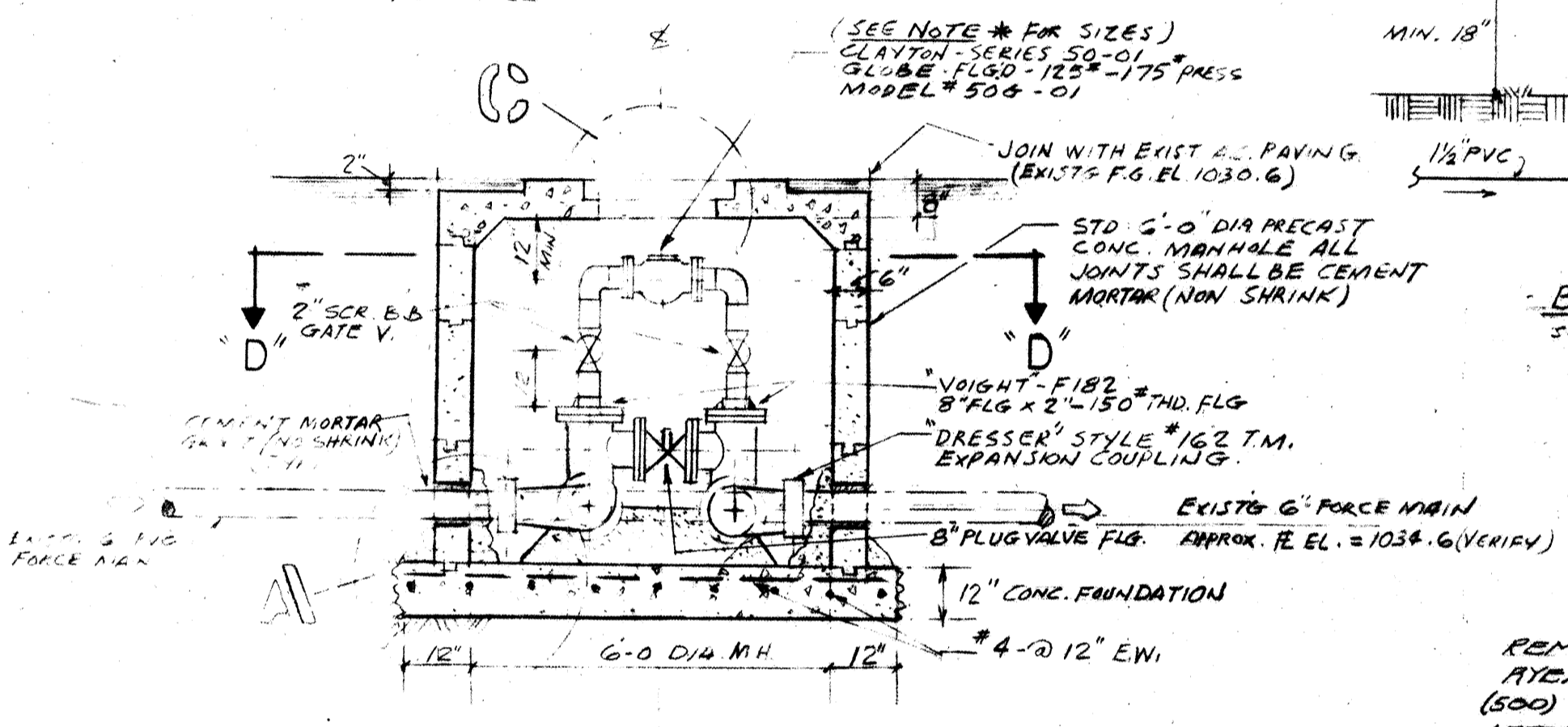
ENGINEER IN CHARGE
L. Caballero
Registered Civil Engineer R.E. 25366



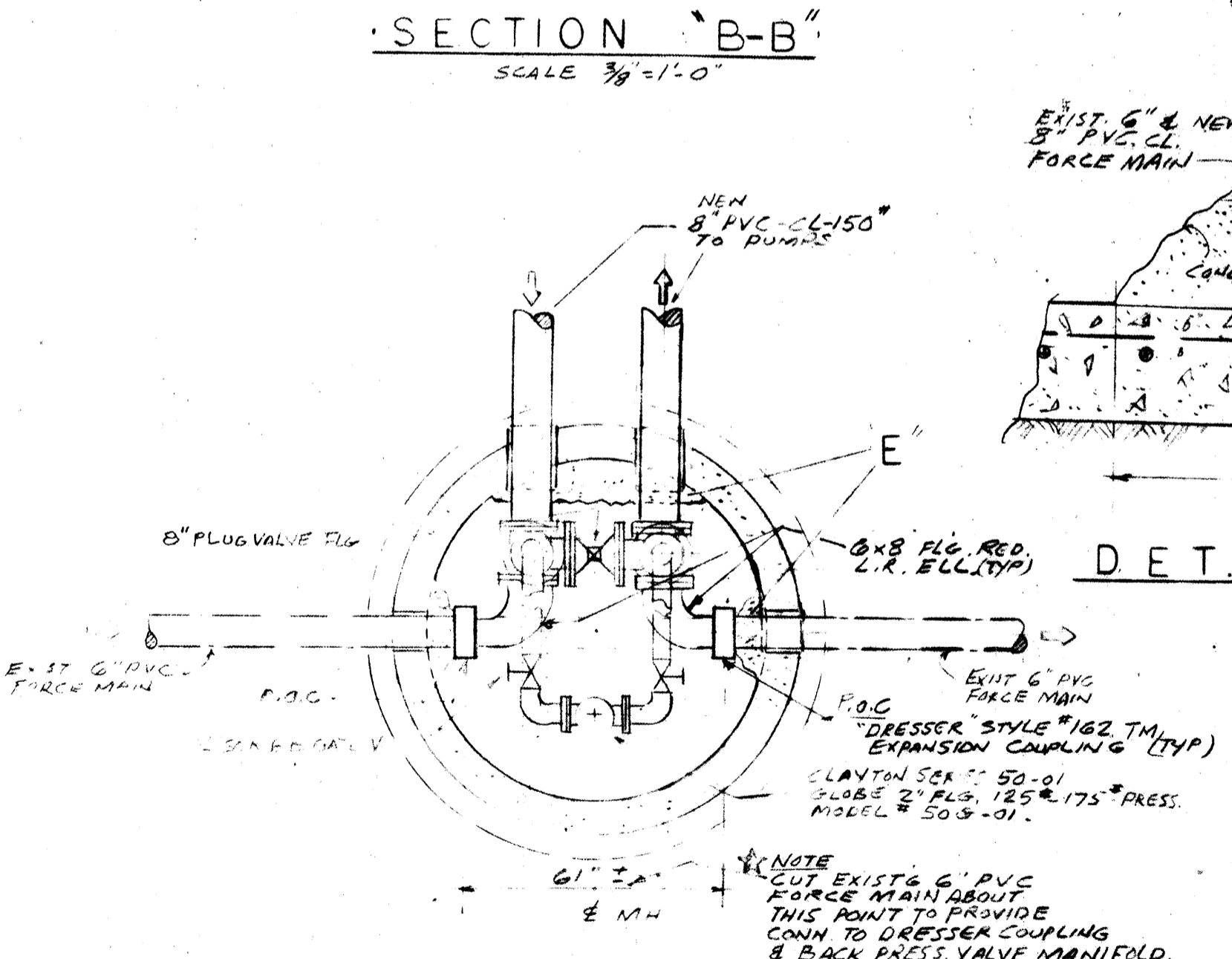
DET. C TYP. MH COVER
SCALE NONE



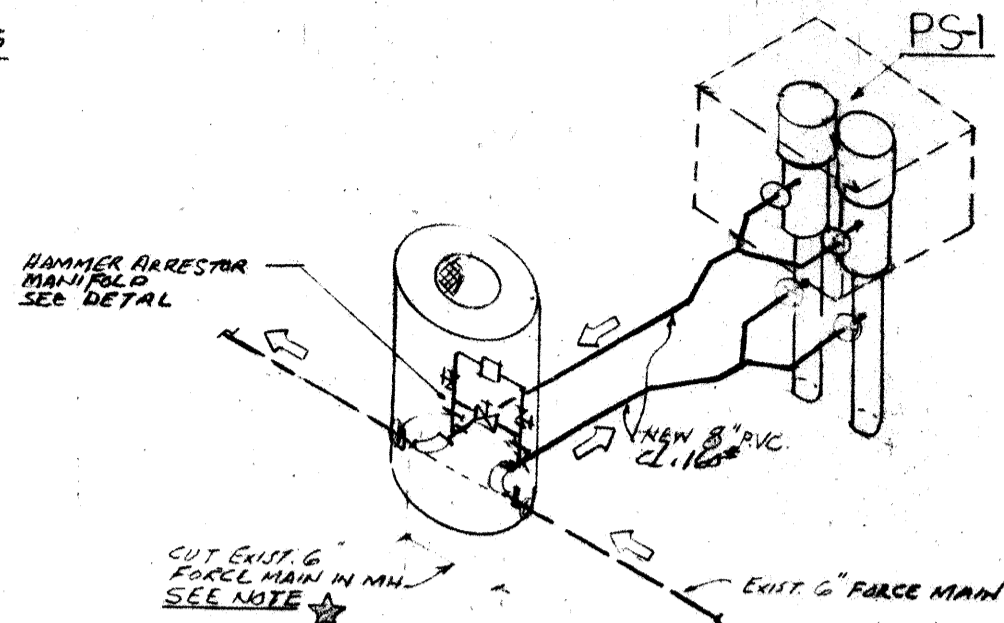
TYP. PLAN CONC. STL @ M.H.
NO SCALE



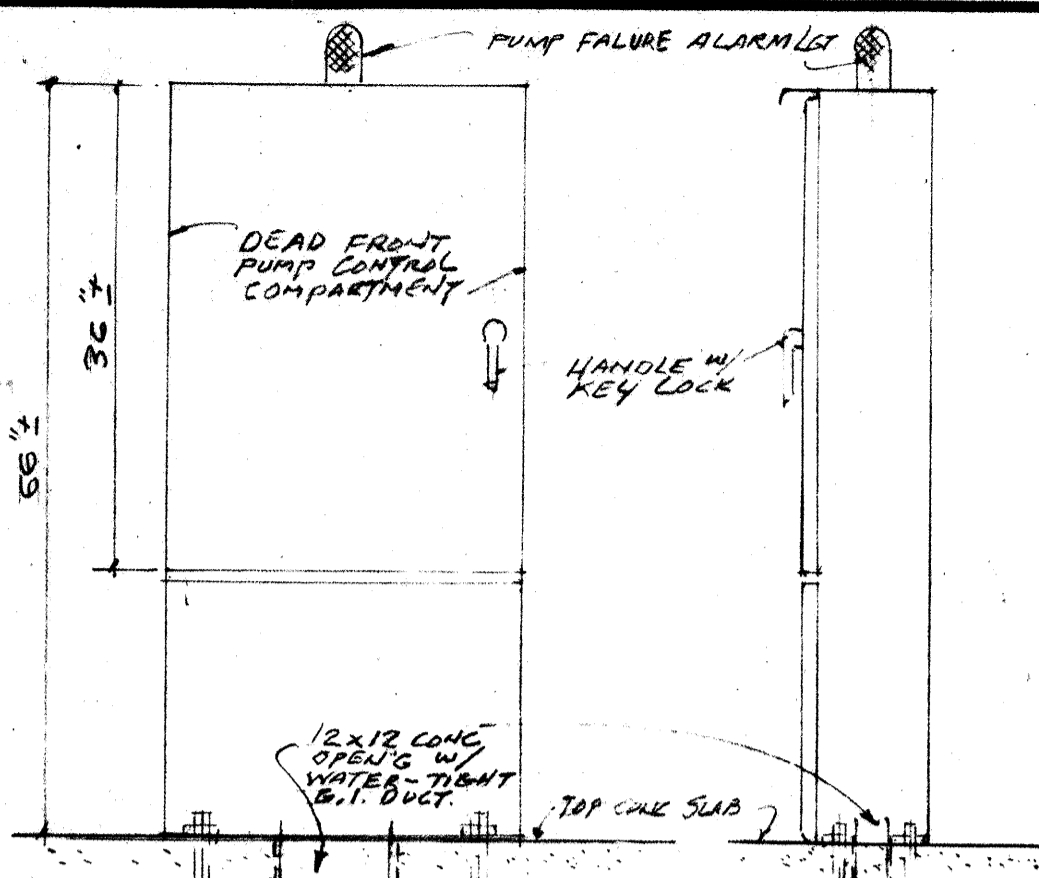
SECTION 'B-B'
SCALE 3/8" = 1'-0"



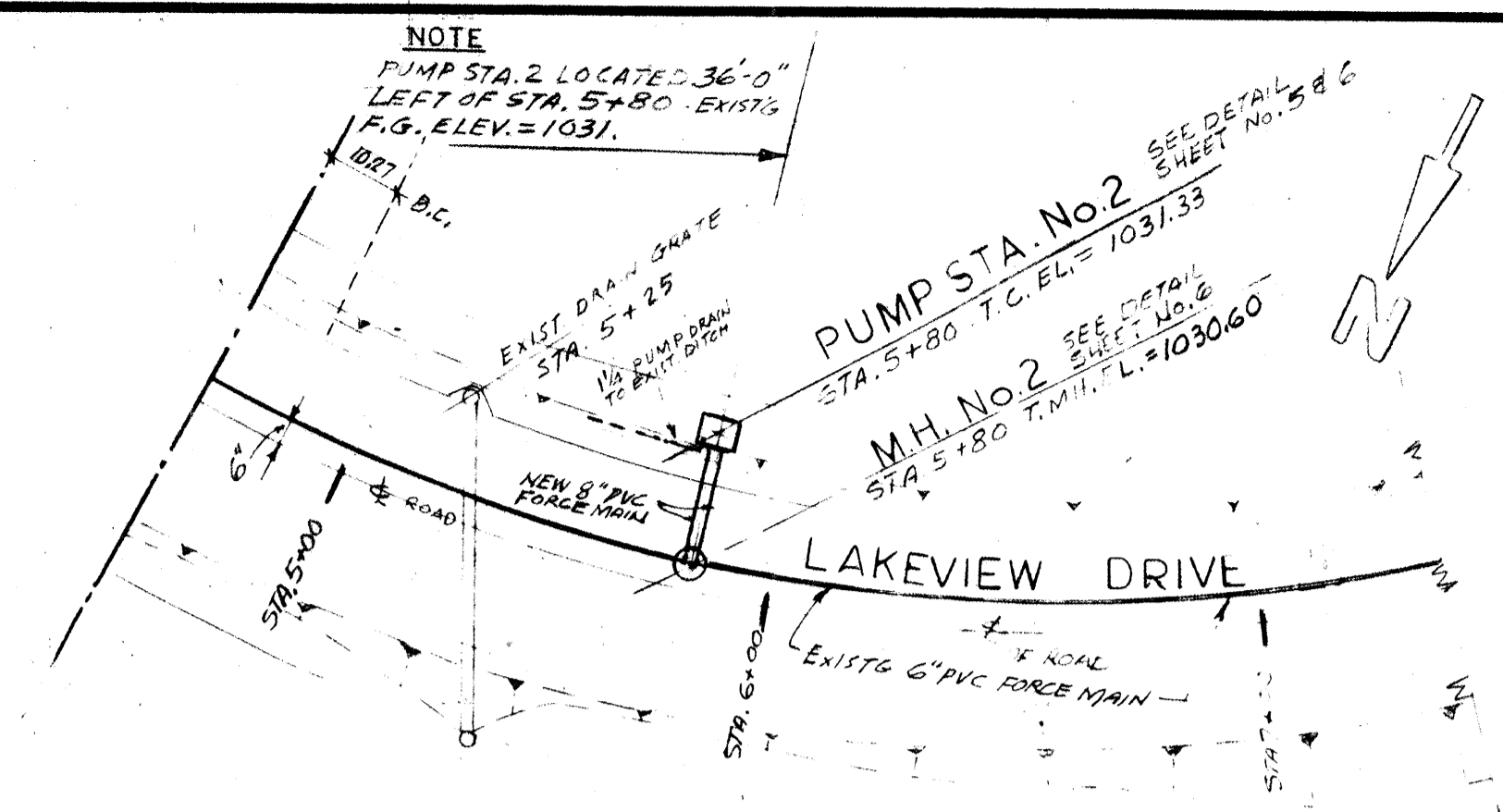
PLAN AT 'D-D'
SCALE 3/8" = 1'-0"
M.H. @ PUMP STATION NO. 2 (P.O.C.)



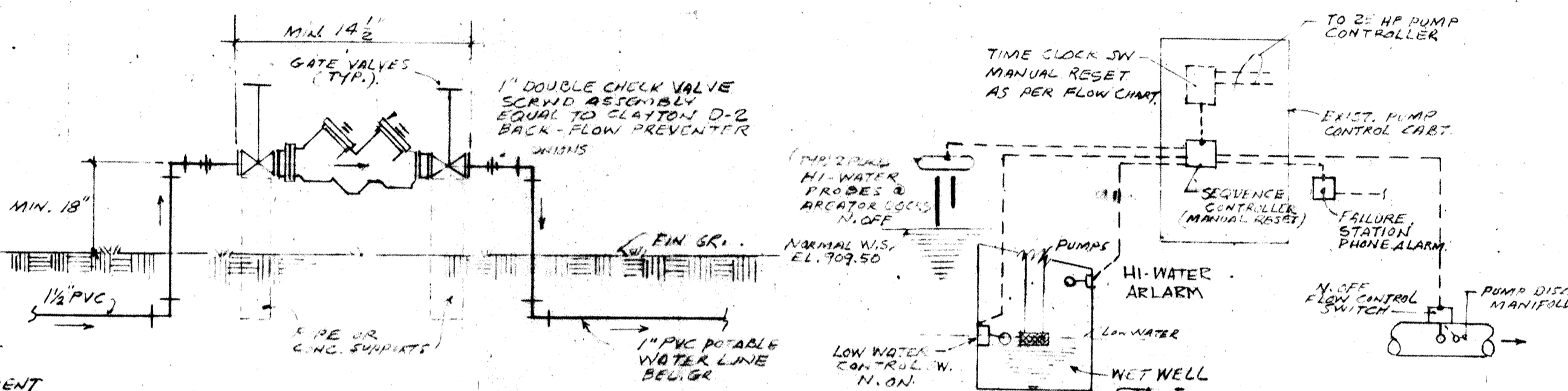
ISOMETRIC VIEW OF NEW PUMP STA. 2 AND NEW M.H. CONN. TO EXIST. FORCE MAIN.
SCALE NONE



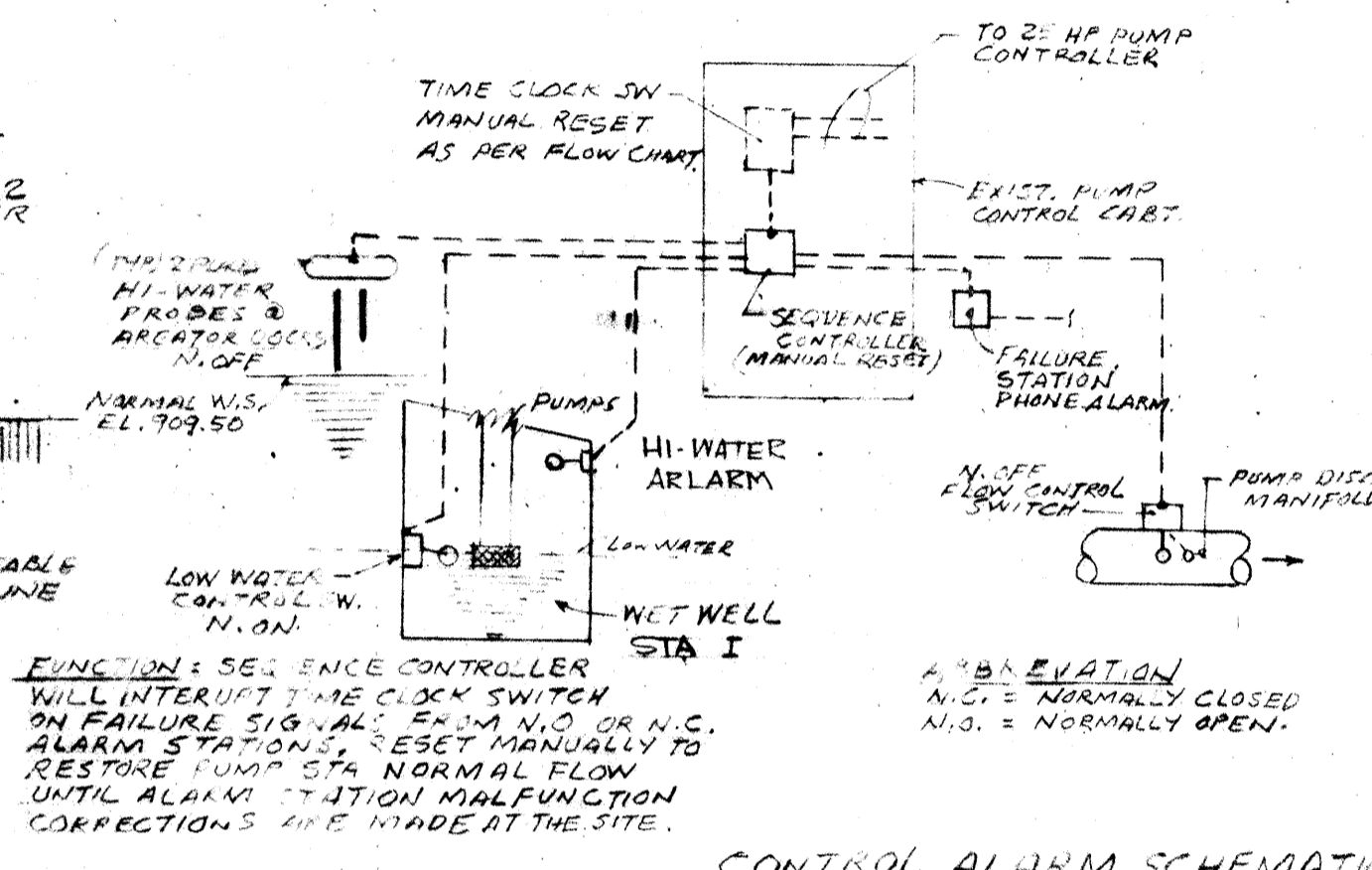
FRONT ELEV. CONTROL PANEL (TYP) FOR PUMP STA. NO. 2
NO SCALE



PART. SITE PLAN. SCALE 1/4" = 40'
PUMP STA. NO. 2



BACK FLOW PREVENTER ASSEMBLY
SCALE NONE



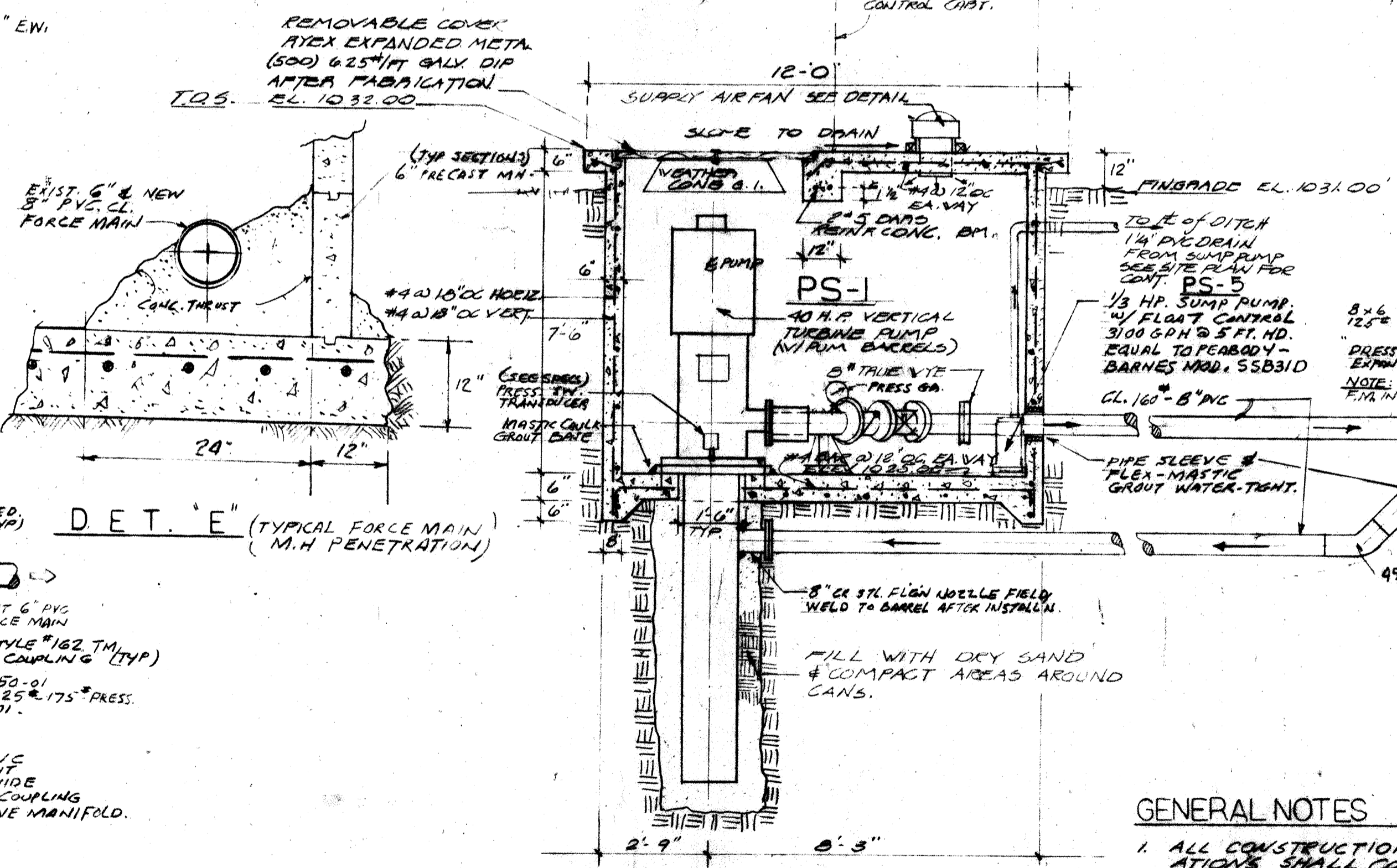
CONTROL ALARM SCHEMATIC DIAGRAM
SCALE NONE

METHOD OF OPERATION PUMP STA. 1 & 2

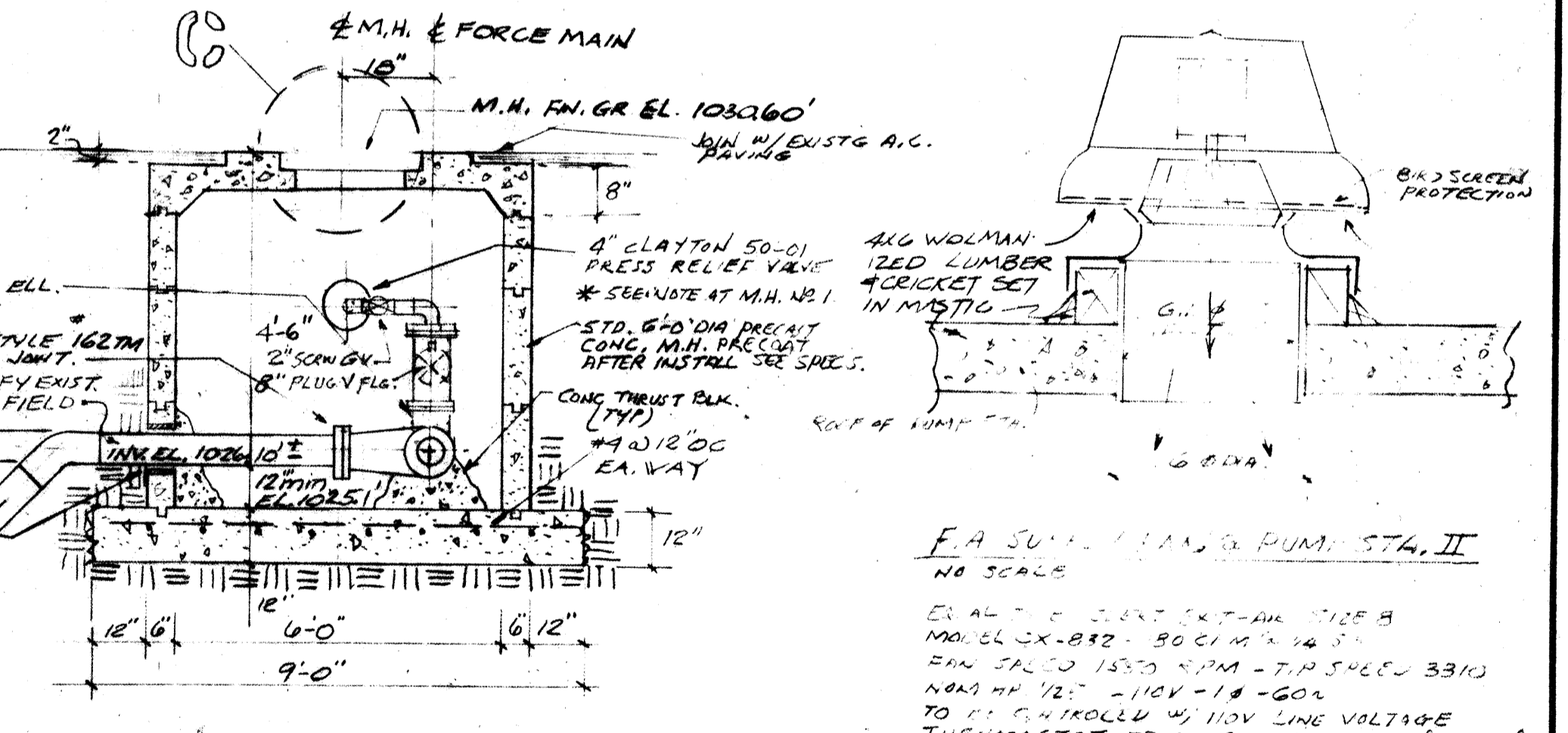
PUMP STATION No. 1.
TO BE ACTIVATED BY MANUAL SET TIME CLOCK AT CONTROL PANEL. SETTINGS OF TIME CLOCK TO BE COMPUTED AS PER READING OF RAW SEWAGE SUPPLY RECORDS AT EXIST. PUMP STA. 3 AND AT EFFLUENT DISPOSAL METER READINGS AT PUMP STA. NO. 1. WET WELL AT PUMP STA. 1 TO BE FREE GRAVITY FLOW FROM LAGOON I & II. ON A HIGH RISING LEVEL THE HIGH WATER ALARM SYSTEM WILL BE ACTIVATED TO START PUMP STA. 1 & SHOW VISUAL CONDITIONS OF ACTIVE NORMAL WATER LINES.

DESCRIPTION OF OPERATION
PUMP STA. NO. 1 WILL BE STARTED UPON BY MANUAL SET TIME CLOCK SWITCH. TIME OF PUMP ON CYCLE & FILLING WET WELL WILL BE CALIBRATED TO A DEENERGIZED DELAYED TIMING FOR FILLING & ENERGIZED TO TIME CLOCK SWITCH FOR PUMP-OFF CYCLE MANUALLY RESET TIMING RANGE AS PER PLANT VOLUME CHART ON THE SITE TO DETERMINE NORMAL PUMPING. PUMP RUNNING TIME PER HOUR & PUMP OFF PER HOUR IS TIME PLANT PRESSURE SWITCH IN PUMP DISCHARGE MANIFOLD & MERCURY FLOAT SWITCH SMALL SERVICE FLOW & OVER-RIDE THE TIME CLOCK SWITCH & SHUT-DOWN THE PUMPS UNTIL WATER FLOW IN WET WELL IS RESTORED. HI-WATER ALARM & LOW WATER CUT-OFF SW. IN WET WELL SHALL OVER RIDE PUMP TIME CONTROLS. THESE CONTROLS TO BE EXPLOSION PROOF APPROVED.

PUMP STATION No. 2
WILL START UPON AN INCREASE AT BELLOWS TYPE PRESSURE SWITCH CAUSING THE CAN PRESSURE RISE & ONE PUMP TURN ON AND IT ALSO REMAINS IN AS LONG AS THE FLOW IS SENSED THROUGH THE PUMPS, IF THE EFFLUENT LINE IS SECURED AT THE IRRIGATION DISPOSAL FIELD, THE FLO-SENSOR WILL AUTOMATICALLY SHUT-DOWN THE PUMPS.



SECTION A-A SEE PLAN PAGE
DRY WELL & M.H. @ PUMP STATION NO. 2
SCALE 3/8" = 1'-0"



M.H. @ PUMP STATION NO. 2 (P.O.C.)
SCALE 3/8" = 1'-0"

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SCALE AS SHOWN

Table with columns: DATE, REVISION, BY. Includes a section for APPROVAL CERTIFICATES.

Project information including: JOB # 7-372, SAN LUIS ENGINEERING, INC., P.O. Box 1127, Grant Way, Arroyo Grande, Calif. 93420, Phone 805-489-4343. Facility name: HERITAGE RANCH SEWAGE TREATMENT FACILITY. Drawing title: MANHOLE & PIPING DETAILS PUMP ELECTRICAL OPERATION. Date: MAY 1978. Scale: 8/8.