

CONSTRUCTION PLANS
FOR

LA SIERRA COMMUNITY SERVICES DISTRICT

RIVERSIDE COUNTY, CALIFORNIA.

BOYLE ENGINEERING
771 SPURGEON BUILDING.
SANTA ANA • CALIFORNIA.

ESTIMATED QUANTITIES

1. 24" V.C.P. SEWER MAIN	11 Lin.Ft.
2. 21" V.C.P. SEWER MAIN	198 Lin.Ft.
3. 18" V.C.P. SEWER MAIN	2,024 Lin.Ft.
4. 15" V.C.P. SEWER MAIN	1,514 Lin.Ft.
5. 12" V.C.P. SEWER MAIN	1,648 Lin.Ft.
6. STANDARD MANHOLES (17)	160 Vert.Ft.
7. 14" CEMENT MORTAR LINED & COATED WELDED STEEL PIPE	8,469 Lin.Ft.
8. 12" CEMENT MORTAR LINED & COATED WELDED STEEL PIPE	4,220 Lin.Ft.
9. PUMPING STATION NO. 1 (HOLE AVENUE)	1 Each
10. PUMPING STATION NO. 2 (COLLETT AVENUE)	1 Each

DIRECTORS OF THE DISTRICT

K. F. AMOS, PRESIDENT
GEORGE ALLEN
WILLIAM LIGHTFELDT
KEITH RICH
RICHARD SEIDLER

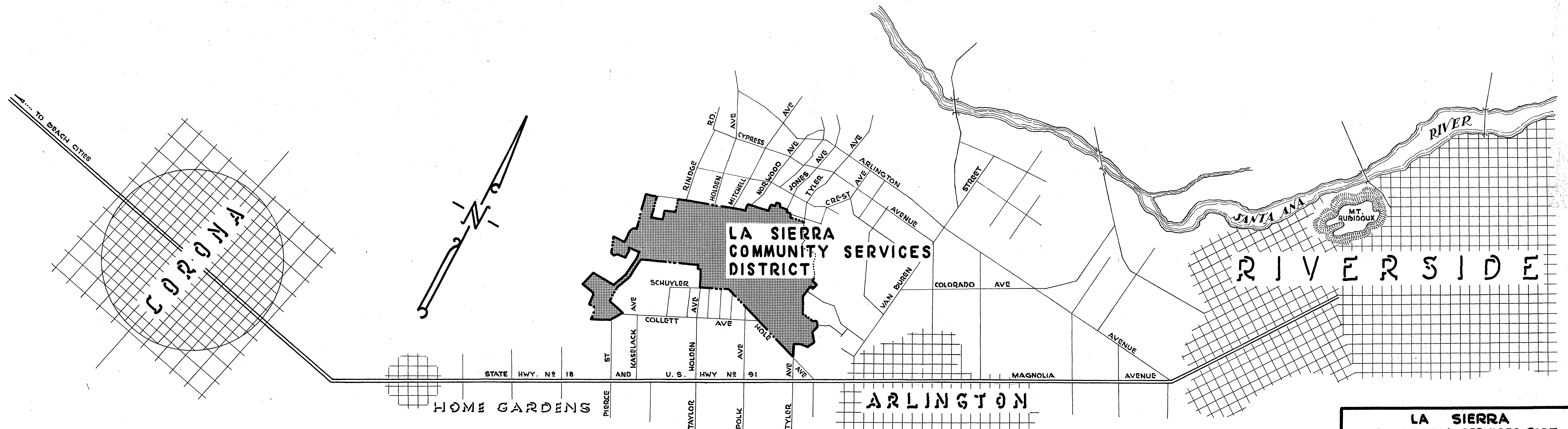
APPROVALS

APPROVED BY THE PRESIDENT OF LA SIERRA C. S. DISTRICT
THIS.....DAY OF..... 1956.

--- K. F. AMOS, PRESIDENT ---

APPROVED BY %

--- CIVIL ENGINEER No 8624 ---



VICINITY MAP

NO SCALE

LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
VICINITY MAP, QUANTITIES AND APPROVALS.	SHEET NO 1 OF 21 SHEETS

CONSTRUCTION PLANS
FOR
PUMPING STATIONS - FORCE MAINS AND GRAVITY OUTFALL
LA SIERRA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA.

BOYLE ENGINEERING
771 SPURGEON BUILDING
SANTA ANA, CALIFORNIA.

ESTIMATED QUANTITIES

1. 24" V.C.P. SEWER MAIN	11 Lin.Ft.
2. 21" V.C.P. SEWER MAIN	138 Lin.Ft.
3. 18" V.C.P. SEWER MAIN	2,024 Lin.Ft.
4. 15" V.C.P. SEWER MAIN	1,514 Lin.Ft.
5. 12" V.C.P. SEWER MAIN	1,648 Lin.Ft.
6. STANDARD MANHOLES (17)	150 Vert.Ft.
7. 14" CEMENT MORTAR LINED & COATED WELDED STEEL PIPE	8,469 Lin.Ft.
8. 8" CEMENT MORTAR LINED & COATED WELDED STEEL PIPE	4,220 Lin.Ft.
9. PUMPING STATION NO. 1 (HOLE AVENUE)	1 Each
10. PUMPING STATION NO. 2 (COLLETT AVENUE)	1 Each

DIRECTORS OF THE DISTRICT

K. F. AMOS, PRESIDENT
GEORGE ALLEN
WILLIAM LIGHTFELDT
KEITH RICH
RICHARD WEIDLER

• MAY 1957. •
• REVISED • JUNE , 1957 •

APPROVALS

APPROVED BY THE PRESIDENT OF LA SIERRA C. S. DISTRICT
THIS 14 DAY OF MAY, 1956.

K. F. Amos
K. F. AMOS, PRESIDENT

APPROVED AS REVISED THIS DAY OF 1957

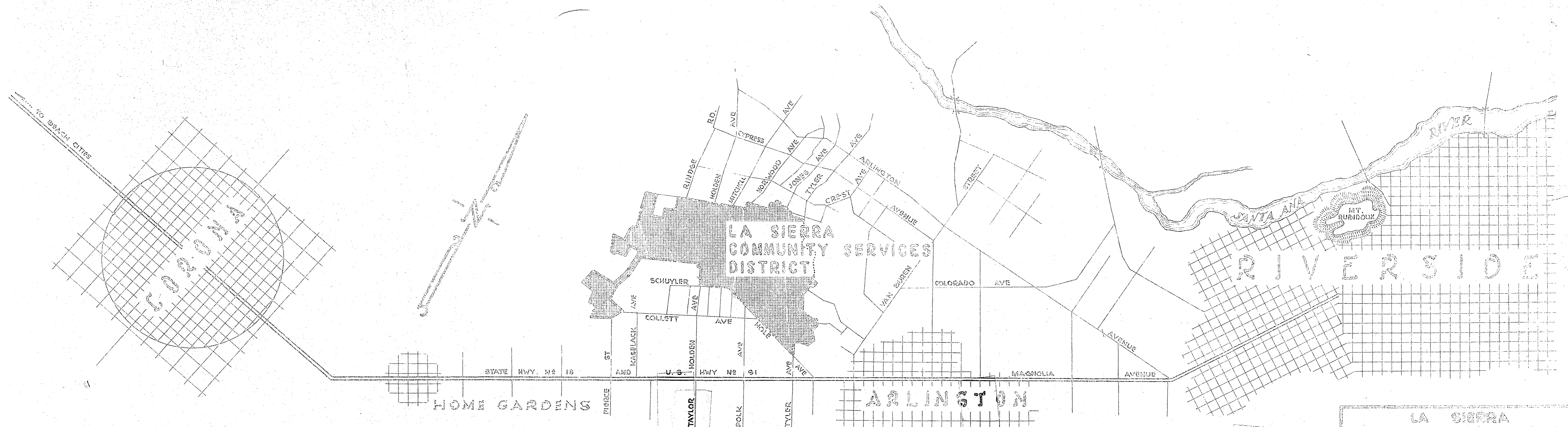
K. F. Amos

APPROVED BY

Edwin H. Howard
CIVIL ENGINEER No. 6673

APPROVED AS REVISED

Edwin H. Howard



VICINITY MAP

"AS-BUILT" AUG. 1960

LA SIERRA
COMMUNITY SERVICES DIST.
RIVERSIDE COUNTY, CALIFORNIA.
VICINITY MAP,
QUANTITIES AND
APPROVALS.

- ① CONSTRUCT 21" V.C.P. SEWER AND STANDARD MANHOLES FROM PUMPING STATION NO. 1 AT STA. 0+00 TO MANHOLE NO. 2 AT STA. 1+90.67.
- ② CONSTRUCT 12" V.C.P. SEWER FROM MANHOLE NO. 2 AT STA. 1+90.67 TO EXISTING MANHOLE AT STATION 3+16.48
- ③ CONSTRUCT 18" V.C.P. SEWER FROM MANHOLE NO. 2 AT STA. 0+00 TO EXISTING MANHOLE AT STATION 0+91.49
- ④ CONSTRUCT 21" V.C.P. SEWER AND STANDARD MANHOLES FROM PUMPING STATION NO. 2 AT STA. 0+00 TO STA. 0+18.50
- ⑤ CONSTRUCT 18" V.C.P. SEWER FROM MANHOLE NO. 2 AT STA. 0+00 TO EXISTING MANHOLE AT STATION 0+86.67

PUMPING STATION NO. 1 (HOLE AVENUE)

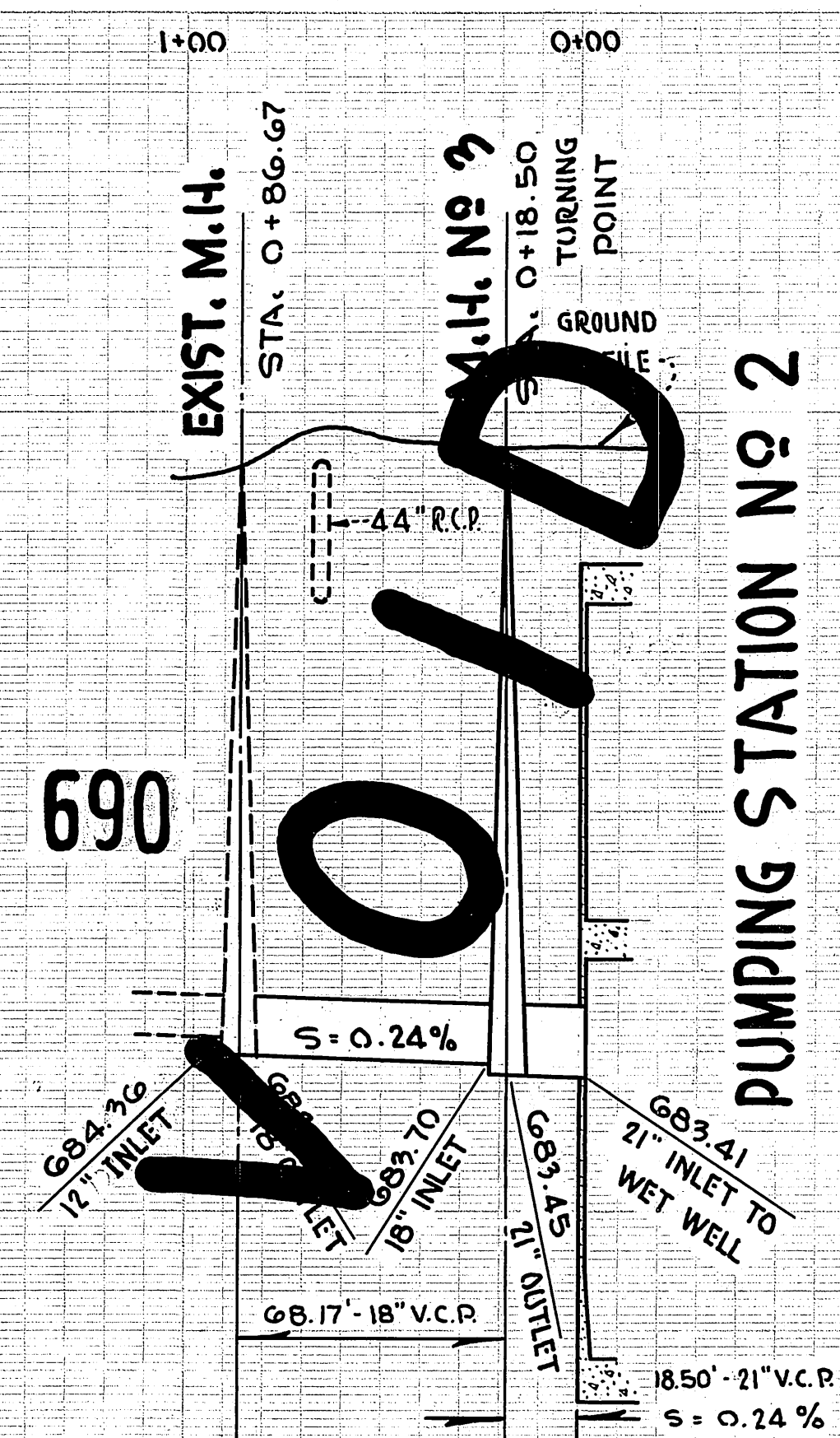
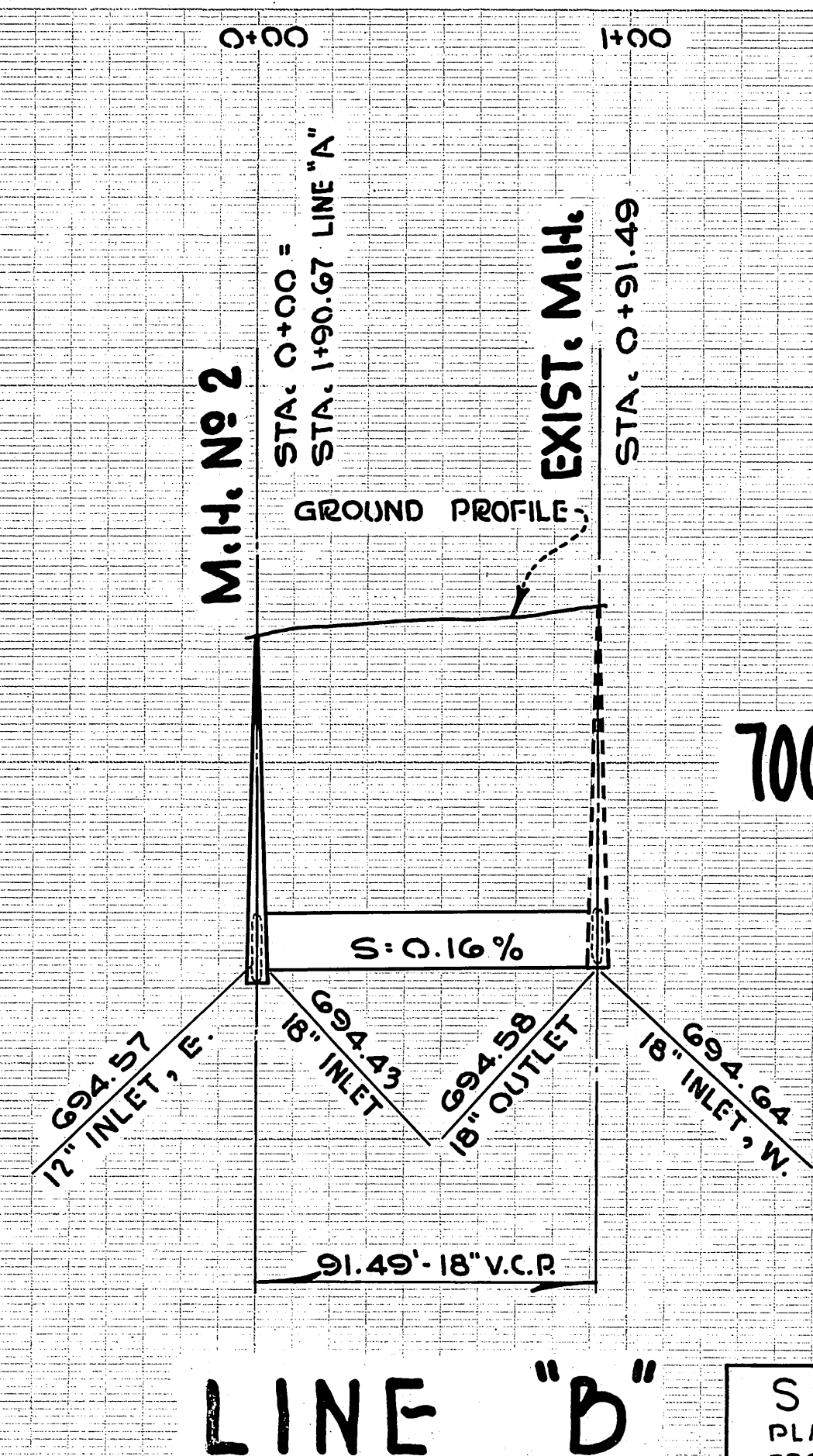
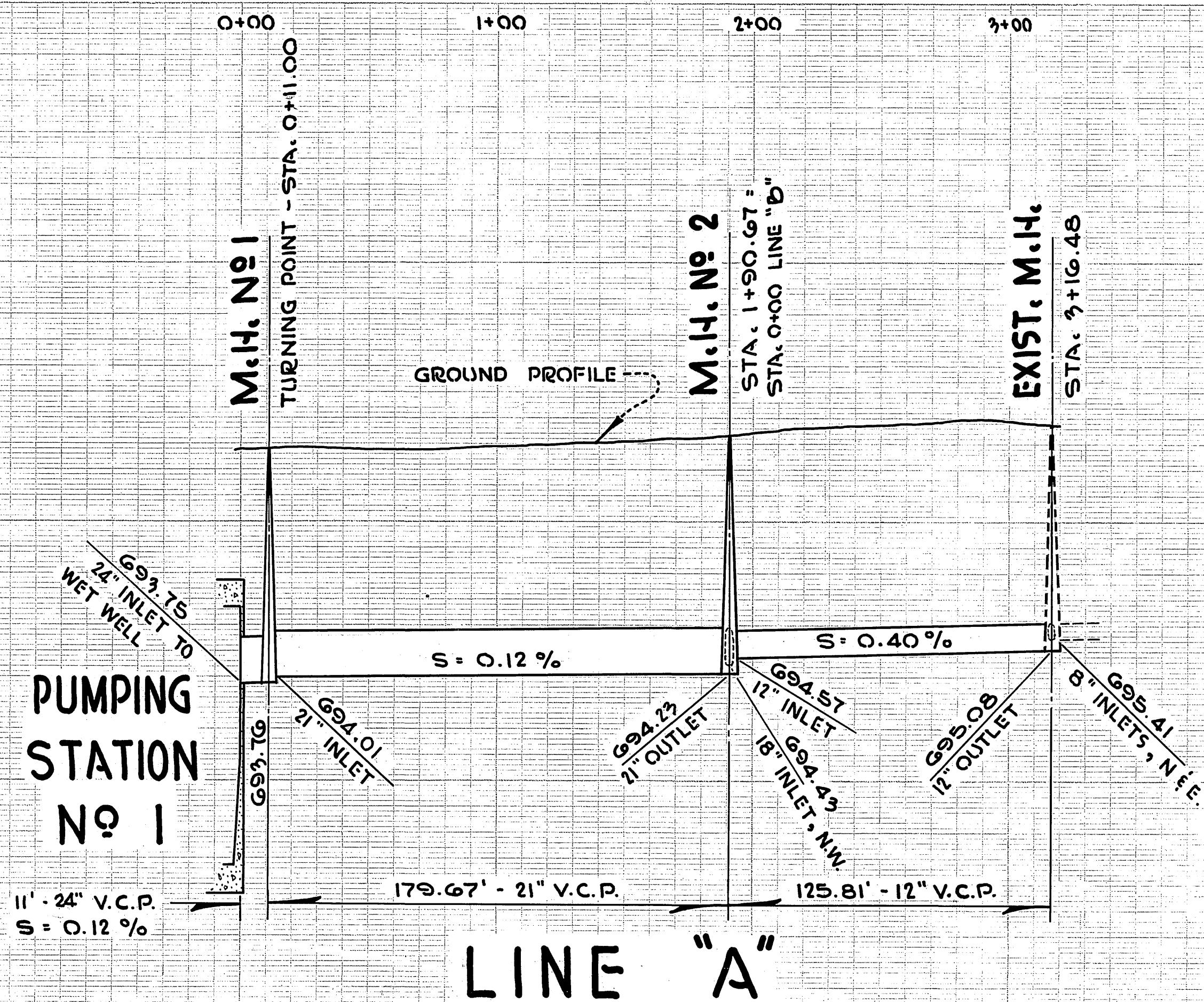
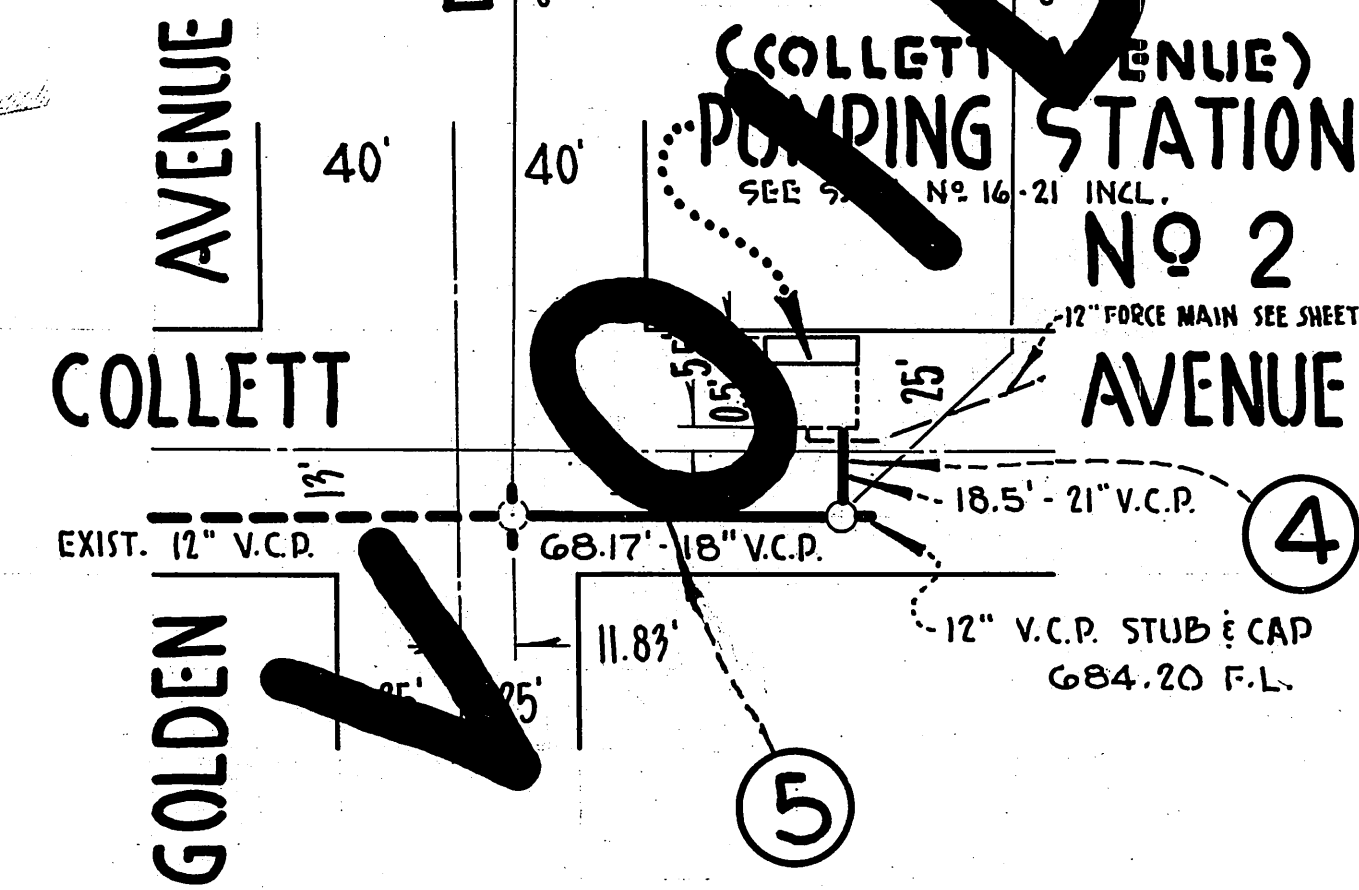
12" FORCE MAIN FROM COLLETT STATION SEE SH. NO. 4
11'-24" V.C.P.
179.67' - 21" V.C.P.

M.H. No 1
STA. 0+11.00

M.H. No 2
STA. 1+90.67
STA. 0+00 LINE "B"

APPROX. LOCATION OF IRRIGATION LINE

GRAVITY SYSTEM INLET TO PUMPING STATION NO. 1

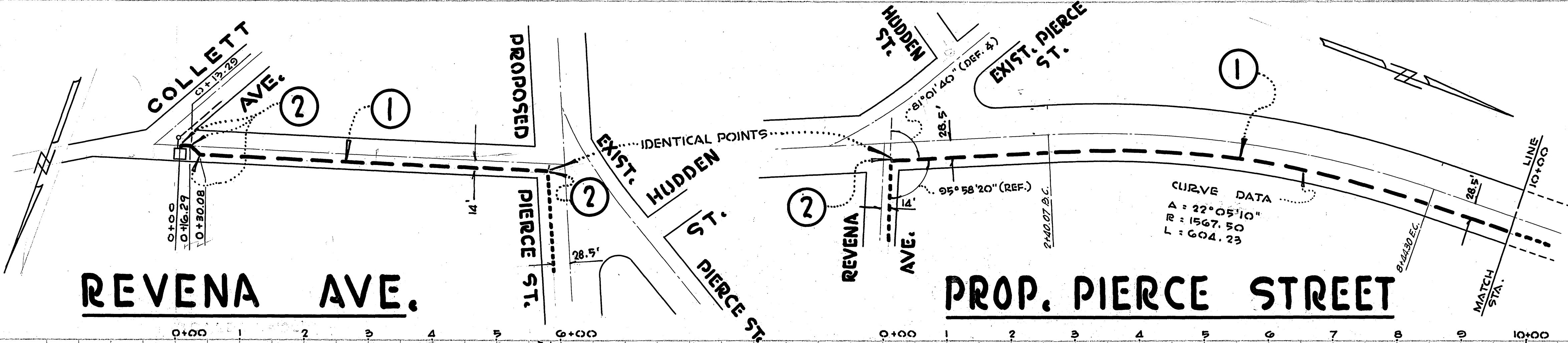


SCALES PLAN - 1" = 40' PROFILE - HORIZ. 1" = 40' VERT. 1" = 4'	LA SIERRA COMMUNITY SERVICES DISTRICT BOYLE ENGINEERING 331 SPURGEON BUILD. SANTA ANA, CALIFORNIA	SHEET NO. 3 OF 5 SHTS
	S-511-170	
	(Additional project information or notes)	

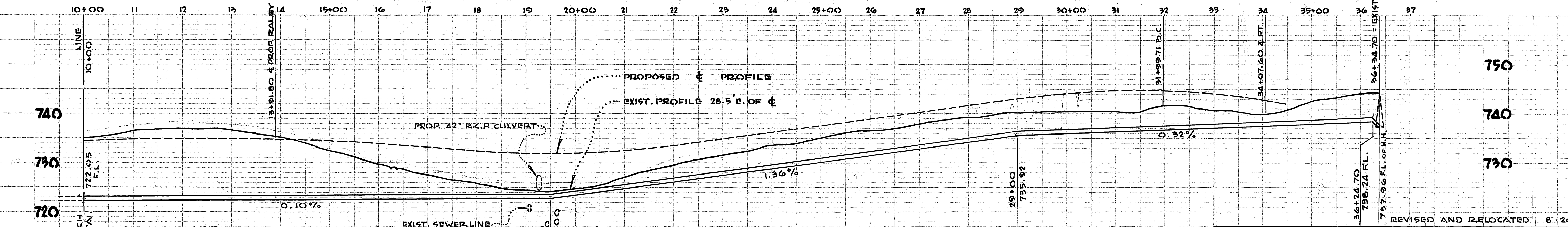
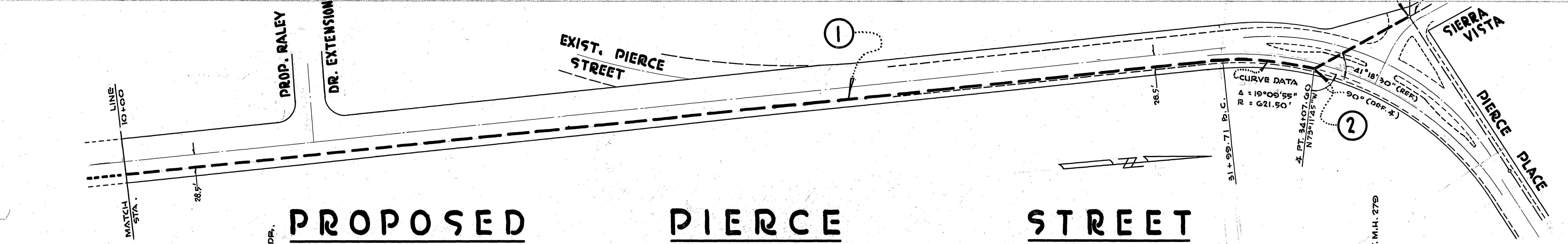
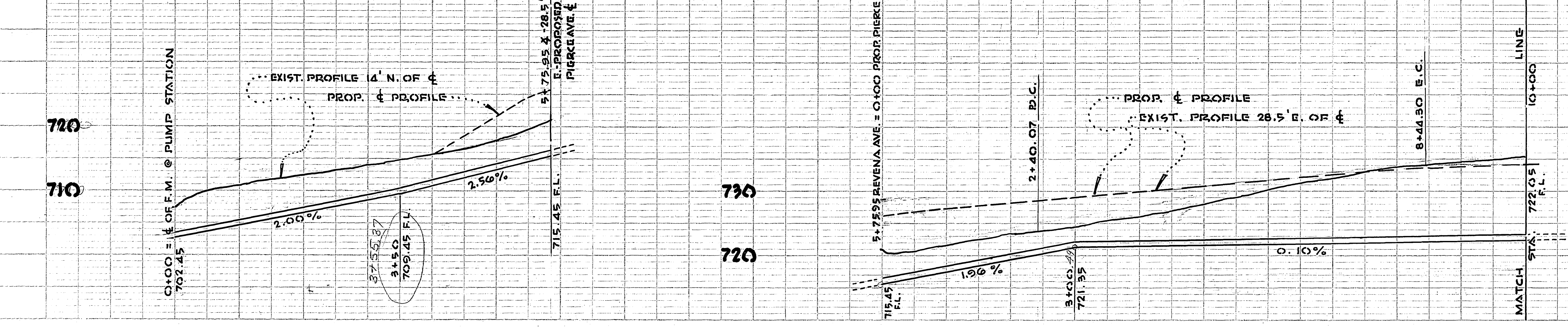
15

PLAN	DATE
NO.	
BY	
CHECKED	
DATE	

PROFILE	DATE
NO.	
BY	
CHECKED	
DATE	



- CONSTRUCTION NOTES**
- ①.....CONSTRUCT 8" FORCE MAIN
 - ②.....CONSTRUCT 36" x 36" CONCRETE THRUST BLOCK.

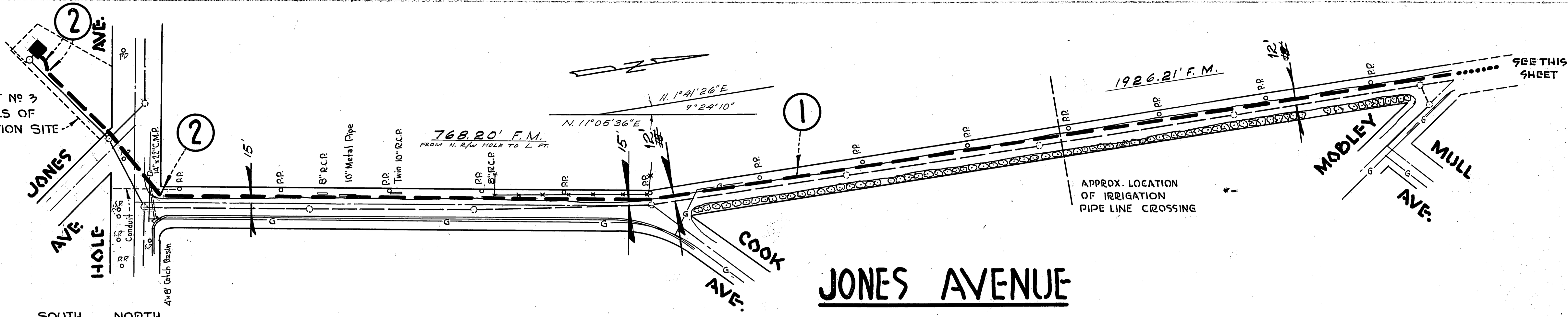


SCALES PLAN 1" = 100' PROFILE HORIZ. 1" = 100' VERT. 1" = 10'	LA SIERRA COMMUNITY SERVICES DISTRICT BOYLE ENGINEERING 221 SPURGEON BUILD. SANTA ANA, CALIF.	SHEET NO. 4 OF 5 HTS.
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S-511-420

PUMPING STATION NO 1

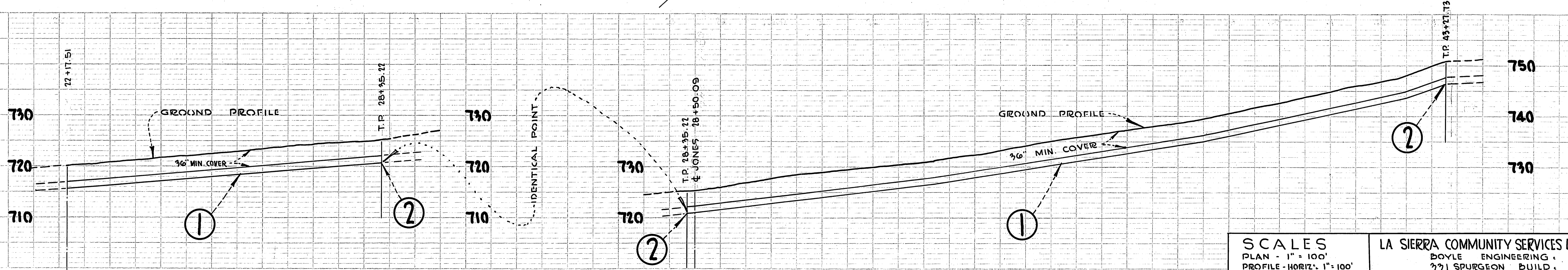
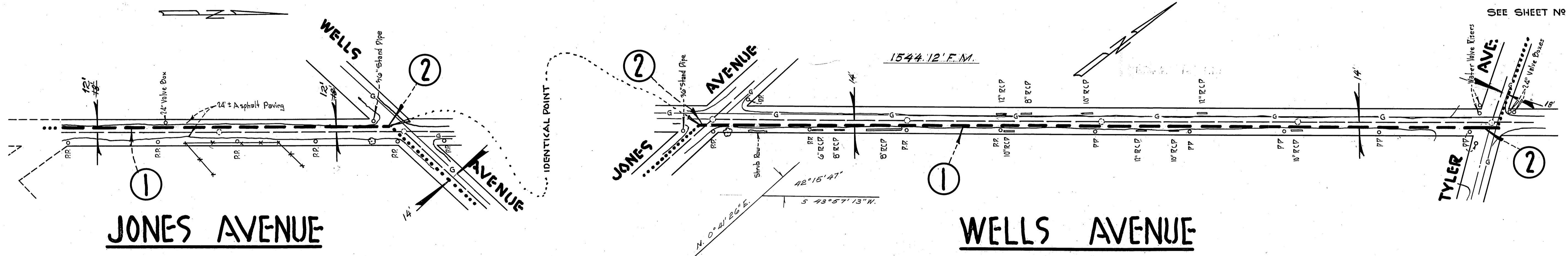
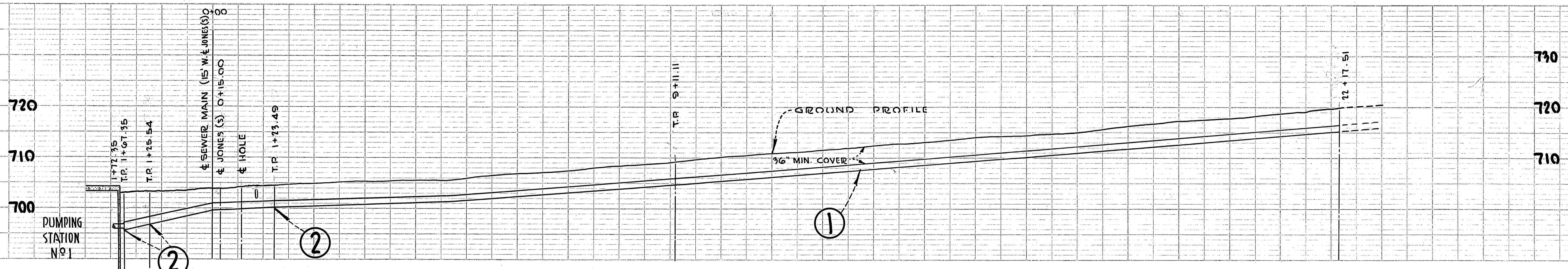
SEE SHEET NO 3 FOR DETAILS OF PUMP STATION SITE



- 1 CONSTRUCT 14\"/>
- 2 CONSTRUCT 36\"/>

5

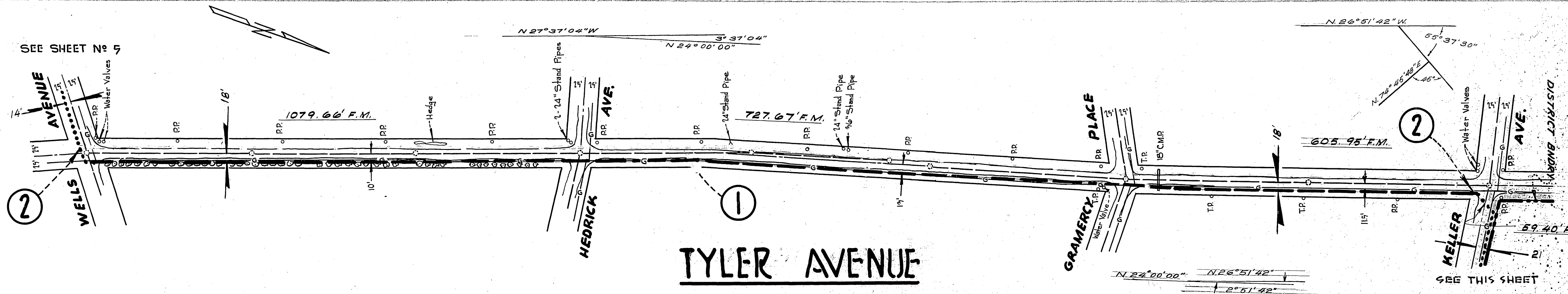
PLAN
 DATE: _____
 BY: _____
 CHECKED: _____
 NO. _____



SCALES PLAN - 1" = 100' PROFILE - HORIZ. 1" = 100' VERT. 1" = 10'	LA SIERRA COMMUNITY SERVICES DISTRICT BOYLE ENGINEERING 271 SPURGEON BUILD. SANTA ANA, CALIFORNIA.	SHEET NO 5 OF 5 SHTS.
		Constructed S-511-420

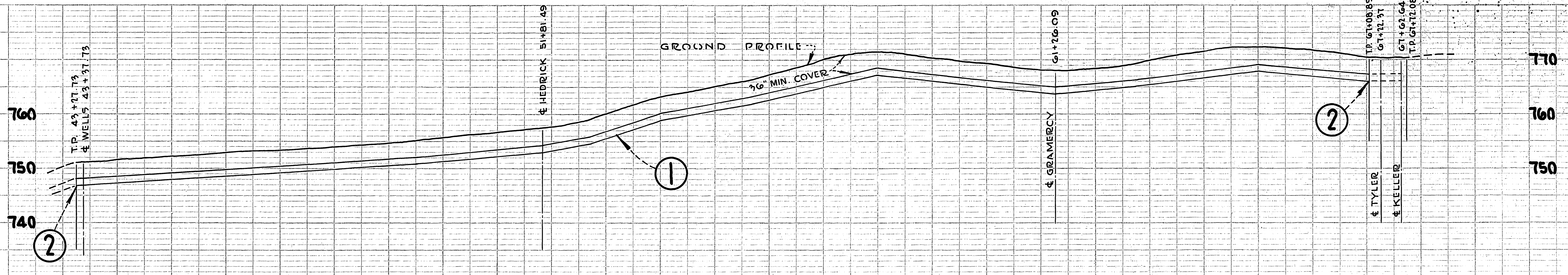
PROFILE
 DATE: _____
 BY: _____
 CHECKED: _____
 NO. _____

SEE SHEET No 5

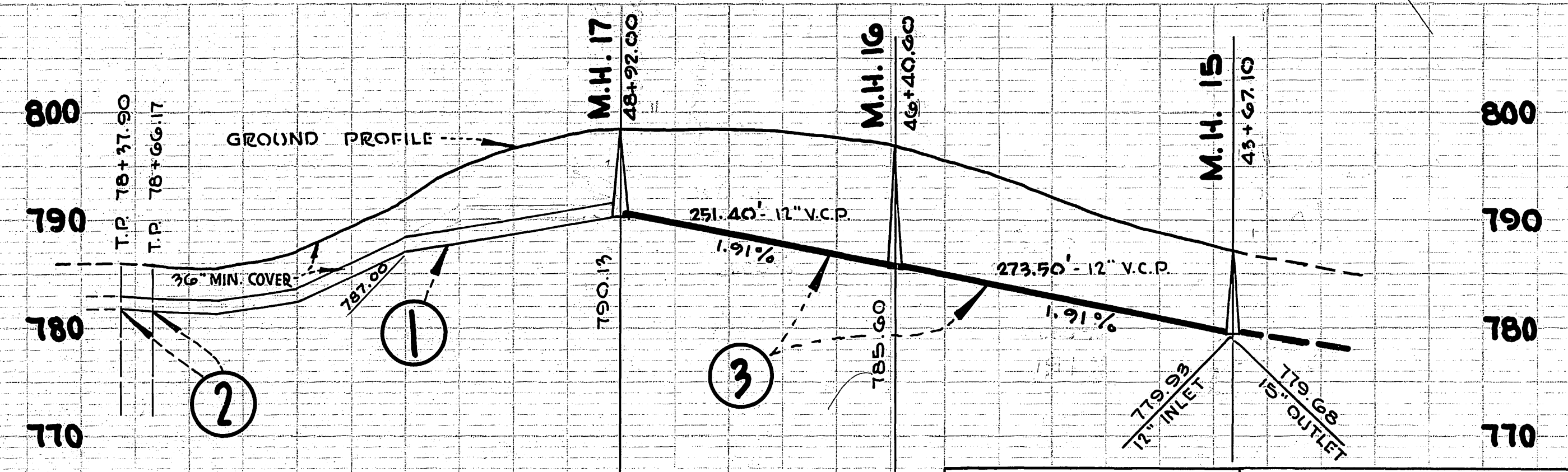
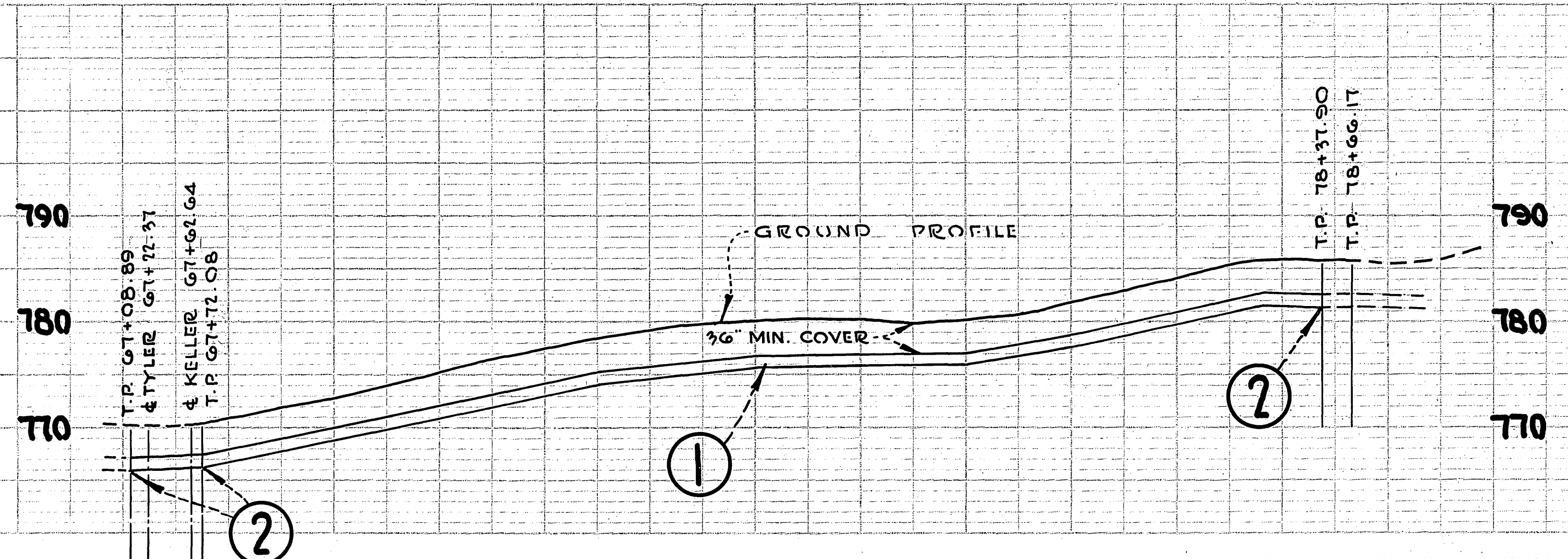
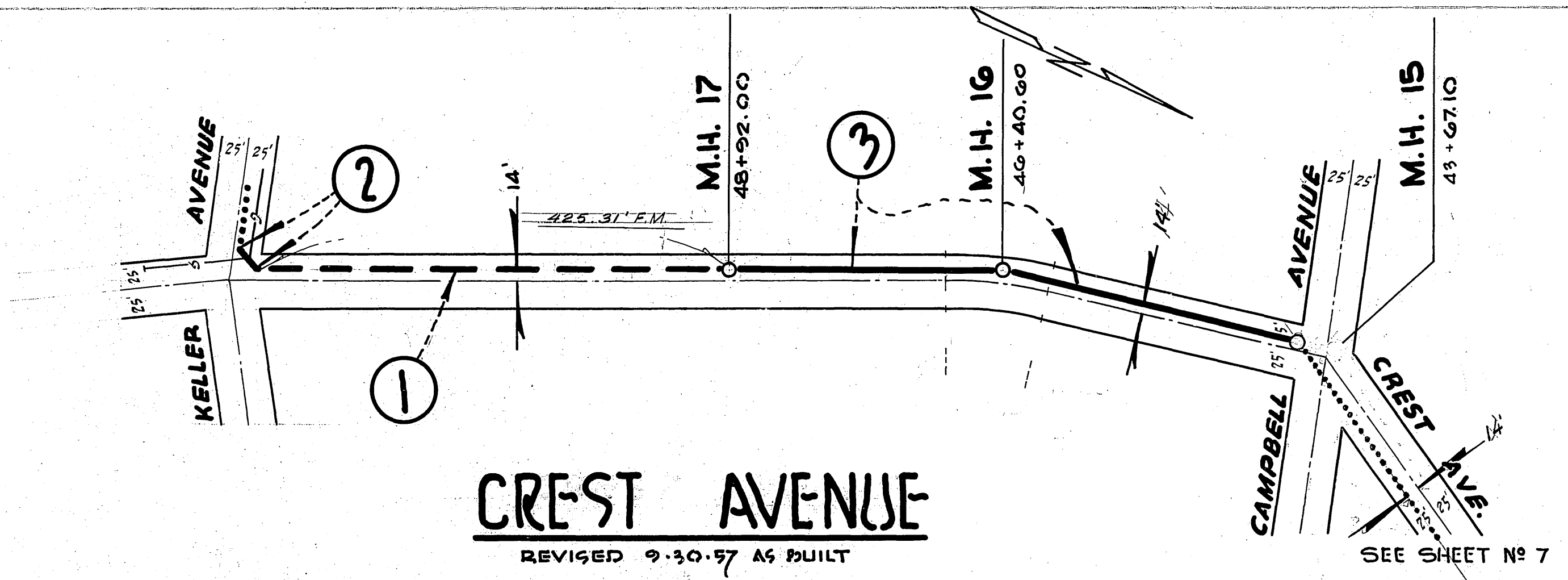
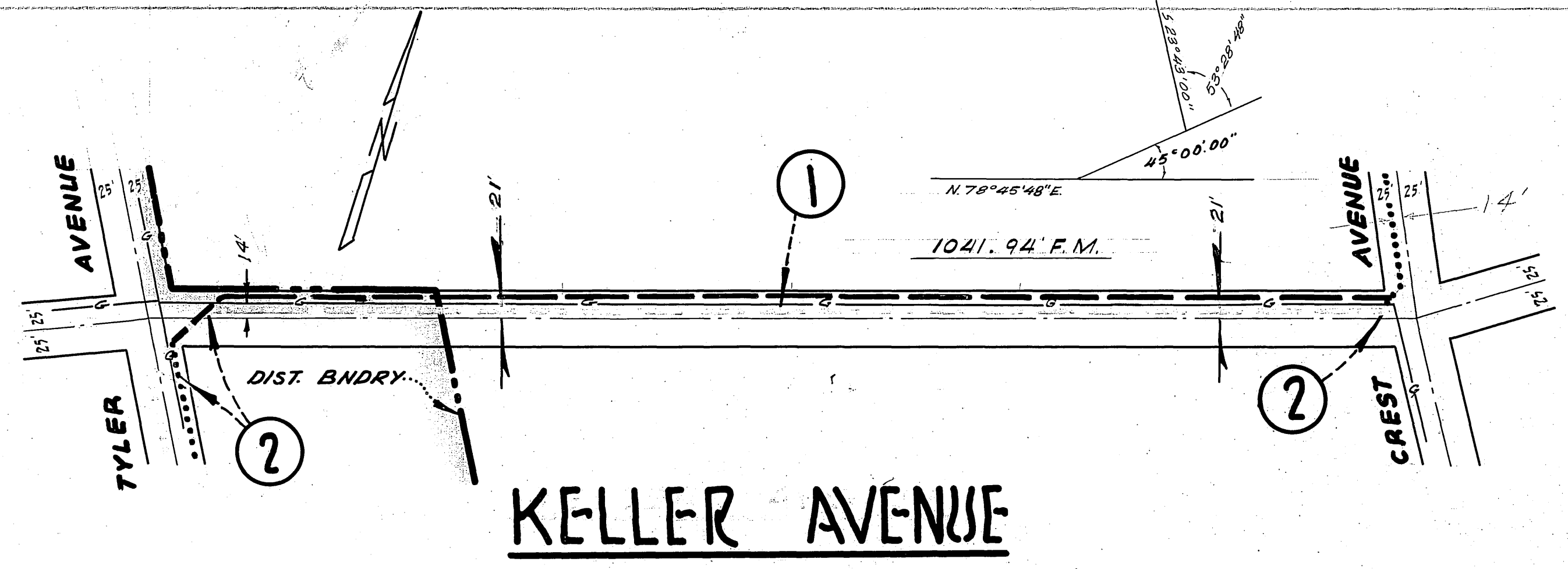


- 1. CONSTRUCT 14" CEMENT MORTAR LINED AND COATED WELDED STEEL PIPE.
- 2. CONSTRUCT 36" X 36" X 36" CONCRETE THRUST BLOCK.
- 3. CONSTRUCT 12" V.C.P. SEWER AND STANDARD MANHOLES FROM MANHOLE NO. 15 AT STA. 43+67.10 TO MANHOLE NO. 17 AT STA. 48+92.00.

DATE: _____ BY: _____
 CHECKED: _____
 NOTE: BOOK, SUBMIT CHECKS, ETC. OF WAY CHECKED.

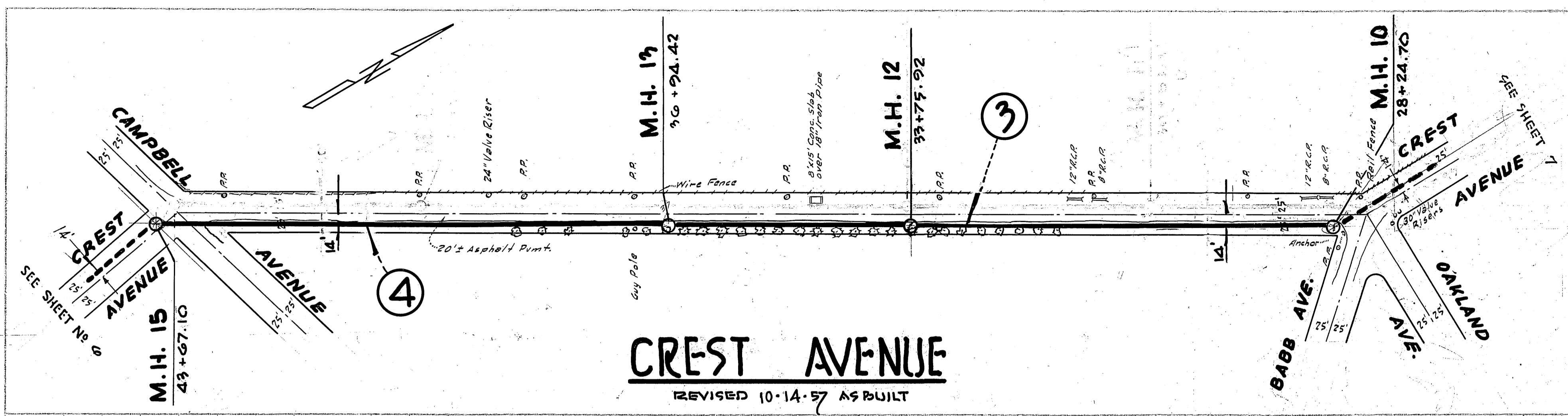


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 CHECKED: _____
 NOTE: BOOK, SUBMIT CHECKS, ETC. OF WAY CHECKED.



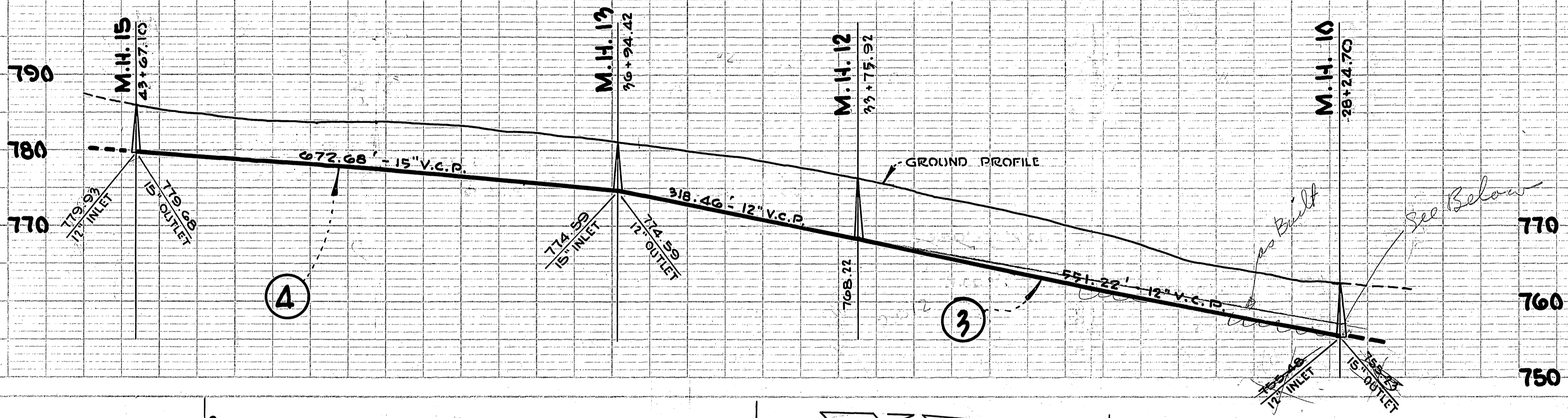
SCALES PLAN - 1" = 100' PROFILE - HORIZ. 1" = 100' VERT. 1" = 10'	LA SIERRA COMMUNITY SERVICES DISTRICT DOYLE ENGINEERING & 771 SPURGEON BUILDING SANTA ANA, CALIFORNIA	SHEET No 6 OF SHTS.
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- ① CONSTRUCT 18" V.C.P. SEWER AND STANDARD MANHOLES FROM MANHOLE NO. 4 AT STA. 8+73.31 TO MANHOLE NO. 9 AT STA. 24+86.00
- ② CONSTRUCT 15" V.C.P. SEWER AND STANDARD MANHOLES FROM MANHOLE NO. 9 AT STA. 24+86.00 TO MANHOLE NO. 10 AT STA. 28+24.70
- ③ CONSTRUCT 12" V.C.P. SEWER AND STANDARD MANHOLES FROM MANHOLE NO. 10 AT STA. 28+24.70 TO MANHOLE NO. 13 AT STA. 36+94.42
- ④ CONSTRUCT 15" V.C.P. SEWER AND STANDARD MANHOLES FROM MANHOLE NO. 13 AT STA. 36+94.42 TO MANHOLE NO. 15 AT STA. 43+67.10

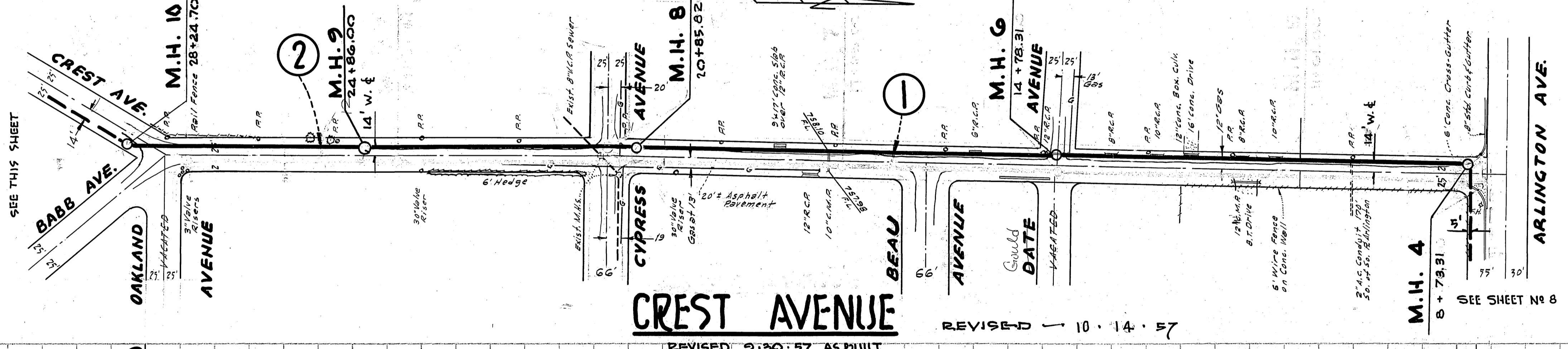


CREST AVENUE
REVISED 10-14-57 AS BUILT

DATE	
BY	
CHECKED	
NO.	
DATE	
BY	
CHECKED	
NO.	

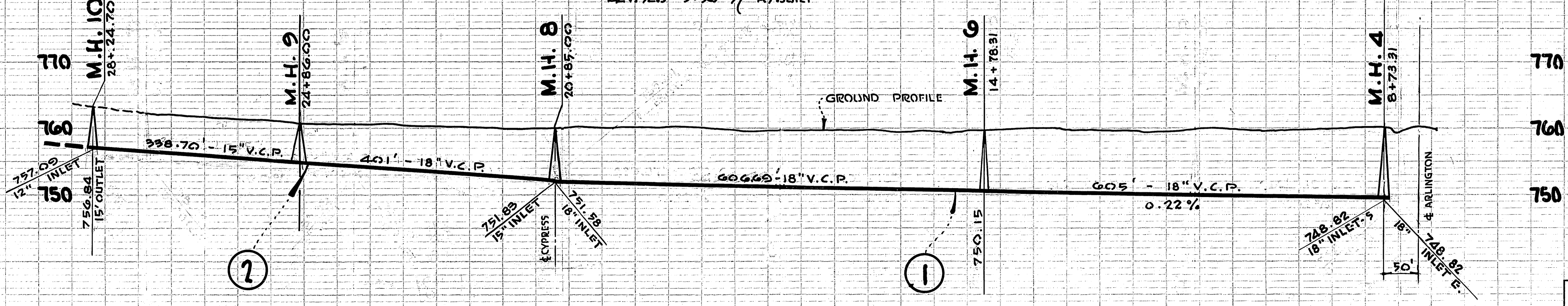


DATE	
BY	
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DATE	
BY	
CHECKED	
NO.	



CREST AVENUE
REVISED 9-30-57 AS BUILT

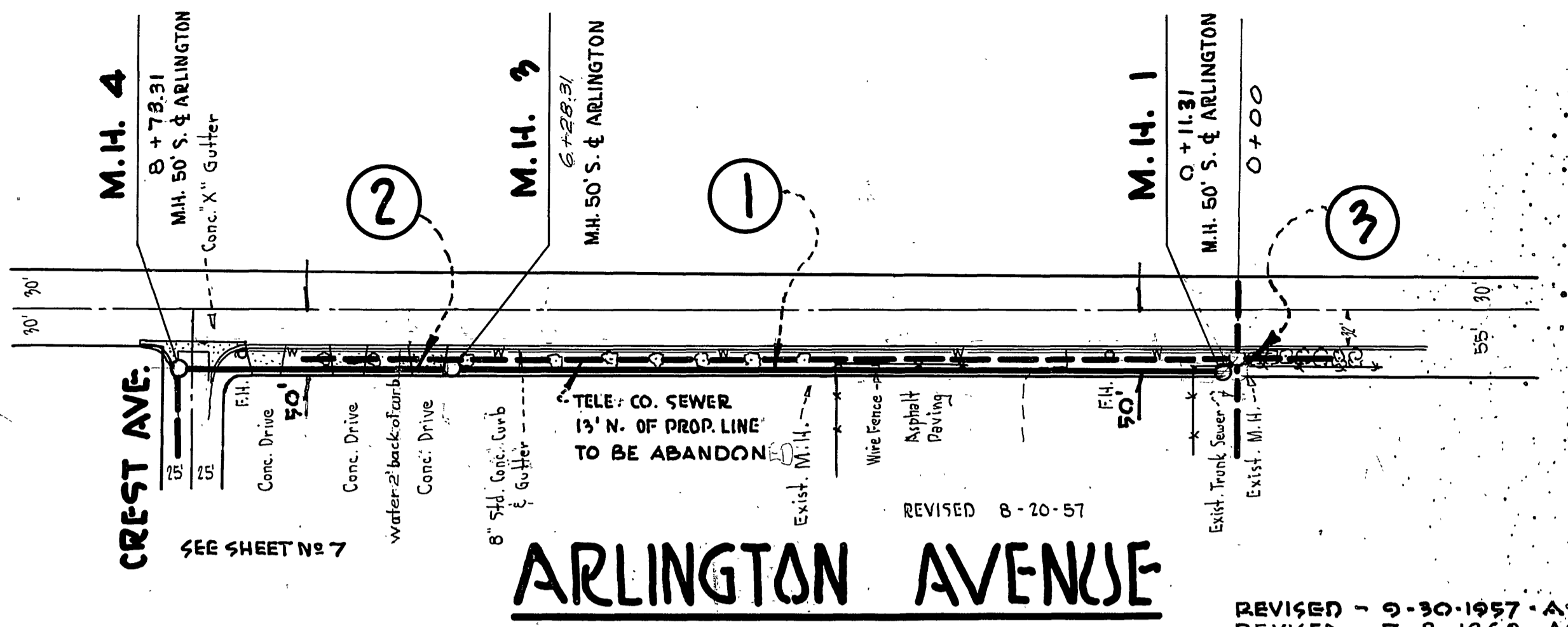
REVISED 10-14-57



SCALES PLAN - 1" = 100' PROFILE - HORIZ. 1" = 100' VERT. 1" = 10'	LA SIERRA COMMUNITY SERVICES DISTRICT DOYLE ENGINEERING & 371 SPURGEON BUILDING SANTA ANA, CALIFORNIA	SHEET NO. 7 OF 5 SHTS.
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PLAN
 DATE: 10/1/57
 DRAWN BY: J. W. GARDNER
 CHECKED BY: J. W. GARDNER
 IN CHARGE: J. W. GARDNER

PROFILE
 DATE: 10/1/57
 DRAWN BY: J. W. GARDNER
 CHECKED BY: J. W. GARDNER
 IN CHARGE: J. W. GARDNER

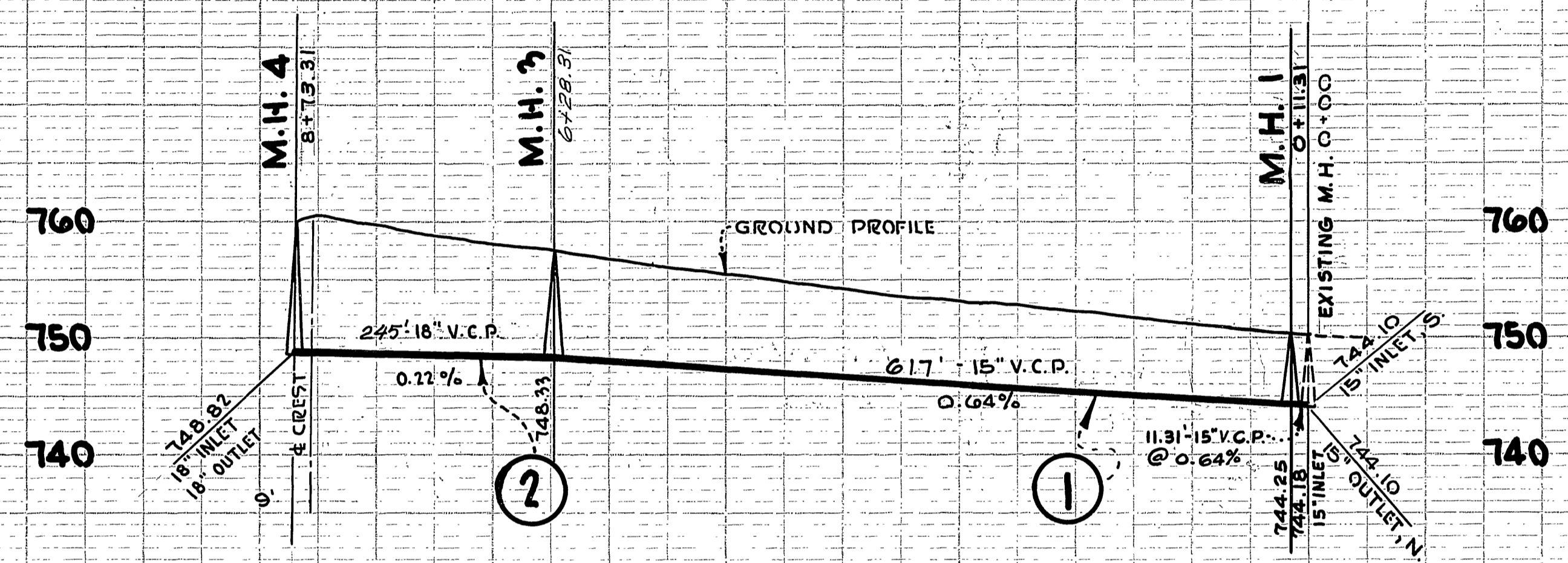


ARLINGTON AVENUE

REVISED - 9-30-1957 - AS BUILT
 REVISED - 7-8-1960 - AS BUILT

- ① CONSTRUCT 15" V.C.P. SEWER AND STANDARD MANHOLES FROM EXISTING MANHOLE AT STA. 0+00 TO MANHOLE NO. 3 AT STA. 6+52.31
- ② CONSTRUCT 18" V.C.P. SEWER AND STANDARD MANHOLES FROM MANHOLE NO. 3 AT STA. 6+52.31 TO MANHOLE NO. 4 AT STA. 8+78.31
- ③ CONNECT TO & MODIFY EXISTING ANZA MANHOLE

8



SCALES PLAN - 1" = 100' PROFILE - HORIZ. 1" = 100' VERT. 1" = 10'	LA SIERRA COMMUNITY SERVICES DISTRICT BOYLE ENGINEERING & 331 SPURGEON BUILD. SANTA ANA, CALIFORNIA	SHEET NO.
		8

48" DIAM. x 17'-6" LONG GALV. STL. SPIRAL STAIRWAY - "ALHAMBRA FOUNDRY" N° A-3420 - WITH HANDRAILS AS SHOWN

ADJUSTABLE VALVE BOX ASSEMBLY "ALHAMBRA FOUNDRY" N° 3004

3/4" x 3/4" WELDED STL. GRATING - "WESTGRATE" N° PW 1-A

3/4" DIAM. M.H. COVER AND FRAME "ALHAMBRA FOUNDRY" N° A-1251

4'-0" ABOVE SLAB
4'-0" BELOW SLAB

ELECTRICAL PANEL ROOM

INSTALL BLOWER SYSTEM SEE SHEET N° 15

CAST 6"-8" DIAM. HOLES IN FLOOR SLAB THESE TWO TO BE COVERED

10" DIAM. FRAME & COVER "ALHAMBRA FOUNDRY" N° A-1242

INSTALL 4 ELECTRIC PUMP MOTORS SEE NOTES-SH. N° 15

MOTOR ROOM

UPPER FLOOR PLAN

SCALE 1/2" = 1'-0"

PUMP - PIPING SCHEDULE

SUCTION :

1. 2 - 16" C.I. SHORT BODIED STD. F. AND BELL MOUTH 90° BENDS.
2. 2 - 16" C.I. F. AND F. SPOOLS.
3. 3 - 16" x 30" C.I. F. AND F. STANDARD WALL PIPE.
4. 2 - 16" C.I. BLIND FLANGES.
5. 2 - 16" C.I. F. AND F. GATE VALVES.
6. 2 - 16" x 6" C.I. F. AND F. ECCENTRIC REDUCERS.

DISCHARGE :

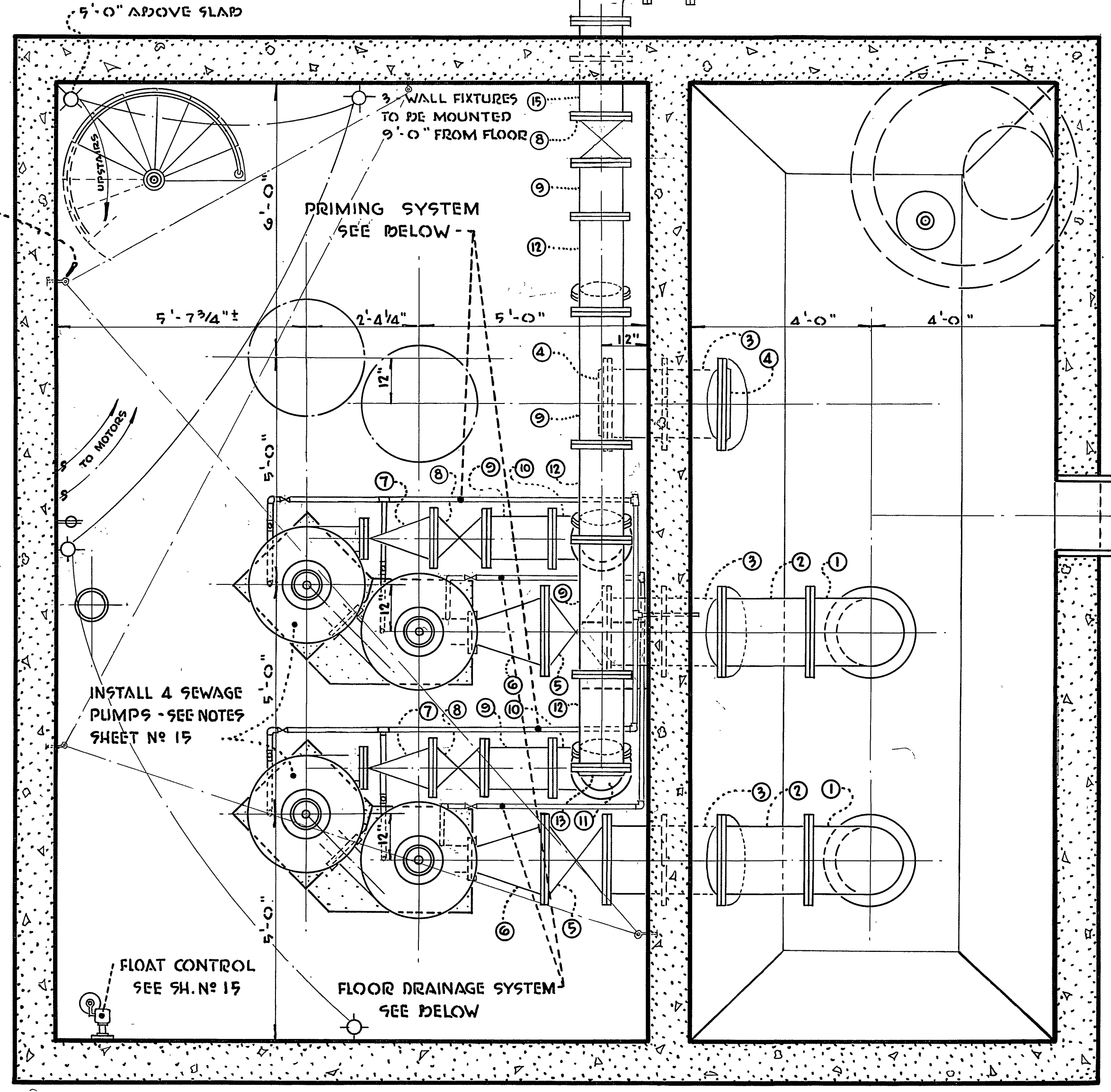
7. 2 - 6" x 10" C.I. REDUCING CHECK VALVES.
8. 3 - 10" C.I. F. AND F. GATE VALVES.

9. 5 - 10" C.I. F. AND F. SPOOLS.
10. 2 - 10" C.I. F. AND F. LONG RADIUS 90° BASE BEND.
11. 2 - 10" C.I. F. AND F. LONG RADIUS 45° BENDS.
12. 3 - 10 3/4" x 10" F. AND F. SHORT BODIED WYES (45° LATERAL).
13. 2 - 10" C.I. BLIND FLANGES.
14. 1 - 30" HIGH FLOOR STAND ASSEMBLY
15. 1 - 10" x 24" C.I. F. AND F. STD. WALL PIPE.
16. 1 - 10" x 10" x 8" C.I. F. AND F. TEE.
17. 1 - 10" x 14" C.I. F. AND F. CONCENTRIC REDUCER (LONG BODIED)

BY-PASS :

18. 1 - 8" C.I. F. AND F. GATE VALVE.
19. 3 - 8" C.I. F. AND F. LONG RADIUS 90° BEND.
20. 2 - 8" C.I. F. AND F. SPOOLS.
21. 1 - 8" C.I. BLIND FLANGE.

EYEBOLT DETAIL SEE SH. N° 21



PUMP ROOM WET WELL

LOWER FLOOR PLAN

SCALE 1/2" = 1'-0"

BLOWER PIPING SCHEDULE

- A. 1 - 8" ASPBESTOS CEMENT PIPE OR APPROVED EQUAL.
- B. 1 - 8" " " " 90° ELBOW.
- C. 3 - 6" " " " " "
- D. 2 - 6" " " " 60° ELBOW.

PRIMING SYSTEM

- INSTALL 1" GALV. IRON PIPE AND
- 4 - 1" GATE VALVES
 - 3 - 1" G.I. TEES AND
 - 5 - 1" G.I. 90° ELBOWS.

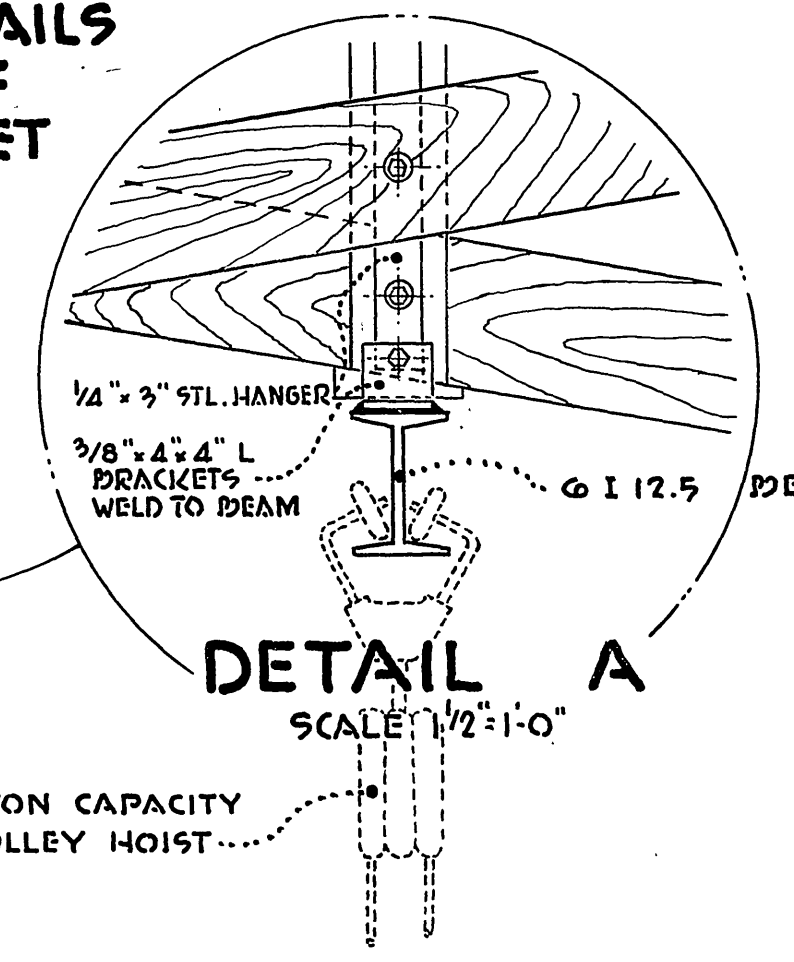
FLOOR DRAINAGE SYSTEM

- INSTALL 2" GALV. IRON PIPE AND
- 2 - 2" GATE VALVES
 - 1 - 2" CHECK VALVE
 - 6 - 2" 90° ELBOWS AND
 - 1 - 2" TEE.

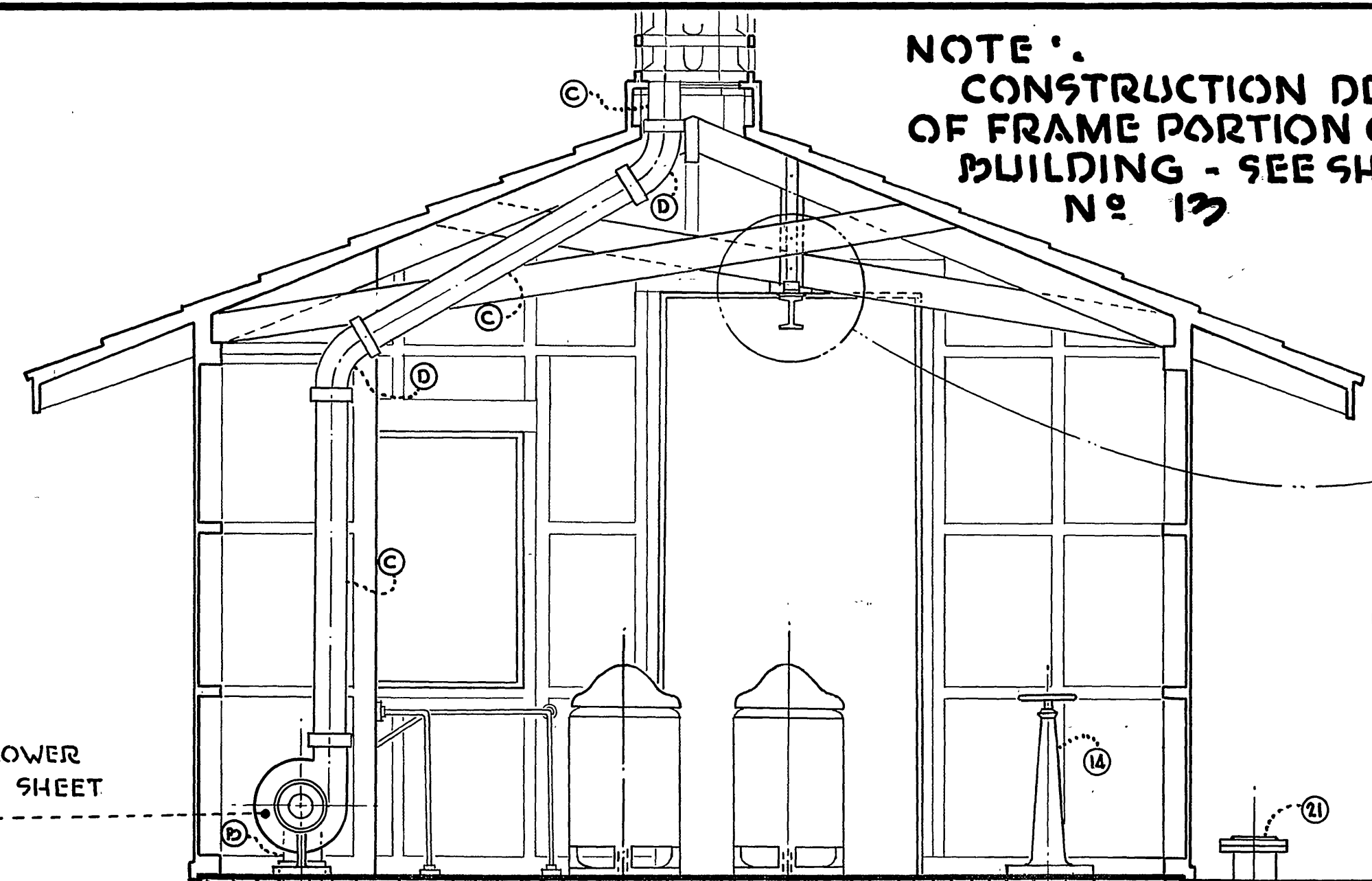
LA SIERRA
COMMUNITY SERVICES DIST.
RIVERSIDE COUNTY, CALIFORNIA.

UPPER & LOWER FLOOR PLANS SHEET N° 9
HOLE AVE. OF 21 SHTS.
PUMPING STATION N° 1

NOTE:
CONSTRUCTION DETAILS
OF FRAME PORTION OF
BUILDING - SEE SHEET
No. 13

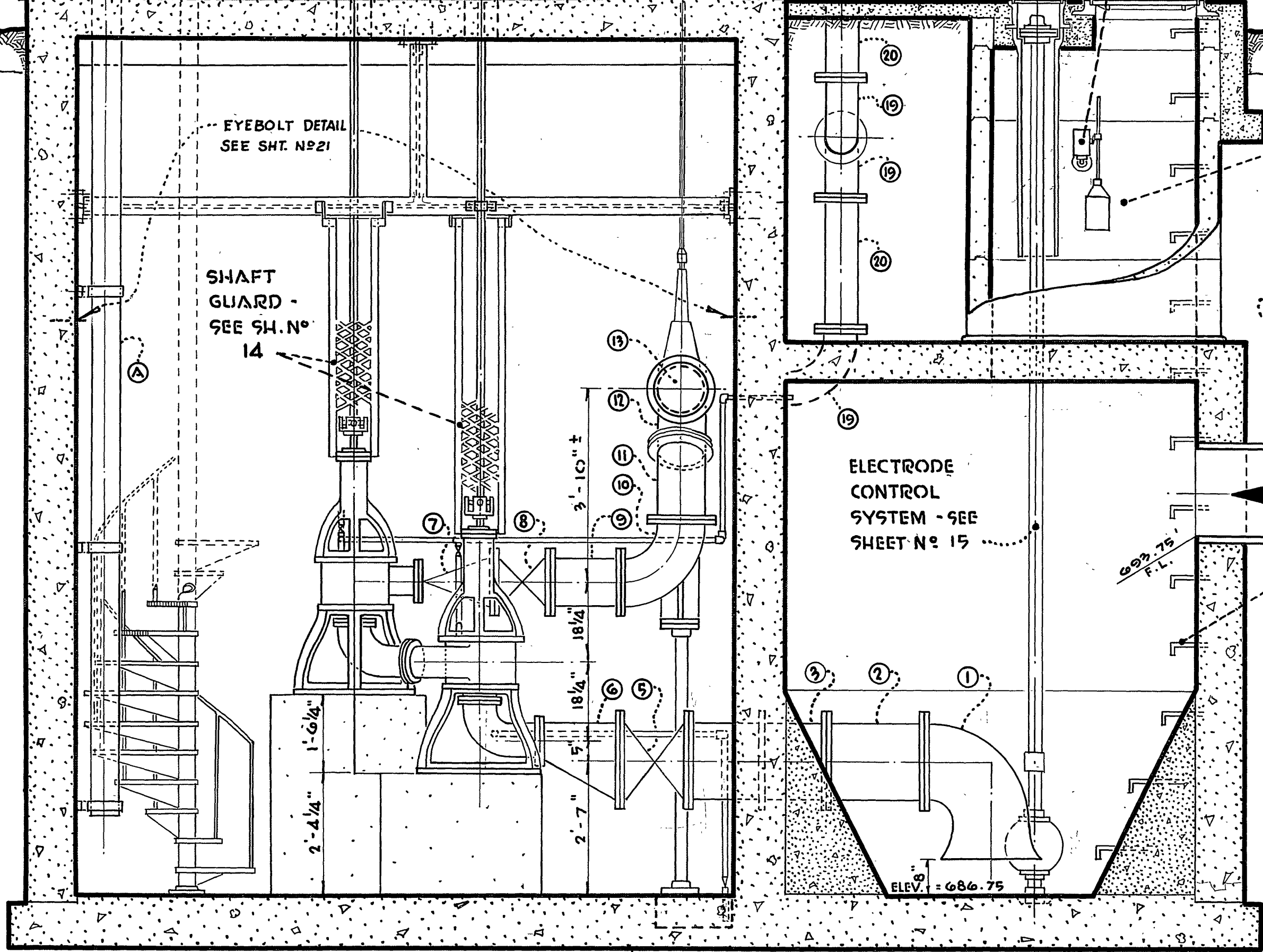
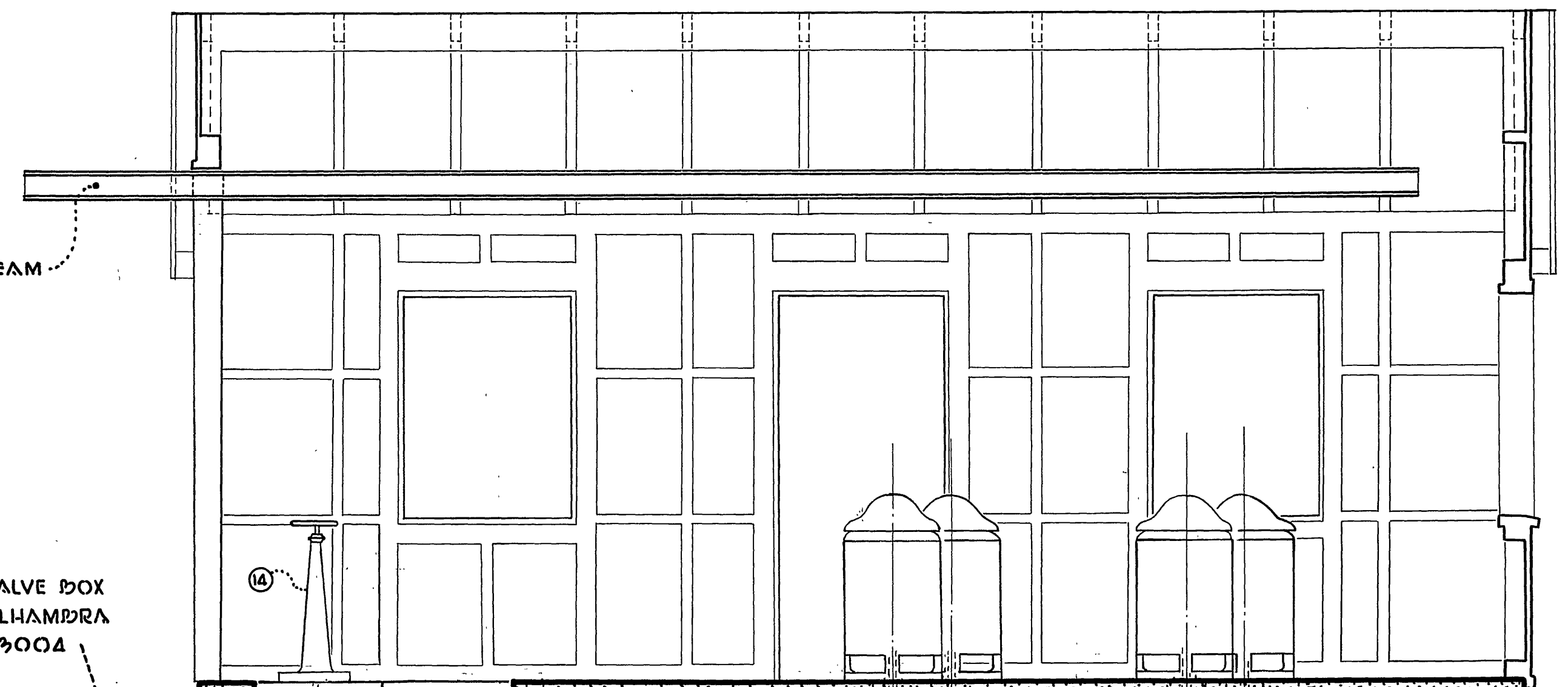


INSTALL BLOWER
SYSTEM - SEE SHEET
No. 15



FLOAT CONTROL - SEE
ELECT. POWER DIAGRAM
SHEET No. 15

ADJUSTABLE VALVE BOX
ASSEMBLY - "ALHAMBRA
FOUNDRY" No. 3004



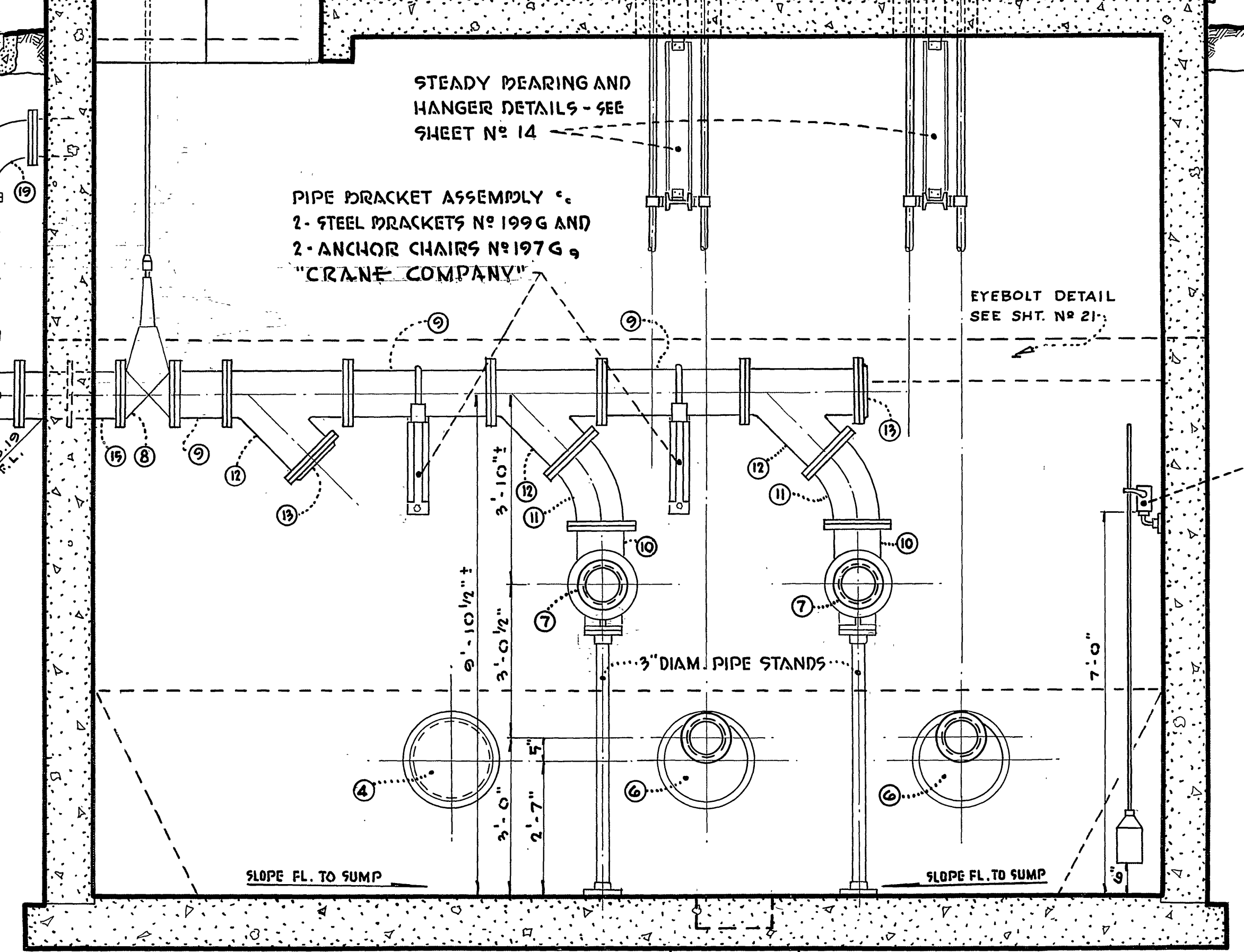
SECTION A - A

SCALE 1/2" = 1'-0"

← BEAM →

STEADY BEARING AND
HANGER DETAILS - SEE
SHEET No. 14

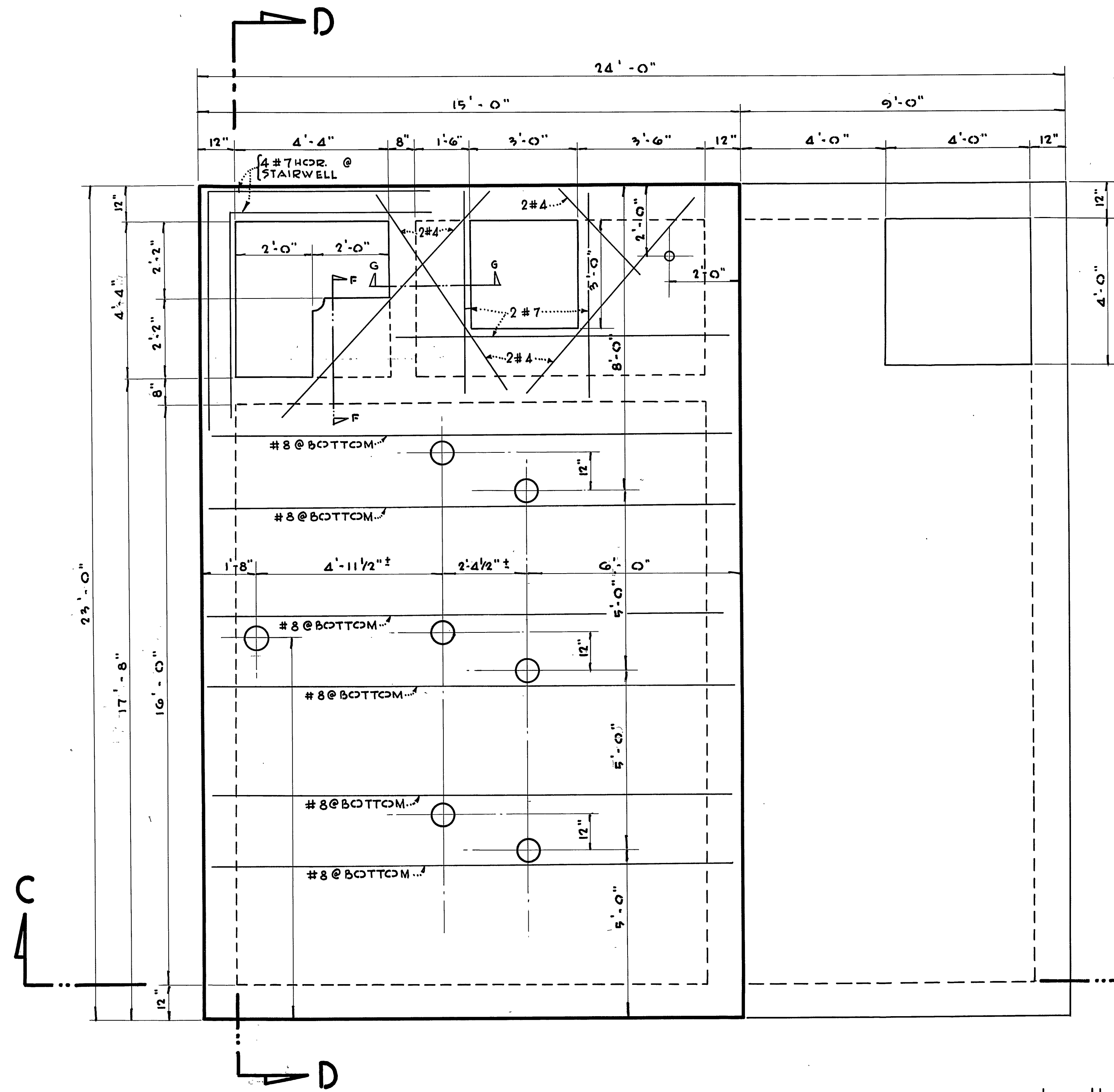
PIPE BRACKET ASSEMBLY -
2 - STEEL BRACKETS No. 199G AND
2 - ANCHOR CHAIRS No. 197G,
"CRANE COMPANY"



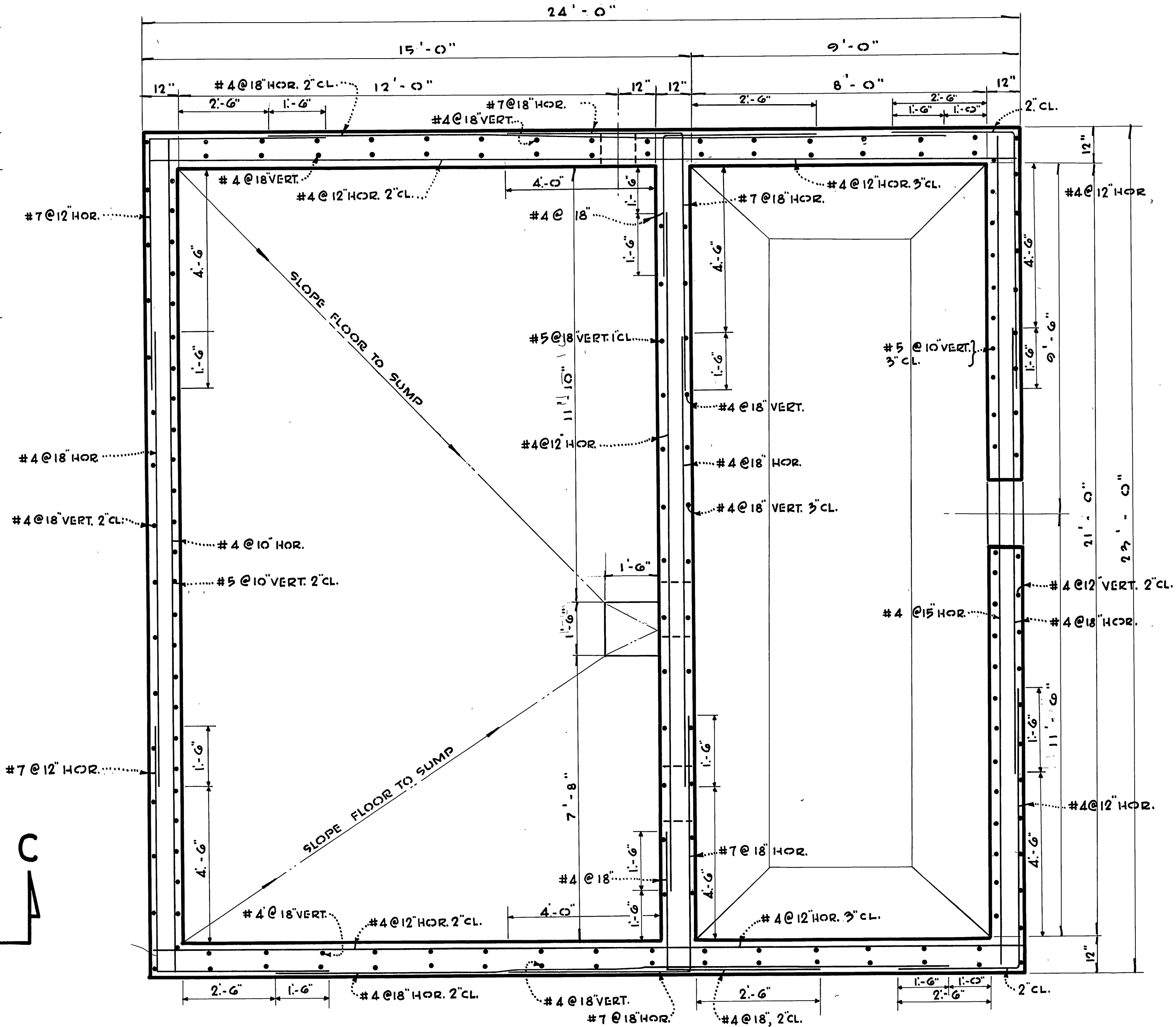
SECTION B - B

SCALE 1/2" = 1'-0"

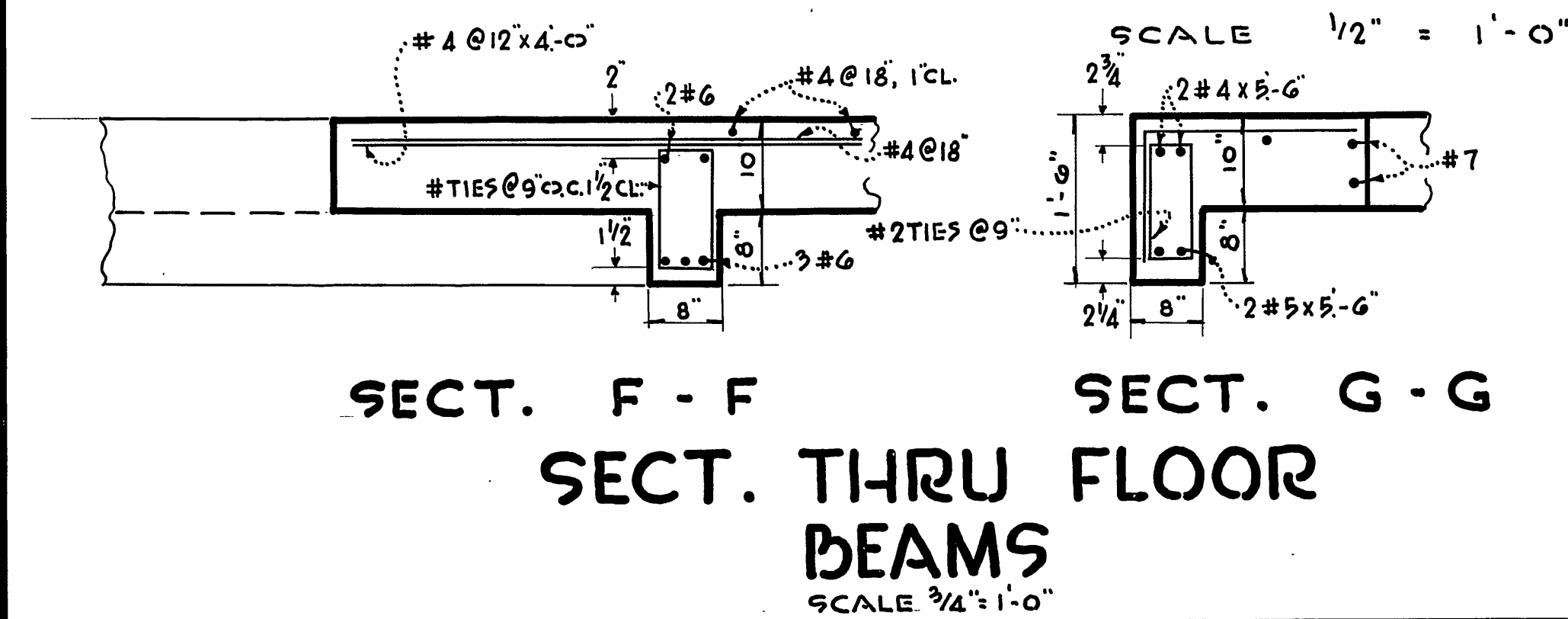
LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA	
ELEVATION SECTIONS & DETAILS	SHEET No. 10
HOLE AVE.	OF 21 SHTS
PUMPING STATION No. 1	



UPPER FLOOR PLAN



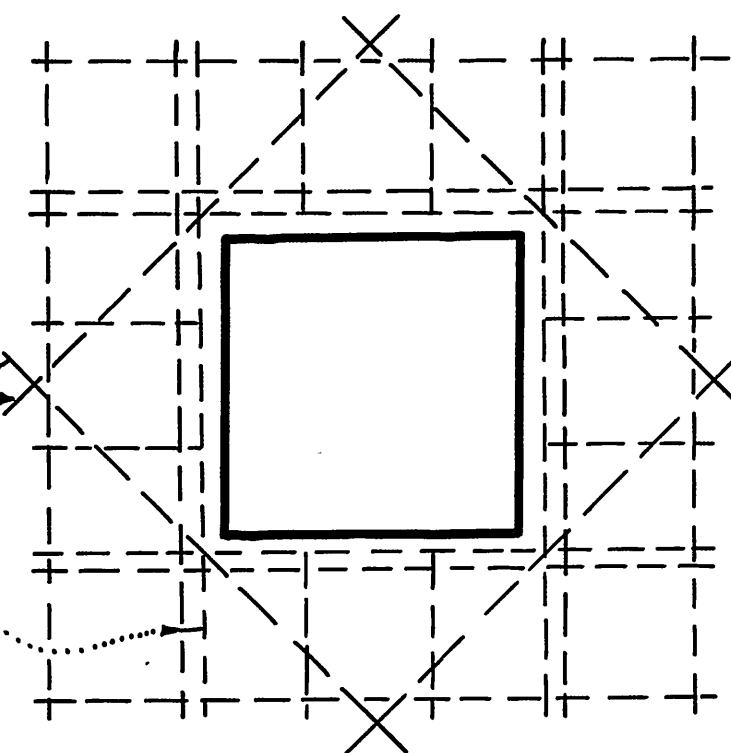
LOWER FLOOR PLAN



SECT. F - F
SECT. THRU FLOOR BEAMS
SCALE 3/4" = 1'-0"

2 #4 DIAG. AT EACH CORNER EXTEND 24" BEYOND CORNERS

PLACE STEEL EQUIVALENT IN AREA TO THAT CUT AT OPENING AT EACH SIDE OF OPENING & 4" BEYOND

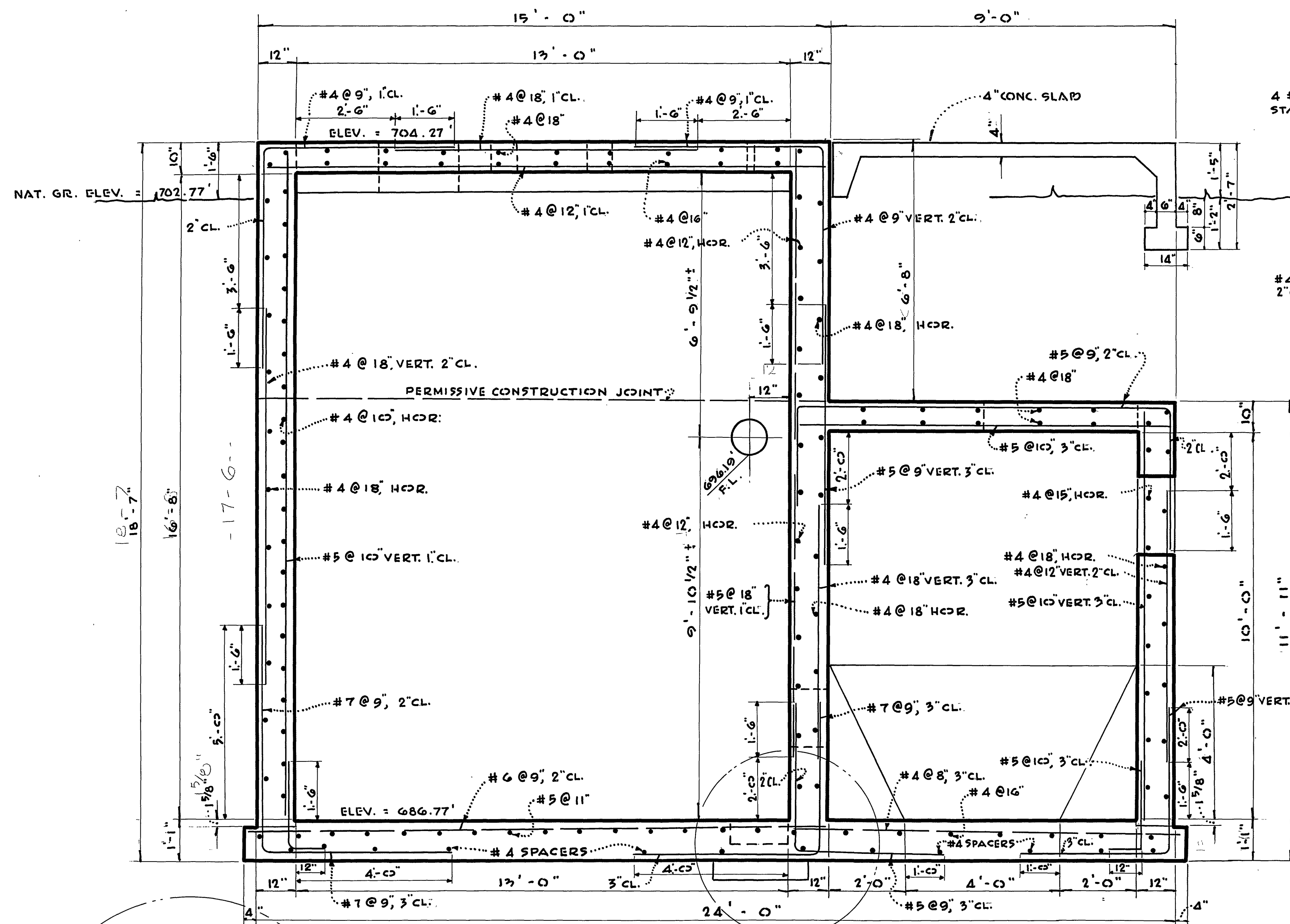


TYP. REINF. AT OPENINGS
NO SCALE

GENERAL NOTES

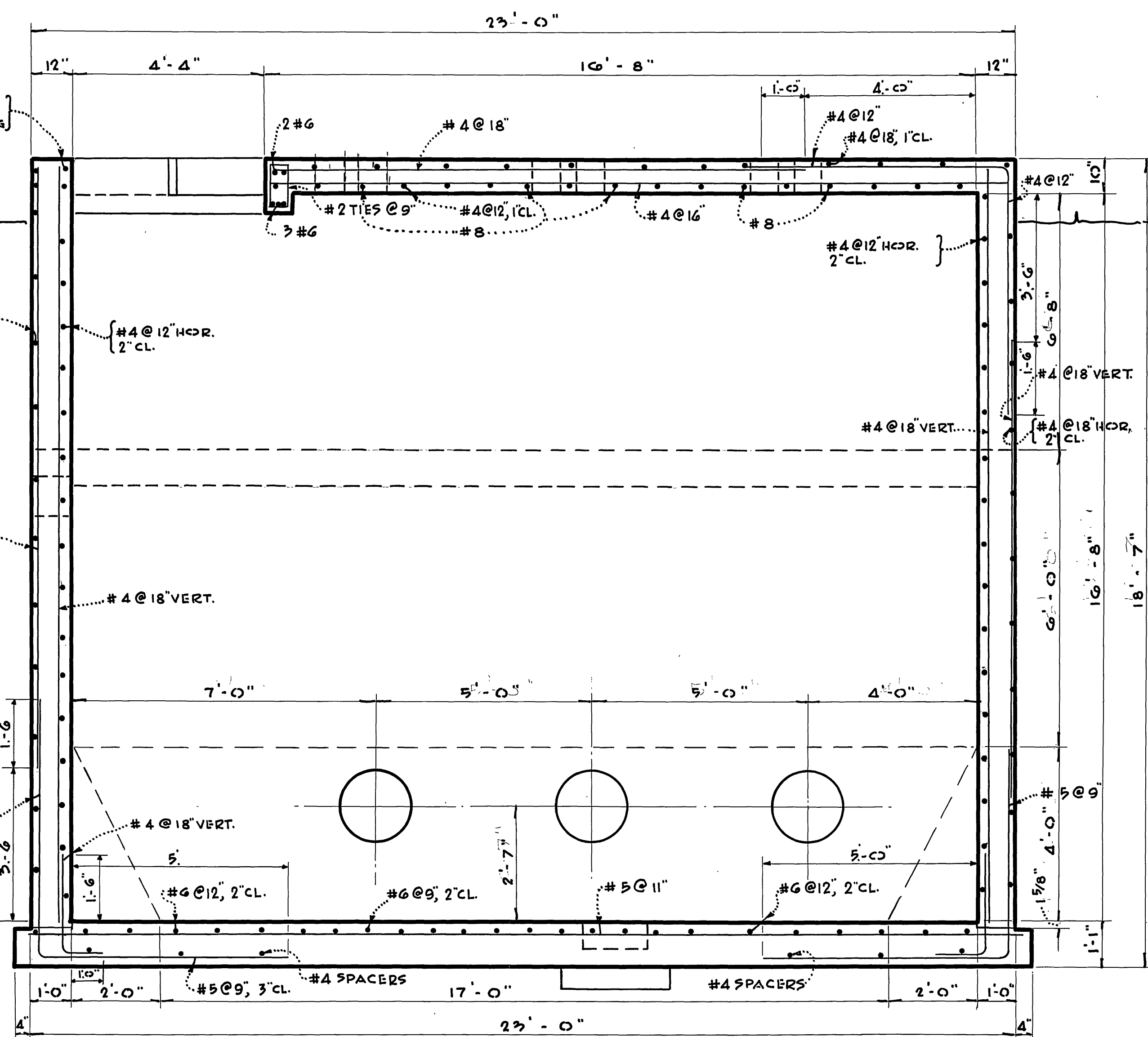
- CONCRETE °.**
- (A) $f'_c = 3000$ P.S.I. @ 28 DAYS
 - (B) $f'_c = 1350$ P.S.I.
 - (C) G SACK MIX, LESS THAN 6 GALLONS OF WATER PER SACK.
- REINFORCING °.**
- (D) $f_s = 20,000$ P.S.I.
 - (E) A.S.T.M. A-305 AND A-15 INTERMEDIATE GRADE.
 - (F) ALL REINFORCING TO HAVE 1" CLEAR EXCEPT AS NOTED.
 - (G) LAP SPLICES 20 DIA.

LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
STRUCTURAL CONSTRUCTION	SHEET NO
HOLE AVE.	11
PUMPING STATION NO 1	OF 21 SHTS.



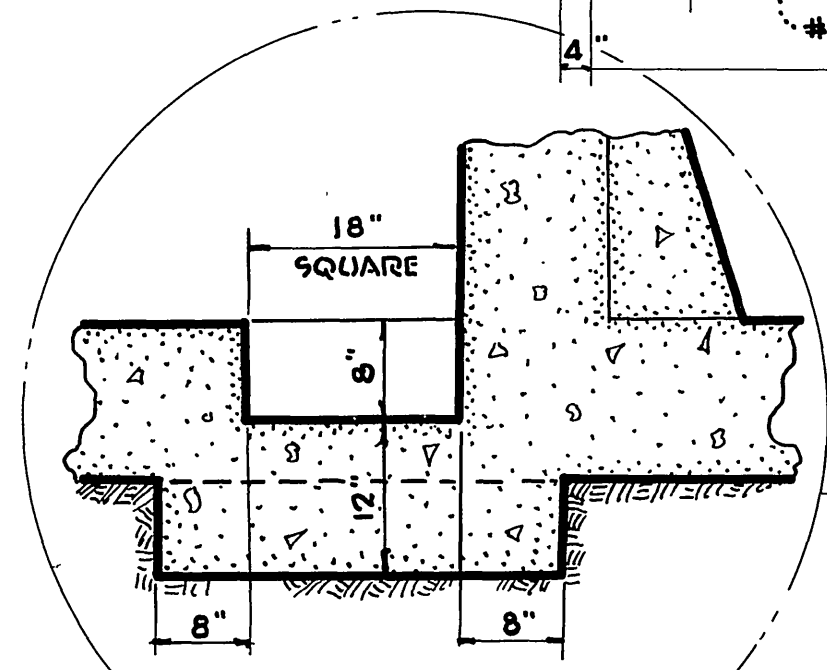
SECTION C-C

SCALE 1/2" = 1'-0"



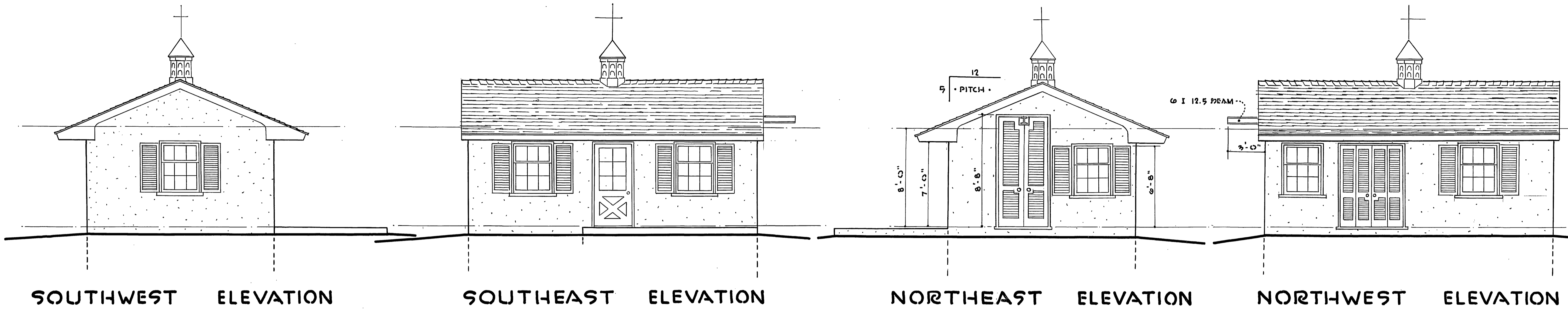
SECTION D-D

SCALE 1/2" = 1'-0"



SECT. E-E
SCALE 3/4" = 1'-0"

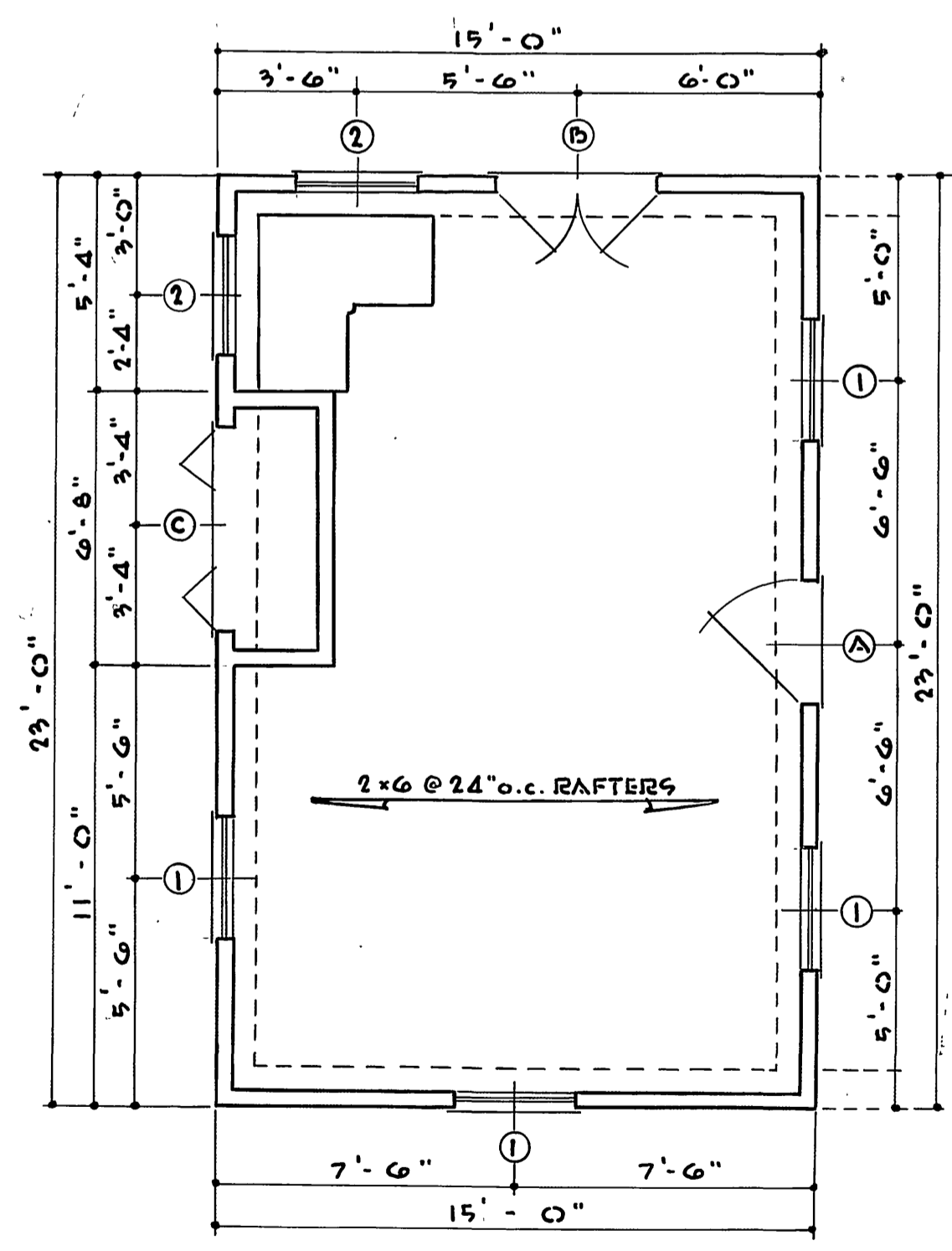
LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
STRUCTURAL CONSTRUCTION	SHEET NO
HOLE AVE.	12
PUMPING STATION NO 1	OF 21 SHTS.



SOUTHWEST ELEVATION SOUTHEAST ELEVATION NORTHEAST ELEVATION NORTHWEST ELEVATION

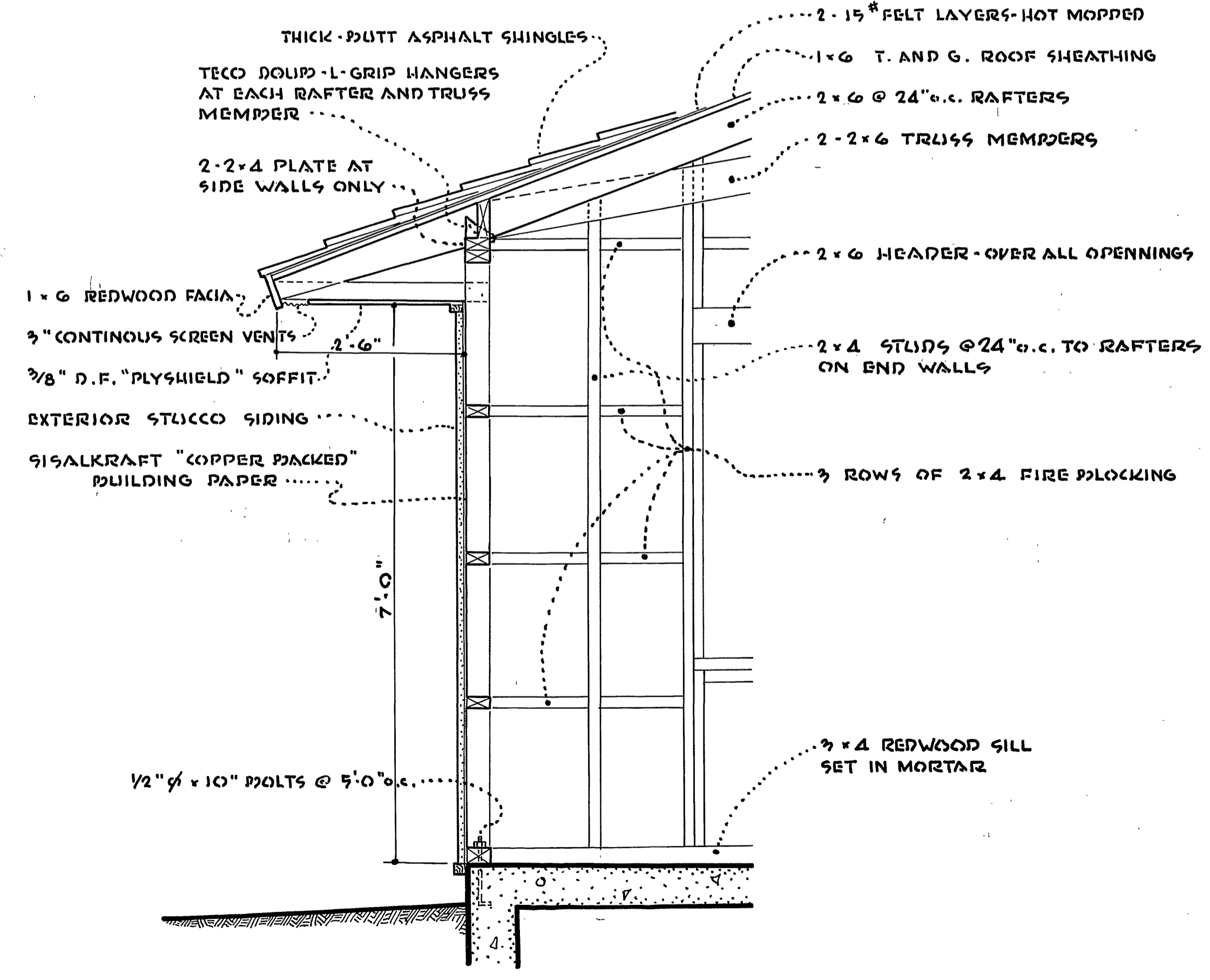
PUMPING STATION HOUSE
ELEVATIONS OF STRUCTURE

SCALE 1/4" = 1'-0"



FLOOR PLAN
 SCALE 1/4" = 1'-0"

DOORS					WINDOWS				
MARK	WIDTH	HEIGHT	THICK	REMARKS	MARK	WIDTH	HEIGHT	TYPE	SCREEN
A	3'-0"	6'-8"	1 3/4"	SEE ELEV.	1	3'-0"	4'-0"	D.H.	YES
B	4'-0"	8'-8"	1 3/4"	LOUVRE	2	3'-0"	4'-0"	FIXED	NO
C	5'-0"	6'-8"	1 3/4"	LOUVRE 4-15" SASH					



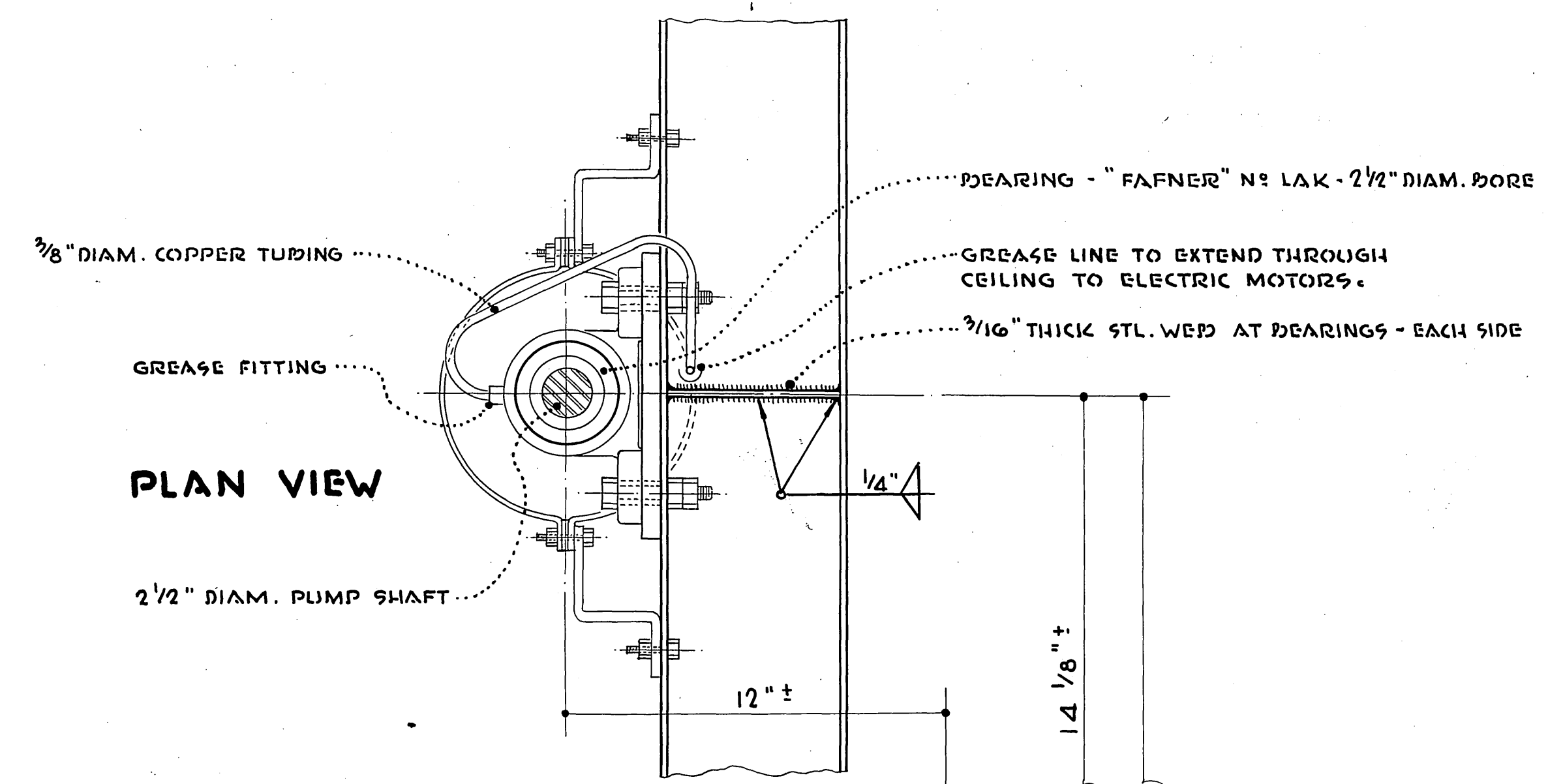
TYPICAL SECTION
 SCALE 3/4" = 1'-0"

GENERAL NOTES

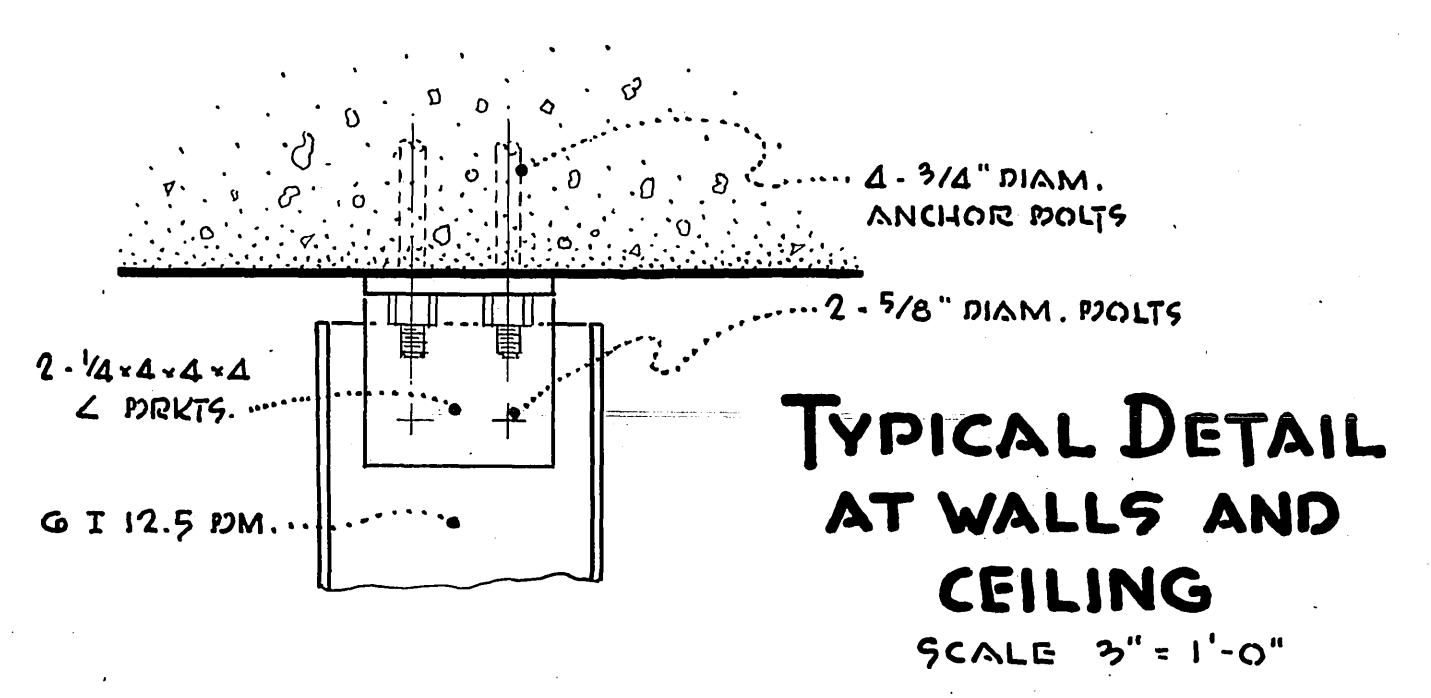
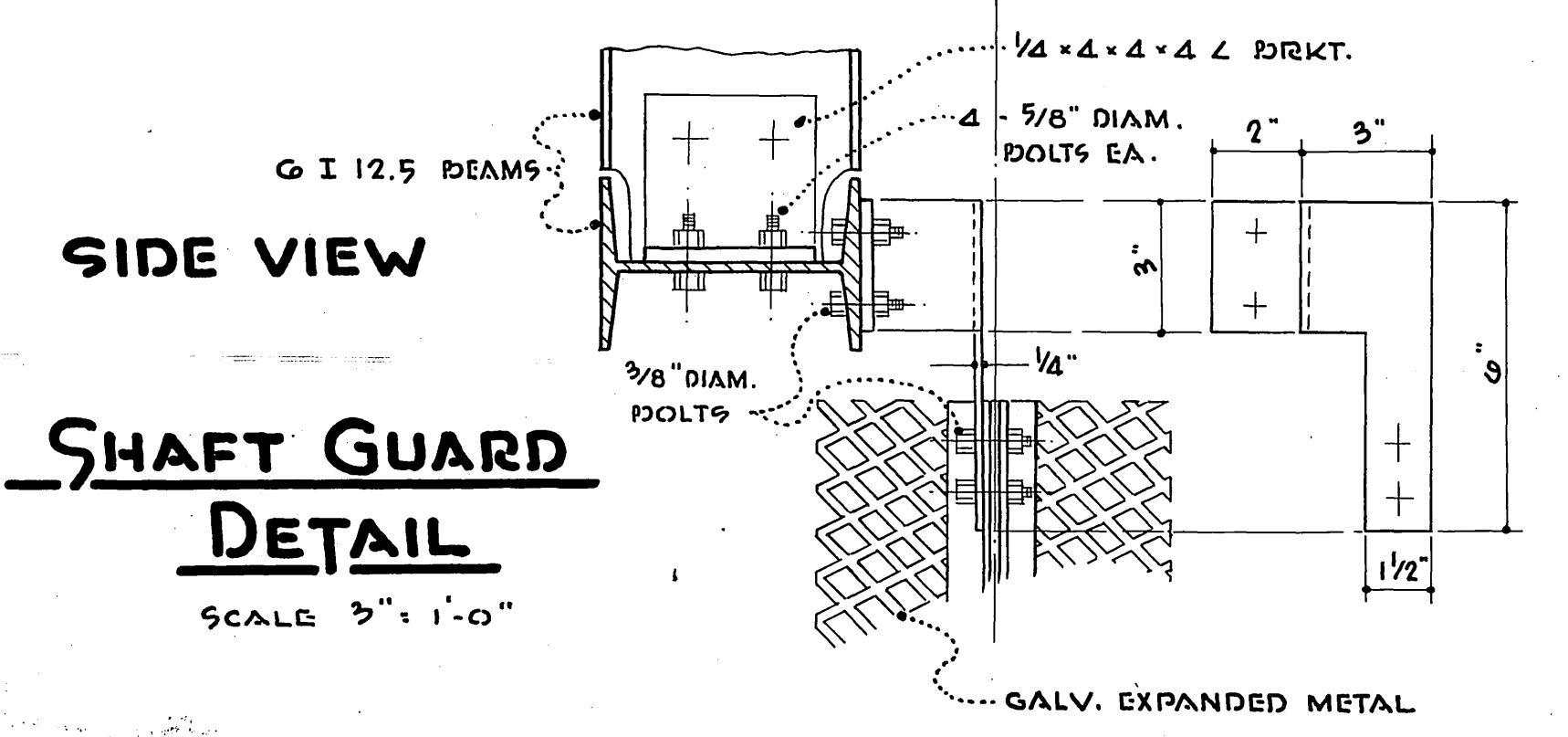
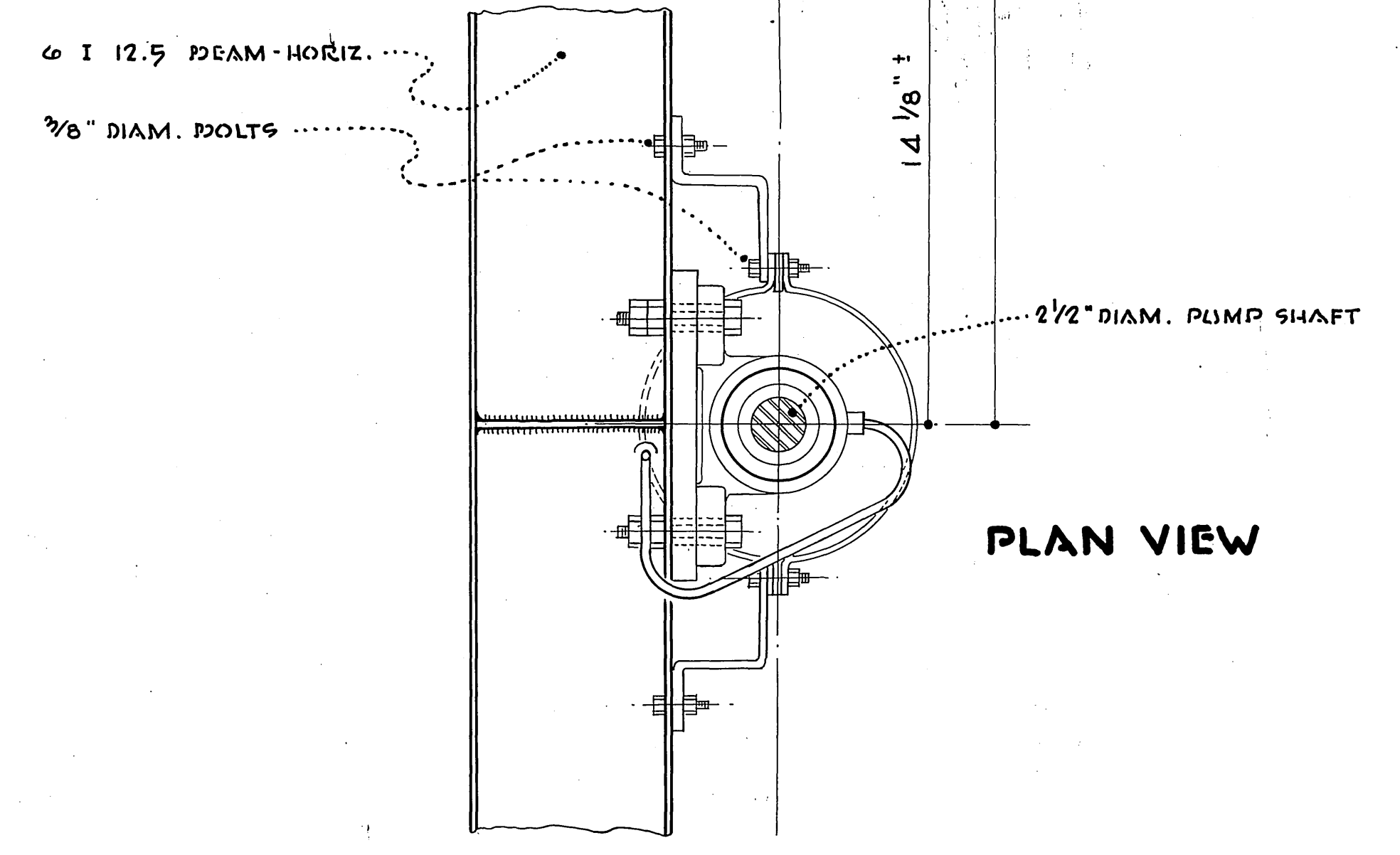
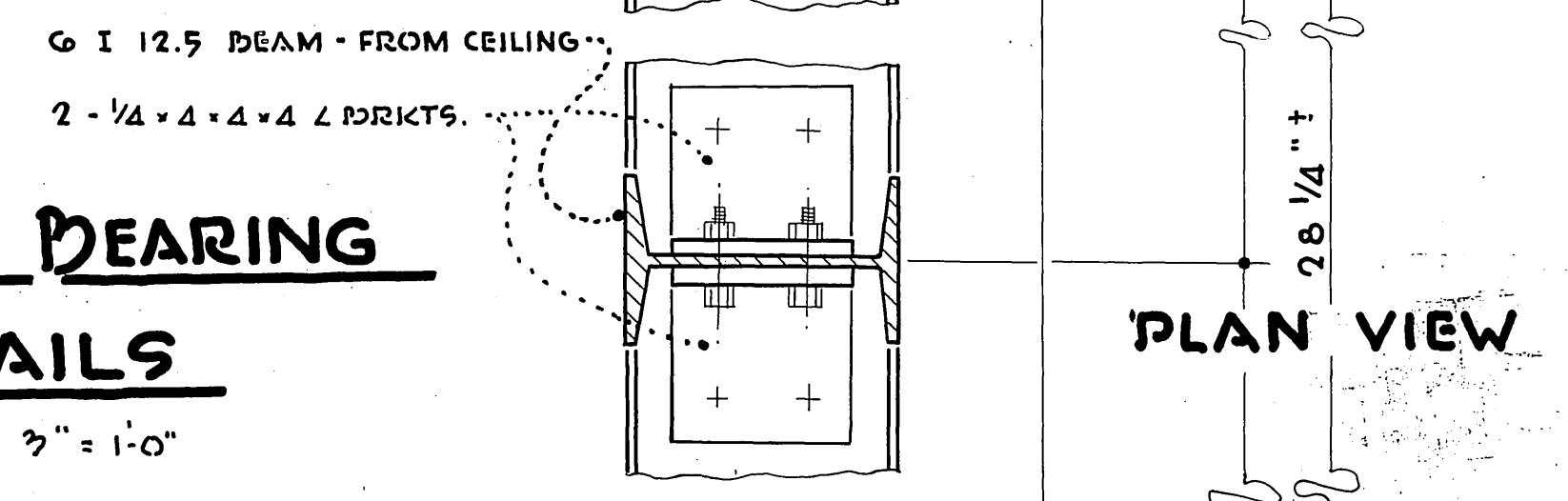
- FRAMING SCHEDULE: - MINIMUM REQUIREMENT FOR FRAMING MEMBERS SHALL BE:
- (a) MUDSILLS . . . SHALL BE 3 x 4 FOUNDATION GRADE REDWOOD.
 - (b) STUDDING . . . SHALL BE NO. 1 COMMON DOUGLAS FIR 2 x 4's.
 - (c) PLATES, FIRE STOPS AND ALL SHORT PIECES SHALL BE NO. 1 COMMON OR BETTER.
 - (d) RAFTERS . . . SHALL BE NO. 1 DIMENSION OR BETTER D.F.
 - (e) ROOF SHEATHING SHALL BE 1 x 6 SELECT MERCHANTABLE T. AND G. D.F.
- WINDOWS: - SHALL BE WOOD SASH WITH "B" QUALITY GLASS, SCREENS, AND WOOD LOUVRE SHUTTERS AS SHOWN ON PLANS.
- DOORS: - DOORS SHALL BE 1 3/4" THICK WITH WOOD LOUVRES AS SHOWN ON PLANS. DOOR NO. "B" SHALL HAVE 1" - 16 ga. FLAT EXPANDED METAL ATTACHED TO THE INSIDE FACE. DOOR NO. "A" SHALL HAVE 6 PANELS OF "B" QUALITY GLASS. SEE SOUTHEAST ELEVATION.
- PAINTING:
- (a) INTERIOR . . . PAINT ALL INTERIOR SURFACES, FIXTURES AND EQUIPMENT ABOVE GROUND LEVEL WITH PAINT AS SPECIFIED FOR SEWAGE FACILITIES BY THE INERTOL CO., INC. (SPECIFICATION NO. 770-C) THE COLOR BY THE DISTRICT.
 - (b) EXTERIOR . . . SHALL BE COLOR COAT STUCCO. COLOR BY THE DISTRICT. ALL WOOD TRIM, DOORS, SHUTTERS, ETC., SHALL BE PAINTED WITH 3 COATS AS SPECIFIED BY THE W. P. FULLER COMPANY.
 - (1) First coat shall be Fullers Pure Prepared Primer;
 - (2) Second and third coats shall be Fullers Pure Prepared House Paint or Architectural Colors. Colors by the District.
- HARDWARE: . . . THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ROUGH AND FINISH HARDWARE, P & F CORBIN, OR APPROVED EQUAL.
- LIGHTING FIXTURES: . . .
- (a) 2" GRAYBAR STEBERLITE FLOOD LITE NO. S-300 PAR-38 LAMP.
 - (b) 1 "PRYNE" NO. 103.45 RECESSED FIXTURE OVER FRONT DOOR.
 - (c) 3 "SMOOT-HULMAN" NO. VT-34R-WG HUNGUNDER BEAMS.
 - (d) 6 "CROUSE-HINDS" NO. VC 22009 LAMPS HUNG IN STAIRWELL AND ON WALL OF PUMP ROOM.
- FLASHING: . . . THE CONTRACTOR SHALL FURNISH ALL REQUIRED FLASHING. SHEET METAL SHALL BE 26 ga. GALVANIZED.
- GRADING: . . . ALL EXCESS EXCAVATION MATERIAL SHALL BE NEATLY SPREAD IN A UNIFORM SLOPE TO DRAIN AWAY FROM THE BUILDING APPROXIMATELY 20' - 0" TO NATURAL GRADE.
- UPON COMPLETION, THE BUILDING AND GROUNDS SHALL BE LEFT THOROUGHLY CLEANED OF ALL RUBBISH AND MATERIAL, GLASS CLEANED AND FLOORS BROOM CLEANED.
- ALL WORK SHALL CONFORM TO THE BUILDING CODE OF THE COUNTY OF RIVERSIDE.

**LA SIERRA
 COMMUNITY SERVICES DIST.**
 RIVERSIDE COUNTY, CALIFORNIA.

FRAME STRUCTURE	SHEET NO.
HOLE AVE.	13
PUMPING STATION NO. 1	OF 21 SHTS.

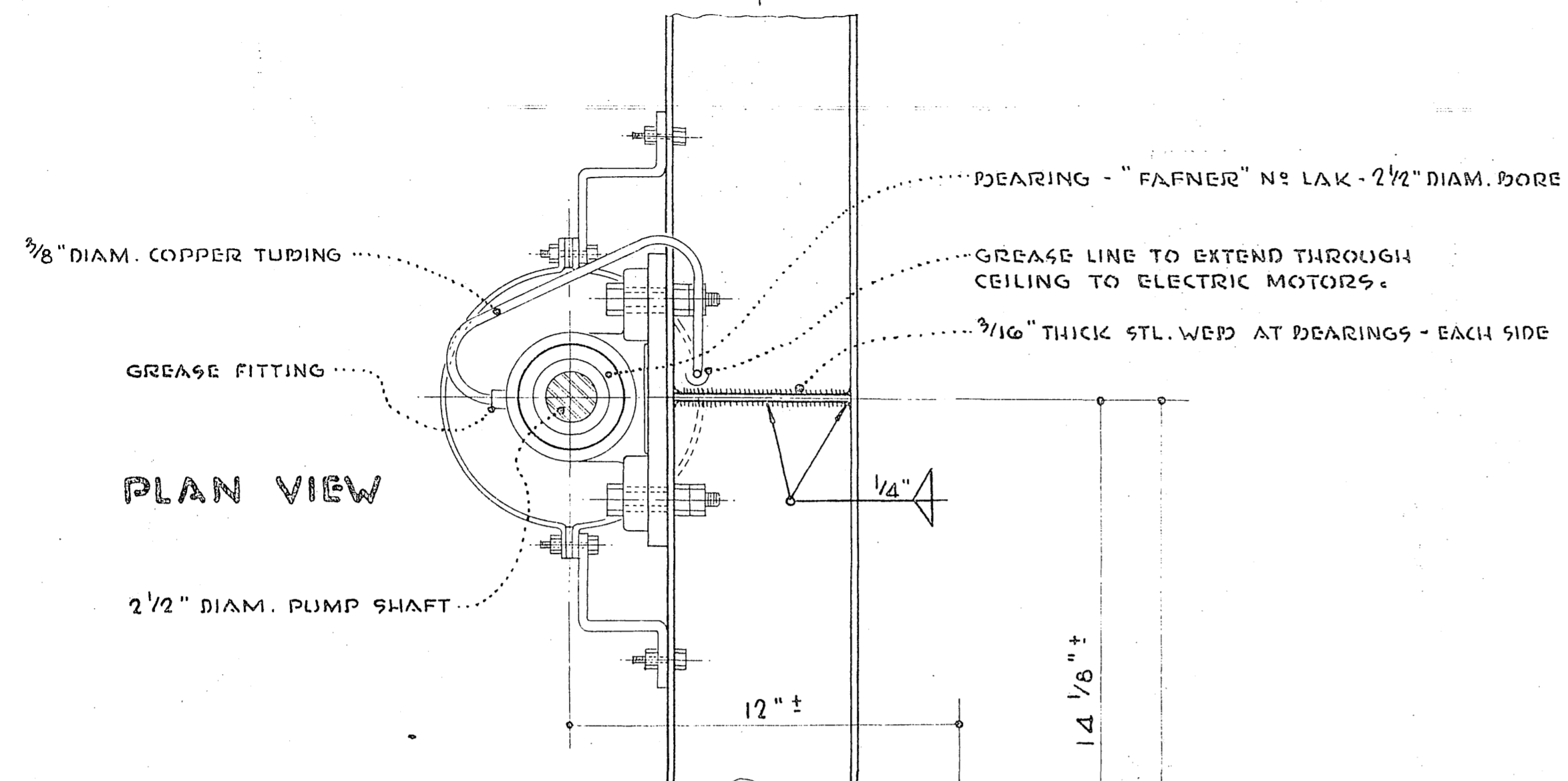


**STEADY BEARING
DETAILS**
SCALE 3" = 1'-0"

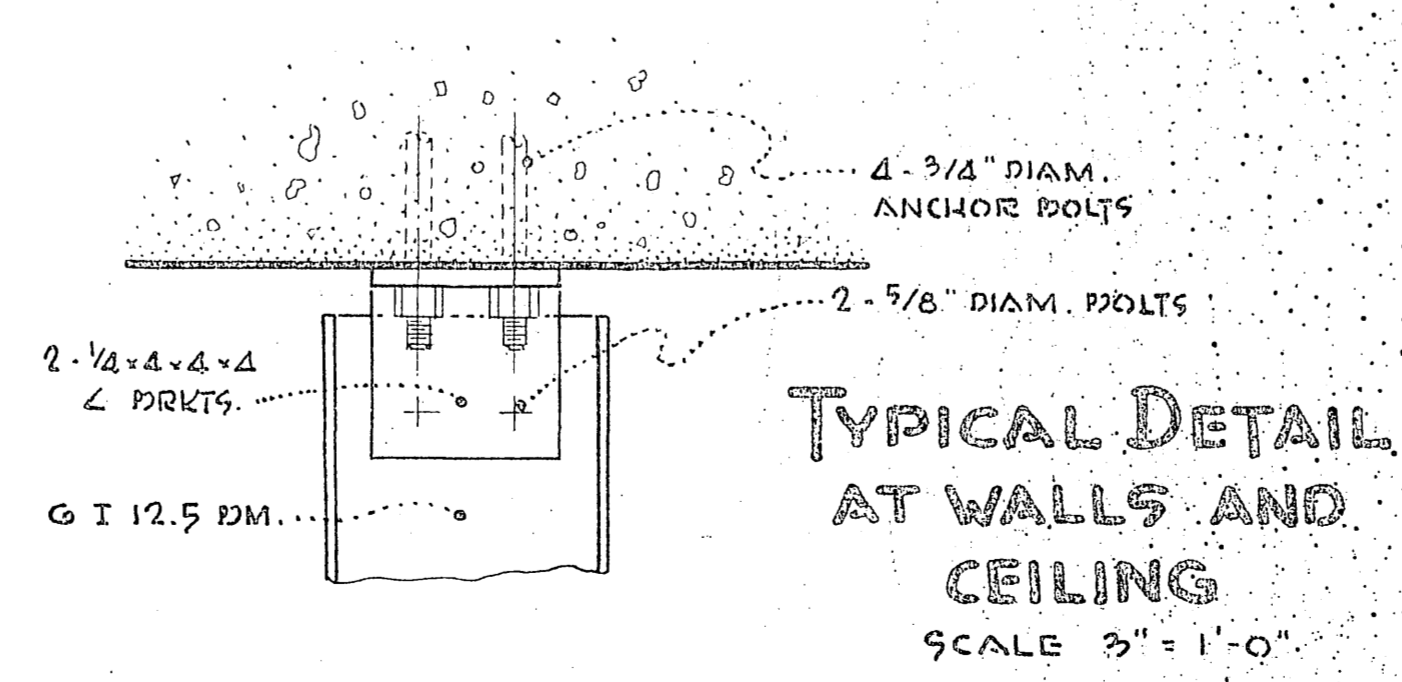
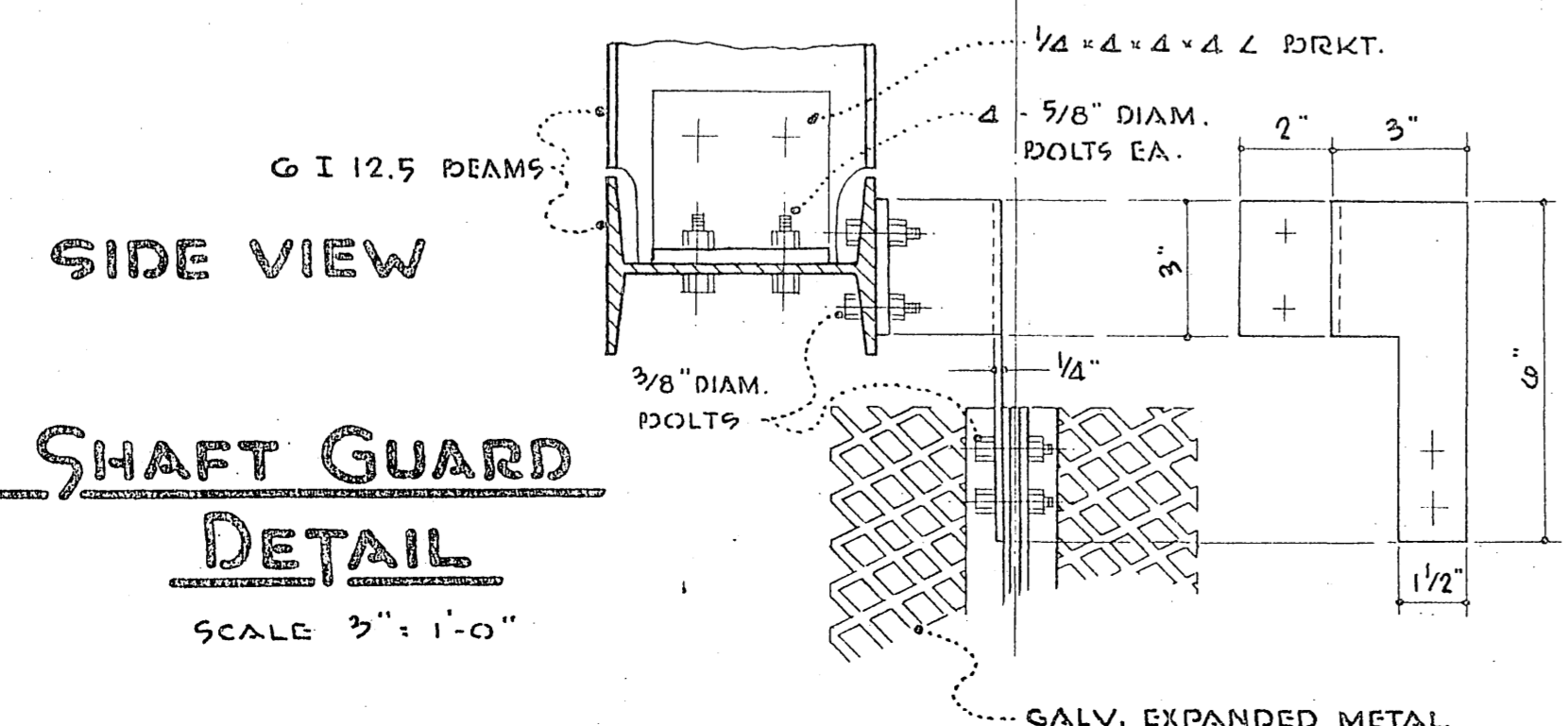
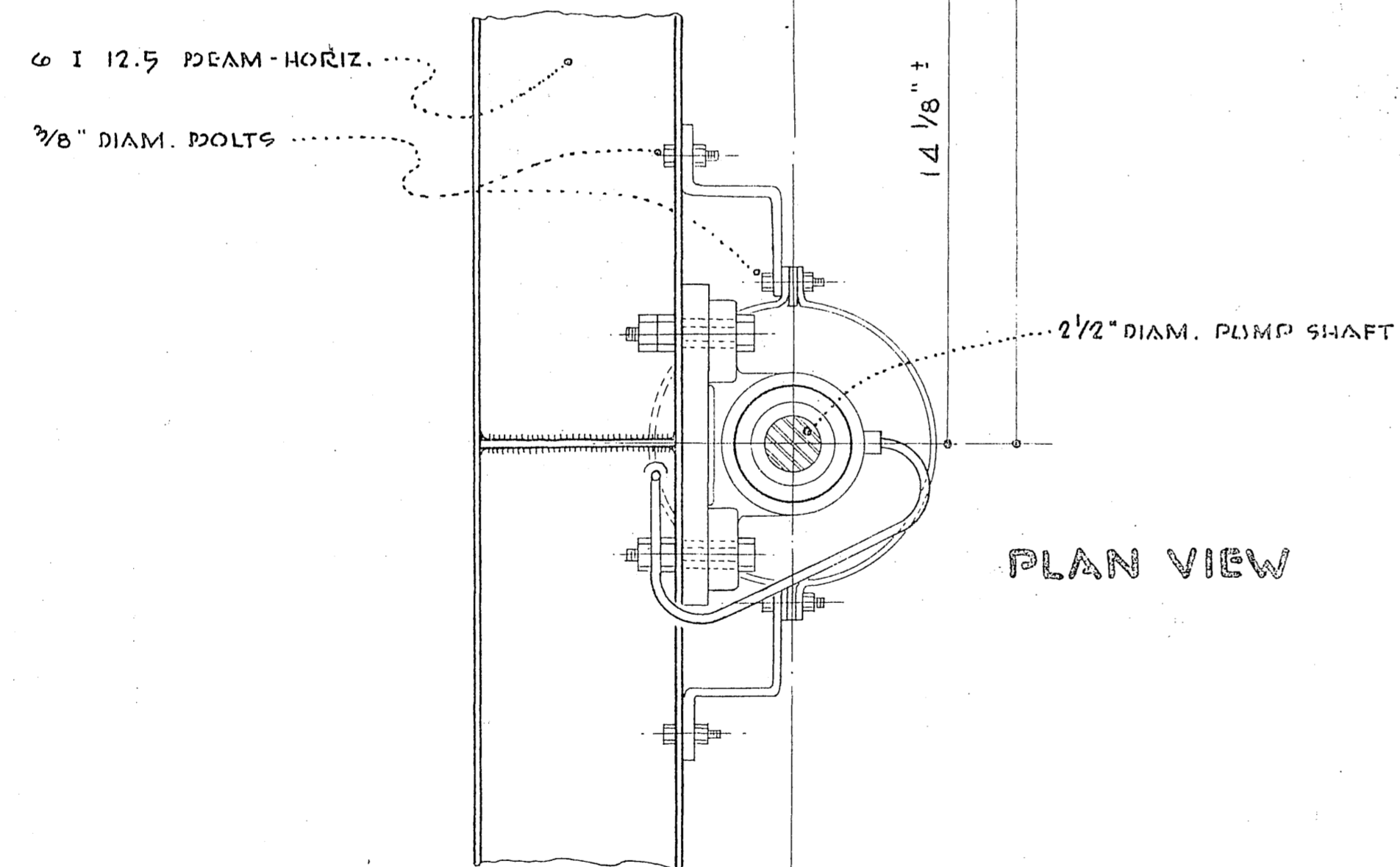
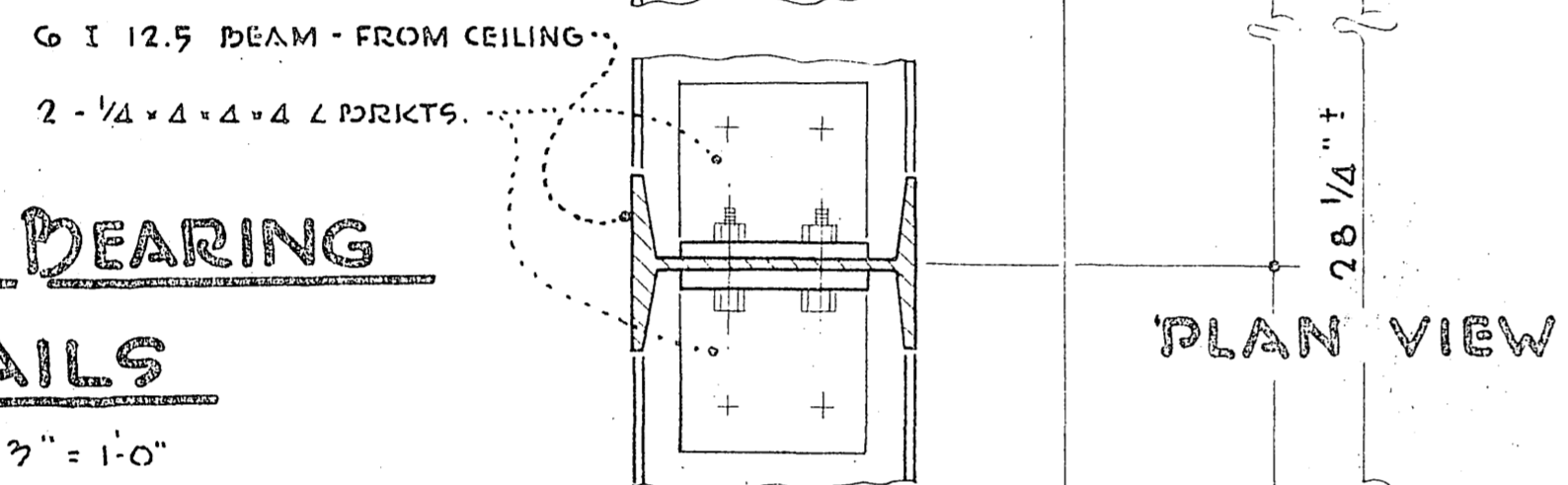


LA SIERRA COMMUNITY SERVICES DIST. <small>RIVERSIDE COUNTY, CALIFORNIA</small>	
DETAIL HOLE AVE. <small>PUMPING STATION NO. 1</small>	SHEET NO. 14 <small>OF 21 SHTS</small>

S-5110-420



**STEADY BEARING
 DETAILS**
 SCALE 3" = 1'-0"



LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
DETAIL HOLE AVE. PUMPING STATION N°1	SHEET NO 14 OF 21 SHTS

NOTES

PUMP MOTORS INSTALL 4 - 50 hp., 1170 r.p.m., three-phase, 440 Volt, 60 cycle pump motors.

SEWAGE PUMPS INSTALL 4 - 6" vertical shaft sewage pumps with non-clogging vortex type with recessed impeller. Wemco 6" Model "DV", or approved equal.

PUMP CONTROL Electrode controls with an alternator containing two transformer type relays and ratchet relay. Two standby positive action float switches shall be installed in accordance with the Plans and Specifications. Each pump switch shall be equipped with a hand-off-automatic selector switch in panel and dry well.

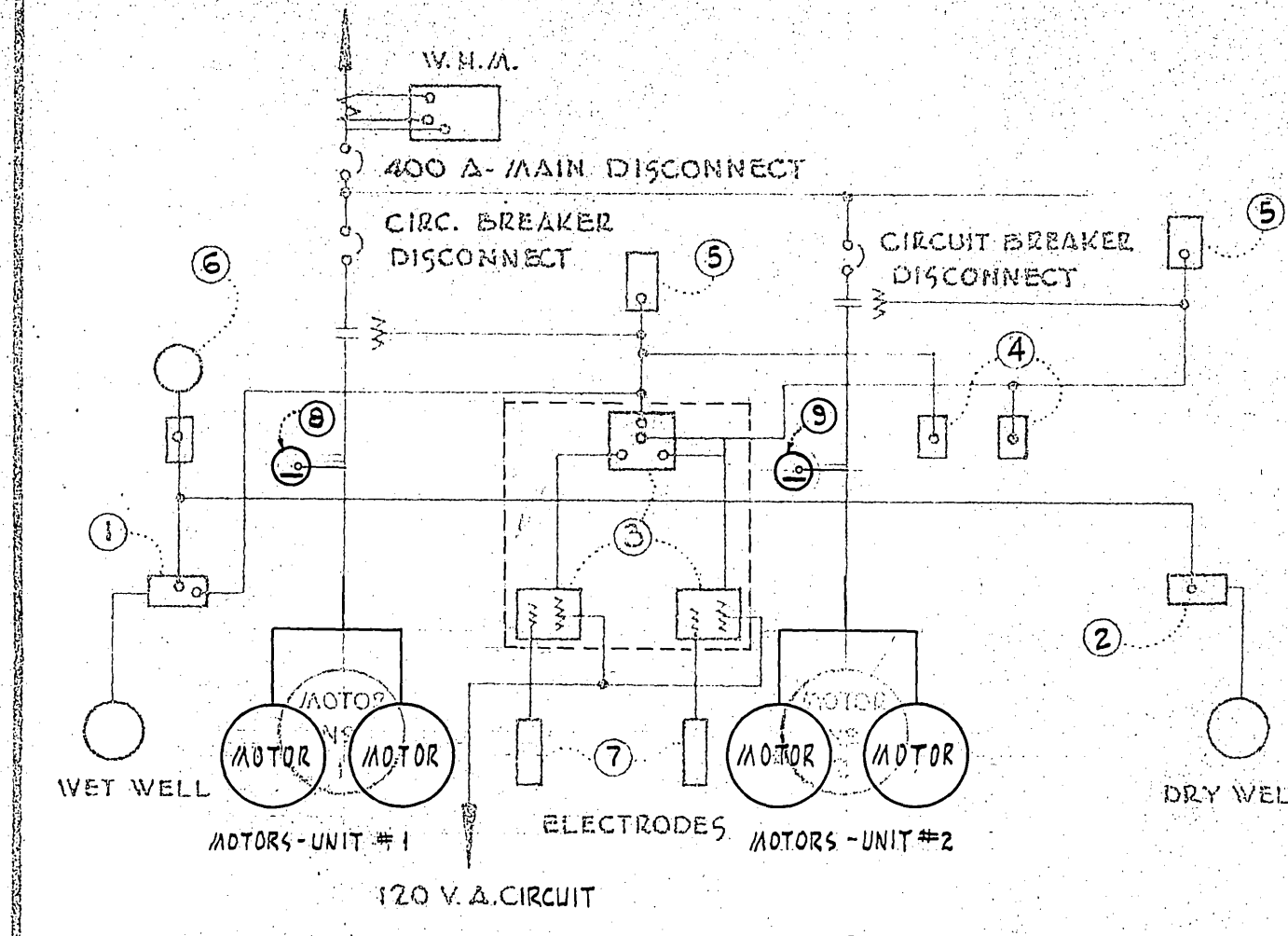
FLOW METERS INSTALL 2 - time meters, type KT 550 x 19 (480V), General Electric, or approved equal.

CENTRIFUGAL FAN INSTALL 1 L.L.G. centrifugal fan type 20-D, 440 Volt, three-phase, 60 cycle, 1750 r.p.m., or approved equal.

PAINT Paint all interior surfaces, pipes, fixtures and equipment below ground with paint as specified for sewer facilities and manufactured by Inertol Co., Inc. and set forth in the "Inertol Specifications 770-C", or approved equal.

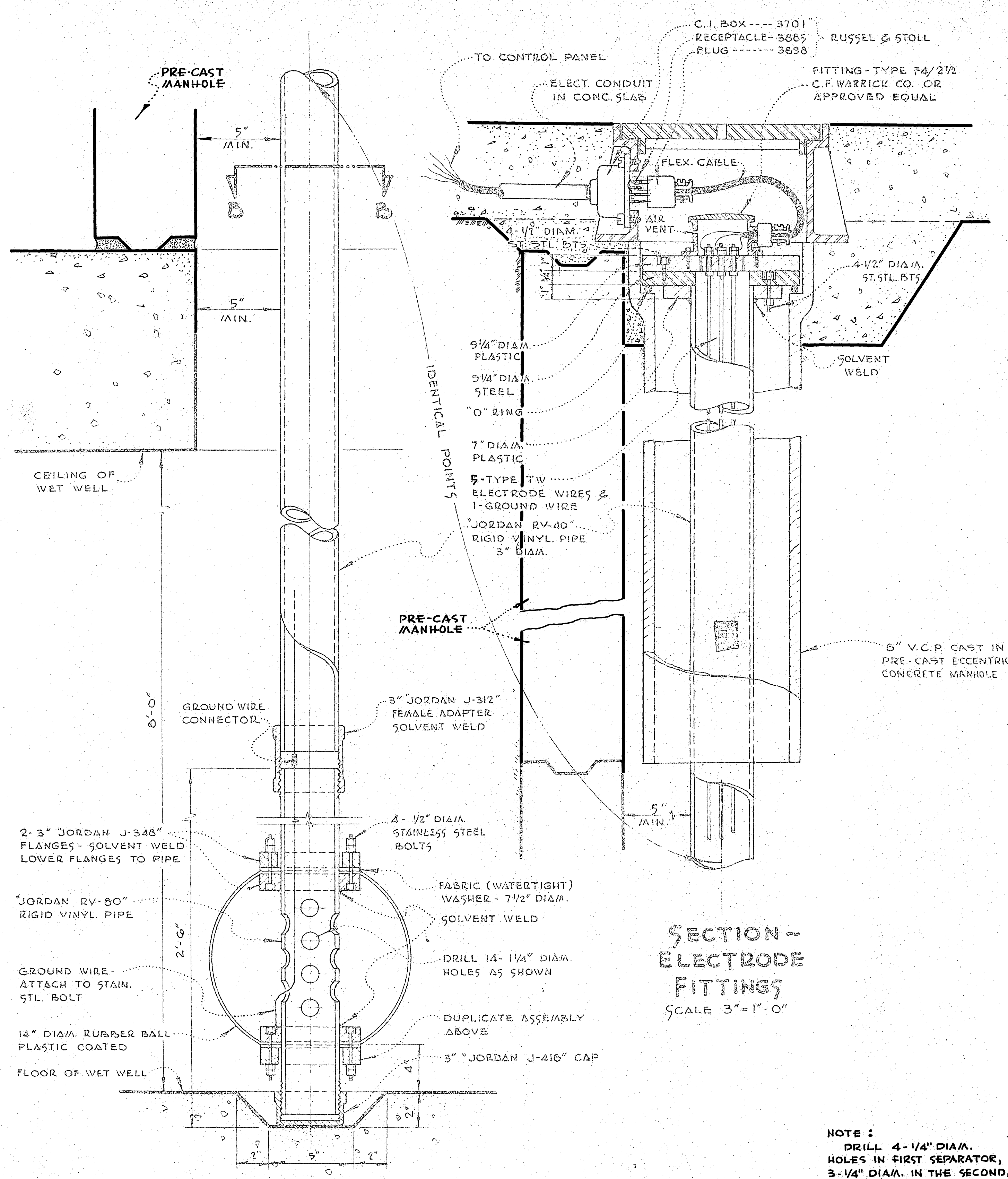
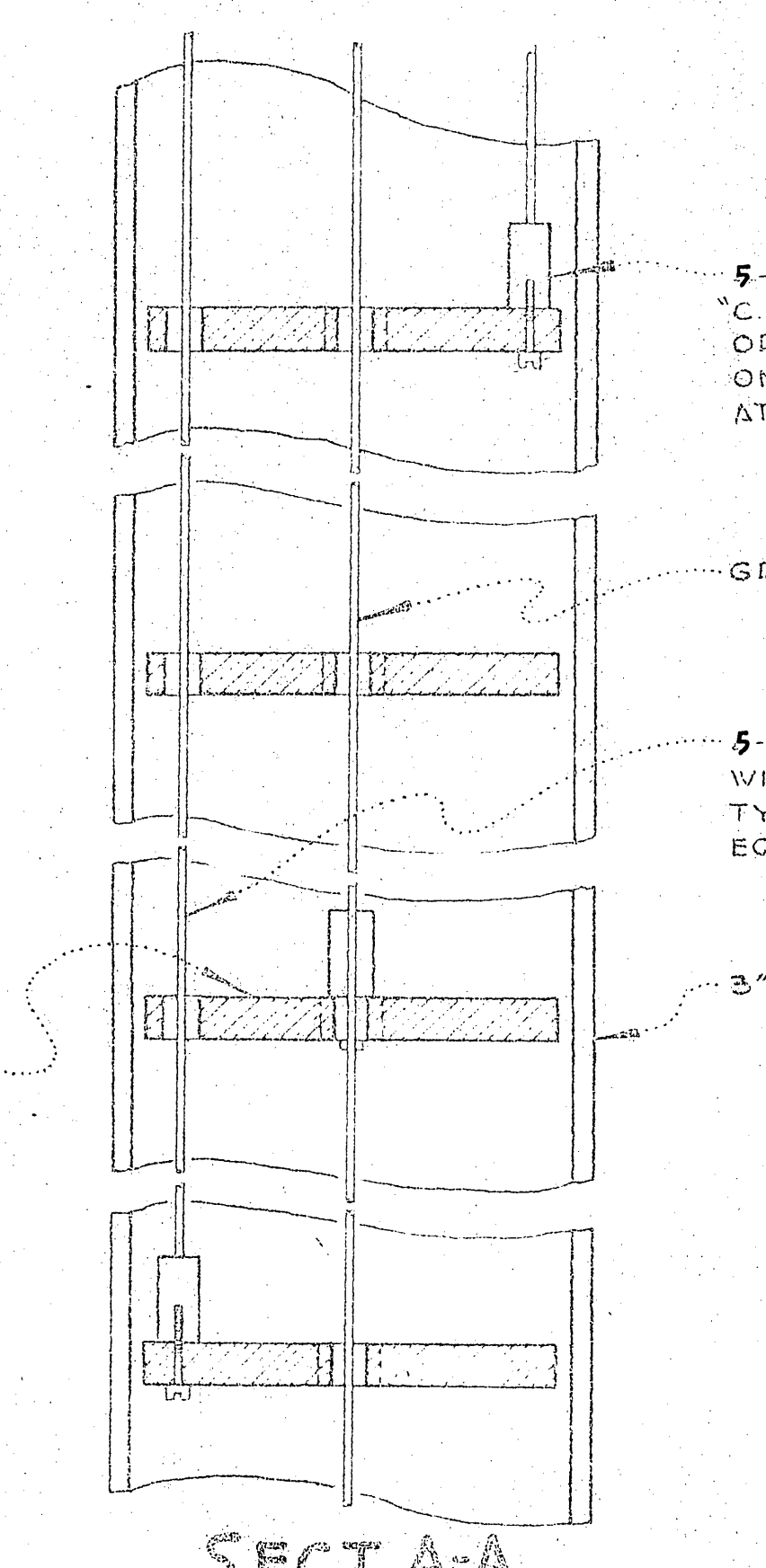
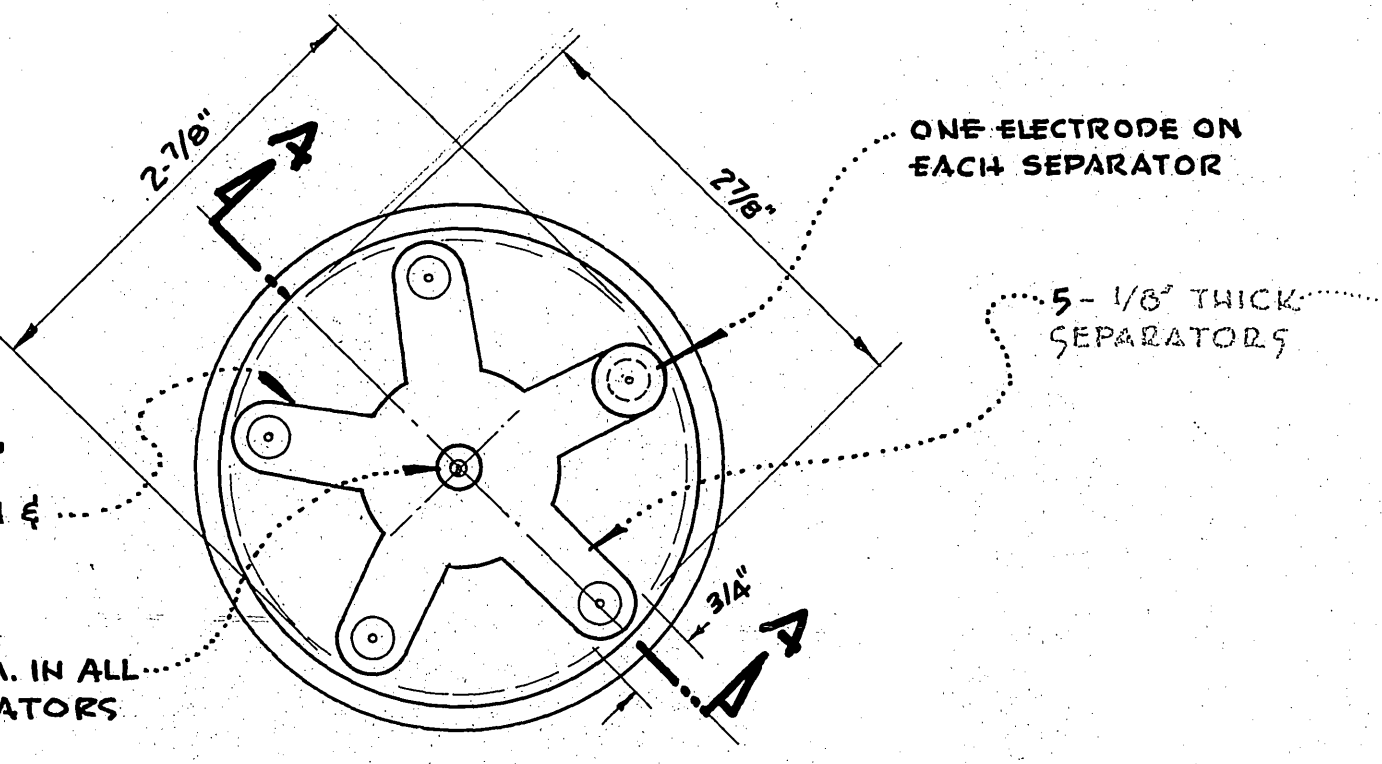
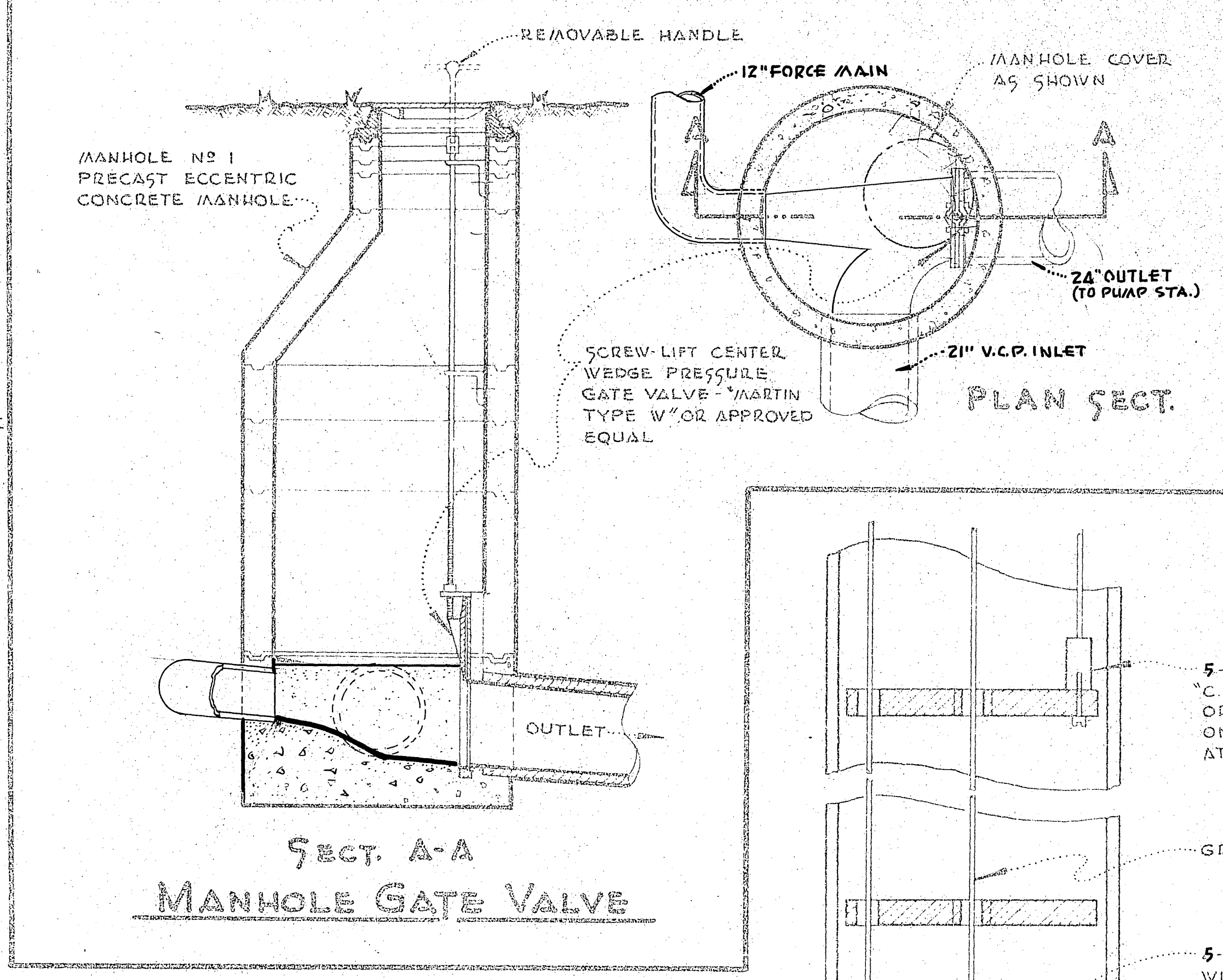
FLOOR FINISH All floors shall have a sand floated finish.

HOLE PUMP STATION SCHEDULE



- 1 FLOAT SWITCH, TYPE 191, HEALY-RUFF CO. OR APPROVED EQUAL, LOCATE IN WET WELL.
- 2 FLOAT SWITCH, TYPE 191, HEALY-RUFF CO. OR APPROVED EQUAL, LOCATE IN DRY WELL.
- 3 ALTERNATE, SERIES "ALT 2" C.F. WARRICK CO. OR APPROVED EQUAL. PANEL TO CONTAIN 2 TRANSFORMER TYPE RELAYS, ONE NORMALLY OPEN, ONE NORMALLY CLOSED AND ONE NORMALLY OPEN HOLDING CONTACTS; PRIMARY TO OPERATE ON 120 V. 60 CYCLE CIRCUIT) PANEL ALSO TO CONTAIN ONE SINGLE POLE RATCHET RELAY.
- 4 H.O.A. SWITCHES, INSTALL IN DRY WELL.
- 5 H.O.A. SWITCHES, INSTALL ON PANEL.
- 6 8" ALARM BELL - LOCATE IN FIELD
- 7 ELECTRODE HOUSING, SEE DETAIL ON PLANS.
- 8 TIME METER, TYPE KT 550x19 (480V) G.E. CO. OR APPROVED EQUAL FOR UNIT #1.
- 9 TIME METER, TYPE KT 550x19 (480V) G.E. CO. OR APPROVED EQUAL, FOR UNIT #2.

POWER CONTROL CIRCUIT

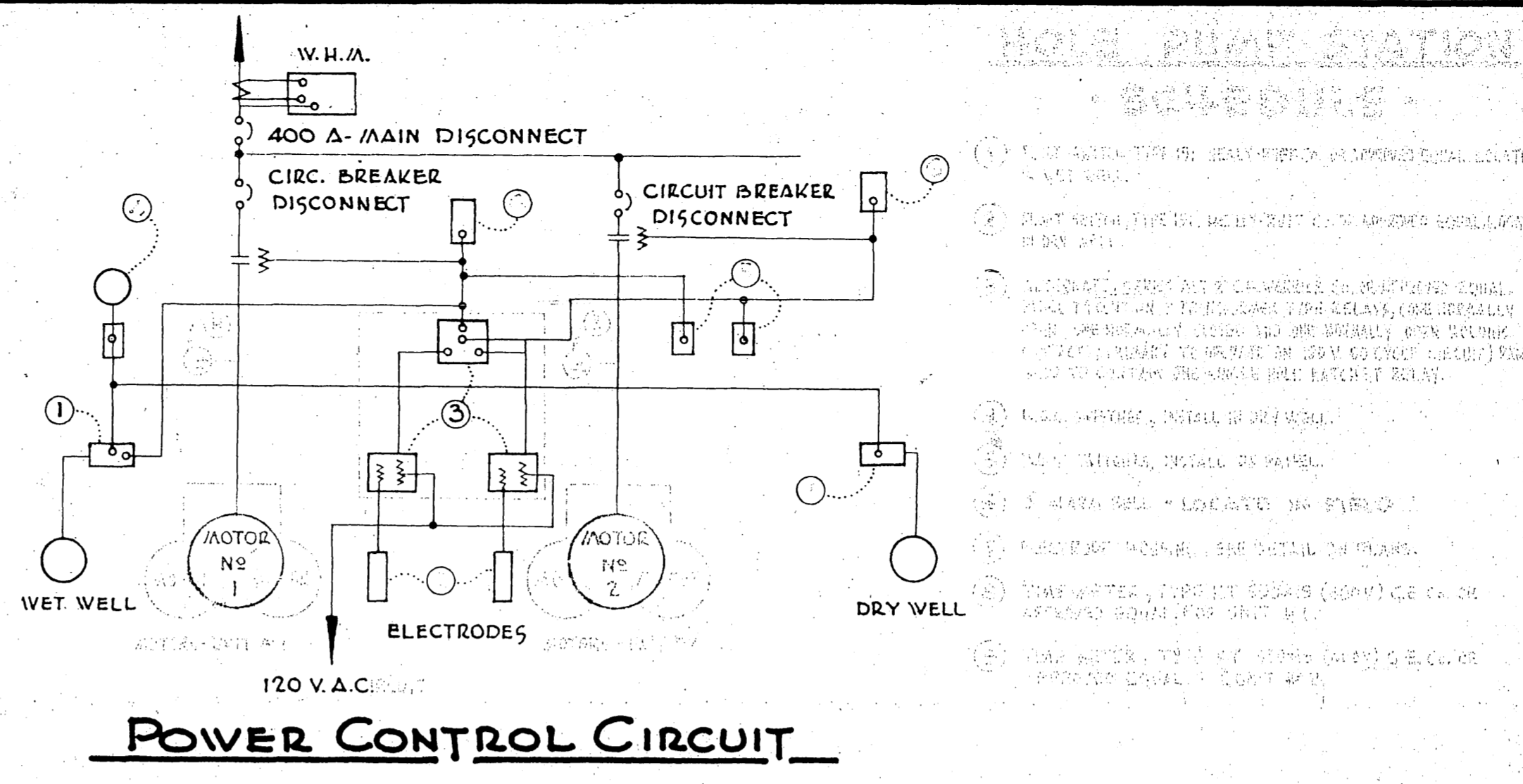
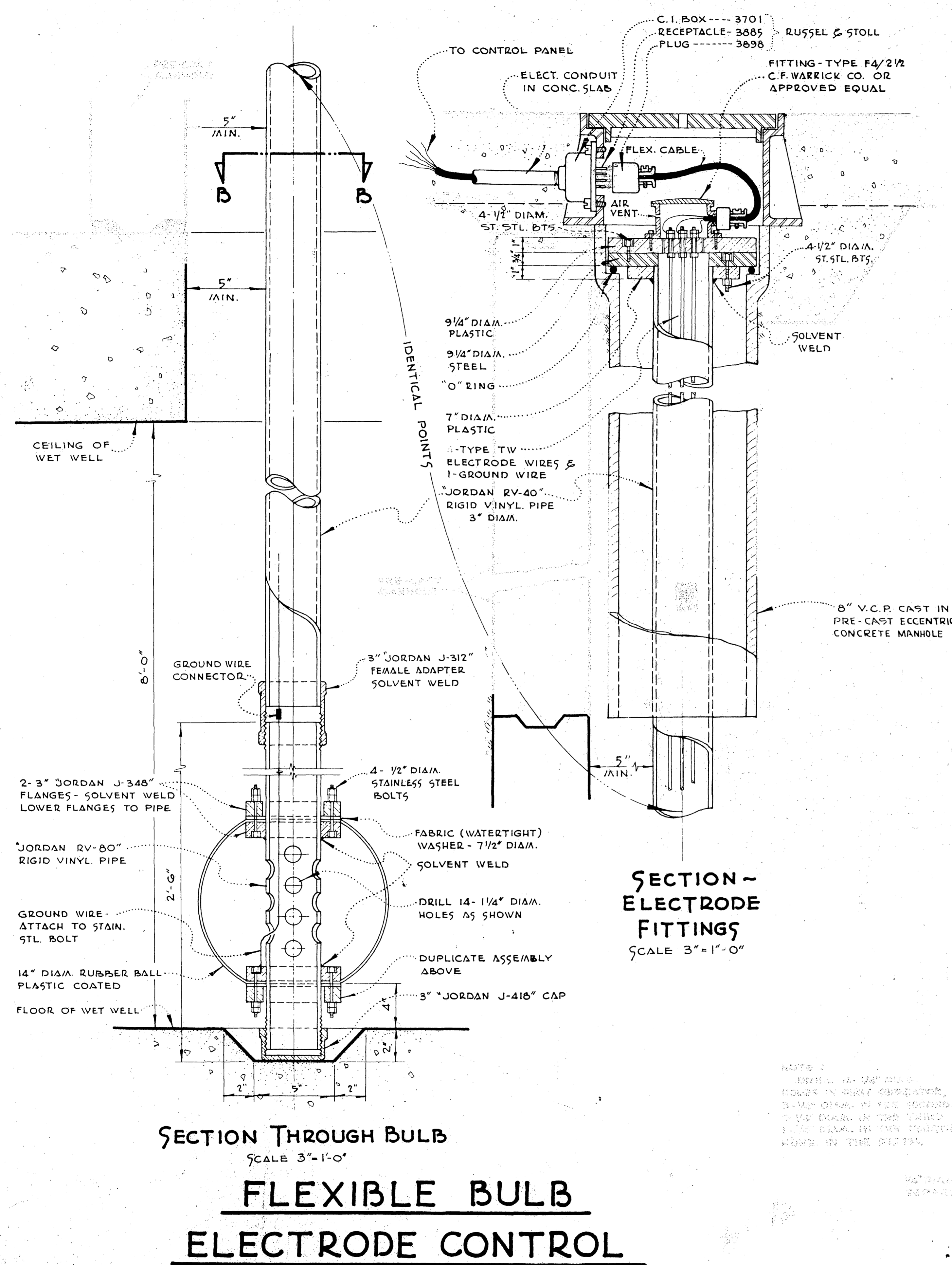


SECTION - ELECTRODE FITTINGS
SCALE 3" = 1'-0"

SECTION THROUGH BULB FLEXIBLE BULB ELECTRODE CONTROL
SCALE 3" = 1'-0"

NOTE:
DRILL 4- 1/4" DIA. HOLES IN FIRST SEPARATOR, 3- 1/4" DIA. IN THE SECOND, 2- 1/4" DIA. IN THE THIRD, 1- 1/4" DIA. IN THE FOURTH & NONE IN THE FIFTH.

LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.
DETAIL ELECTRICAL HOLE AVE. PUMPING STATION #1
SHEET NO 15 OF 21 SHEETS
S-511



- NOTES
1. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 2. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 3. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 4. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 5. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 6. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
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 8. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 9. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.
 10. ALL WELDS SHALL BE FULL PENETRATION BUTTED JOINTS.

NOTES

PUMP MOTORS INSTALL 2 - time meters, type KT 550 x 19 (480V), General Electric, or approved equal.

SEWAGE PUMPS INSTALL 4 - 6" vertical shaft sewage pumps with non-clogging vortex type with recessed impeller, model 6" model "DV", or approved equal.

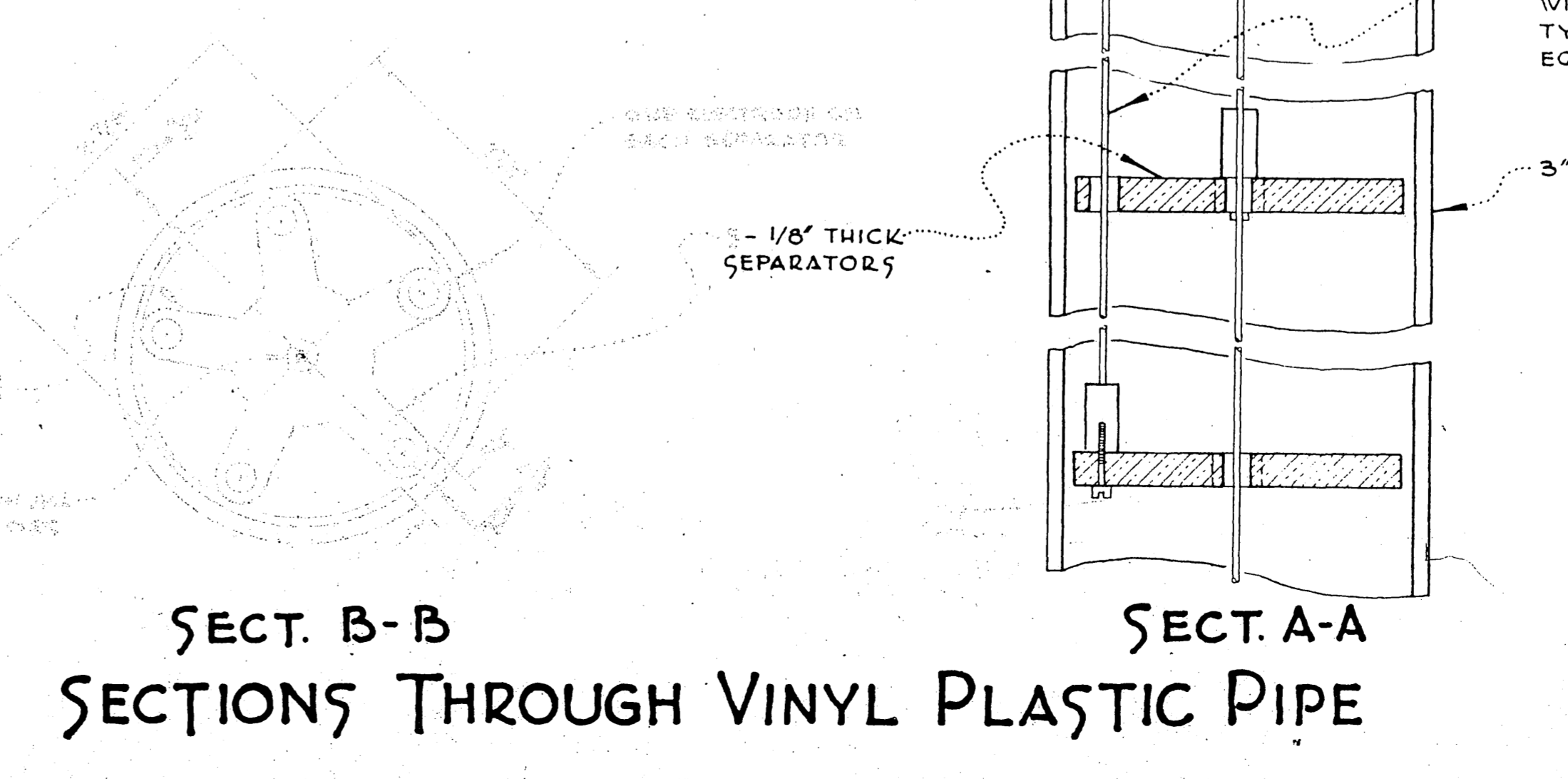
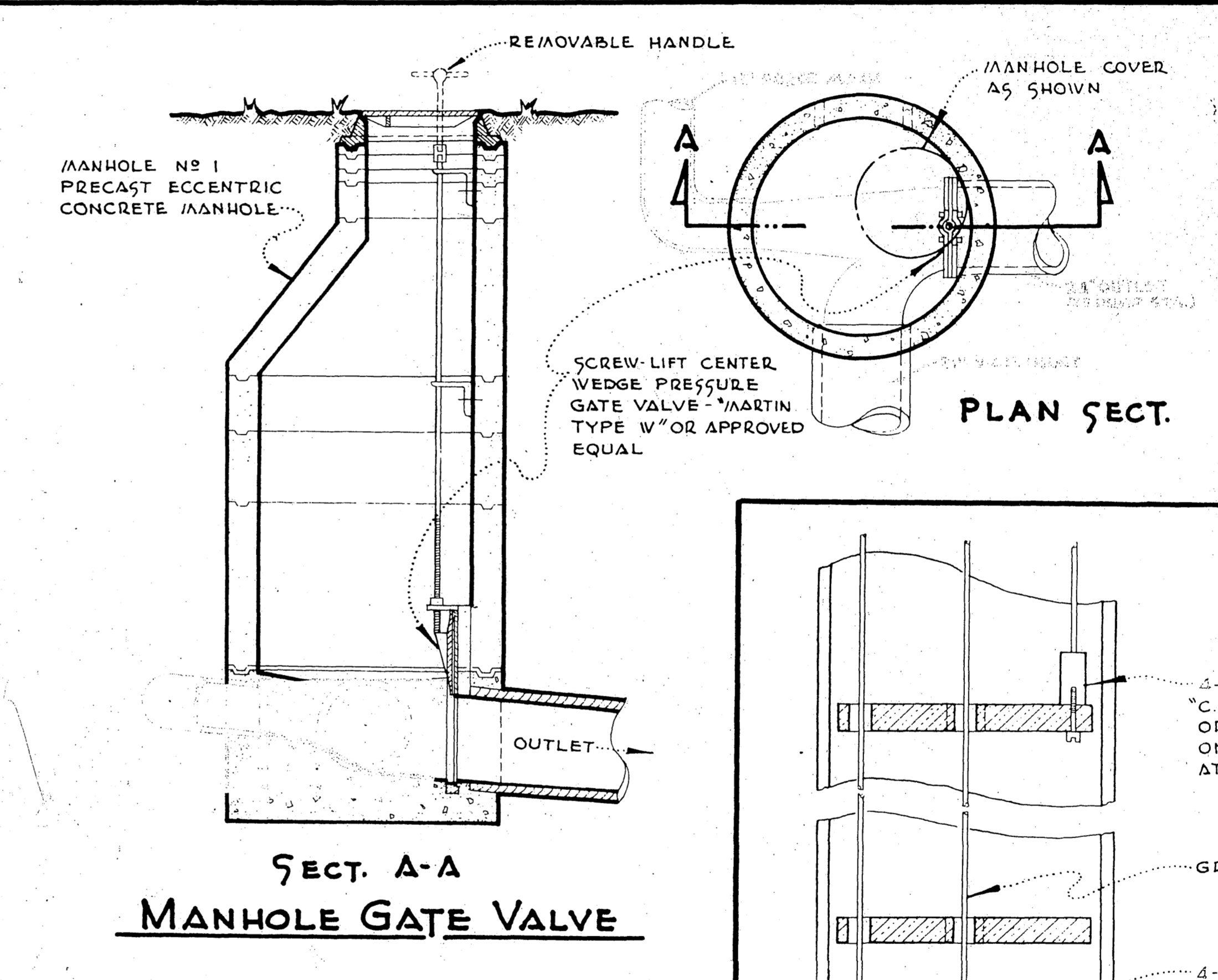
PUMP CONTROL Electrode controls with an alternator containing two transformer type relays and ratchet relay. Two standby positive action float switches shall be installed in accordance with the Plans and Specifications. Each pump switch shall be equipped with a hand-off-automatic selector switch in panel and dry well.

FLOW METERS INSTALL 2 - time meters, type KT 550 x 19 (480V), General Electric, or approved equal.

CENTRIFUGAL FAN INSTALL I.L.G. centrifugal fan type 20-D, 440 Volt, three-phase, 60 cycle, 1750 r.p.m., or approved equal.

PAINT Paint all interior surfaces, pipes, fixtures and equipment below ground with paint as specified for sewer facilities and manufactured by "Inertol Co., Inc." and set forth in the "Inertol Specifications 770-C", or approved equal.

FLOOR FINISH All floors shall have a sand floated finish.



LA. SERRA
COMMUNITY SERVICES DIST.
IVERBON COUNTY, CALIFORNIA
CIVIL ELECTRICAL
HOLE AVE.
PUMPING STATION

15
OF 21

PUMP - PIPING SCHEDULE

SUCTION :

1. 2 - 14" C.I. SHORT BODIED STD. F. AND BELL MOUTH 90° BENDS.
2. 2 - 14" x 30" C.I. F. AND F. STANDARD WALL PIPE
3. 2 - 14" C.I. F. AND F. SPOOLS
4. 2 - 14" C.I. F. AND F. GATE VALVE
5. 2 - 14" x 6" C.I. F. AND F. ECCENTRIC REDUCERS.

DISCHARGE :

6. 2 - 6" x 8" C.I. F. AND F. REDUCING CHECK VALVES
7. 3 - 8" C.I. F. AND F. GATE VALVES
8. 3 - 8" C.I. F. AND F. SHORT RADIUS 90° BASE BEND
9. 6 - 8" C.I. F. AND F. SPOOLS
10. 2 - 8" C.I. F. AND F. 45° BENDS
11. 2 - 8" x 8" C.I. F. AND F. SHORT BODIED WYES (45° LATERAL)
12. 1 - 8" C.I. BLIND FLANGE
13. 1 - 8" x 24" C.I. F. AND F. STANDARD WALL PIPE
14. 1 - 8" C.I. F. AND F. SHORT RADIUS 90° BEND
15. 1 - 8" C.I. F. AND F. LONG RADIUS 90° BEND
16. 1 - 8" x 12" x 8" C.I. F. AND F. TEE

BY-PASS SYSTEM

17. 1 - 8" C.I. F. AND F. GATE VALVE
18. 2 - 8" C.I. F. AND F. SPOOLS
19. 2 - 8" C.I. F. AND F. LONG RADIUS 90° BENDS
20. 1 - 8" C.I. F. AND F. BLIND FLANGE

FLOOR DRAINAGE SYSTEM

TAP SUCTION OF PUMPS FOR 2" GALV. IRON PIPE, INSTALL 2" GALV. IRON PIPE AND

- 5 - 2" GALV. IRON 90° ELBOWS
- 2 - 2" GALV. IRON GATE VALVE
- 2 - 2" GALV. IRON TEES
- 1 - 2" GALV. IRON SQUARE HEADED PLUG
- 1 - 2" GALV. IRON CHECK VALVE.

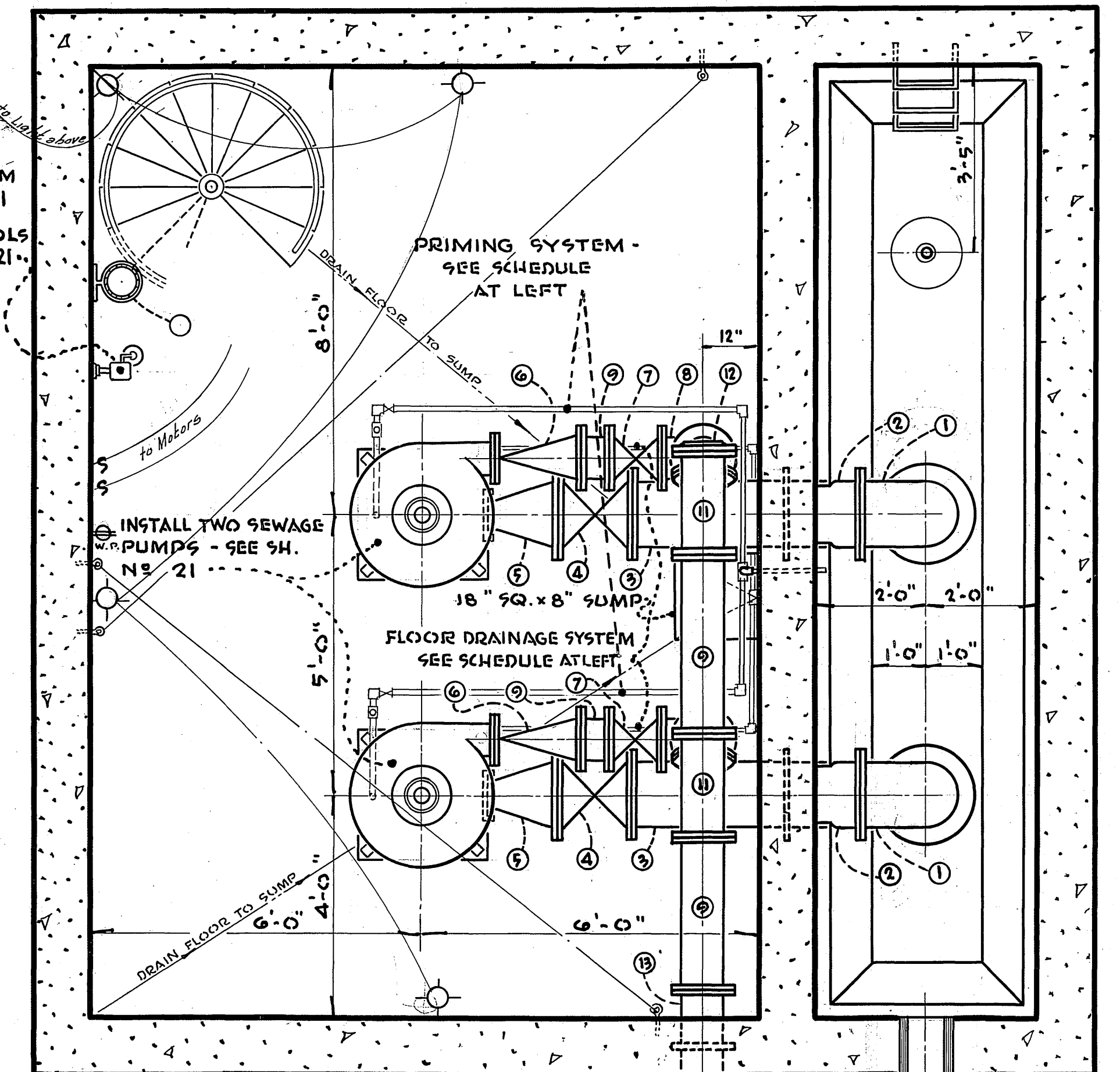
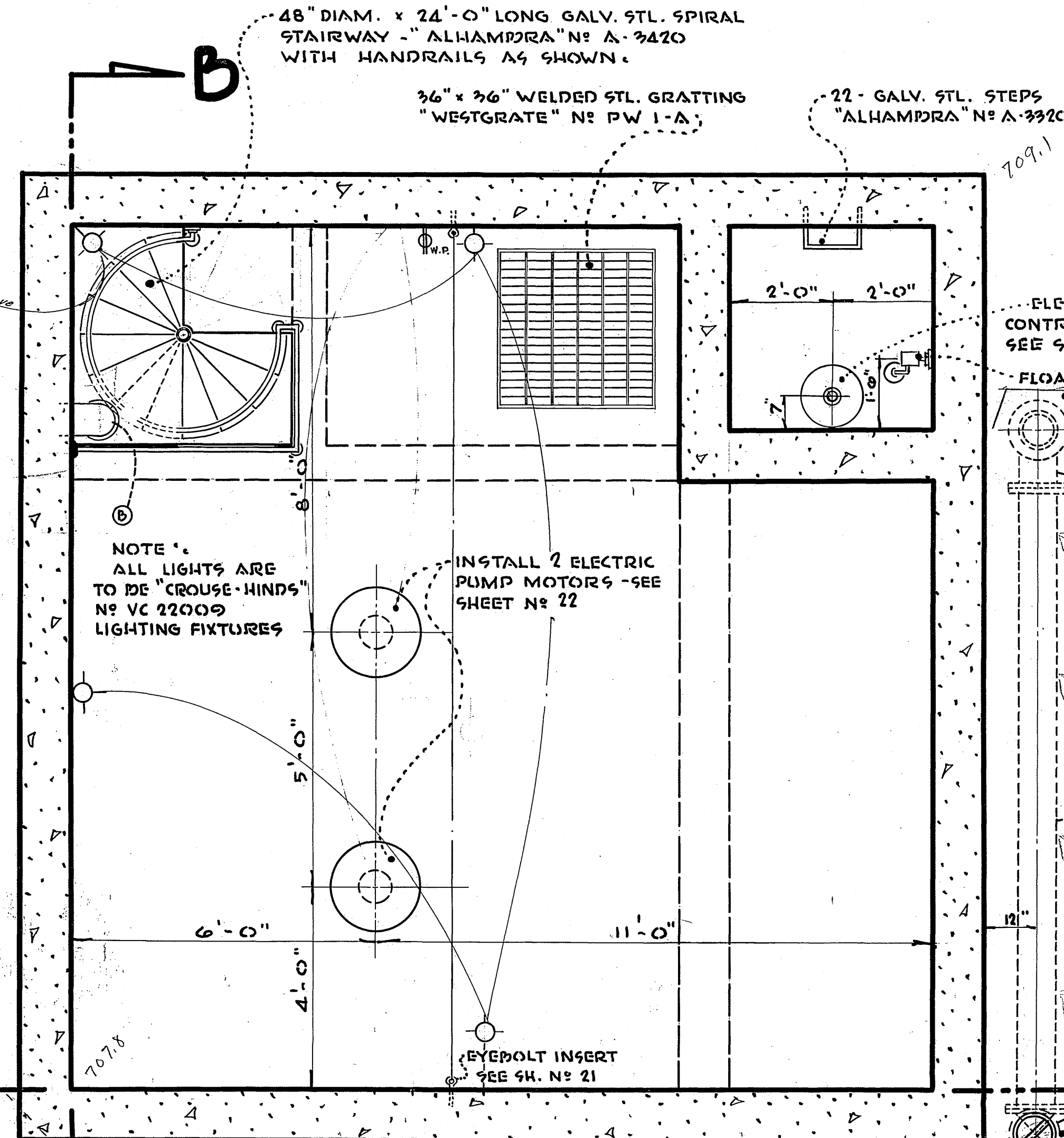
PRIMING SYSTEM

INSTALL 1" GALV. IRON PIPE AND

- 2 - 1" GALV. IRON 90° STREET ELBOWS
- 4 - 1" GALV. IRON TEES
- 4 - 1" GALV. IRON GATE VALVES
- 4 - 1" GALV. IRON 90° ELBOWS
- 1 - 1" GALV. IRON SQUARE HEADED PLUG.

BLOWER PIPING SCHEDULE

- A. 2 - 8" ASBESTOS CEMENT PIPE, OR APPROVED EQUAL
- B. 1 - 8" ASBESTOS CEMENT 45° ELBOW
- C. 1 - 8" VENT PIPE - "ALHAMPRA" No. A-2153, OR APPROVED EQUAL.



MOTOR ROOM PUMP ROOM WET WELL

UPPER FLOOR PLAN LOWER FLOOR PLAN

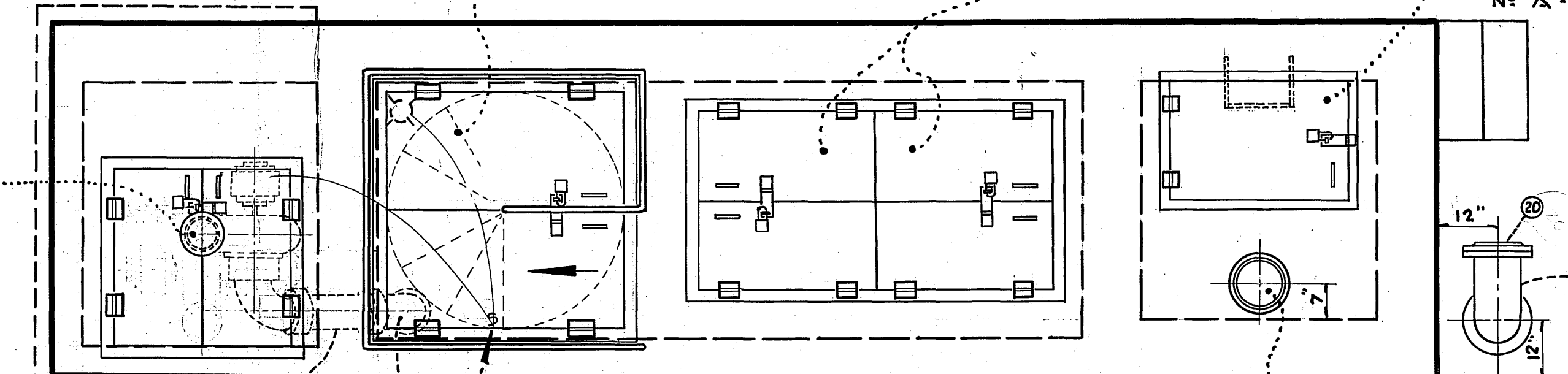
Note: By-Pass As Constructed. E.D.

90° Bend To The West. No Thrust Block

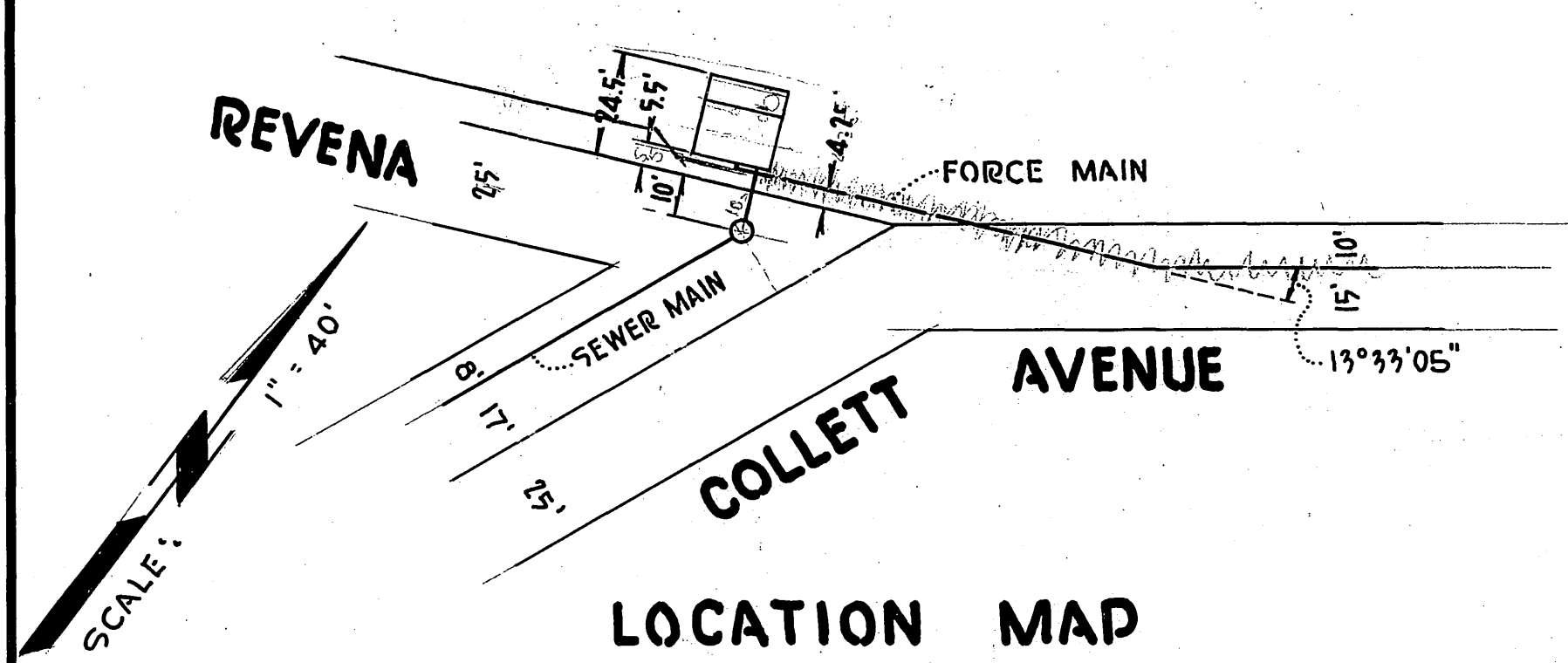
HINGED COVER & FRAME MODIFIED WITH HANDLES & LOCK FITTINGS - "ALHAMPRA" No. A-1085

2 - HINGED COVER & FRAME MODIFIED "ALHAMPRA" No. A-1084 SEE SECTION

PULL BOX FRAME AND COVER MODIFIED WITH HINGES, HANDLES AND LOCK FITTINGS - "ALHAMPRA" No. A-1086

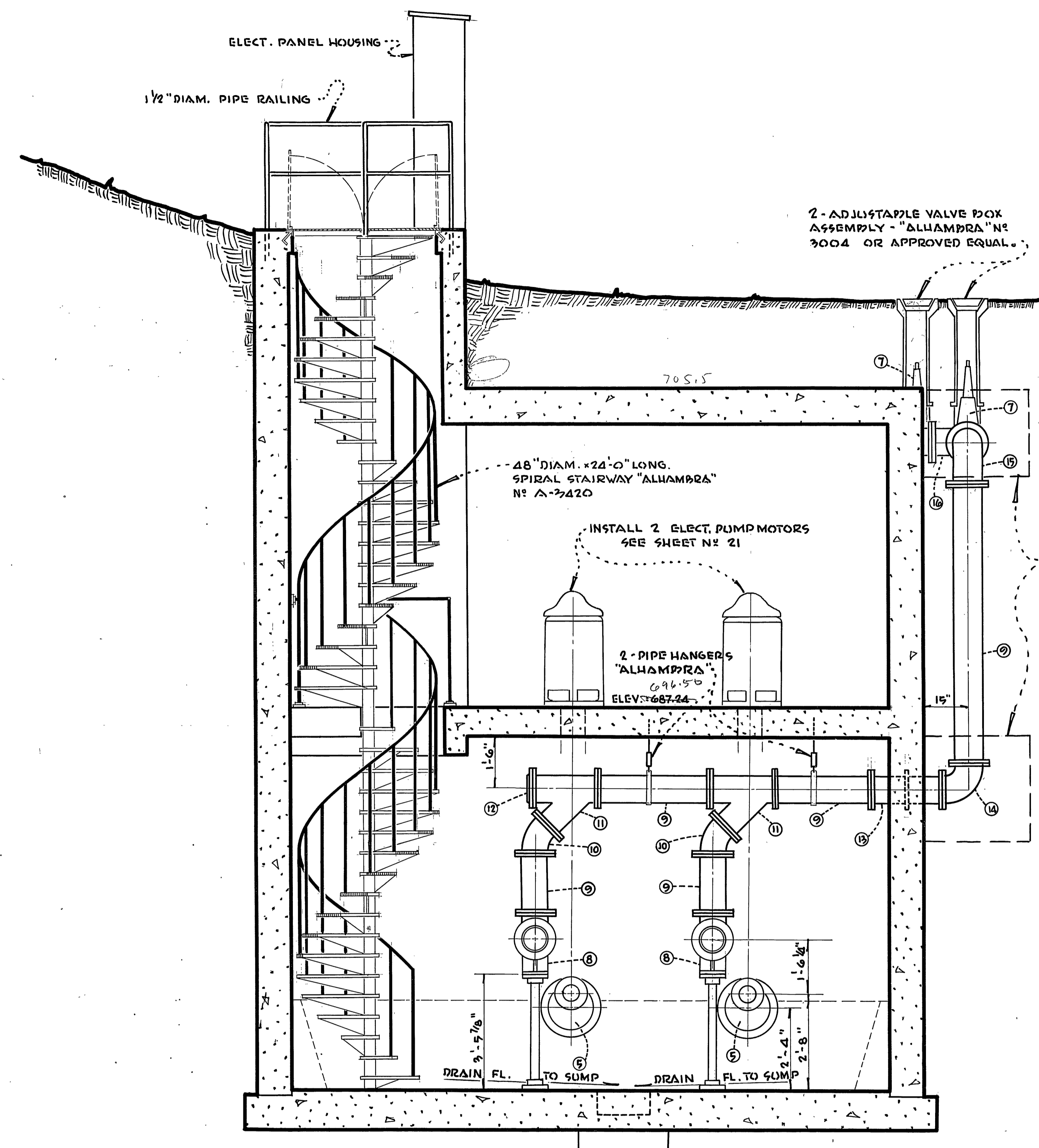


GROUND PLAN

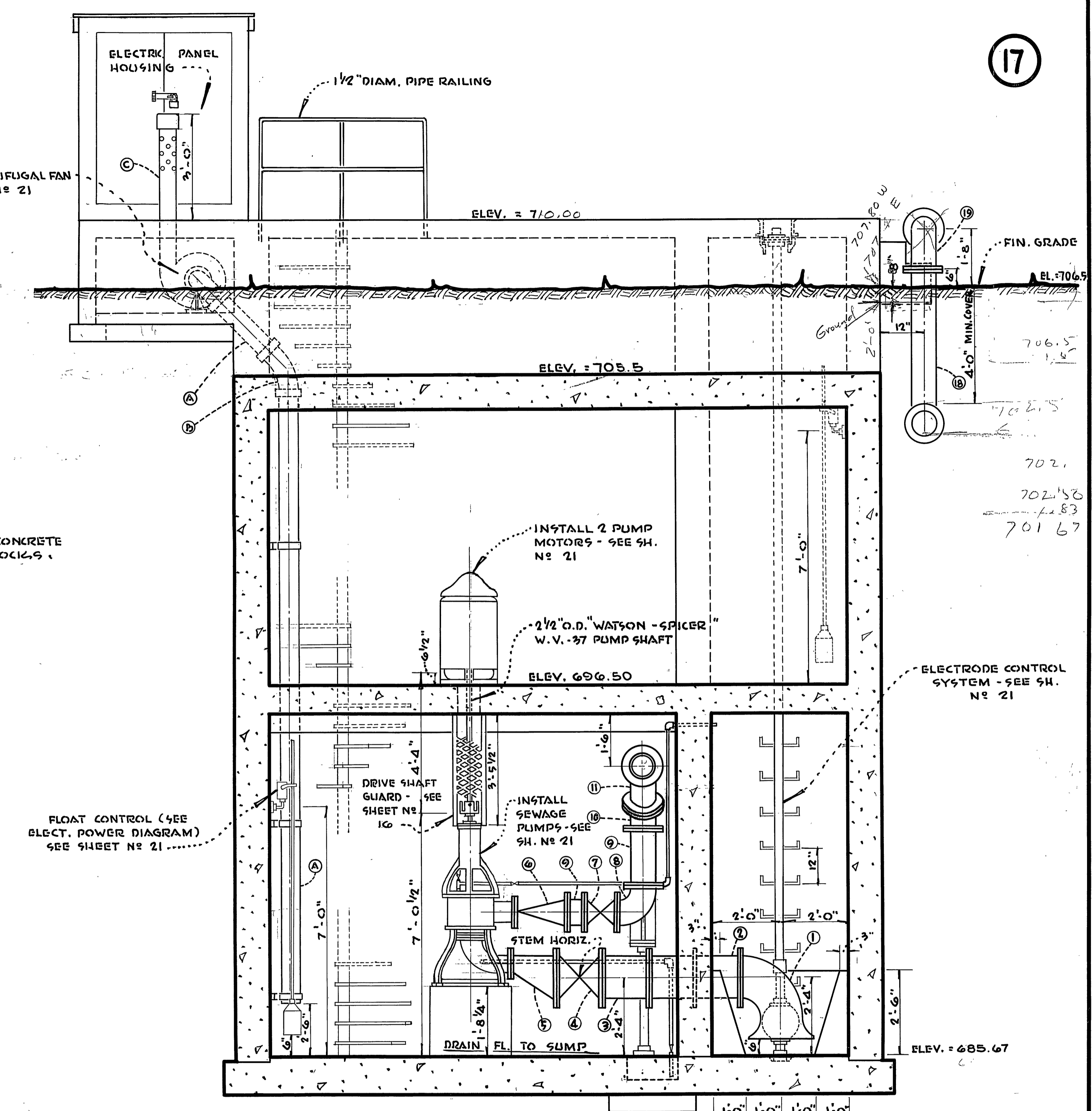


LOCATION MAP
COLLETT AVENUE
PUMPING STATION No. 2

LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
UPPER, GROUND & LOWER FL. PLANS	SHEET No.
COLLETT AVE. PUMPING STATION No. 2	16 OF 21 SHTS.

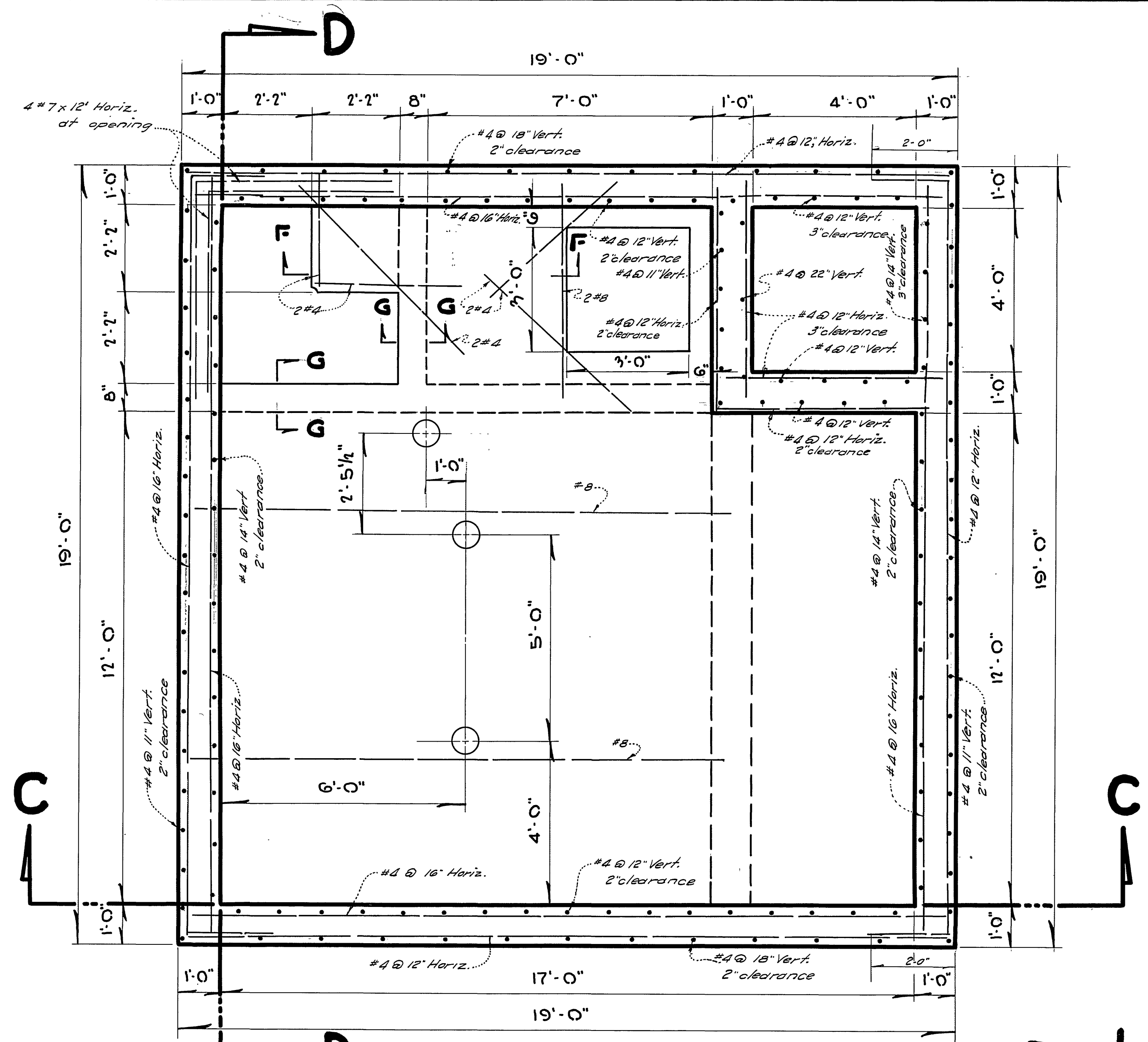


SECTION B - B

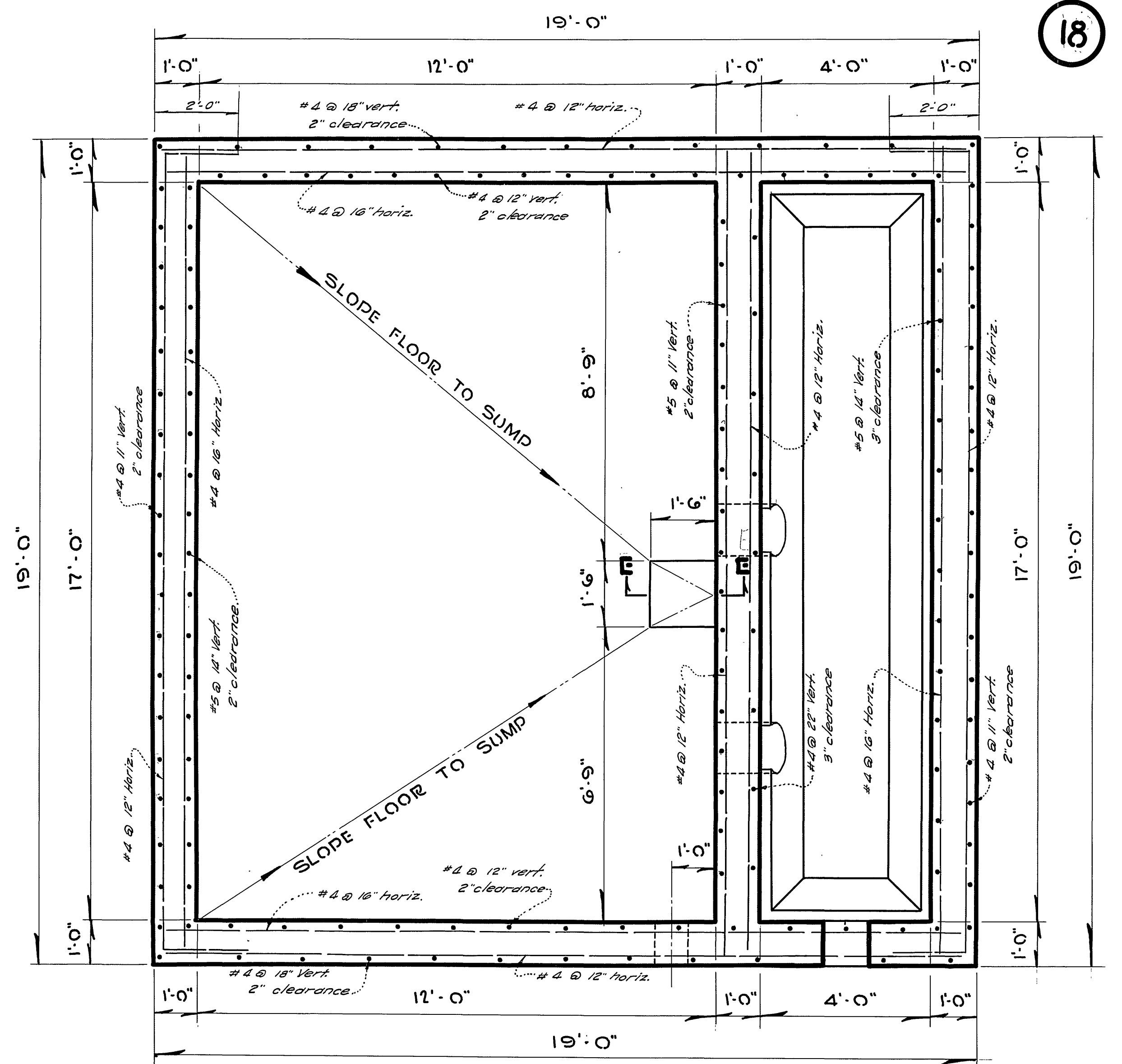


SECTION A - A

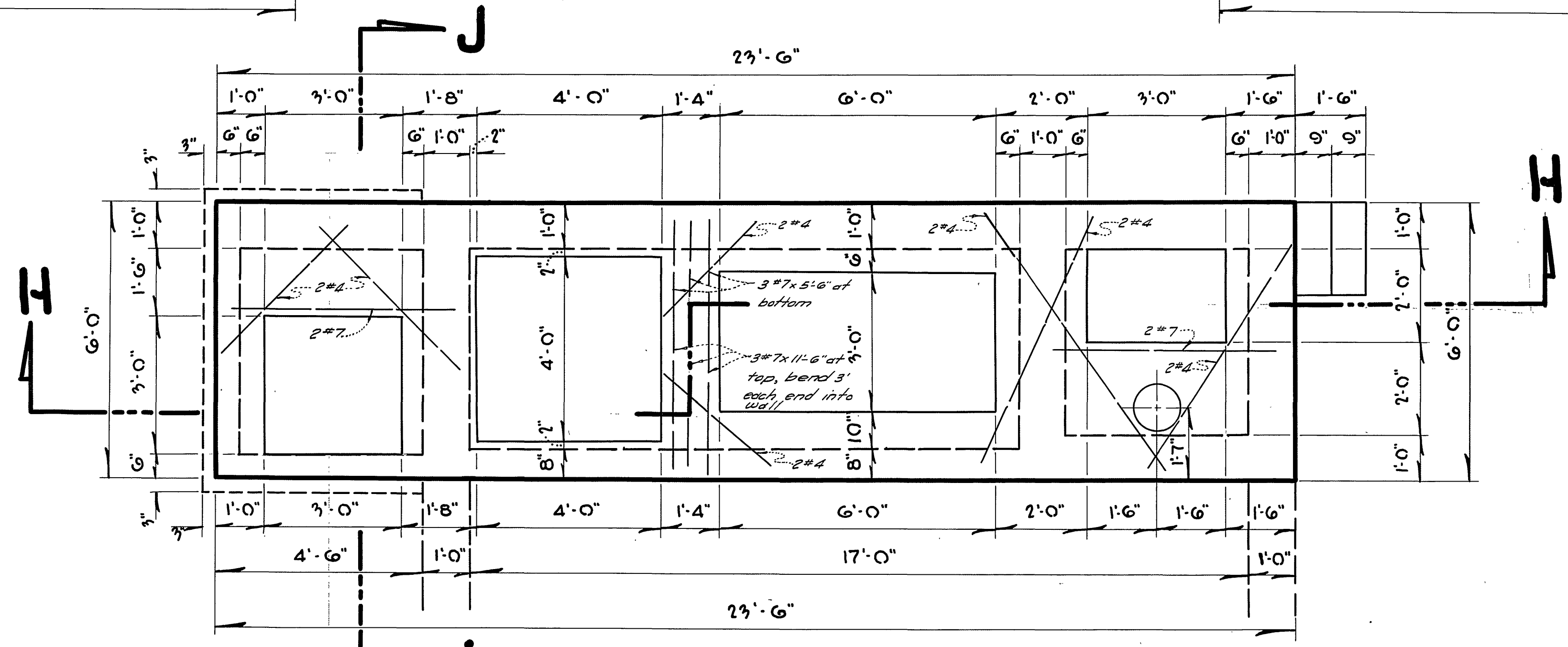
LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
ELEVATIONS, SECTIONS & DETAILS	SHEET NO
COLLETT AVE.	17
PUMPING STATION No 2	OF 21 SHTS.



UPPER FLOOR PLAN



LOWER FLOOR PLAN

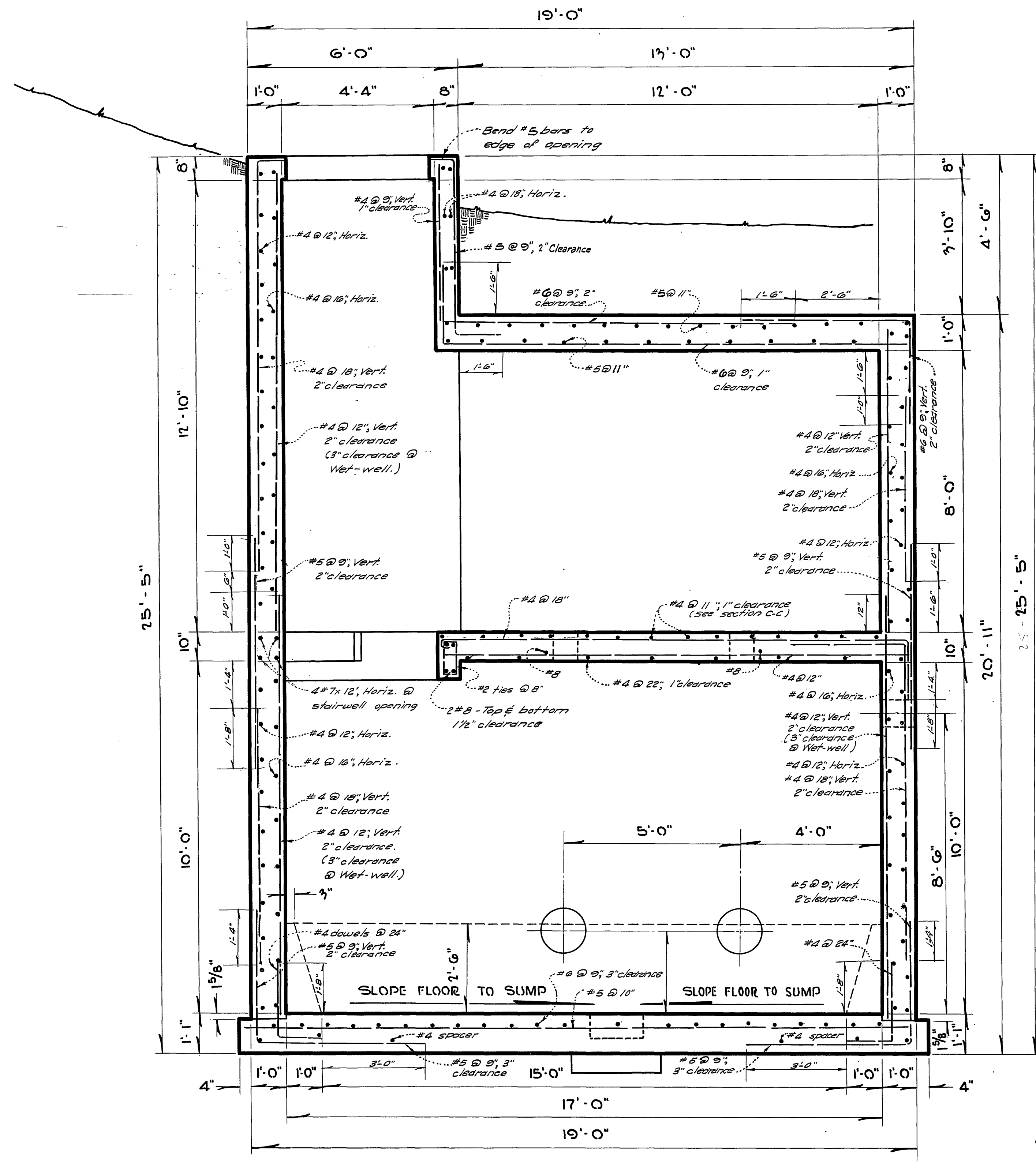


GROUND PLAN

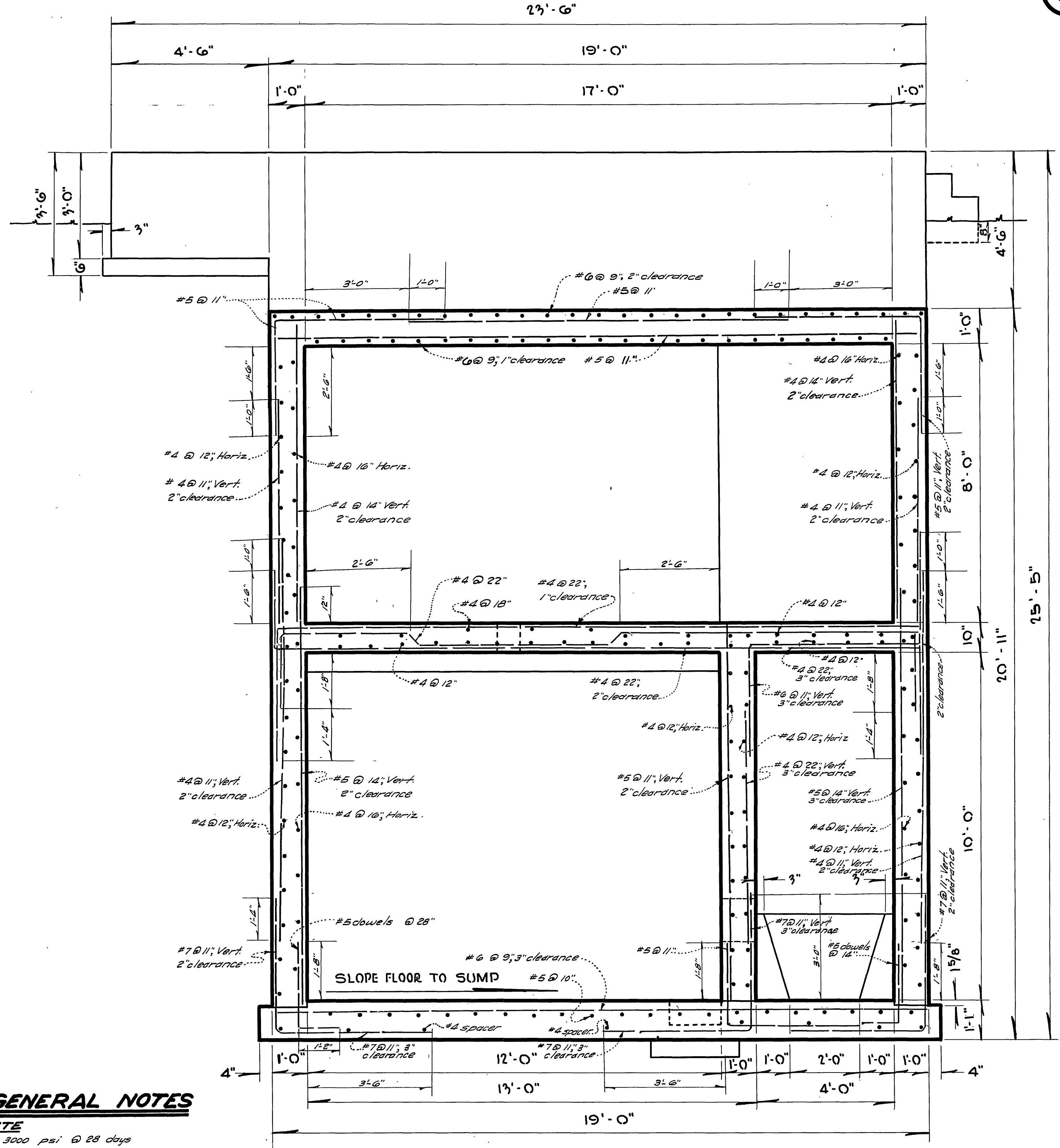
GENERAL NOTES

- CONCRETE**
 A. - $f'c = 3000$ psi @ 28 days
 B. - $f'c = 1350$ psi
 C. - 6 sack mix, not more than 6 gallons per sack.
- REINFORCING**
 D. - $f_s = 20,000$ psi
 E. - ASTM A-305 and A-15 Int. Grade
 F. - All reinforcing 1" clear, except as noted.
 G. - Lap splices - 20 diameters.
- LOADS**
 Live: 200 psf
 Traffic: H-20-S-16 - 44

LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
STRUCTURAL CONSTRUCTION COLLETT AVE. PUMPING STATION	SHEET NO 18 OF 21 SHTS.



SECTION D - D

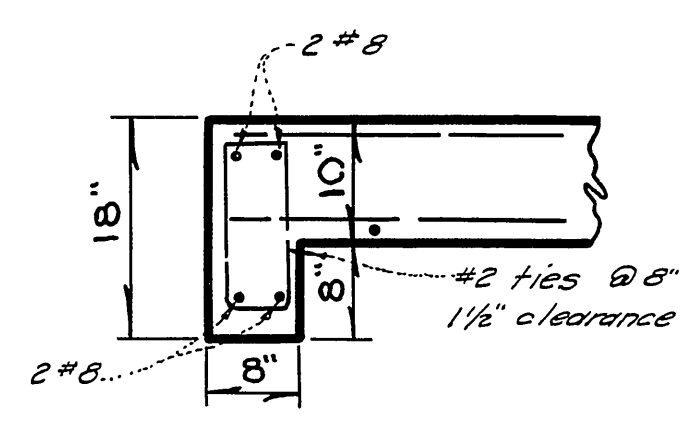


SECTION C - C

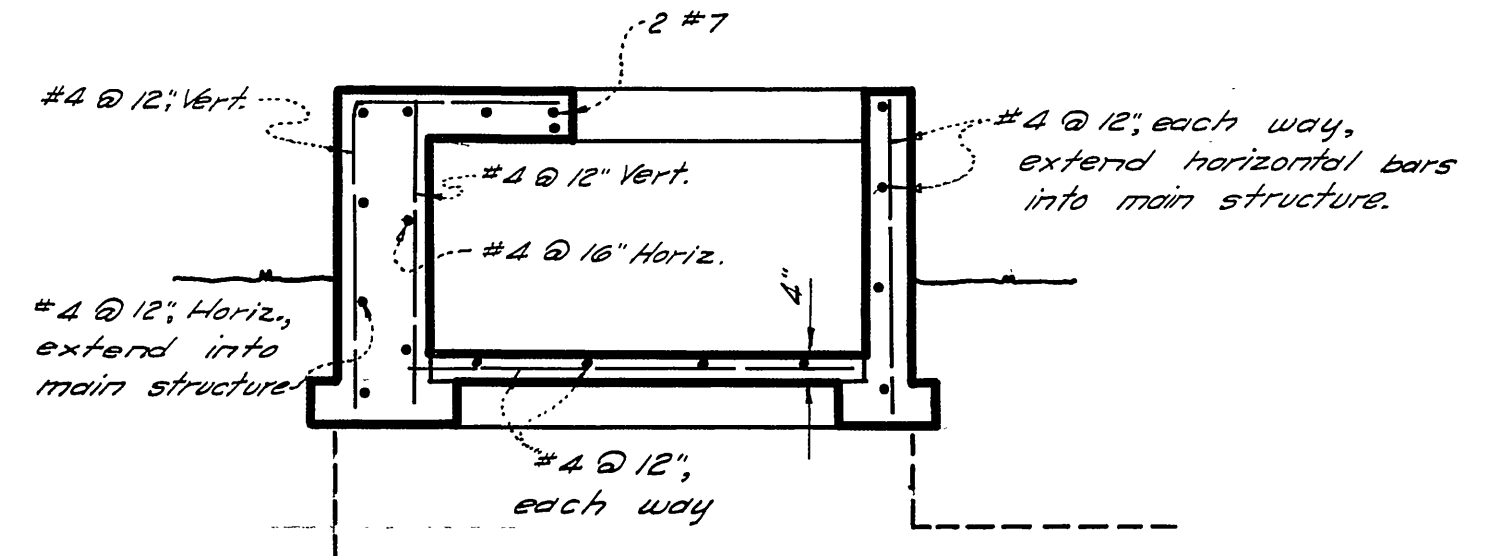
GENERAL NOTES

- CONCRETE**
 A. $f'_c = 3000$ psi @ 28 days
 B. $f'_c = 1950$ psi
 C. 6 sack mix, not more than 6 gallons per sack.
- REINFORCING**
 D. $f_s = 20,000$ psi
 E. ASTM A-305 and A-15, Int. Grade.
 F. All reinforcing 1" clear except as noted.
 G. Lap splices - 20 diameters.
- LOADS**
 Live: 200 psf
 Traffic: H-20-S-16, -44

LA SIERRA COMMUNITY SERVICES DIST.	
RIVERSIDE COUNTY, CALIFORNIA.	
STRUCTURAL CONSTRUCTION	SHEET NO
COLLETT AVE.	19
PUMPING STATION NO 2	OF 21 SHTS.

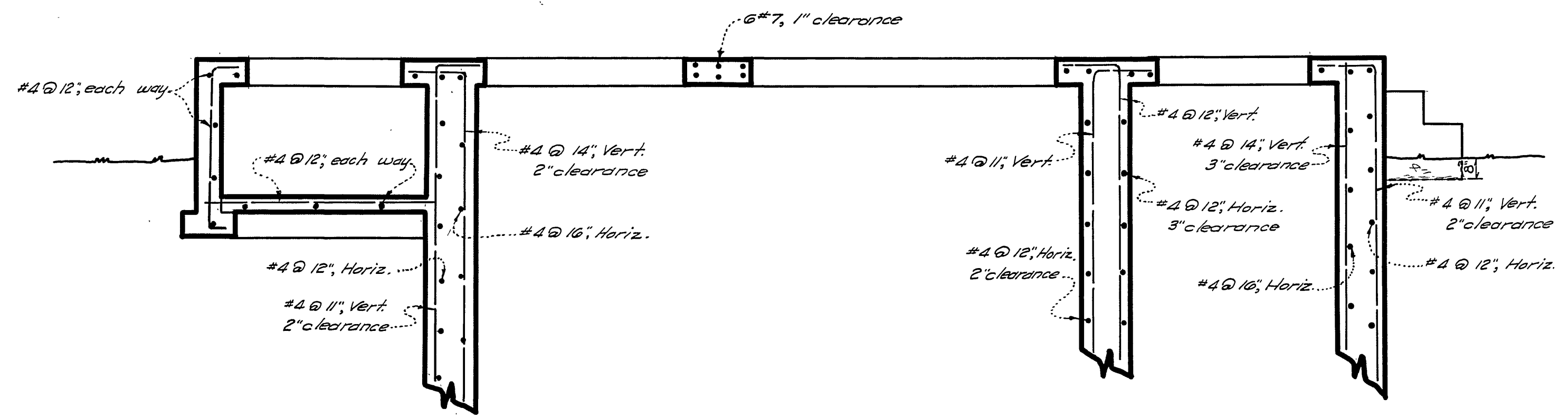


SECTION G-G



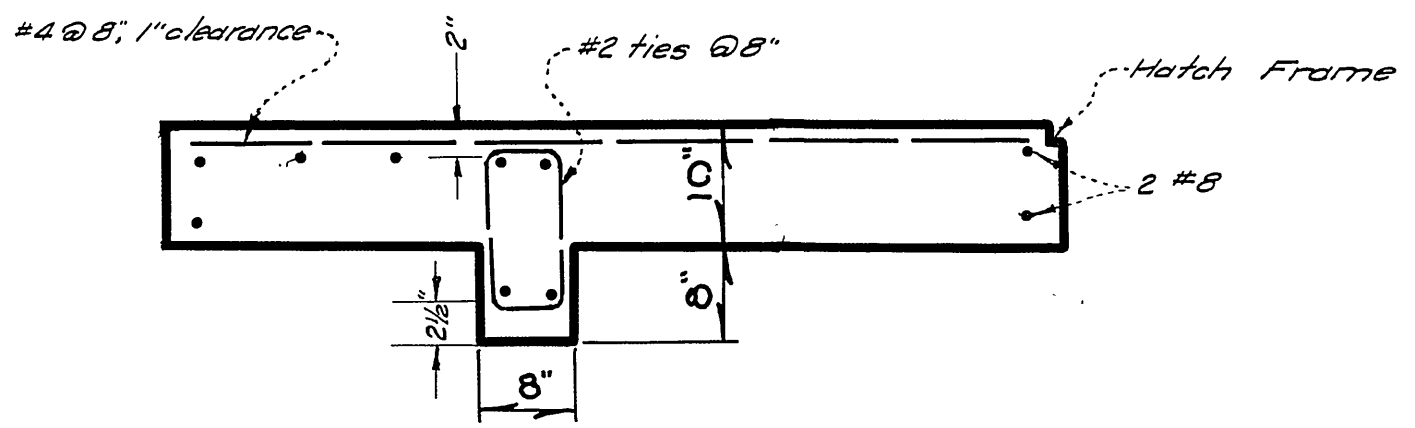
SECTION J-J

SCALE : 1/2" = 1'-0"



SECTION H-H

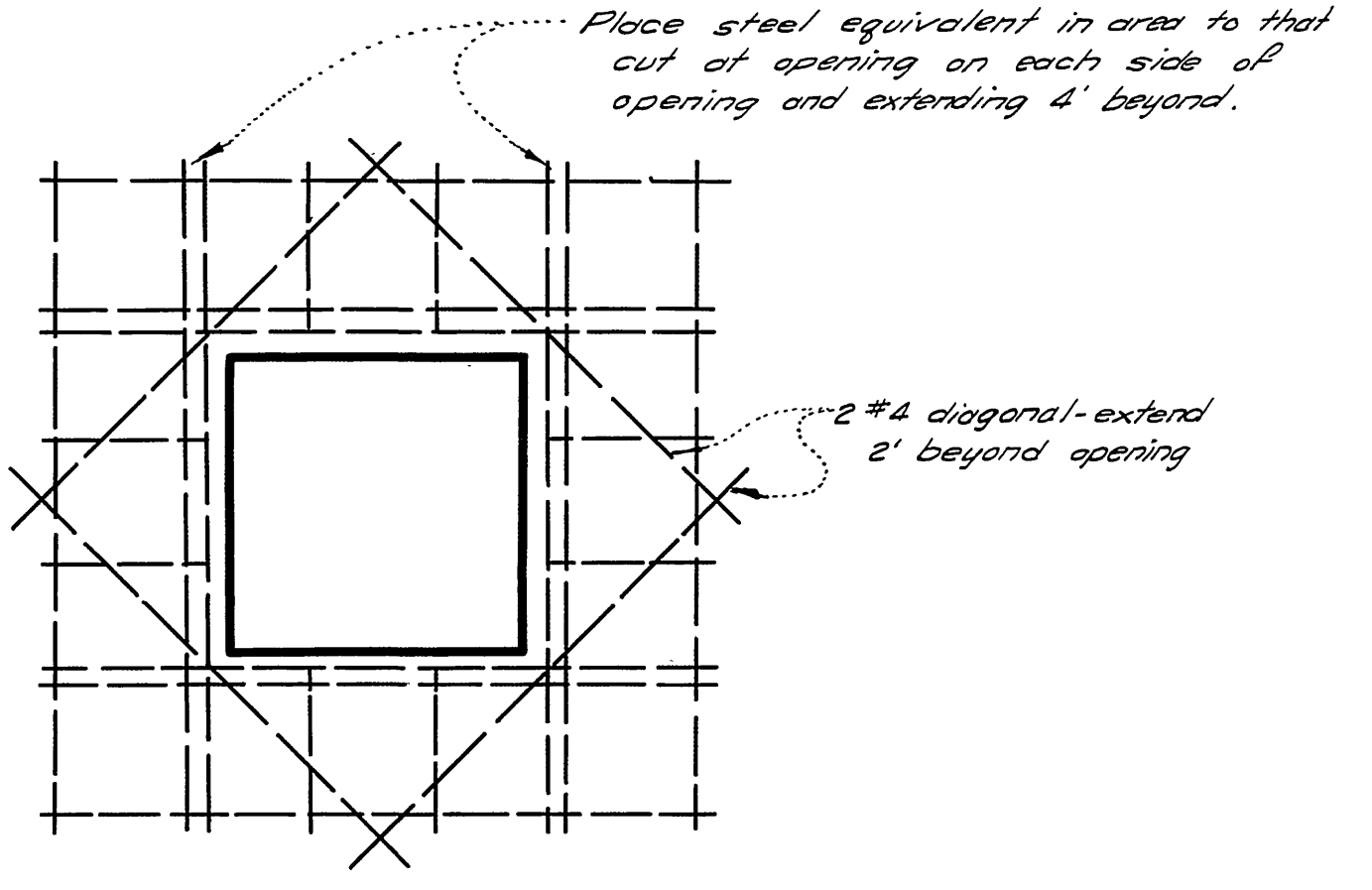
SCALE : 1/2" = 1'-0"



SECTION F-F

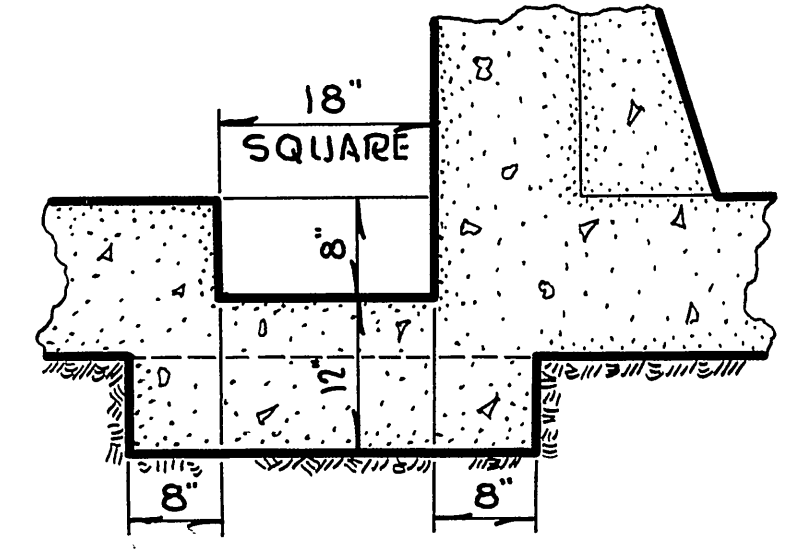
SECTIONS THRU FLOOR BEAMS

SCALE : 3/4" = 1'-0"



TYP. REINF. AT OPENINGS

NO SCALE

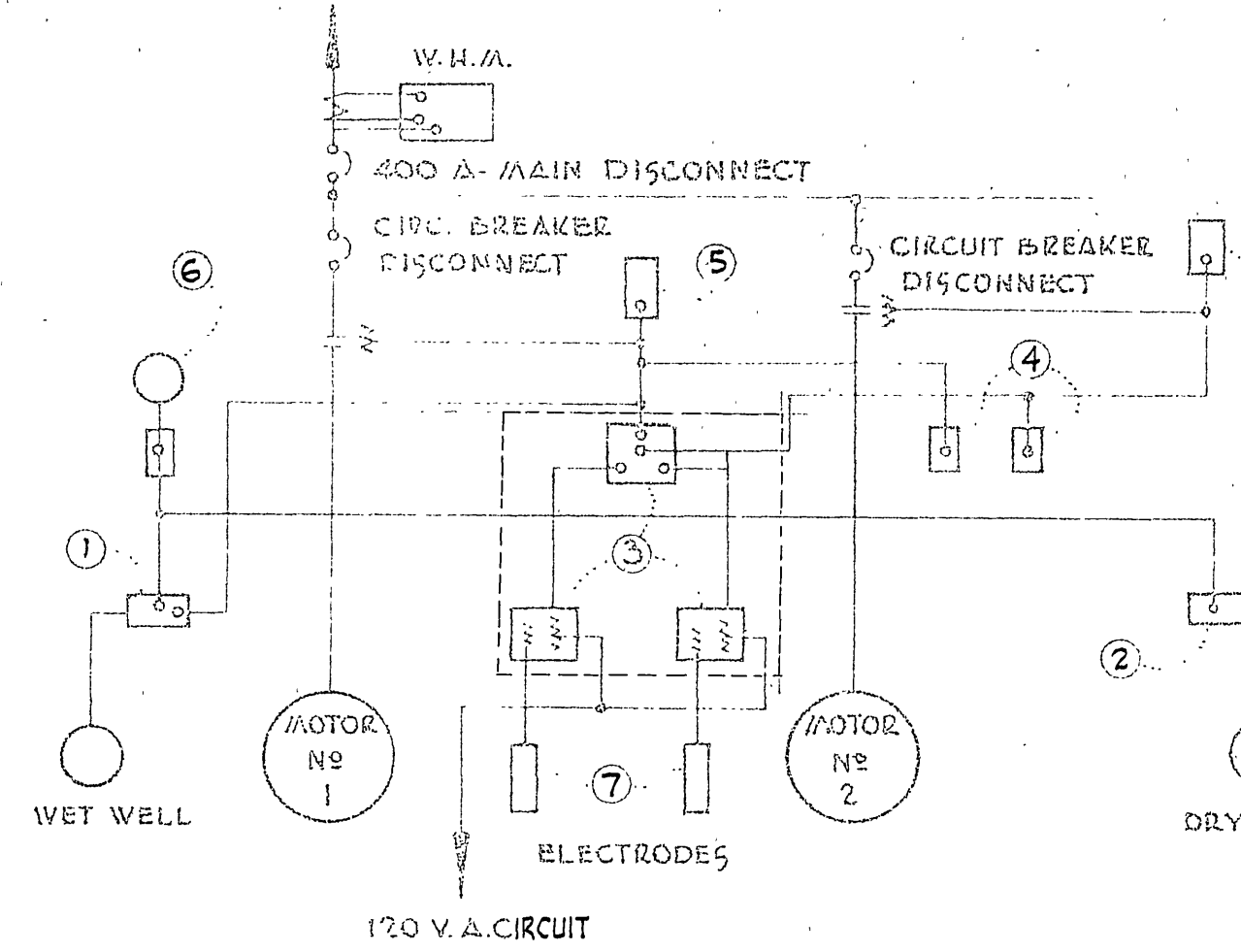


SECTION E-E

SCALE : 3/4" = 1'-0"

LA SIERRA COMMUNITY SERVICES DIST. RIVERSIDE COUNTY, CALIFORNIA.	
STRUCTURAL DETAILS COLLETT AVE. PUMPING STATION N ^o 2	SHEET N ^o 20 OF 21 SHTS.

**COLLETT PUMP STATION
SCHEDULE**

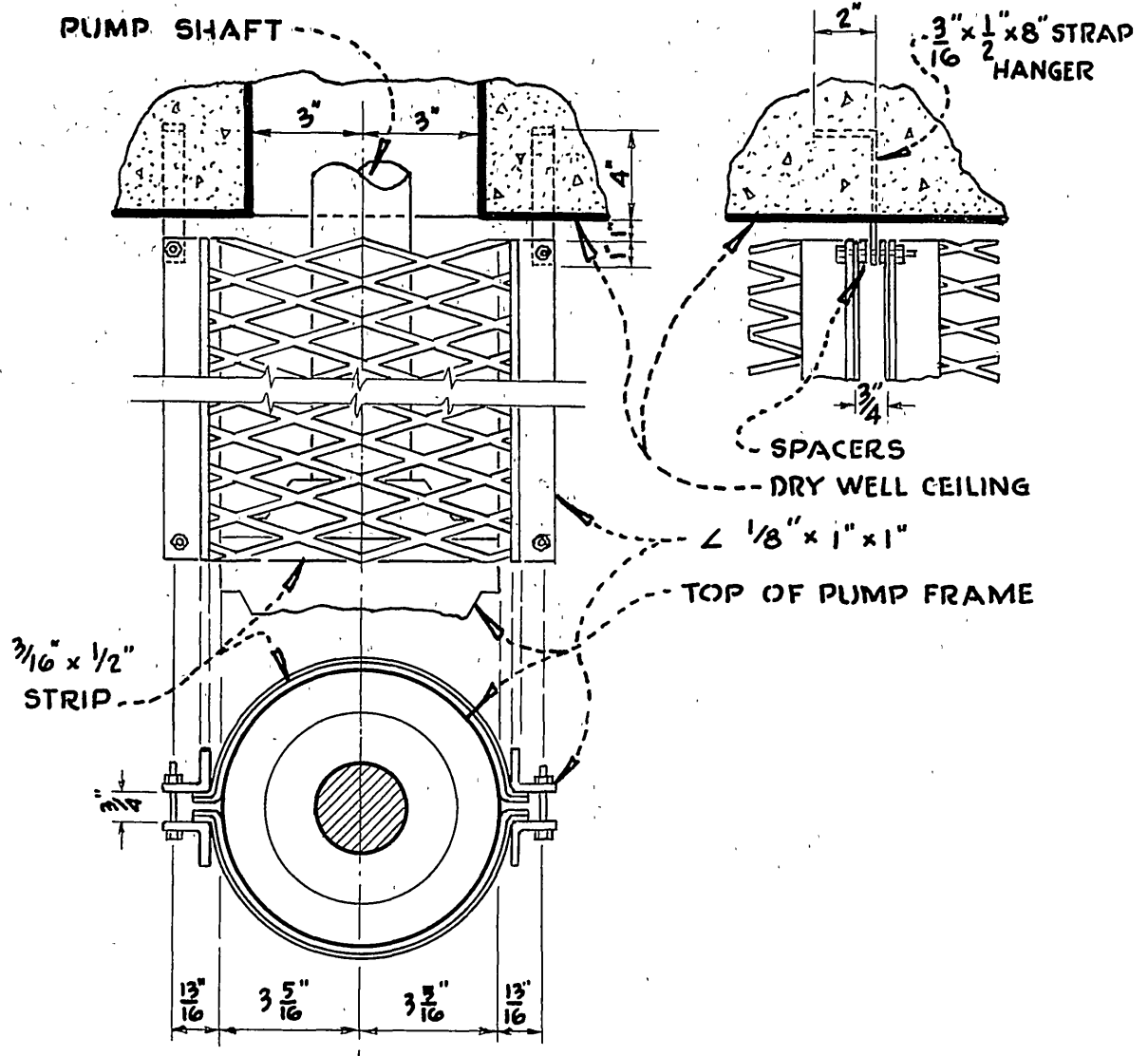


- ① FLOAT SWITCH, TYPE 151, HEALY-RUFF CO. OR APPROVED EQUAL, LOCATE IN WET WELL.
- ② FLOAT SWITCH, TYPE 151, HEALY-RUFF CO. OR APPROVED EQUAL LOCATE IN DRY WELL.
- ③ ALTERNATE, SERIES "ALT 2" C.F. WARRICK CO. OR APPROVED EQUAL. PANEL TO CONTAIN 2 TRANSFORMER-TYPE RELAYS, ONE NORMALLY OPEN, ONE NORMALLY CLOSED AND ONE NORMALLY OPEN HOLDING CONTACTS; PRIMARY TO OPERATE ON 120 V. 60 CYCLE CIRCUIT. PANEL ALSO TO CONTAIN ONE SINGLE POLE RATCHET RELAY.
- ④ H.O.A. SWITCHES, INSTALL IN DRY WELL.
- ⑤ H.O.A. SWITCHES, INSTALL ON PANEL.
- ⑥ 8" ALARM BELL TO BE LOCATED IN FIELD.
- ⑦ ELECTRODE HOUSING, SEE DETAIL ON PLANS.

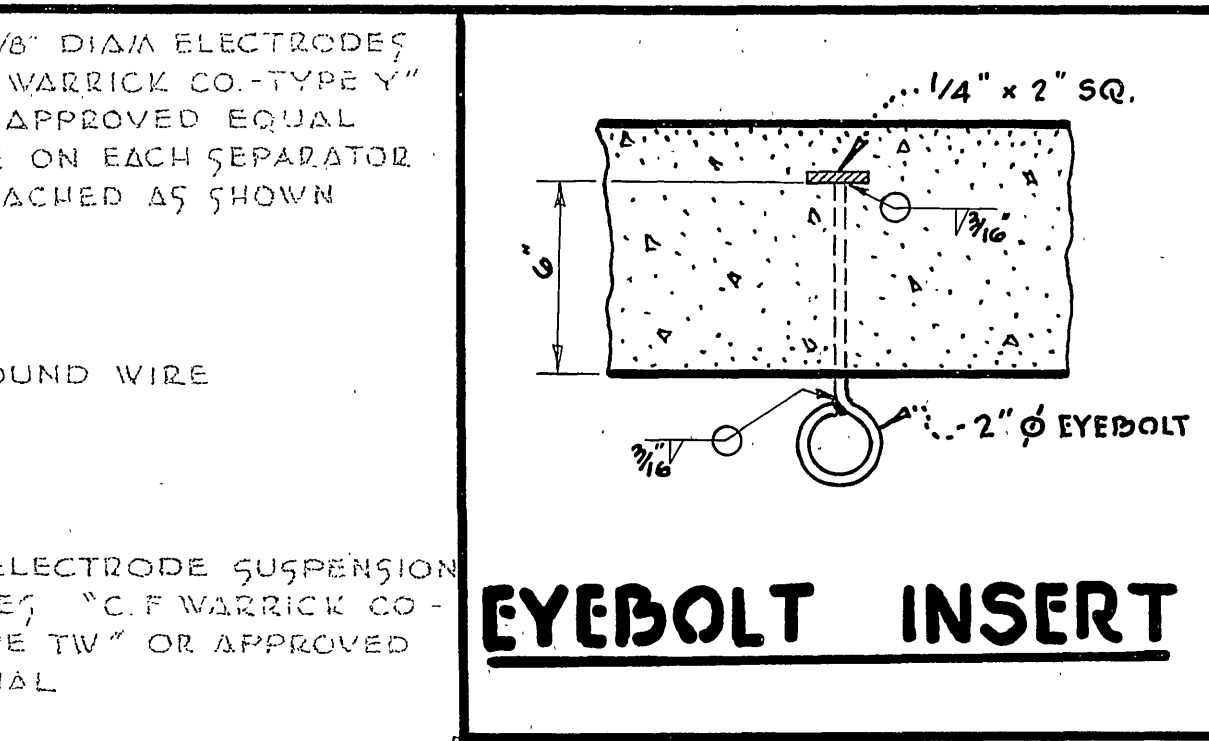
Power Control Circuit

NOTES

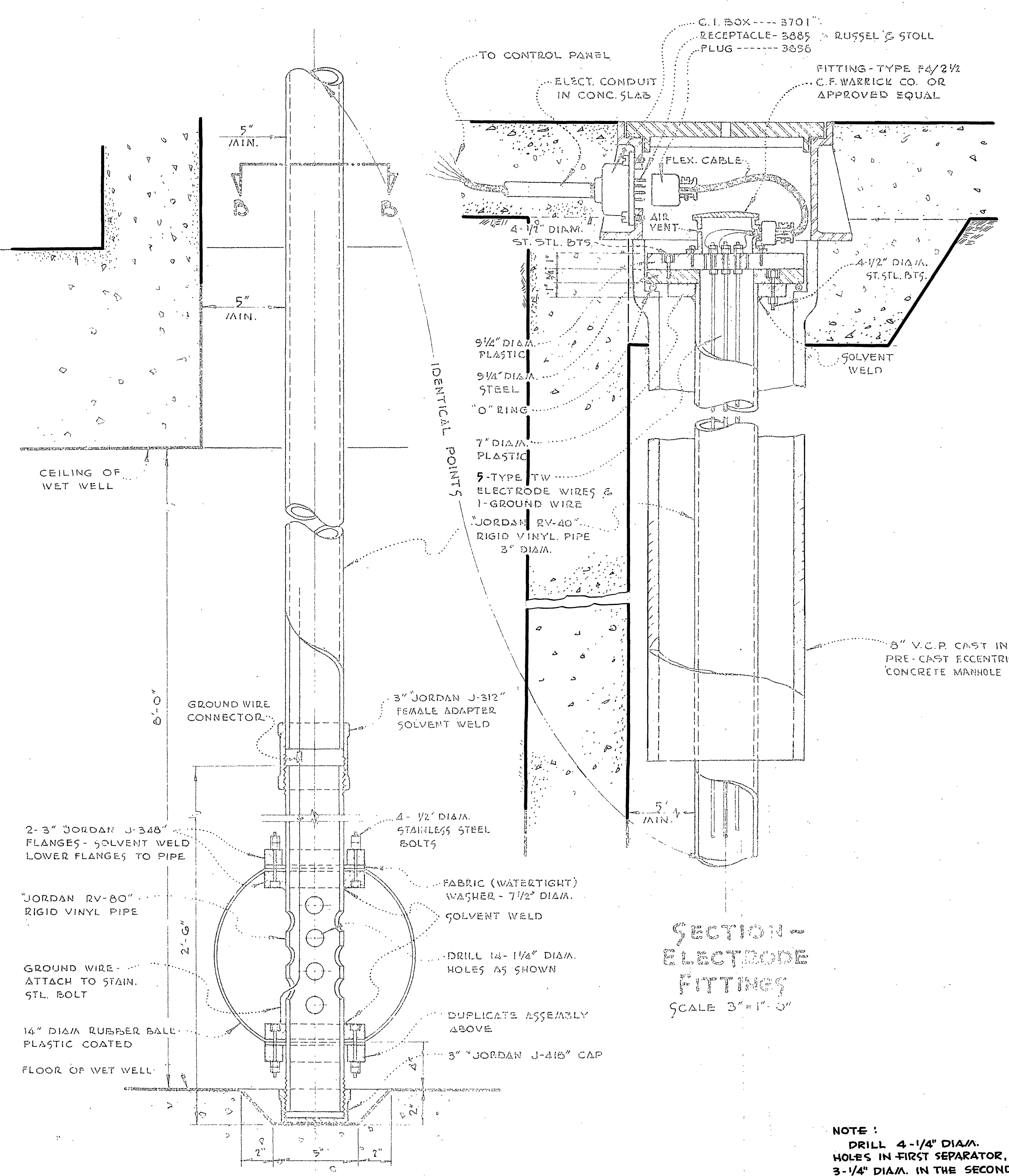
- PUMP MOTORS** - INSTALL 2 - 25 hp, 1170 r.p.m., three-phase, 440 Volt, 60 cycle pump motors.
- SEWAGE PUMPS** - INSTALL 2 - 6" vertical shaft sewage pumps with non-clogging vortex type with recessed impeller. Wemco y6 Model "DV", or approved equal.
- PUMP CONTROL** - Electrode controls with an alternator containing two transformer type relays and ratchet relay. Two standby positive action float switches shall be installed in accordance with the Plans and Specifications. Each pump switch shall be equipped with a hand-off-automatic selector switch in panel and dry well.
- CENTRIFUGAL FAN** - INSTALL I.L.G. centrifugal fan type 20-D, 440 Volt, three-phase, 60 cycle, 1750 r.p.m., or approved equal.
- PAINT** - Paint all interior surfaces, pipes, fixtures and equipment below ground with paint as specified for sewer facilities and manufactured by "Inertol Co., Inc." and set forth in the "Inertol Specifications 770-C", or approved equal.
- FLOOR FINISH** - All floors shall have a sand floated finish.



SHAFT GUARD DETAIL



EYEBOLT INSERT

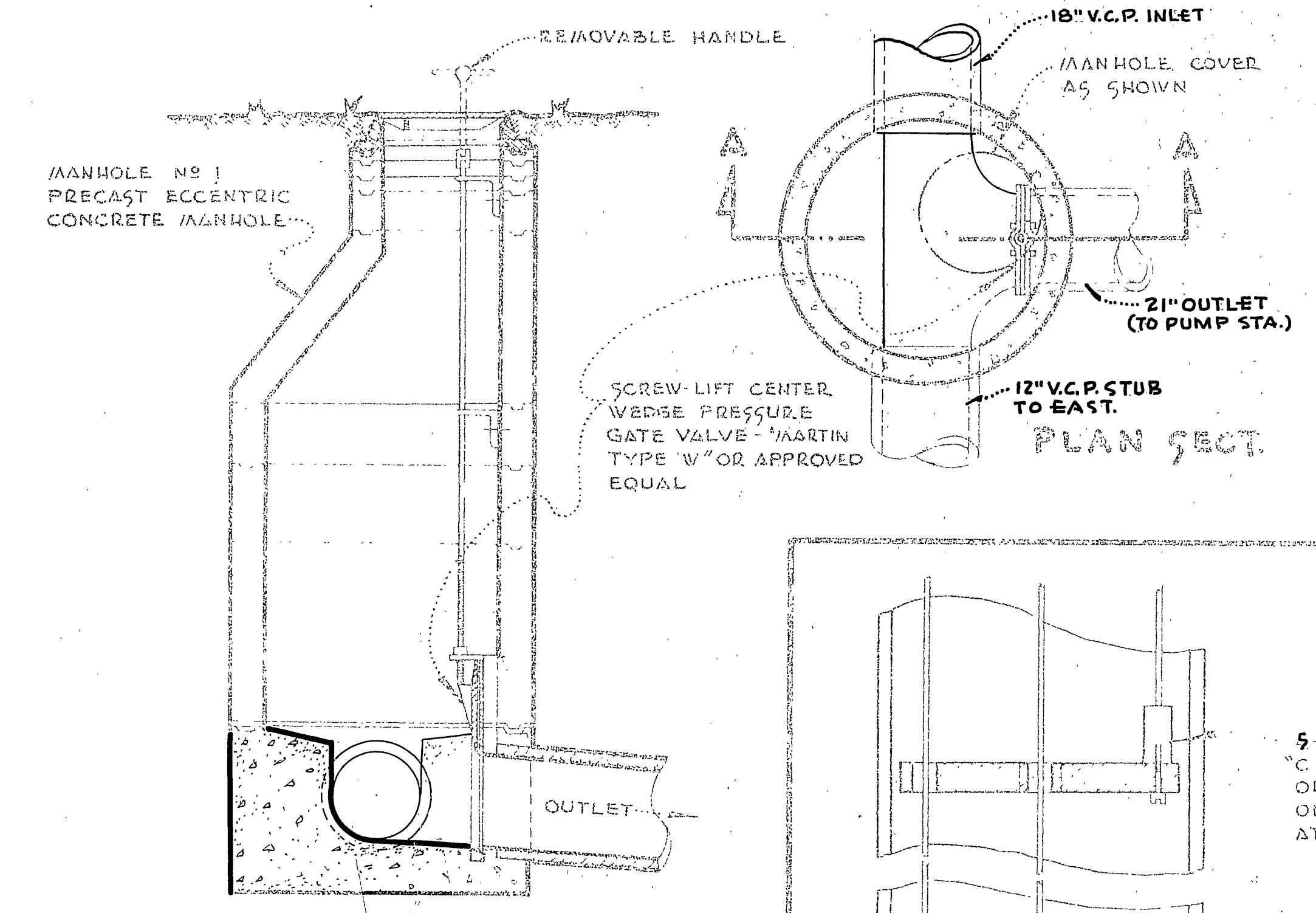


**SECTION THROUGH BULB
SCALE 3/4" = 1'-0"**
**FLEXIBLE BULB
ELECTRODE CONTROL**

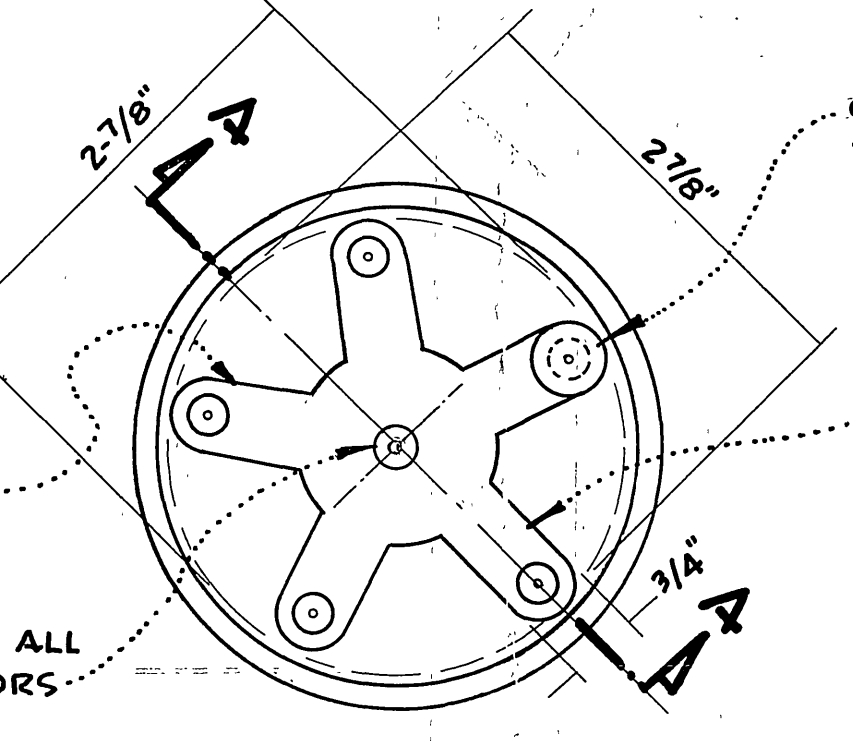
**SECTION -
ELECTRODE
FITTINGS
SCALE 3/4" = 1'-0"**

NOTE:
DRILL 4-1/4" DIA. HOLES IN FIRST SEPARATOR, 3-1/4" DIA. IN THE SECOND, 2-1/4" DIA. IN THE THIRD, 1-1/4" DIA. IN THE FOURTH & NONE IN THE FIFTH.

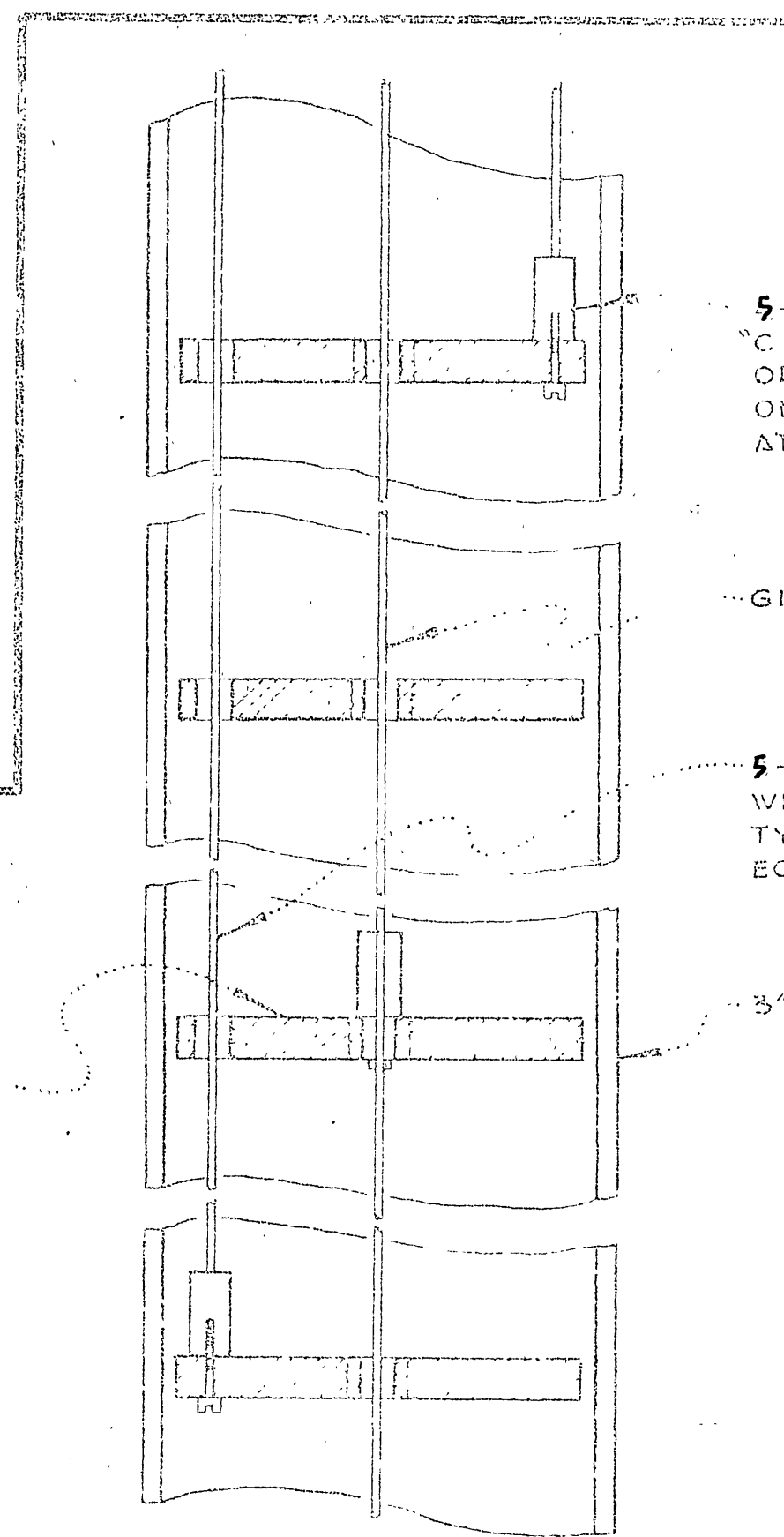
1/4" DIA. IN ALL SEPARATORS.



**SECT. A-A
MANHOLE GATE VALVE**



**SECT. B-B
SECTIONS THROUGH VINYL PLASTIC PIPE**



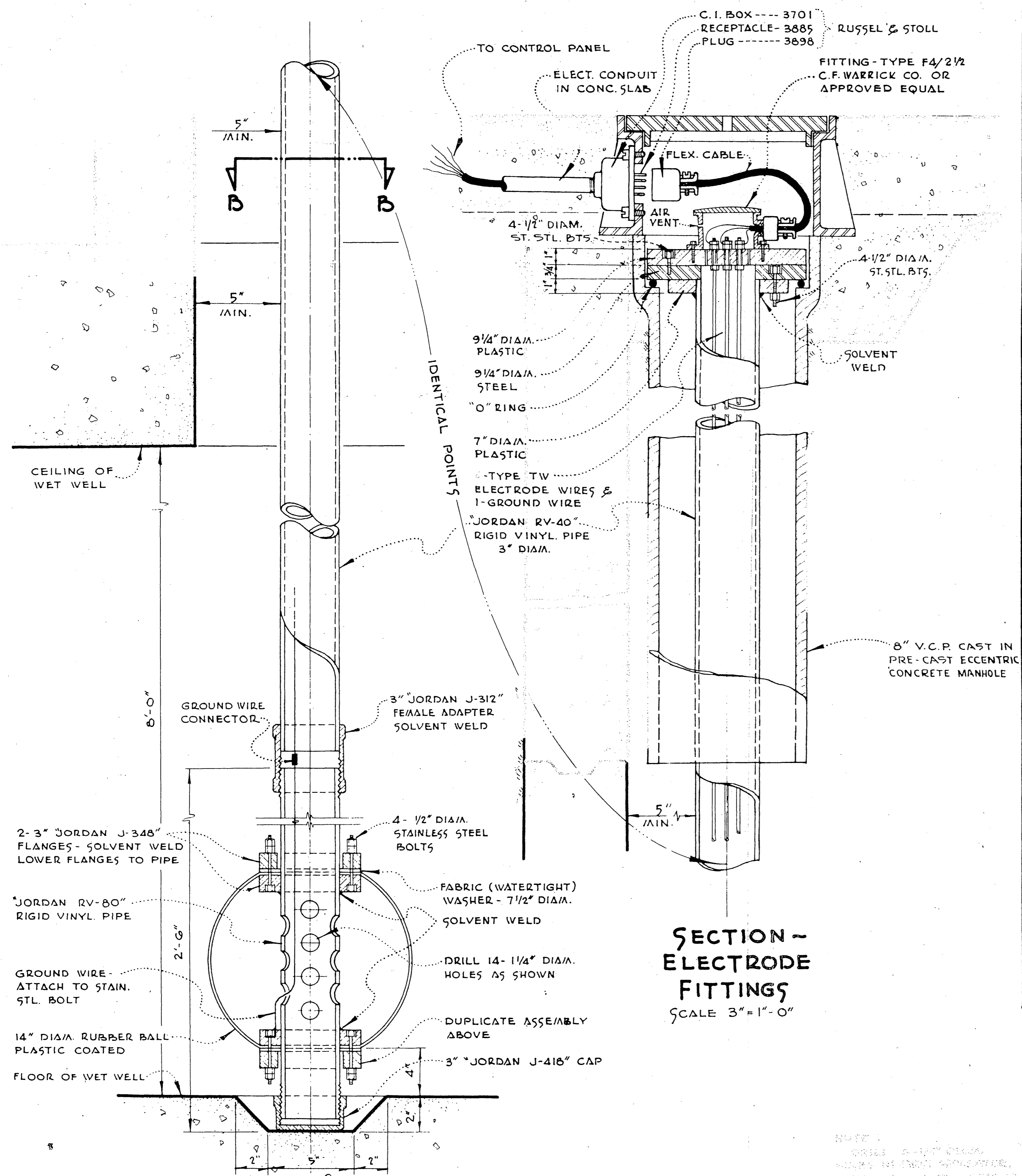
SECT. A-A

**LA SIERRA
COMMUNITY SERVICES DIST.
RIVERSIDE COUNTY, CALIFORNIA.**

**DETAILS
COLLETT AVE.
PUMPING STATION No 2**

**SHEET No
21
OF 21 SHTS.**

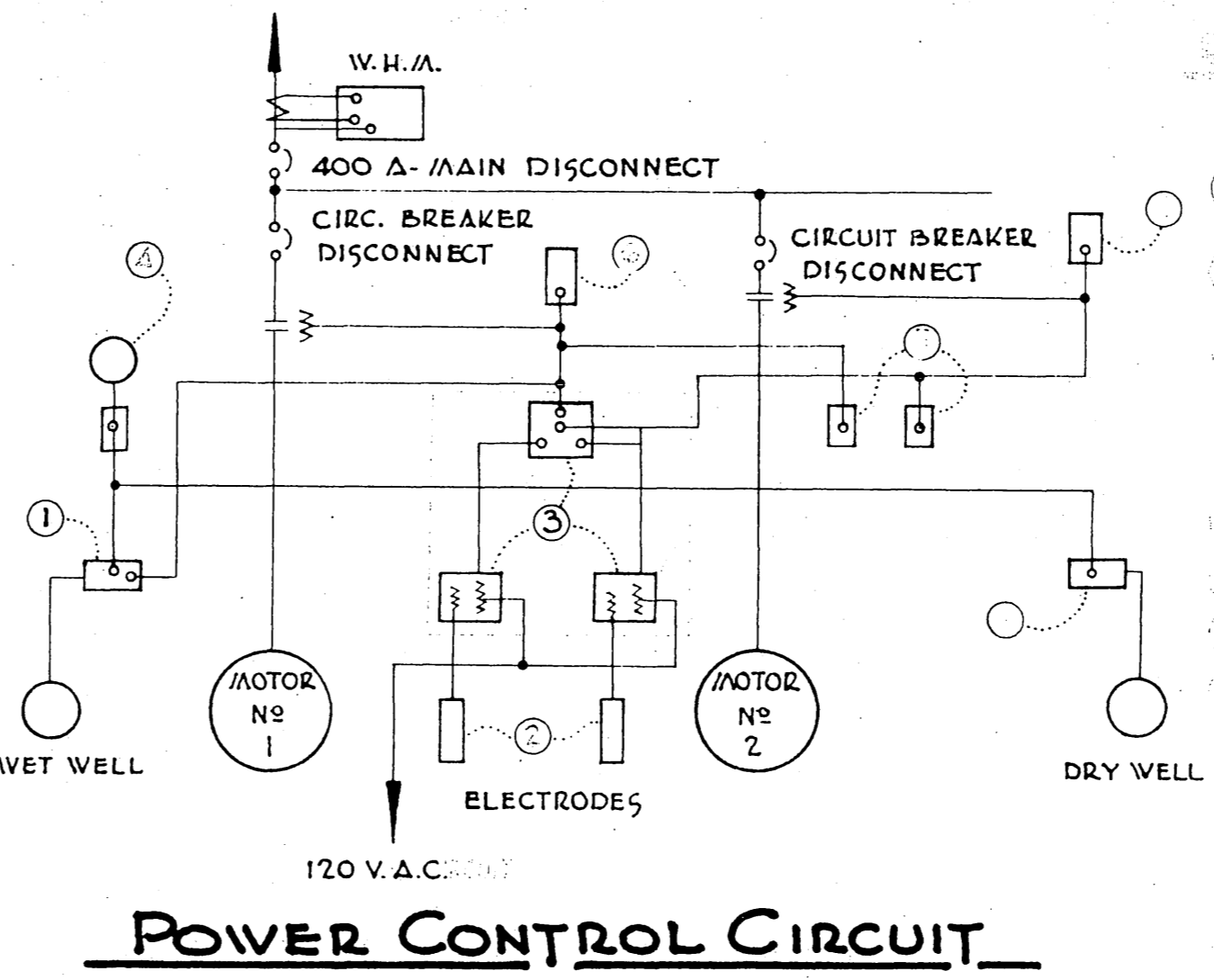
S-511 0-420



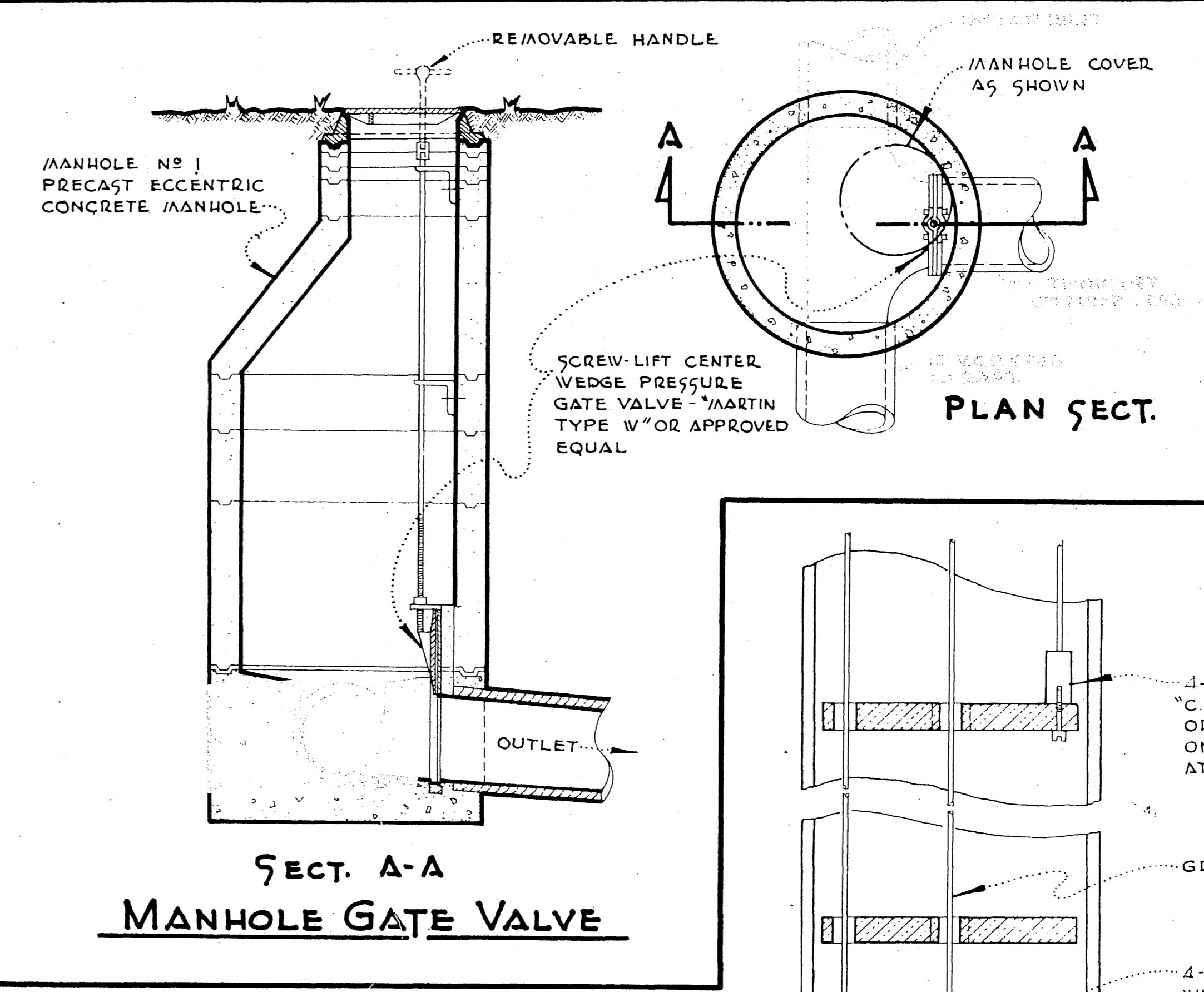
SECTION THROUGH BULB
SCALE 3"=1'-0"

FLEXIBLE BULB
ELECTRODE CONTROL

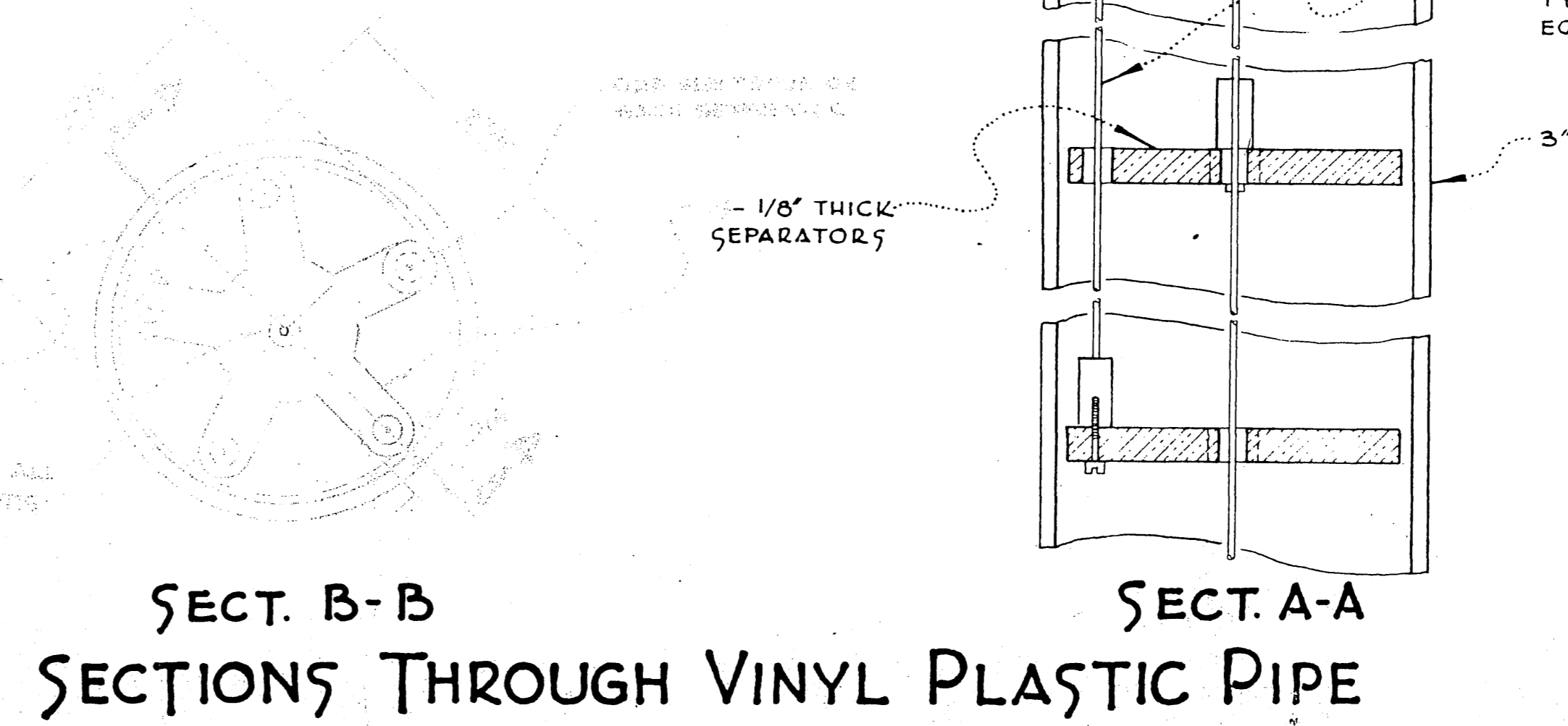
SECTION - ELECTRODE FITTINGS
SCALE 3"=1'-0"



POWER CONTROL CIRCUIT



SECT. A-A
MANHOLE GATE VALVE



SECT. B-B
SECTIONS THROUGH VINYL PLASTIC PIPE

- NOTES**
1. ALL INTERIOR SURFACES, PIPES, FIXTURES AND EQUIPMENT BELOW GROUND WITH PAINT AS SPECIFIED FOR SEWER FACILITIES AND MANUFACTURED BY "INERTOL CO., INC." AND SET FORTH IN THE "INERTOL SPECIFICATIONS 770-C", OR APPROVED EQUAL.
 2. ALL FLOORS SHALL HAVE A SAND FLOATED FINISH.
 3. ELECTRODE CONTROLS WITH AN ALTERNATOR CONTAINING TWO TRANSFORMER TYPE RELAYS AND RATCHET RELAY. TWO STANDBY POSITIVE ACTION FLOAT SWITCHES SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. EACH PUMP SWITCH SHALL BE EQUIPPED WITH A HAND-OFF-AUTOMATIC SELECTOR SWITCH IN PANEL AND DRY WELL.
 4. I.L.G. CENTRIFUGAL FAN TYPE 20-D, 440 VOLT, THREE-PHASE, 60 CYCLE, 1750 R.P.M., OR APPROVED EQUAL.
 5. INSTALL 2 - 25 HP., 1170 R.P.M., THREE-PHASE, 440 VOLT, 60 CYCLE PUMP MOTORS.
 6. INSTALL 2 - 6" VERTICAL SHAFT SEWAGE PUMPS WITH NON-CLOGGING VORTEX TYPE WITH RECESSED IMPELLER. WEMCO Y6" MODEL "DV", OR APPROVED EQUAL.
 7. 120 V.A.C.

NOTES

INSTALL 2 - 25 hp., 1170 r.p.m., three-phase, 440 Volt, 60 cycle pump motors.

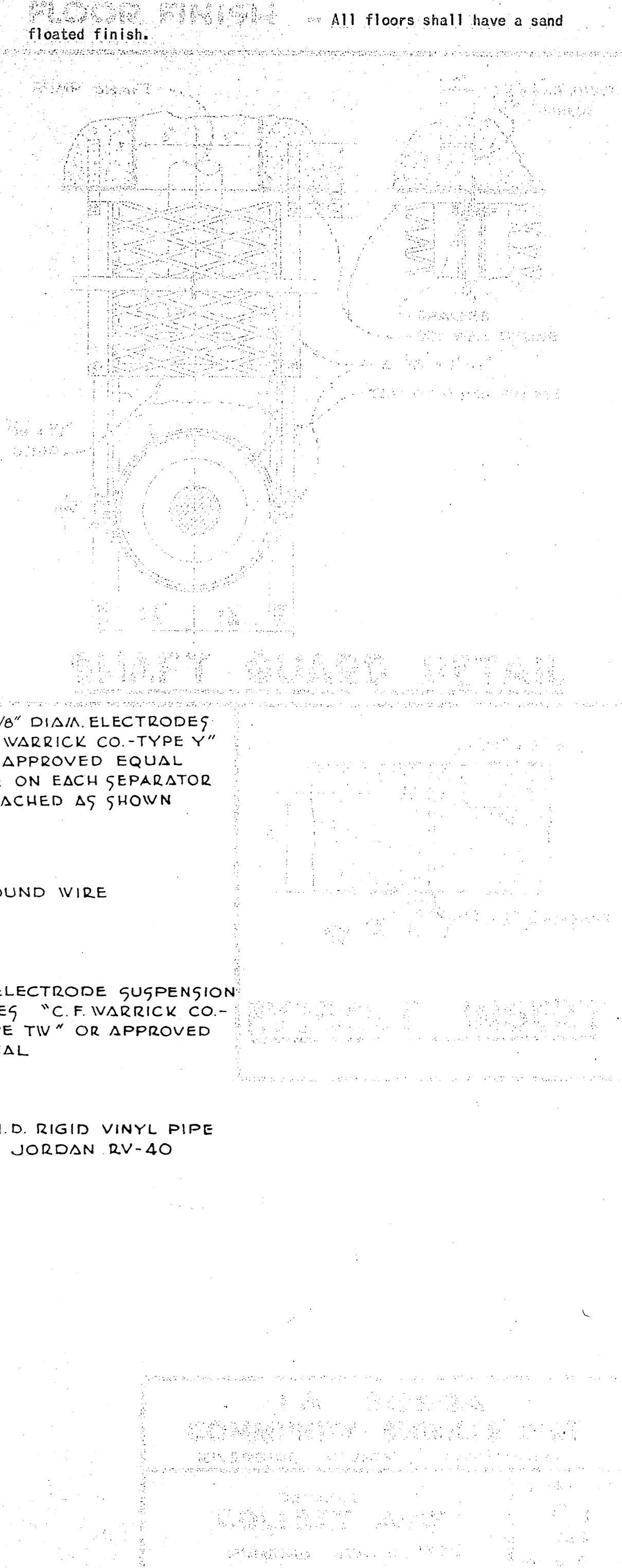
INSTALL 2 - 6" vertical shaft sewage pumps with non-clogging vortex type with recessed impeller. Wemco y6" Model "DV", or approved equal.

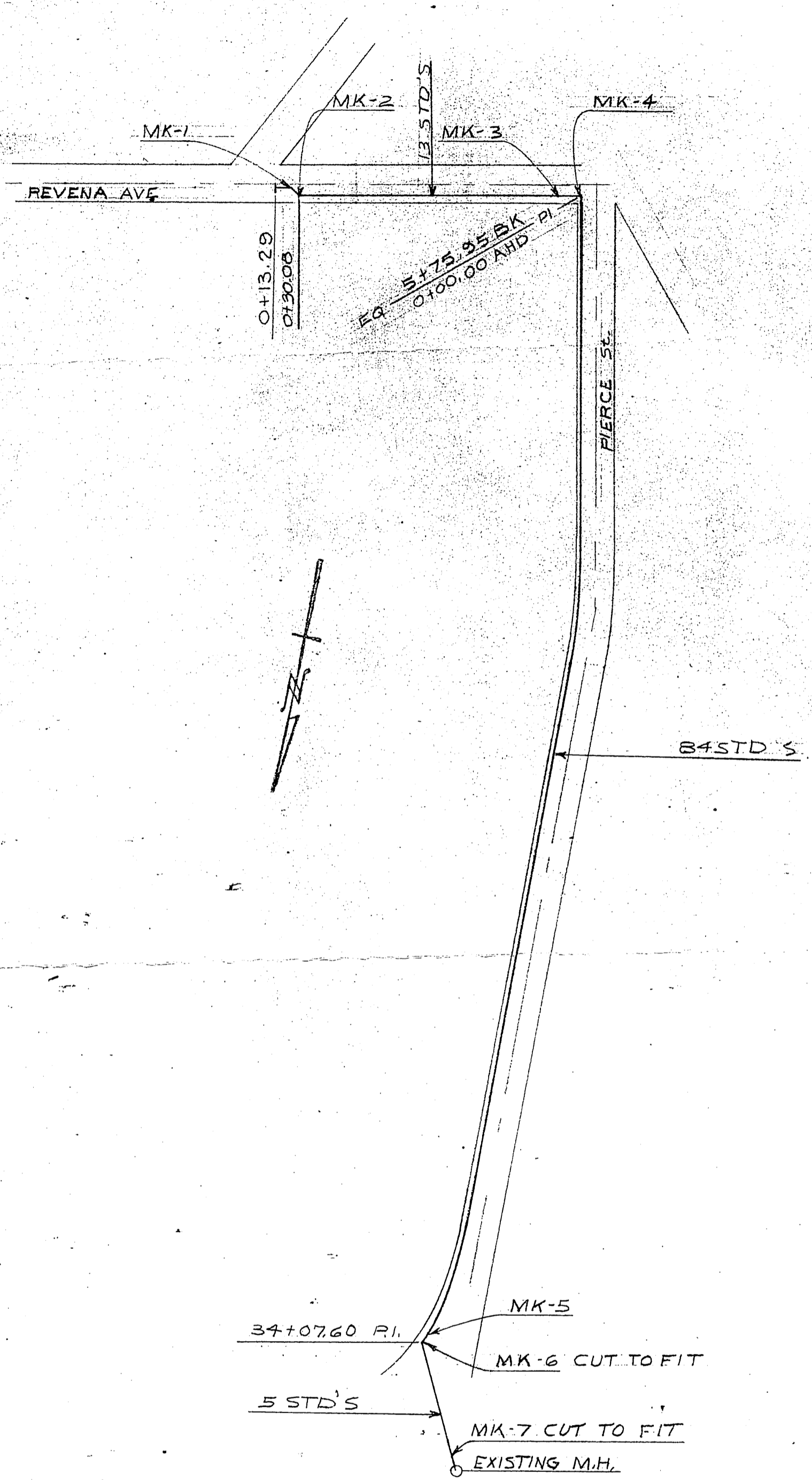
Electrode controls with an alternator containing two transformer type relays and ratchet relay. Two standby positive action float switches shall be installed in accordance with the Plans and Specifications. Each pump switch shall be equipped with a hand-off-automatic selector switch in panel and dry well.

I.L.G. centrifugal fan type 20-D, 440 Volt, three-phase, 60 cycle, 1750 r.p.m., or approved equal.

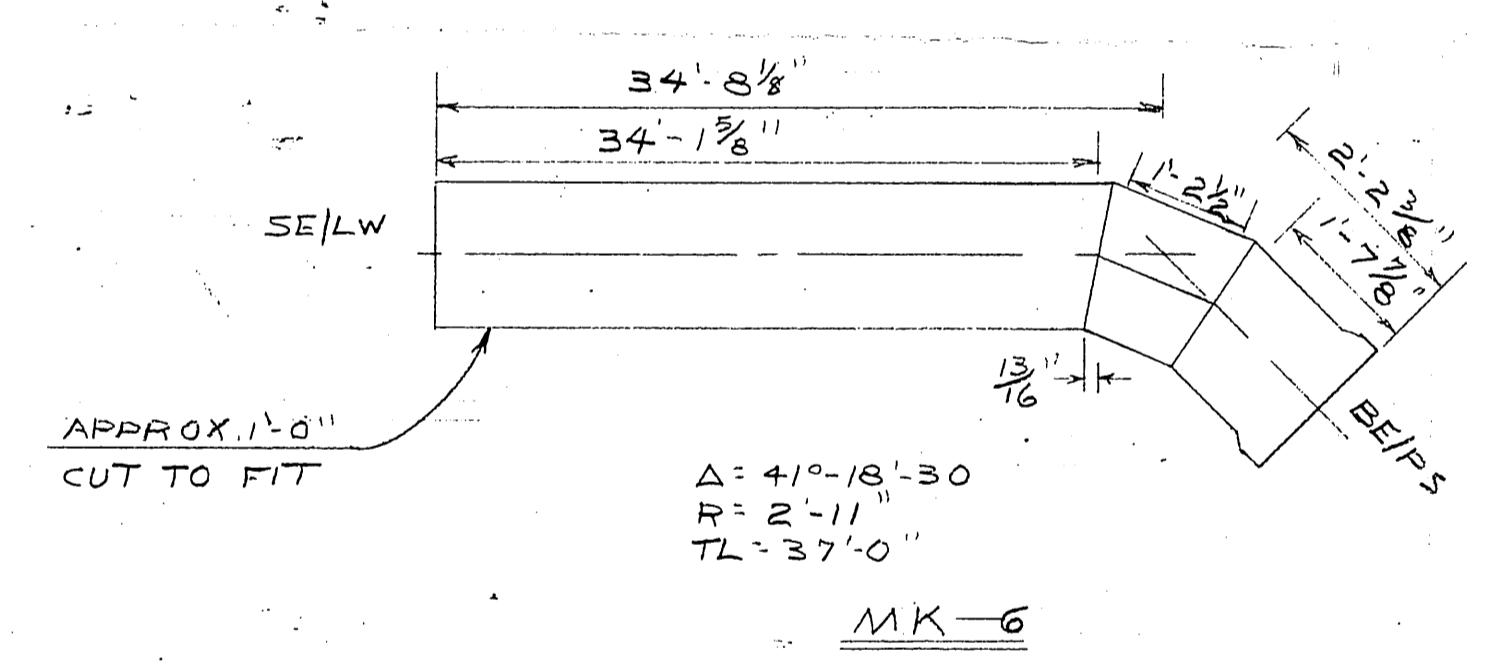
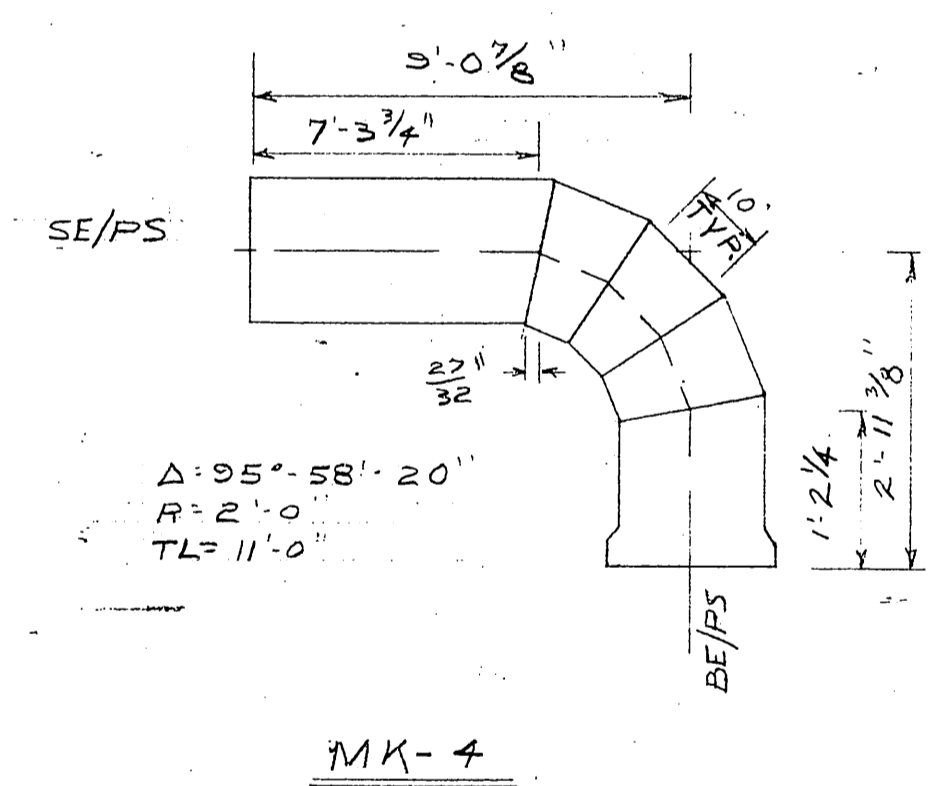
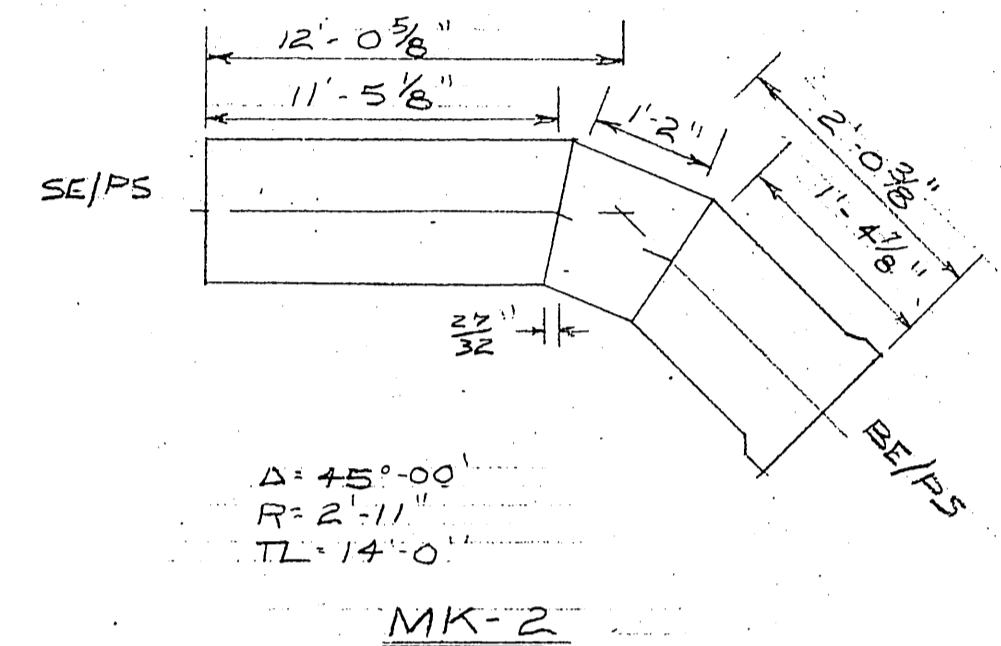
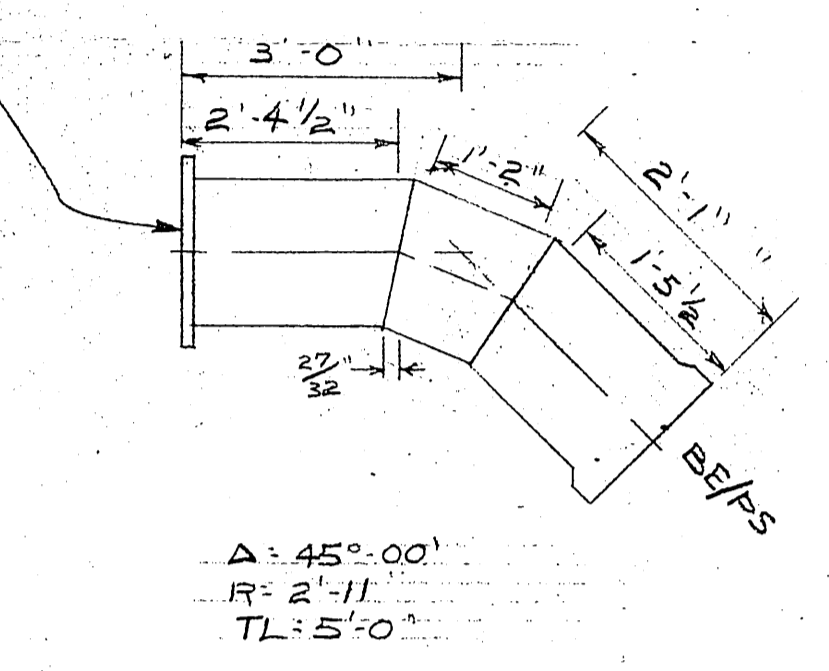
Paint all interior surfaces, pipes, fixtures and equipment below ground with paint as specified for sewer facilities and manufactured by "Inertol Co., Inc." and set forth in the "Inertol Specifications 770-C", or approved equal.

All floors shall have a sand floated finish.





S - 1/16" R. FLG. 1.50" STD. F. # D.
 O. D. - 12 1/2" I. D. - 8 1/8" 1/32" O.
 B. C. - 11 3/4" No. OF B/H's - 8
 SIZE OF B/H's - 3/8"



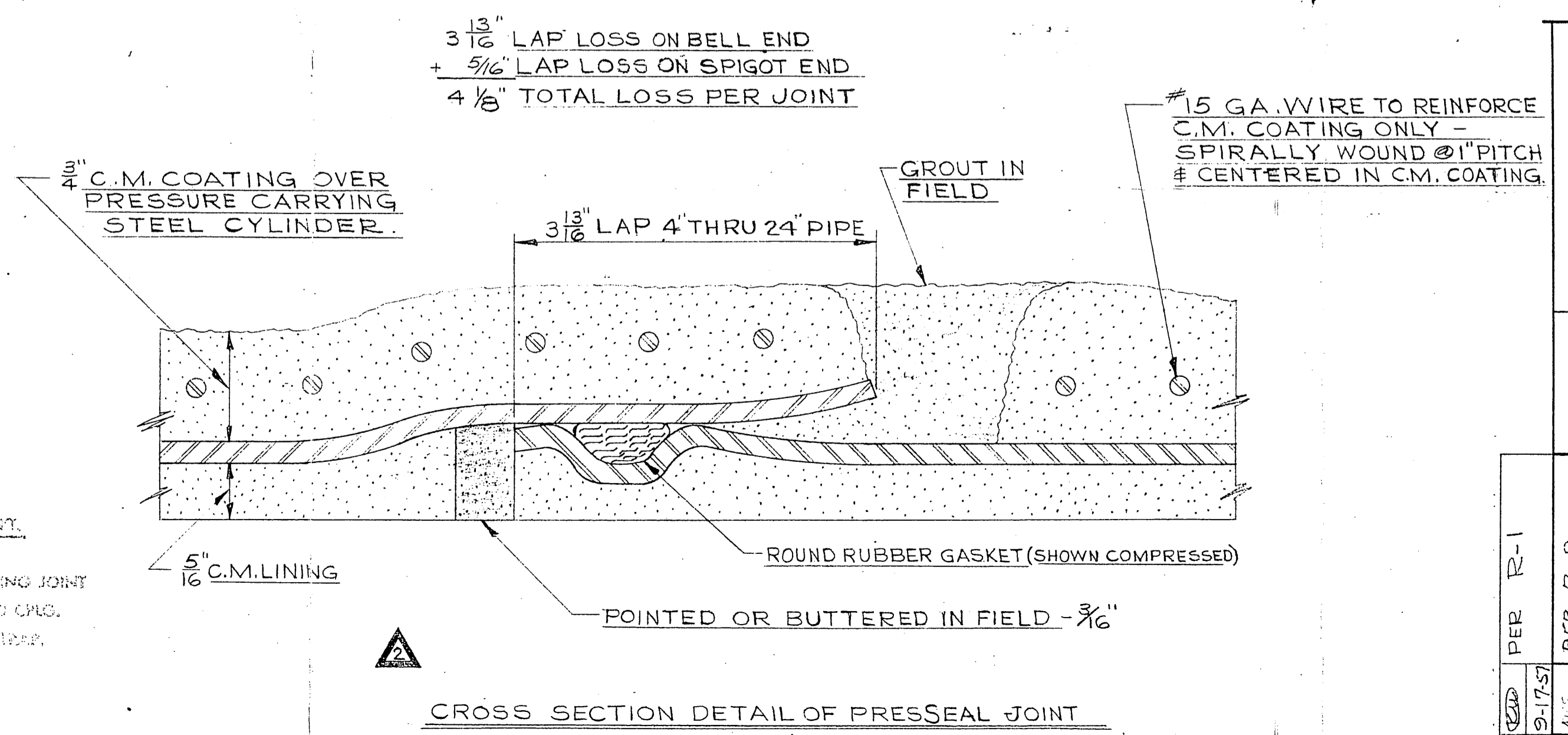
- GENERAL NOTES:**
- PIPE SIZE & GAGE: 8 3/8" OD x #12 GA
 - LINING: 3/16" CM
 - COATING: 3/4" CM
 - COATING REINFORCED WITH #15 GA. WIRE @ 1" PITCH
 - HYDROSTATIC TEST PRESSURE IS 700* PSI
 - NET LAID LENGTH IS 39.66' PS, 39.94' LW
 - DEPTH OF BELL IS 4' PS, 1' LW
 - MARK ALL SECTIONS WITH MARK NUMBERS AS SHOWN.
 - PULL MINOR ANGLES TO SUIT ENGINEERS GRADE AND ALIGNMENT.
 - BOLT HOLES IN FLANGES TO STRADDLE AXIS OF PIPE.
 - BUTTERING ALLOWANCE IS 3/16" PS, 1/4" LW
 - ALL ELEVATIONS ARE GIVEN TO BOTTOM OF PIPE.
 - PULLS ARE GIVEN TO NEAREST 5 MINUTES.
 - USE SHOP ORDER NUMBER 5081

ABBREVIATIONS

V.P.I. - VERTICAL POINT OF INTERSECTION
 V.P. UP. - VERTICAL PULL UP
 V.P. DN. - VERTICAL PULL DOWN
 SE/PS - SPIGOT END PRESSEAL
 BE/PS - BELL END PRESSEAL
 SE/LW - SPIGOT END LAP WELD
 BE/LW - BELL END LAP WELD
 H.D. - HORIZONTAL DISTANCE

ABBREVIATIONS CONT.

F.E. - FLANGED END
 P.E./C.J. - PLAIN END CAULKING JOINT
 P.E./B.C. - PLAIN END BOLTED C.J.
 P.E./B.S. - PLAIN END BUTTED J.



REV. NO.	DATE	DESCRIPTION
7		(*) X 27'-11 1/4" X SE/PS & PE.
6		(*) X 37'-0"
5		(*) X 40'-0" X SE/PS & BE/LW
4		(*) X 11'-0"
3		(*) X 20'-0" X PS
2		(*) X 14'-0"
1		(*) X 4'-11 3/8"
		STD'S (*) X 40'-0" X PS

NOTE: (*) INDICATES 8 3/8" OD x #12 GA

PER R-1	PER R-2	PER R-3	PER R-4
DR. BY: <i>as-s</i>	DATE: 8/30/57	SCALE: NONE	DRWG. NO. 53-1785-081
APPROVED BY: <i>gcc</i>	DATE: 9/3/57		
TO SHOP BY: <i>gcc</i>	DATE: 9/16/57		

Southern Pipe & Casing Co.
 DIVISION OF U.S. INDUSTRIES, INC.
 AZUSA, CALIFORNIA

LA SIERRA COMMUNITY SERVICES DISTRICT
 FORCE MAIN

CUSTOMER: COLICH CONSTRUCTION CO
 ENGINEER: BOYLE ENGINEERING

SHEETS: 1 SHEET NO. D