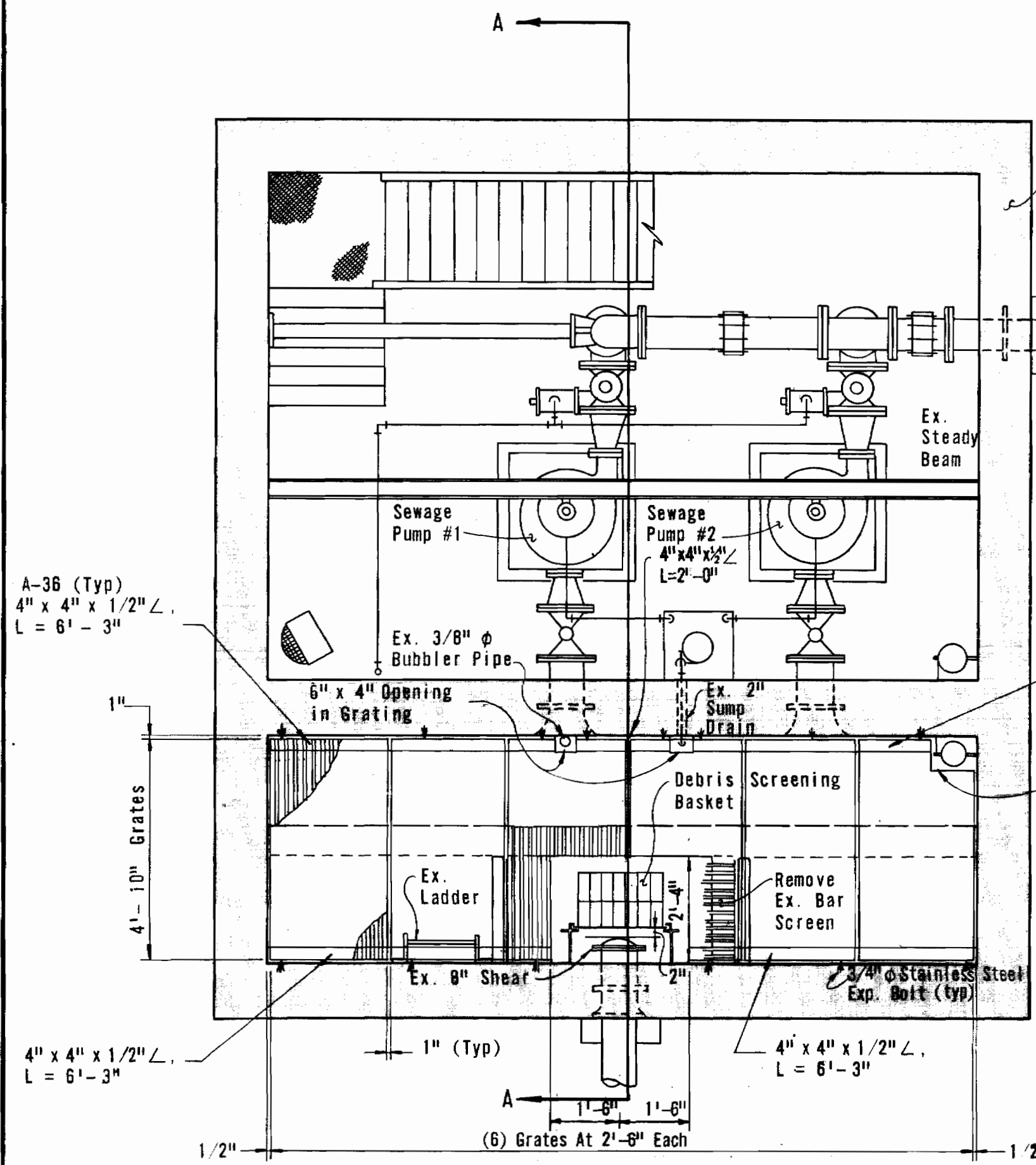


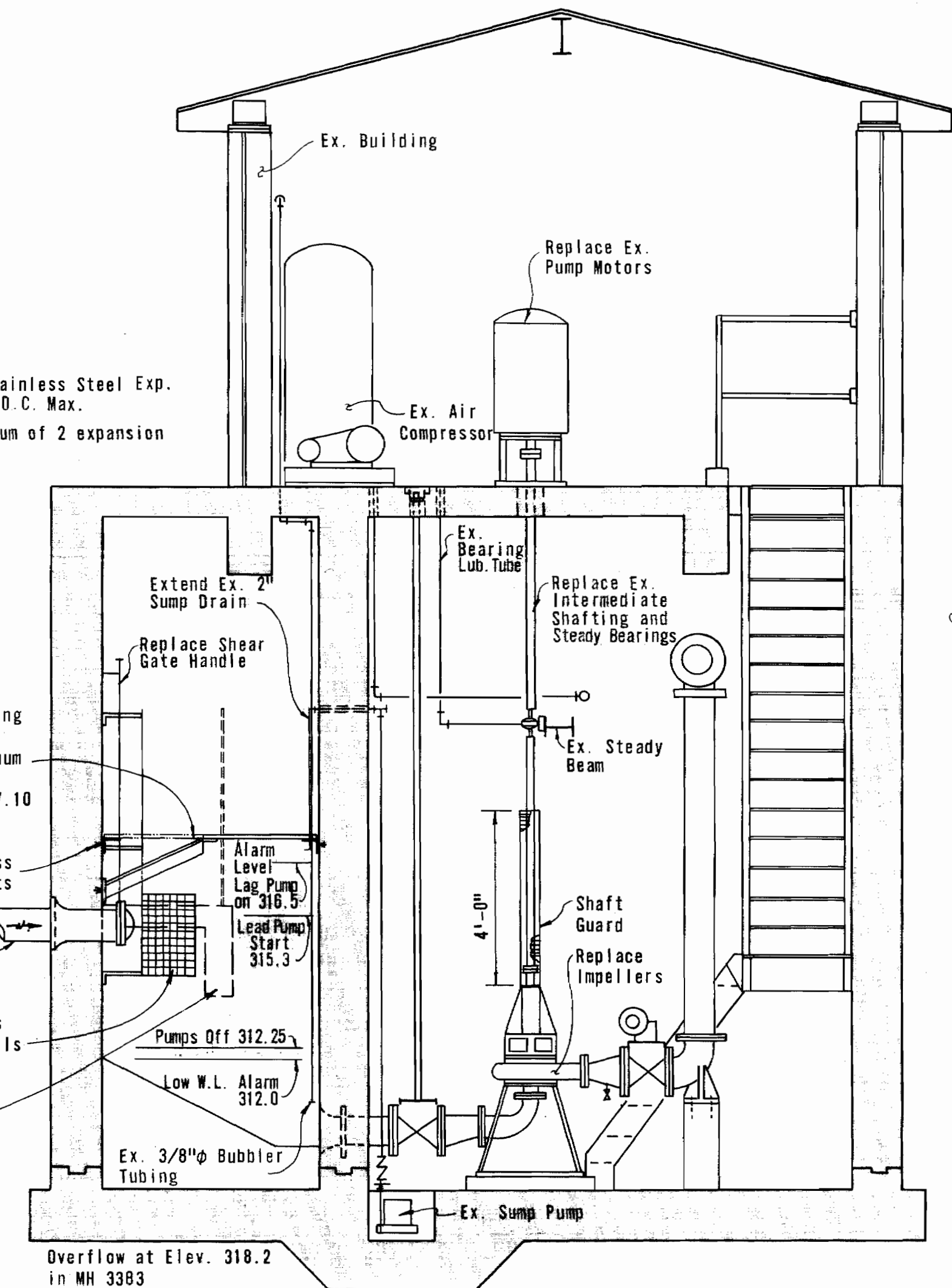
*Kenneth A. M. C. C. D.*

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION 10-8-68 DATE <i>ewo</i> Chief Engineer	CONTRACT NO. 283-S	ARCHITECTURAL ELEVATIONS, SITE PLAN & DETAILS	COLUMBIA HOBBITTS GLEN SEWAGE PUMPING STATION ELECTION DISTRICT CLARKSVILLE NO. 5	DRAWING NO. 1 OF 5 SCALE AS SHOWN
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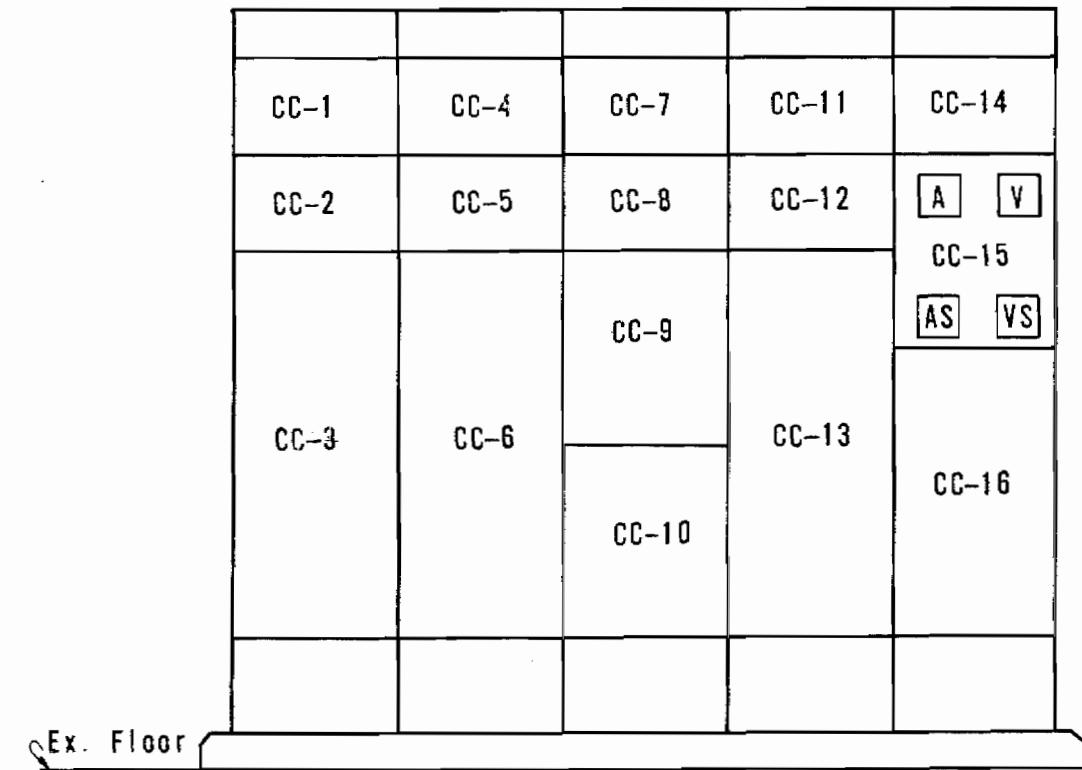


**PUMP ROOM PLAN**  
Scale: 3/8" = 1'-0"  
NOTE: See DETAIL "A" For Support of Grates Around 2'-4" x 3'-0" Opening

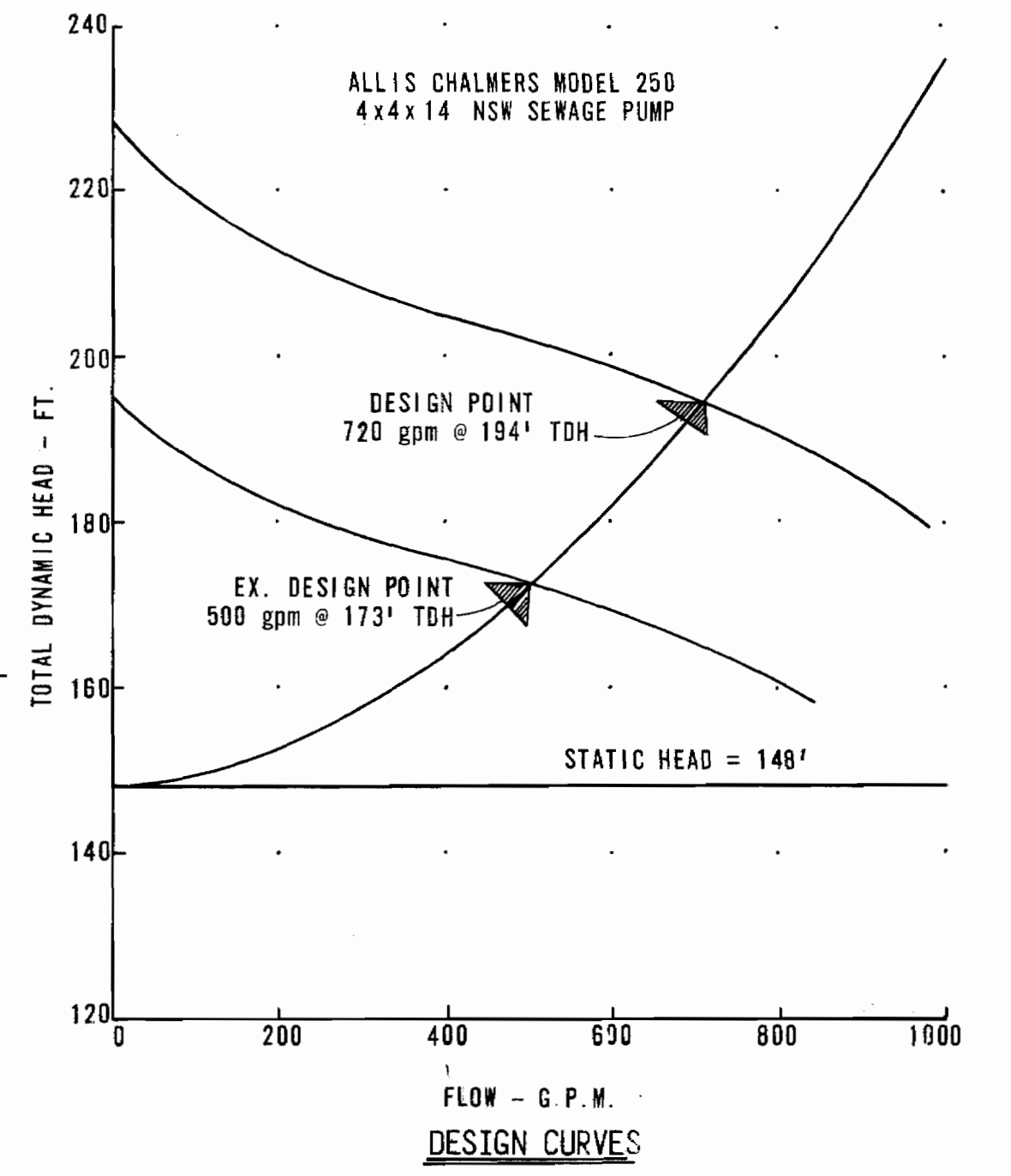
Notes:  
1. Provide 3/4" Stainless Steel Exp. Bolts at 3'-0" O.C. Max.  
2. Provide a minimum of 2 expansion bolts per angle



**SECTION "A-A"**  
Scale: 3/8" = 1'-0"



**ELEVATION MOTOR CONTROL CENTER**  
Scale: 1/2" = 1'-0"

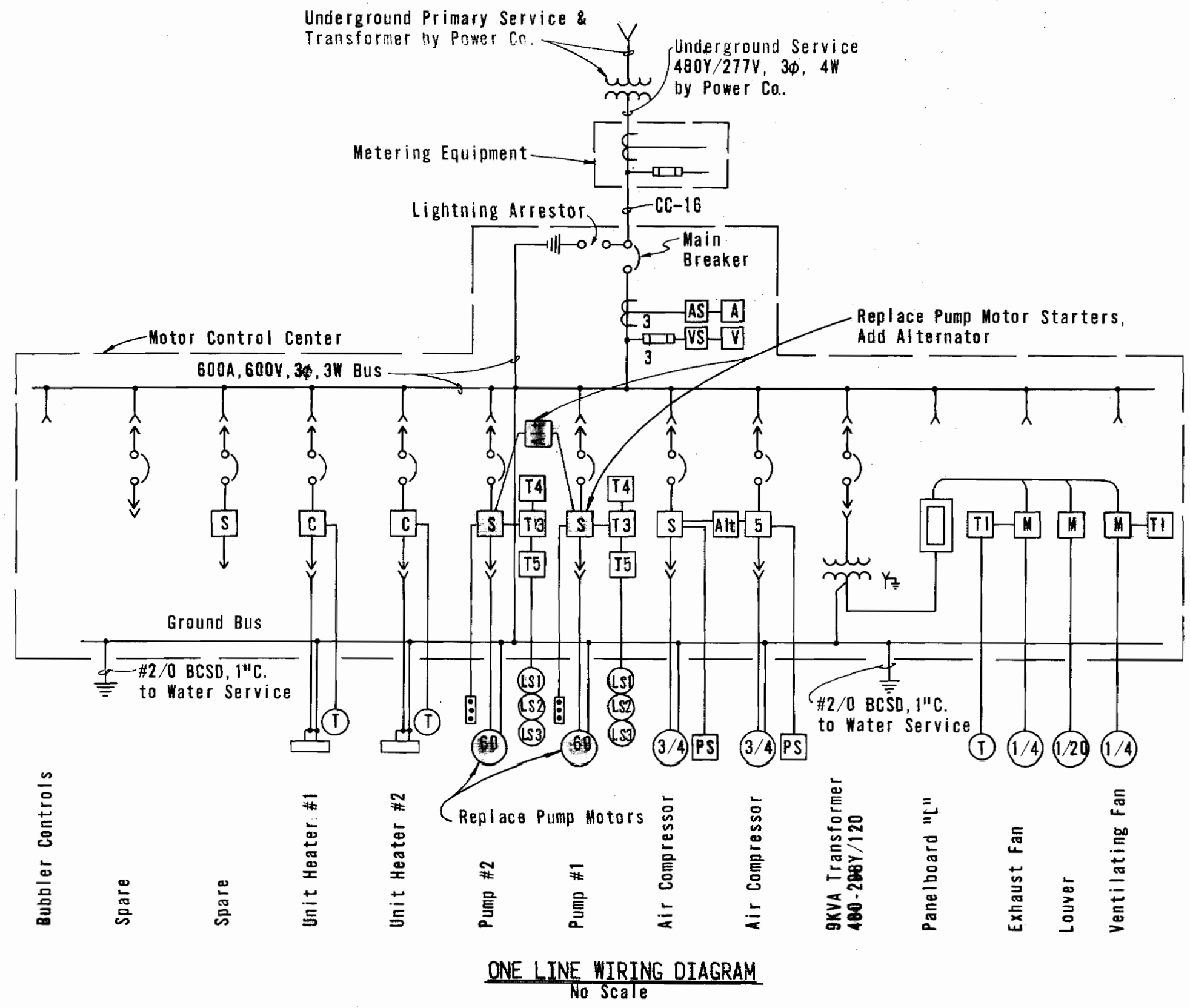


See Specifications for Detailed Pump Performance Curves

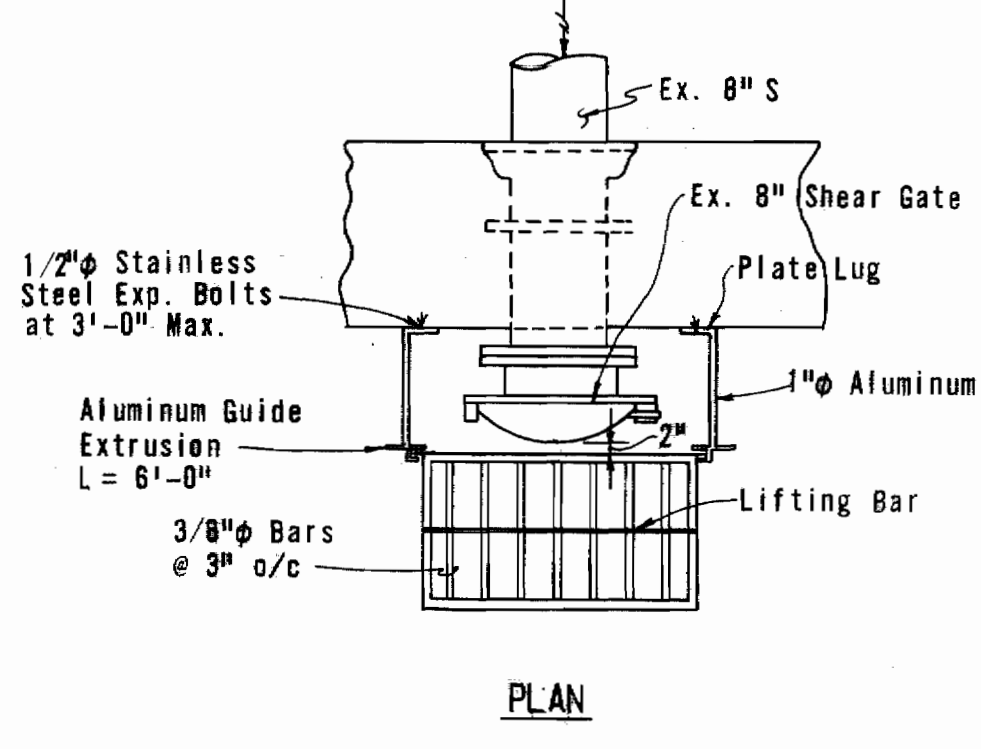
MOTOR CONTROL CENTER SCHEDULE														
UNIT & RUN NO.	NAME PLATE DATA	DEVICE DESCRIPTION	HP	AUX. DESC.	BREAKER			WIRE			GRD. CONDUIT			
					Frame	Pole	Calib.	A.I.C. No.	Size	Type		For	WIRE	
CC-6	Pump No. 1	Combination Starter Size 4, FVNR	60	a, b, c, d & f	225A	3	225	6	3	2	THW	Power	8	1-1/2"
CC-13	Pump No. 2	Combination Starter Size 4, FVNR	60	a, b, c, d & f	225A	3	225	6	3	2	THW	Power	8	1-1/2"

BREAKER A.I.C. LEGEND  
6 25,000 @ 480 Volts

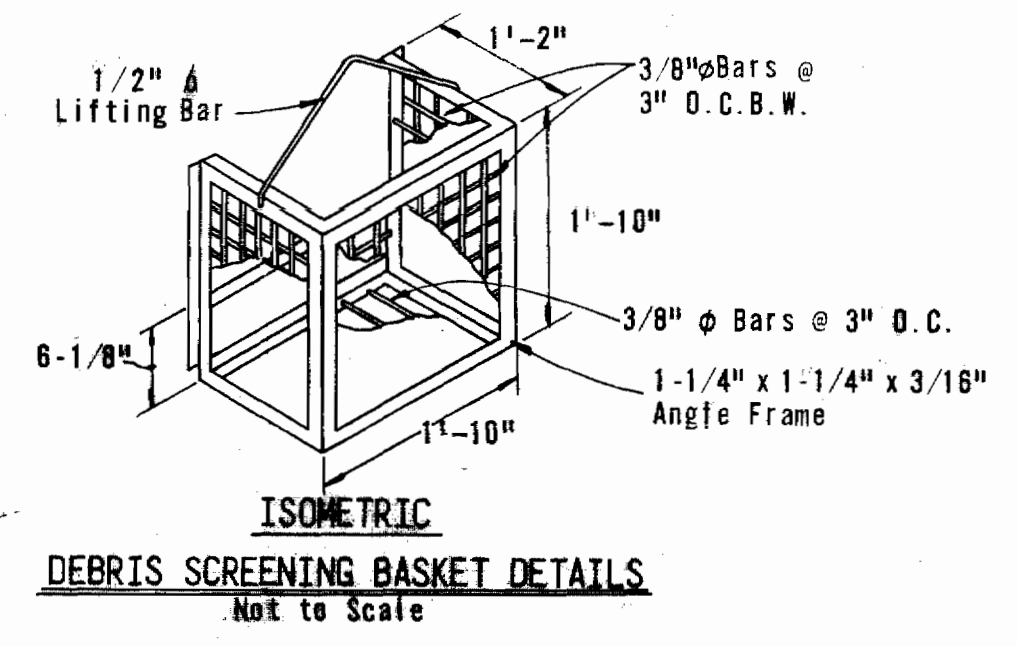
MCC AUXILIARY DESCRIPTION  
a - Red & Green indicating lights  
b - Hand-off; Automatic Switch  
c - Third Overload Relay  
d - 480-120V Control Transformer  
f - Running Time Meter



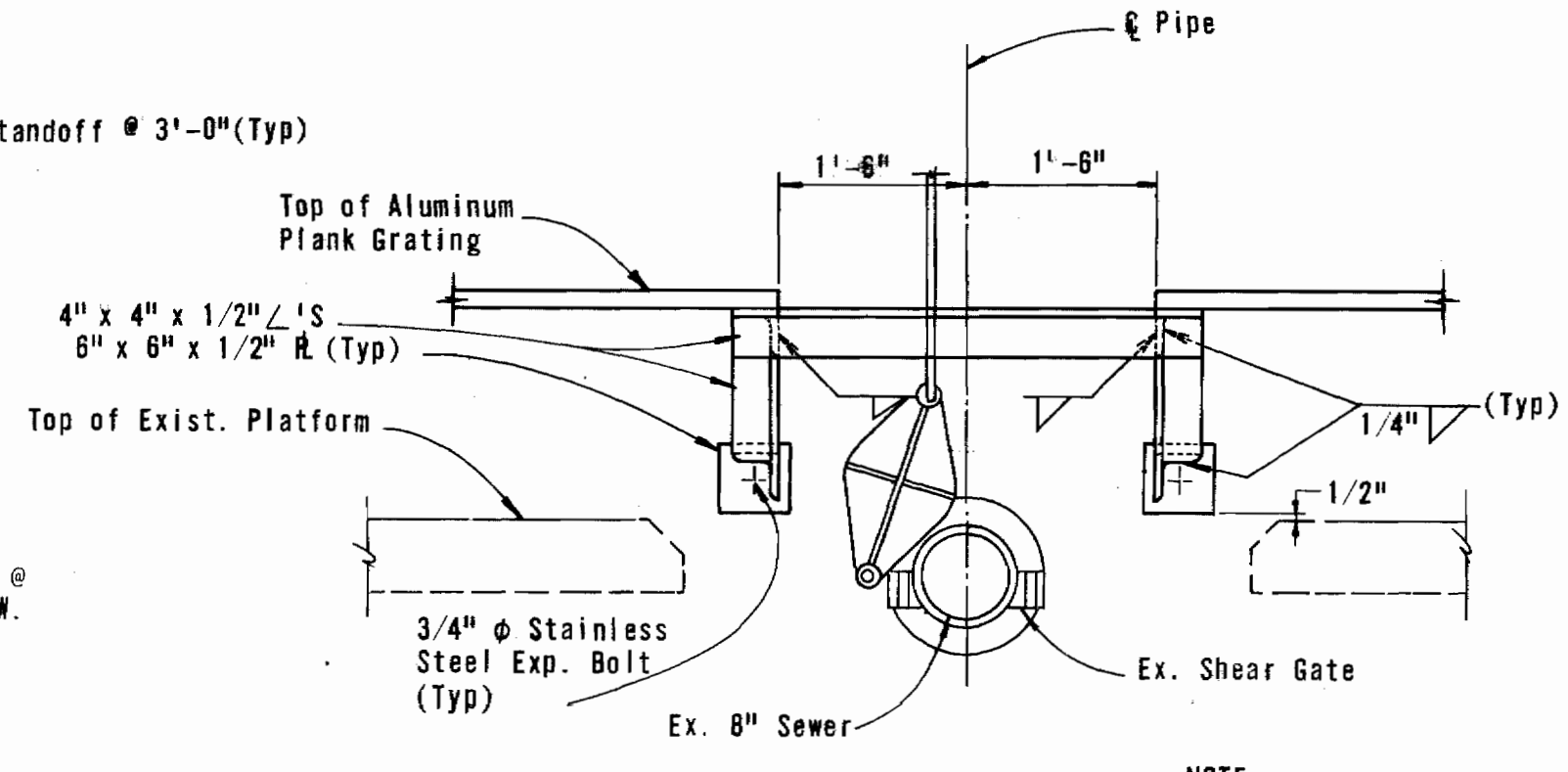
**ONE LINE WIRING DIAGRAM**  
No Scale



**PLAN**



**ISOMETRIC DEBRIS SCREENING BASKET DETAILS**  
Not to Scale



**DETAIL "A"**  
Scale: 3/4" = 1'-0"

- NOTES**
- The Contractor shall take all precautions necessary to maintain uninterrupted operation of the Pumping Station.
  - For Supplementary Information see the "As Built" drawings of Contract No. 283-S "Hobbits Glen Sewage Pumping Station".
  - Platform Support Angles shall be A-36 steel and hot dipped galvanized.
  - Debris Screening Basket shall be manufactured of the following materials:  
Guide Extrusions - Aluminum Alloy 6063-T6  
Pipe Standoffs - Aluminum Alloy 6061-T6  
Coarse Basket - Aluminum Alloy 6063-T5  
Lifting Cable - Stainless Steel  
Finish of all materials shall be standard mill finish.
  - Debris Screening Basket shall be as manufactured by Washington Aluminum Co., Inc. (WACO) or approved equal.

NOTE: Debris Screening Basket not shown

Modifications to Contract 283-S  
Hobbits Glen Sewage Pumping Station  
Columbia, Maryland

**PURDUM & JESCHKE**  
ENGINEERS  
1023 N. CALVERT ST.  
BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
*R.E. Freudenberger* 4/14/78  
DIRECTOR OF PUBLIC WORKS DATE  
*W.O. Libbert* 4-14-78  
CHIEF-BUREAU OF ENGINEERING DATE

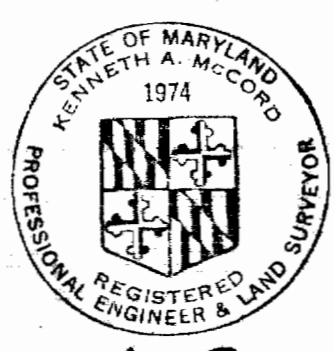
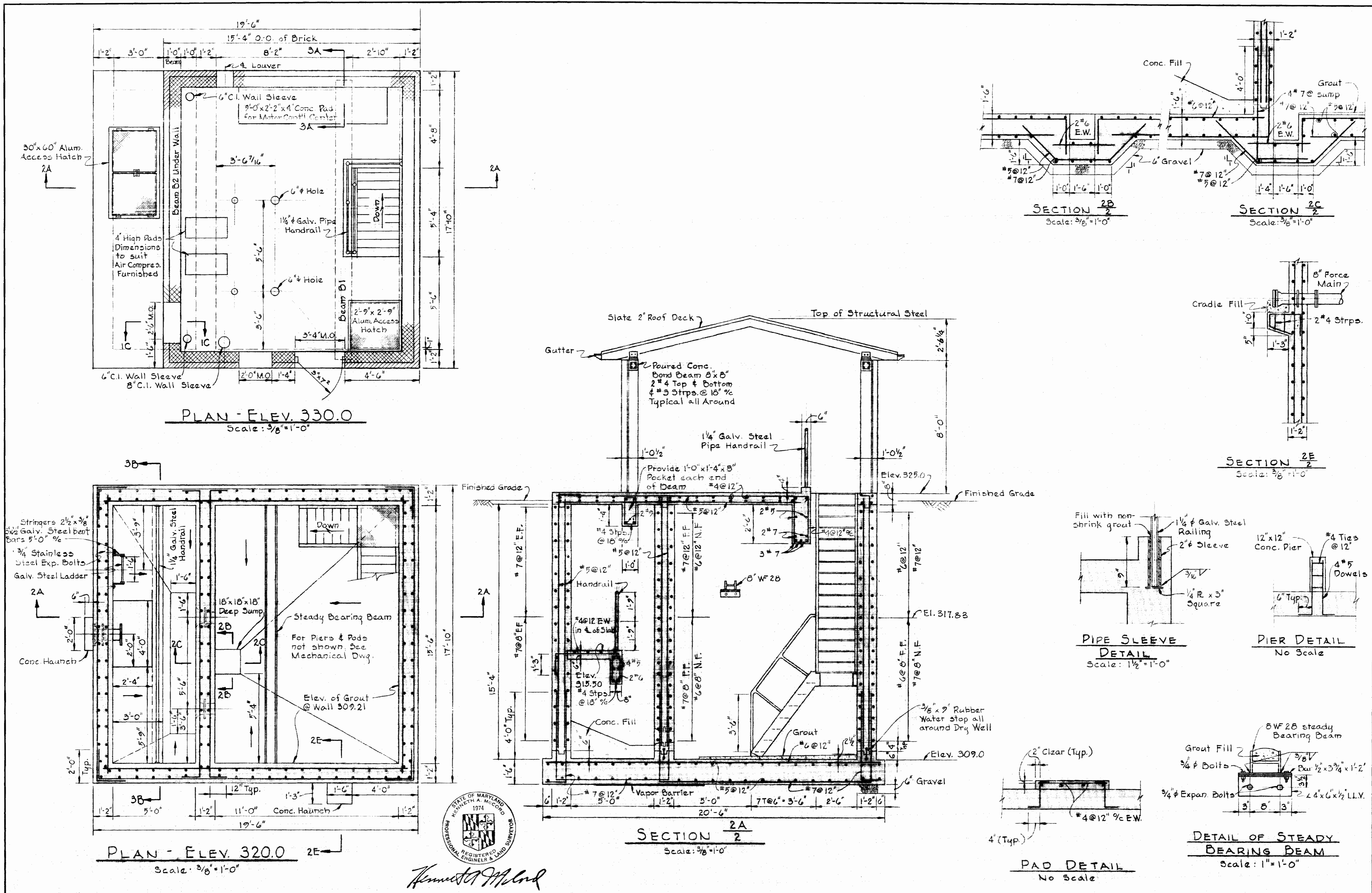
MODIFICATIONS TO  
CONTRACT 283-S

PLAN  
AND DETAILS

MODIFICATIONS TO  
HOBBITS GLEN SEWAGE PUMPING STATION  
COLUMBIA, MARYLAND

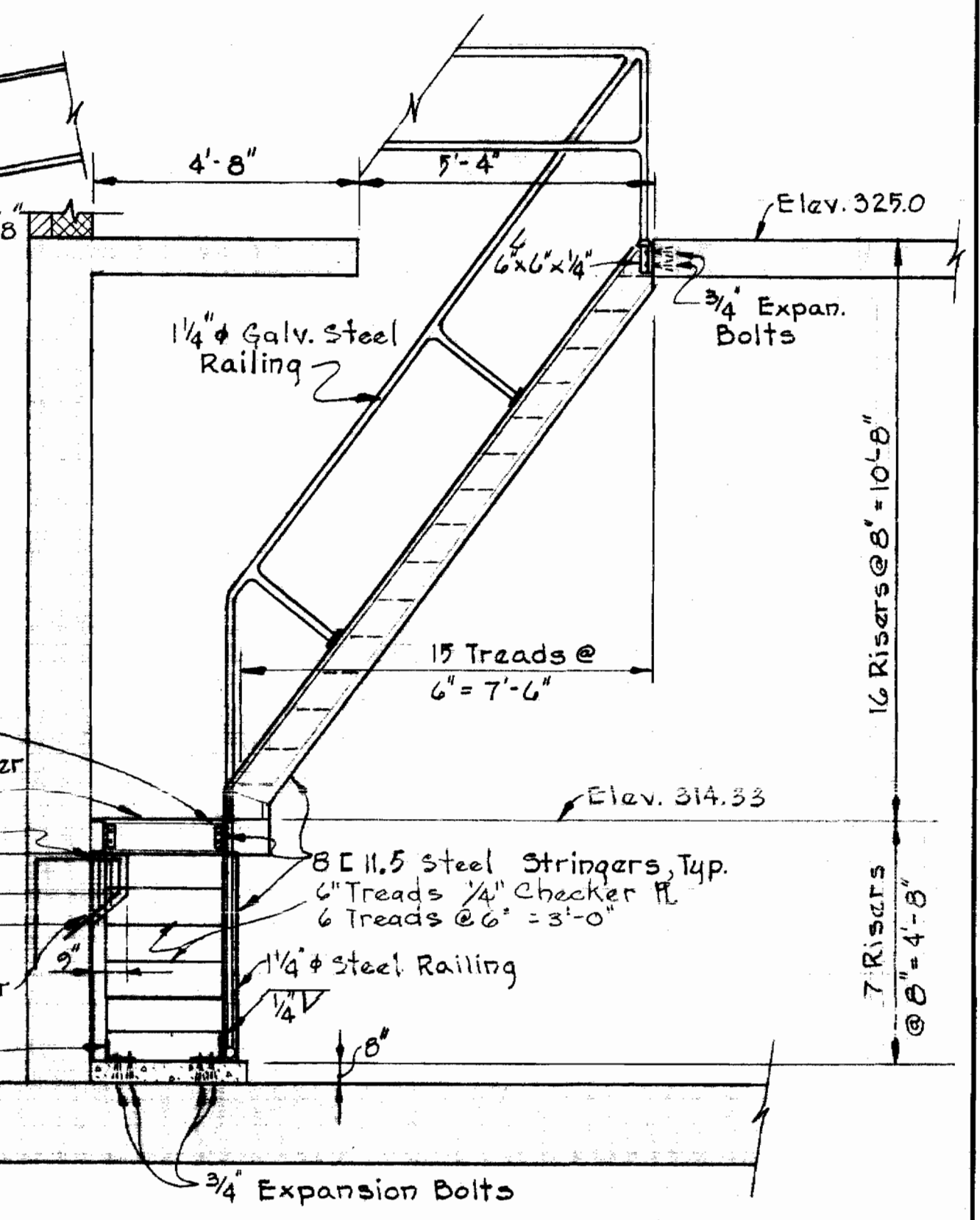
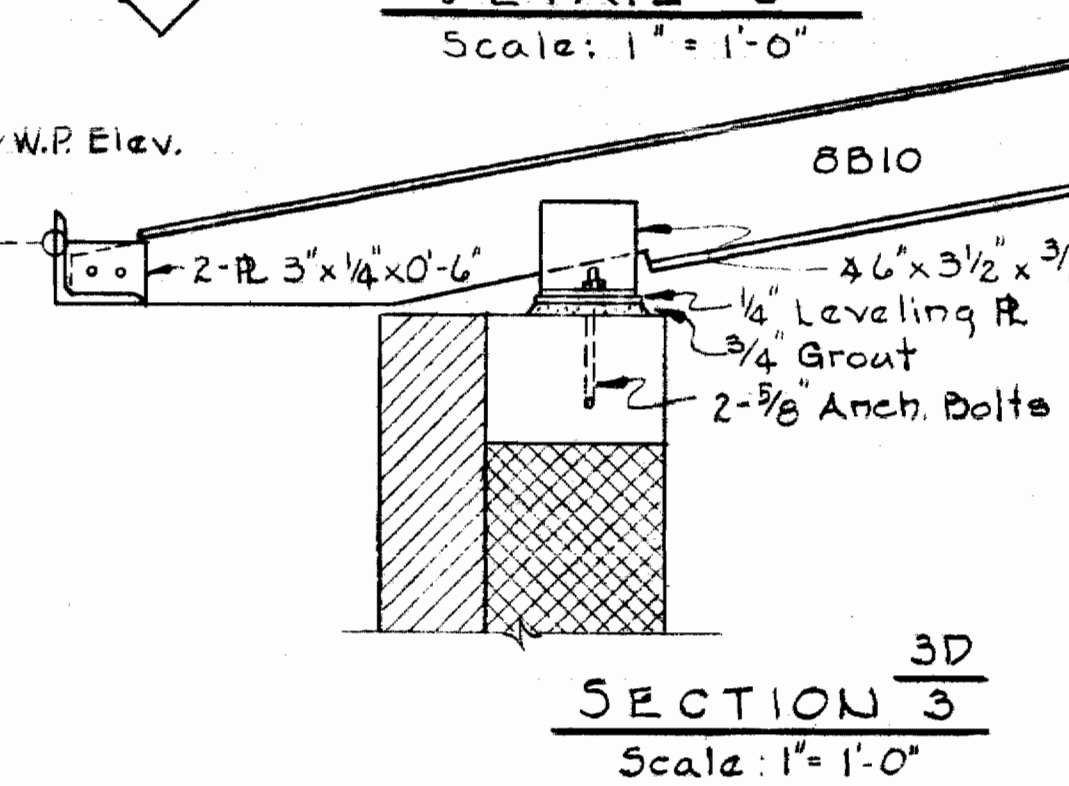
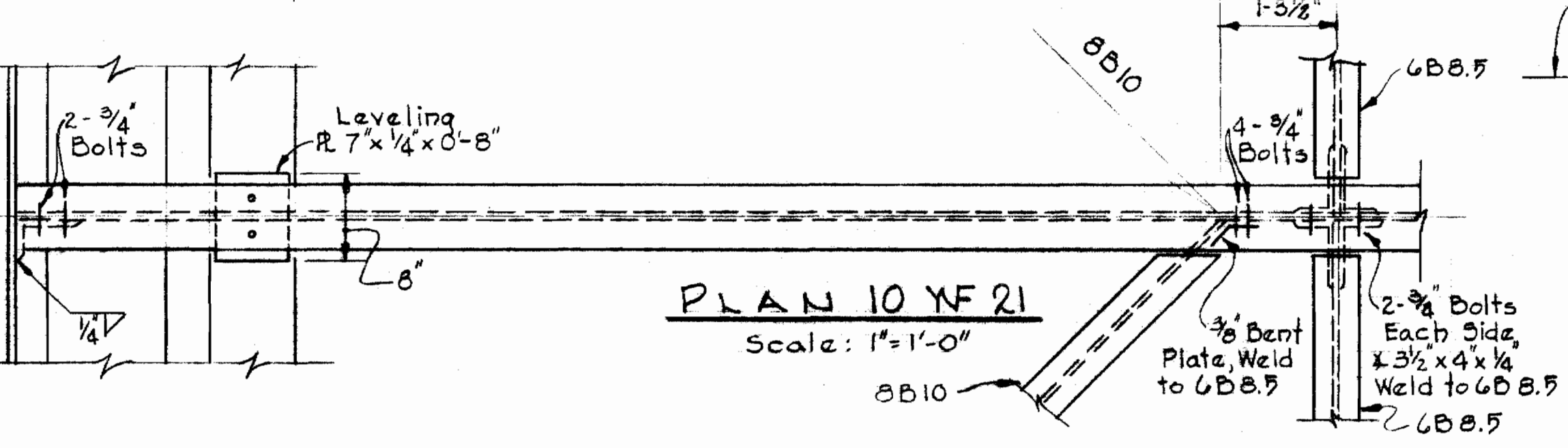
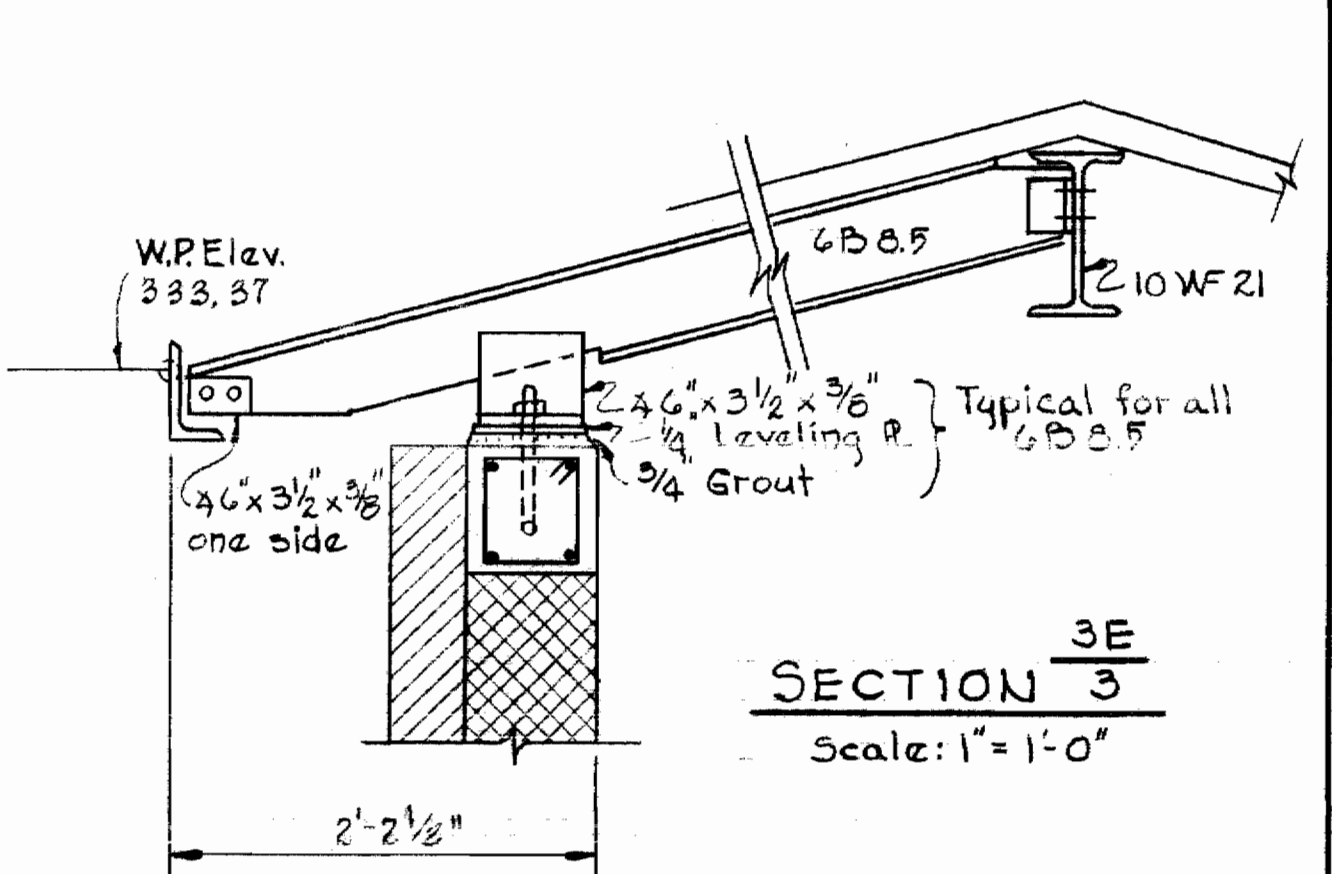
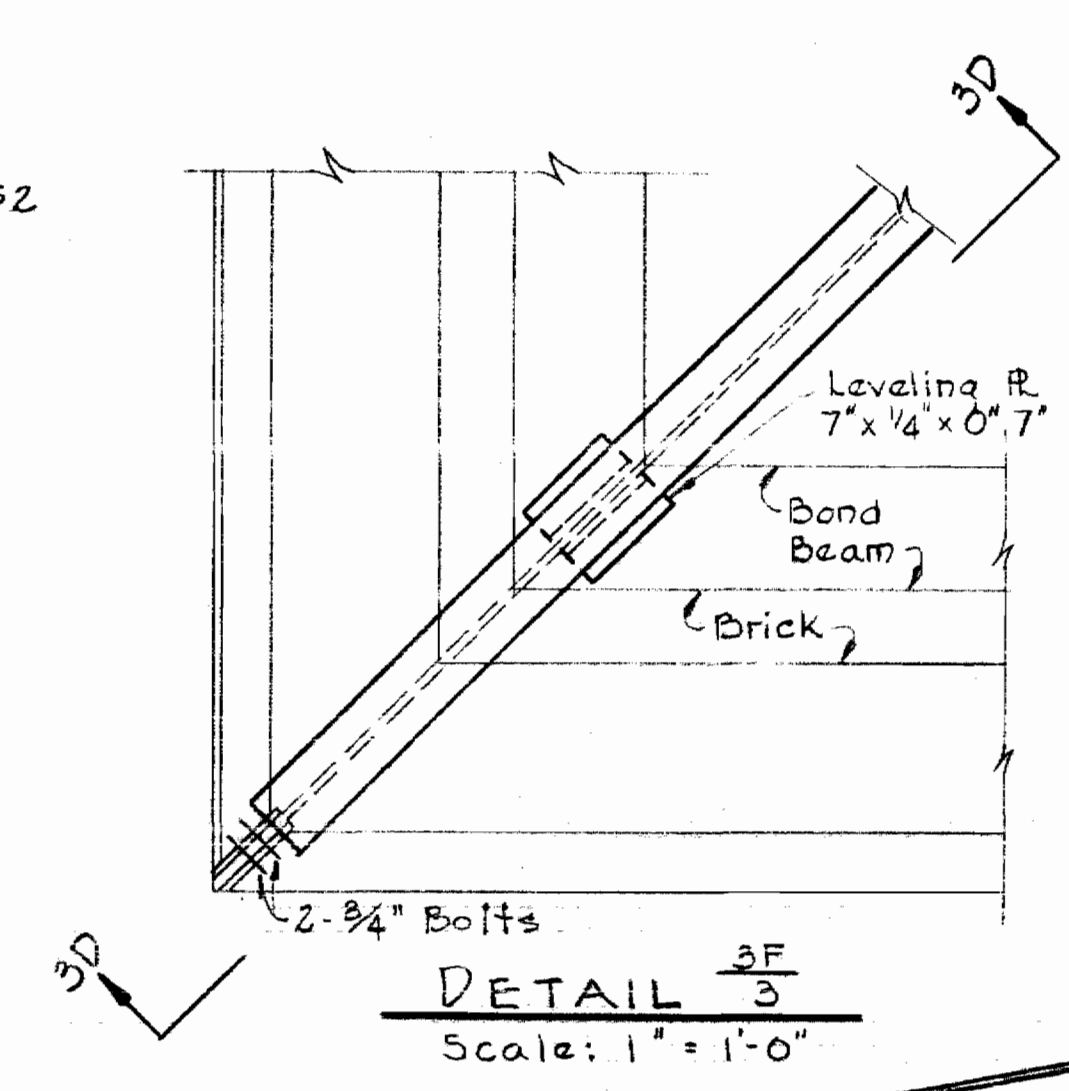
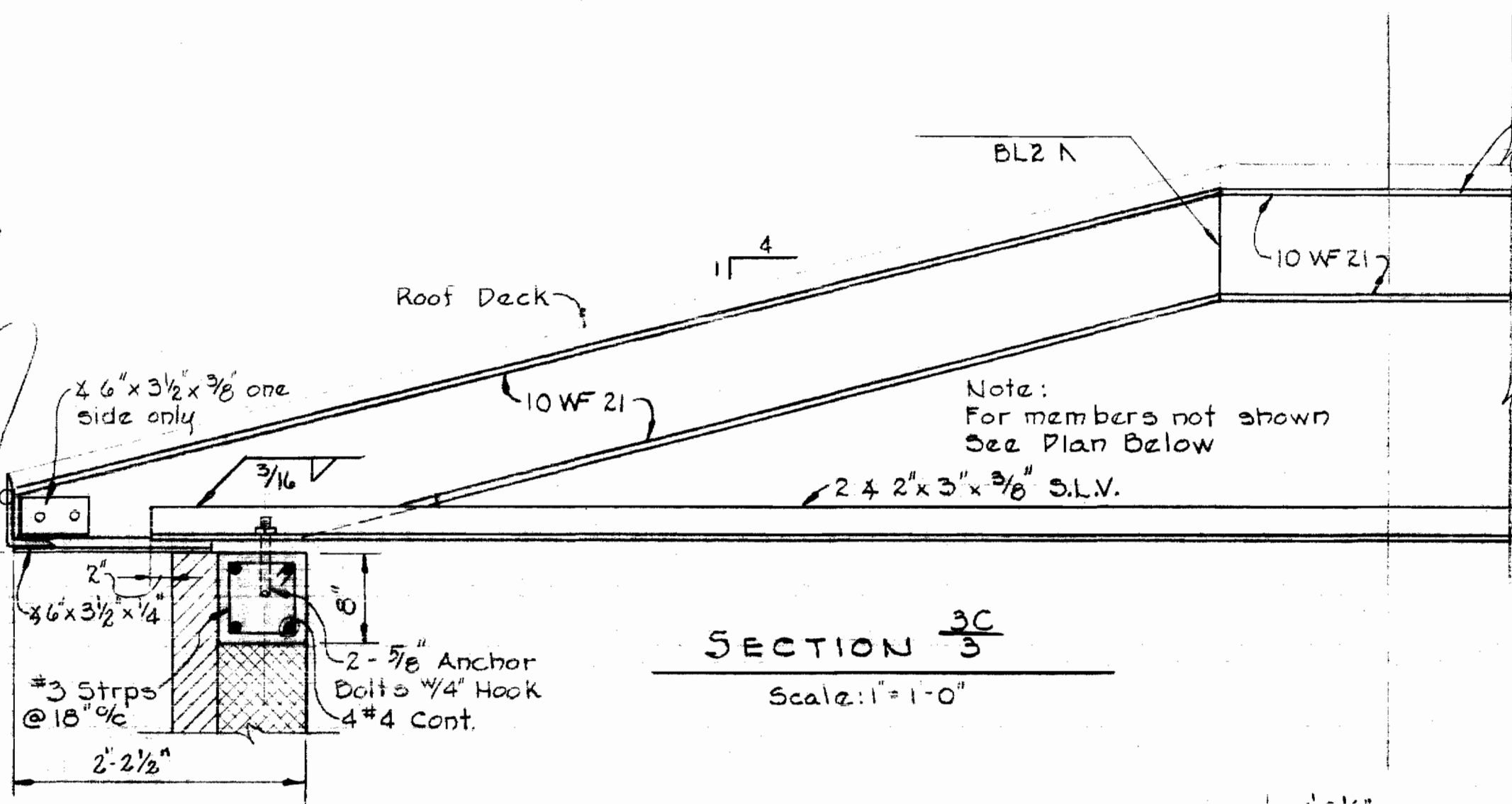
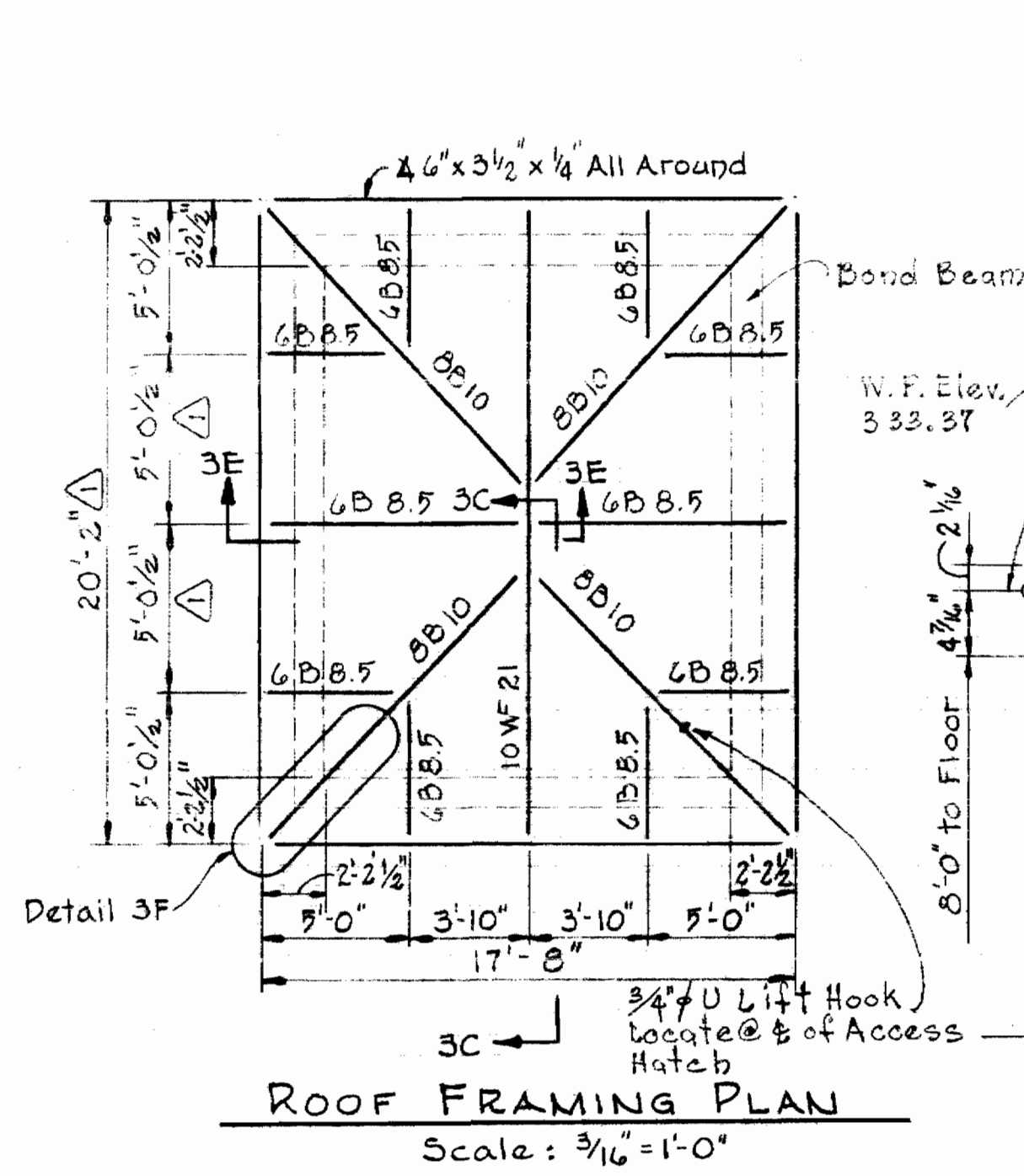
<b>DRAWING</b>	<b>SCALE</b>	<b>DESIGNED</b>	<b>REF.</b>
NO. 1	AS SHOWN	DRAFTED: LJP	BCC
OF 1		CHECKED: TAF	

WS 283-S/2



*Kenneth A. McCord*

<p>WHITMAN, REQUARDT &amp; ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND</p>	<p>HOWARD COUNTY METROPOLITAN COMMISSION 10-3-68 DATE</p> <p><i>W. O. Pillitter</i> W O Pillitter CHIEF ENGINEER</p>	<p>CONTRACT NO. 283-S</p>	<p>STRUCTURAL PLANS, SECTIONS AND DETAILS</p>	<p>COLUMBIA HOBBITS GLEN SEWAGE PUMPING STATION ELECTION DISTRICT CLARKSVILLE NO. 5</p>	<p>DRAWING NO. 2 OF 5 SCALE AS SHOWN</p>
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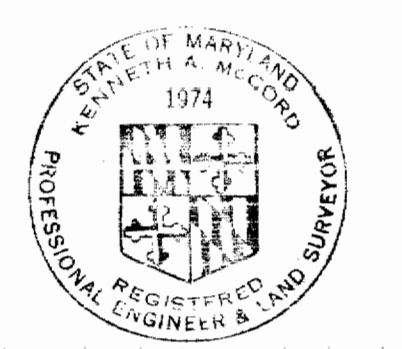
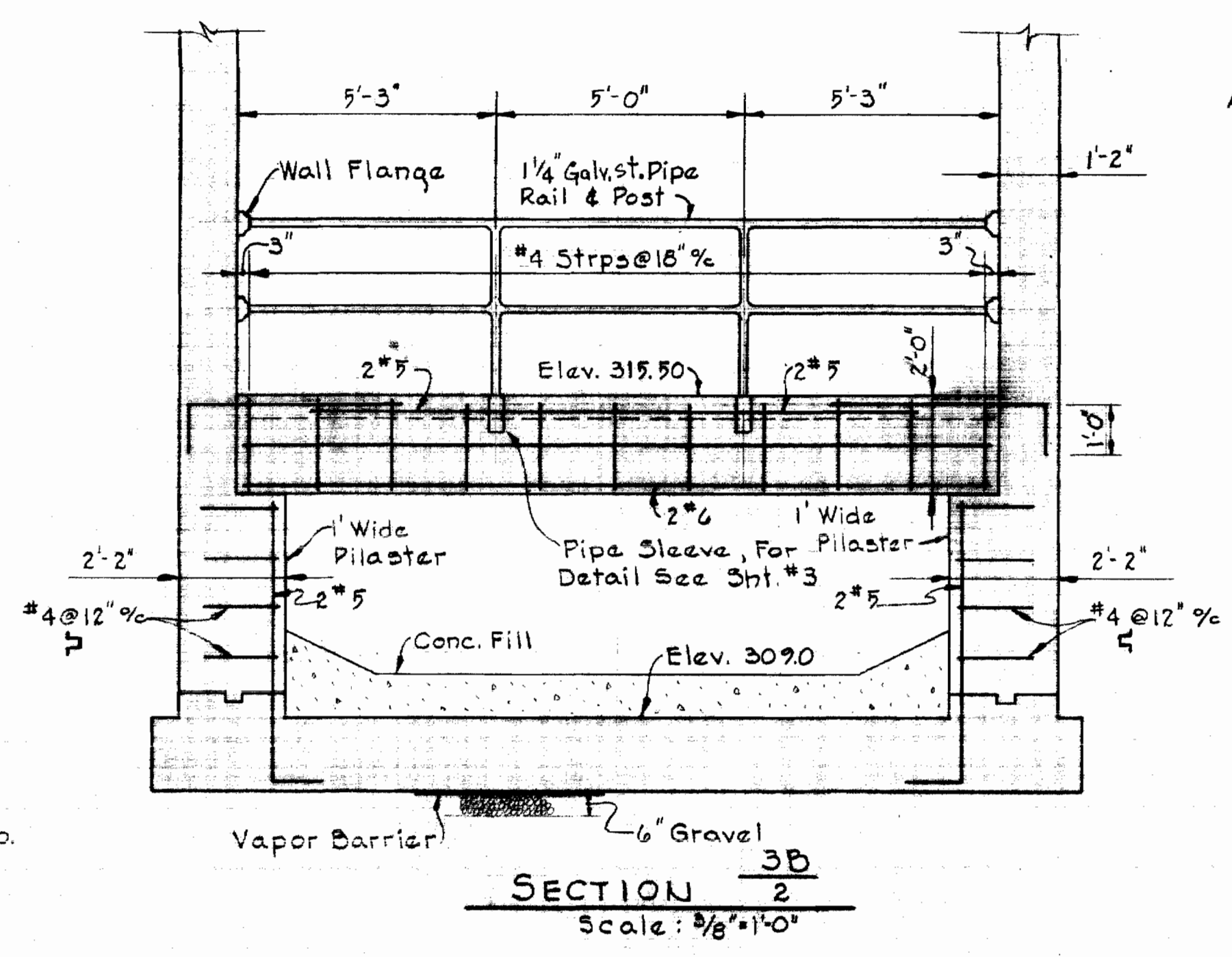
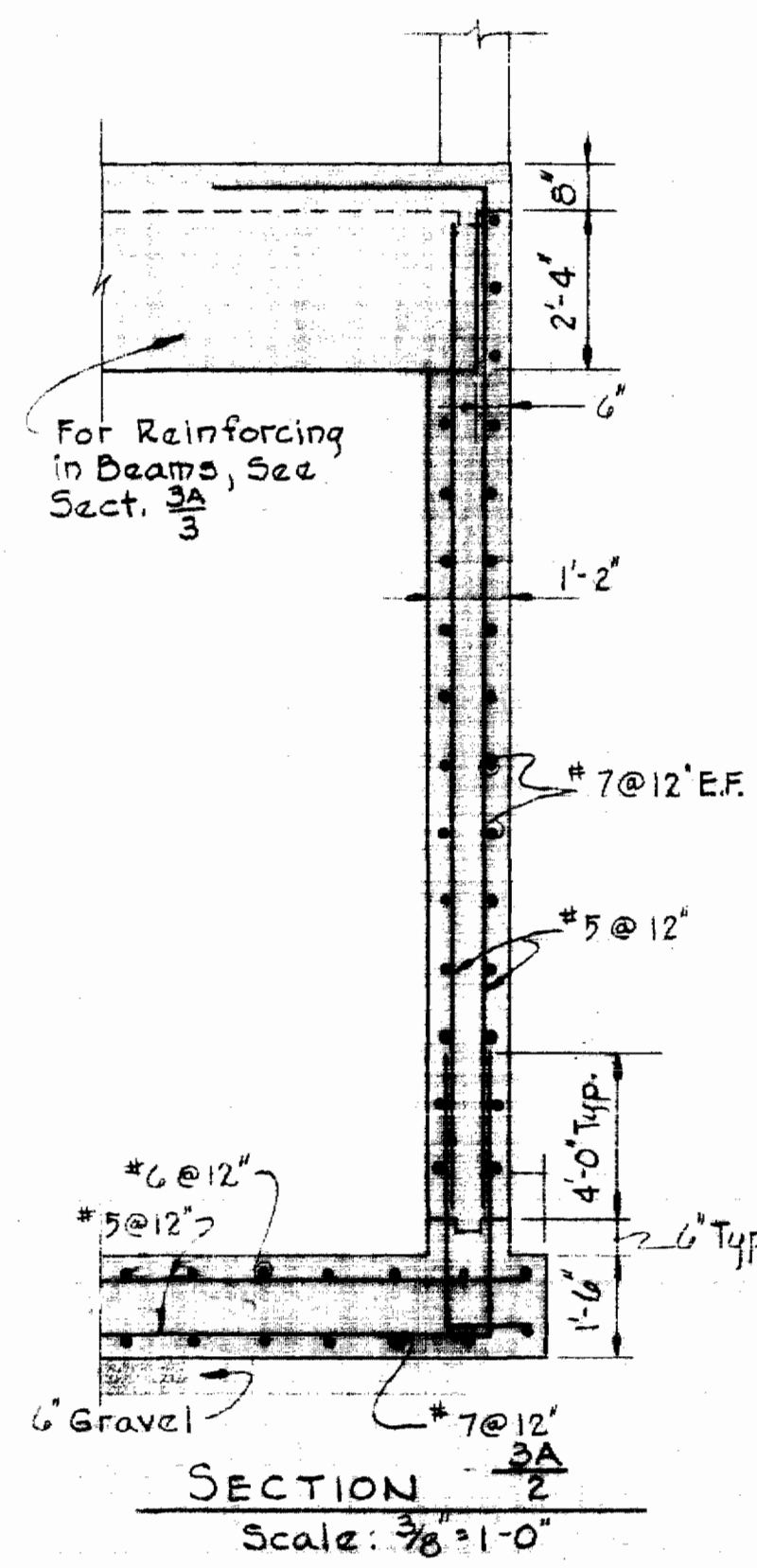


**STRUCTURAL STEEL NOTES**

- All structural steel shall conform to A.S.T.M. Designation A-36-62T.
- All shop connections shall be welded with A233 Class E-70 Series Electrodes. All field connections shall be made A307 Bolts.
- Except where otherwise noted on the drawings, connections of framing members shall be capable of transferring the full strength of the member using 3/4" dia. bolts. Shop side of connections may be fillet welded all around resulting in a connection of equal strength with the bolted connection.
- All structural steel is designed and shall be fabricated in accordance with the current A.I.S.C. Specifications for buildings. The contractor shall submit erection plans and shop details before proceeding with fabrication.
- All structural steel shall be given one shop coat of paint. See Specifications.

**CONCRETE NOTES**

- All excavations shall be inspected and approved by the Engineer before placing any gravel or concrete.
- Any excavation below the elevation of the gravel shall be filled with compacted gravel.
- All foundations have been designed for a maximum assured soil bearing capacity of 3000 p.s.f.
- All concrete shall have a minimum compressive strength of 3500 psi. at 28 days. See Specifications for other requirements.
- All reinforcing steel shall be intermediate grade (A.S.T.M. A-15) having deformations conforming to A.S.T.M. Specification A-305.
- All exposed concrete edges shall be chamfered 3/4" unless otherwise noted.
- Concrete walls shall be poured between indicated joints allowing a minimum period of 3 days to elapse between adjacent pours. Construction joints shall be as detailed on the drawings and no additional joints shall be used, nor any omitted, except by written authorization of the engineer.
- Reinforced concrete is designed and shall be detailed and constructed in accordance with the current A.C.I. Spec. (A.C.I. 318-63).
- The contractor shall submit shop details of reinforcing steel before proceeding with fabrication.
- All dimensions on structural drawings shall be cross checked with those on architectural drawings before proceeding with the work.
- All reinforcing bar laps shall be 30 bar diameters unless otherwise noted.
- For Mechanical and Electrical work to be incorporated in the concrete work, see Mechanical and Electrical Drawings.

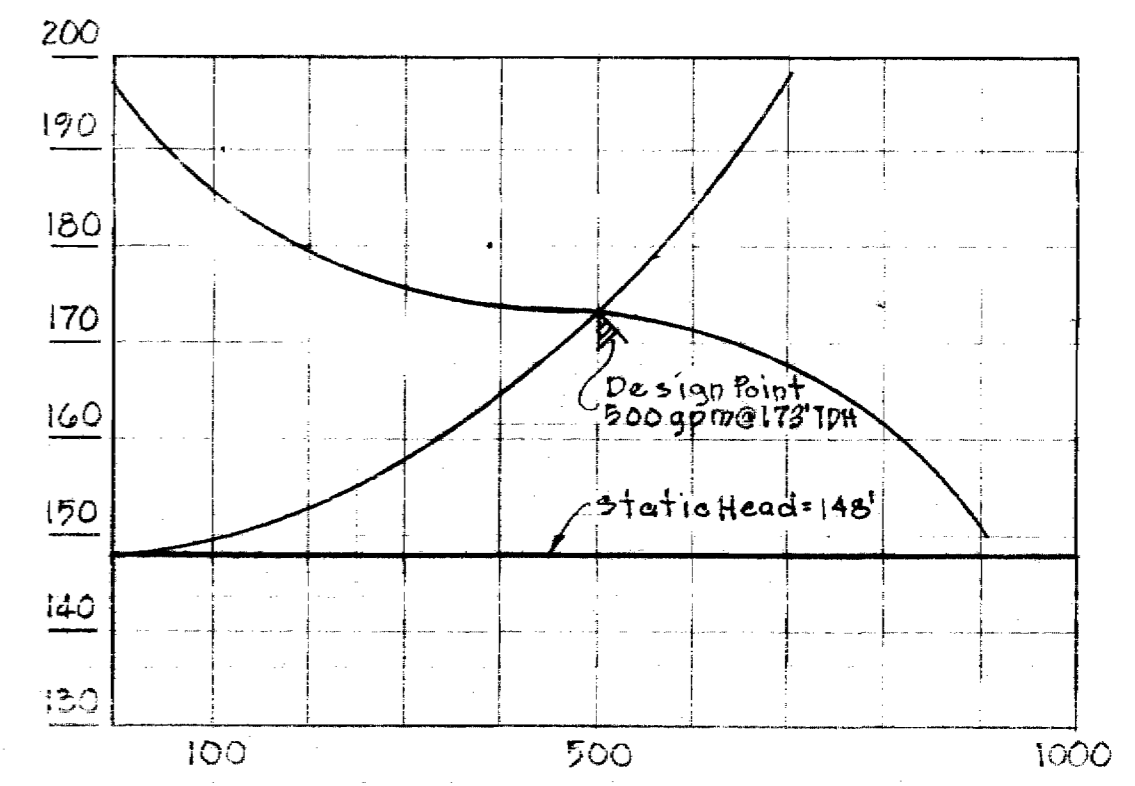


*Howard M. Lord*

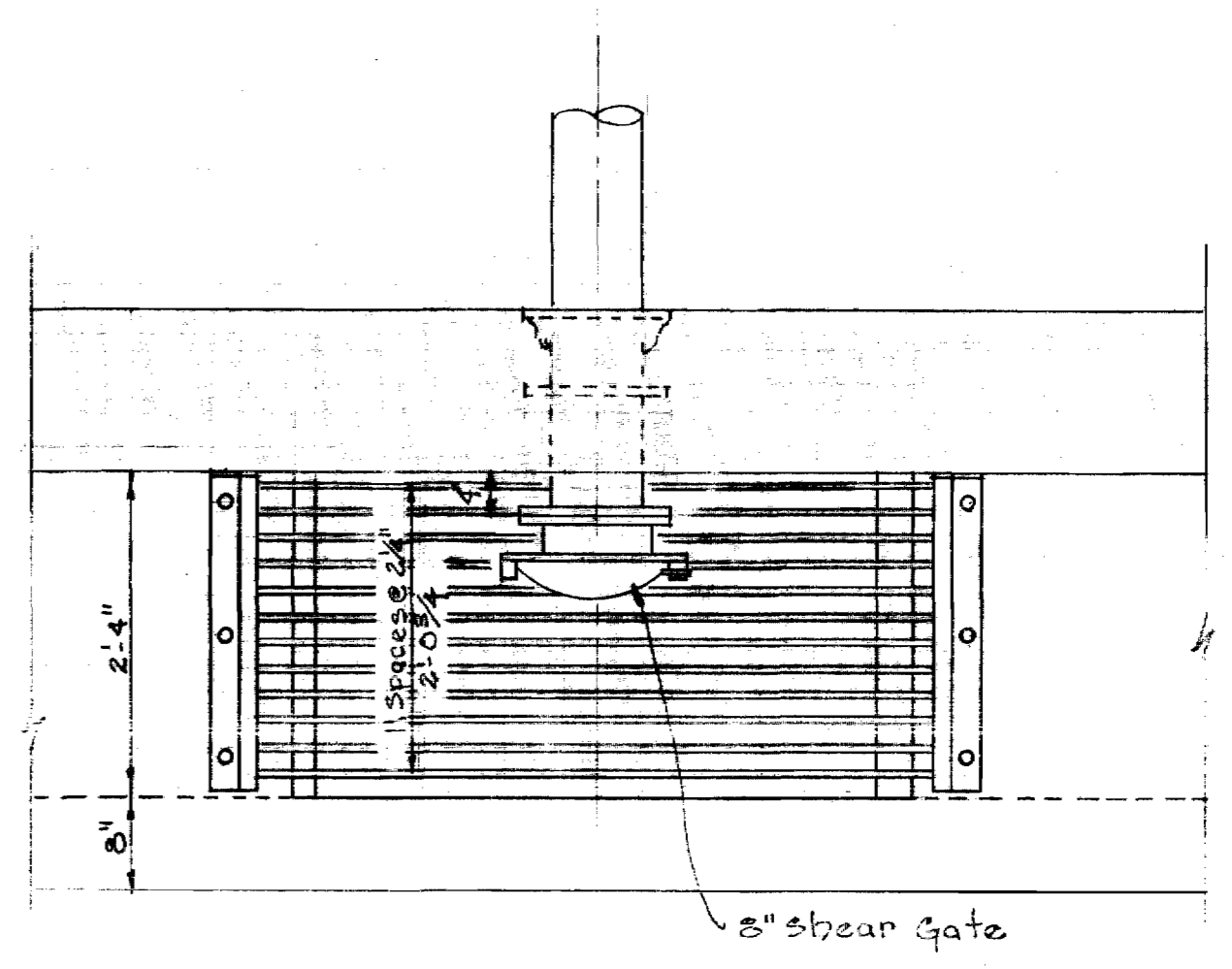
11-19-68	Revised roof framing dimension
No Date	Revision

<b>WHITMAN, REQUARDT &amp; ASSOCIATES</b> ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	<b>HOWARD COUNTY METROPOLITAN COMMISSION</b> 10-3-68 DATE <i>ewo Palant</i> CHIEF ENGINEER	CONTRACT NO. <u>283-S</u>	<b>STRUCTURAL DETAILS</b>	<b>COLUMBIA</b> HOBBITS GLEN SEWAGE PUMPING STATION ELECTION DISTRICT CLARKSVILLE NO. 5	<b>DRAWING NO. 3 OF 5</b>	<b>SCALE AS SHOWN</b>
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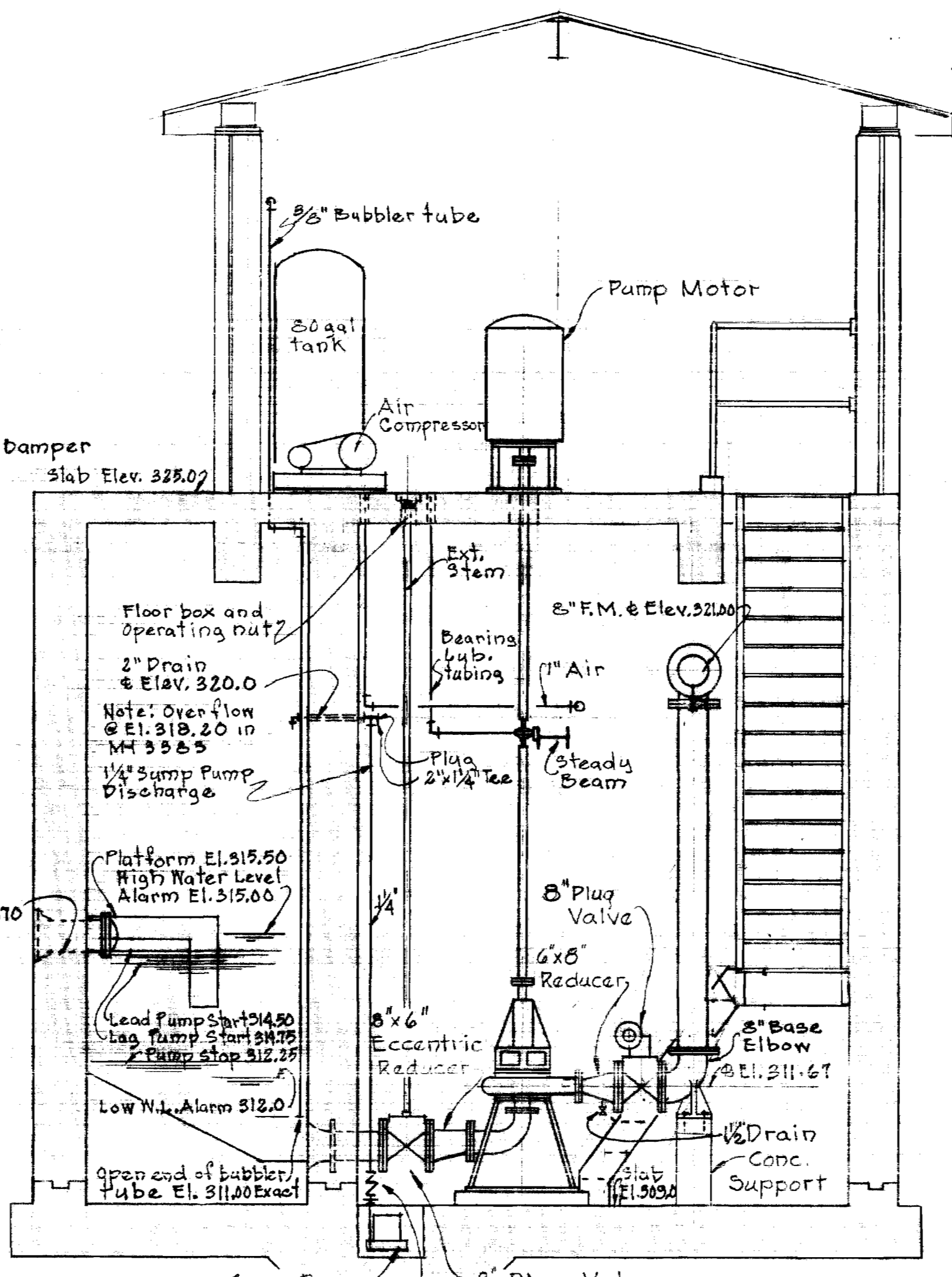
WS 283-S/3



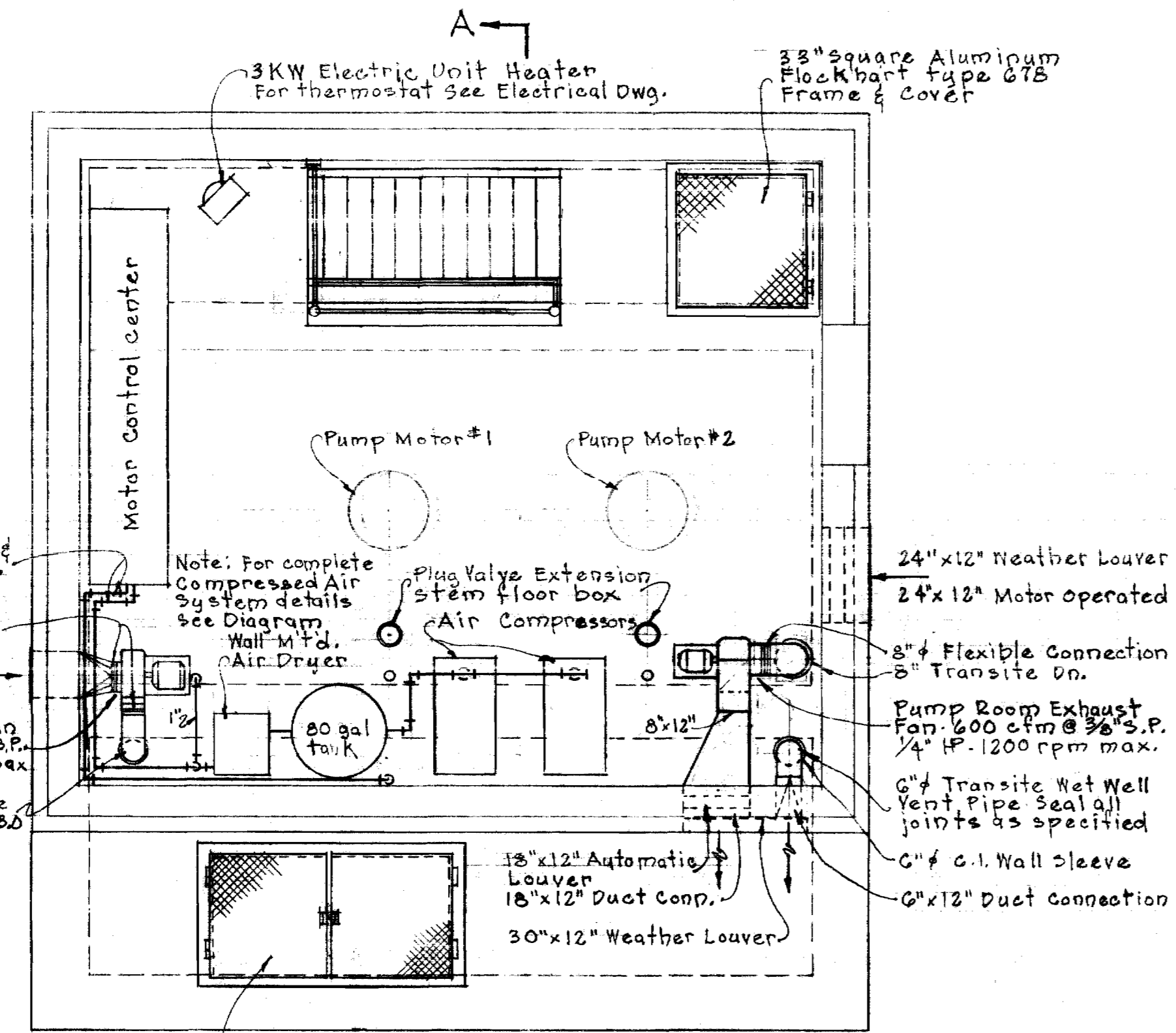
SYSTEM CURVE



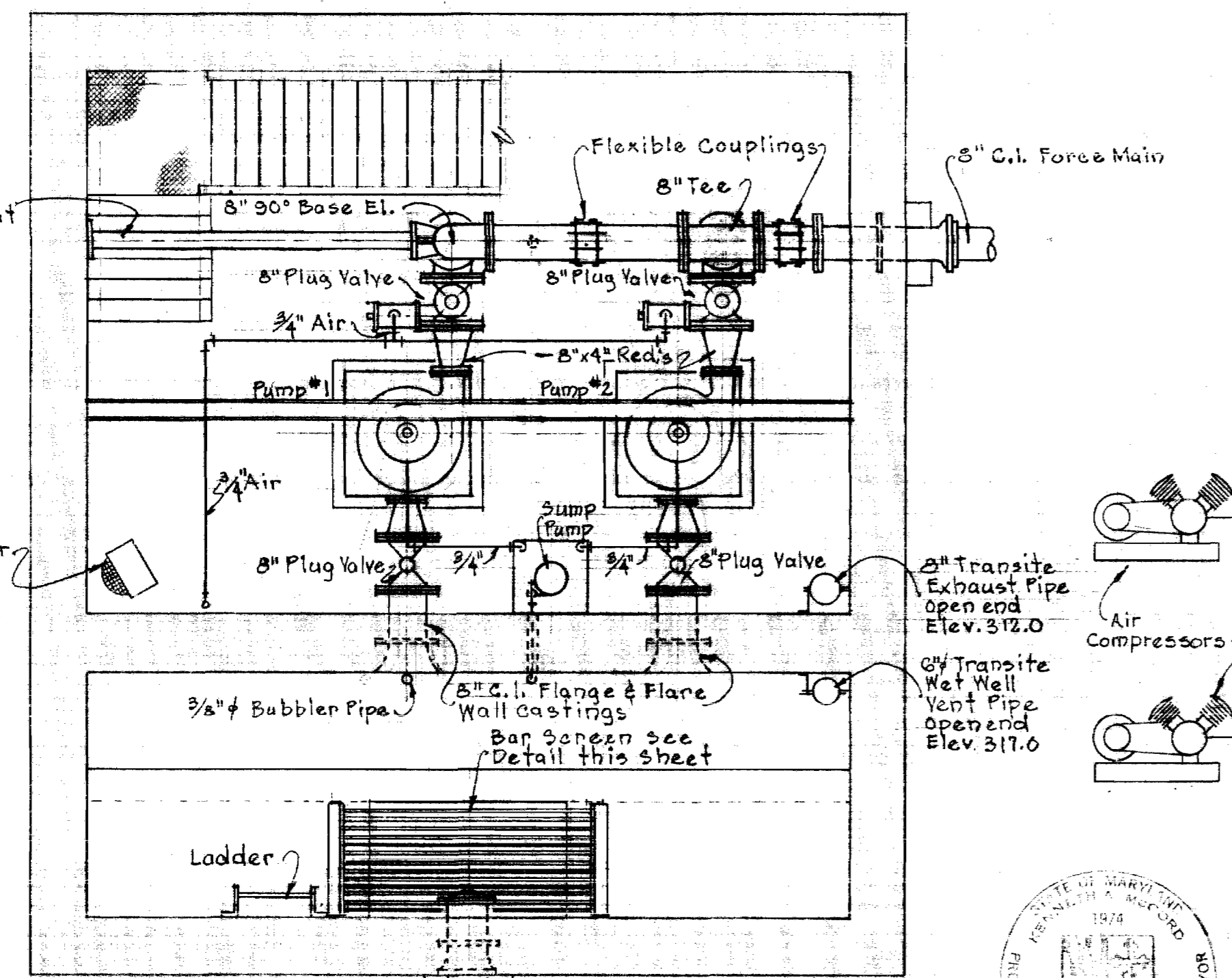
DETAILS OF BAR SCREEN  
Scale: 3/4" = 1'-0"



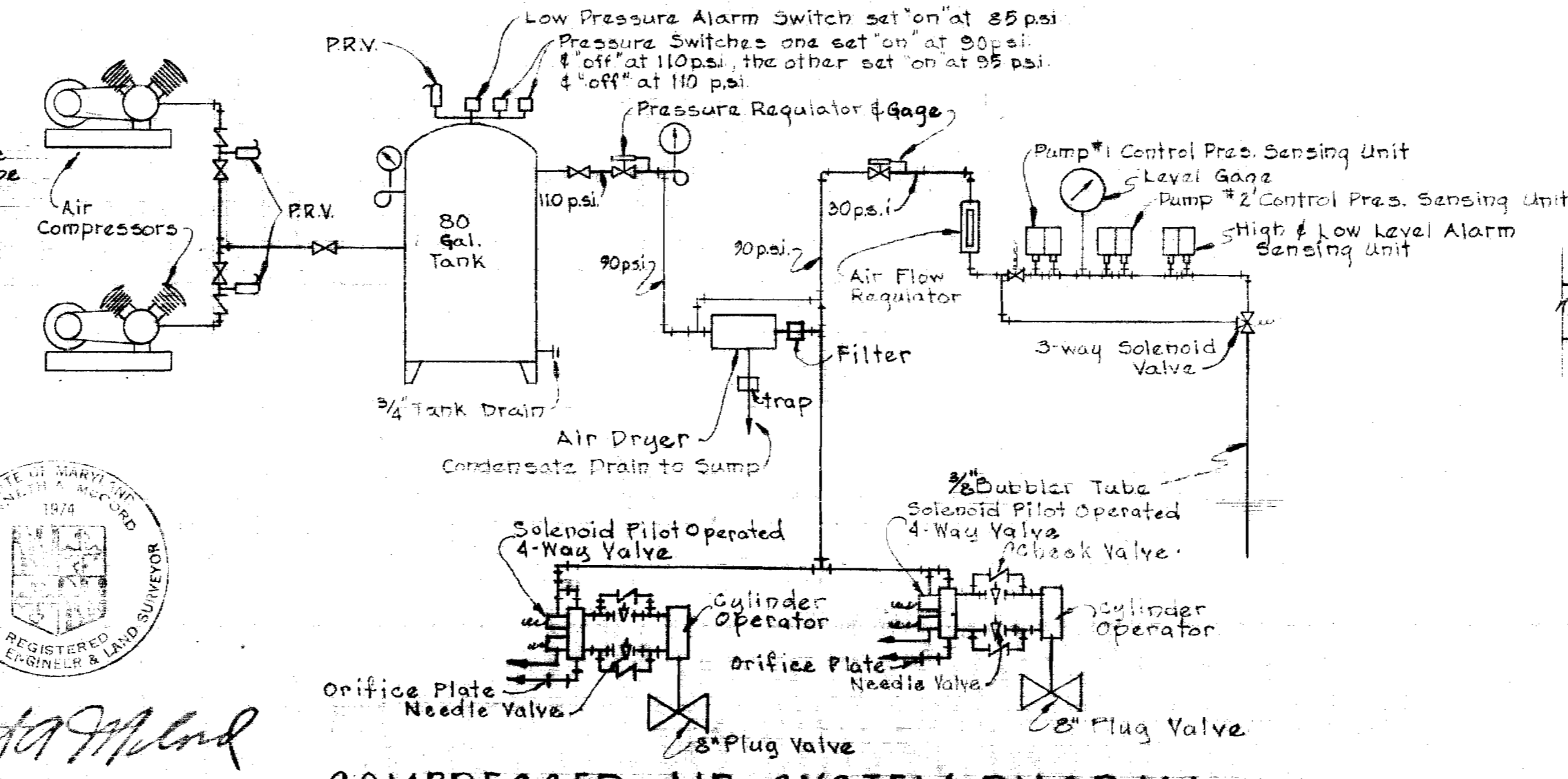
SECTION AA  
Scale: 3/8" = 1'-0"



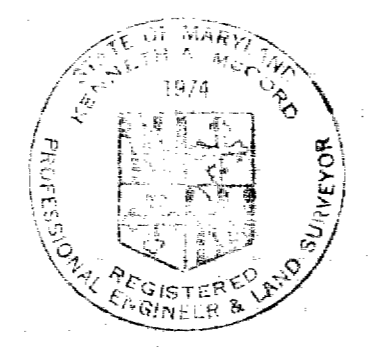
PLAN-MOTOR ROOM  
Scale: 3/8" = 1'-0"



PLAN-PUMP ROOM  
Scale: 3/8" = 1'-0"



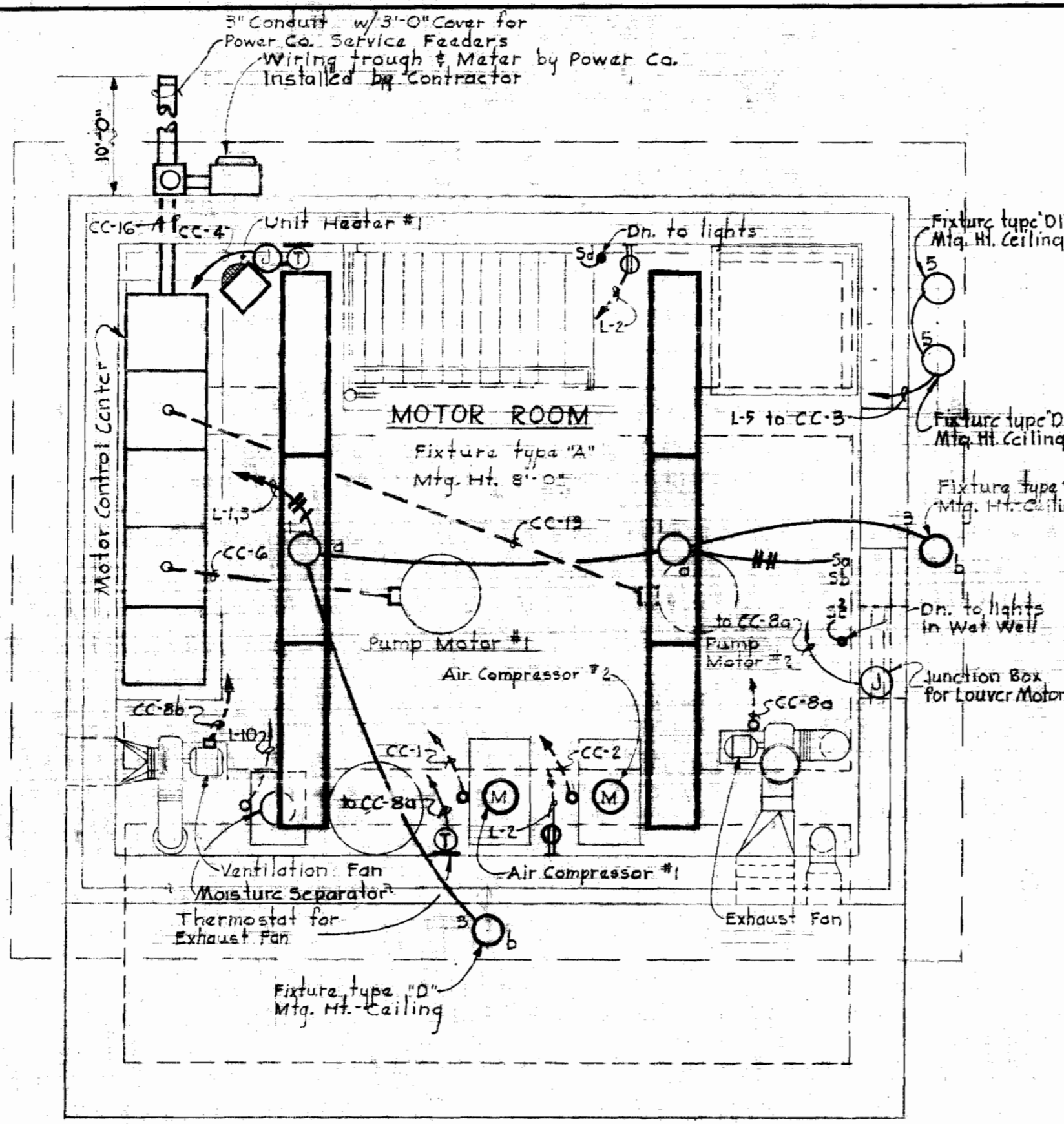
COMPRESSED AIR SYSTEM DIAGRAM



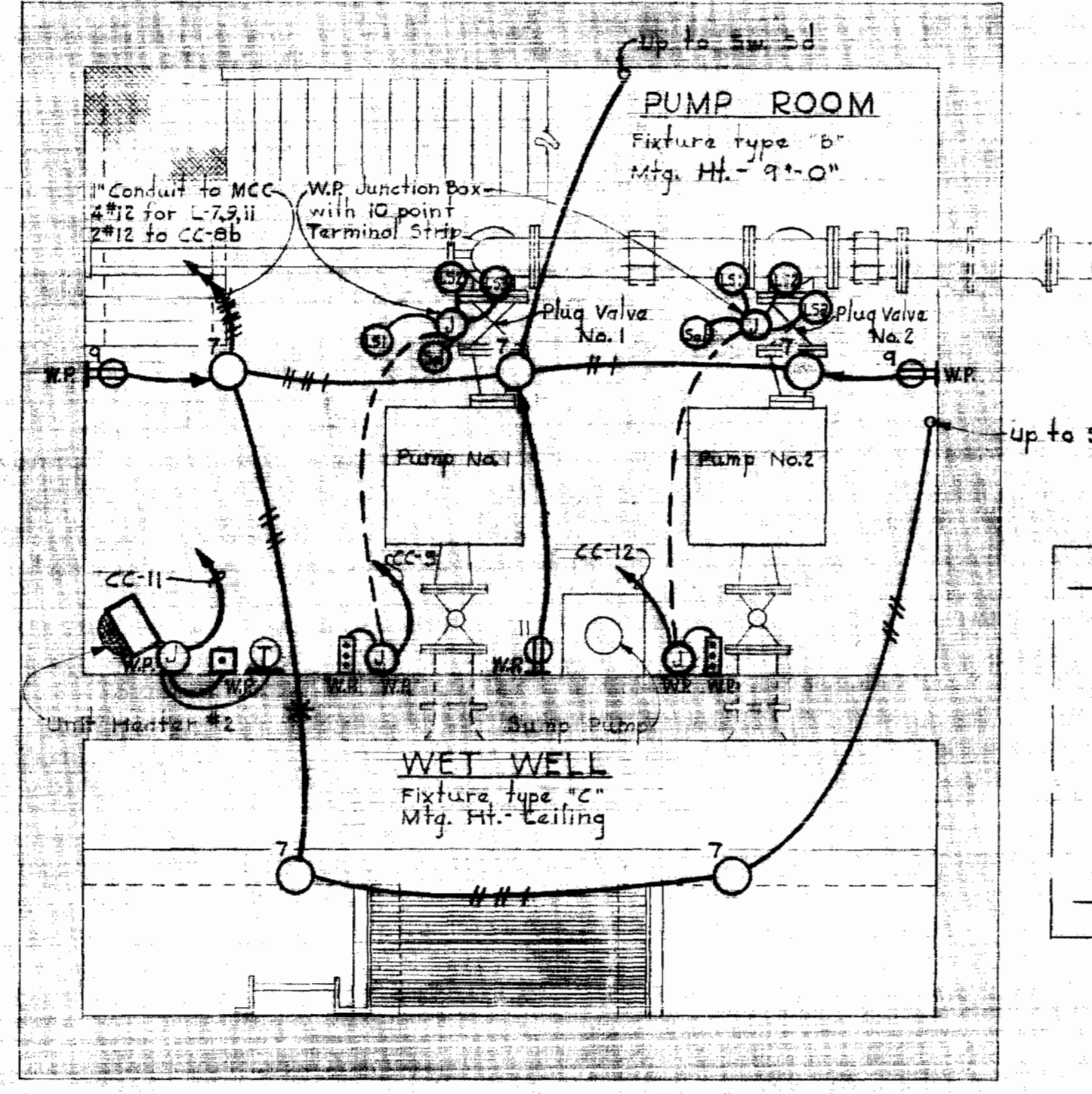
*Kenneth A. Melrod*

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION 10-3-68 DATE <i>wofalbert</i> CHIEF ENGINEER	CONTRACT NO. 283-S	MECHANICAL PLANS, SECTIONS & DETAILS	COLUMBIA HOBBITS GLEN SEWAGE PUMPING STATION ELECTION DISTRICT CLARKSVILLE NO. 5	DRAWING NO. 4 OF 5	SCALE AS SHOWN
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WS 283-S/4



PLAN - UPPER LEVEL



PLAN - LOWER LEVEL

PUMPING STATION  
Scale: 3/8" = 1'-0"

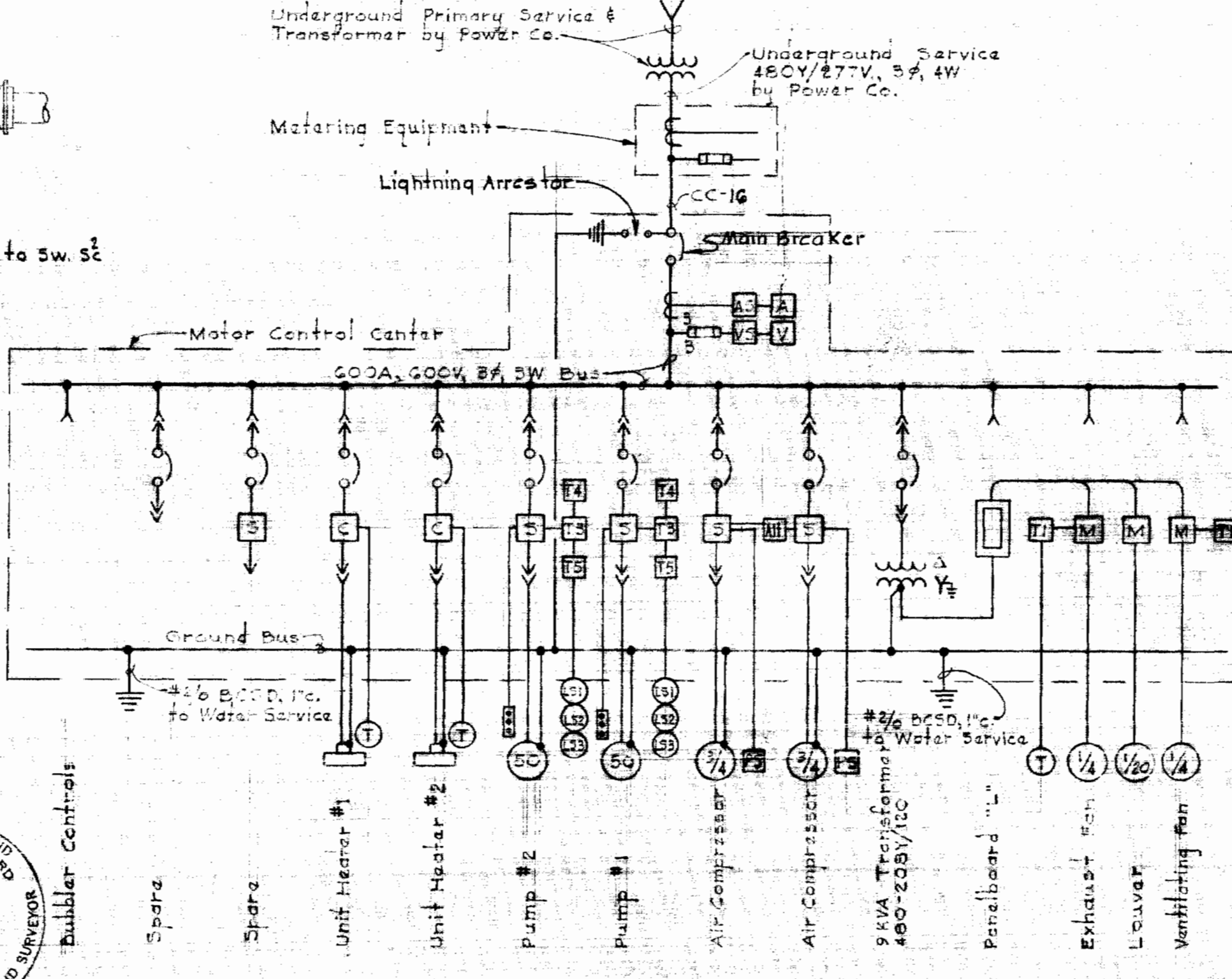
MOTOR CONTROL CENTER SCHEDULE											
Unit #	Name Plate Data	Device Description	HP	Volts	Breaker	Wiring	Wire	For	Gr. B.	Con.	Unit
Unit #	Size	Size	HP	Volts	Frame	Size	Size	Size	Wire	Con.	Unit
CC-1	Air Compressor #1	Combination Starter	1	480	100A	3	15	4	12	THW	Power Control
CC-2	Air Compressor #2	Combination Starter	1	480	100A	3	15	4	12	THW	Power Control
CC-3	Bubbler Controls	See Spec. & Drawings	-	-	-	-	-	-	-	-	By Manufacturer
CC-4	Unit Heater #1	Combination Contactor	3	480	100A	3	20	4	12	THW	Power Control
CC-5	Pump No. 1 Valve Controls	See Spec. & Drawings	-	-	-	-	-	-	-	-	Control
CC-6	Pump No. 2	Combination Starter	50	480	225A	3	150	6	14	THW	Power Control
CC-7	9KVA Transformer	Circuit Breaker	-	-	100A	3	20	4	-	-	By Manufacturer
CC-8	Blank (Spare)	Circuit Breaker	-	-	100A	3	20	4	-	-	By Manufacturer
CC-9	Exhaust Fan	Manual Stop & Timer	-	-	-	-	-	-	2	12	THW Power
CC-10	9KVA Transformer	9KVA Transformer	9	480	208Y/120V	-	-	-	-	-	By Manufacturer
CC-11	Unit Heater #2	Combination Contactor	3	480	100A	3	20	4	12	THW	Power Control
CC-12	Pump No. 2 Valve Controls	See Spec. & Drawings	-	-	-	-	-	-	-	-	Control
CC-13	Pump No. 2	Combination Starter	50	480	225A	3	150	6	14	THW	Power Control
CC-14	Blank (Spare)	Combination Starter	-	-	100A	3	20	4	-	-	By Manufacturer
CC-15	Ammeter	Ammeter & Switch	-	-	-	-	-	-	-	-	By Manufacturer
CC-16	Main Breaker	Circuit Breaker	-	-	400A	3	250	6	3	1/2	USE Power

BREAKER A.I.C. LEGEND

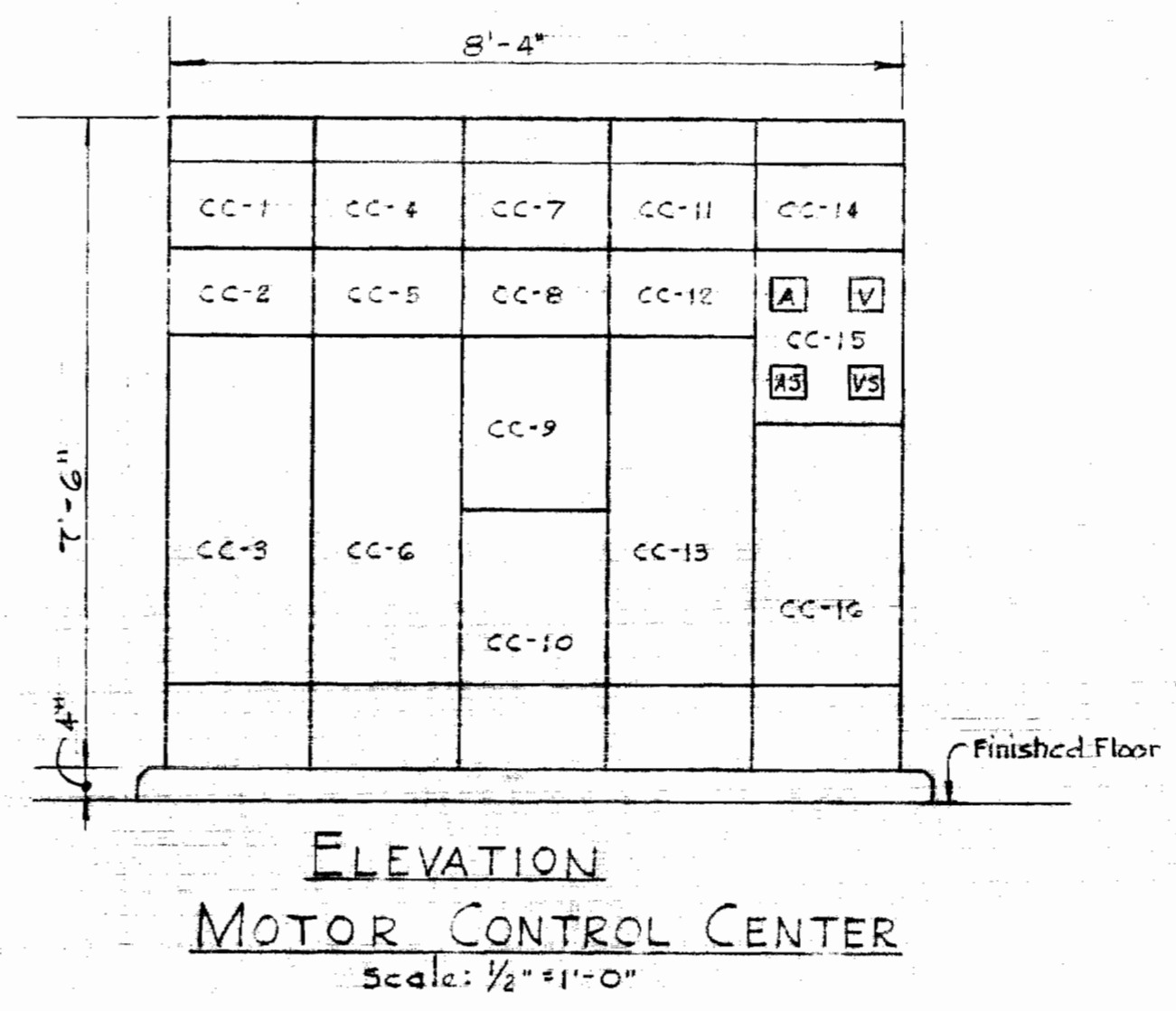
- 4 - 15,000 @ 480 volts
- 5 - 20,000 @ 480 volts
- 6 - 25,000 @ 480 volts
- 7 - 30,000 @ 480 volts
- 8 - 35,000 @ 480 volts

MCC AUXILIARY DESCRIPTION

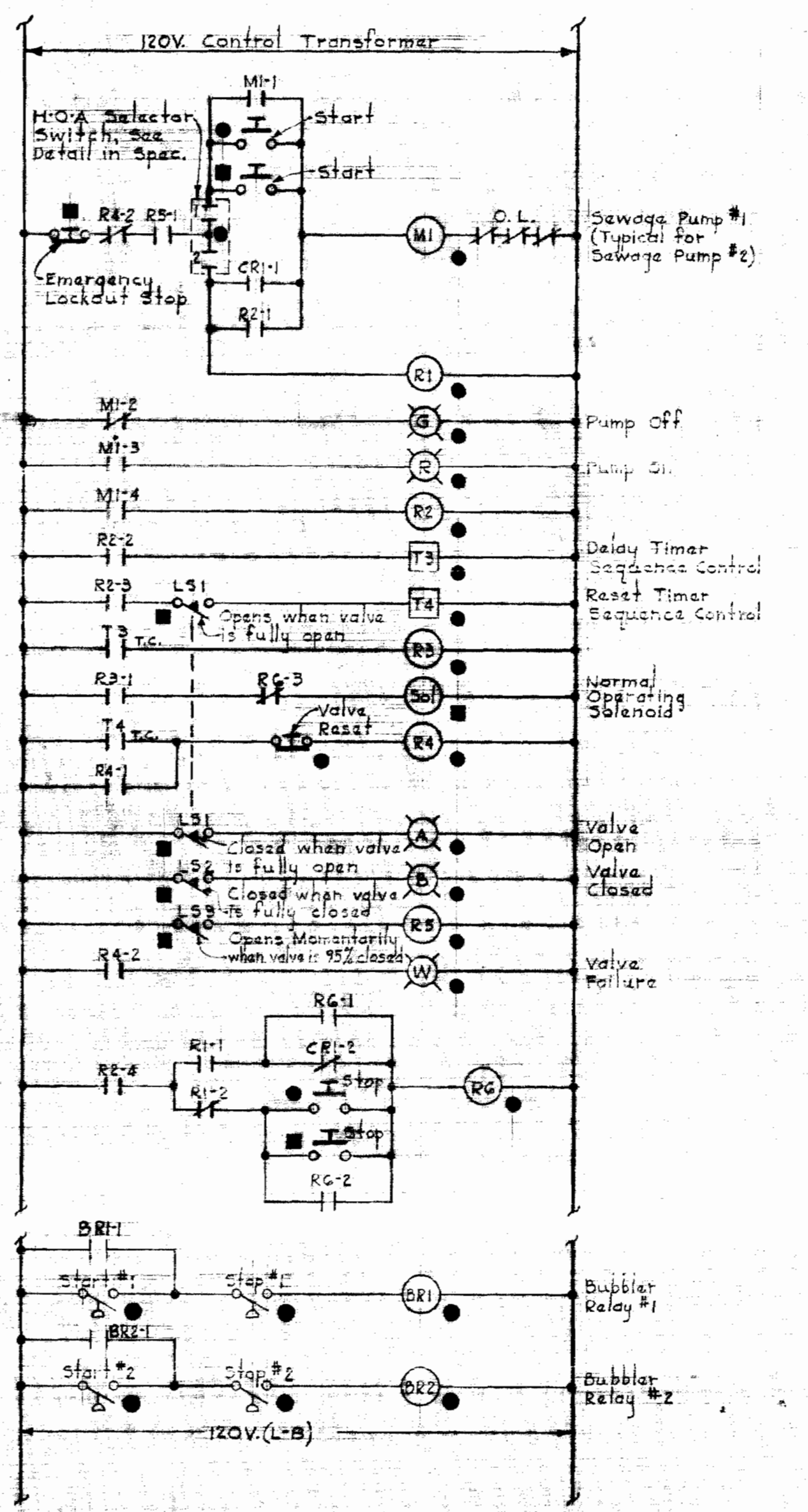
- a - Red & Green indicating lights
- b - Hand Off-Automatic switch
- c - Third Overload relay
- d - 480-120V. Control Transformer
- f - Running Time Meter



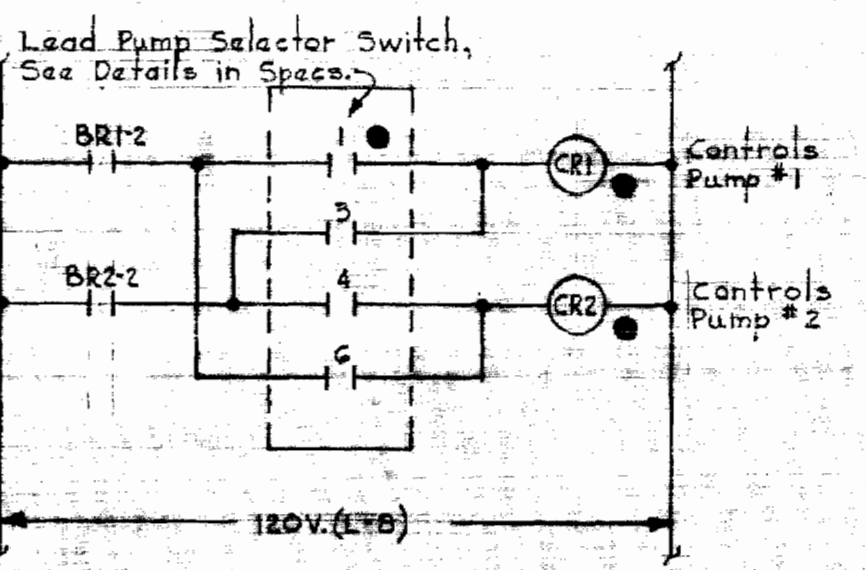
ONE LINE WIRING DIAGRAM  
No Scale



ELEVATION  
MOTOR CONTROL CENTER  
Scale: 1/2" = 1'-0"



ELEMENTARY WIRING DIAGRAMS



ELEMENTARY WIRING DIAGRAM

- ELECTRICAL LEGEND**
- Outlet - Incandescent
  - Outlet - Fluorescent
  - Junction Box
  - Outlet - Duplex Convenience
  - Switch - Single Pole
  - Thermostat - Mounted on wood block
  - Unit Heater
  - Conduit - In slab
  - Conduit - Stubbed up
  - Conduit - On ceiling or wall
  - Home run to Control Center - No. of arrows indicates No. of circuits - No. of cross lines indicates No. of wires - Where no cross lines appear, 2 conductors are implied - See Motor Control Center Schedule.
  - Air Circuit Breaker - Manually operated - Drawout
  - Magnetic Starter - Full Voltage
  - Magnetic Contactor
  - Timer - Number as indicated
  - Current Transformer
  - Power Transformer - Ground
  - Fuse
  - Pushbutton Station - One pushbutton
  - Voltmeter
  - Voltmeter Switch
  - Ammeter
  - Ammeter Switch
  - Manual Starter
  - Motor - Horsepower as noted
  - Buried Cable - Power - 600V or less
  - Pressure Switch
  - Underground Conduit - Power
  - Underground Conduit - Telephone
  - Limit Switch - Number as indicated
  - Pushbutton Station - Three pushbuttons
  - Alternator - 2 Circuit
- NOTES**
- For lighting fixture types, see Specifications.
  - For panelboard schedule, see Specifications.
  - For outside Electrical work, see site plan, Drawing #1.
- LOCATION SYMBOLS**
- Device located in Motor control Center.
  - Device located in Sawaga Pump

WHITMAN, REQUARDT & ASSOCIATES  
ENGINEERS  
1304 ST. PAUL ST.  
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION  
10-2-68  
DATE

CONTRACT NO. 283-S

ELECTRICAL  
PLANS & DETAILS

COLUMBIA  
HOBBITTS GLEN SEWAGE PUMPING STATION  
ELECTION DISTRICT CLARKSVILLE NO. 5

DRAWING  
NO. 5  
OF 5  
SCALE  
AS  
SHOWN

WS 283-5/5