

DRAWING NUMBER

DRAWING NUMBER

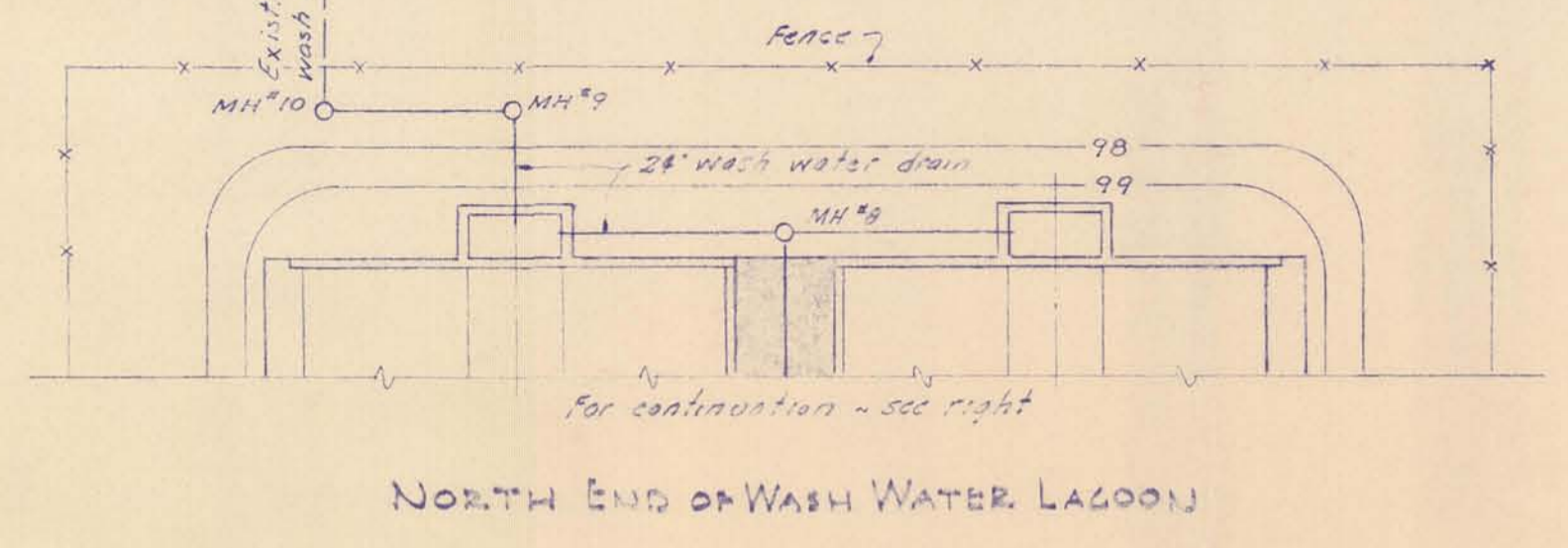
ADDITIONS
WATER TREATMENT
PLANT 1965
1 OF 33

NUMBER

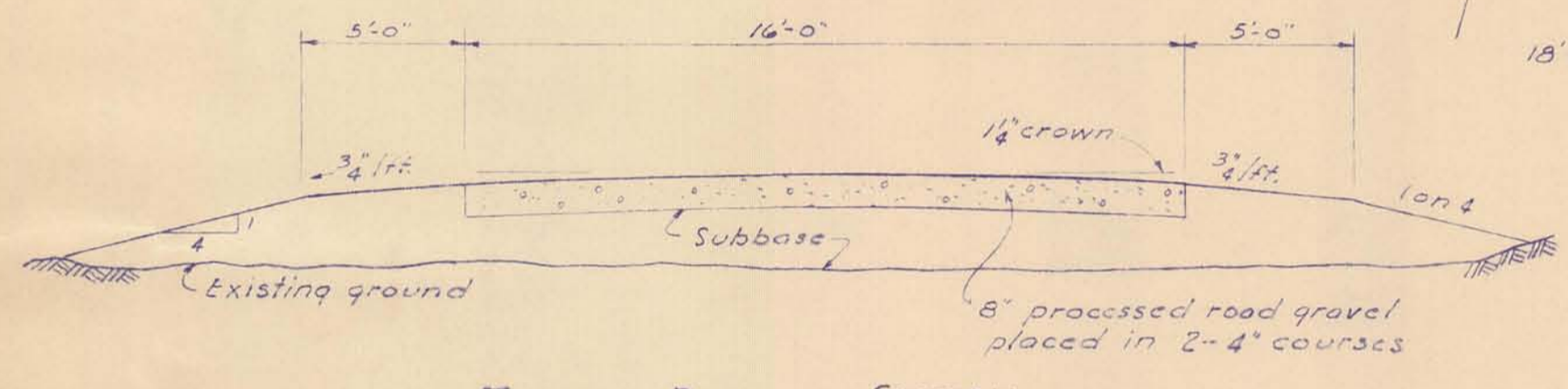
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

End of exist 4" x 4" box sewer
Future extension of sewer

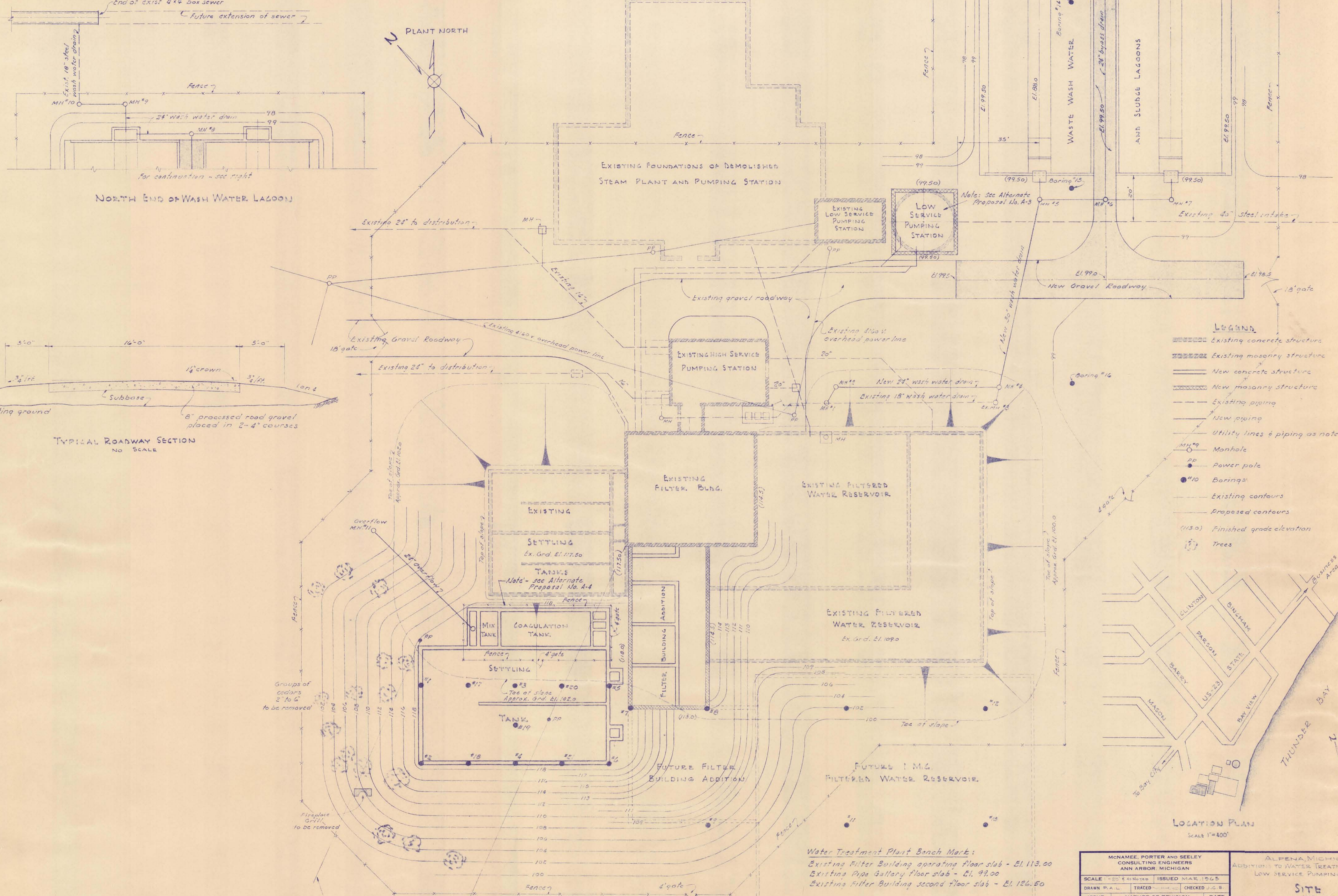
PLANT NORTH



NORTH END OF WASH WATER LAGOON

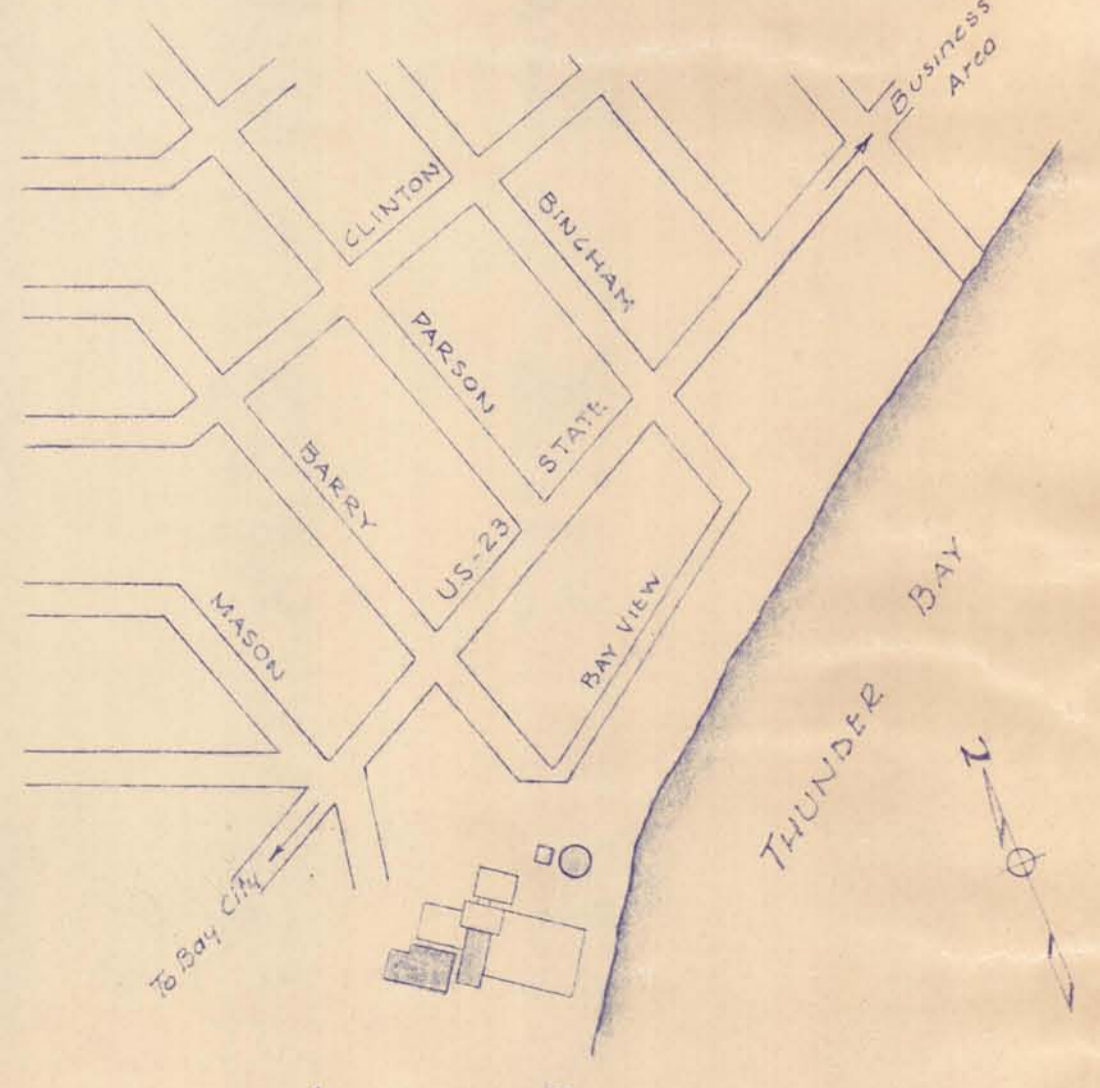


TYPICAL ROADWAY SECTION
NO SCALE



LEGEND

- Existing concrete structure
- Existing masonry structure
- New concrete structure
- New masonry structure
- Existing piping
- New piping
- Utility lines & piping as noted
- MH#9 Monhole
- PP Power pole
- Boring#10
- Existing contours
- Proposed contours
- (113.0) Finished grade elevation
- Trees



LOCATION PLAN
Scale 1"=400'

Water Treatment Plant Bench Mark:
Existing Filter Building operating floor slab - El. 113.00
Existing Pipe Gallery floor slab - El. 99.00
Existing Filter Building second floor slab - El. 126.50

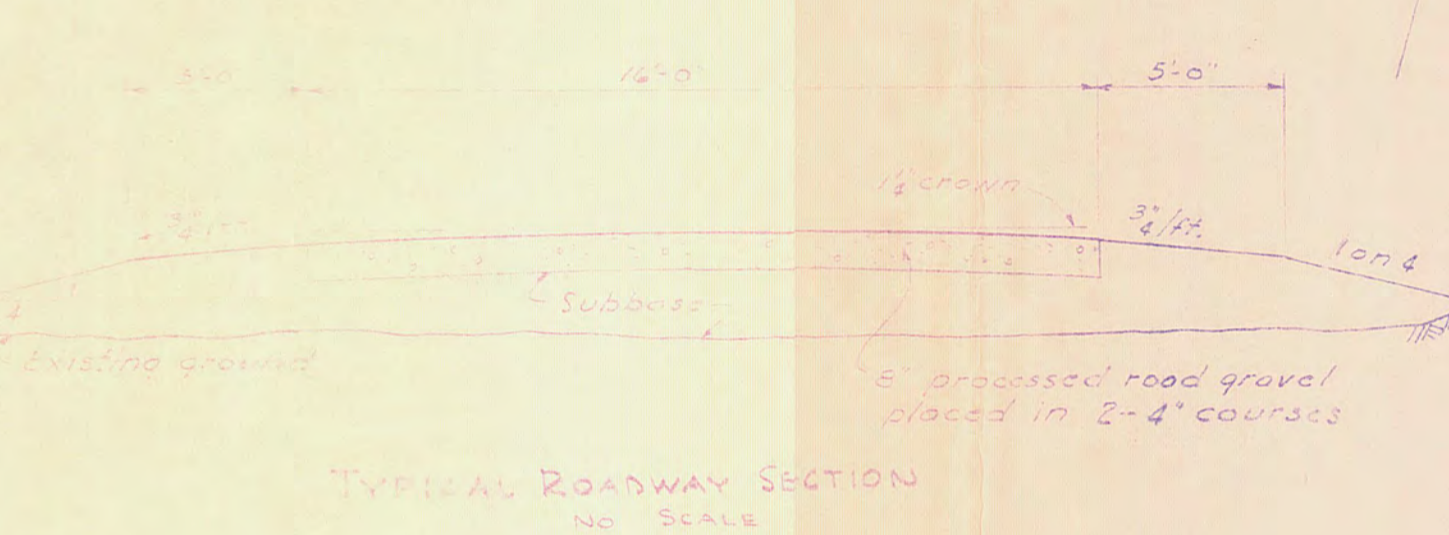
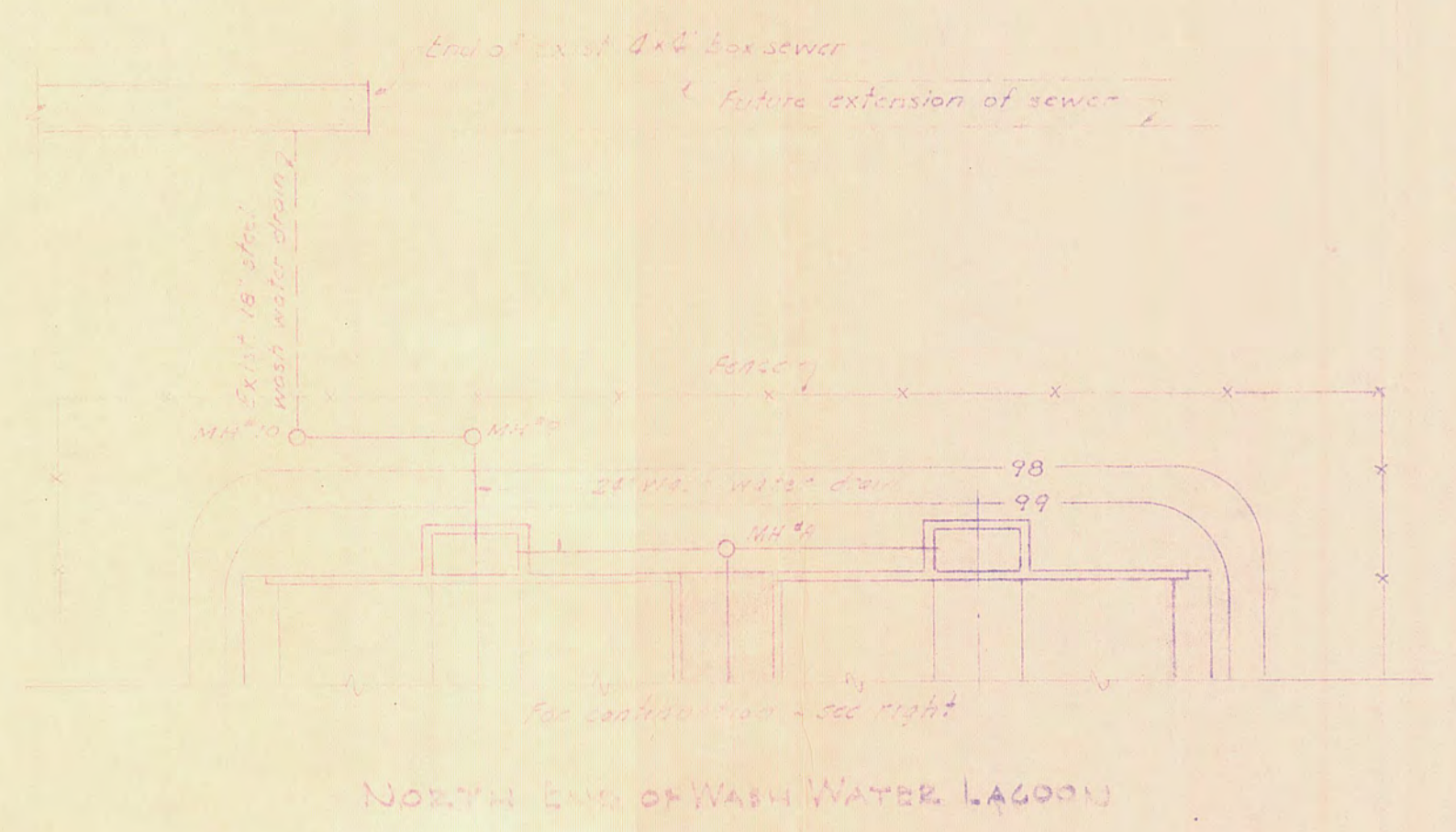
McNAMEE, PORTER AND SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

SCALE	ISSUED
1"=20' @ 1/8" = 1'-0"	MAR 1965

DRAWN	TRACED	CHECKED
P.A.L.	J.E.S.	J.E.S.

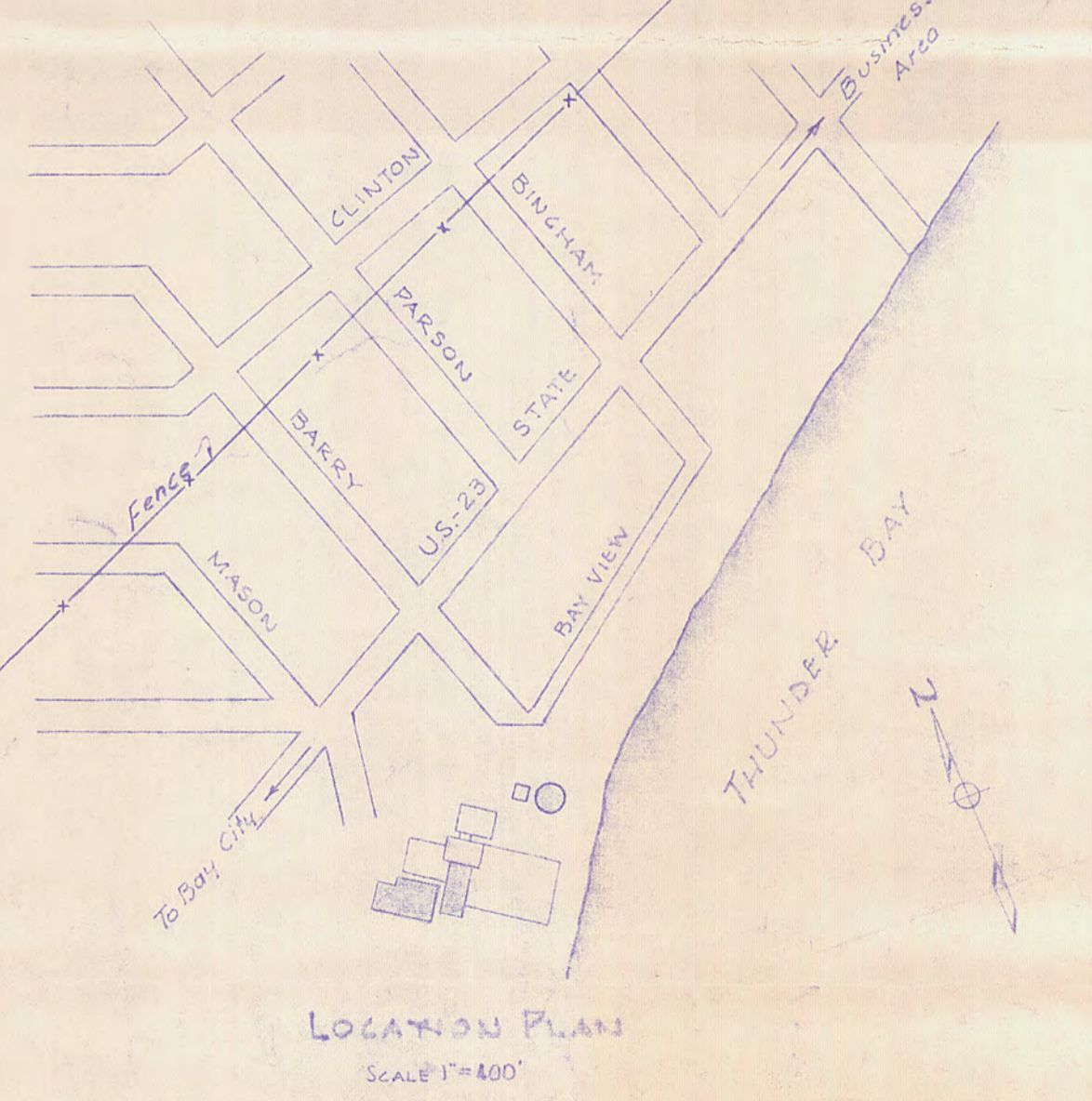
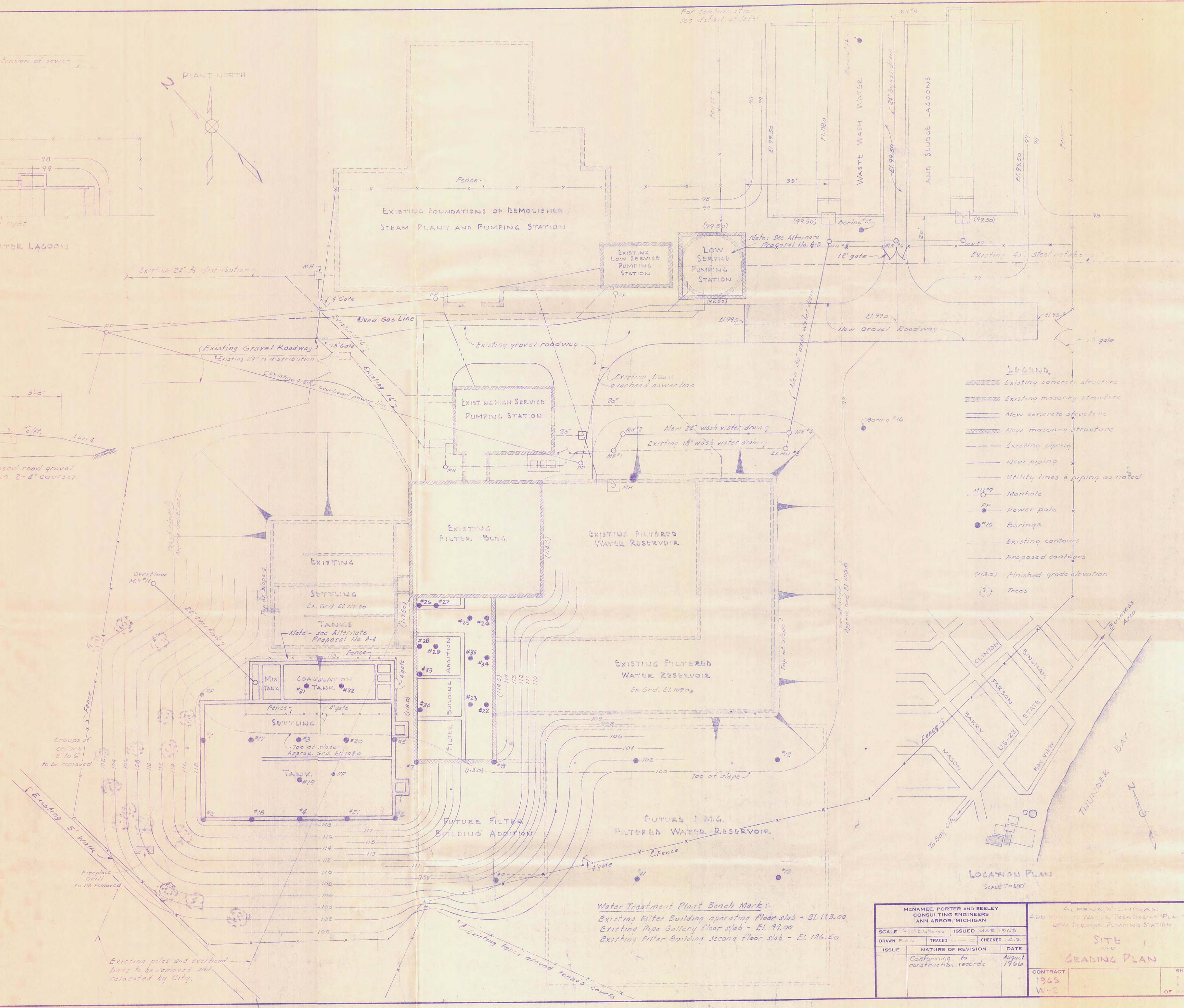
ISSUE	NATURE OF REVISION	DATE

ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT LOW SERVICE PUMPING STATION	
SITE AND GRADING PLAN	
CONTRACT 1965 W-2	



BORING DATA

Boring No.	Ground Elevation	Rock Elevation	Boring Depth
1	101.8	100.0	1.83'
2	101.1	99.3	1.75'
3	102.7	98.5	3.17'
4	101.4	95.9	5.50'
5	102.4	98.9	3.50'
6	101.4	98.9	1.50'
7	101.6	100.1	1.50'
8	101.6	98.1	3.50'
9	100.7	99.5	1.17'
10	100.8	98.0	2.83'
11	100.0	96.7	3.33'
12	100.1	97.6	2.50'
13	98.7	95.3	3.42'
14	97.8	91.6	6.17'
15	97.9	91.1	6.83'
16	97.6	94.1	3.50'
17	102.4	100.7	1.47'
18	101.4	100.1	1.33'
19	101.9	100.6	1.33'
20	102.7	99.7	3.00'
21	101.7	100.2	1.50'
22	109.2	96.5	12.7'
23	108.8	100.0	8.9'
24	111.9	94.0	17.9'
25	111.9	94.7	17.2'
26	116.3	95.5	20.8'
27	115.0	94.6	20.4'
28	115.9	97.1	18.8'
29	113.4	95.7	17.9'
30	106.4	101.6	4.8'
31	110.6	103.4	7.2'
32	110.5	102.7	7.8'
33	111.5	98.3	13.2'
34	110.3	94.5	15.8'
35	110.4	96.1	14.3'



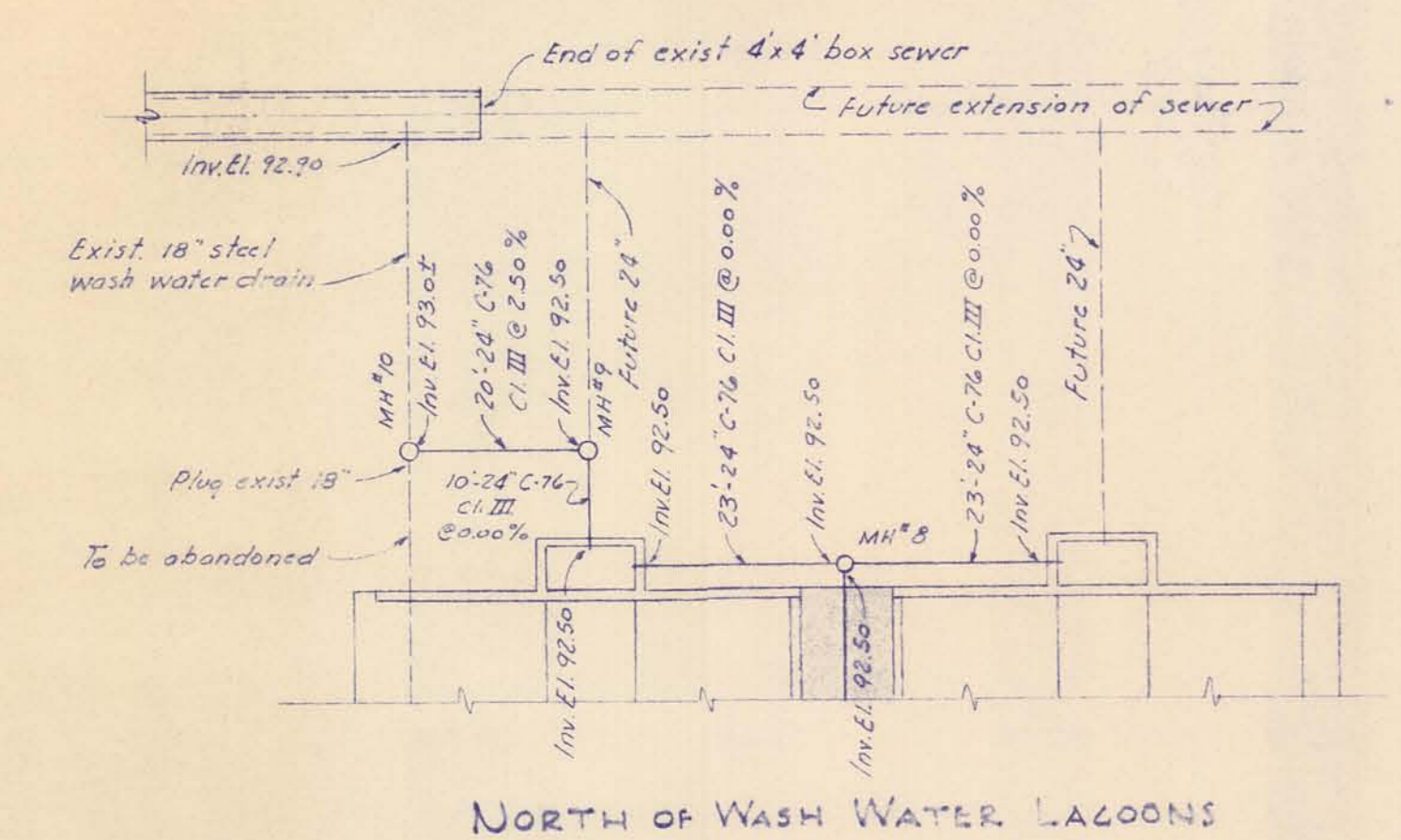
Water Treatment Plant Bench Marks:
 Existing Filter Building operating floor slab - El. 113.00
 Existing Pipe Gallery floor slab - El. 92.00
 Existing Filter Building second floor slab - El. 126.50

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITION TO WATER TREATMENT PLANT LOW SERVICE PUMPING STATION	
SCALE 1"=50' AS SHOWN	ISSUED	DATE	MARKED
DRAWN P.A.L.	TRACED	CHECKED	J.C.B.
ISSUE	NATURE OF REVISION	DATE	
	Conforming to construction records	August 1966	
CONTRACT 1965 W-2		SHEET 1 OF 1	

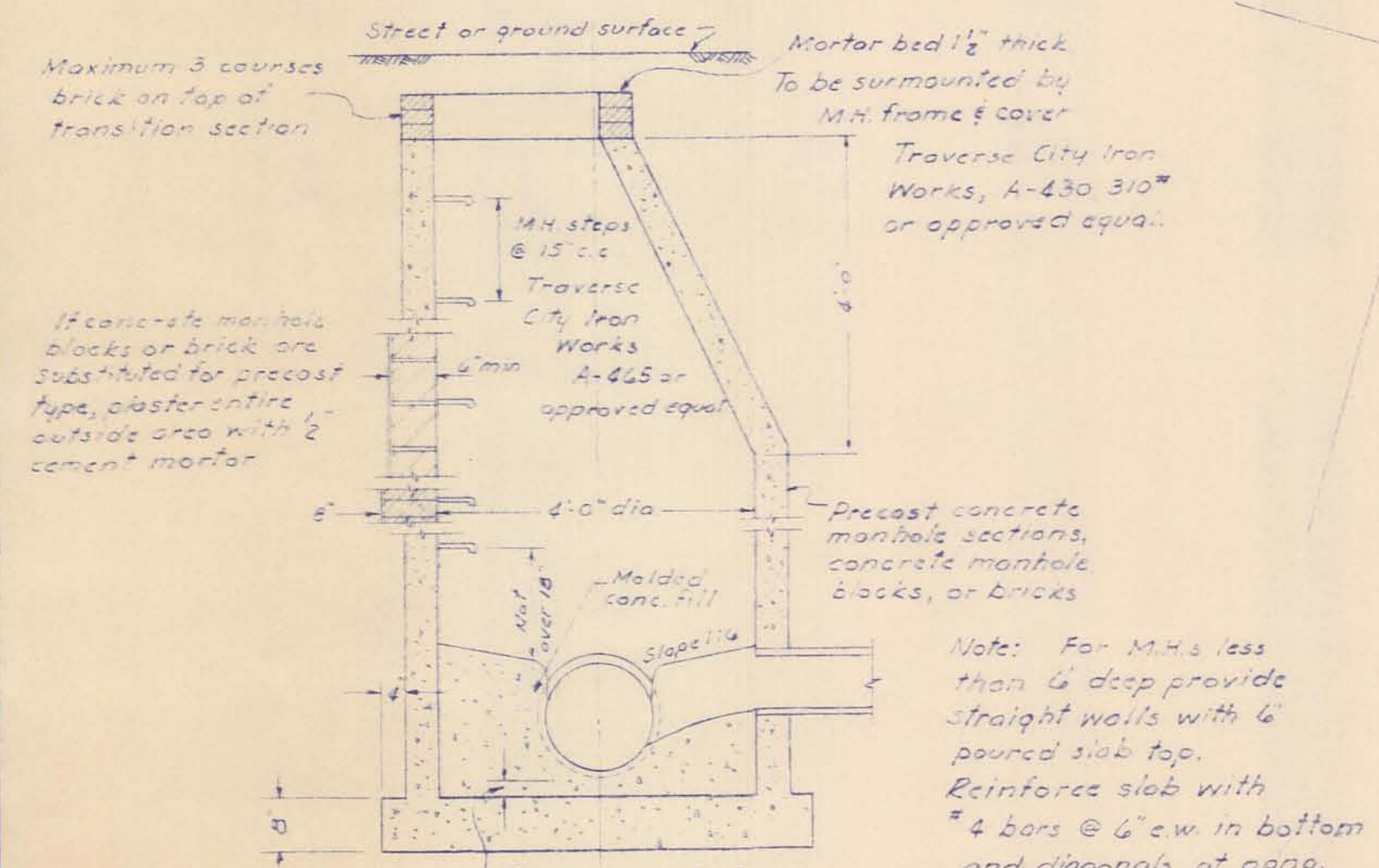
SACO PRODUCTS • NEW HOPE, MINNESOTA
 REFERRED BY PART NUMBER 8552
 SACO PRODUCTS • NEW HOPE, MINNESOTA
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 REFERRED BY PART NUMBER 8552

WATER TREATMENT PLANT 1965
 2 OF 33

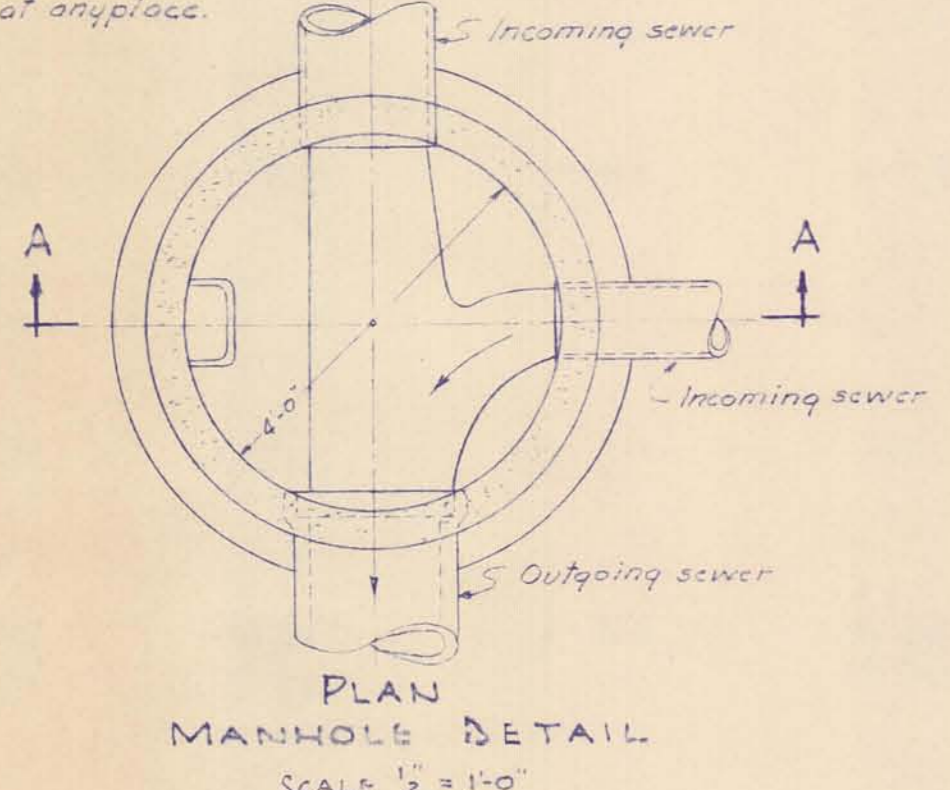
DRAWING NUMBER



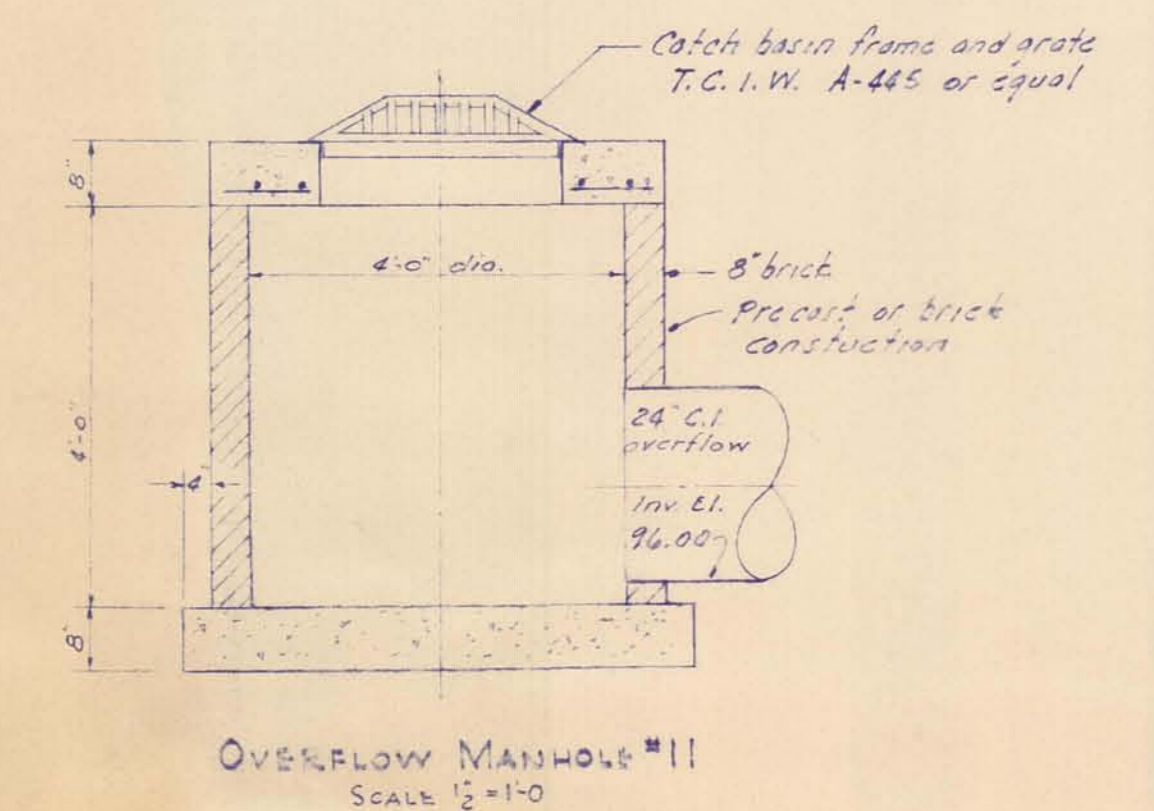
NORTH OF WASH WATER LAGOONS



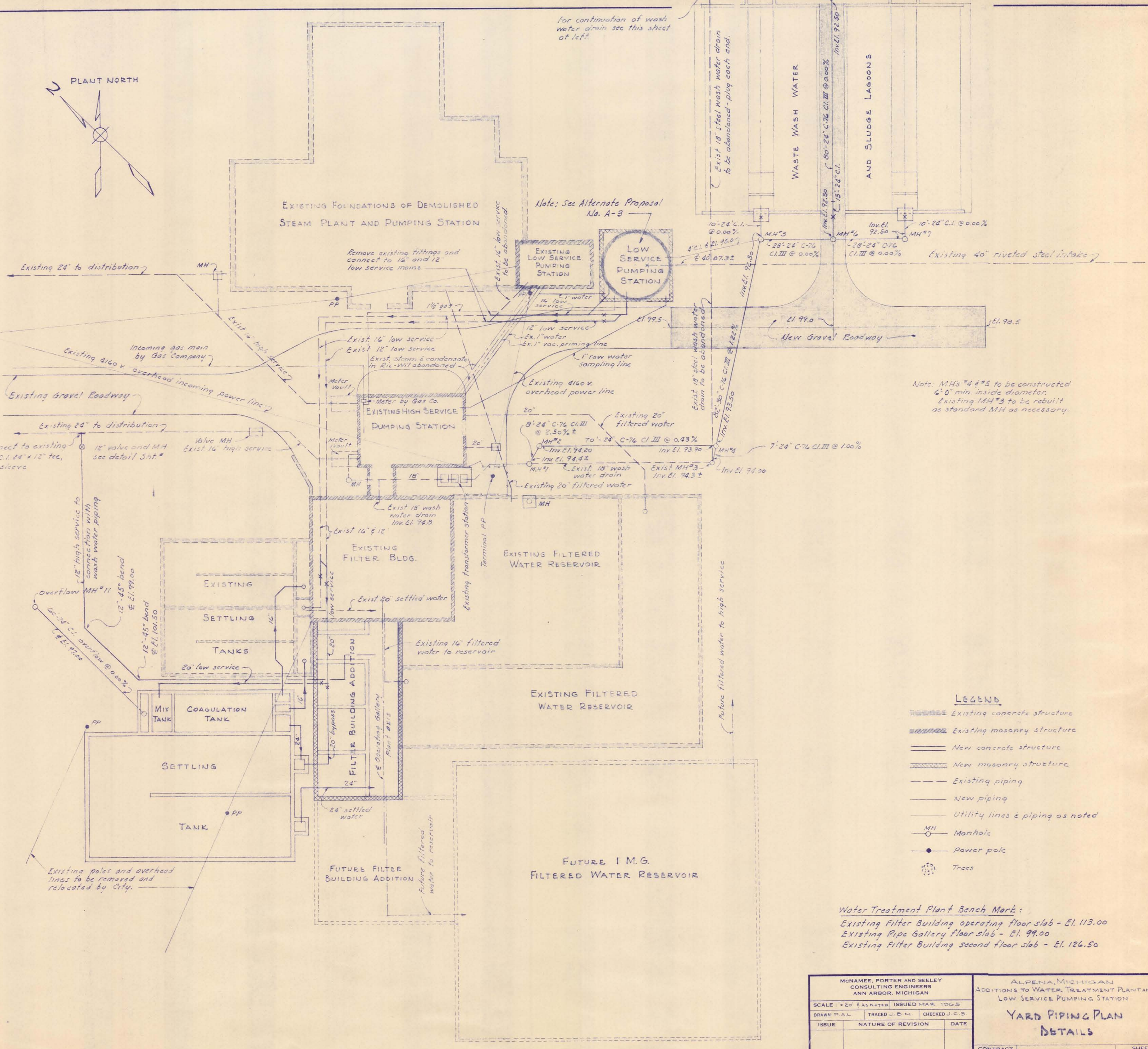
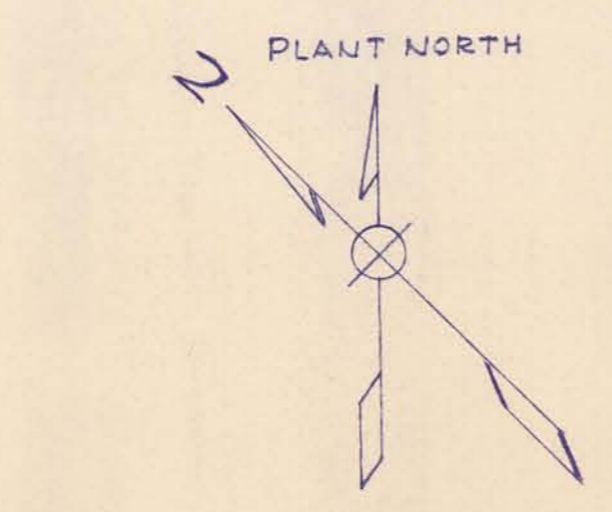
SECTION A-A



PLAN MANHOLE #11
SCALE 1/2" = 1'-0"



OVERFLOW MANHOLE #11
SCALE 1/2" = 1'-0"



Note: M.H.'s #4 & #5 to be constructed 6'-0" min. inside diameter. Existing M.H.#3 to be rebuilt as standard M.H. as necessary.

LEGEND

- Existing concrete structure
- Existing masonry structure
- New concrete structure
- New masonry structure
- Existing piping
- New piping
- Utility lines & piping as noted
- Manhole
- Power pole
- Trees

Water Treatment Plant Bench Mark:
 Existing Filter Building operating floor slab - El. 113.00
 Existing Pipe Gallery floor slab - El. 99.00
 Existing Filter Building second floor slab - El. 126.50

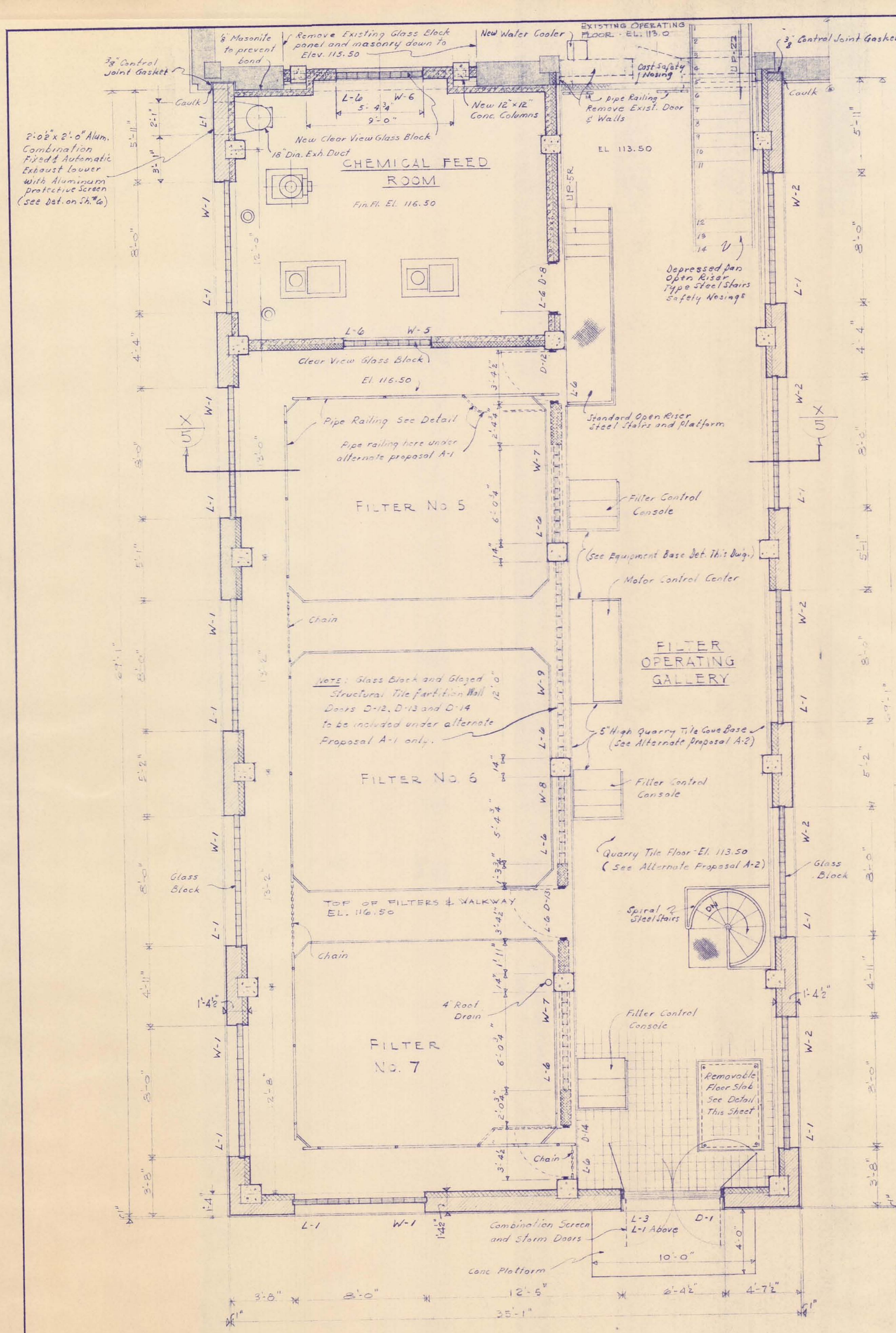
MCGAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE: 1/2" = 1'-0"	ISSUED: MAR. 1965	DRAWN: P.A.L. TRACED: J.C.H. CHECKED: J.C.S.	
ISSUE	NATURE OF REVISION	DATE	
CONTRACT 1965 W-2		SHEET 2 OF 33	

SACCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 8522

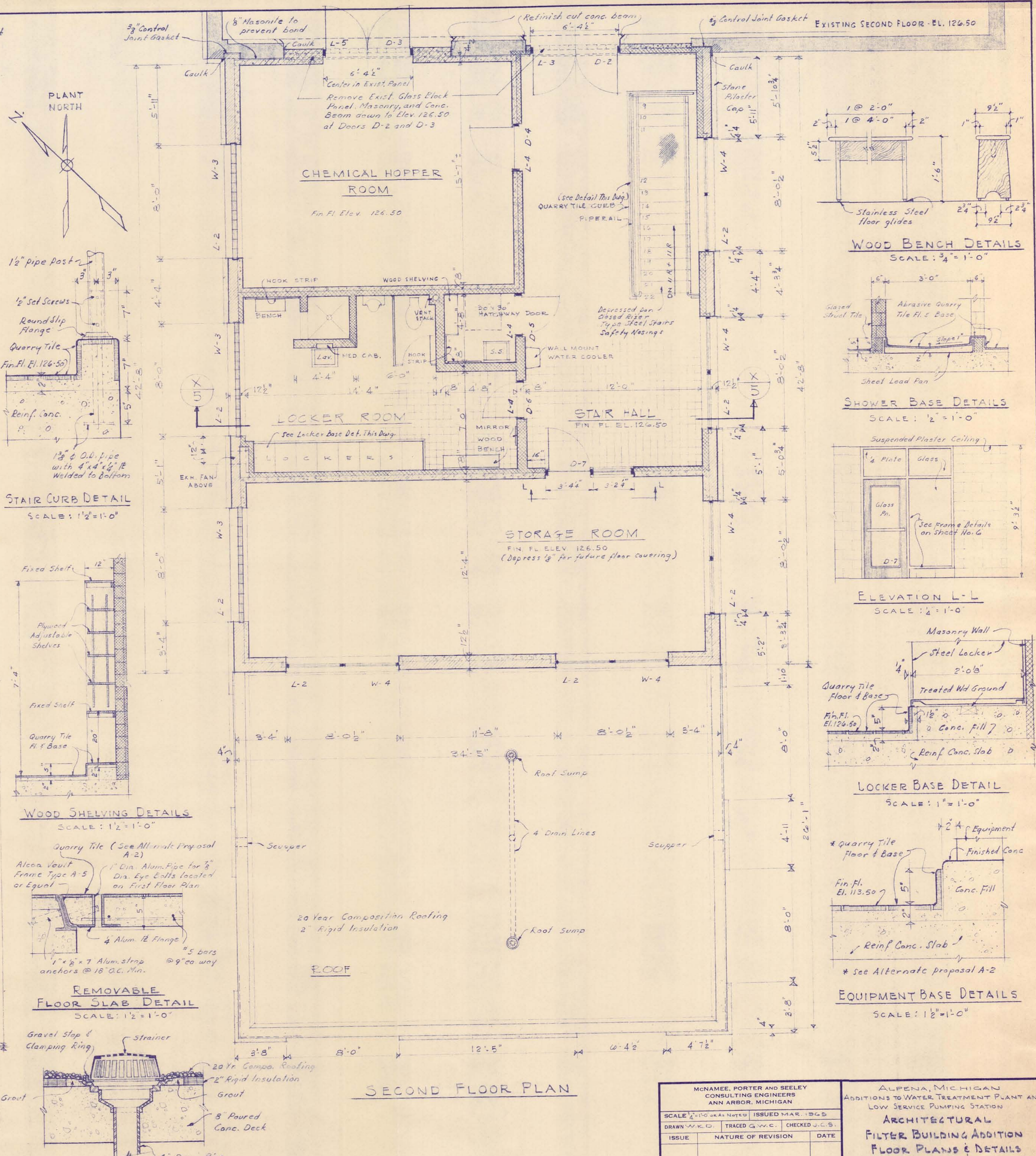
SACCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 8522

ADDITIONS TO WATER TREATMENT PLANT 1965
3 OF 33

IG NUMBER
NEW HOPE, MINNESOTA
PART NUMBER 8522

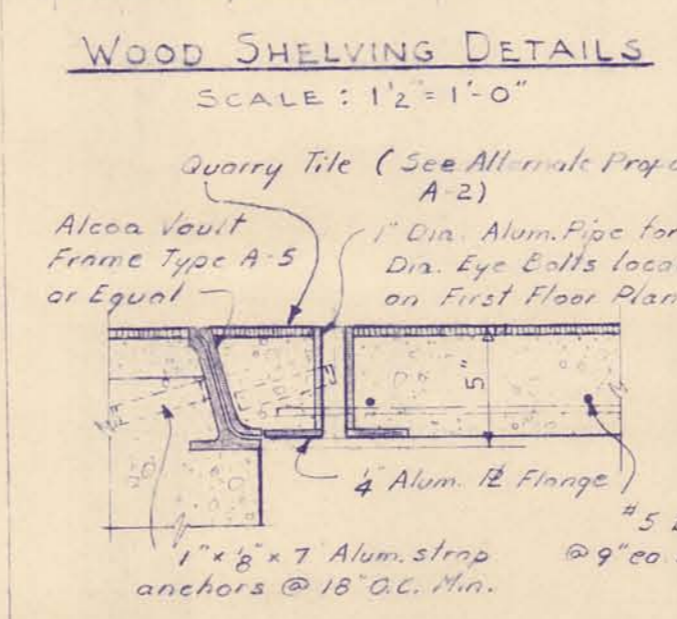
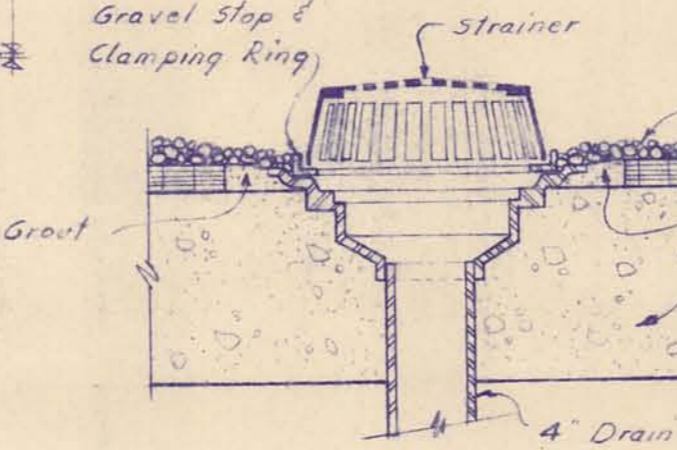
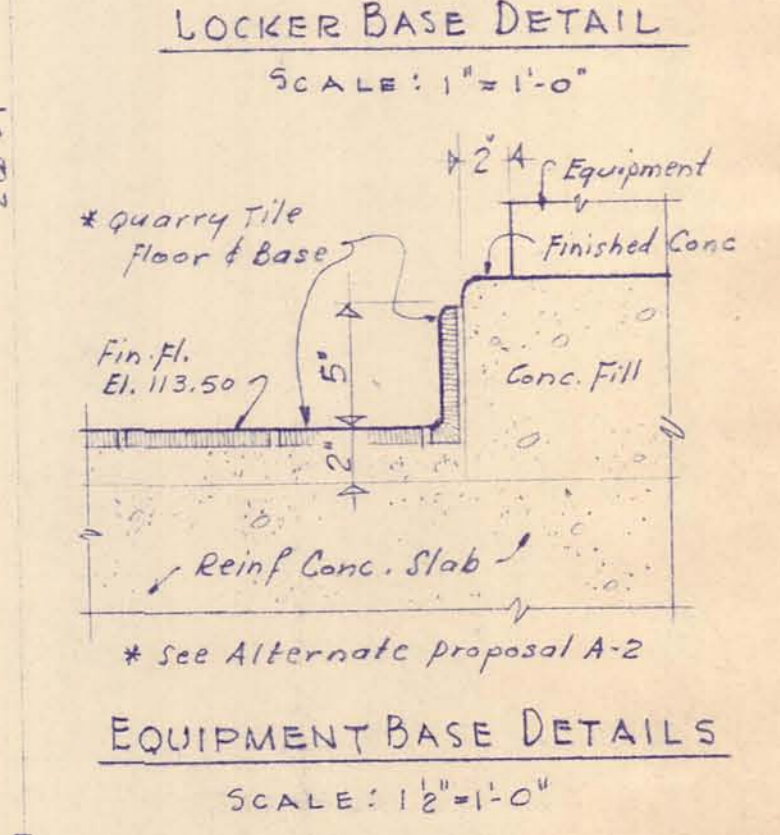
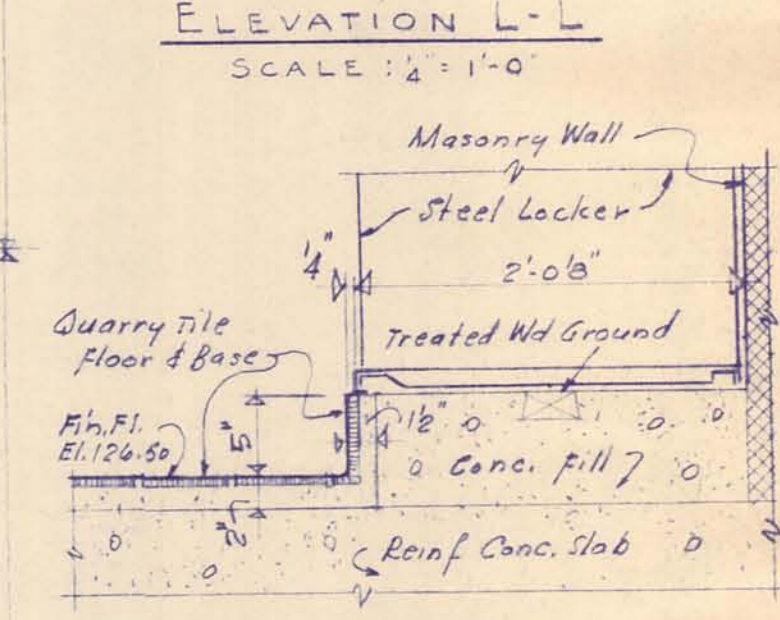
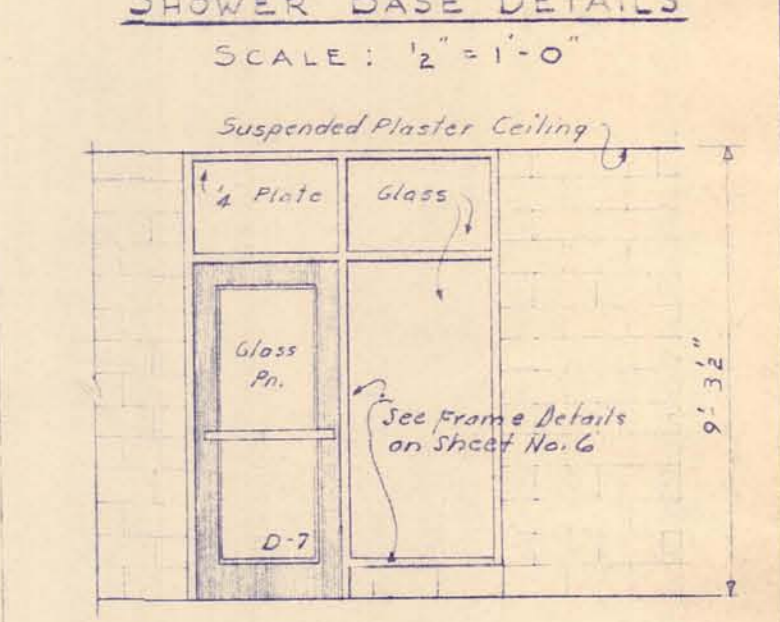
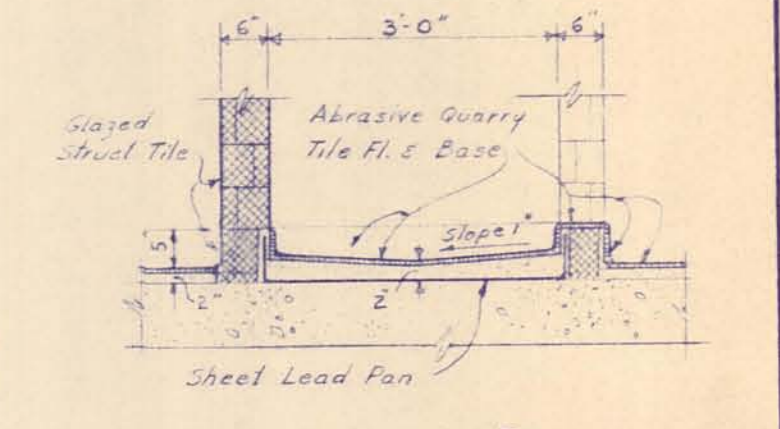
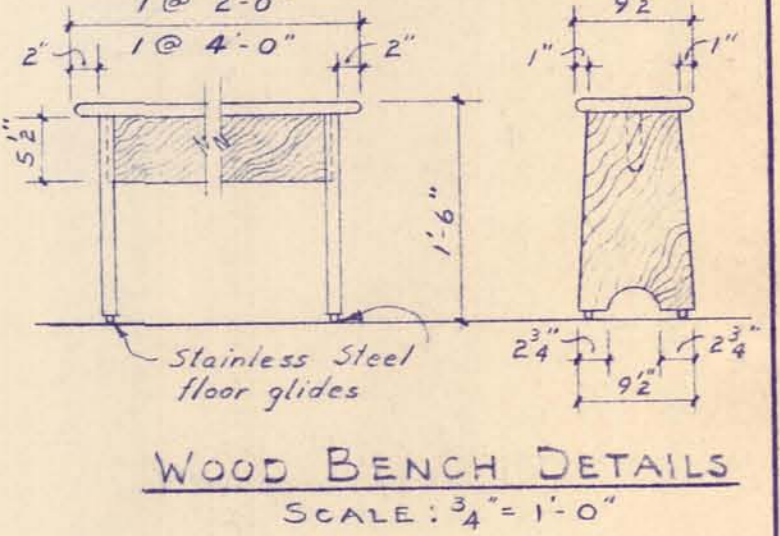


FIRST FLOOR PLAN



SECOND FLOOR PLAN

ROOF SUMP DETAIL
NO SCALE



M'NAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE 1/4" = 1'-0" UNLESS NOTED			ISSUED MAR. 1965		
DRAWN W.K.D.			TRACED G.W.C.		
CHECKED J.C.B.			DATE		
ISSUE	NATURE OF REVISION	DATE			
CONTRACT	1965		SHEET 3 OF 33		
W-2					

SAFECO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

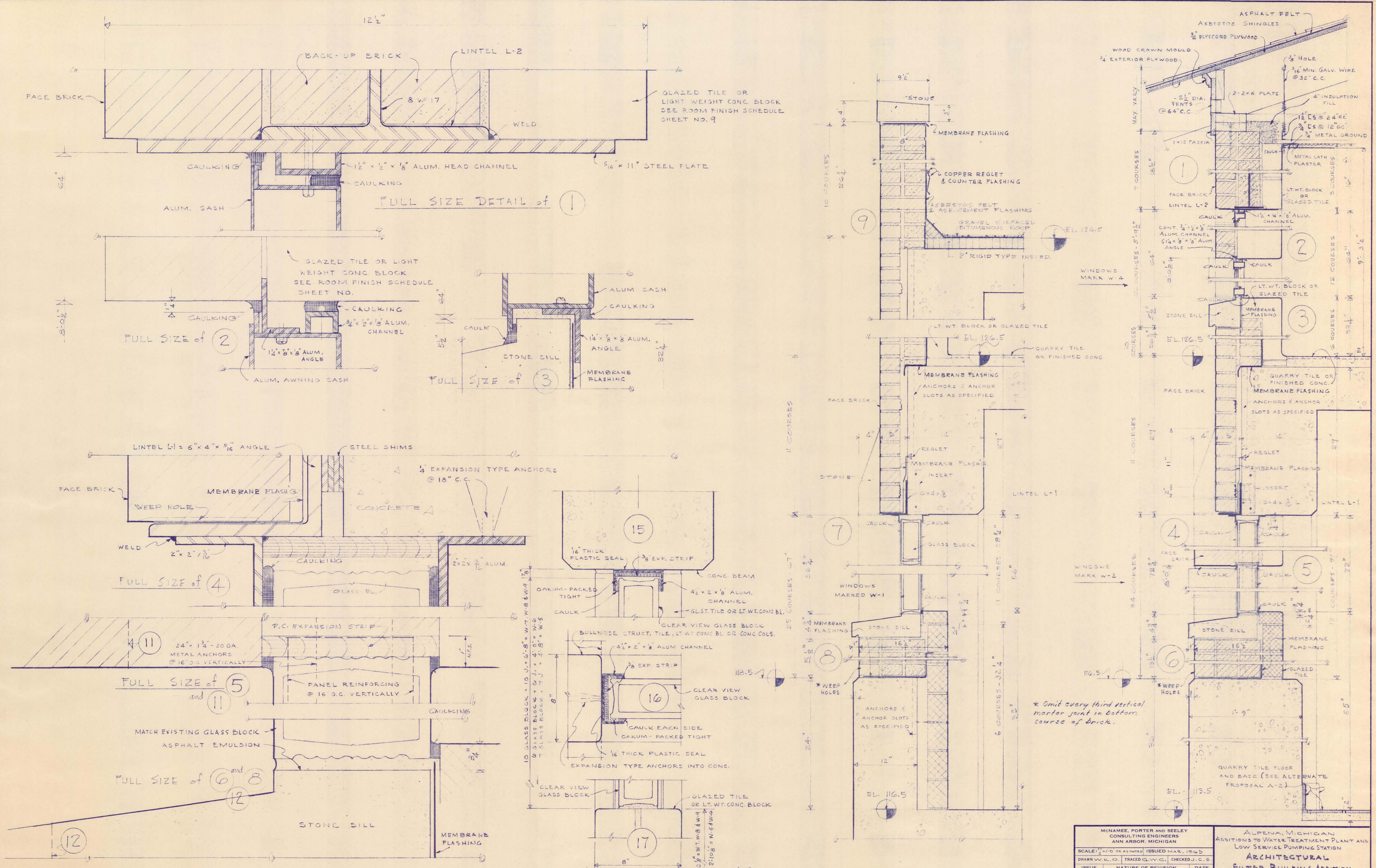
SAFECO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

SAFECO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

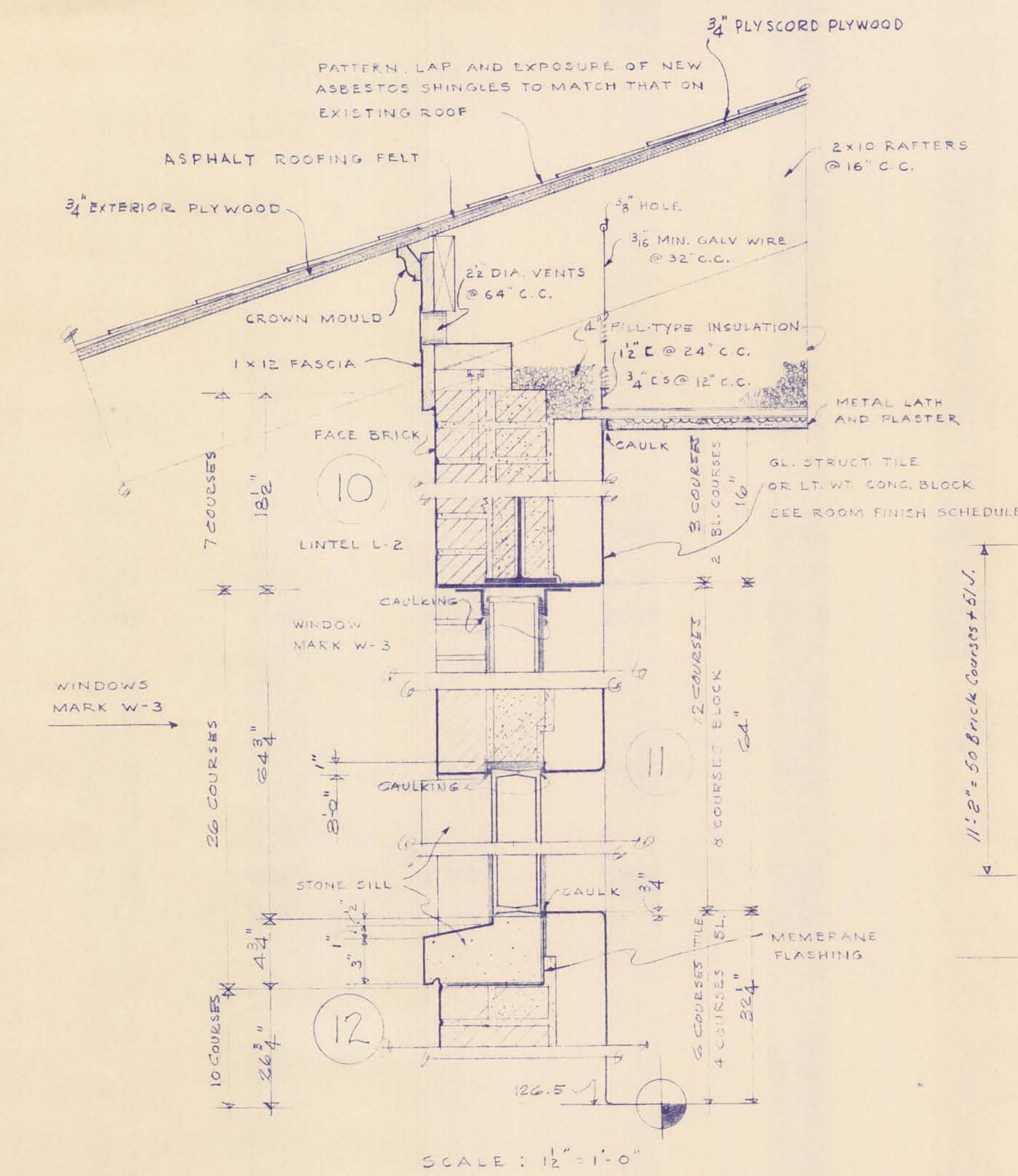
SAFECO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

SAFECO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

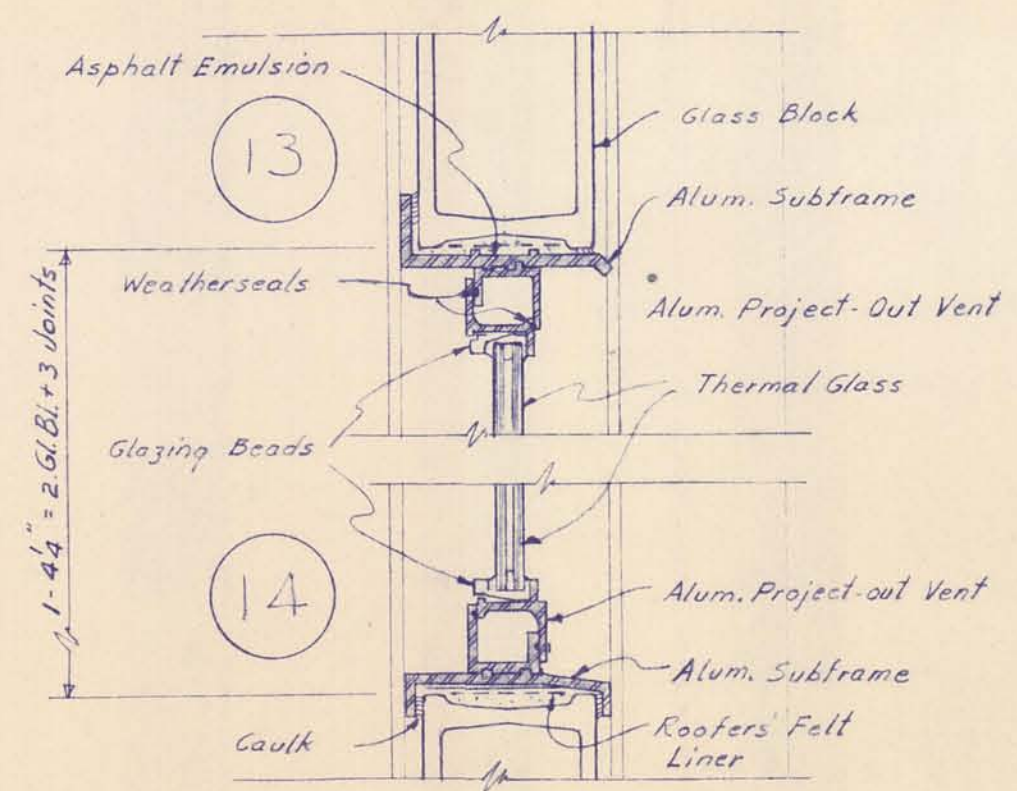
WATER TREATMENT
PLANT 1965
4 OF 33



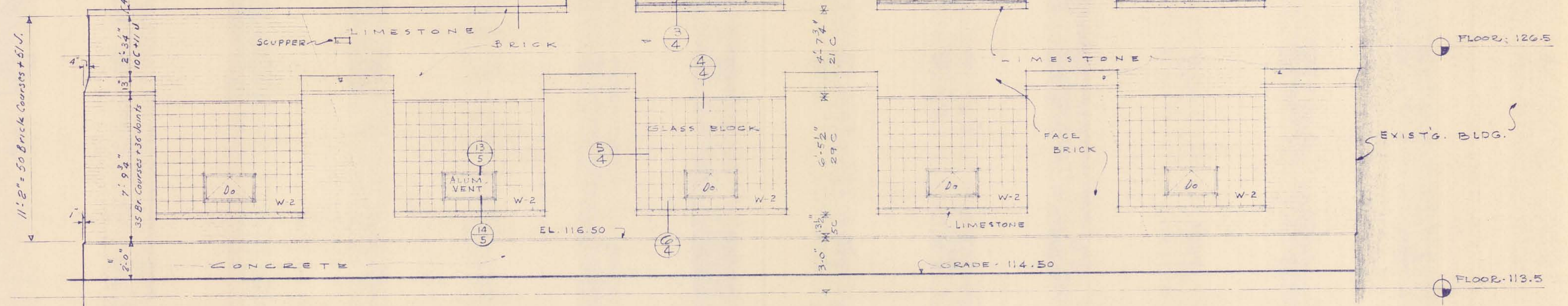
MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE: 1/2" = 1'-0" (OR AS NOTED) ISSUED MAR. 1965			ARCHITECTURAL FILTER BUILDING ADDITION WINDOW & WALL DETAILS		
DRAWN W. K. D., TRACED G. W. C., CHECKED J. C. B.			CONTRACT 1965 W-2		
ISSUE		NATURE OF REVISION		DATE	
				SHEET 4 OF 33	



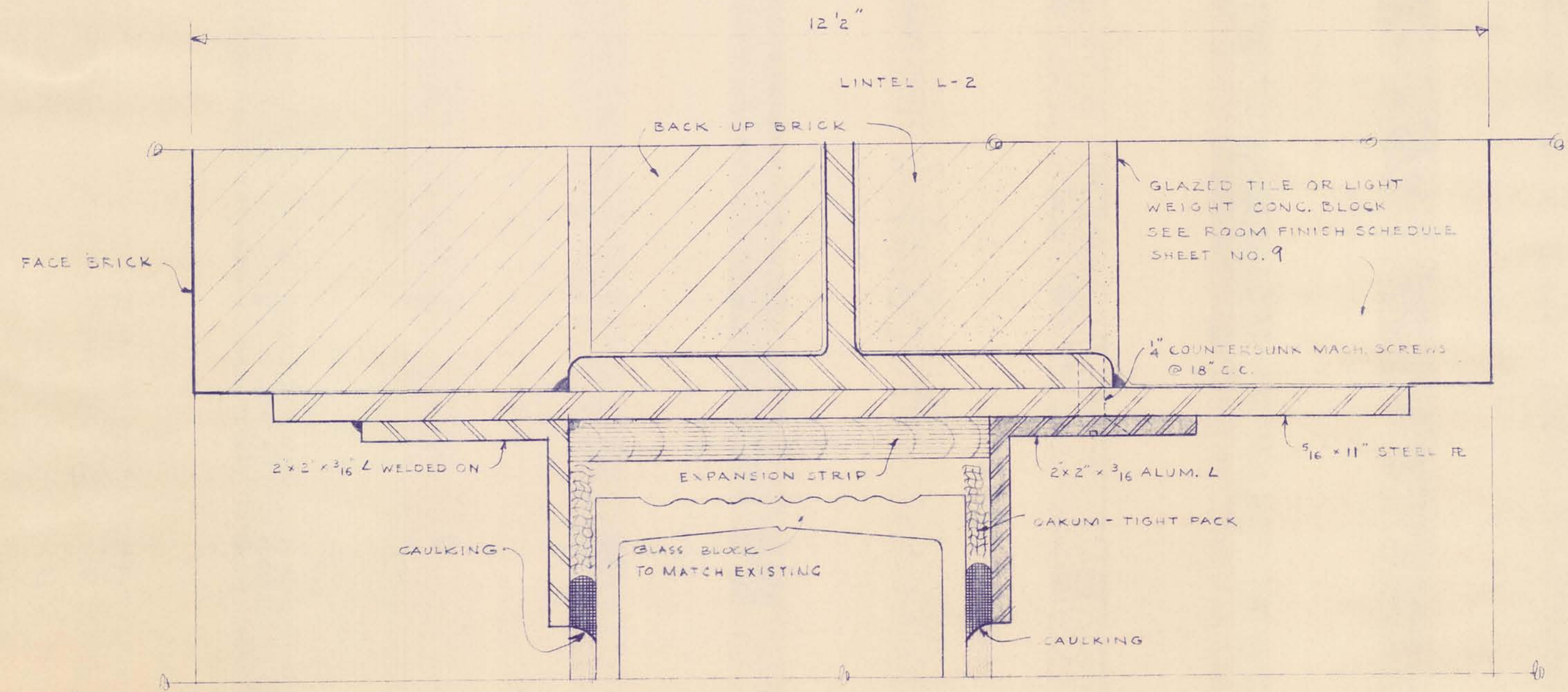
SCALE: 12" = 1'-0"



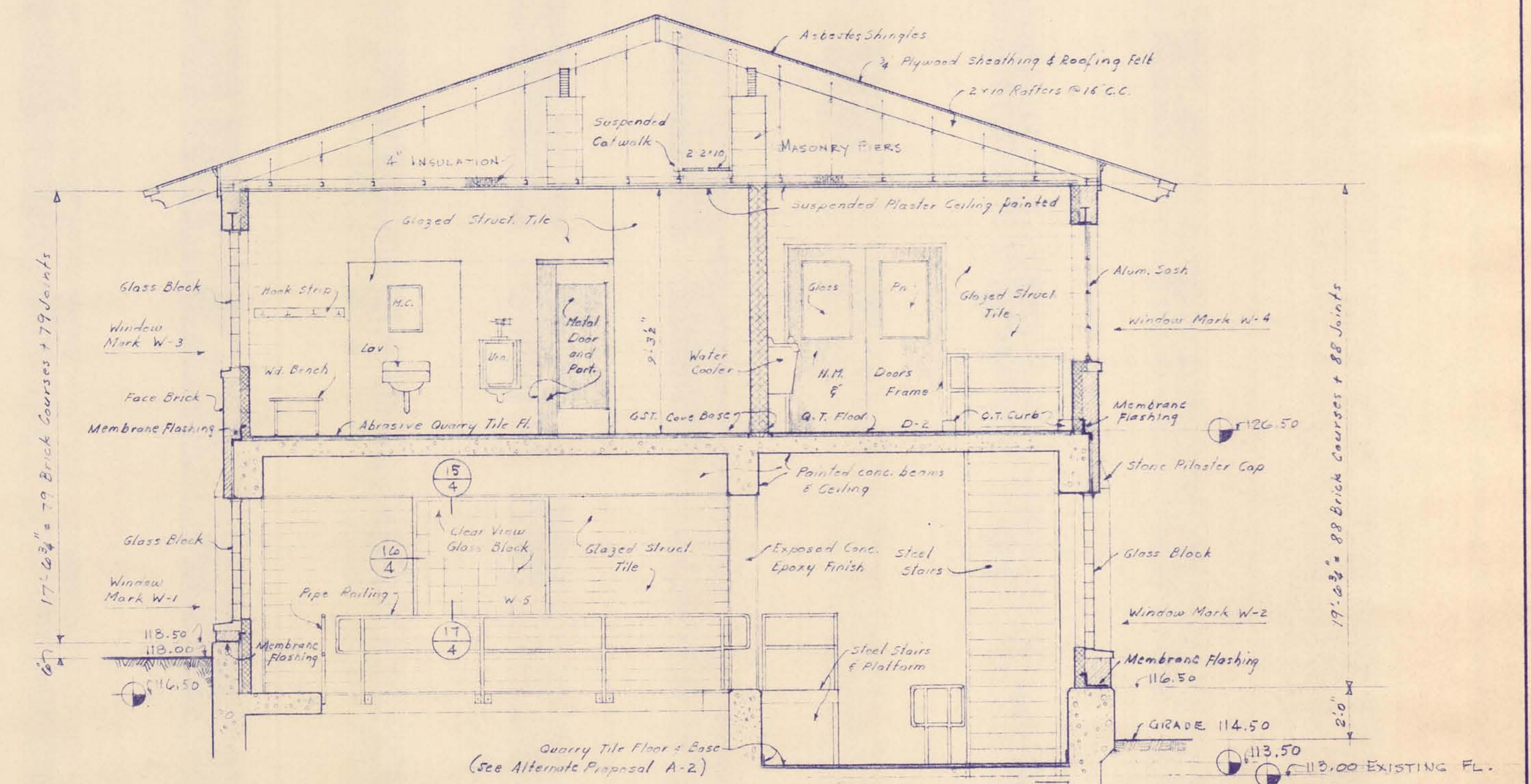
SCALE: 3" = 1'-0"
 NOTE: Jamb Similar - Wash & Felt Not Req'd.



EAST ELEVATION

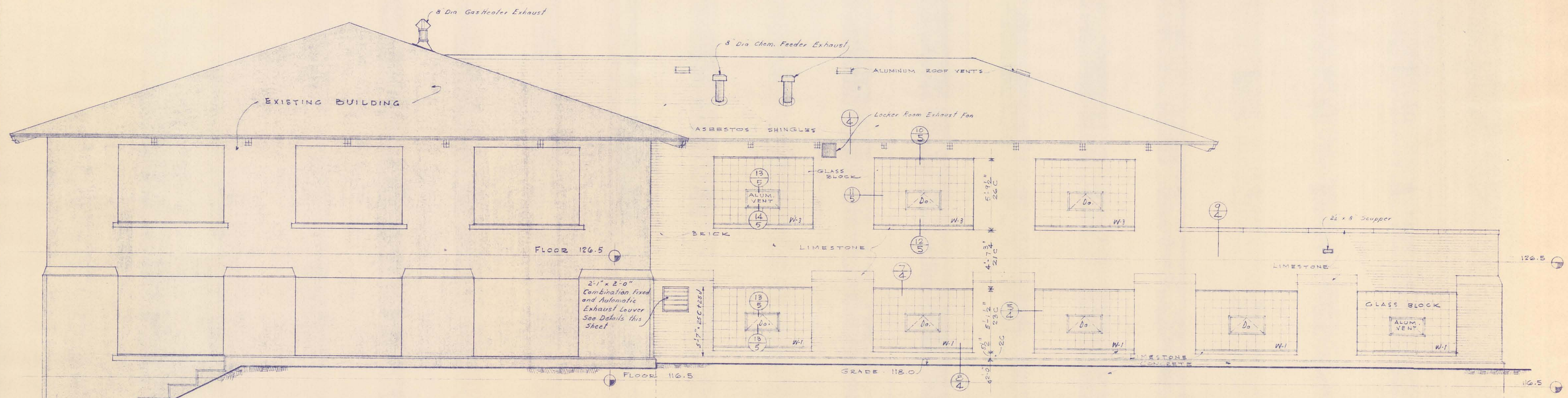


FULL SIZE DETAIL OF 10

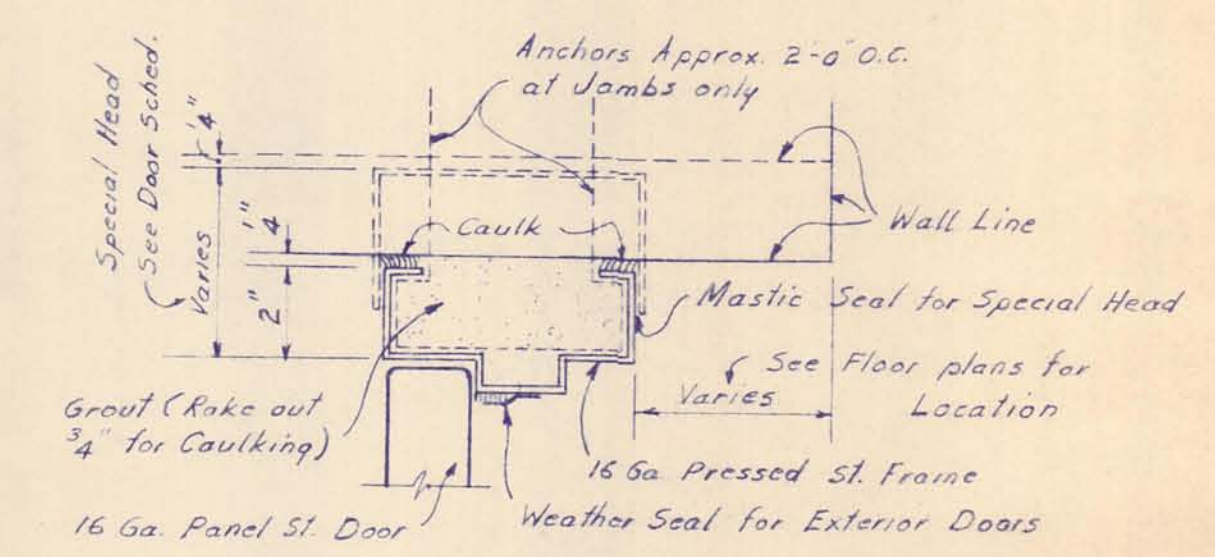


SECTION XX

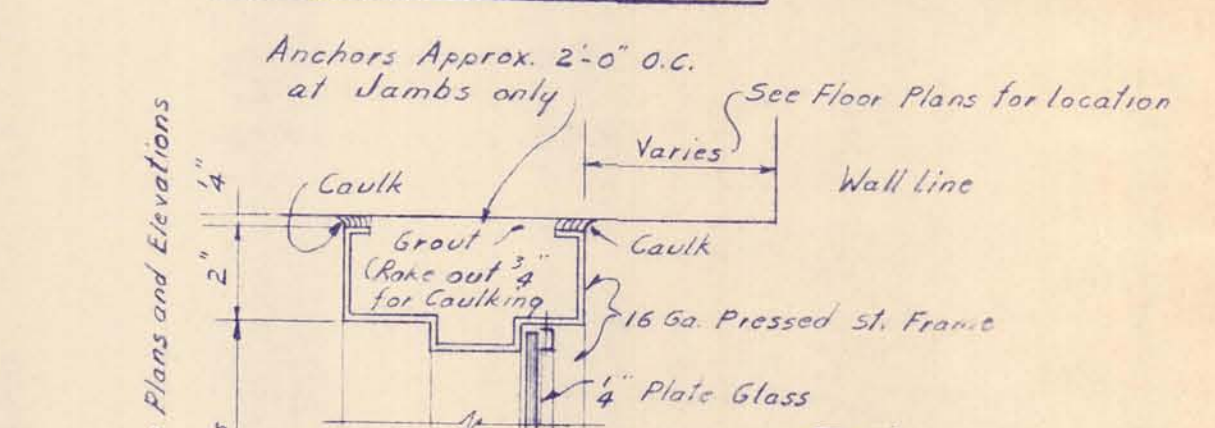
MCMAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE: 1/4" = 1'-0" (AS NOTED) ISSUED MAR. 1965			ARCHITECTURAL		
DRAWN W.K.D. TRACED G.W.C. CHECKED J.C.S.			FILTER BUILDING ADDITION		
ISSUE			ELEVATIONS, SECTIONS & DETAILS		
NATURE OF REVISION			CONTRACT		
DATE			1965		
			W-2		
					SHEET
					5
					OF 33



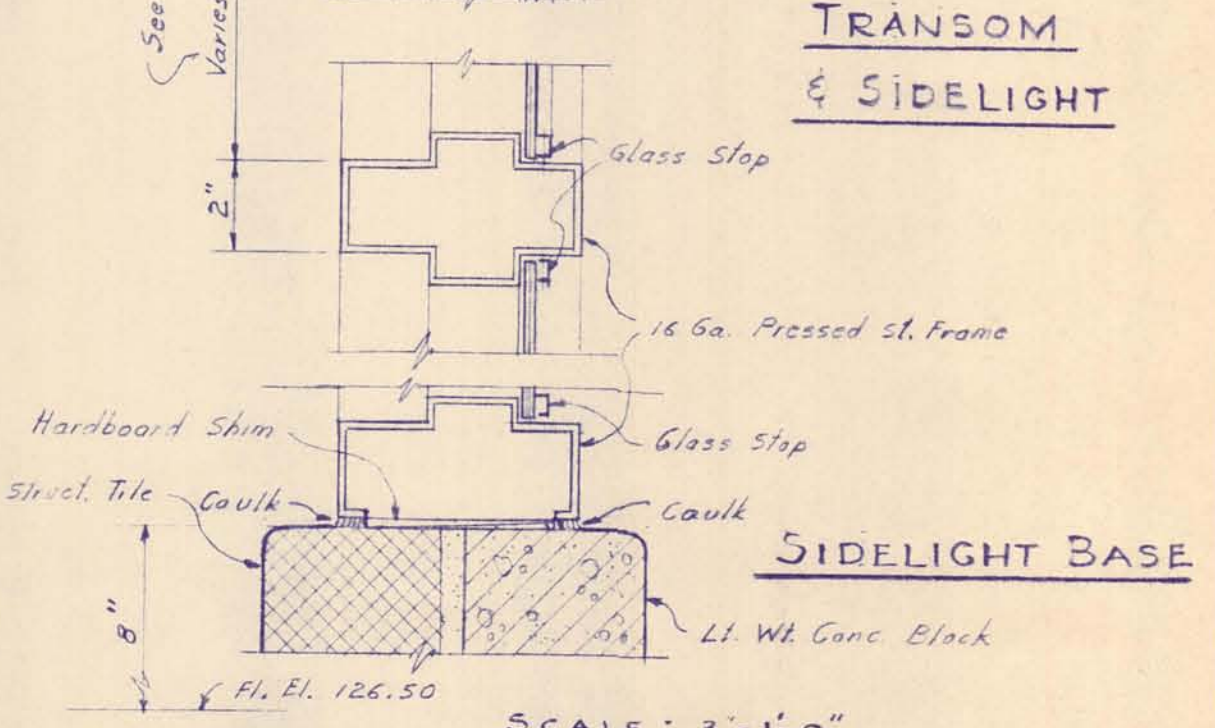
WEST ELEVATION



DOOR HEAD & JAMB

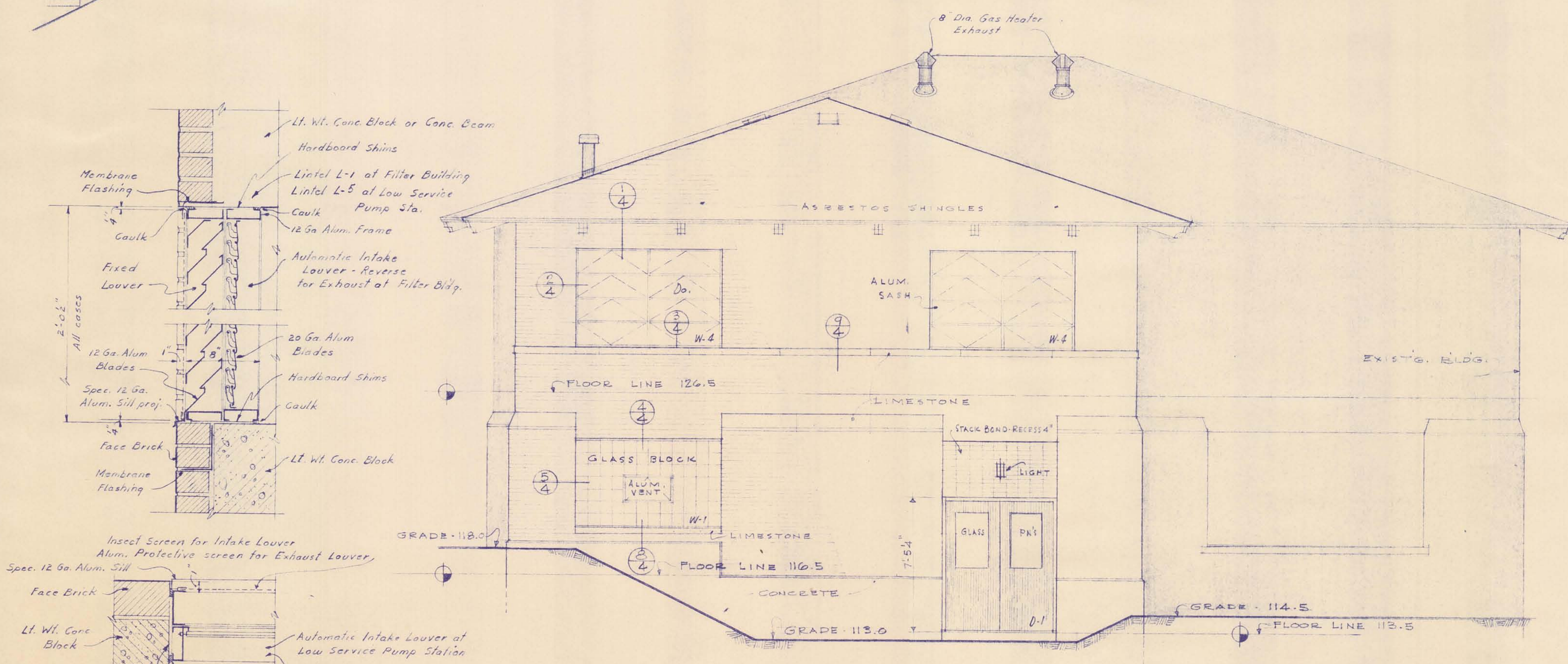


TRANSOM & SIDELIGHT

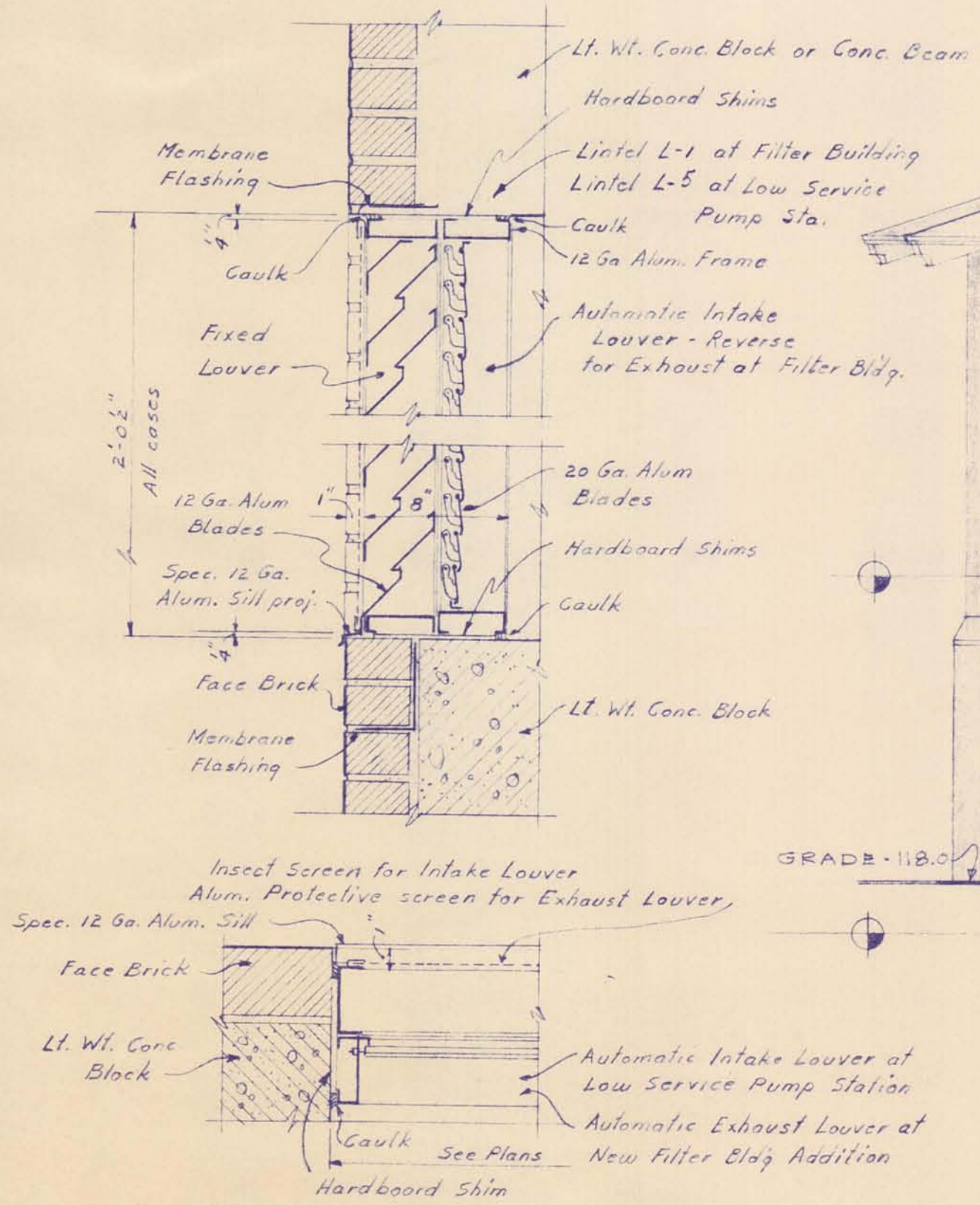


SIDELIGHT BASE

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



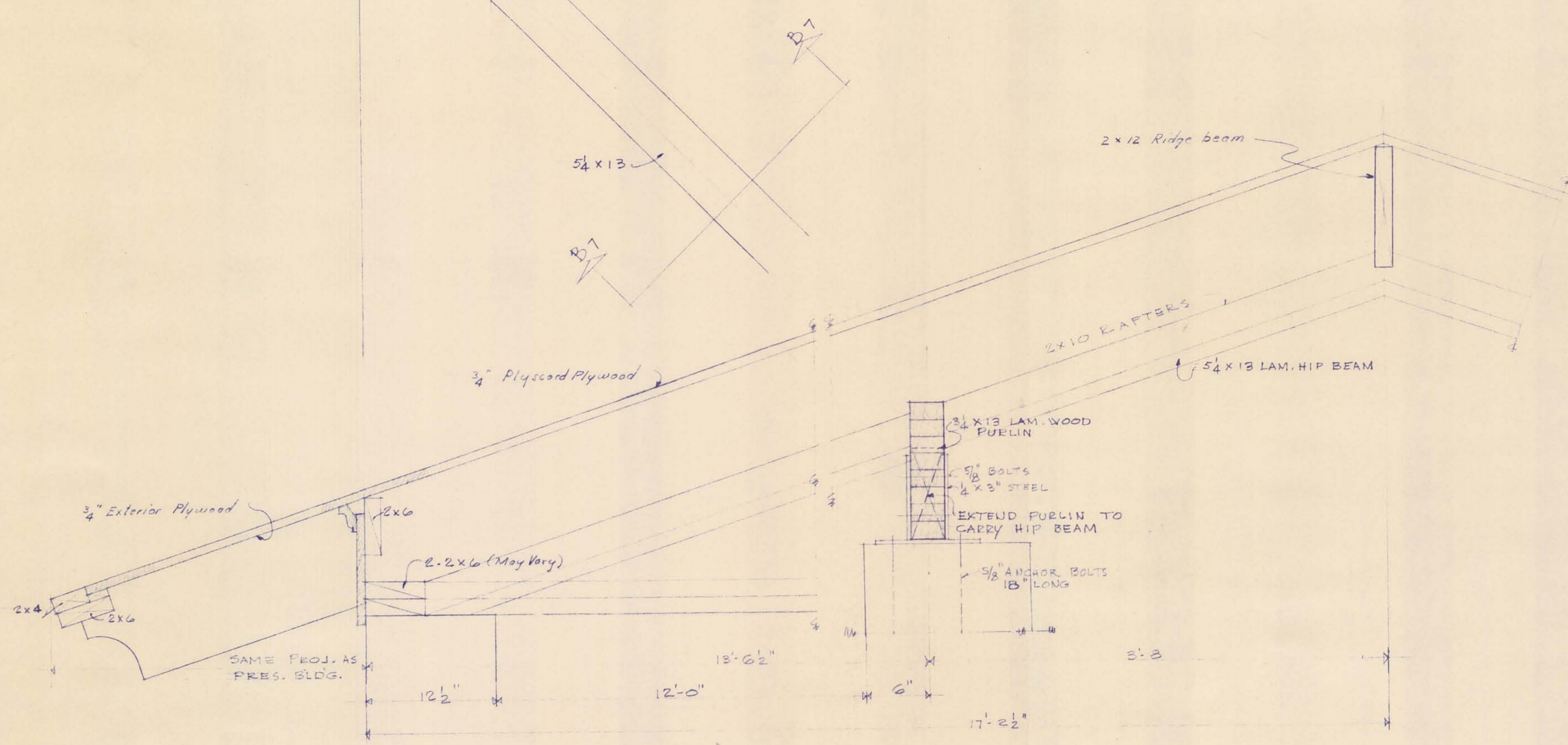
SOUTH ELEVATION



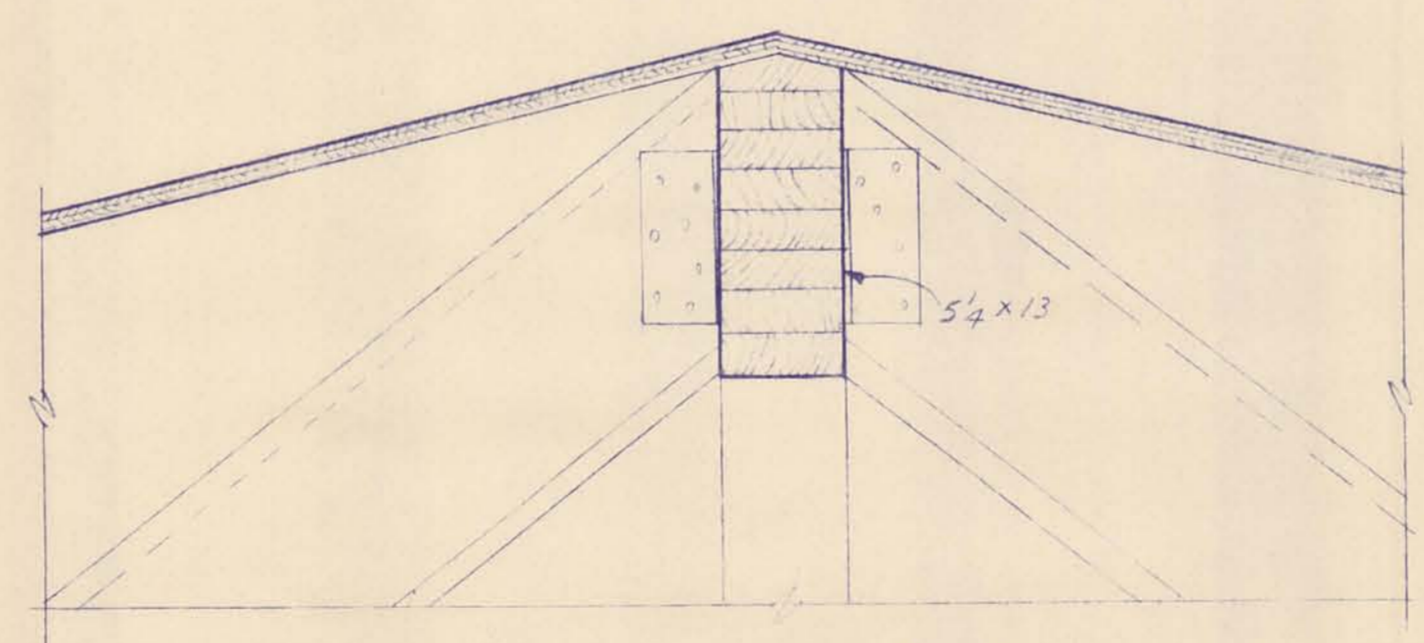
LOUVER DETAILS
SCALE: 1/2" = 1'-0"

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE 1/4" = 1'-0"	ISSUED MAR. 1965		ARCHITECTURAL FILTER BUILDING ADDITION ELEVATIONS		
DRAWN W.K.O.	TRACED W.K.O.	CHECKED J.C.S.	CONTRACT 1965 W-2	SHEET 6 OF 23	
ISSUE	NATURE OF REVISION	DATE			

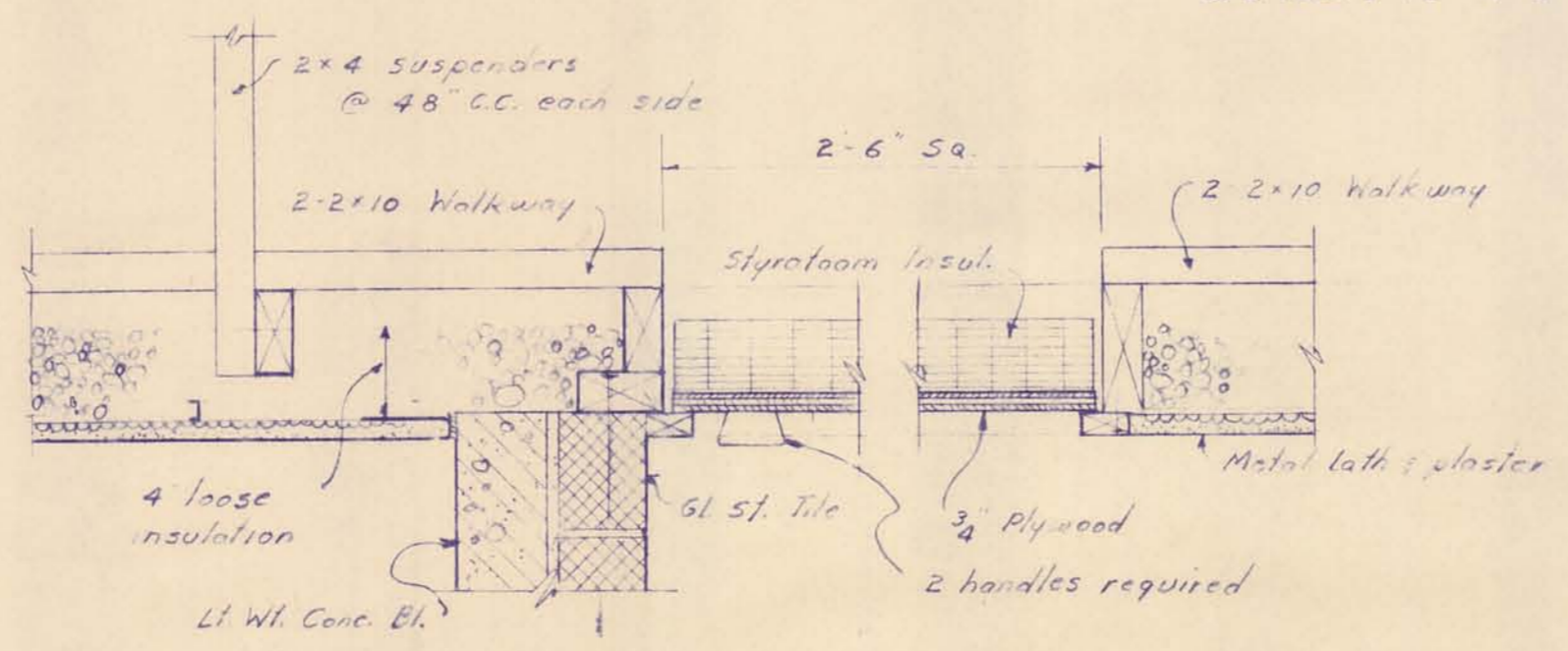
CUT HIP BEAM TO 5/4 x 9 1/2"
OUTSIDE WALL LINE TO
MATCH 2x10 RAFTER
OUTLOOKERS



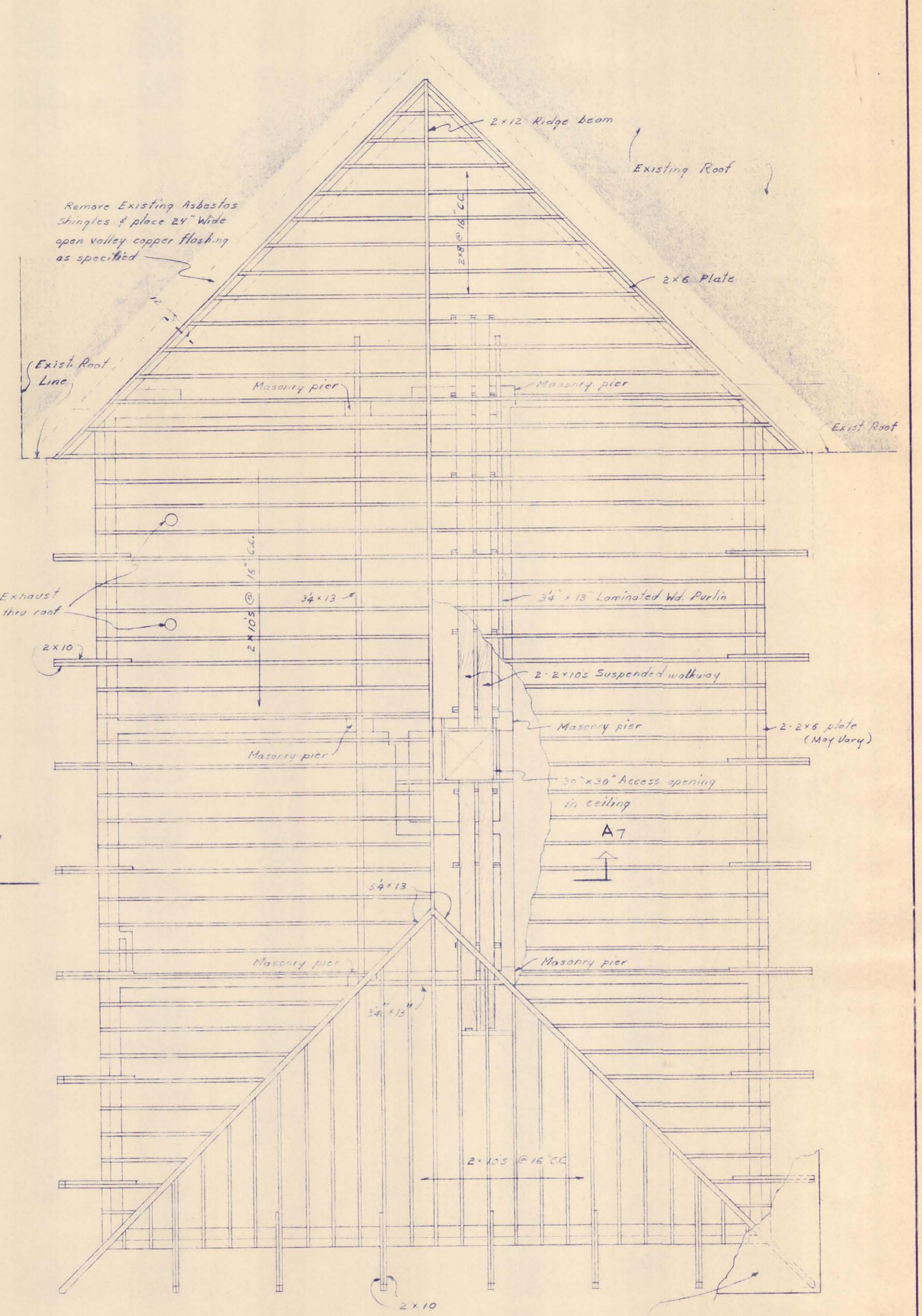
SECTION - AA
1/8" = 1 INCH
1/2" = 1 FOOT



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



ACCESS HATCHWAY DETAIL
SCALE: 1/2" = 1'-0"



ROOF FRAMING PLAN
1/4" = 1 FOOT

MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE AS NOTED	ISSUED MAR. 1966		ARCHITECTURAL		
DRAWN W.C.D.	TRACED W.C.D.	CHECKED J.C.S.	FILTER BUILDING ADDITION		
ISSUE	NATURE OF REVISION	DATE	ROOF FRAMING DETAILS		
			CONTRACT 1966 W-2	SHEET 7 OF 33	

WATER TREATMENT
PLANT 1966
7 OF 33

NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

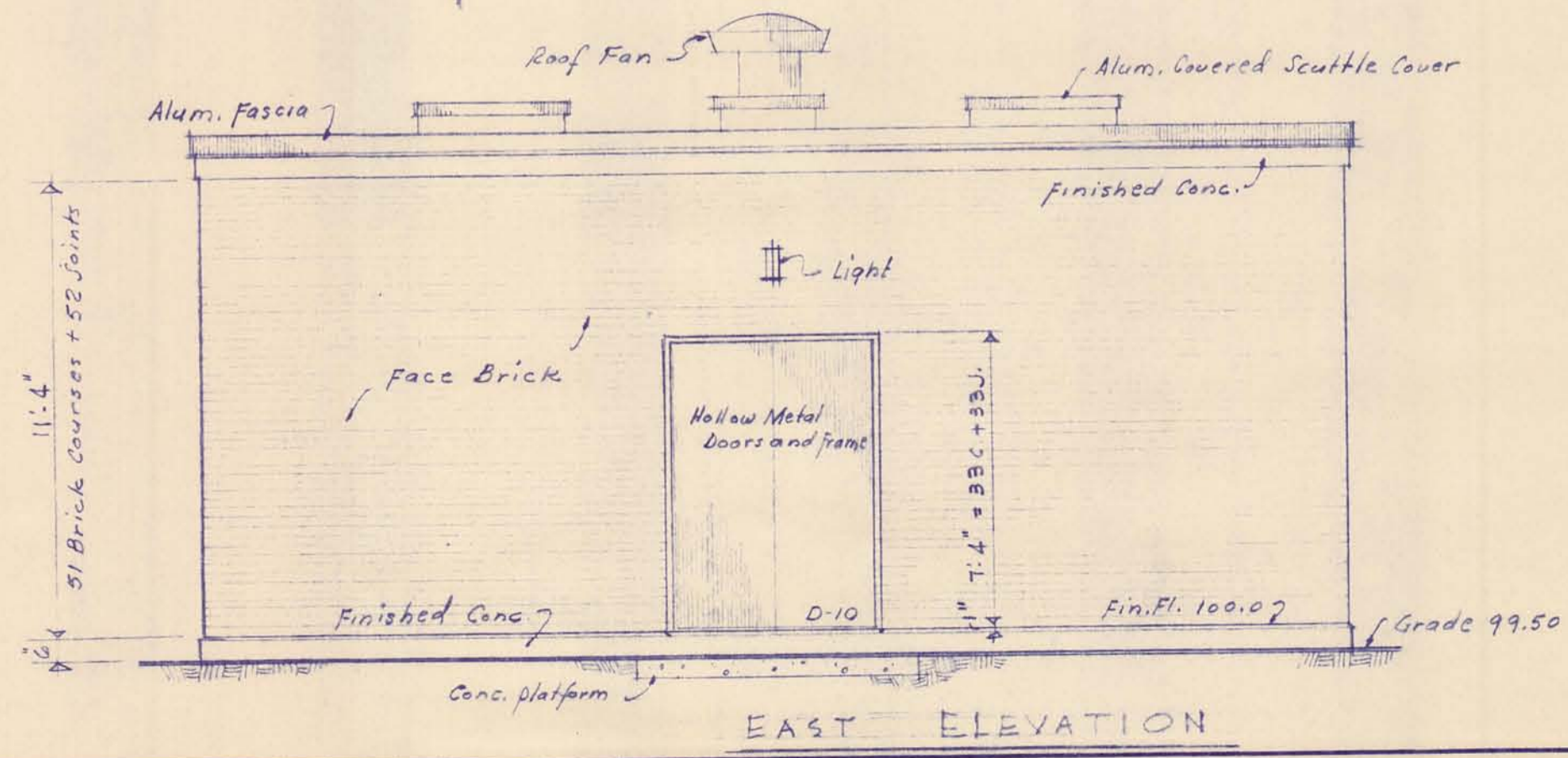
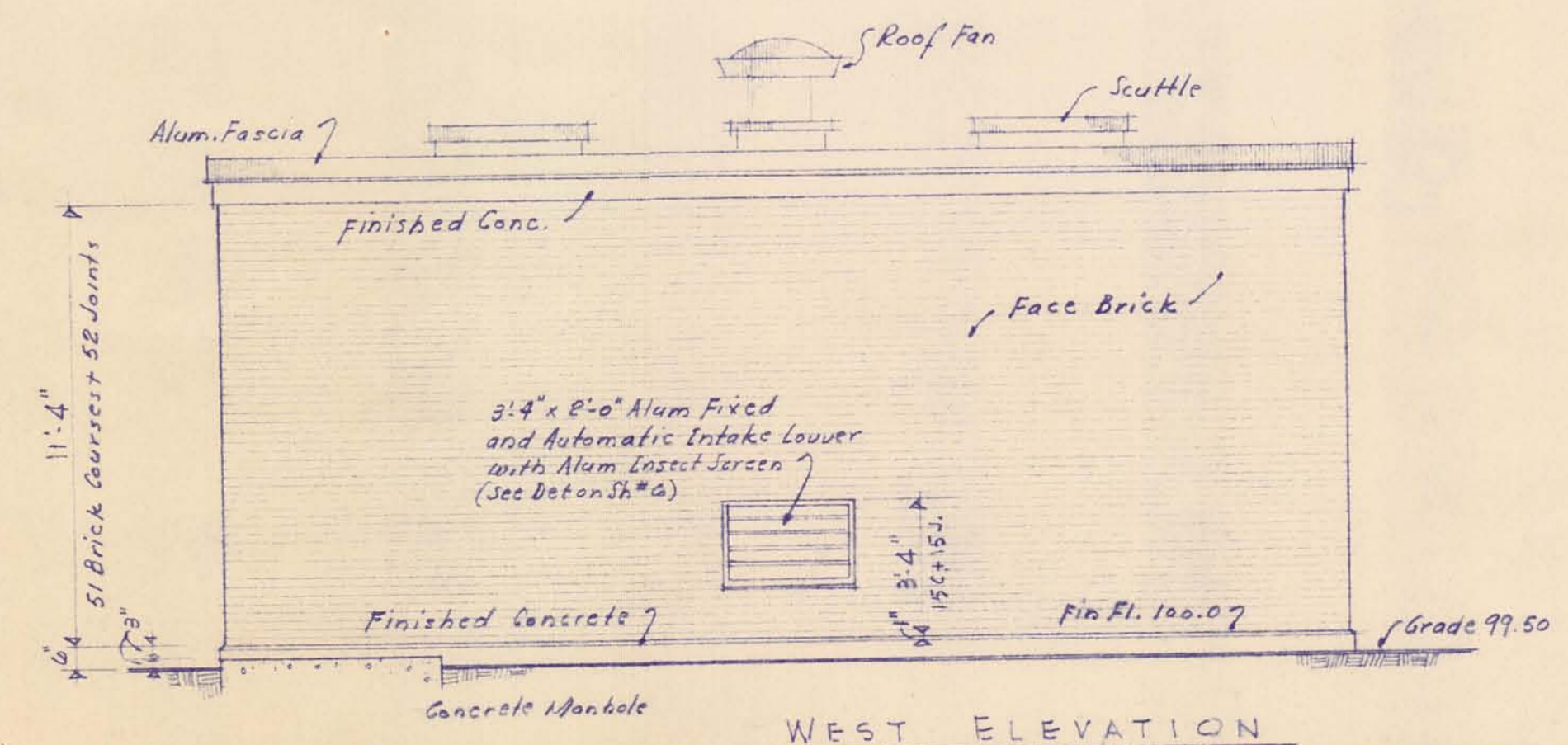
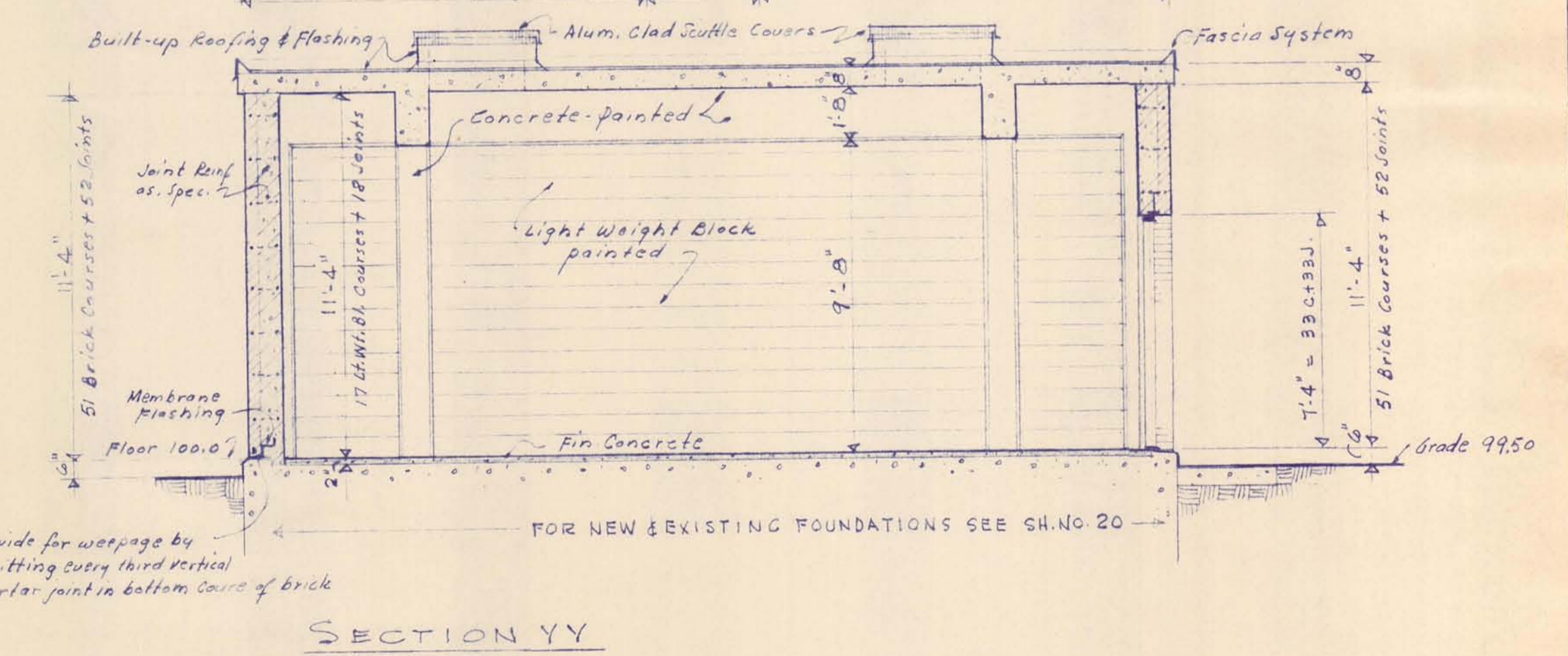
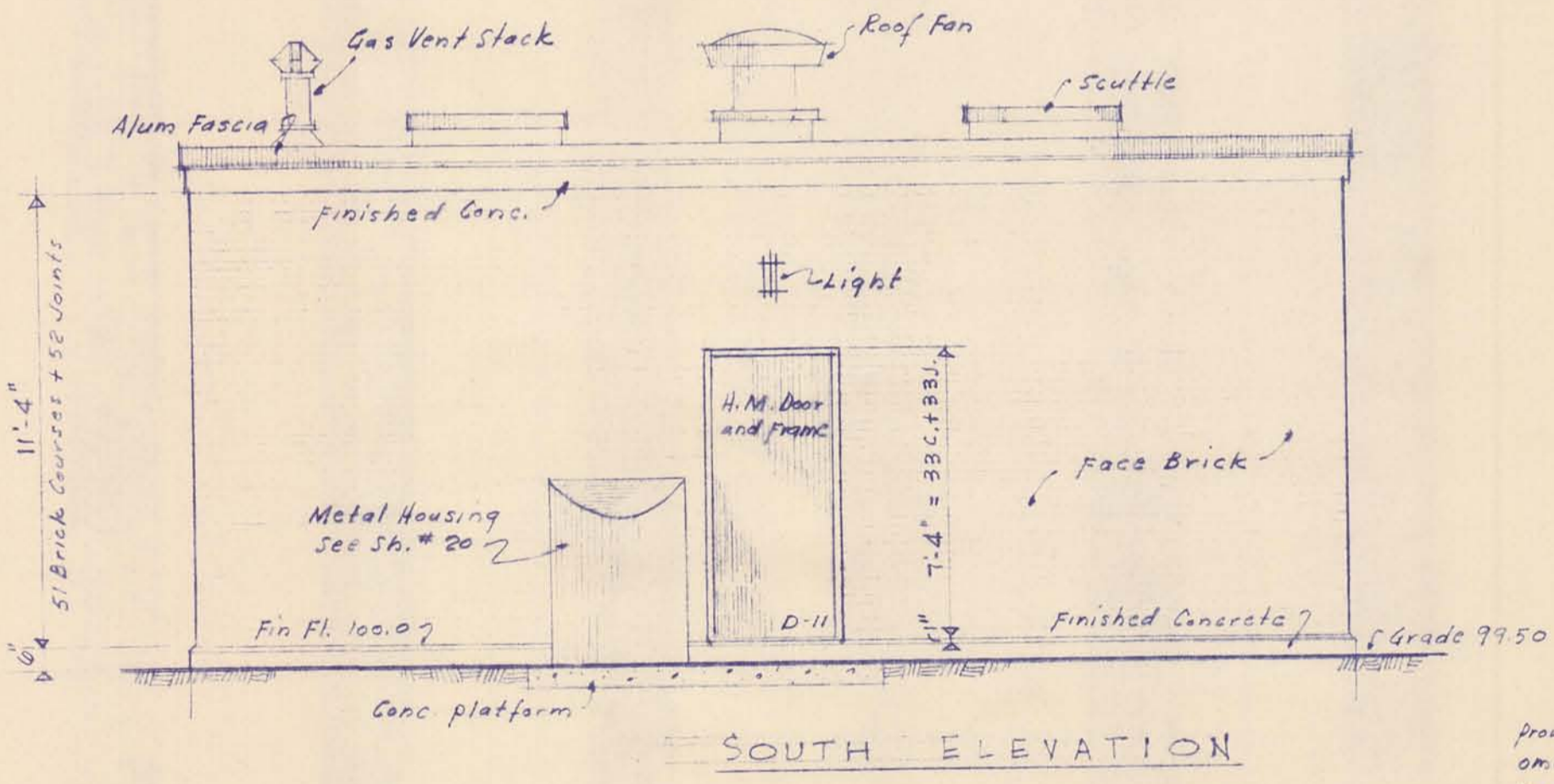
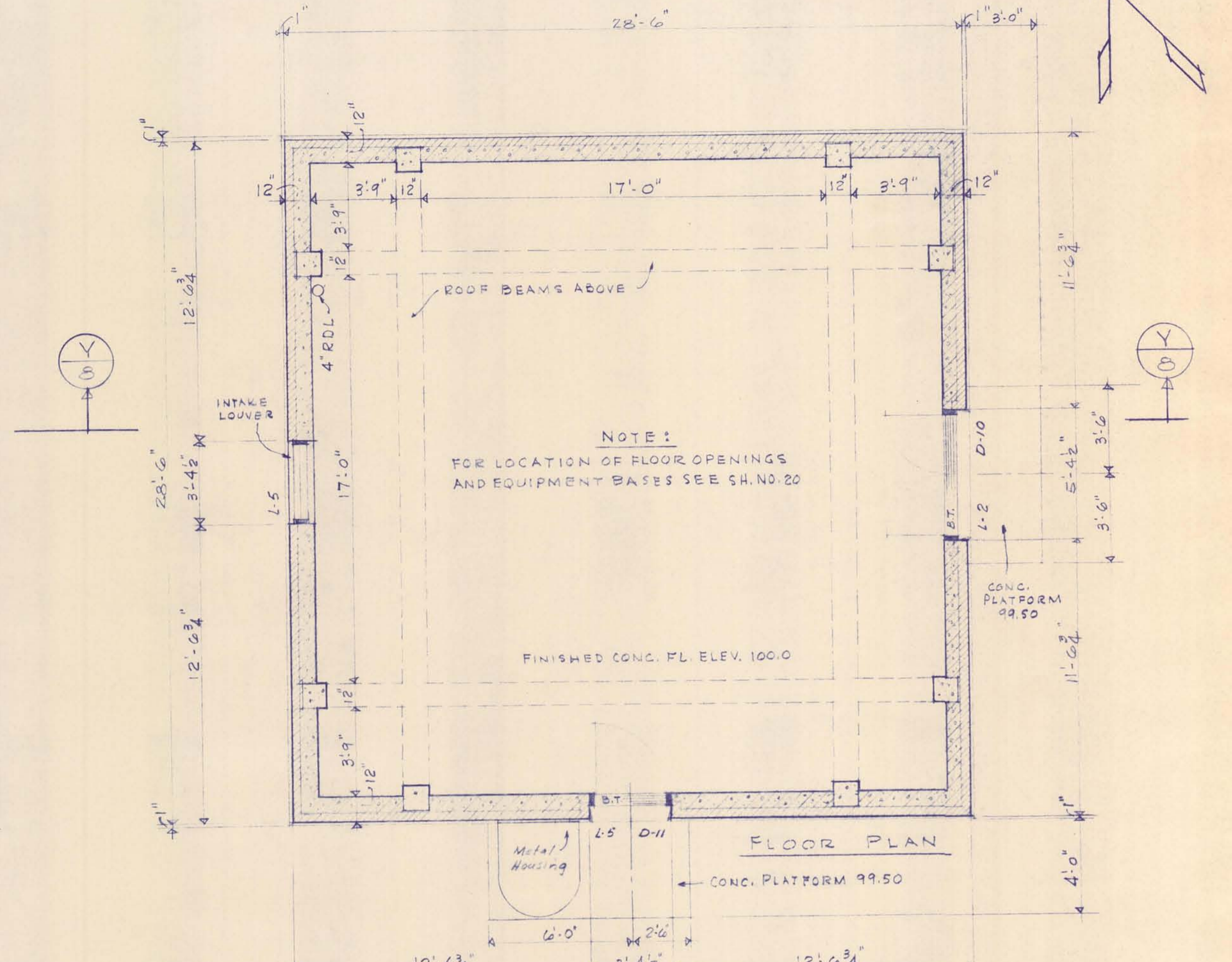
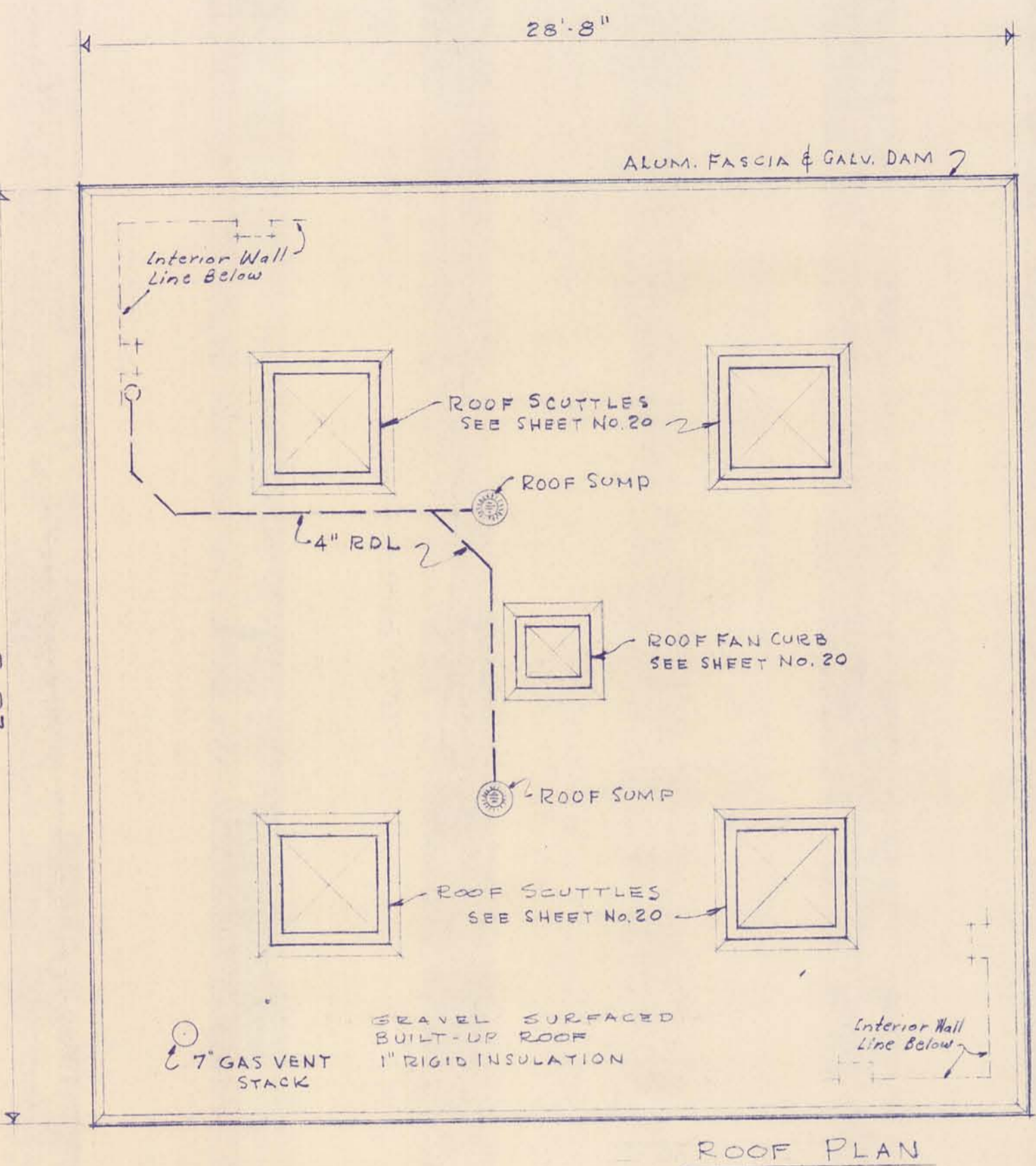
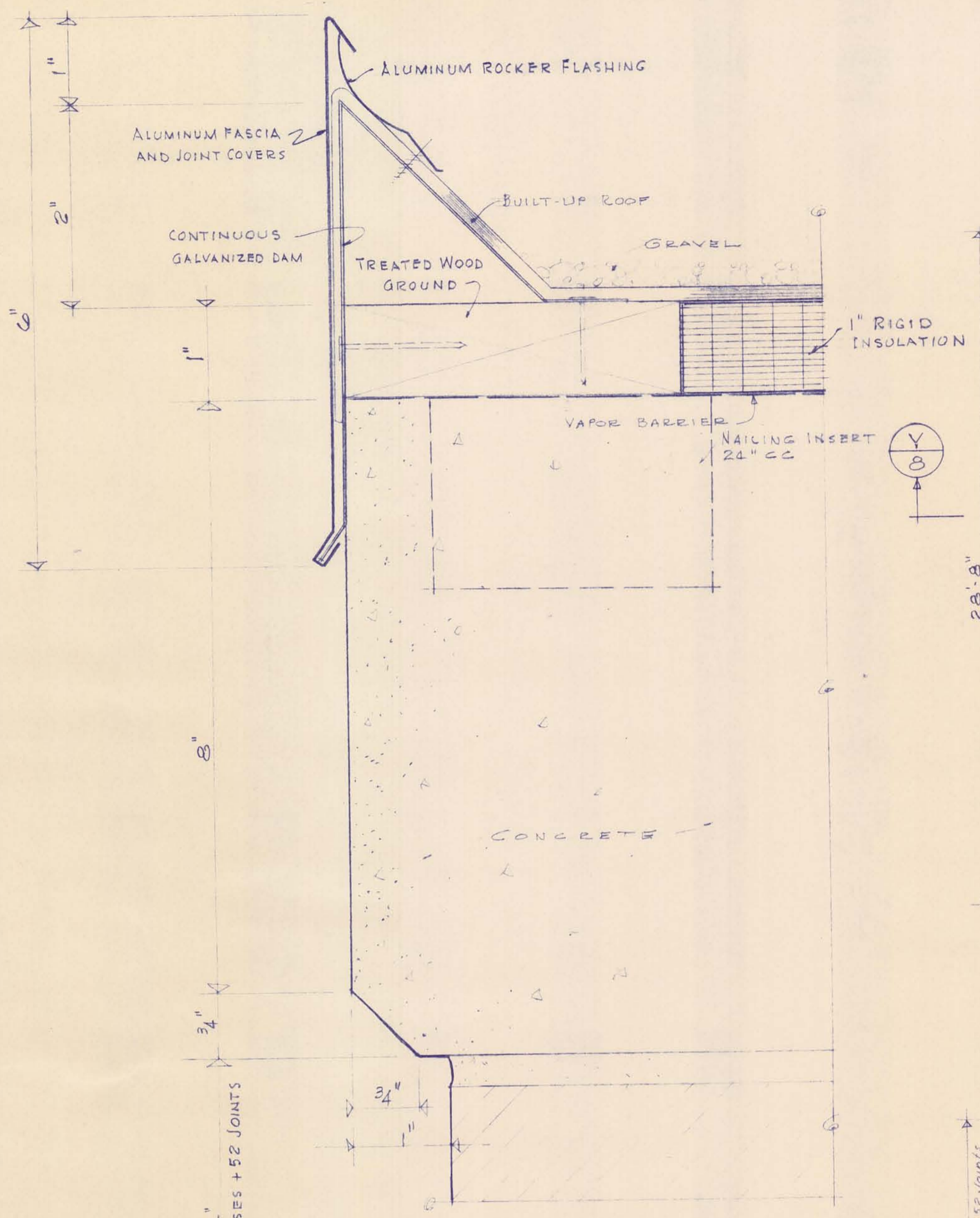
SAFECO PRODUCTS • NEW HURON, MINNESOTA
 REFERRED BY PART NUMBER 6532

DRAWING NUMBER

ADDITIONS
 WATER TREATMENT
 PLANT 1965
 8 OF 33

3 NUMBER

SAFECO PRODUCTS • NEW HURON, MINNESOTA
 REFERRED BY PART NUMBER 6532



NOTE: SEE ALTERNATE PROPOSAL A-3

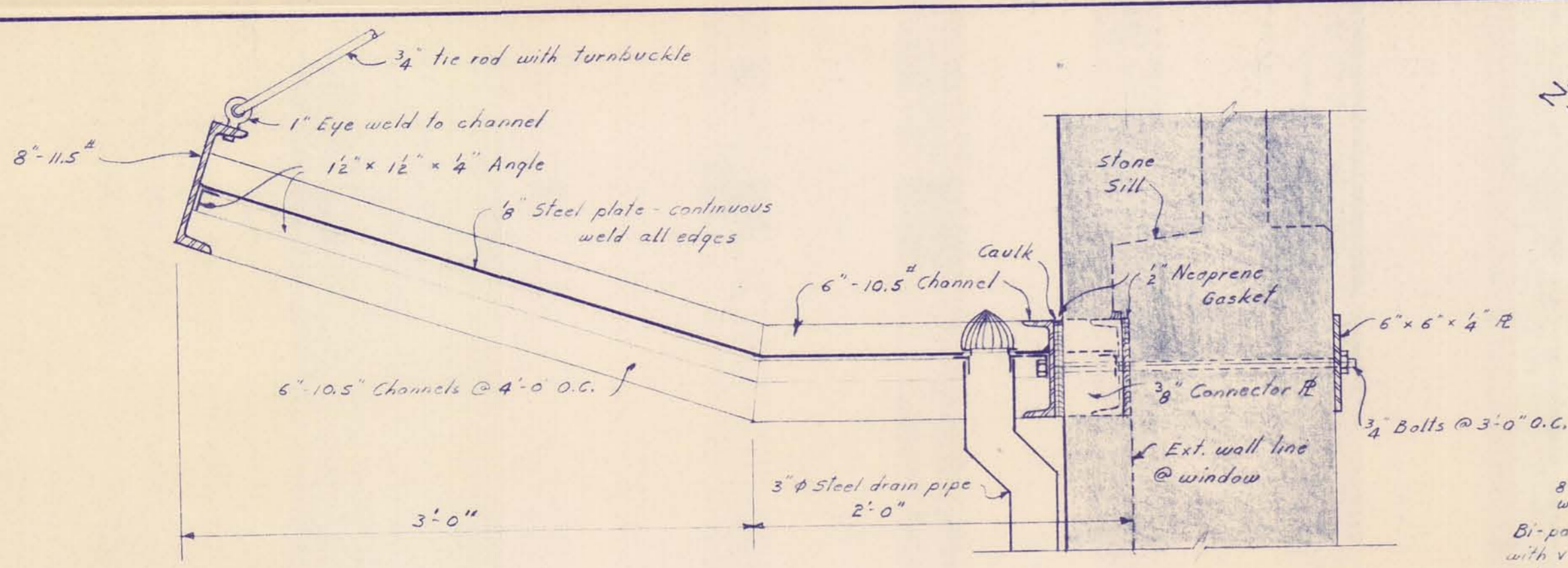
MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE: 1/8" = 1'-0" AS SHOWN	ISSUED: MAR. 1965	ARCHITECTURAL PLANS, ELEVATIONS, SECTIONS & DETAILS	
DRAWN: W.C.O.	TRACED: A.L.G.	CHECKED: J.C.S.	
ISSUE	NATURE OF REVISION	DATE	
CONTRACT 1965 W-2		SHEET 8 OF 33	

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

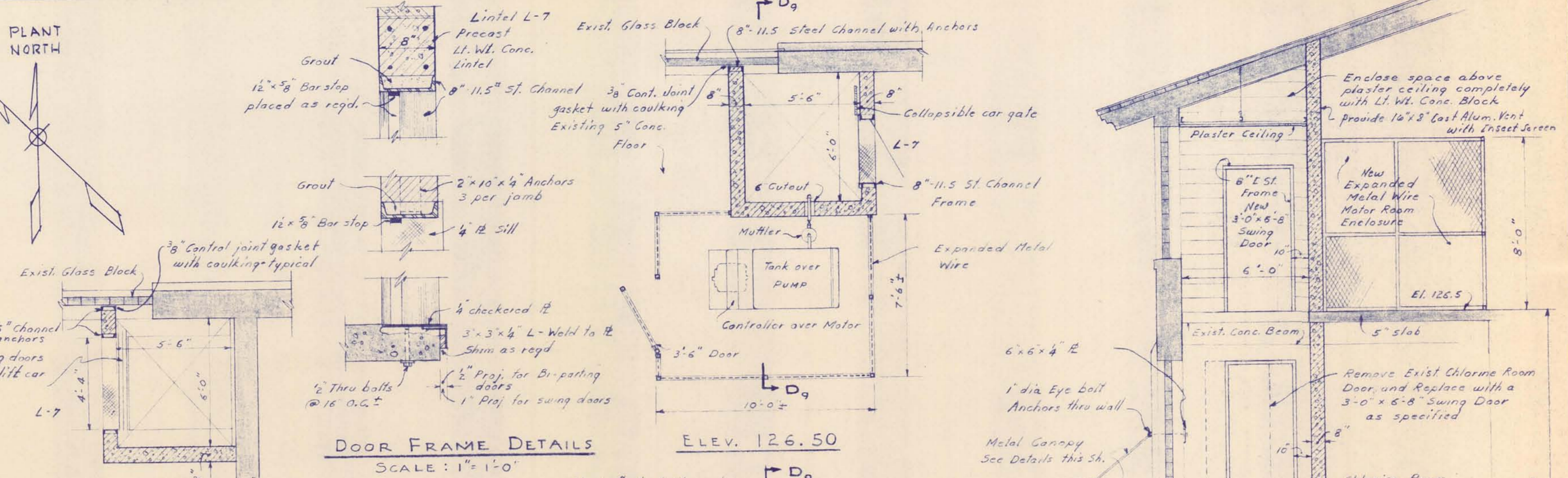
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

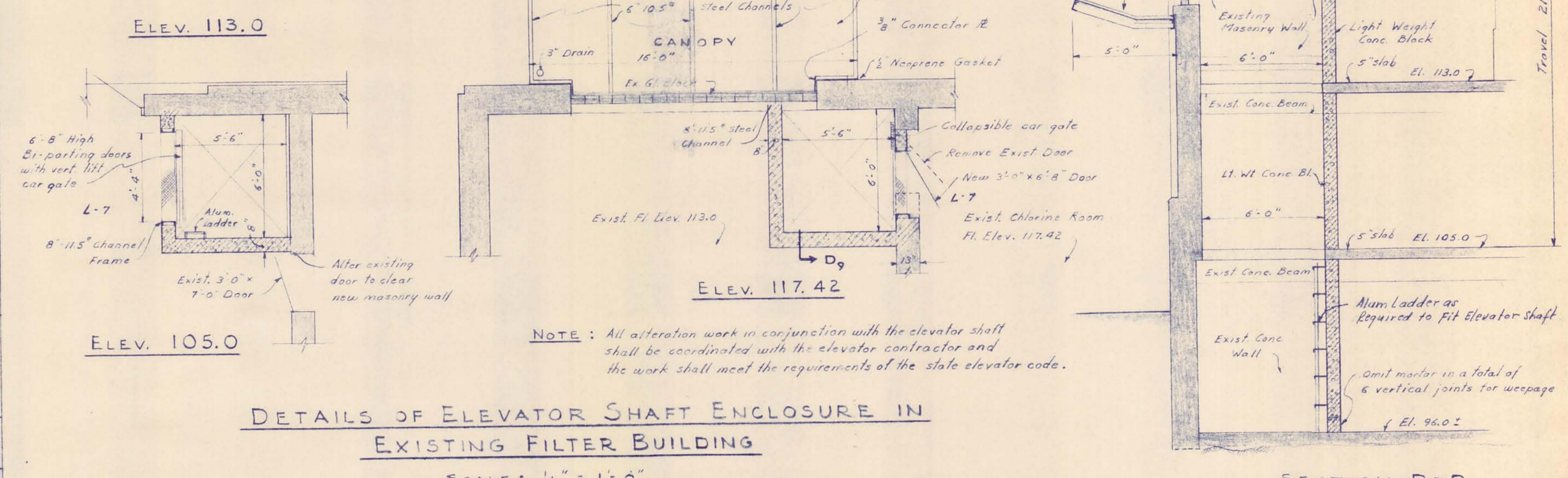
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522



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



DOOR FRAME DETAILS
SCALE: 1" = 1'-0"



DETAILS OF ELEVATOR SHAFT ENCLOSURE IN EXISTING FILTER BUILDING
SCALE: 1/4" = 1'-0"

ROOM FINISH SCHEDULE					REMARKS
ROOM	FLOOR	BASE	WALLS	CEILING	
FILTER OPERATING GALLERY	Quarry Tile *	Quarry Tile * 5" High Cove	Glazed Struct. Tile & Exposed Conc. Painted	Painted Conc.	All exposed conc. above floors to be epoxy coated up to bottom of conc. beams. Beams to be painted same as ceiling.
FILTER TANKS	Walkways - Spigot Monolithic Conc. with Hardener	None	Do. †	Do.	Do.
CHEMICAL FEED ROOM	Finished Conc. with Hardener	None	Epoxy Finish Lt. Wt. Conc. Bl. & Conc. Columns	Do.	Do.
STAIR HALL	Quarry Tile	Struct. Tile Cove	Glazed Struct. Tile	Painted Plaster	
CHEMICAL HOPPER ROOM	Finished Conc. with Hardener	None	Epoxy Finish Lt. Wt. Conc. Bl.	Painted Plaster	
LOCKER ROOM AND JANITOR'S CLOSET	Quarry Tile	Struct. Tile Cove	Glazed Struct. Tile	Do.	Wood shelving, nails & hook strips painted as specified.
STORAGE ROOM	Finished Conc. with Hardener	None	Painted Lt. Wt. Conc. Bl.	Do.	Depress floor 1/2" for future floor covering
LOW SERVICE PUMP STATION	Do.	None	Do.	Painted Conc.	All exposed concrete column surfaces shall be painted same as walls. Exposed ceiling beams shall be painted same as ceiling.
		* See Alternate Proposal A-2	* See Alternate Proposal A-2	† See Alternate Proposal A-1	

DOOR SCHEDULE						REMARKS
MARK	LOCATION	DOOR SIZE	TYPE	FRAME	GLASS SIZE	
D-1	Exterior - South Wall	2-3'-0" x 7'-2" x 1 3/4"	Full Flush Steel	Pressed Steel	23 3/8" x 36 3/8"	1/4" plate Glass - Special Head Filler - Combination Storm/Screen Doors
D-2	Interior - 2nd Floor, N End Stair Hall	2-3'-0" x 7'-2" x 1 3/4"	Do.	Do.	23 3/8" x 36 3/8"	Frame into new masonry filled opening of existing wall - 1/4" Plate Glass
D-3	Interior - North Wall, Chem. Hopper Room	2-3'-0" x 7'-2" x 1 3/4"	Do.	Do.	23 3/8" x 36 3/8"	Do.
D-4	Interior - East Wall, Chem. Hopper Room	3'-0" x 7'-2" x 1 3/4"	Do.	Do.	23 3/8" x 36 3/8"	Fixed Louver below glass panel - 1/4" plate glass
D-5	Interior - Janitors Closet - 2nd Floor	2'-8" x 7'-2" x 1 3/4"	Do.	Do.	None	Fixed Louver top and bottom
D-6	Interior - Locker Room - 2nd Floor	2'-6" x 7'-2" x 1 3/4"	Do.	Do.	None	Do.
D-7	Interior - Storage Room	3'-0" x 7'-0" x 1 3/4"	Do.	Do.	25 1/2" x 69 1/4"	Fixed Transom & Side Light - See Elev. & Details Sheets # 3 & 4 Lt. Bl.
D-8	Interior - 1st Floor Chem. Feed Room	3'-0" x 7'-2" x 1 3/4"	Do.	Do.	23 3/8" x 36 3/8"	Fixed Louver below glass panel - Special Head Filler - 1/4" Plate Glass
D-9	Interior - Basement - Pipe Gallery	2-3'-0" x 7'-2" x 1 3/4"	Do.	Steel Channel	None	
D-10	Exterior - Low Service Pump Sta.	2-2'-6" x 7'-2" x 1 3/4"	Do.	Pressed Steel	Do.	Combination Alum. Storm & Screen Doors
D-11	Do.	3'-0" x 7'-2" x 1 3/4"	Do.	Do.	Do.	Combination Alum. Storm & Screen Door
D-12	Interior - W. Wall Filter Oper. Gallery	3'-0" x 7'-2" x 1 3/4"	Do.	Do.	Do.	Special Head Filler - Provide special anchors into conc. column.
D-13	Do.	3'-0" x 7'-2" x 1 3/4"	Do.	Do.	Do.	Special Head Filler - Provide 1 safety chain
D-14	Do.	3'-0" x 7'-2" x 1 3/4"	Do.	Do.	Do.	same as D-13 + Provide special anchors into conc. column

LINTEL SCHEDULE				REMARKS
MARK	DESCRIPTION	SECTION	REMARKS	
L-1	1-6" x 4" x 5/16" L (S.L.H.)		Angle anchored to Conc. beam **	
L-2	1-8 WF 17 Beam + 1-11" x 5/16" R		R welded to beam **	
L-3	2-3 1/2" x 5" x 5/16" L3 (S.L.H.)		Angles welded back to back	
L-4	2-3 1/2" x 3 1/2" x 5/16" L5		Angles welded back to back	
L-5	1-3 1/2" x 4" x 5/16" L (S.L.H.) + 1-4" x 7" x 3/8" L (L.L.H.)		Angles back to back	
L-6	Reinforced Conc.		Beam or wall opening	
L-7	Precast Lt. Wt. Conc.		4 - 2" Reinforcing rods	

WINDOW SCHEDULE														
MARK	QUAN.	TYPE	LOCATION	STRUCT. OP'NG.	GLASS BLOCK REQUIRED	SASH UNITS	SASH OPENING IN GLASS BLOCK	GLASS TYPE	MULLIONS	SWING OUT VENTS	SWING IN VENTS	SCREEN UNITS	SASH OPERATOR	REMARKS
W-1	6	Matching Type Glass Block and Insert Type Alum. Sash	Exterior - Main Floor W. & S. Walls	8'-2" x 4'-8 3/4"	76	1	2'-8 1/4" x 1'-4 1/4" (4 Gl. Bl. x 2 Gl. Bl.)	Thermal	None	1	None	1	Underscreen Stay Bar	Sash Unit Framed into Glass Block. See Details Sh. # 4 & 5. Match block as nearly as possible.
W-2	5	Do.	Main Fl. East Wall	8'-2" x 6'-0 3/4"	100	1	Do.	Do.	None	1	None	1	Do.	Do. Sash Unit in Locker Room to be Obscure Glass
W-3	3	Do.	Second Fl. West Wall	8'-2" x 5'-4 3/4"	88	1	Do.	Do.	1	Do.	1	Do.	Do.	Do.
W-4	5	Alum. Awning & Hopper Sash	Second Fl. E. & S. Walls	8'-0 1/2" x 5'-4"	None	2	None	Do.	1	3 per sash	1 per sash	2 per sash	As Specified	Combination Aluminum Awning Sash and Hopper Sash - pole Operators at Stairs
W-5	1	Clear View Glass Block	Interior - Chem. Fd. Rm.	5'-4 3/4" x 4'-8 3/8"	56	None	Do.	None	None	None	None	None	None	Glass Block at Jambs and Head set into Alum. Channel See Details Sh. # 4
W-6	1	Do.	Do.	5'-4 3/4" x 4'-0 3/8"	48	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Glass Block at Jambs and Head set into Alum. Channel See Details Sh. # 4
W-7	2	Do.	Interior - Filter Gallery	6'-0 1/2" x 6'-8 3/8"	90	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
W-8	1	Do.	Do.	5'-4 3/4" x 6'-8 3/8"	80	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
W-9	1	Do.	Do.	12'-0" x 6'-8 3/8"	180	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.

† See alternate proposal A-1. †† Zero type mullion

ARCHITECTURAL SYMBOLS

- Earth in section
- Concrete in section (Conc.)
- Stone in section and elevation
- Face brick in large scale & masonry in small scale sections
- Glazed structural tile in section (5.5.T or Gl. St. Tile)
- Back-up brick in large scale
- Light weight concrete block (Lt. Wt. conc. Bl. or L.W.B.)
- Wood in large scale sections and elevations (Wd.)
- Rigid Insulation in large scale sections
- Structural steel in small scale sections
- Structural steel in large scale sections
- Aluminum in large scale sections
- Oakum and caulking in large scale sections
- Caulking in small scale sections
- Glass Block expansion strip
- Metal lath and plaster
- Loose insulation

DETAIL SYMBOL

Detail Number
Reference Sheet

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

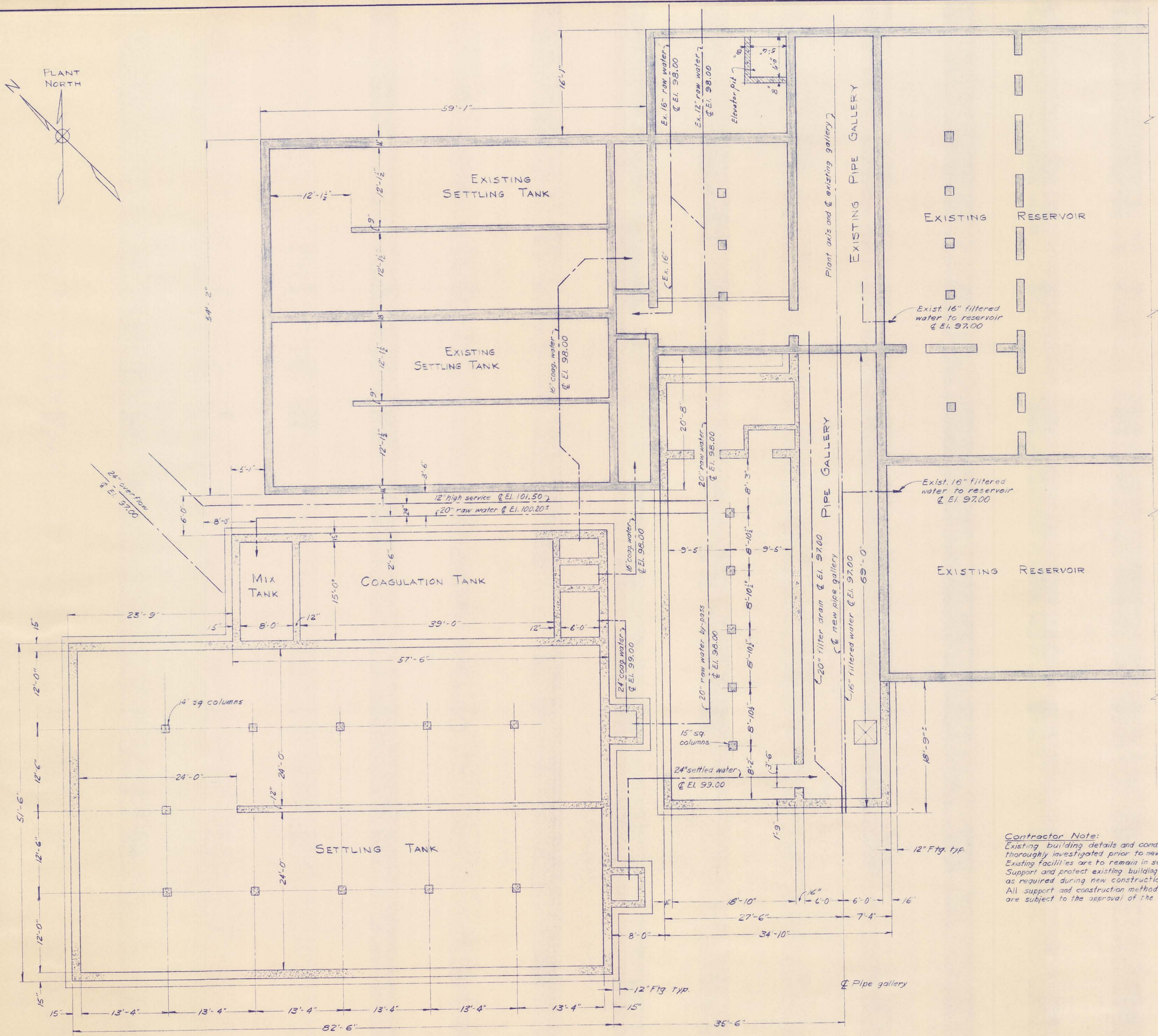
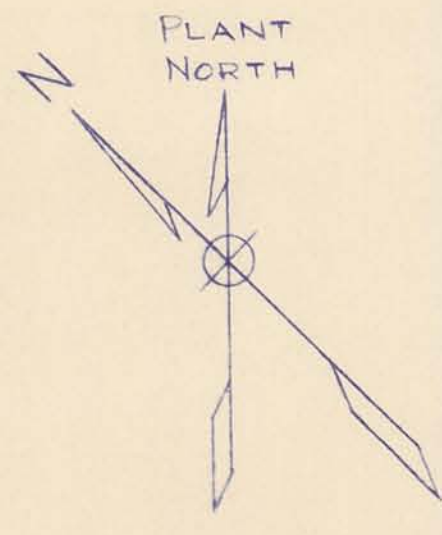
SCALE AS NOTED
DRAWN G.W.C. TRACED E.M.G. CHECKED J.L.C.
ISSUE NATURE OF REVISION DATE

ALPENA, MICHIGAN
ADDITIONS TO WATER TREATMENT PLANT AND
LOW SERVICE PUMPING STATION

**ARCHITECTURAL
SCHEDULES
MISCELLANEOUS DETAILS**

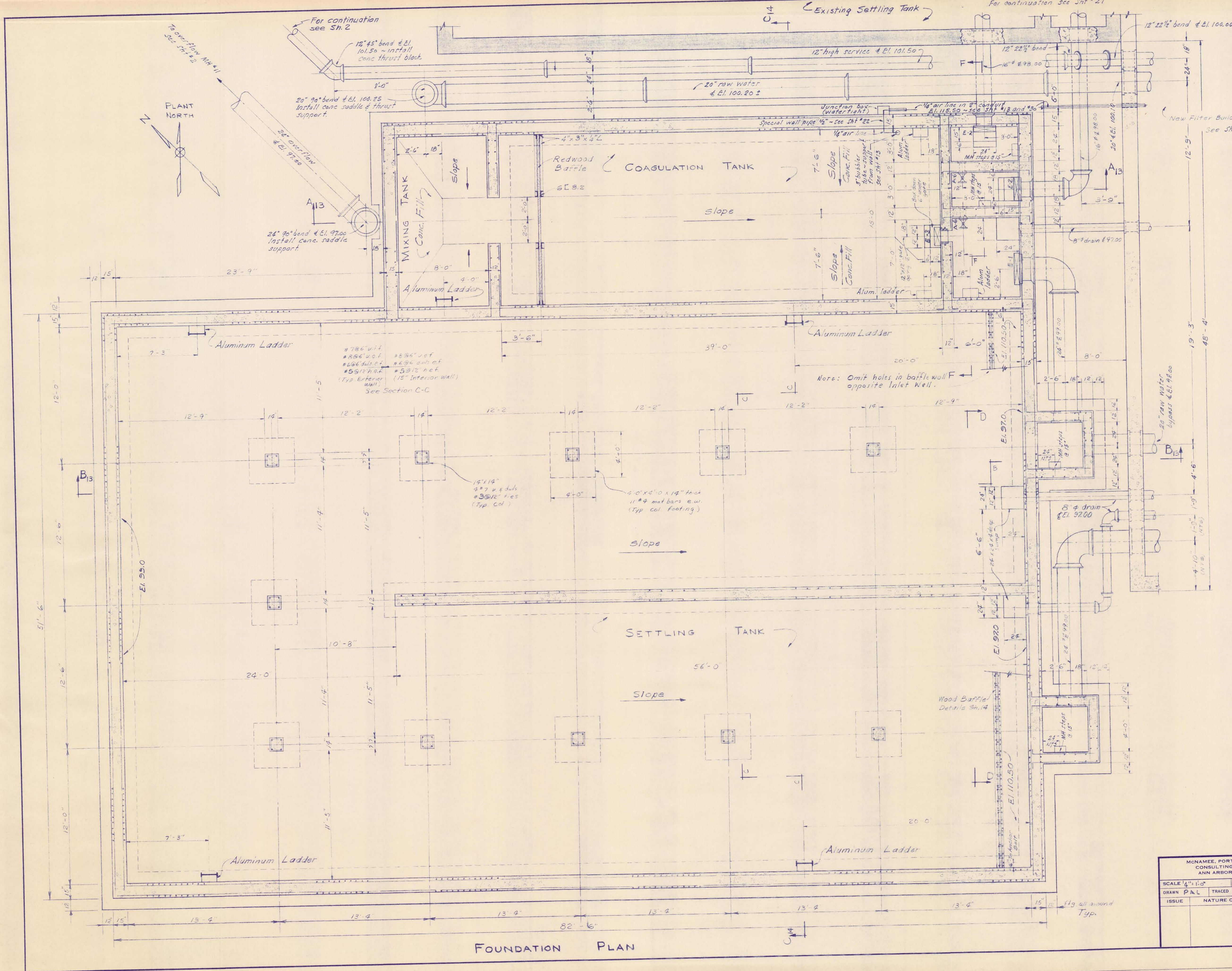
CONTRACT 1965 W-2
SHEET 9 OF 33

DRAWING NUMBER
ADDITIONS
WATER TREATMENT
PLANT 1965
9 OF 33

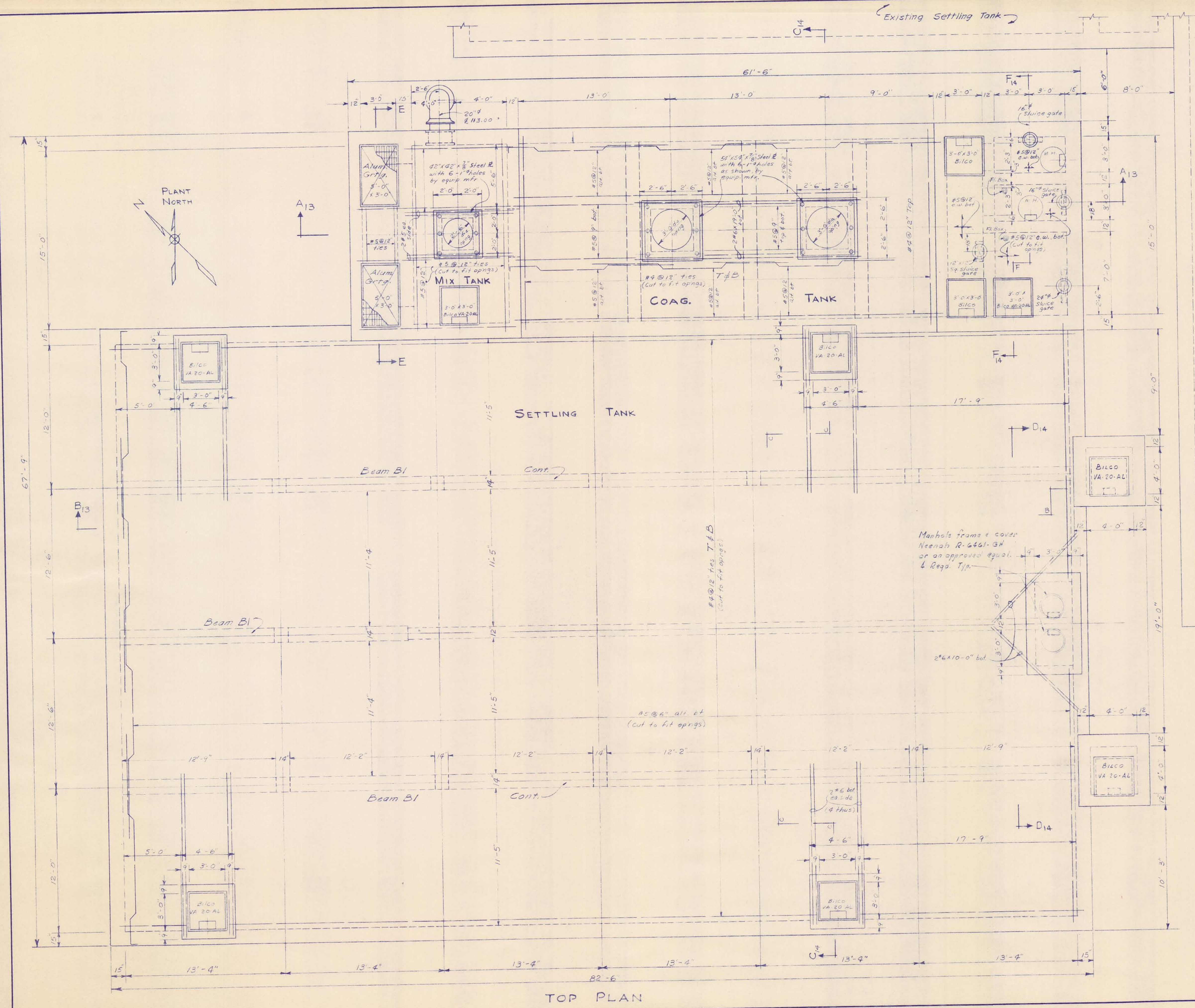


Contractor Note:
 Existing building details and conditions shall be thoroughly investigated prior to new construction. Existing facilities are to remain in service. Support and protect existing building and structure as required during new construction. All support and construction methods and details are subject to the approval of the engineer.

MCMAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN				ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE 1" = 10'	ISSUED	MARCH 1965		FOUNDATION PLAN	
DRAWN P.A.L.	TRACED R.F.G.	CHECKED J.C.S.	DATE		
ISSUE	NATURE OF REVISION		DATE		
				CONTRACT	SHEET
				1965	10
				W-2	OF 33

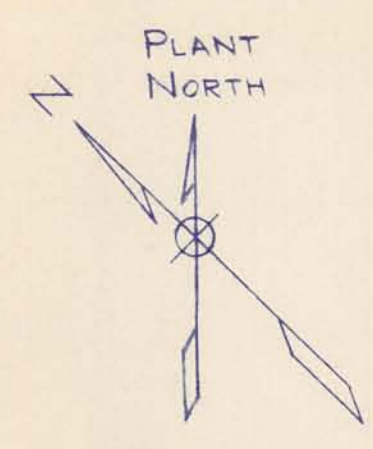


McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN				ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE 1/4" = 1'-0"	ISSUED MARCH 1965		MIX, COAGULATION AND SETTLING TANK FOUNDATION PLAN		
DRAWN PAL	TRACED REG	CHECKED JCS	DATE		
ISSUE	NATURE OF REVISION		DATE		
CONTRACT 1965 W-2					SHEET 11 OF 33



New Filter Building Additions
See Sh. # 15-18

Existing Settling Tank



TOP PLAN

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE 1/4" = 1'-0"	ISSUED MARCH 1965	MIX, COAGULATION AND SETTLING TANK TOP PLAN		
DRAWN P.A.L.	TRACED R.E.G.			CHECKED J.C.S.
ISSUE	NATURE OF REVISION			DATE
CONTRACT 1965 W-2	SHEET 12 OF 33			

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6522

DRAWING NUMBER

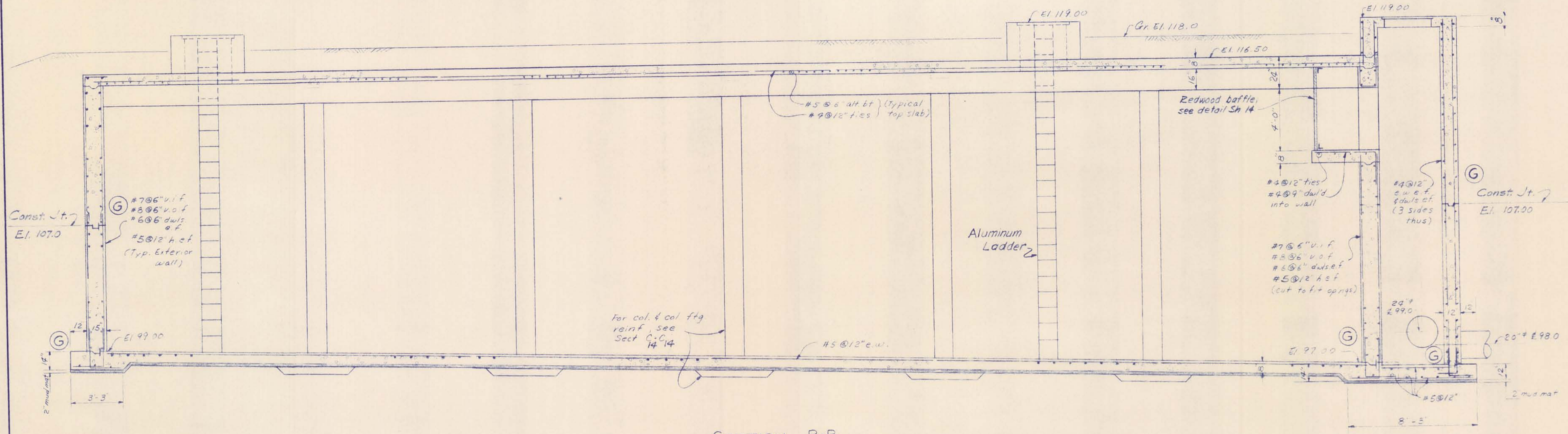
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REORDER BY PART NUMBER 6522

ADDITIONS
WATER TREATMENT
PLANT 1965
13 OF 33

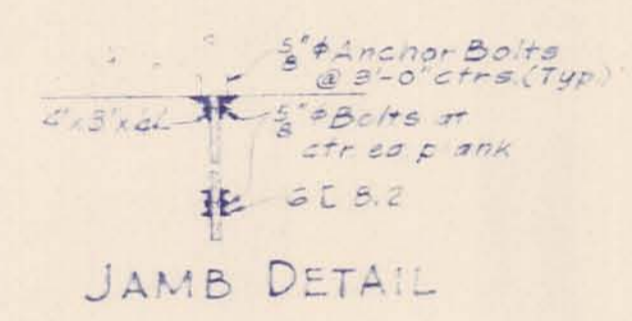
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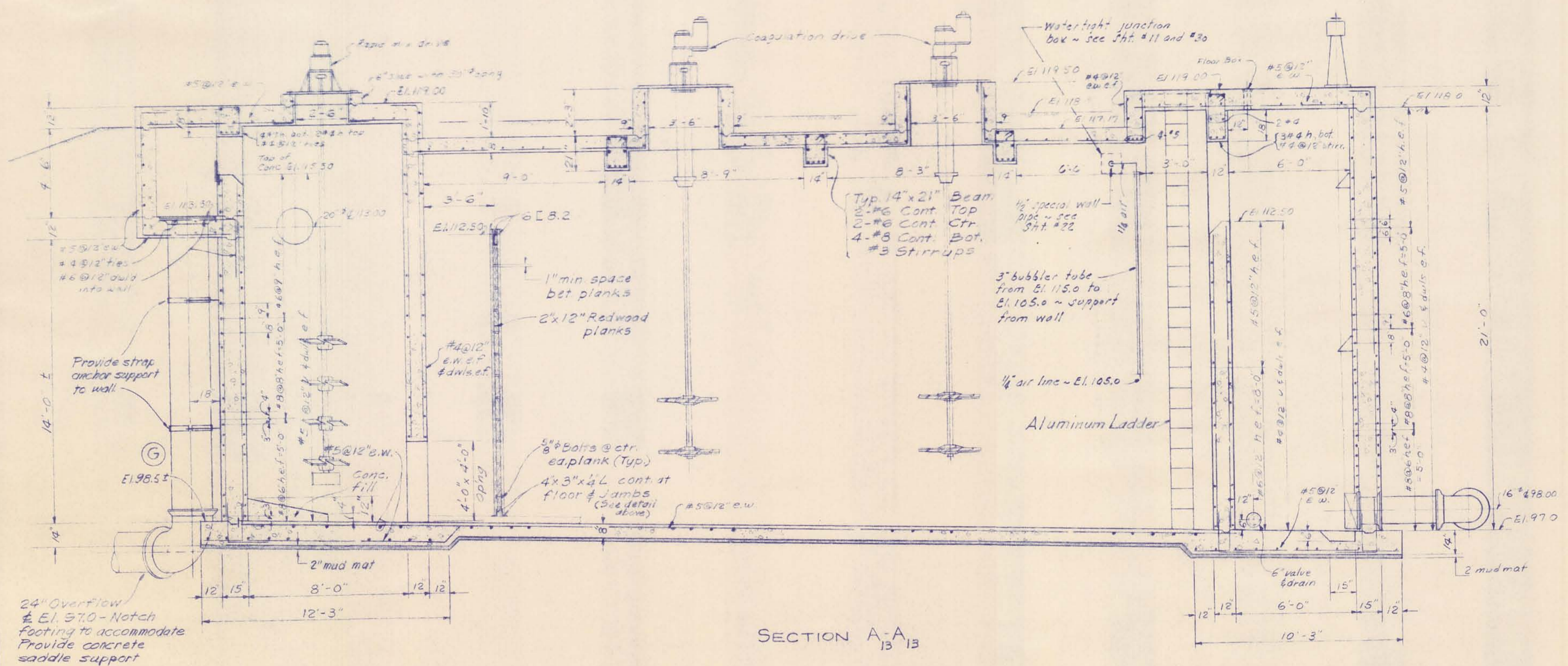
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REORDER BY PART NUMBER 6522



SECTION B-B
13 13

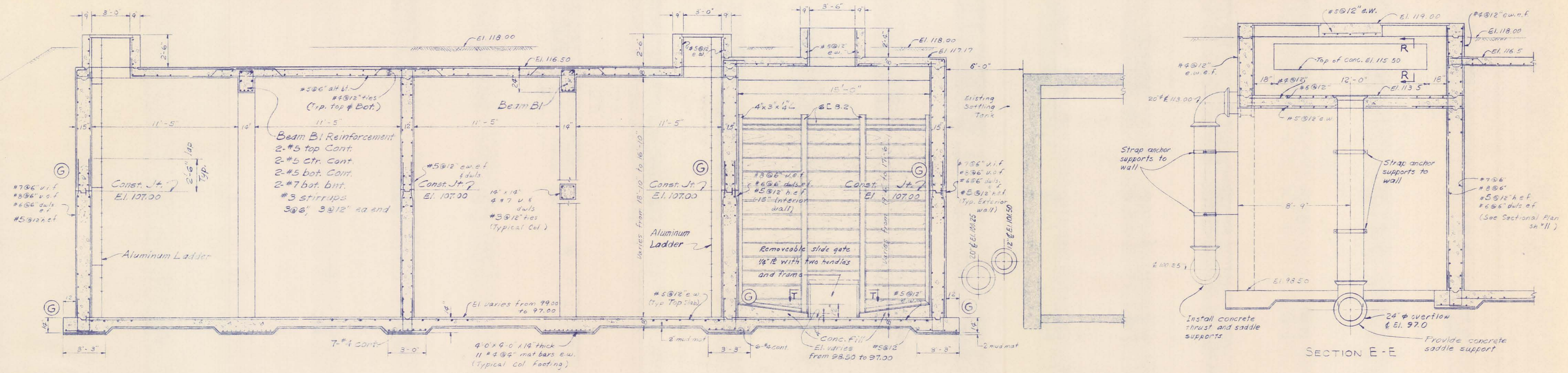


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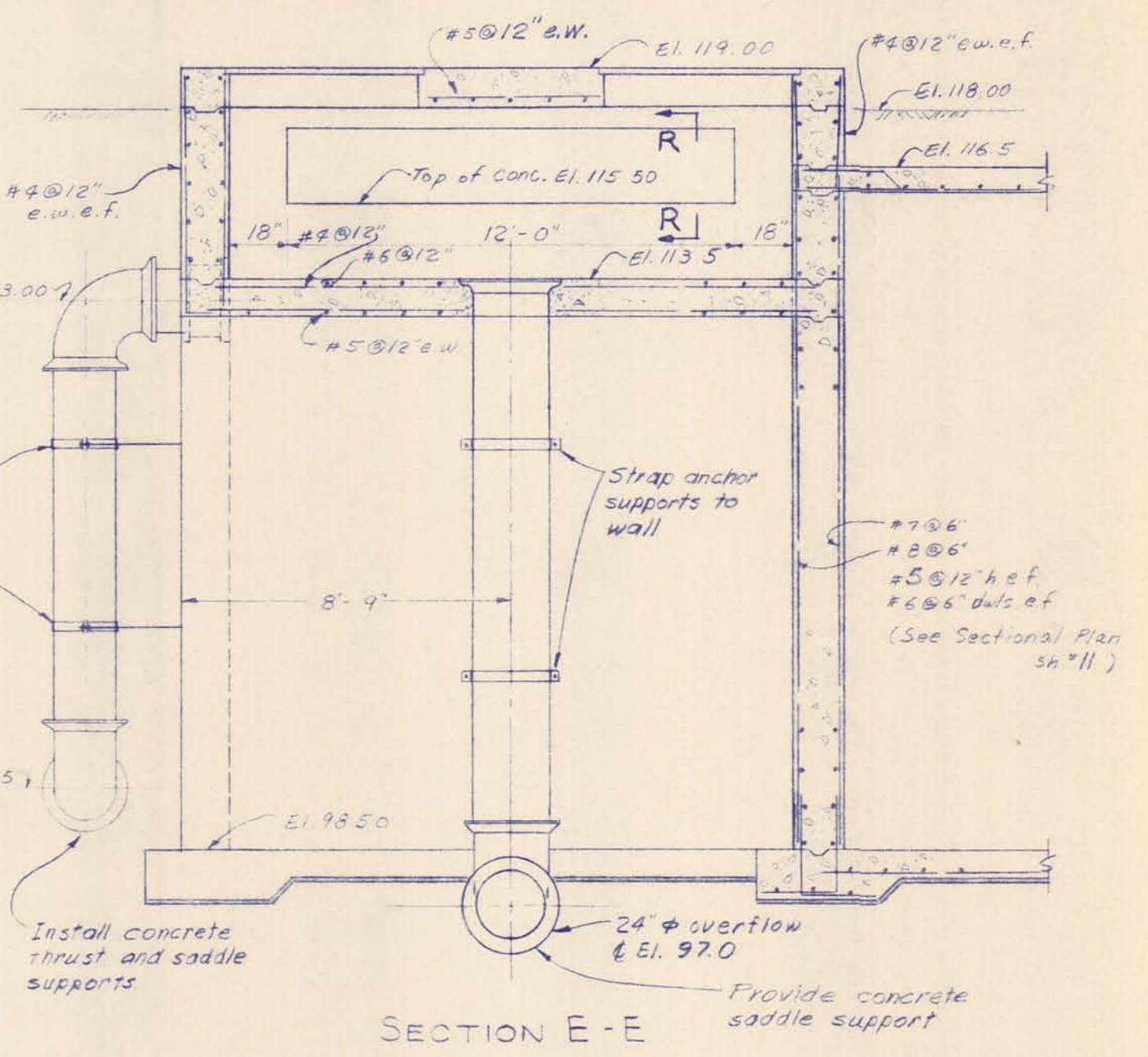


SECTION A-A
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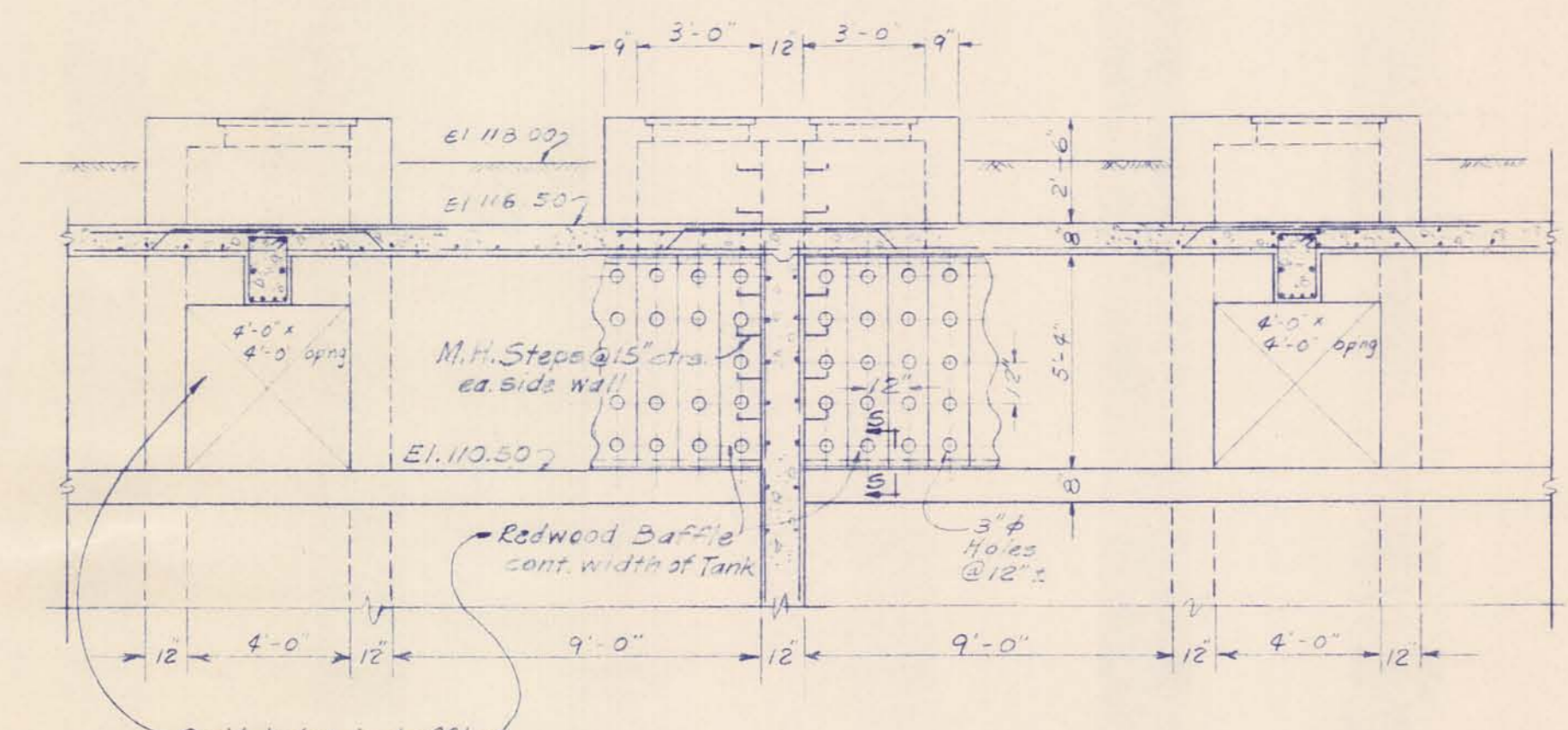
MCNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
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ISSUE	NATURE OF REVISION	DATE			
CONTRACT 1965 W-2			SHEET 13 OF 33		



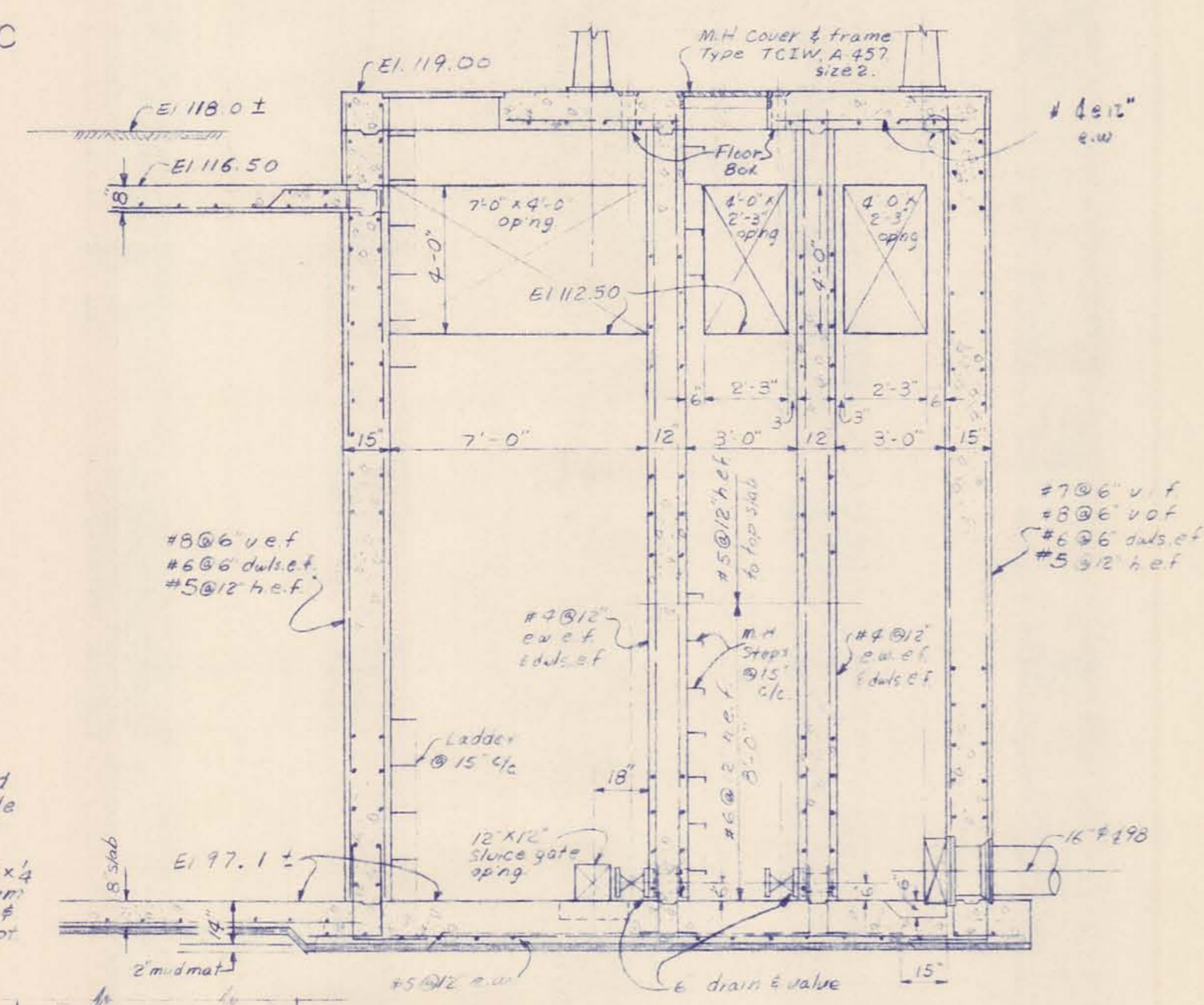
SECTION C-C



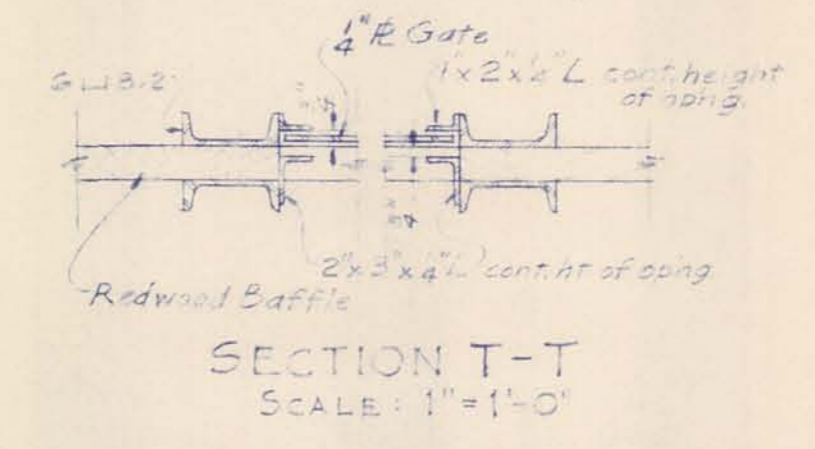
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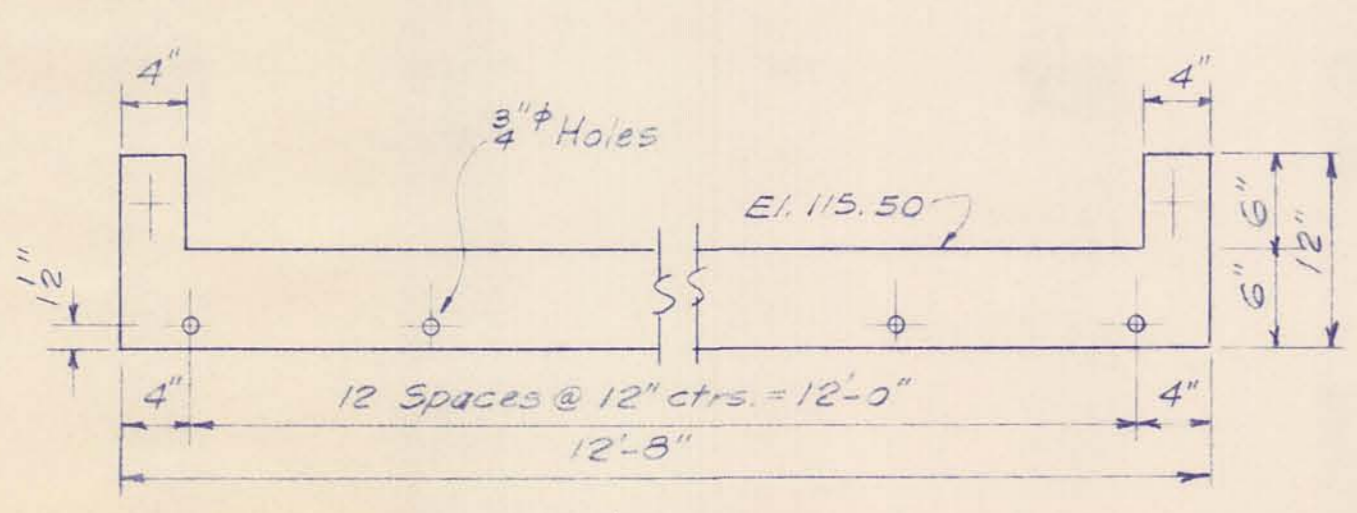
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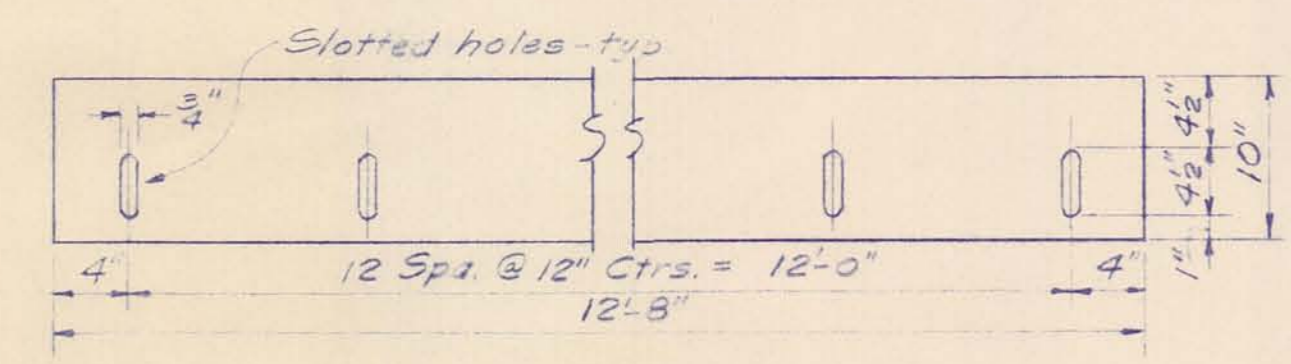
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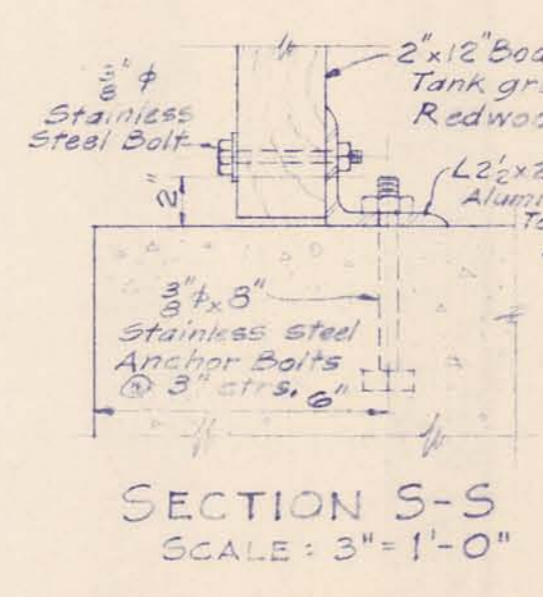
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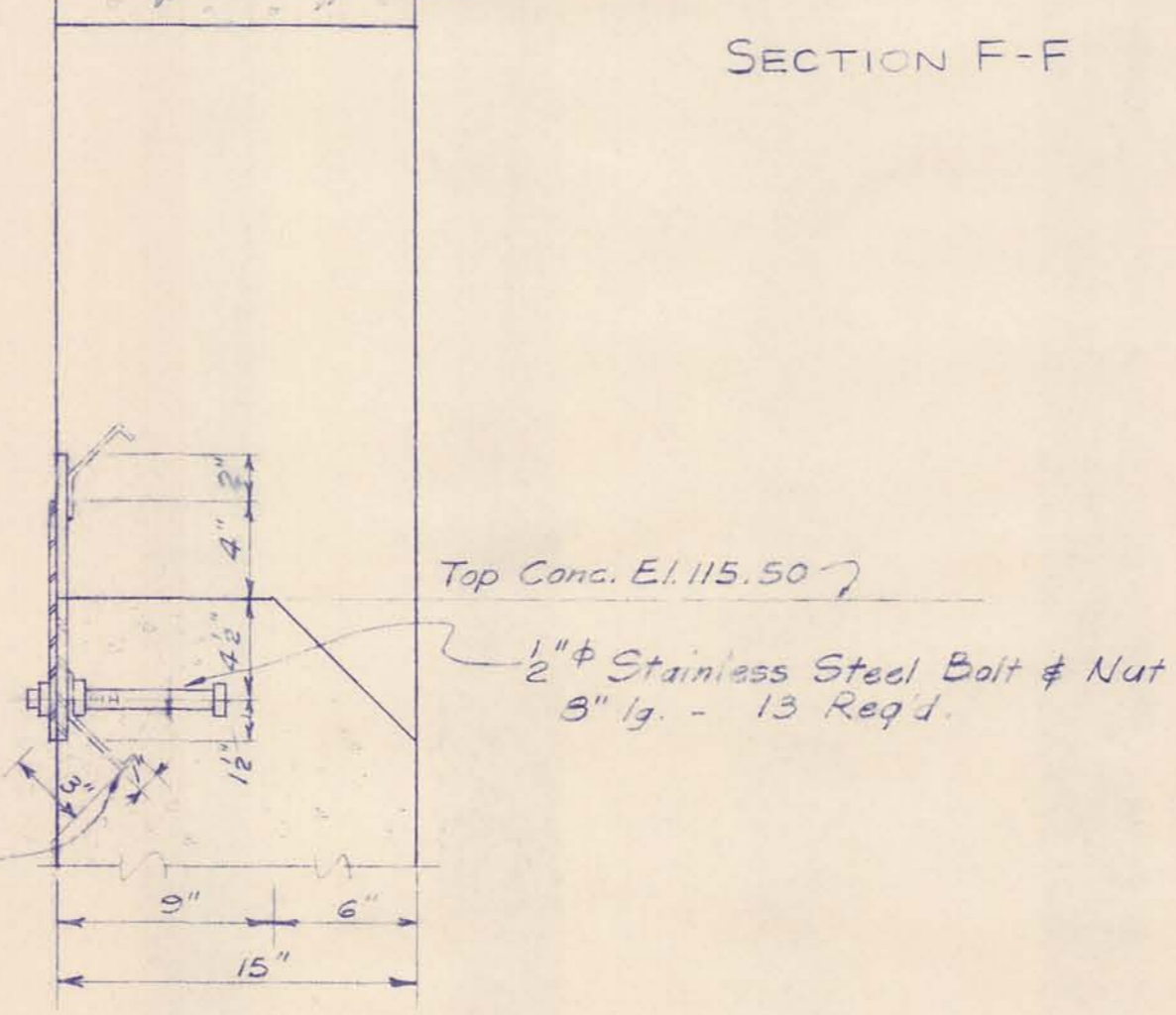
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WEIR & DETAILS
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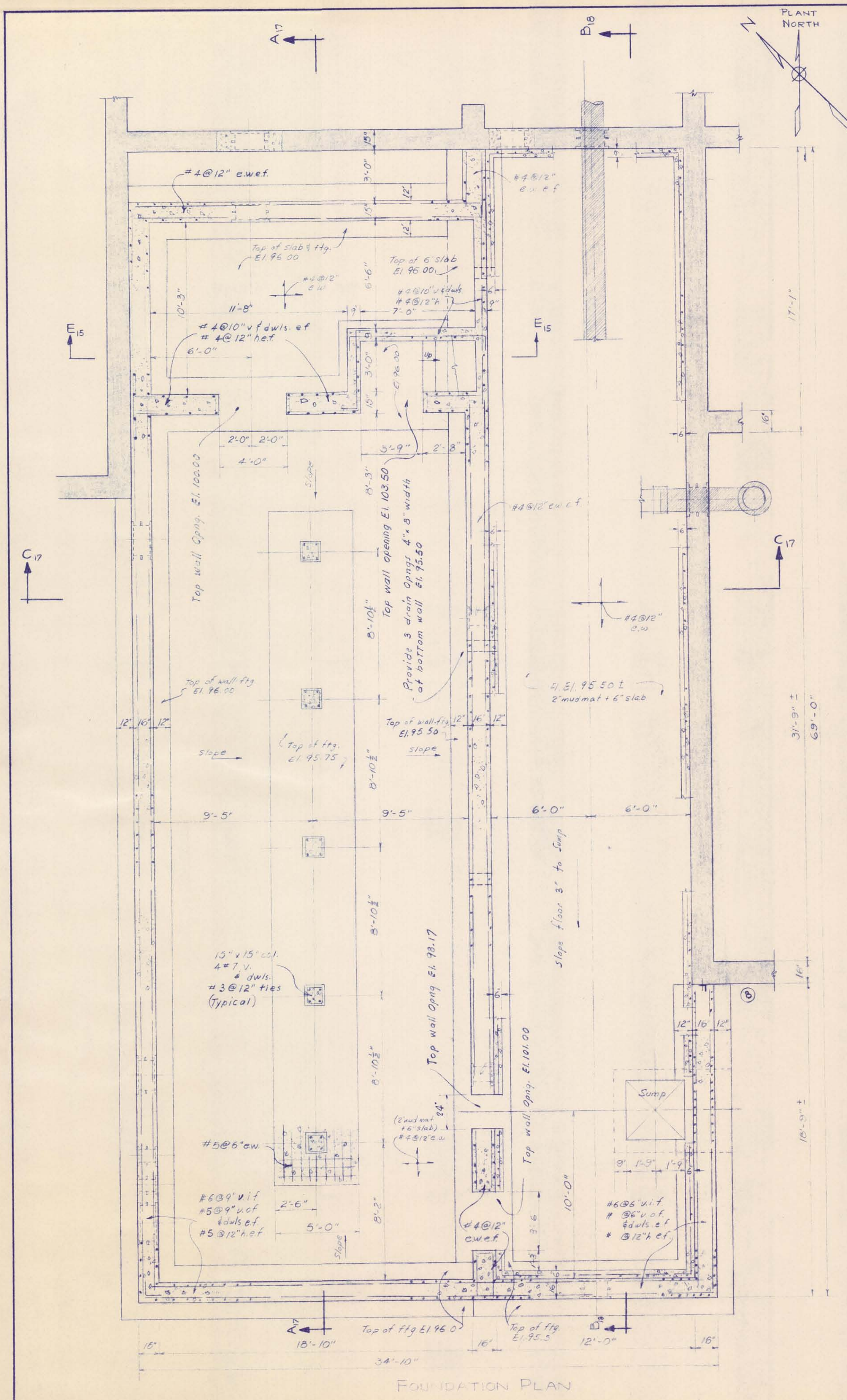


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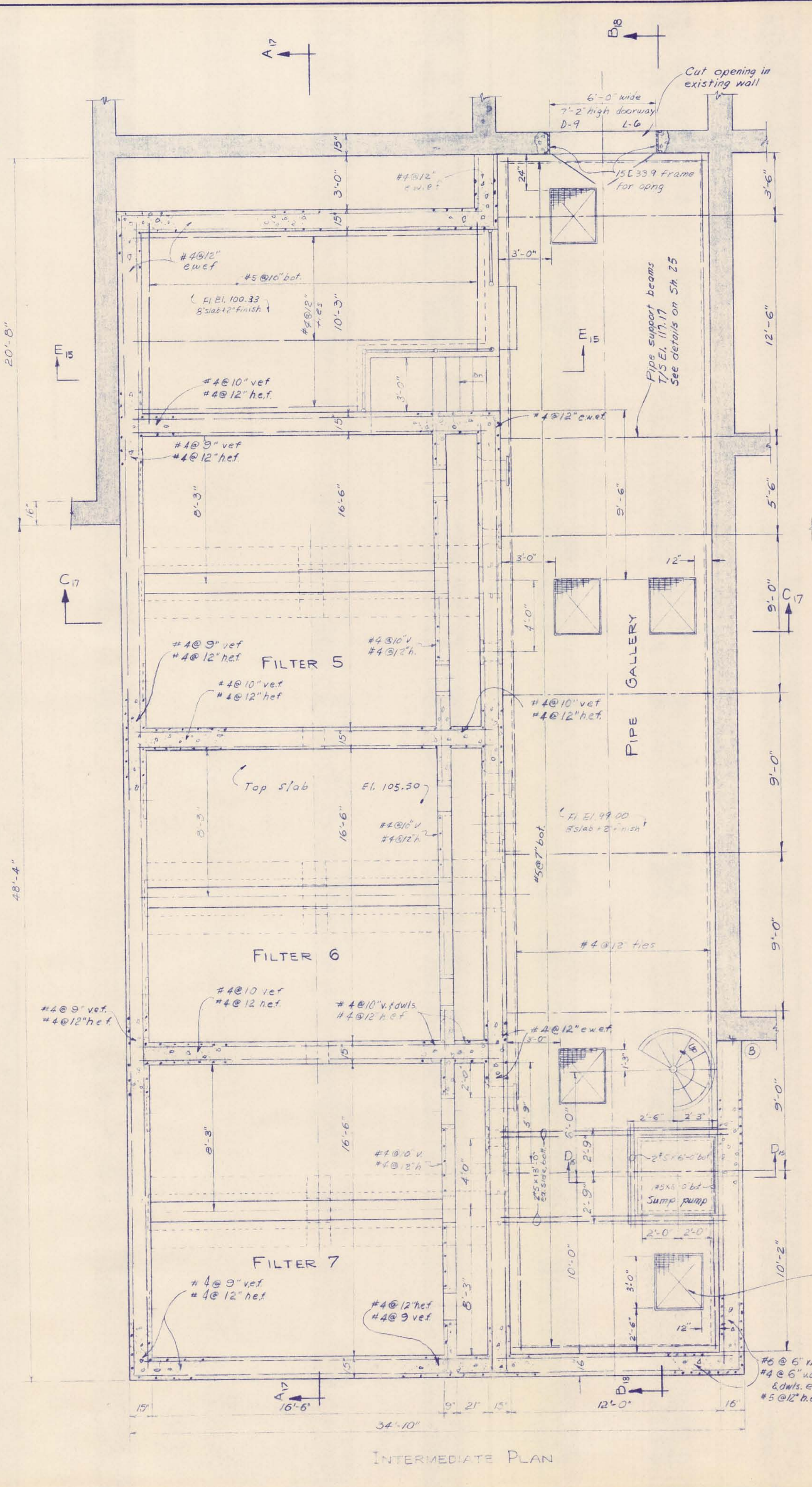


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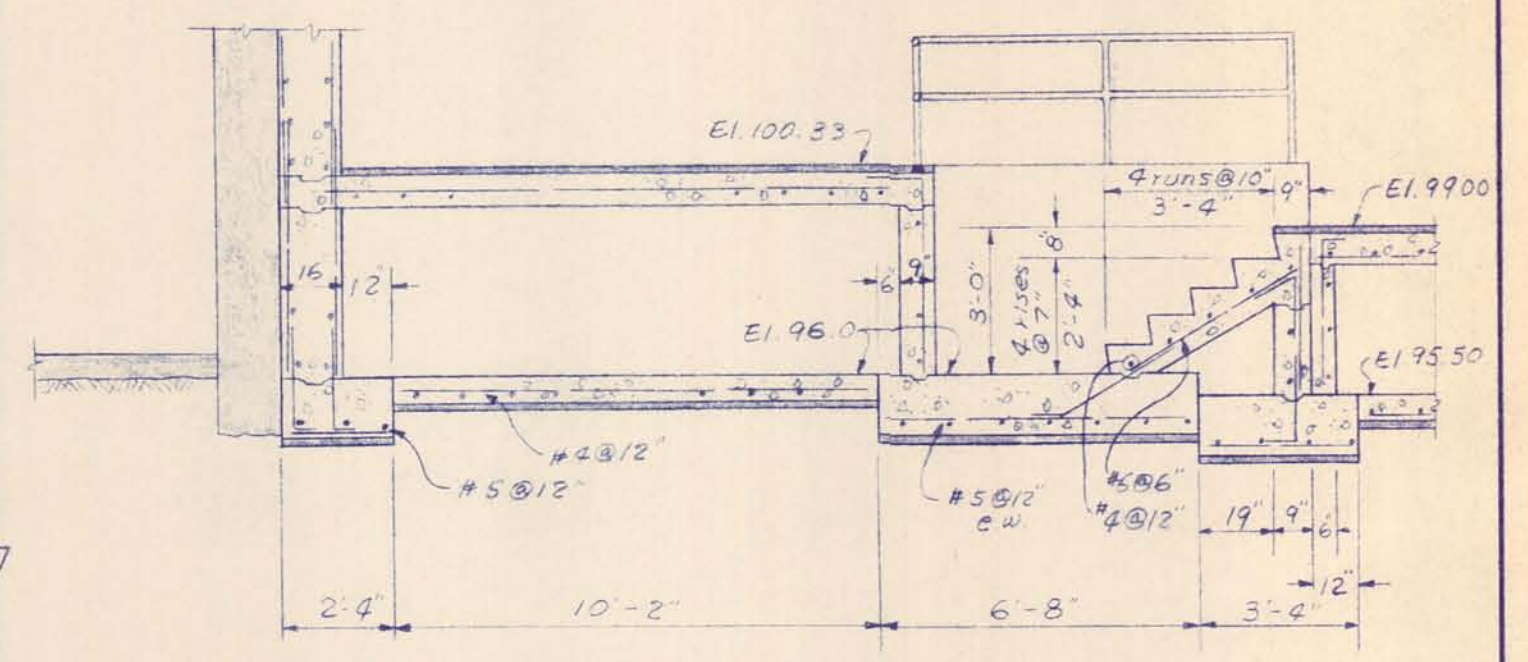
McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
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DRAWN PAL	TRACED REG	CHECKED JCS	CONTRACT	1965	SHEET
ISSUE	NATURE OF REVISION	DATE	W-2		14 OF 33



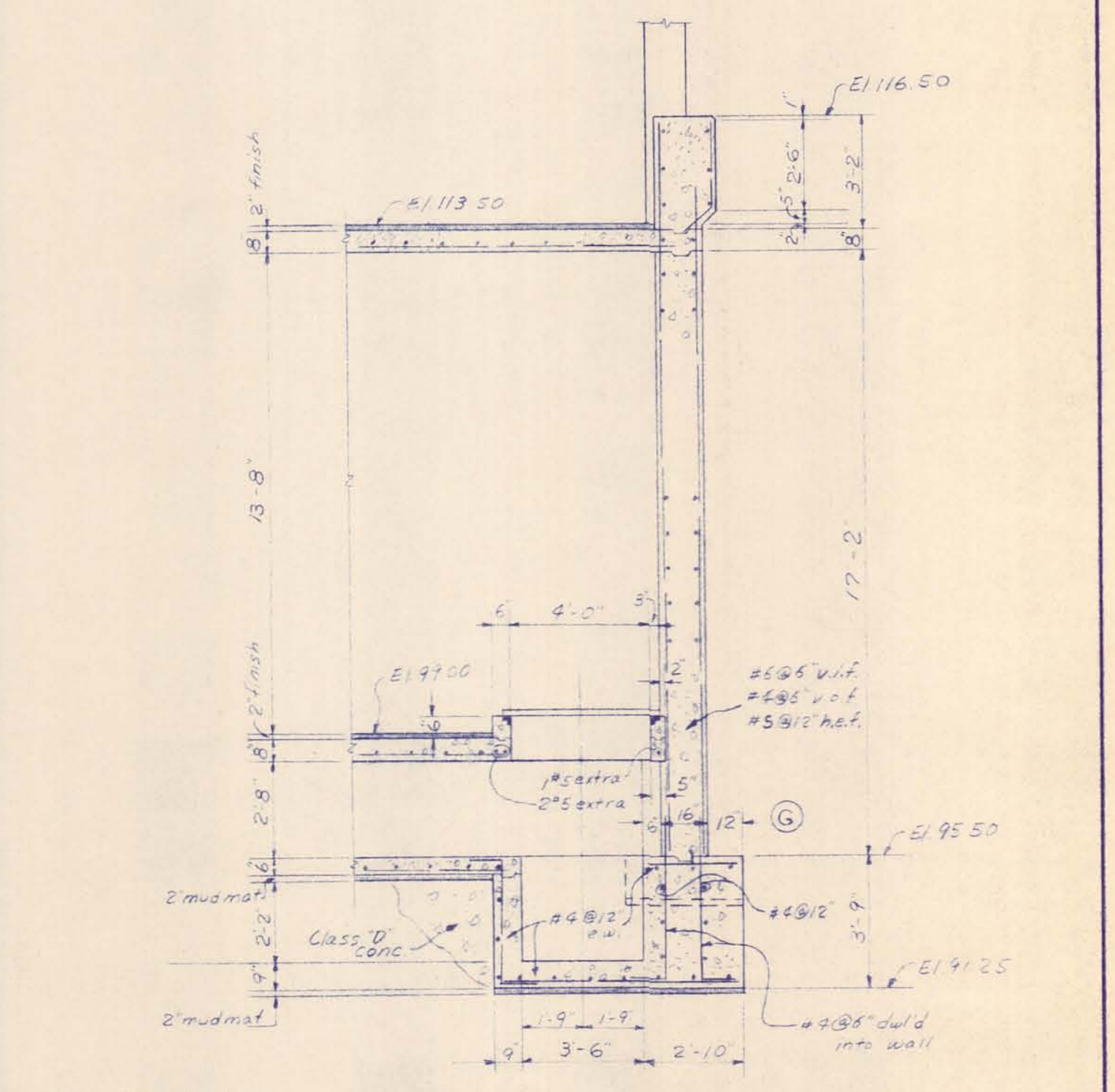
FOUNDATION PLAN



INTERMEDIATE PLAN

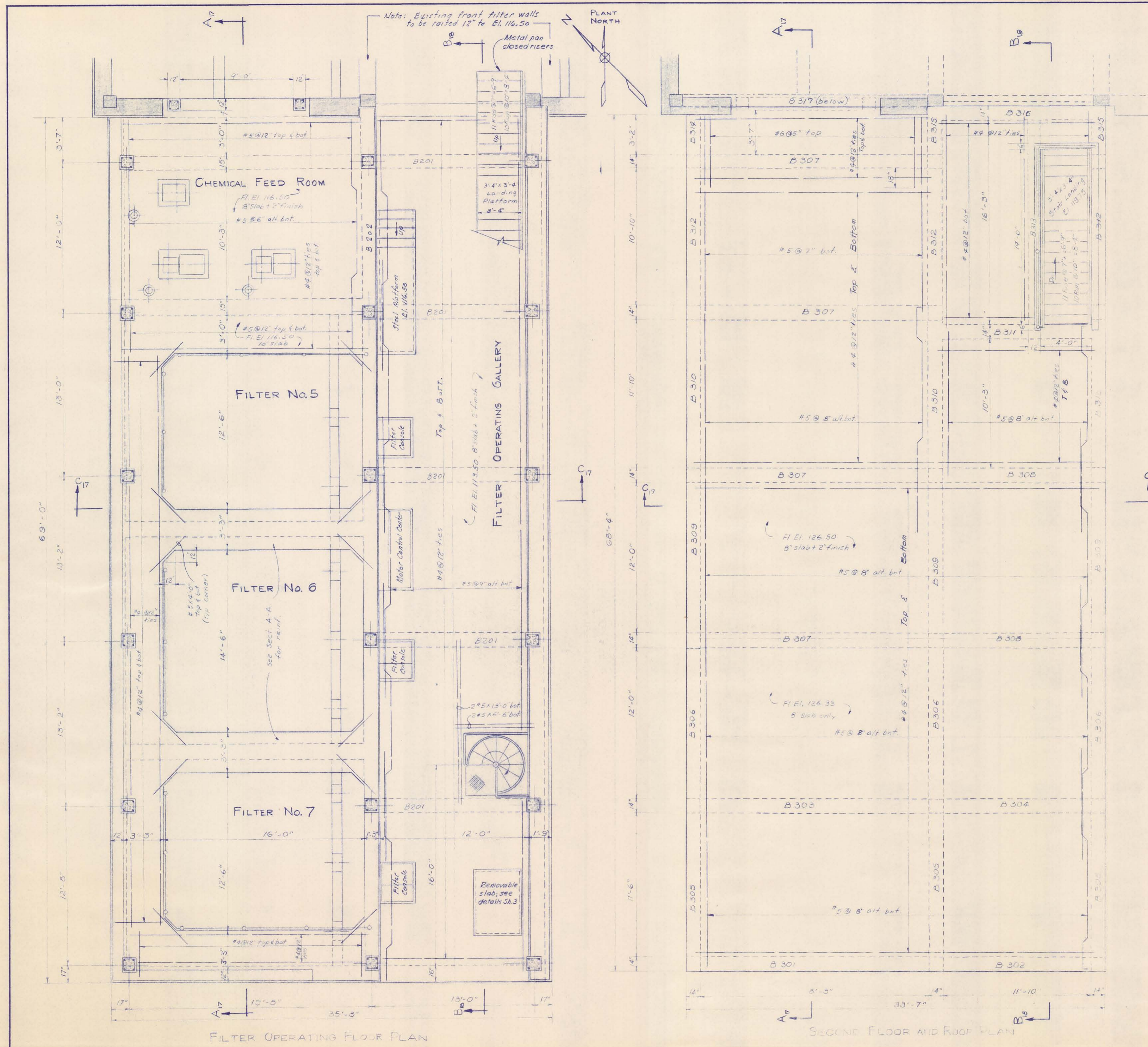


SECTION E15-E15



SECTION D-D

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DRAWN P.A.L.	TRACED R.E.G.	CHECKED J.C.S.			
ISSUE	NATURE OF REVISION	DATE			
			CONTRACT	SHEET	
			1065	15	
			W-2	OF 33	



BEAM SCHEDULE

Mark	No.	Size	Clear Span	Bottom Bars		Top Bars		U-Stirrups					
				Straight	Truss	Straight	Truss	No.	Size	Spacing	Remark		
B301	1	14	27	18'-3"	2#7	1#9	Cont.	2#5	Cont.	10	#3	2@6", 3@12"	ea. end
B302	1	14	27	11'-10"	2#7	1#9	Cont.	2#5	Cont.	8	#3	2@6", 2@12"	-
B303	1	14	27	18'-3"	2#7	2#5	Cont. Ctr.	2#5	Cont.	10	#3	2@6", 3@12"	-
B304	1	14	27	11'-10"	2#7	2#5	Cont. Ctr.	2#5	Cont.	8	#3	2@6", 2@12"	-
B305	3	14	27	11'-6"	2#5	2#5	Cont.	2#5	Cont.	10	#3	2@6", 3@12"	-
B306	3	14	27	12'-0"	2#5	2#5	Cont.	2#5	Cont.	10	#3	2@6", 3@12"	-
B307	4	14	27	18'-3"	4#9	2#6	2#9	4#9	Cont.	44	#3	4@8", 4@6", 3@12"	Sets of 2 ea. end
B308	2	14	27	11'-10"	4#9	2#6	2#9	4#9	Cont.	44	#3	4@8", 4@6", 3@12"	Sets of 2 ea. end
B309	3	14	27	12'-0"	2#7	2#6	Cont. Ctr.	2#6	Cont.	10	#3	2@6", 3@12"	ea. end
B310	3	14	27	11'-10"	2#7	2#6	Cont. Ctr.	2#6	Cont.	8	#3	2@6", 3@12"	-
B311	1	14	27	11'-10"	4#6	2#6	Cont. Ctr.	2#6	Cont.	12	#3	3@12"	Whole Span
B312	3	14	27	10'-10"	2#7	2#6	Cont. Ctr.	2#6	Cont.	10	#3	2@6", 3@12"	ea. end
B313	1	12	16	16'-3"	2#7	2#6	Cont. Ctr.	2#5	Cont.	12	#3	3@6", 3@12"	-
B314	1	14	27	3'-2"	2#7	2#5	Cont. Ctr.	2#5	Cont.	4	#3	@12"	Whole Span
B315	2	14	30	2'-8"	2#7	2#5	Cont. Ctr.	2#5	Cont.	4	#3	@12"	Whole Span
B316	1	As shown	11'-10"										
B317	1	12	15	9'-0"	4#6			2#6		9	#3	@12"	Whole Span
B201	5	14	18	12'-0"	1#9	2#5	Cont. Ctr.	2#6		12	#3	3@6", 3@12"	ea. end
B202	1	15	24	10'-8"	2#6	2#5	Cont. Ctr.	2#6	Cont.	14	#3	3@6", 3@12"	ea. end
B101	4	15	36	8'-9"	2#9	2#6	Cont. Ctr.	2#7	Cont.	12	#3	3@4", 3@10"	ea. end

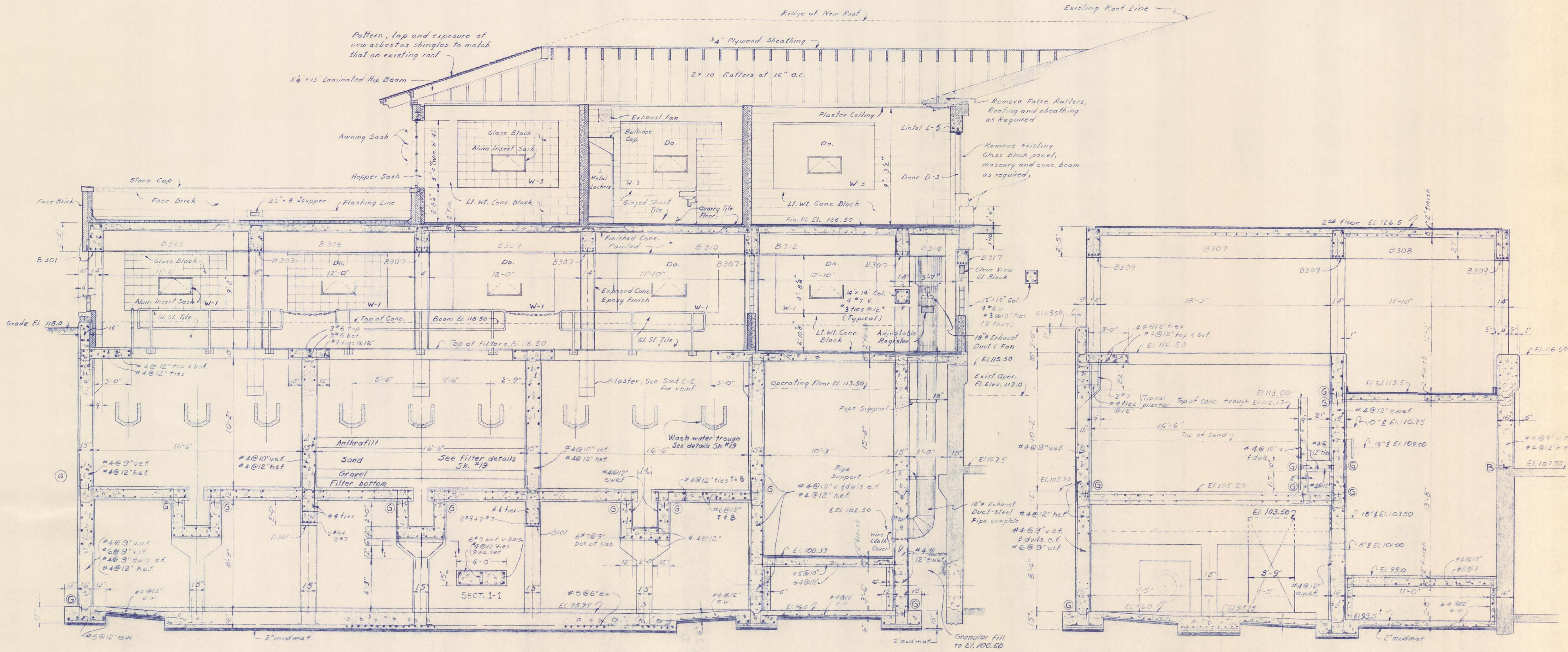
MCMAMEE, PORTER AND SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

ALPENA, MICHIGAN
ADDITIONS TO WATER TREATMENT PLANT AND
LOW SERVICE PUMPING STATION

OPERATING BUILDING ADDITION
OPERATING FLOOR PLAN
SECOND FLOOR & ROOF PLAN

SCALE: 1/4" = 1'-0" ISSUED: MARCH 1965
DRAWN: P.A.L. TRACED: R.E.G. CHECKED: J.C.S.
ISSUE: NATURE OF REVISION: DATE

CONTRACT: 1965 W-2
SHEET: 16 OF 33

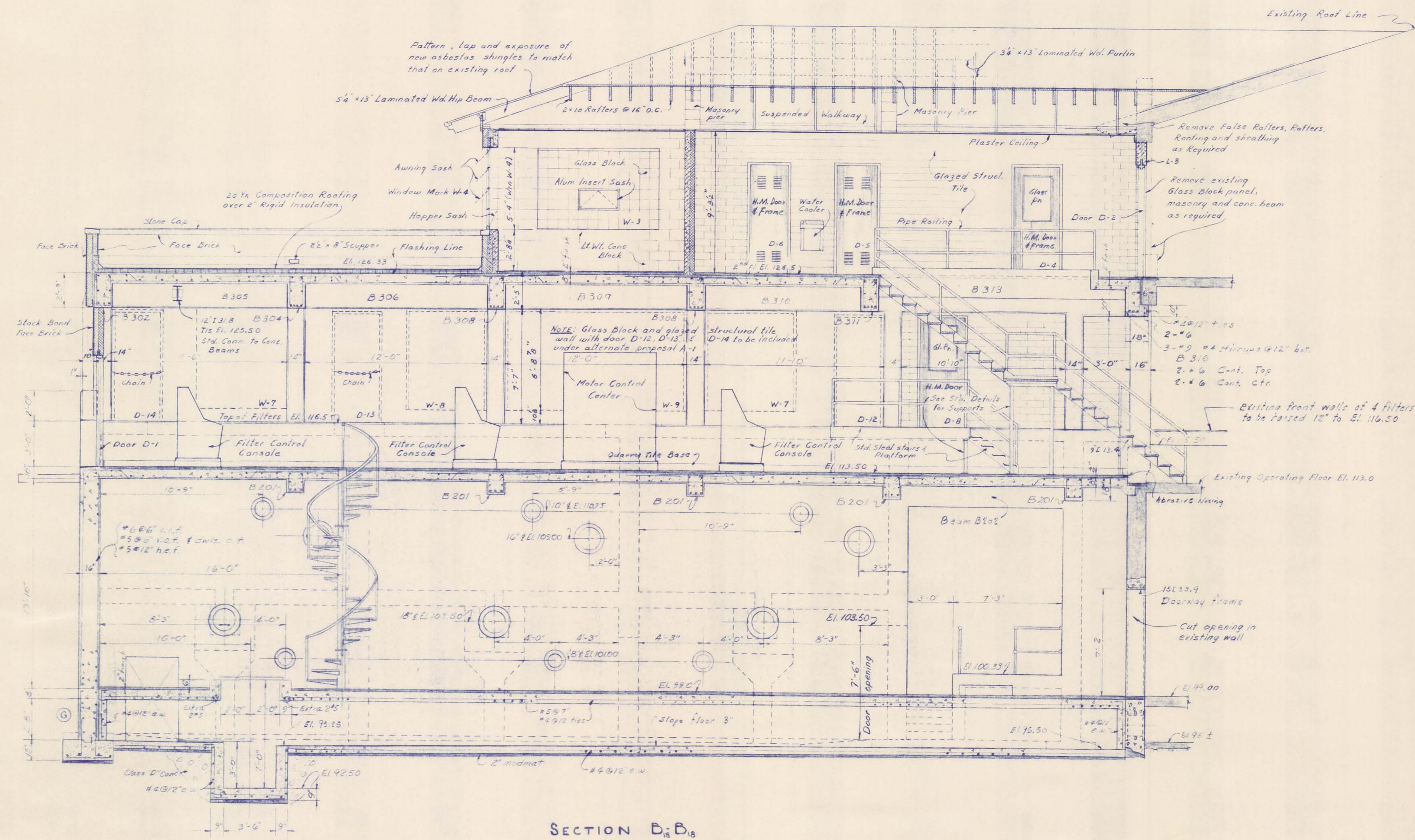


SECTION A-A

SECTION C-C

Construction Note:
 Contractor shall thoroughly investigate all pertinent existing building foundations and facilities and provide adequate support and protection during all phases of new construction. Plant operation is to be maintained. Provide water-tight construction at all construction joints below grade El. and as shown or noted. Construction methods and procedures are to be approved by the engineer.

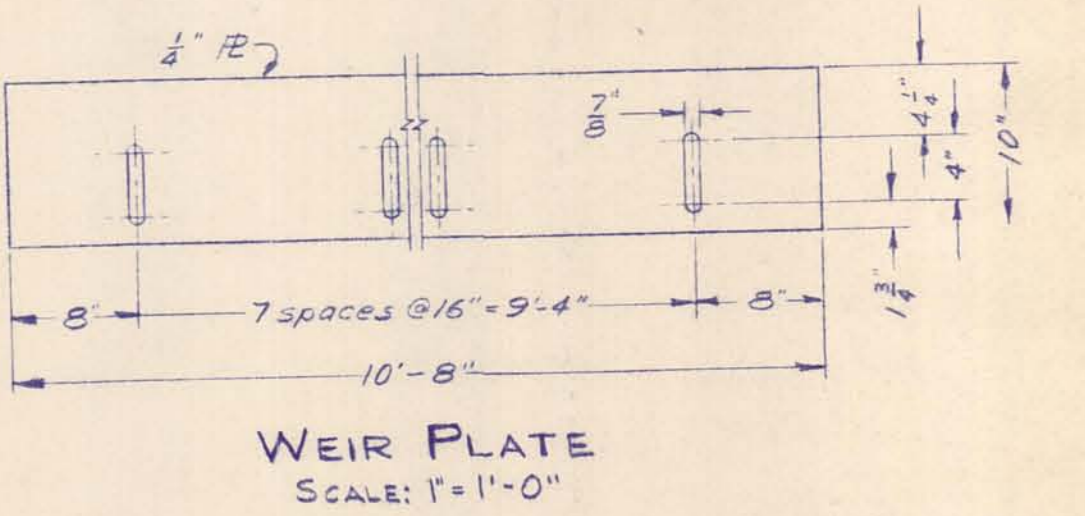
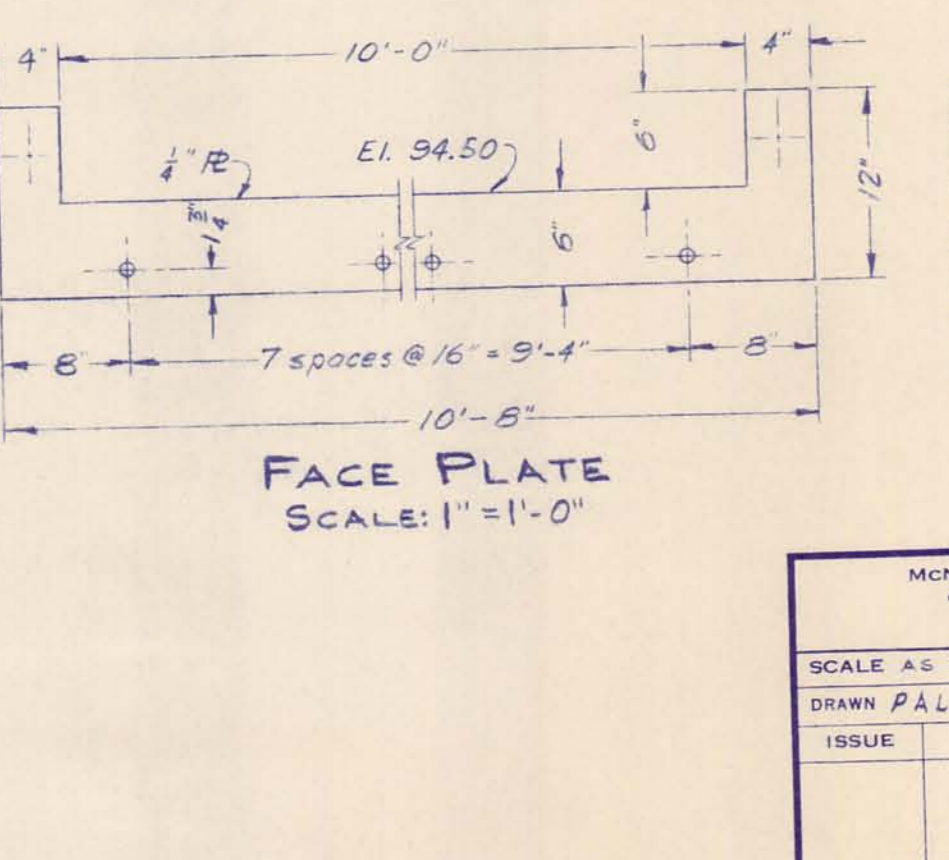
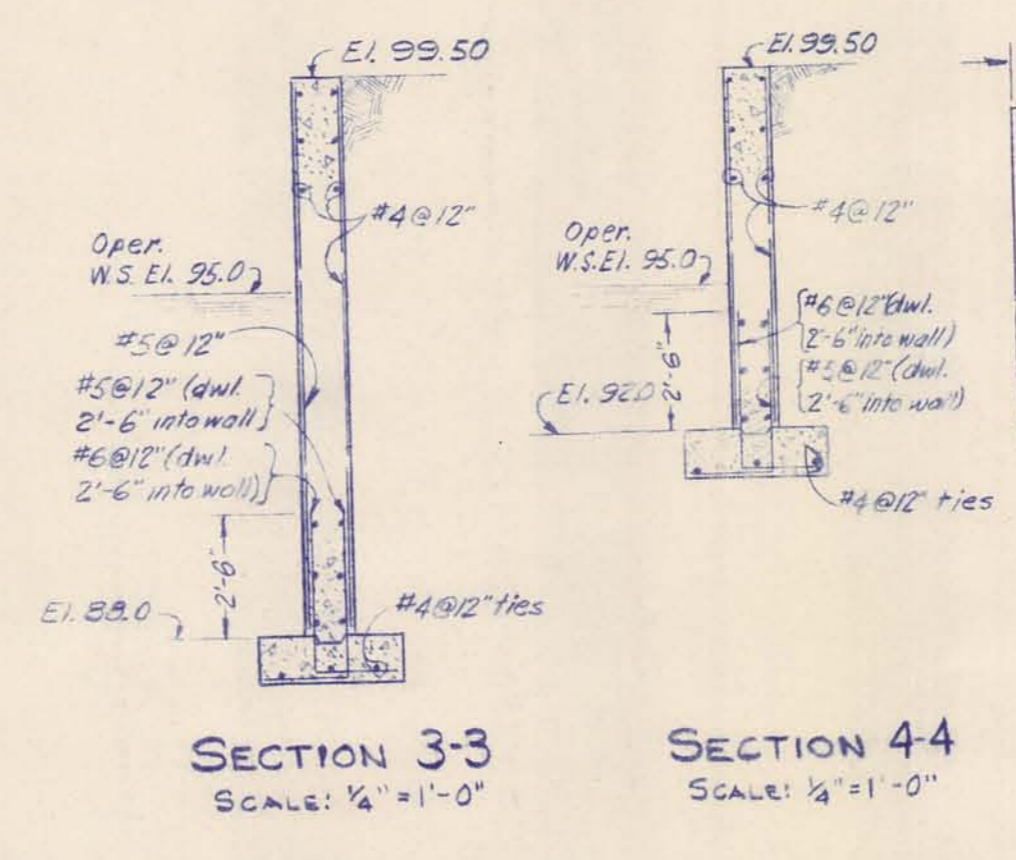
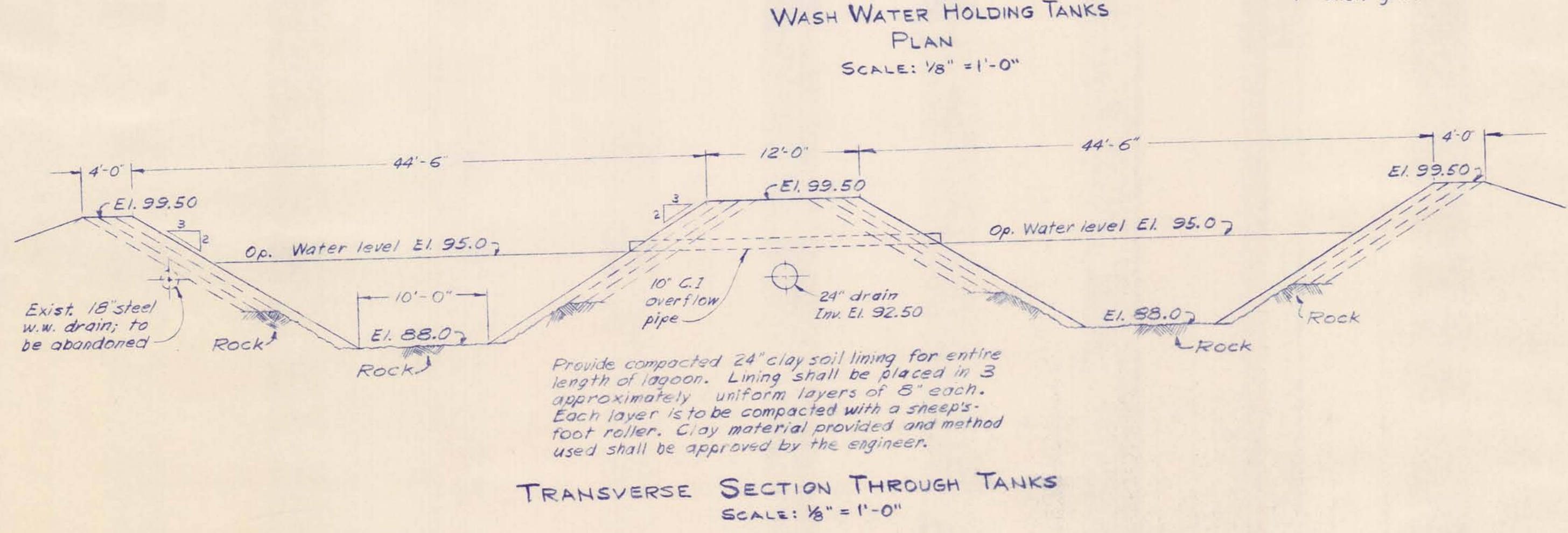
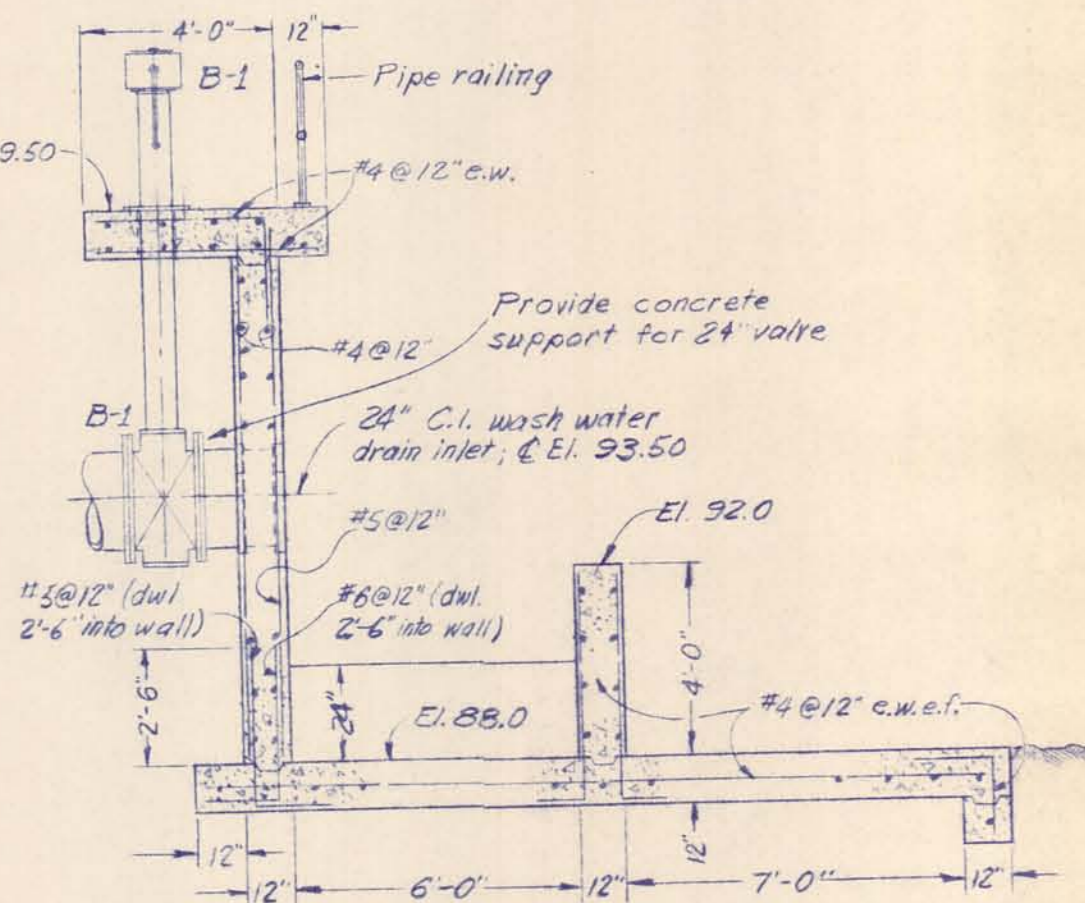
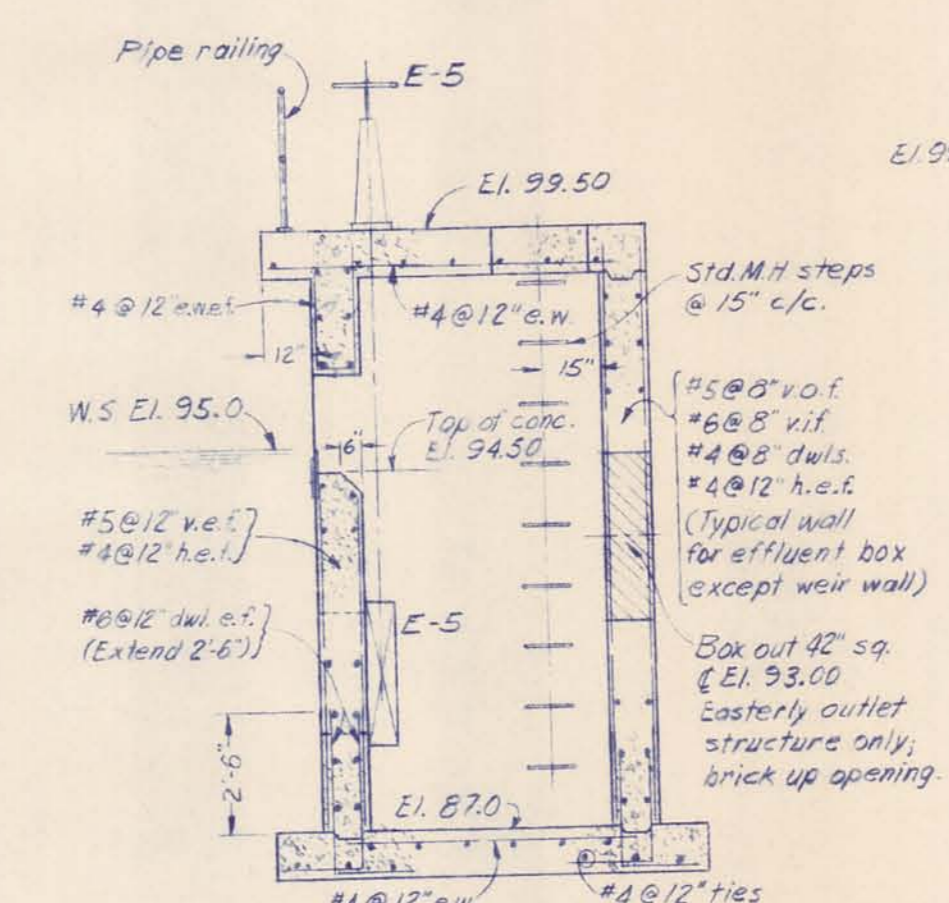
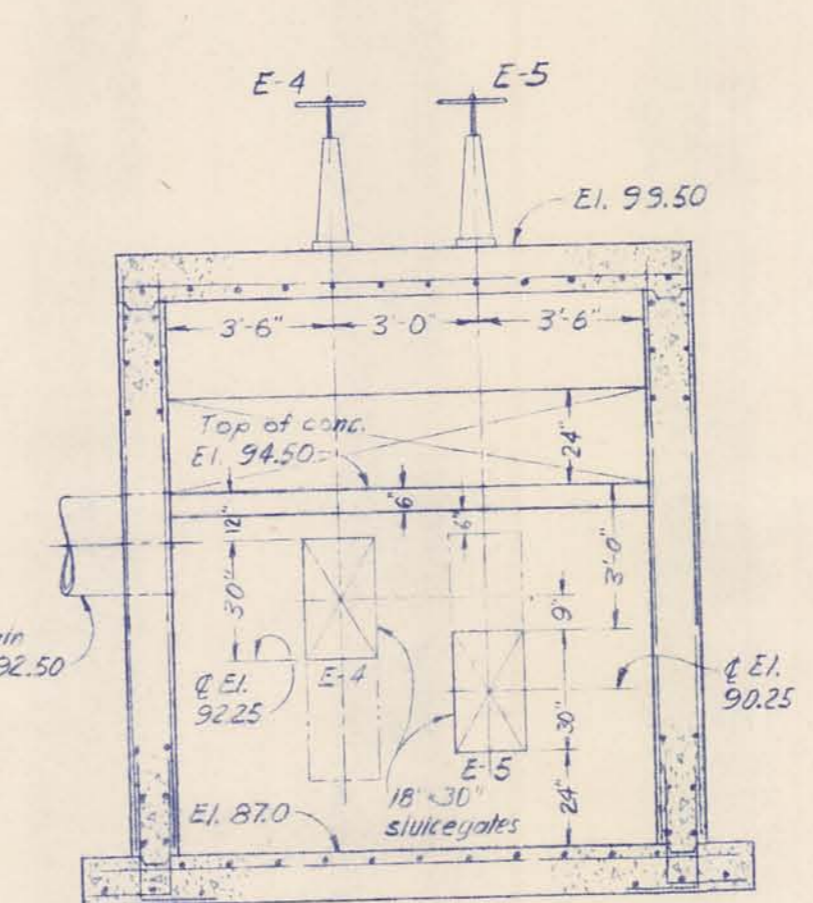
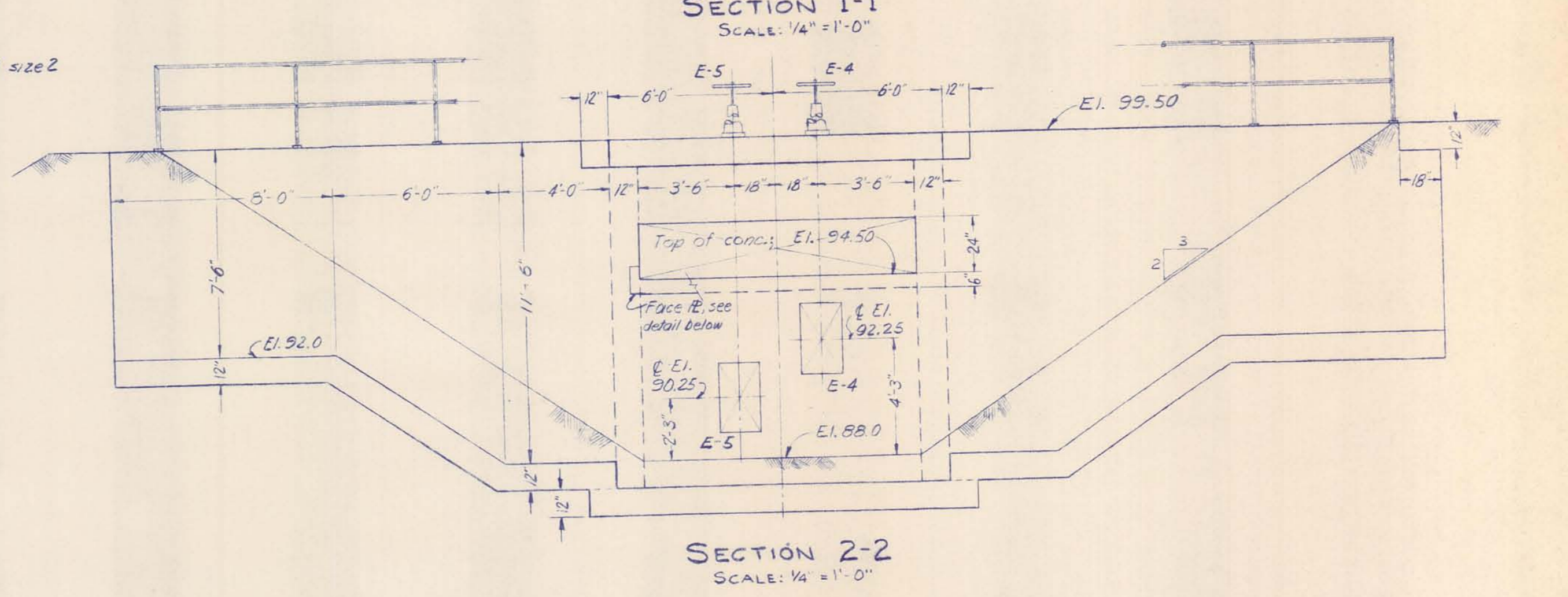
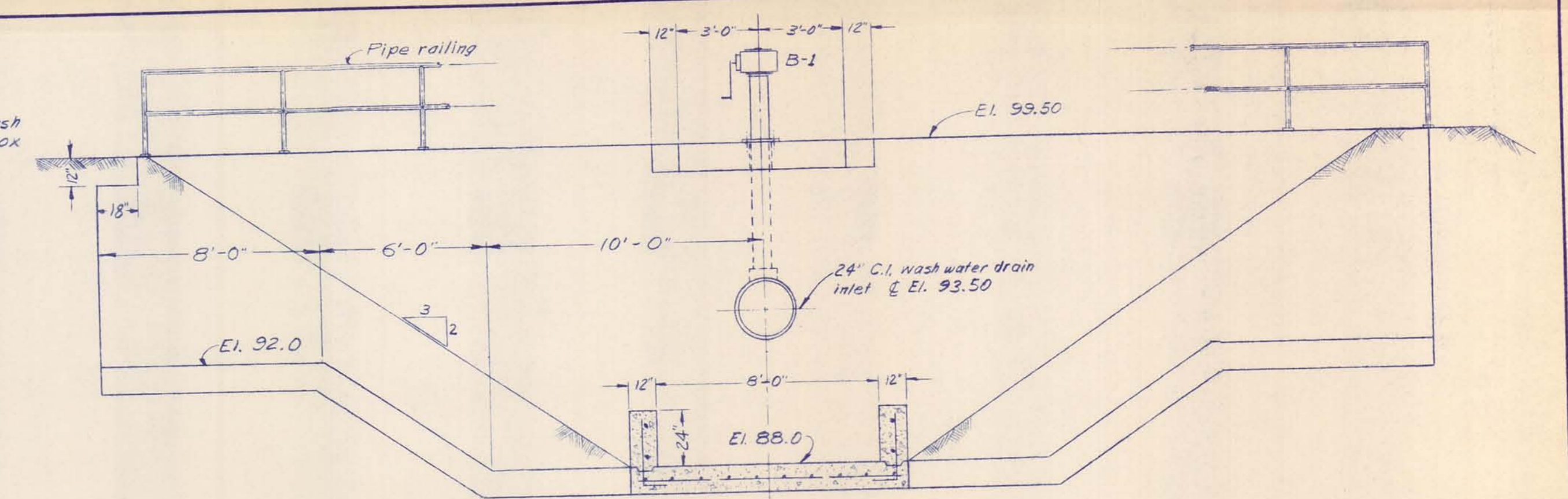
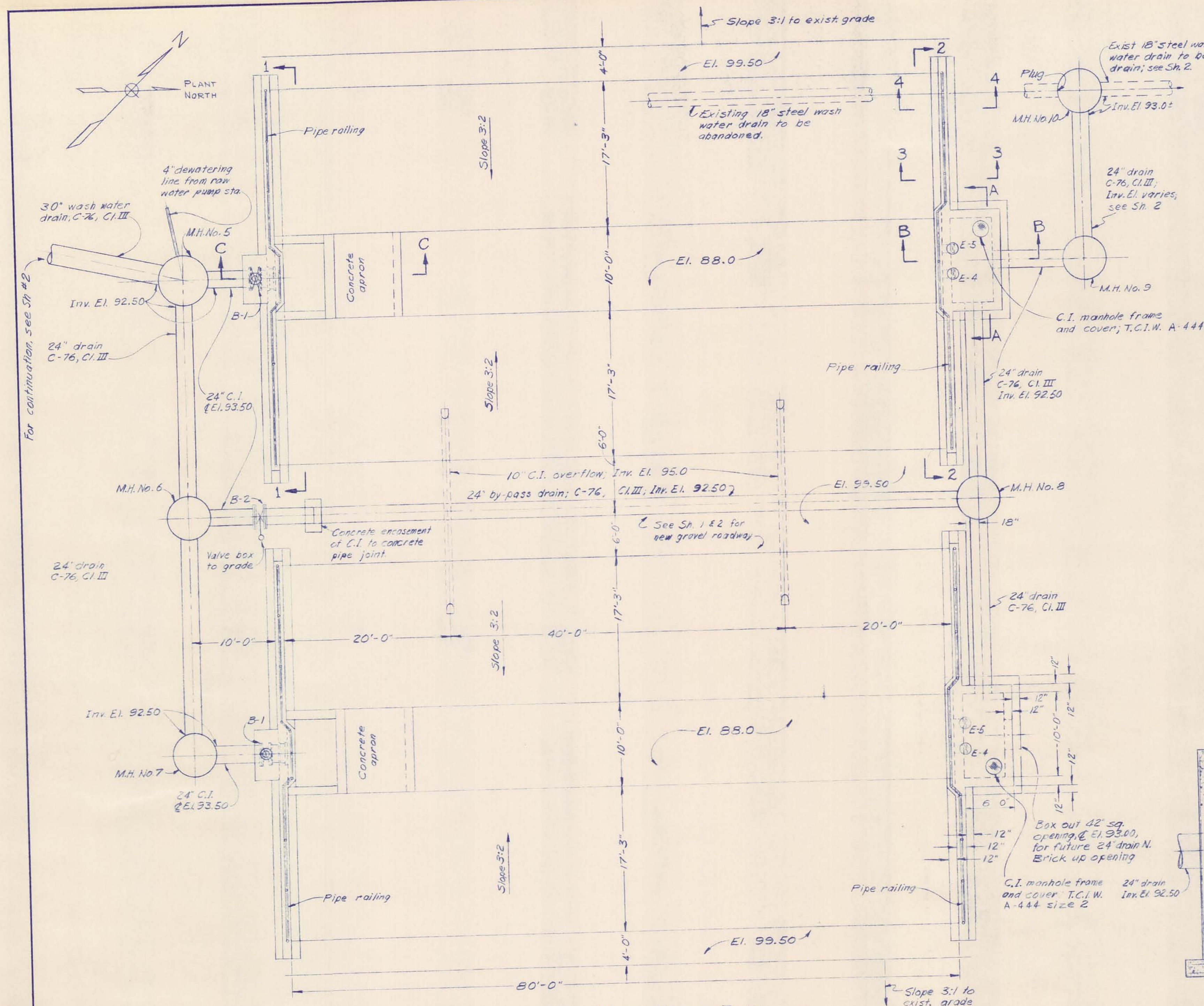
M'NAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ISSUED MARCH 1965		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE 1/4"=1'-0"	DRAWN PAL	TRACED REG	CHECKED JCS	FILTER BUILDING ADDITION SECTIONS	
ISSUE	NATURE OF REVISION	DATE	DATE	CONTRACT 1965 W-2	SHEET 17 OF 33



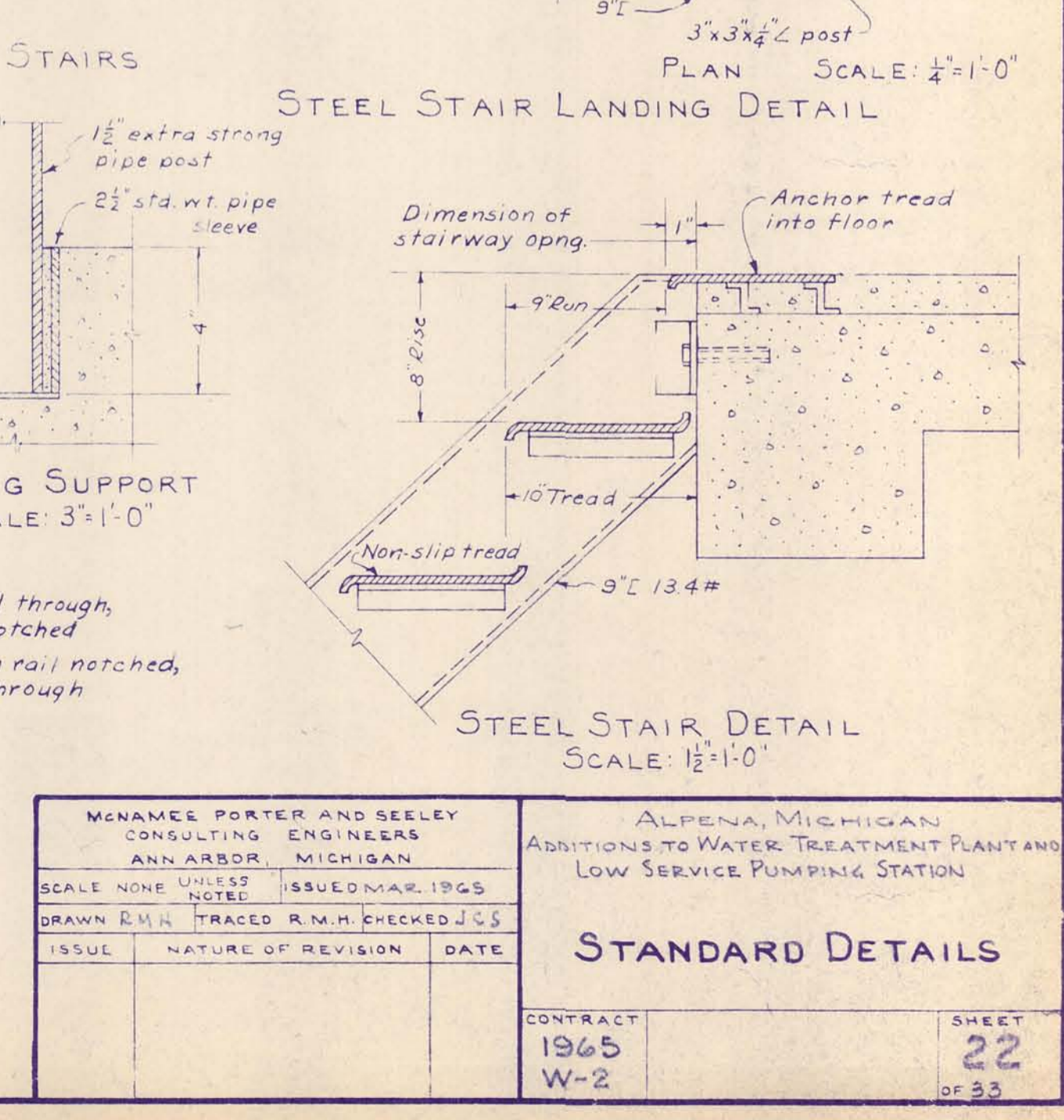
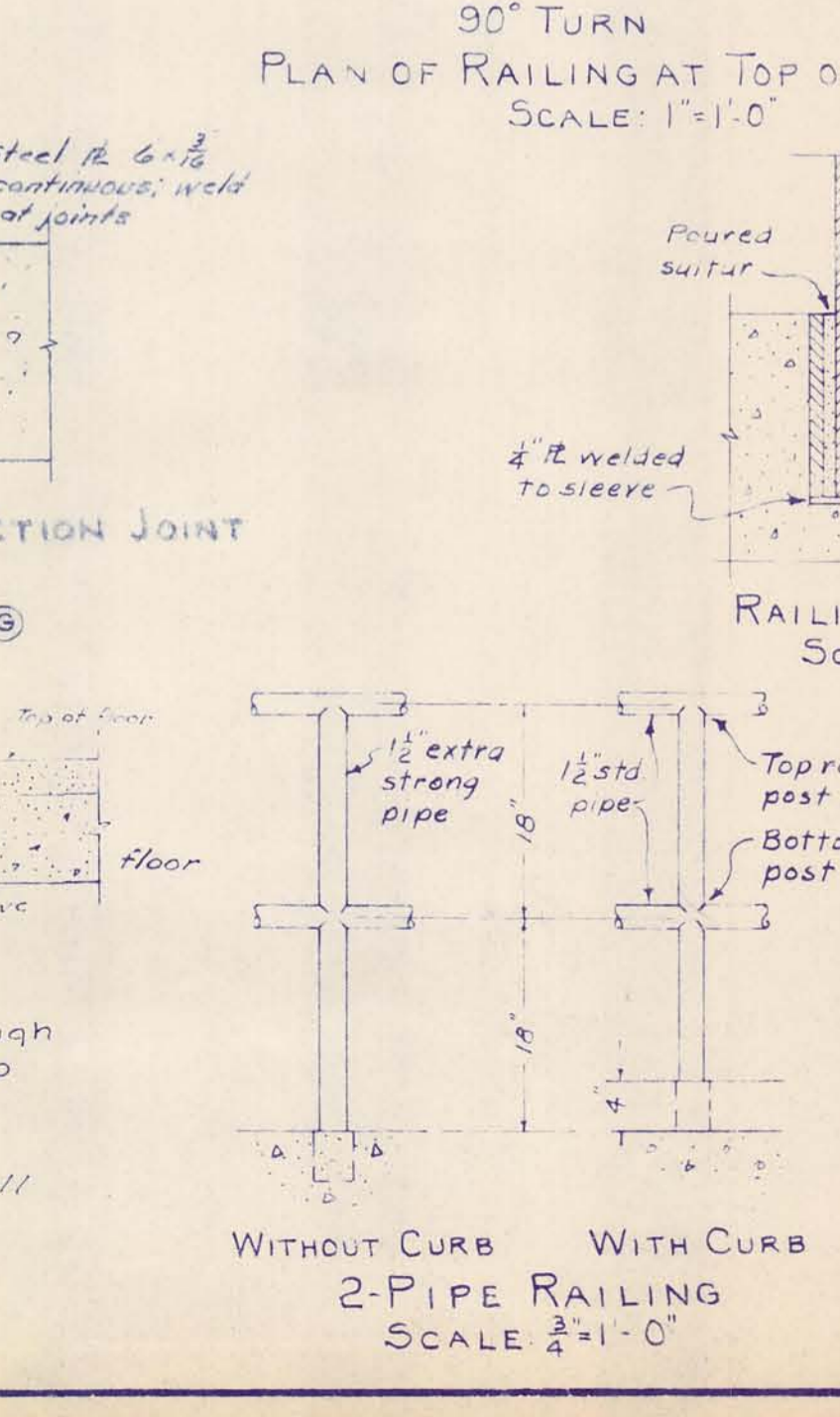
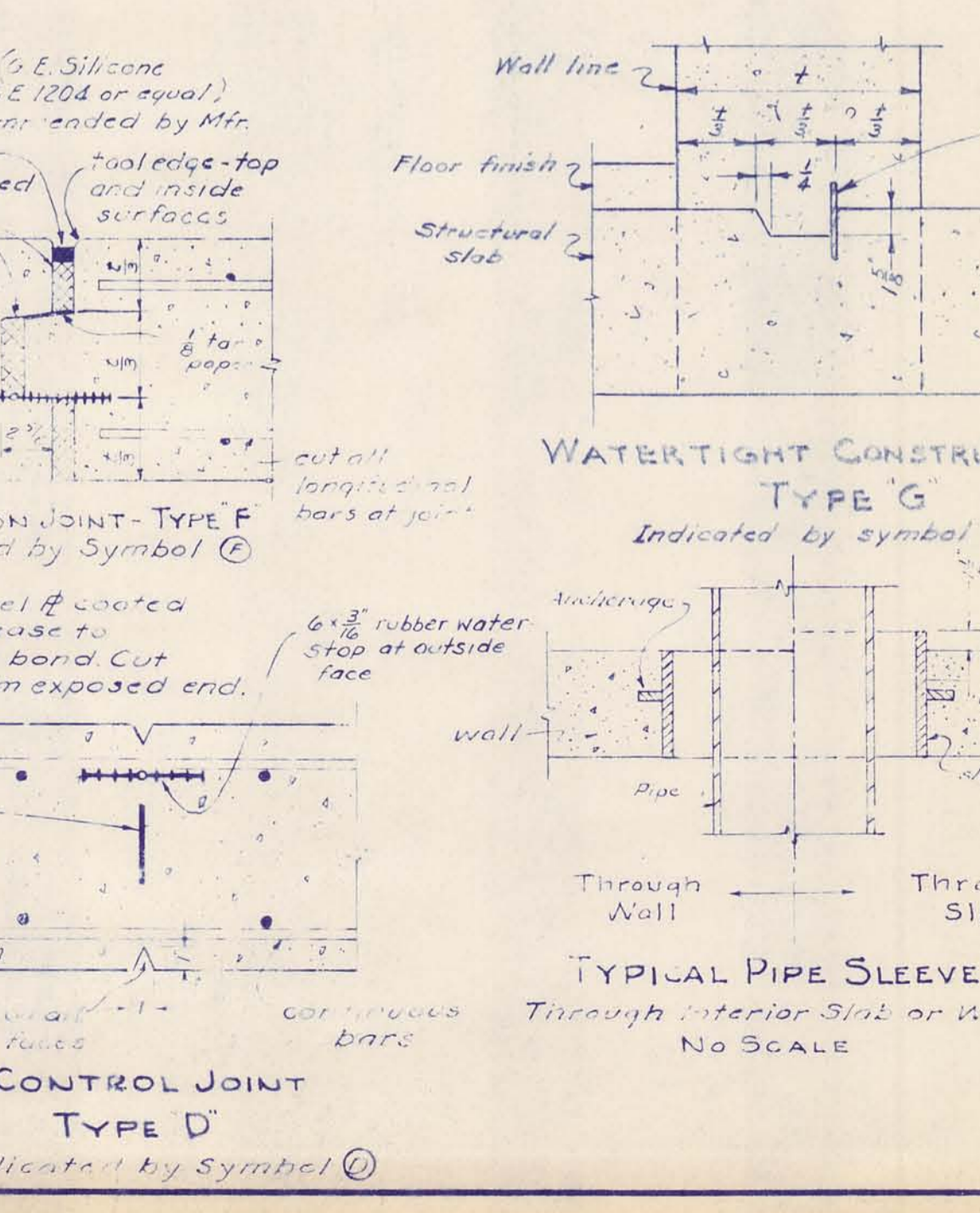
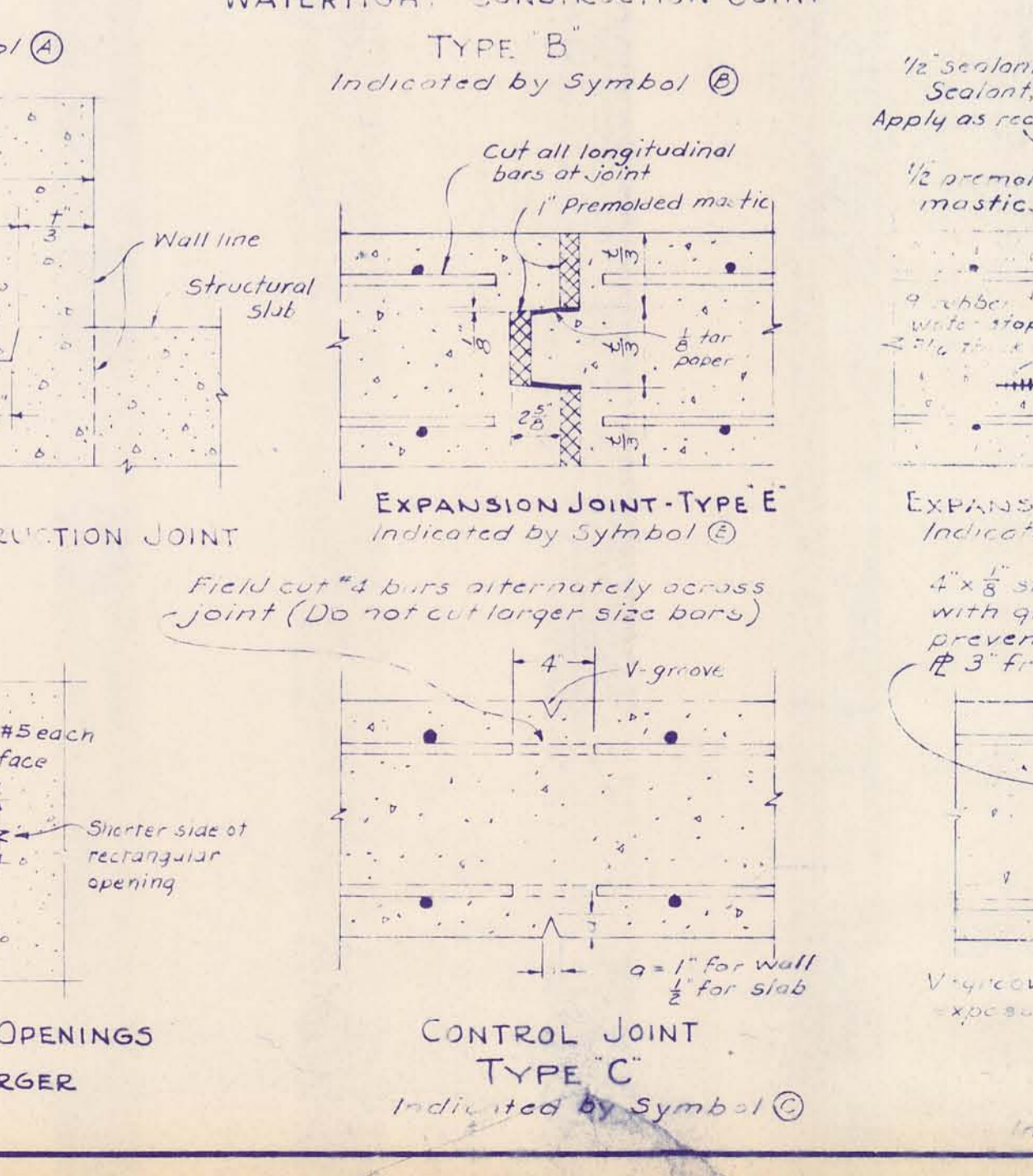
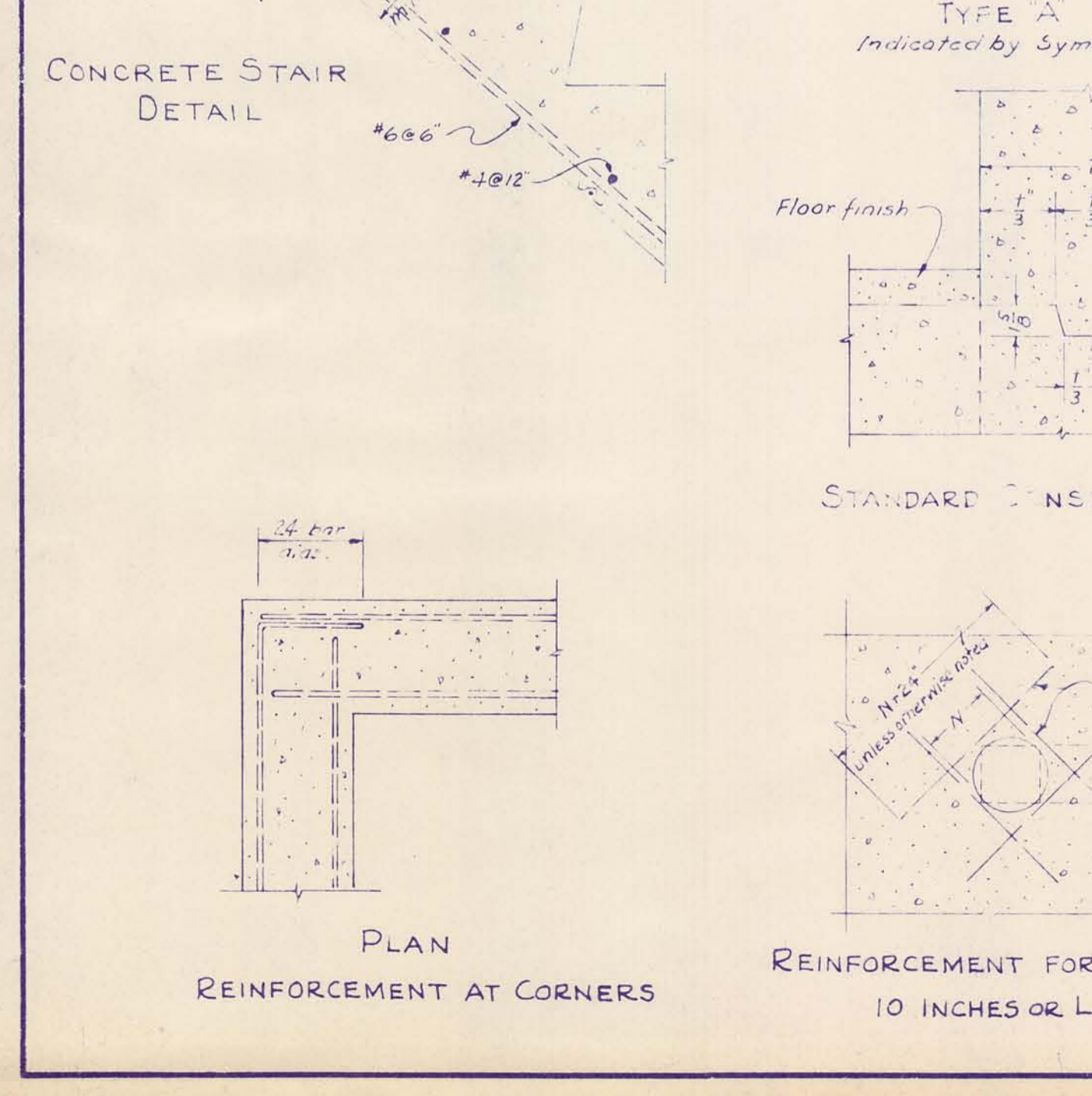
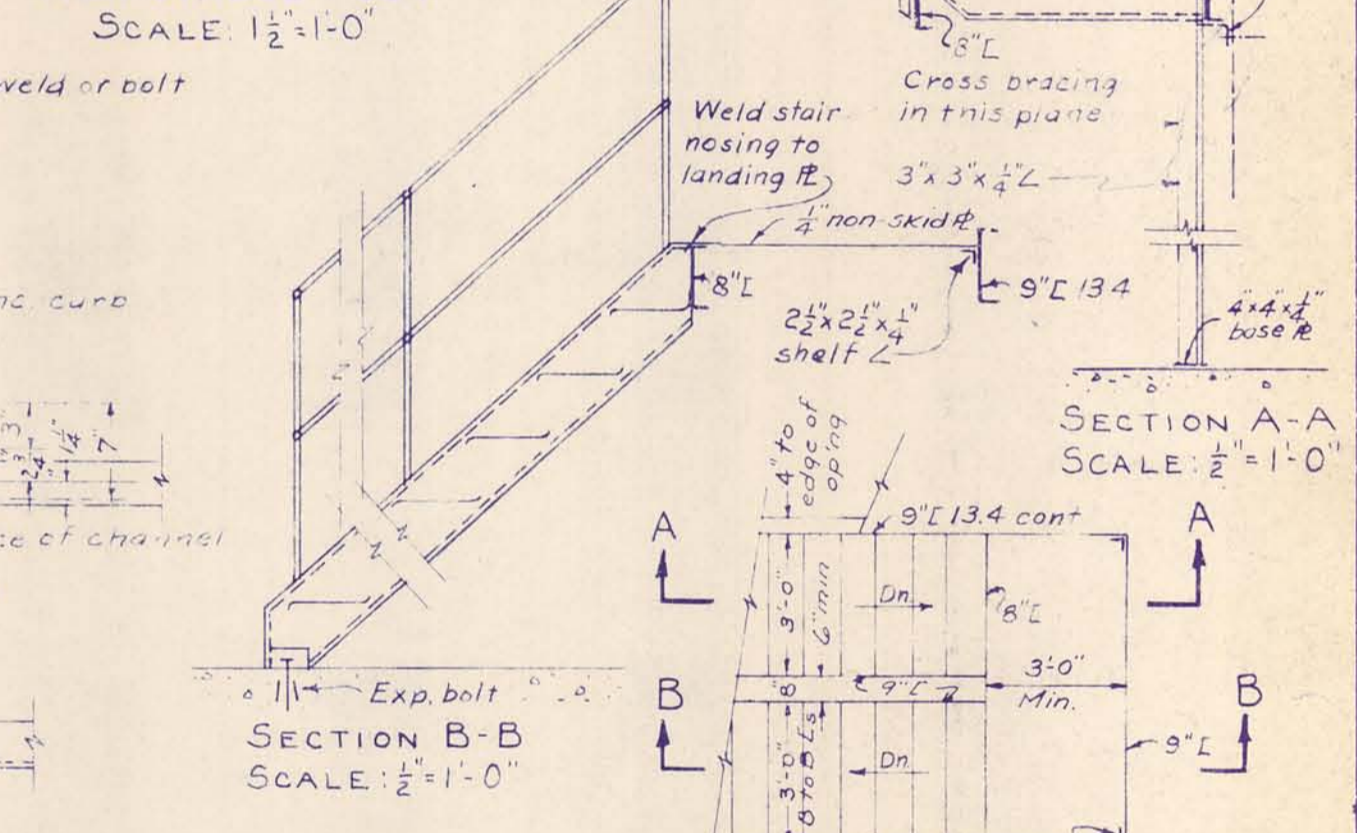
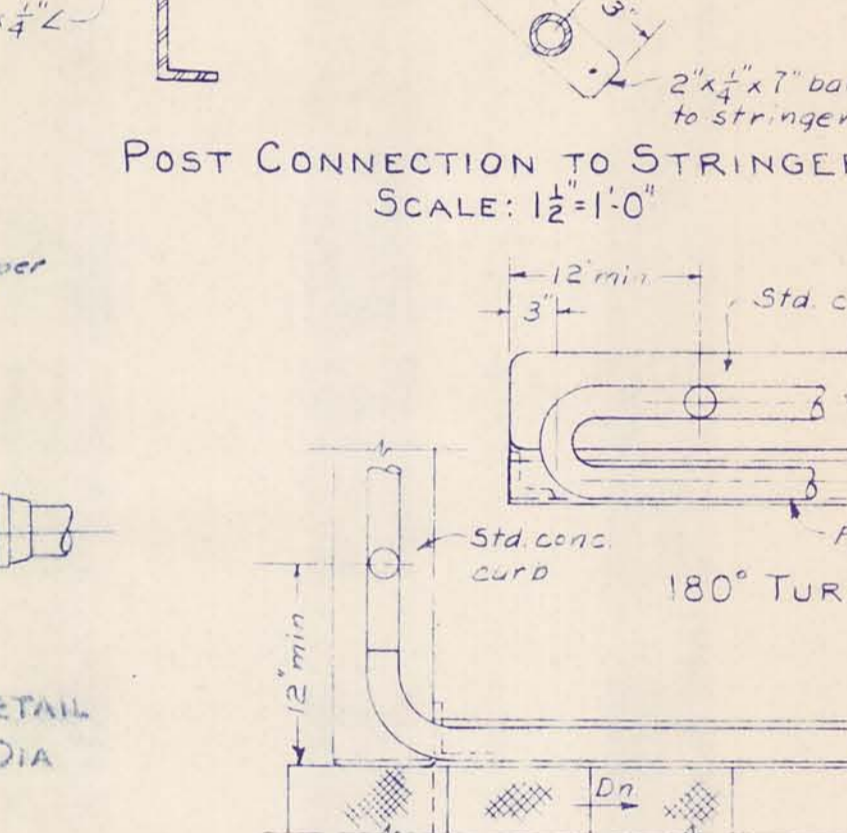
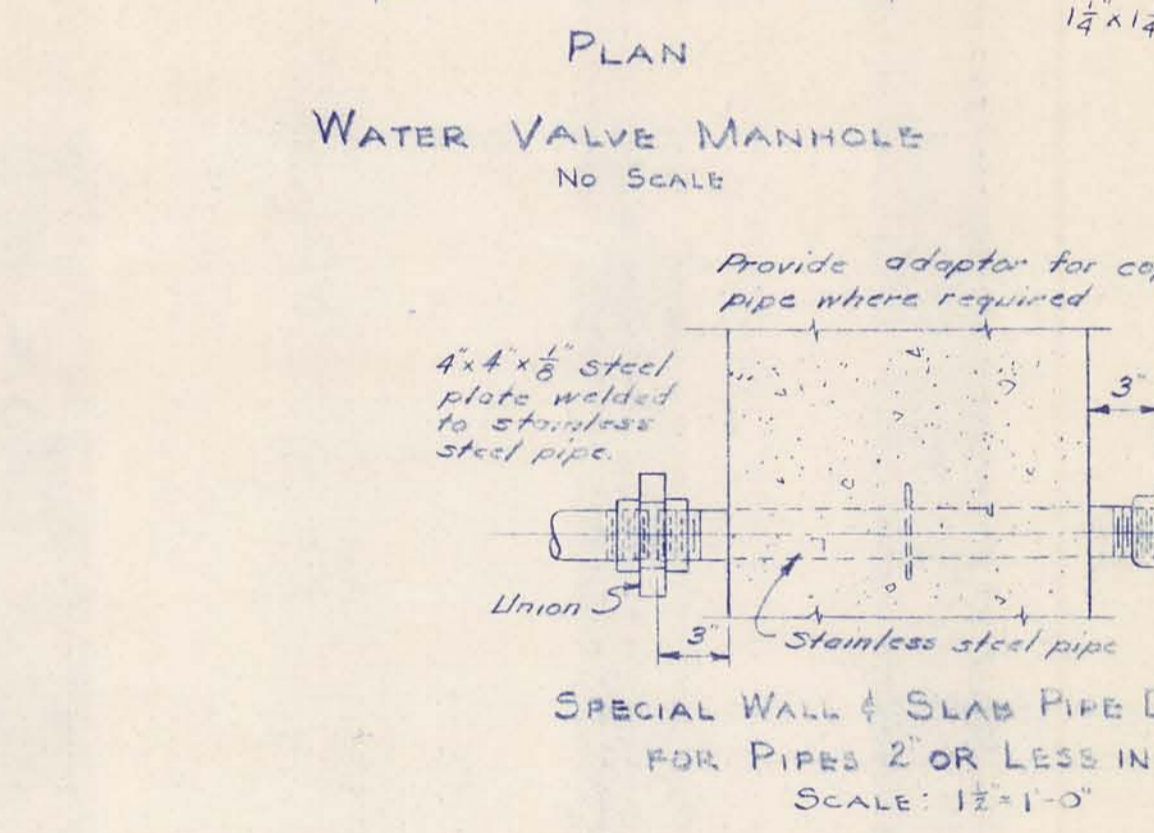
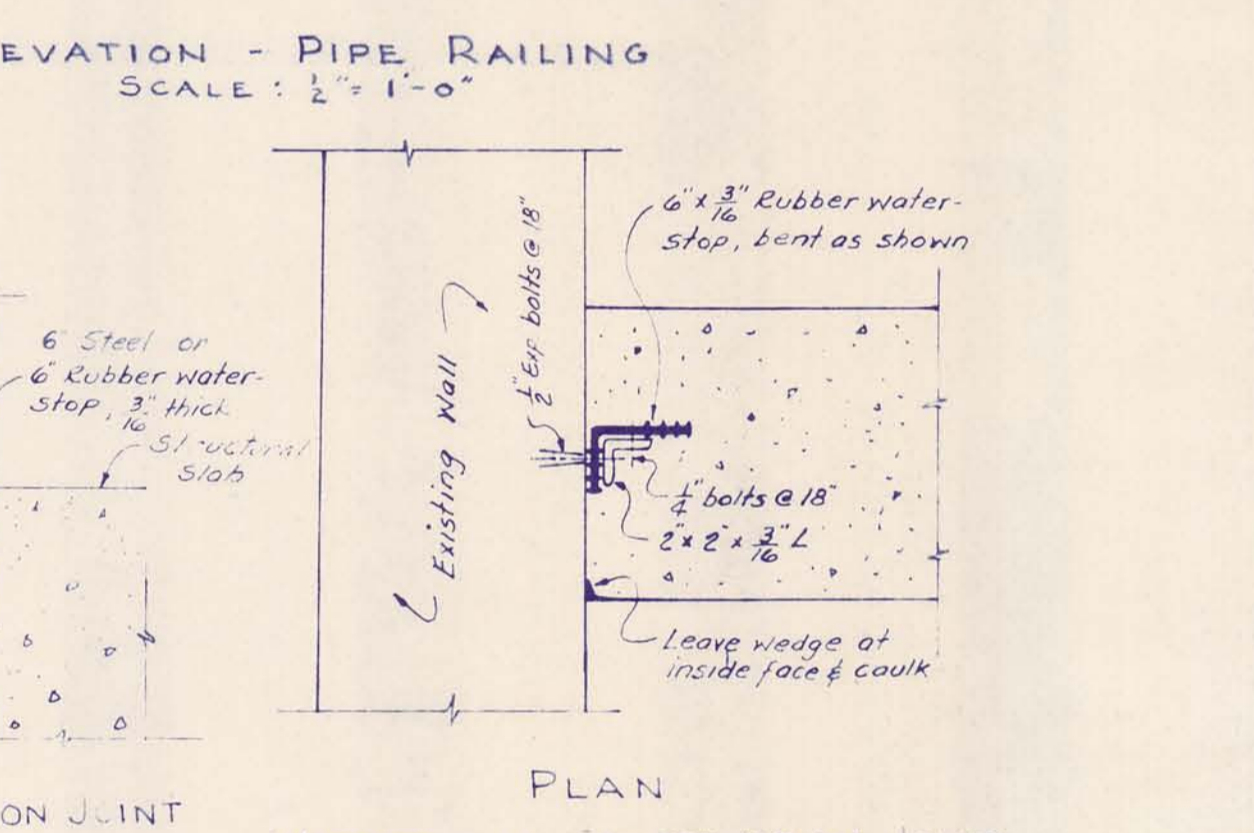
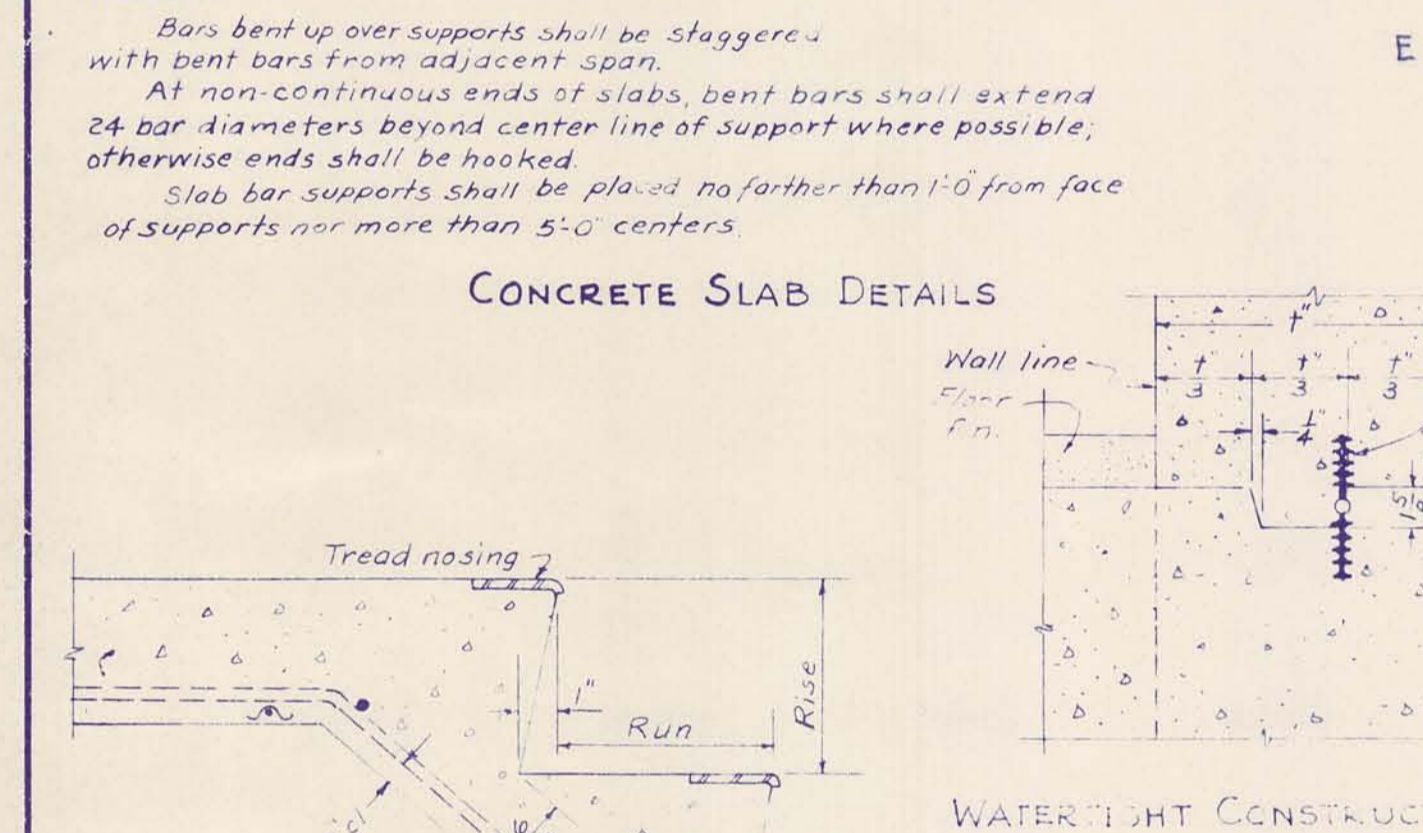
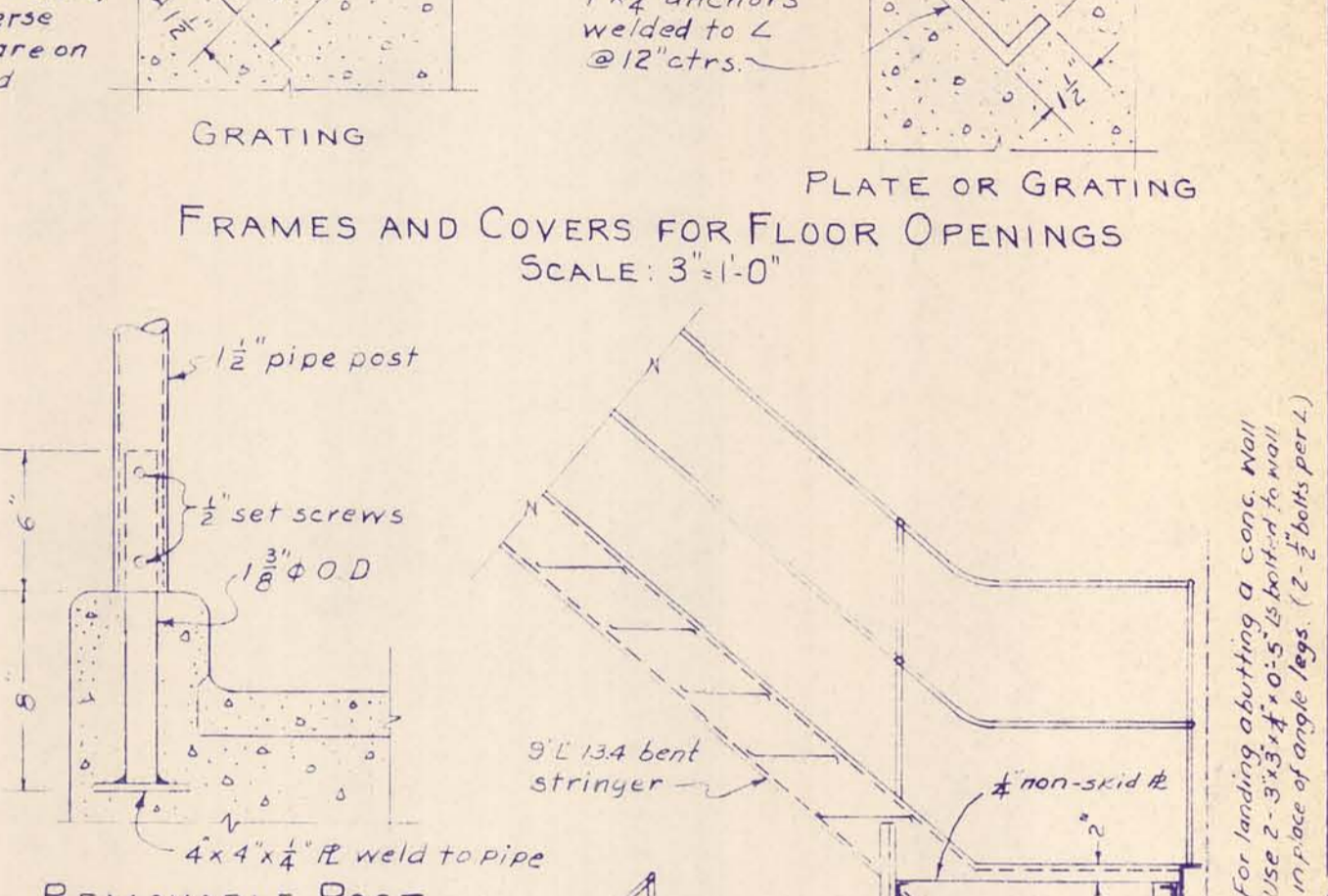
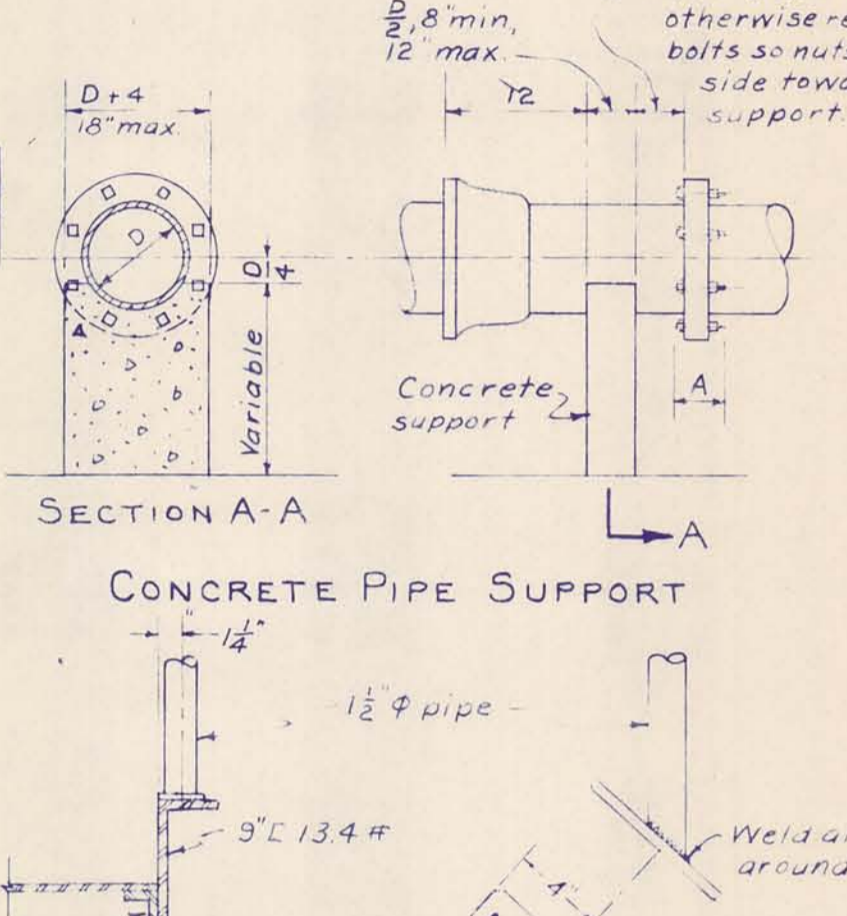
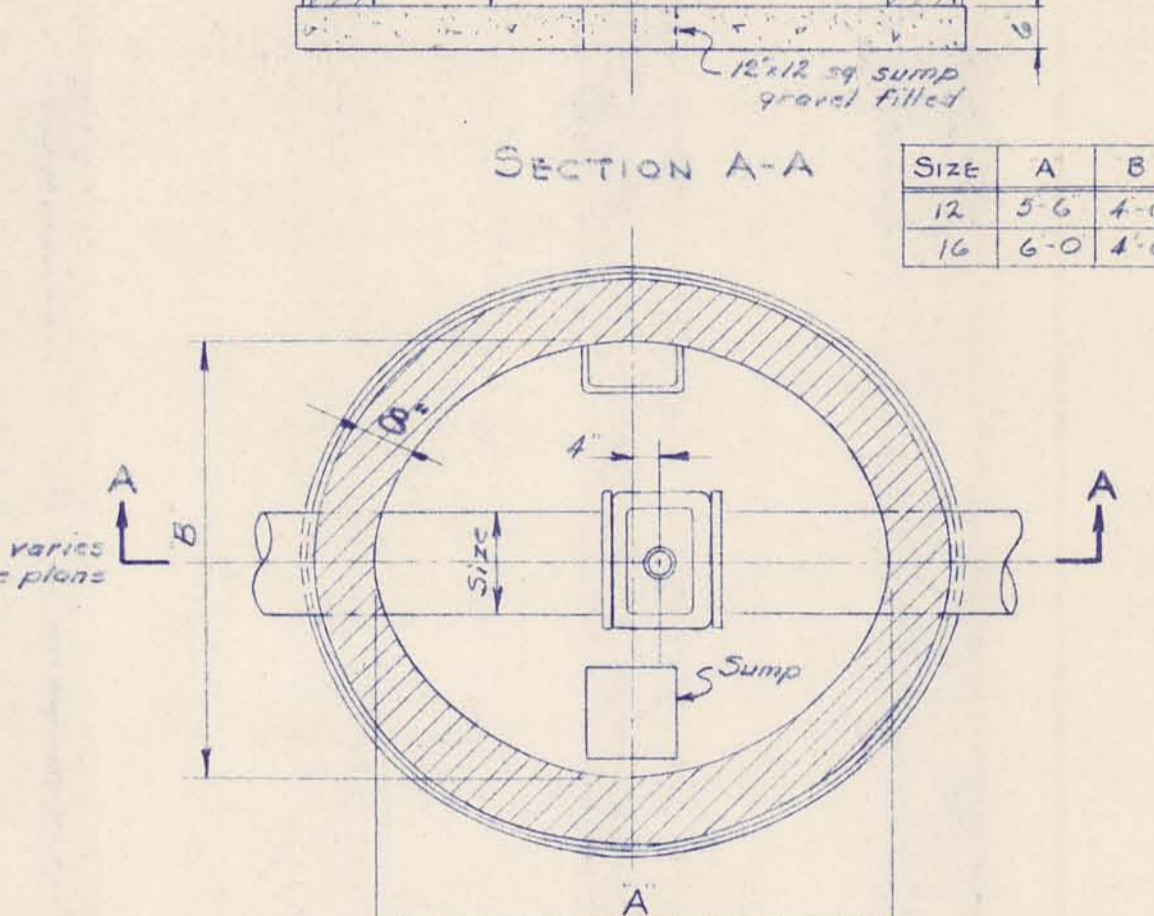
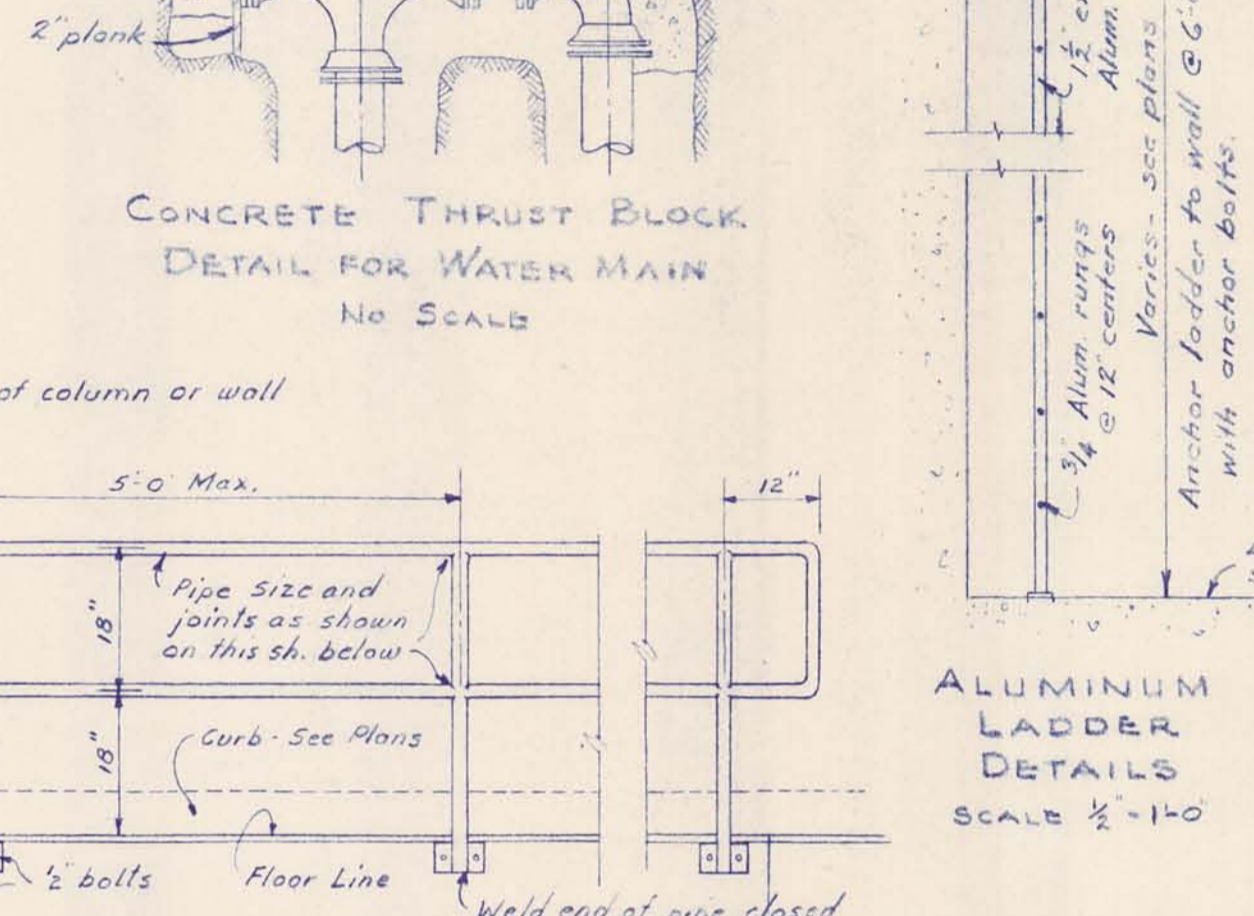
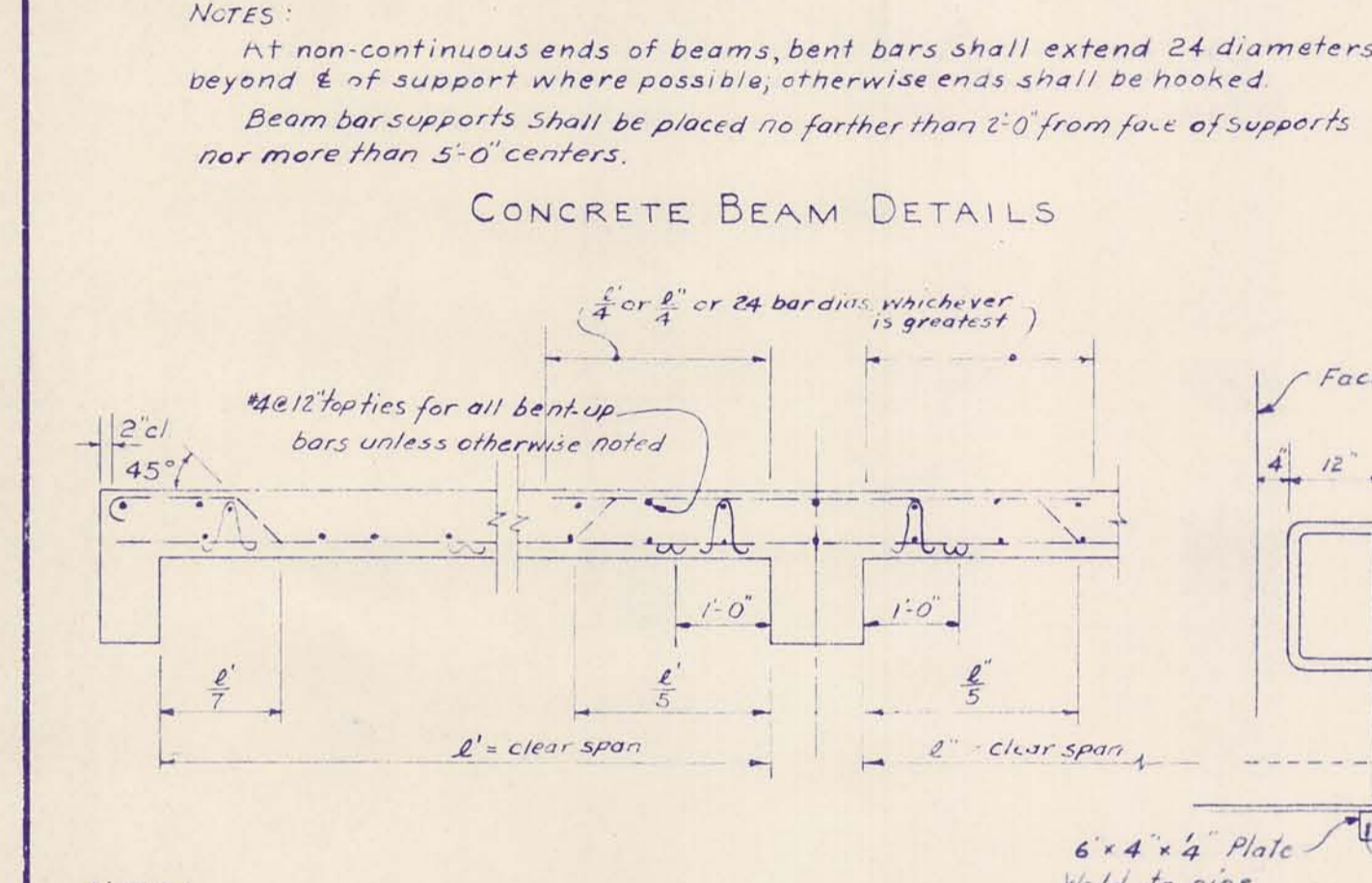
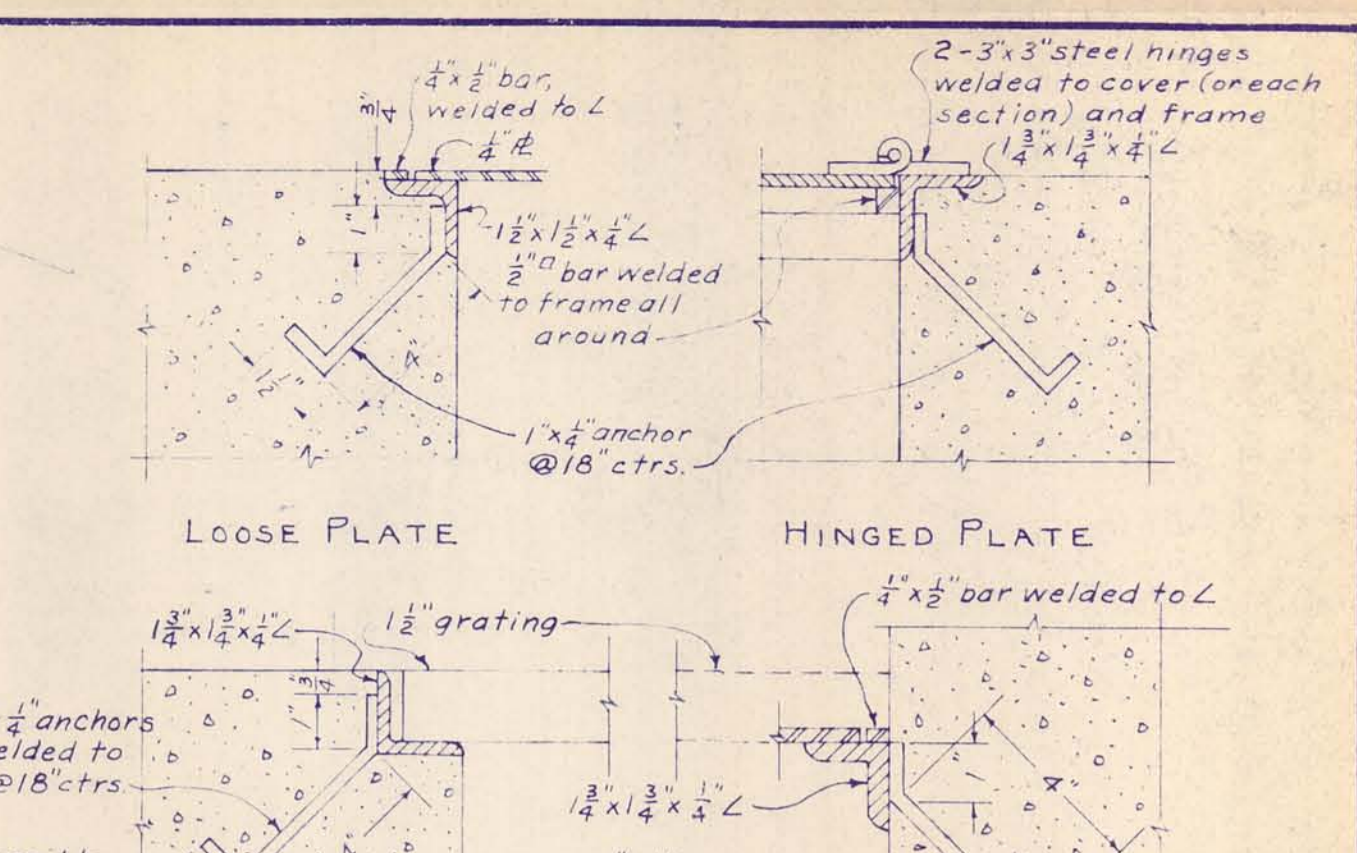
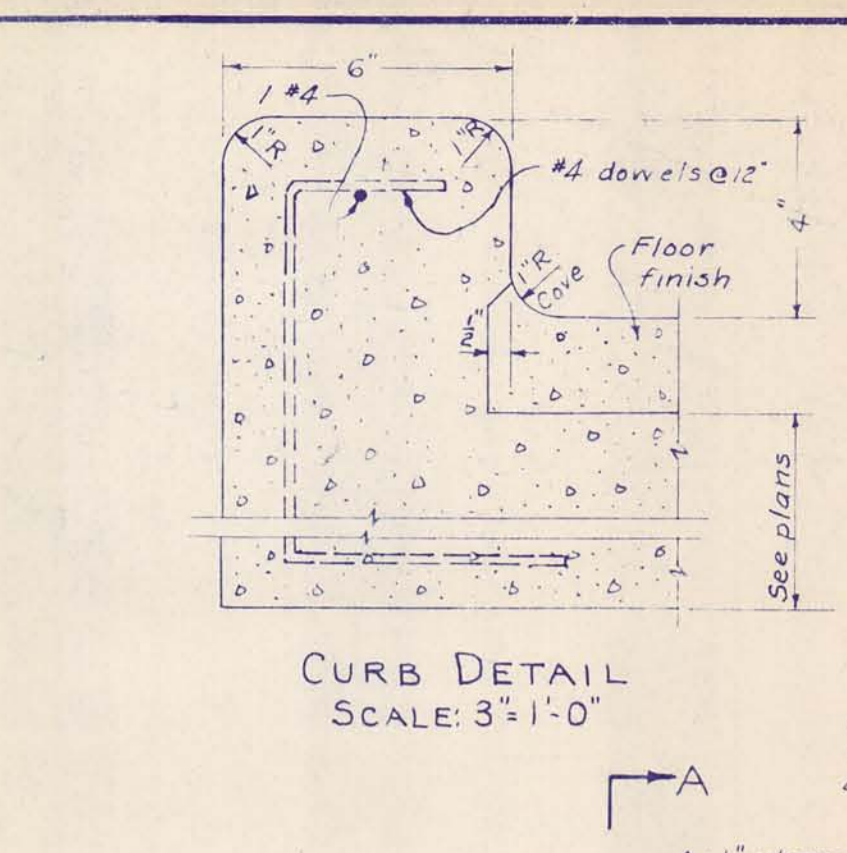
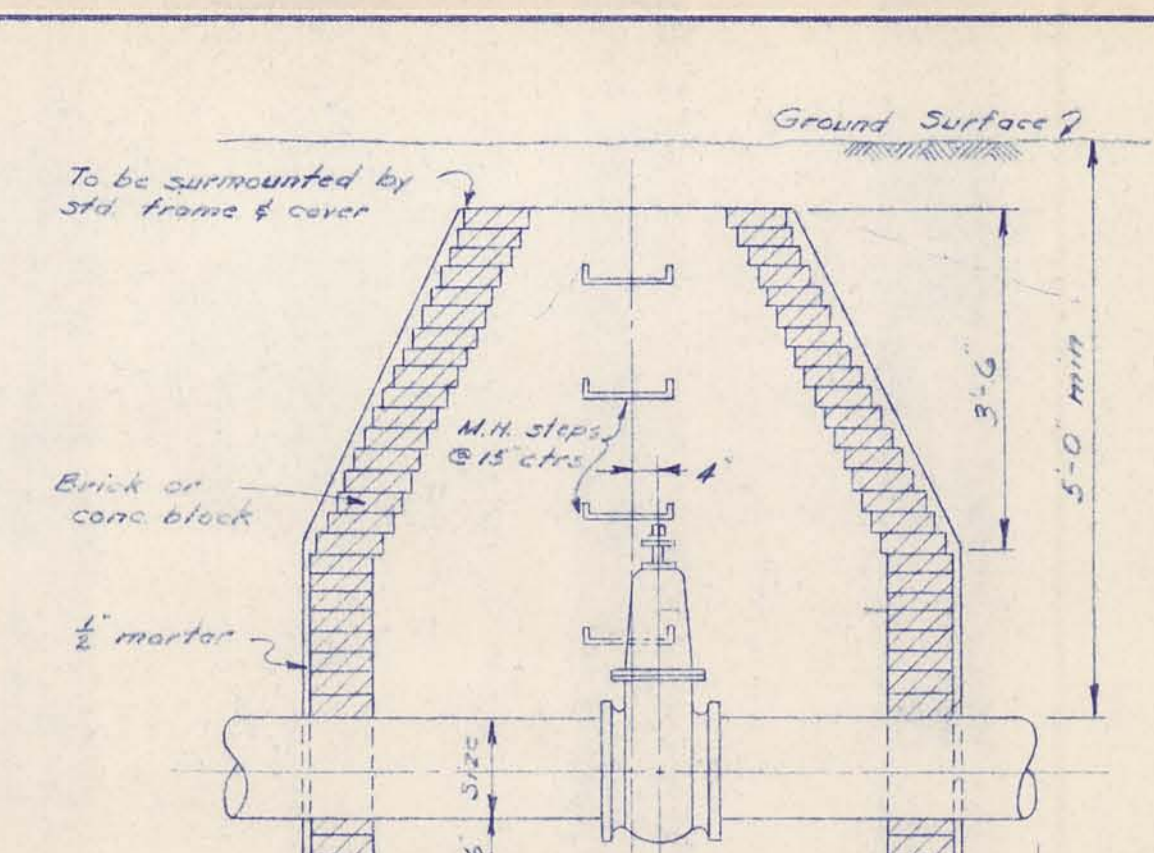
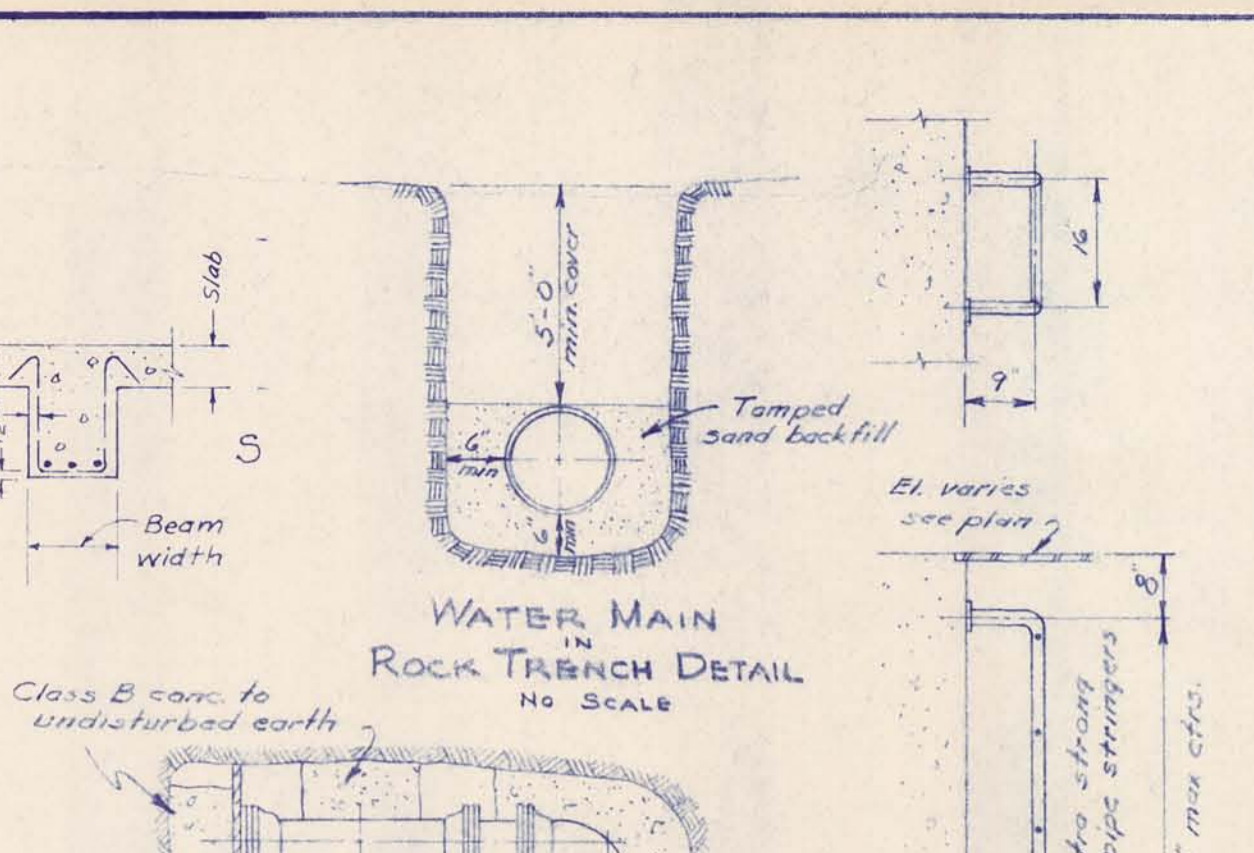
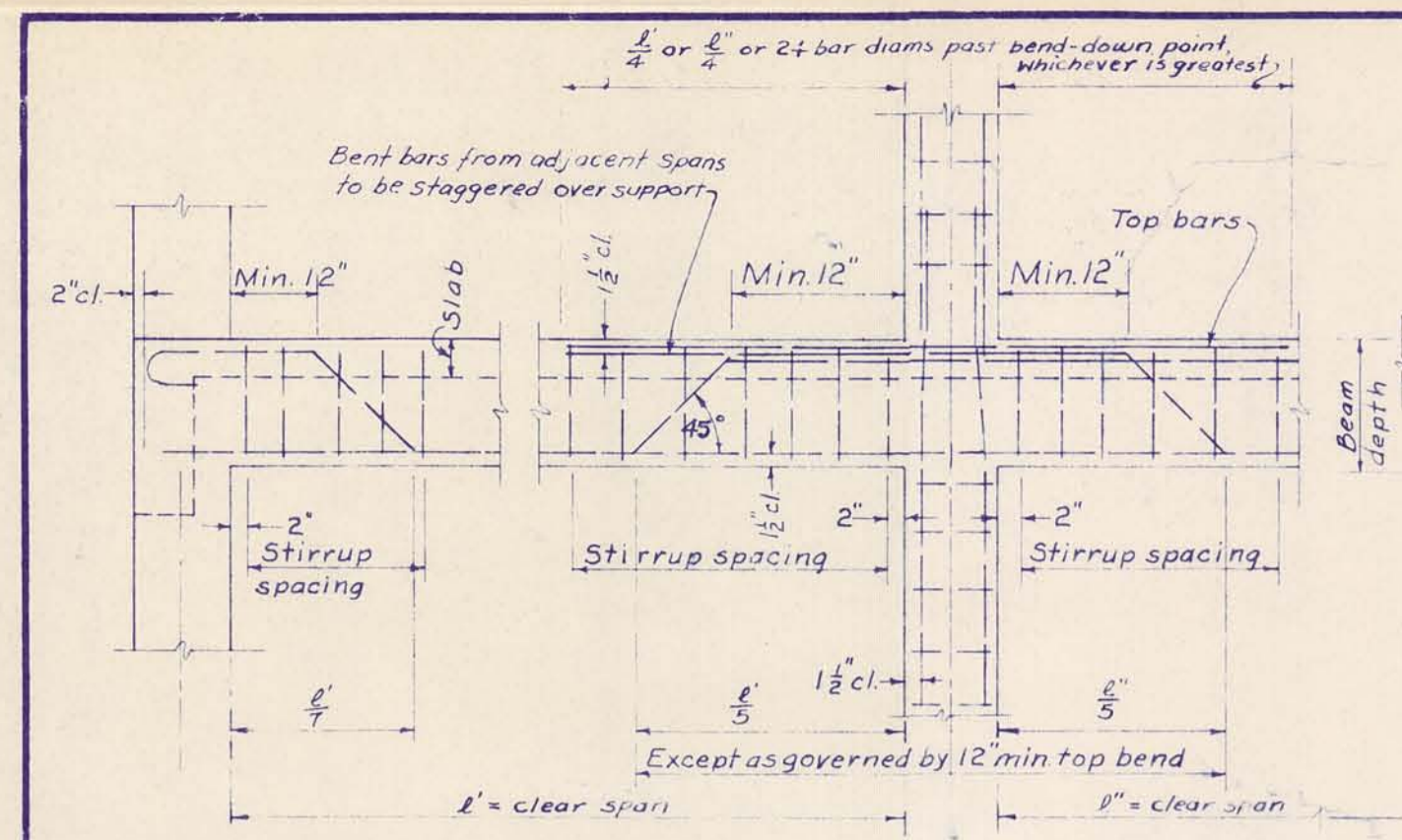
SECTION D-B

MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE 1/4" = 1'-0"	ISSUED MARCH 1965		
DRAWN P.A.L.	TRACED R.E.G.	CHECKED J.C.S.	
ISSUE	NATURE OF REVISION	DATE	
CONTRACT 1965 W-2		SHEET 18 OF 33	

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
 REFERENCE BY PART NUMBER 6532
 DRAWING NUMBER
 ADDITIONS
 WATER TREATMENT
 PLANT 1965
 21 OF 33
 G NUMBER



MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN				ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE AS NOTED	ISSUED	MARCH 1965	WASTE WASH WATER AND SLUDGE LAGOONS		
DRAWN P.A.L.	TRACED R.E.G.	CHECKED J.C.S.			
ISSUE	NATURE OF REVISION	DATE			
CONTRACT 1965 W-2			SHEET 21 OF 33		



MCMANEE PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE NONE UNLESS NOTED	ISSUED MAR. 1965				
DRAWN R.W.H.	TRACED R.M.H.	CHECKED J.S.S.			
ISSUE	NATURE OF REVISION	DATE			
			CONTRACT 1965 W-2	SHEET 22 OF 33	

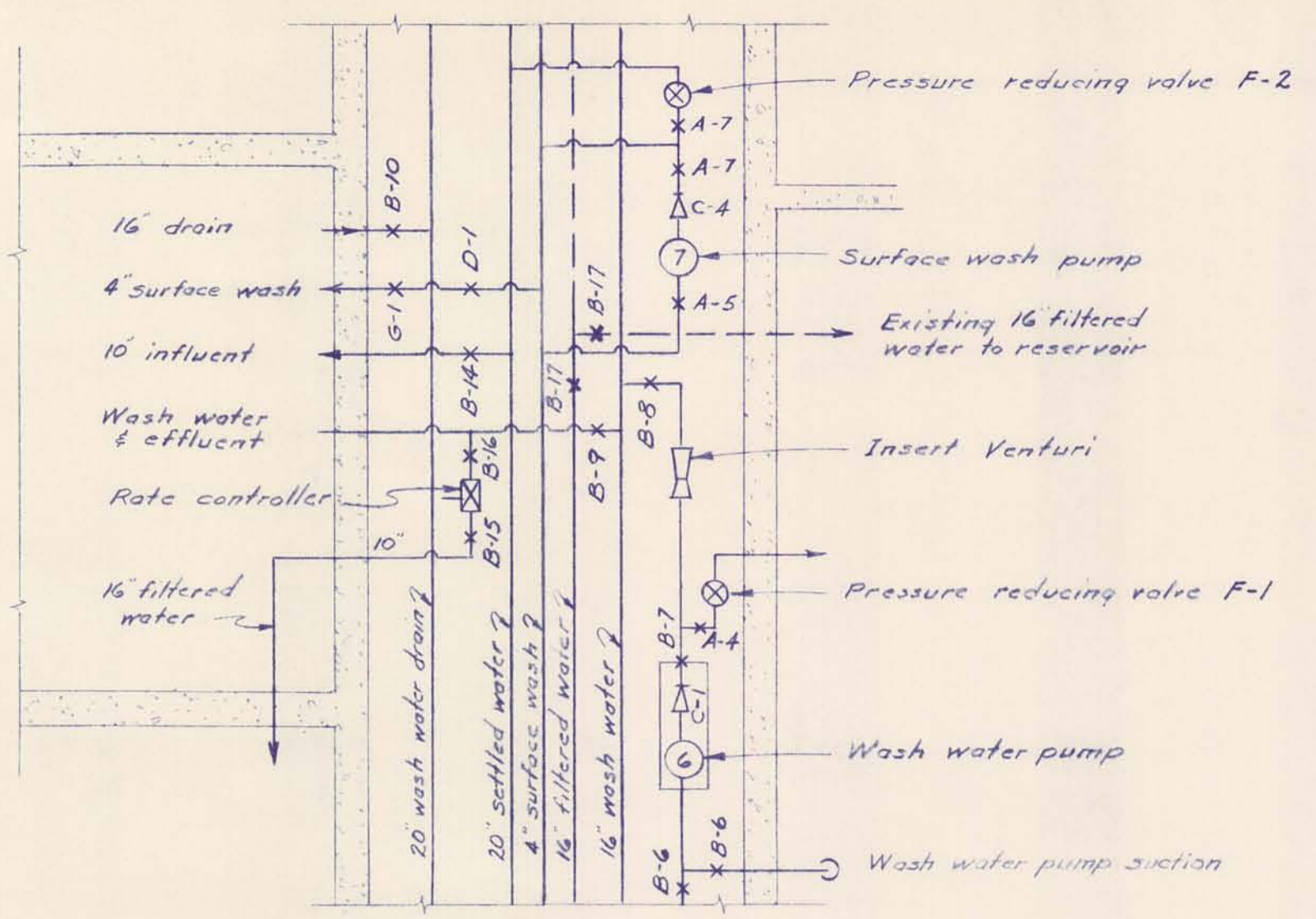
STANDARD DETAILS

SARGO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 8532

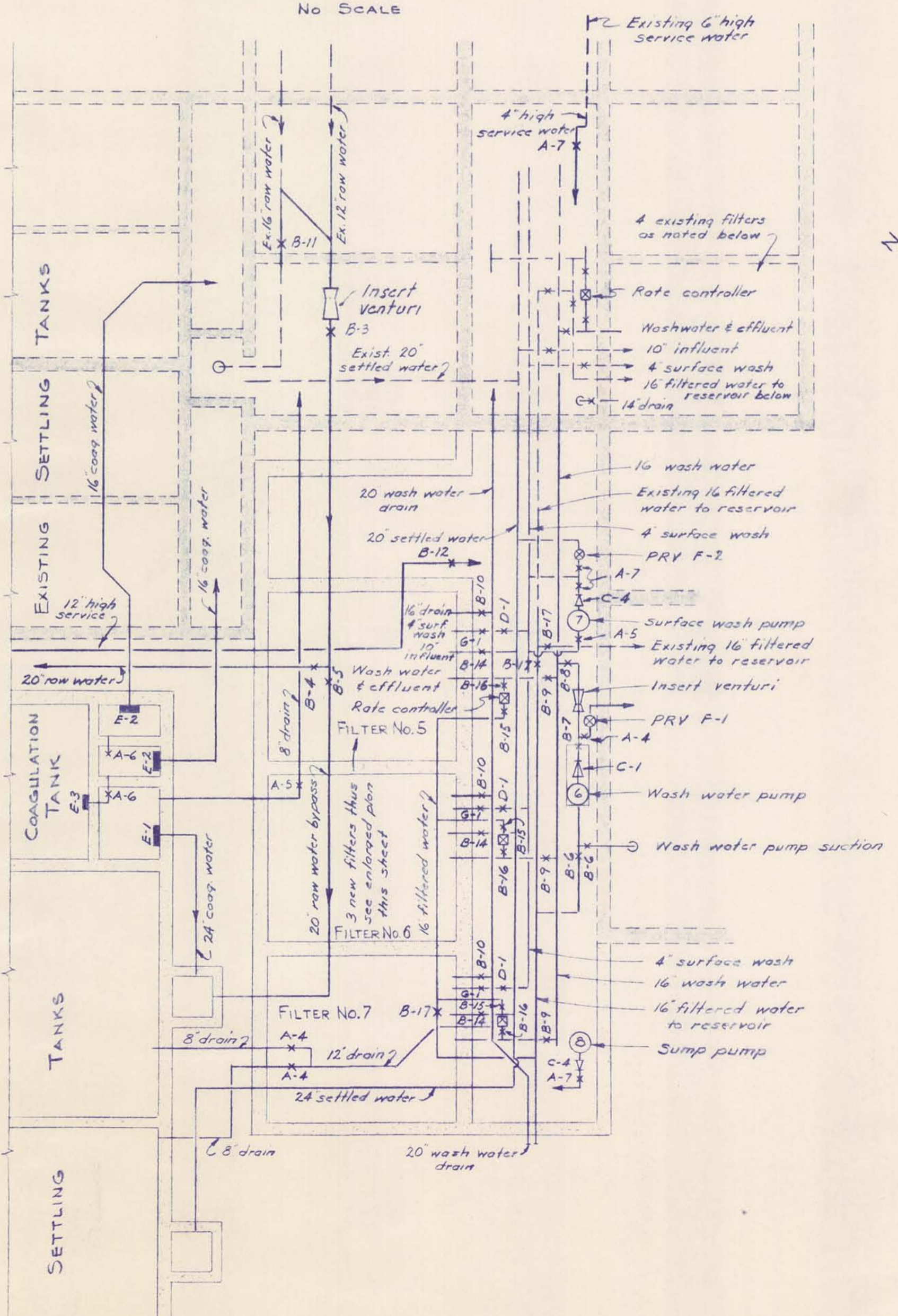
SARGO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 8532

SARGO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 8532

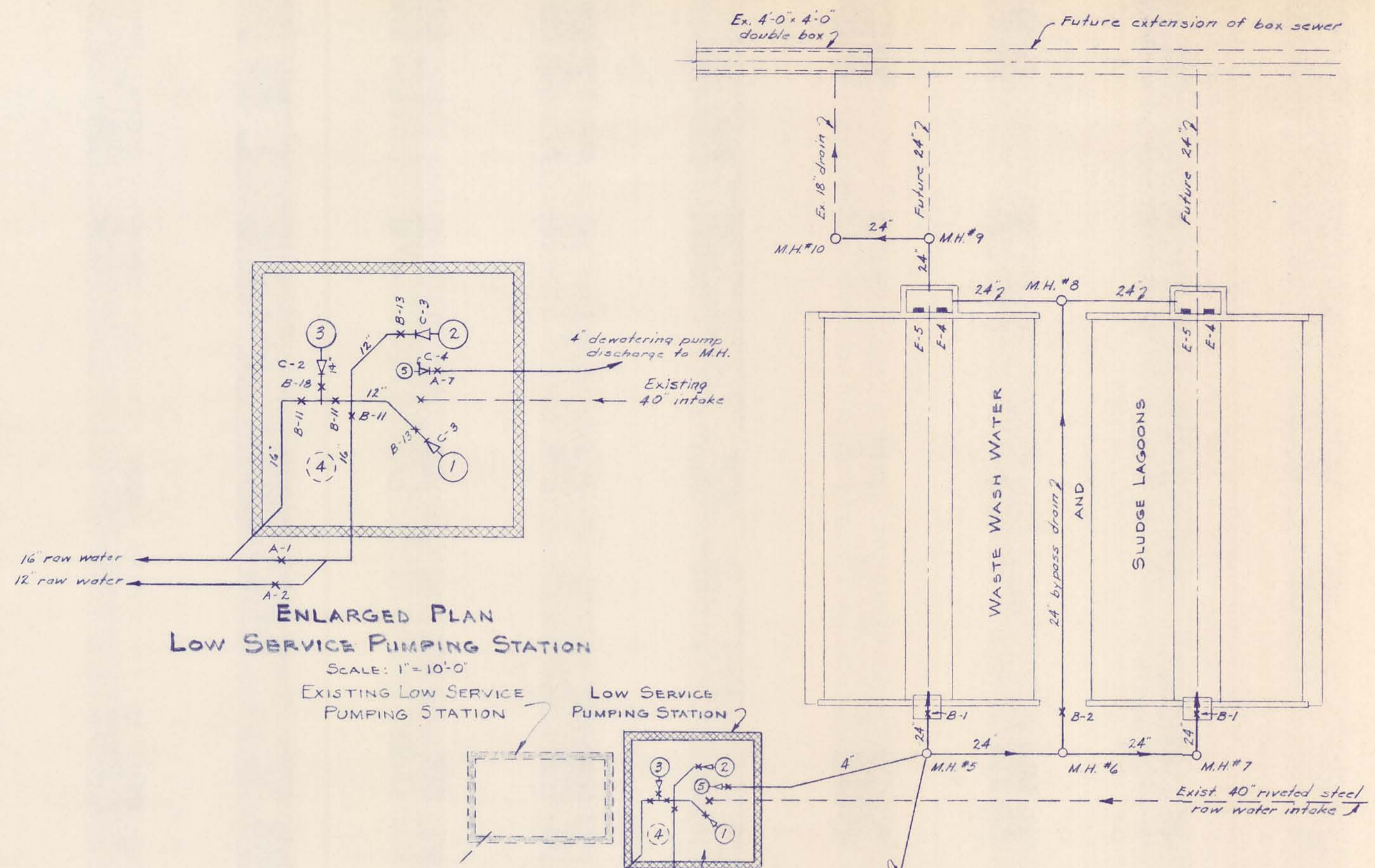
SARGO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 8532



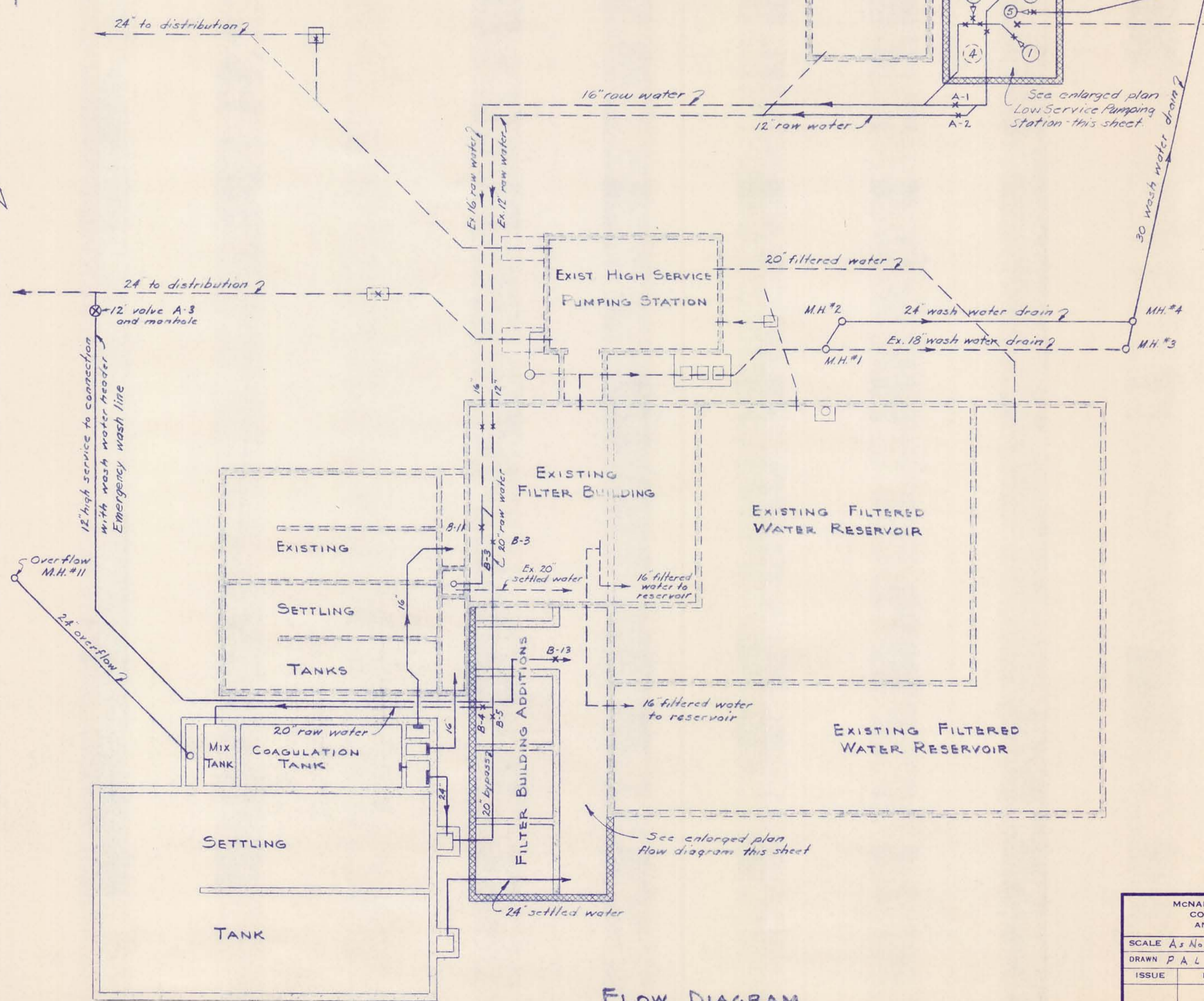
Typical Filter Flow Diagram
No Scale



Enlarged Partial Plan Flow Diagram
Scale: 1" = 10'



Enlarged Plan Low Service Pumping Station
Scale: 1" = 10'-0"

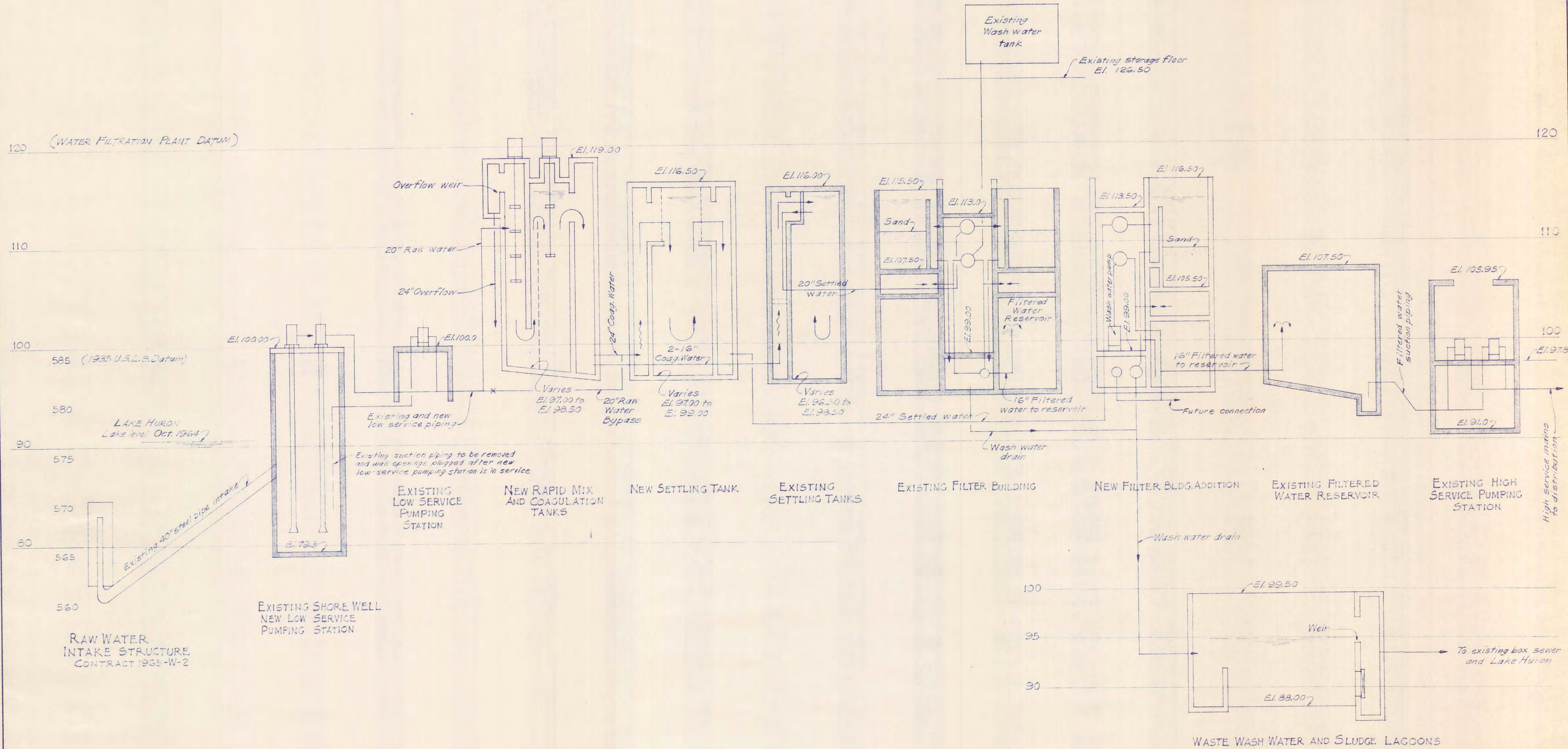


Flow Diagram
Scale: 1" = 20'

LEGEND

- ① Low service (raw water) pumps
- ② Future low service pump
- ③ Exist. intake well dewatering pump
- ④ Wash water pump
- ⑤ Surface wash pump
- ⑥ Sump pump
- ⑦ Existing piping
- ⑧ New piping
- Existing valve
- New valve as per valve schedule
- Manhole
- ▬ Sluice gate as per valve schedule
- ▬ Check valve as per valve schedule
- ▬ Insert Venturi

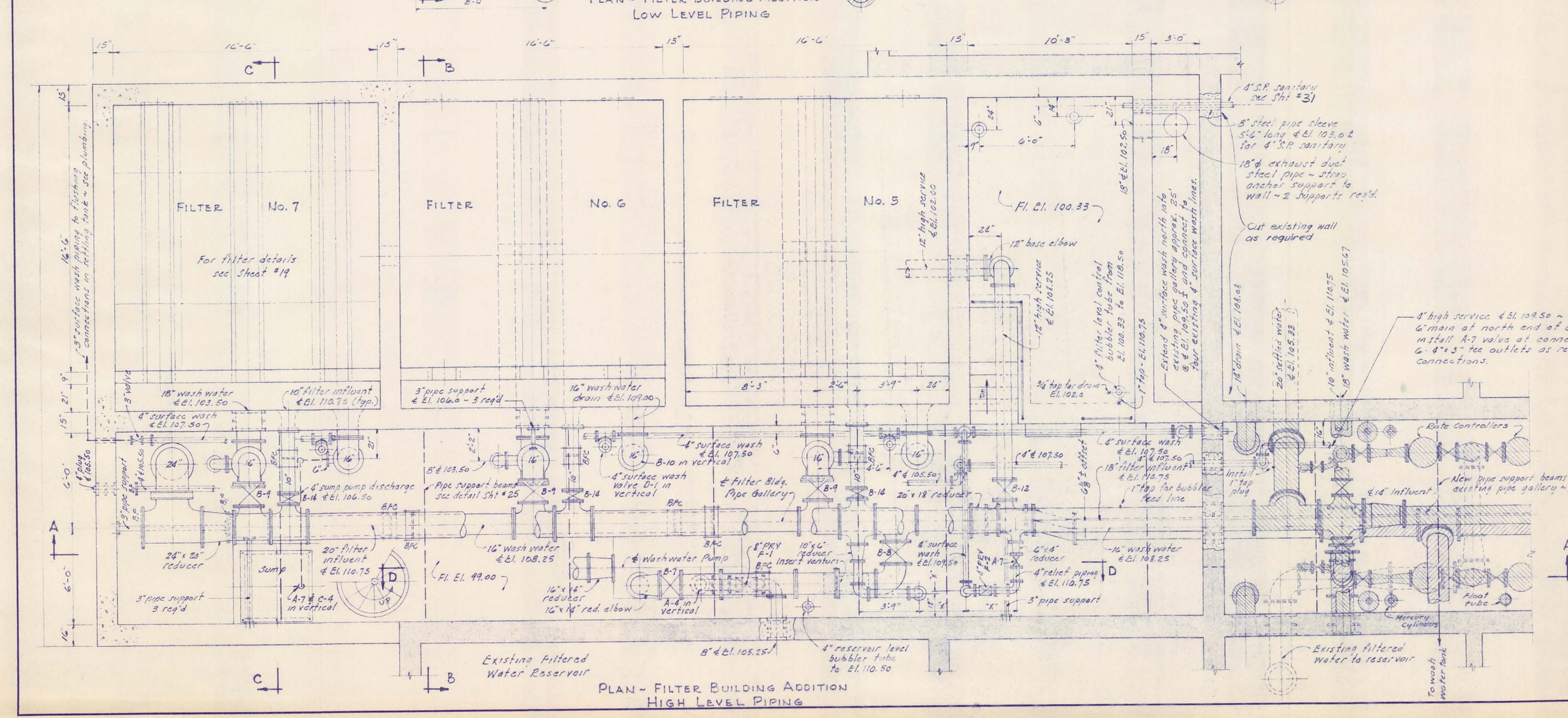
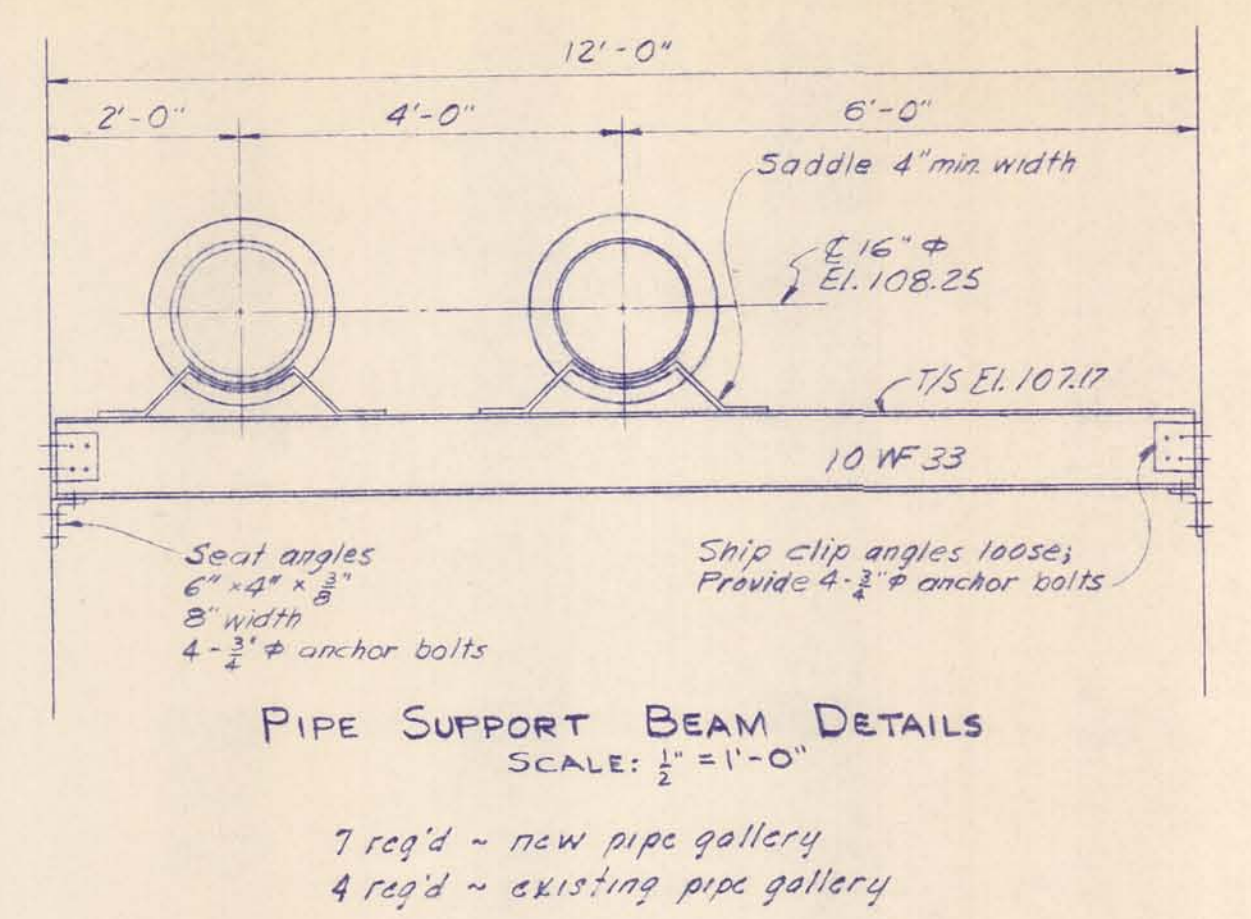
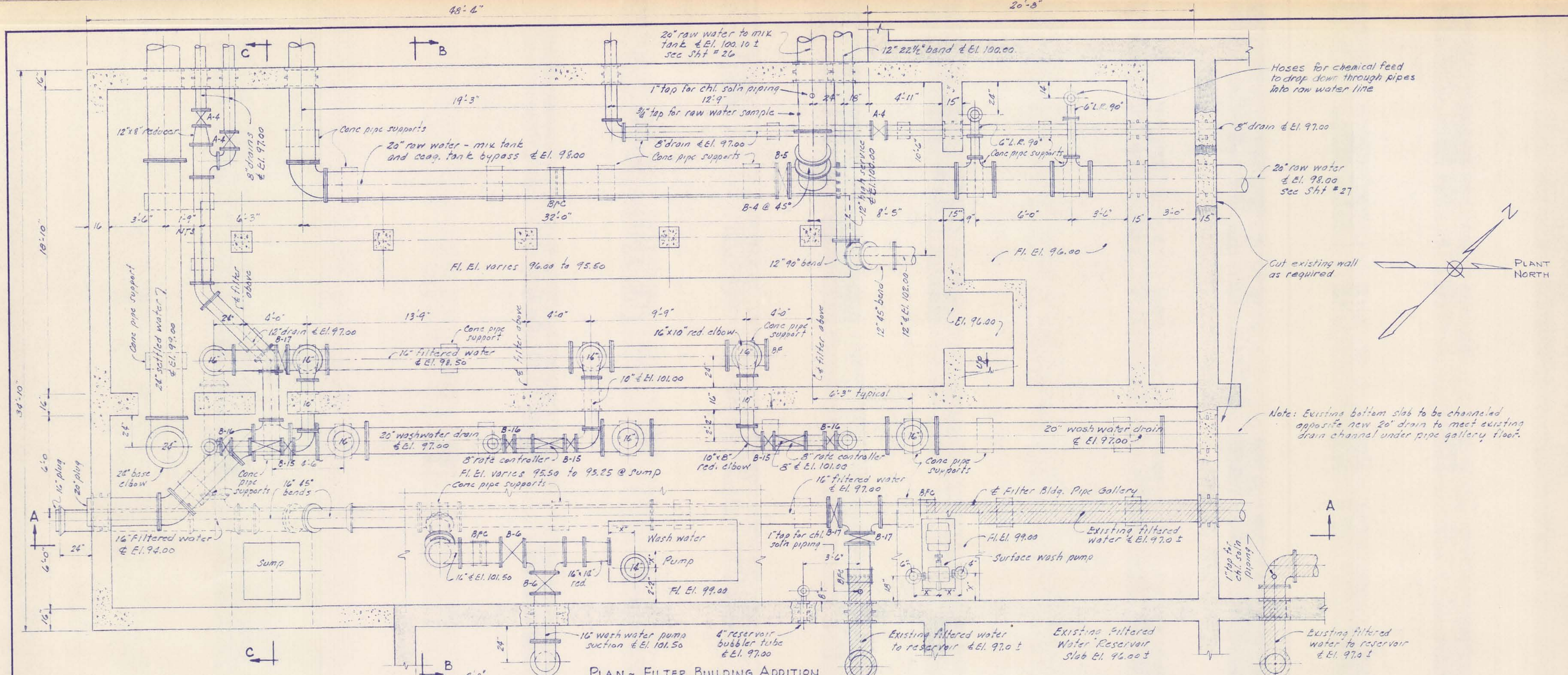
MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE: A: 1" = 20'	ISSUED: MAR. 1965	DRAWN: P.A.L. TRACED: J.E.D. CHECKED: J.C.S.	
ISSUE	NATURE OF REVISION	DATE	
CONTRACT 1965 W-2		SHEET 23 OF 33	



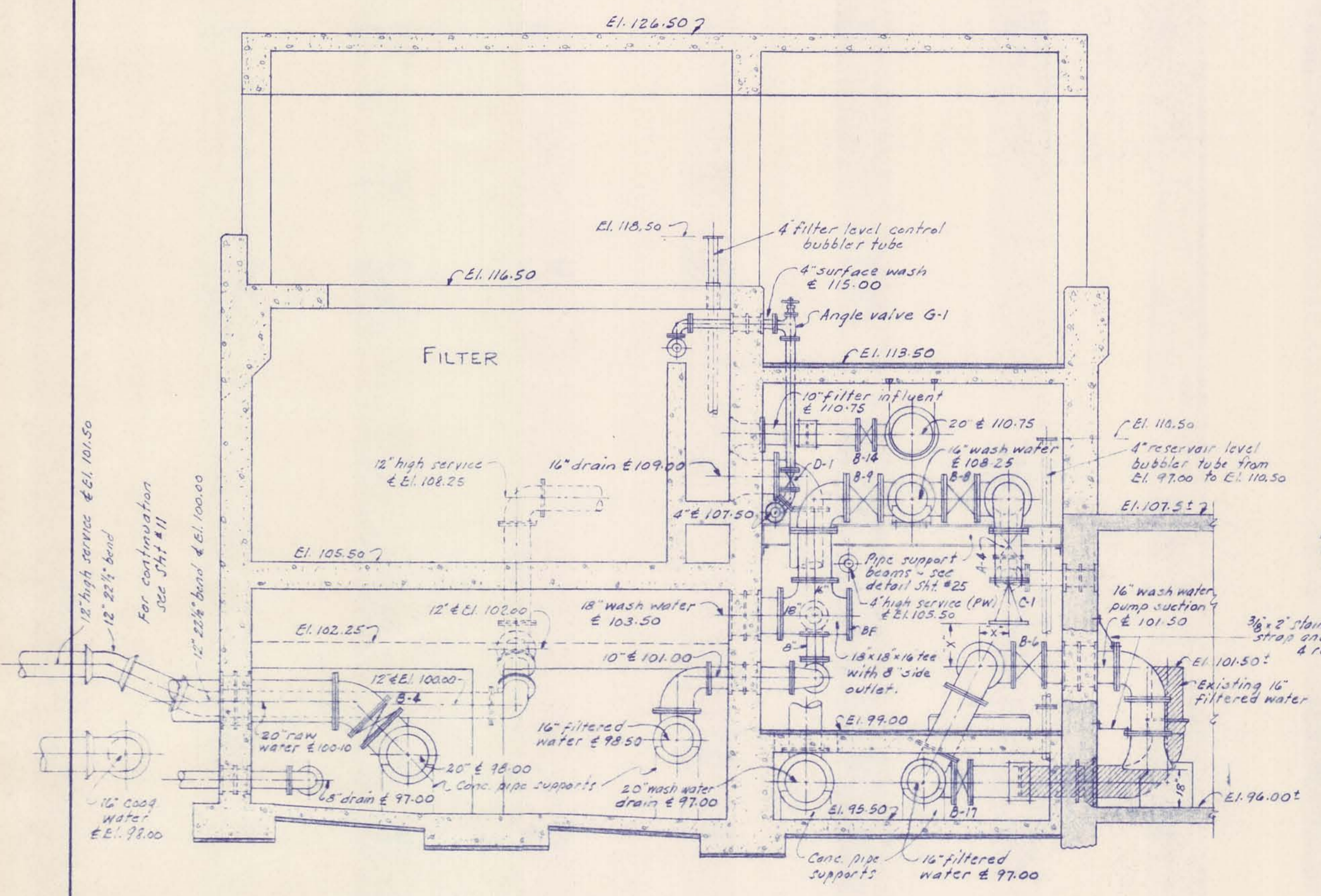
To convert from Water Filtration Plant Datum to 1935 U.S.L.S. Datum, add 486.75'

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE NONE	ISSUED MAR. 1965		HYDRAULIC PROFILE		
DRAWN PAL	TRACED JMA	CHECKED J.C.S.			
ISSUE	NATURE OF REVISION	DATE			
			CONTRACT 1965 W-2	SHEET 24 OF 33	

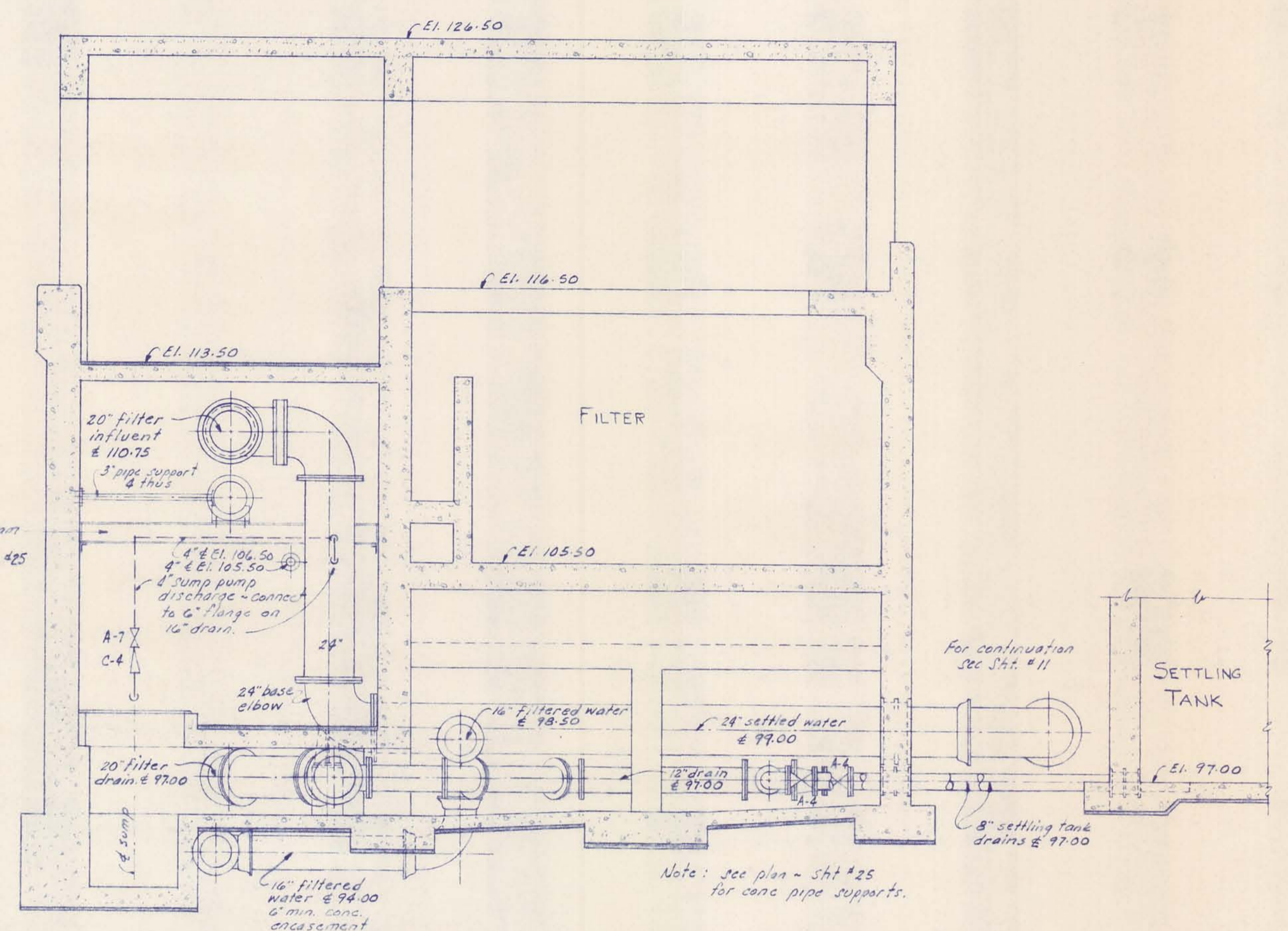
WATER TREATMENT PLANT 1965
 SHEET 25 OF 33
 SAFECO PRODUCTS • NEW HOPE, MINNESOTA
 REORDER BY PART NUMBER 6552



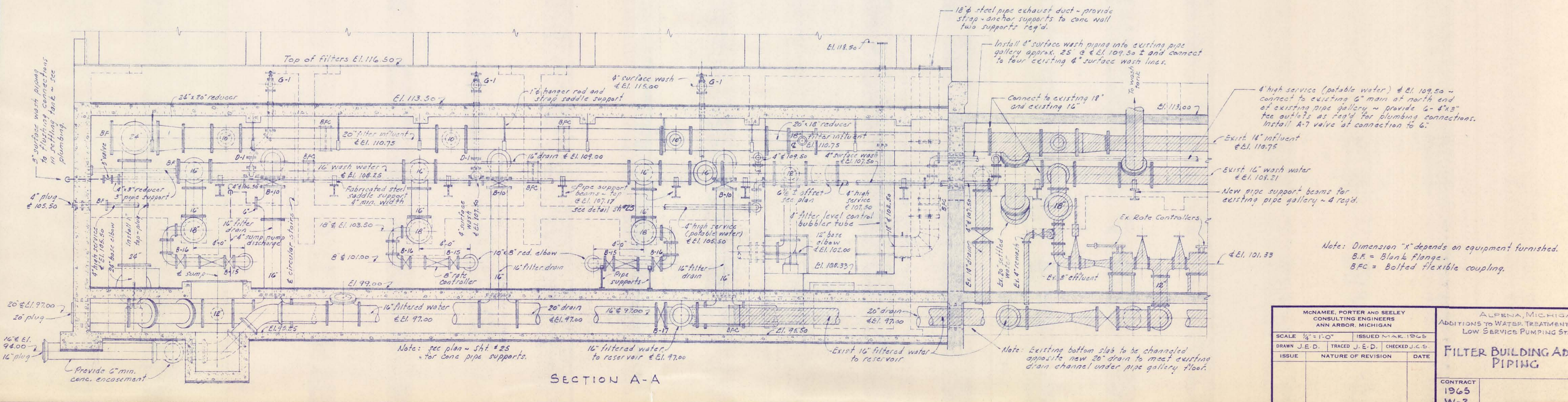
M'NAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE 1/4" = 1'-0"	ISSUED MAR. 1965	DRAWN J. E. D. TRACED J. E. D. CHECKED J. C. S.	
ISSUE	NATURE OF REVISION	DATE	
CONTRACT 1965 W-2		SHEET 25 OF 33	



SECTION B-B

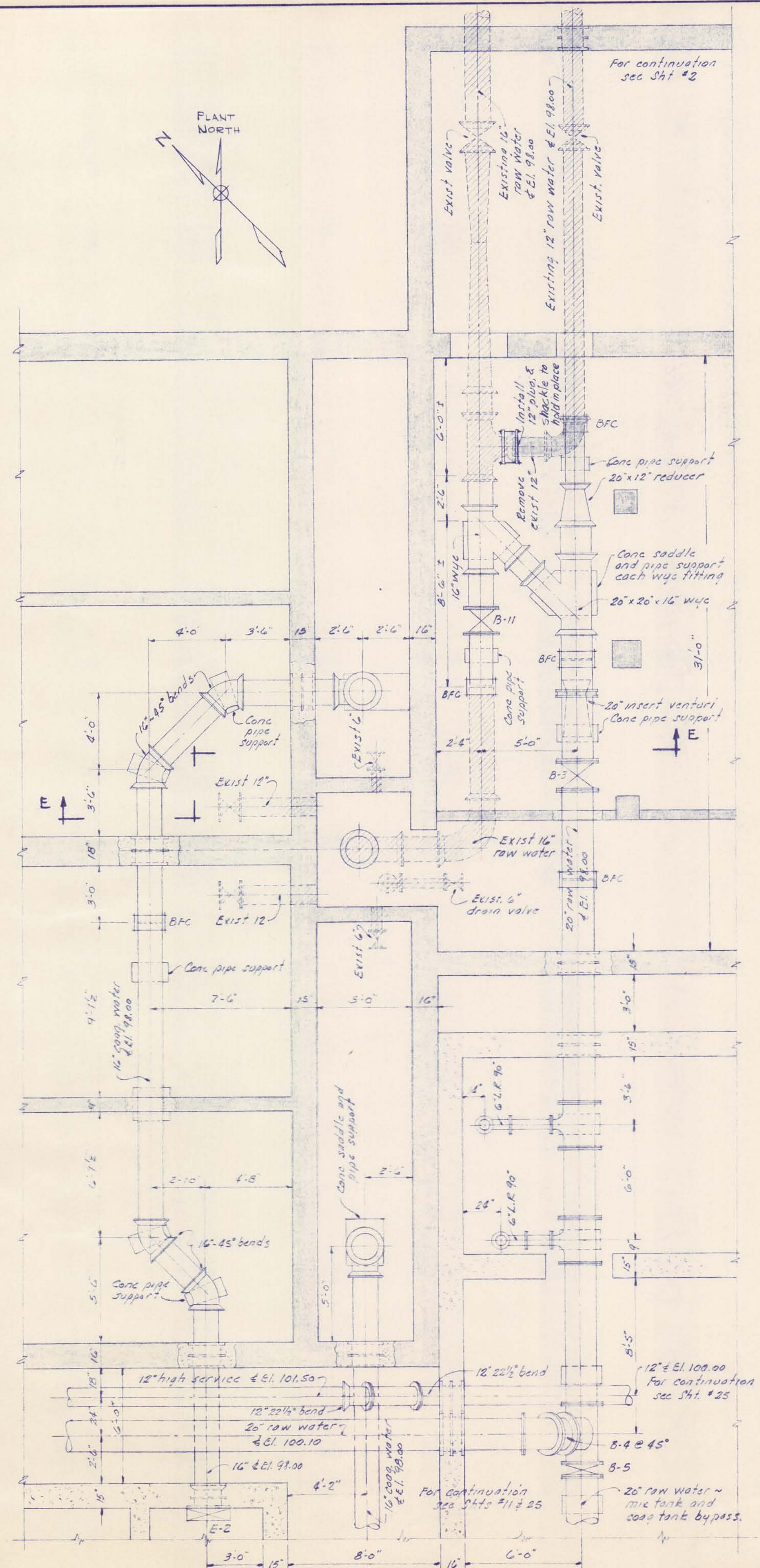


SECTION C-C

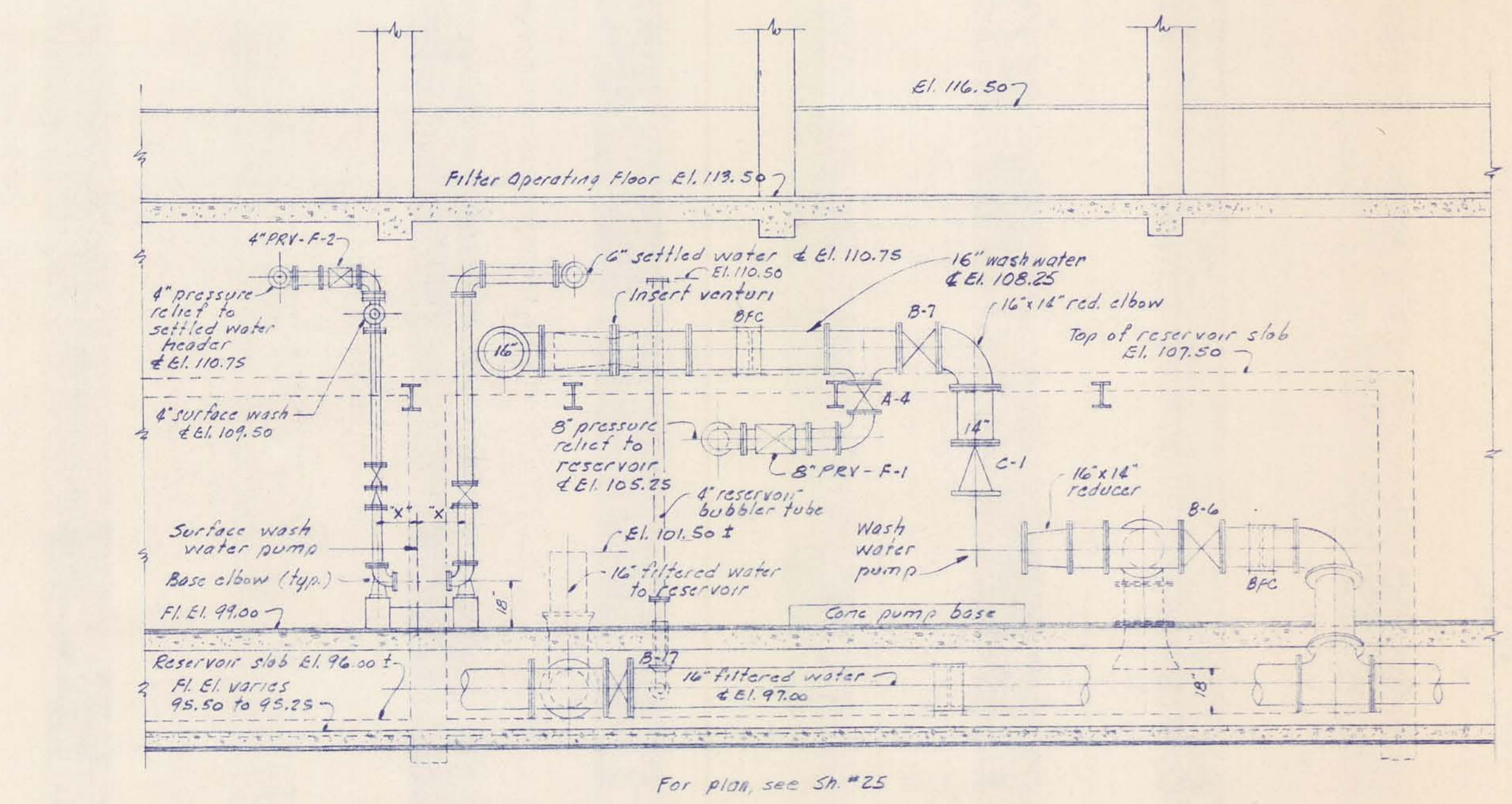
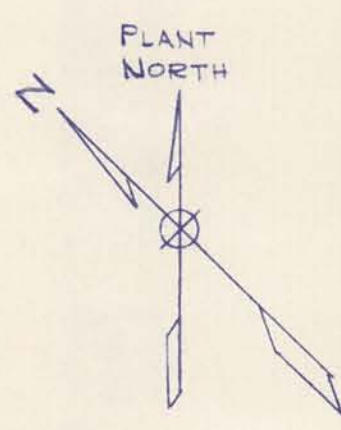


SECTION A-A

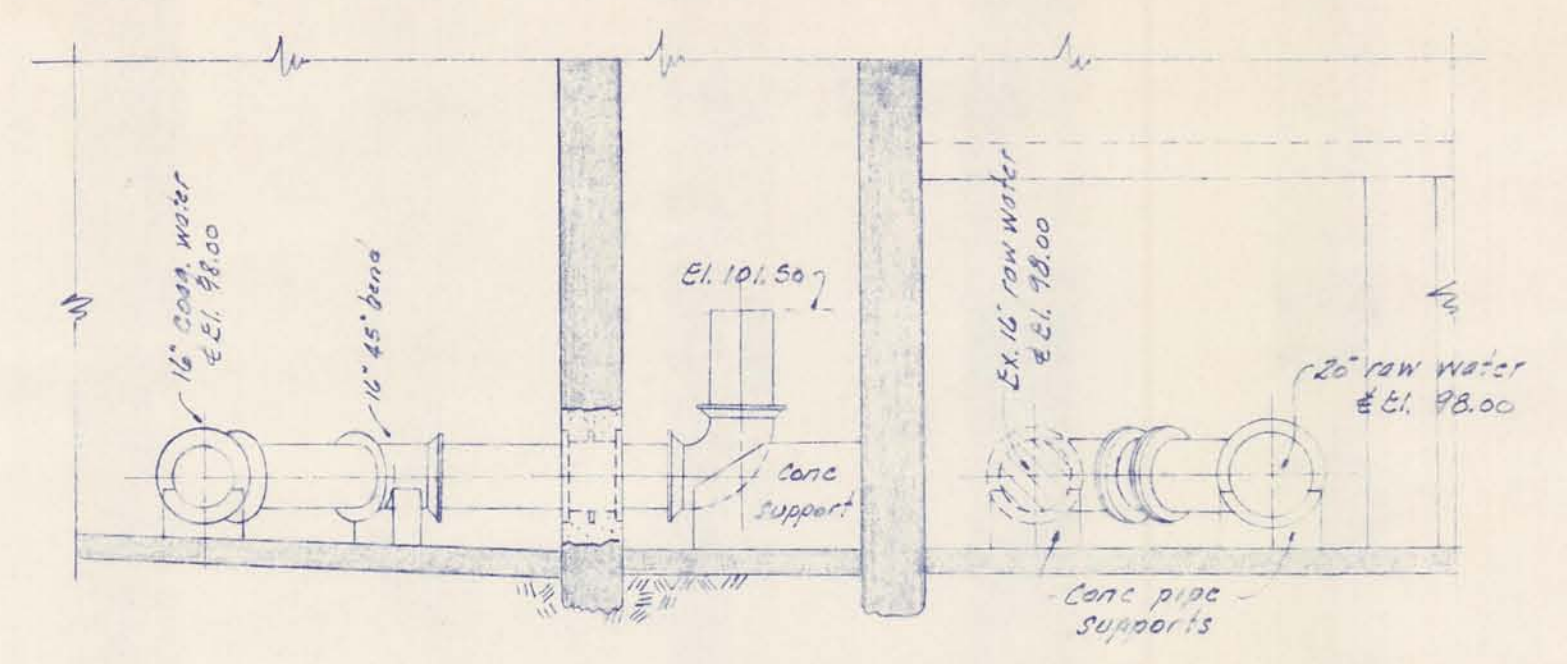
McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE 1/4"=1'-0"	ISSUED MAY 1965		FILTER BUILDING ADDITION PIPING		
DRAWN J.E.D.	TRACED J.E.D.	CHECKED J.C.S.	CONTRACT 1965 W-2		
ISSUE	NATURE OF REVISION	DATE	SHEET 26 OF 33		



PARTIAL PLAN - EXISTING FILTER BUILDING AND SETTLING TANKS



SECTION D-D



SECTION E-E

MCGRAW, PORTER AND SEELY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION EXISTING SETTLING TANKS AND FILTER BUILDING PIPING - SECTIONS		
SCALE 1/4" = 1'-0"	ISSUED MAR. 1965		CONTRACT 1965 W-2	SHEET 27 OF 33	
DRAWN J.E.D.	TRACED J.E.D.	CHECKED J.C.S.			
ISSUE	NATURE OF REVISION	DATE			

DRAWING NUMBER

SAFOD PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6582

DRAWING NUMBER

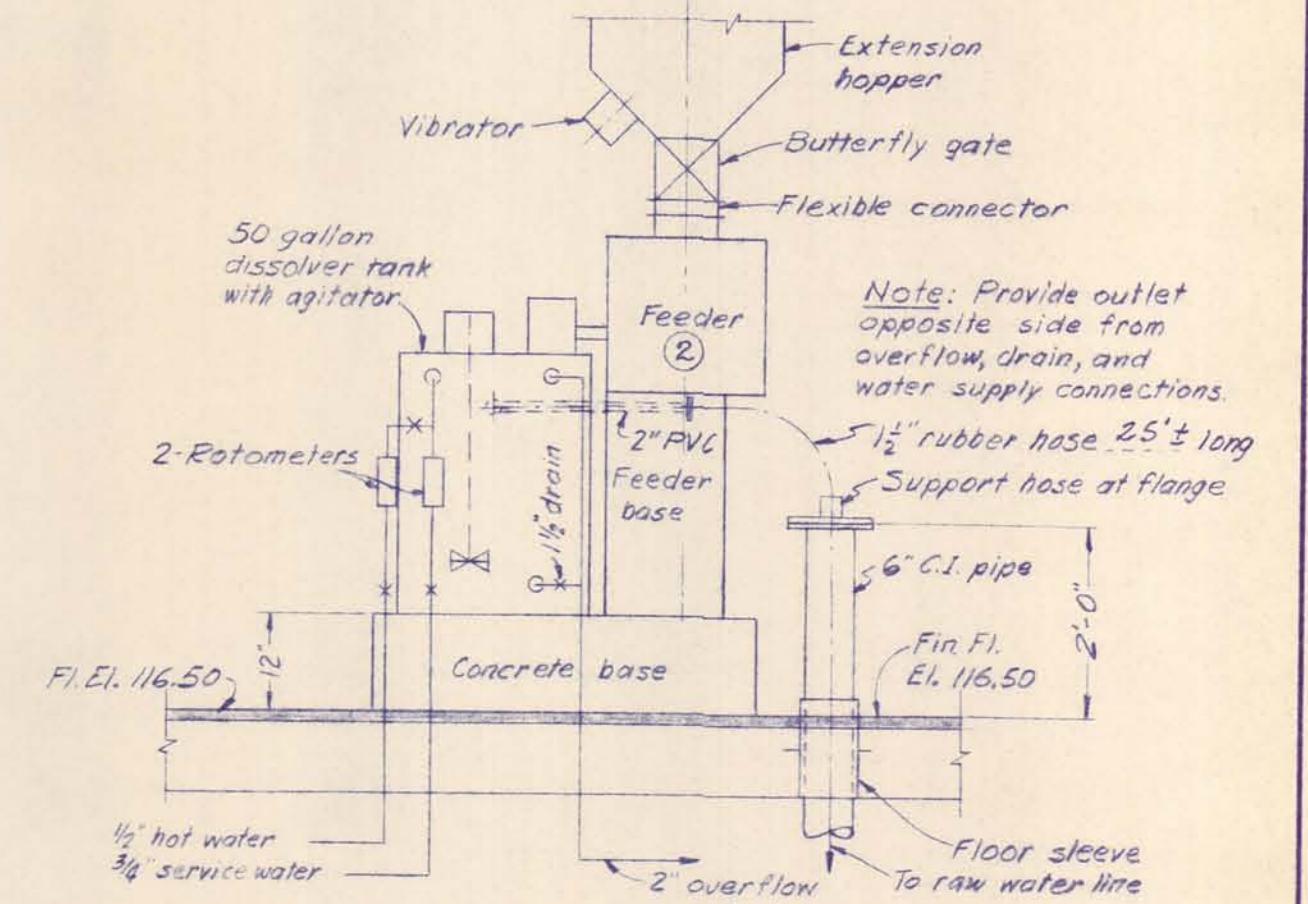
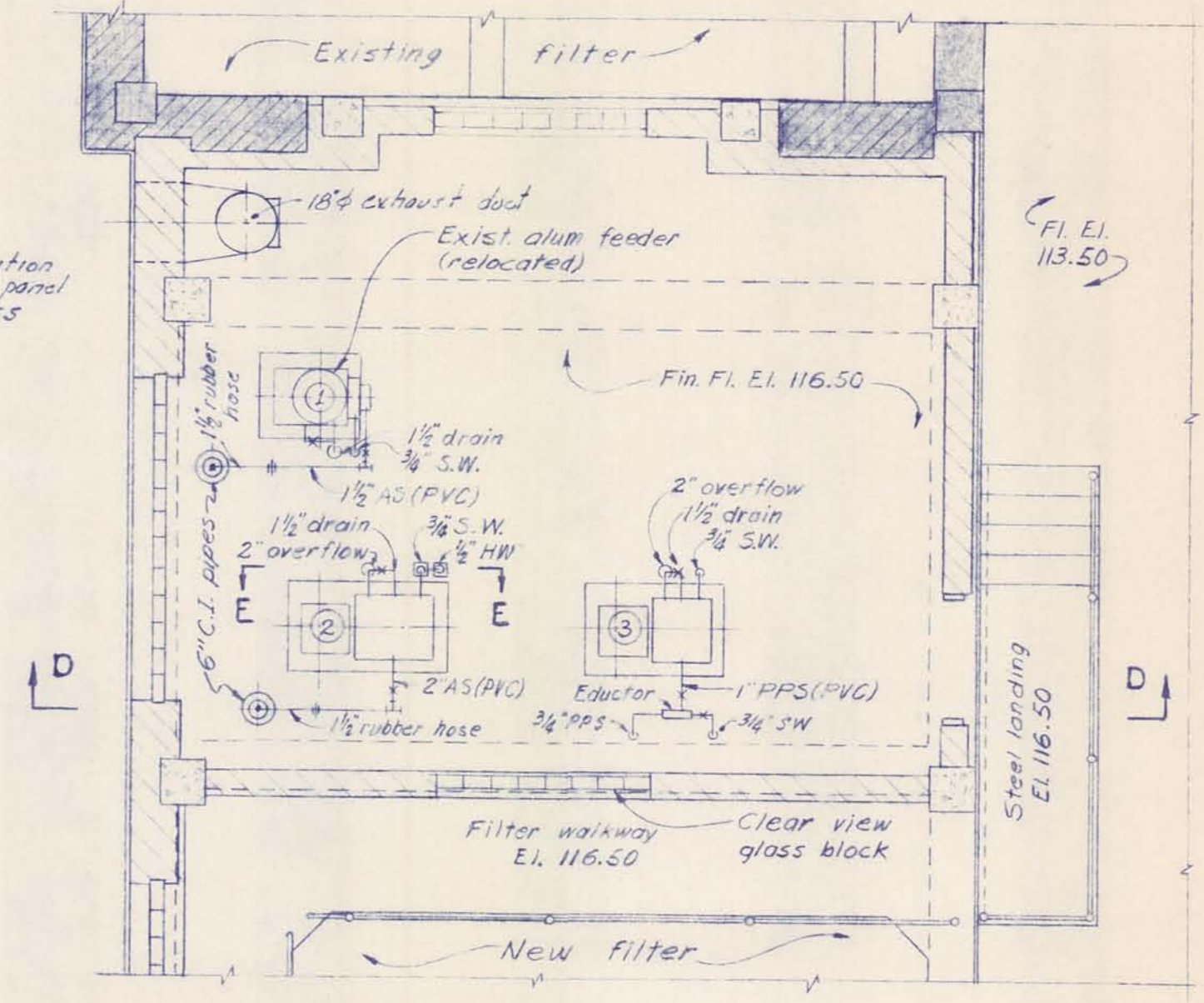
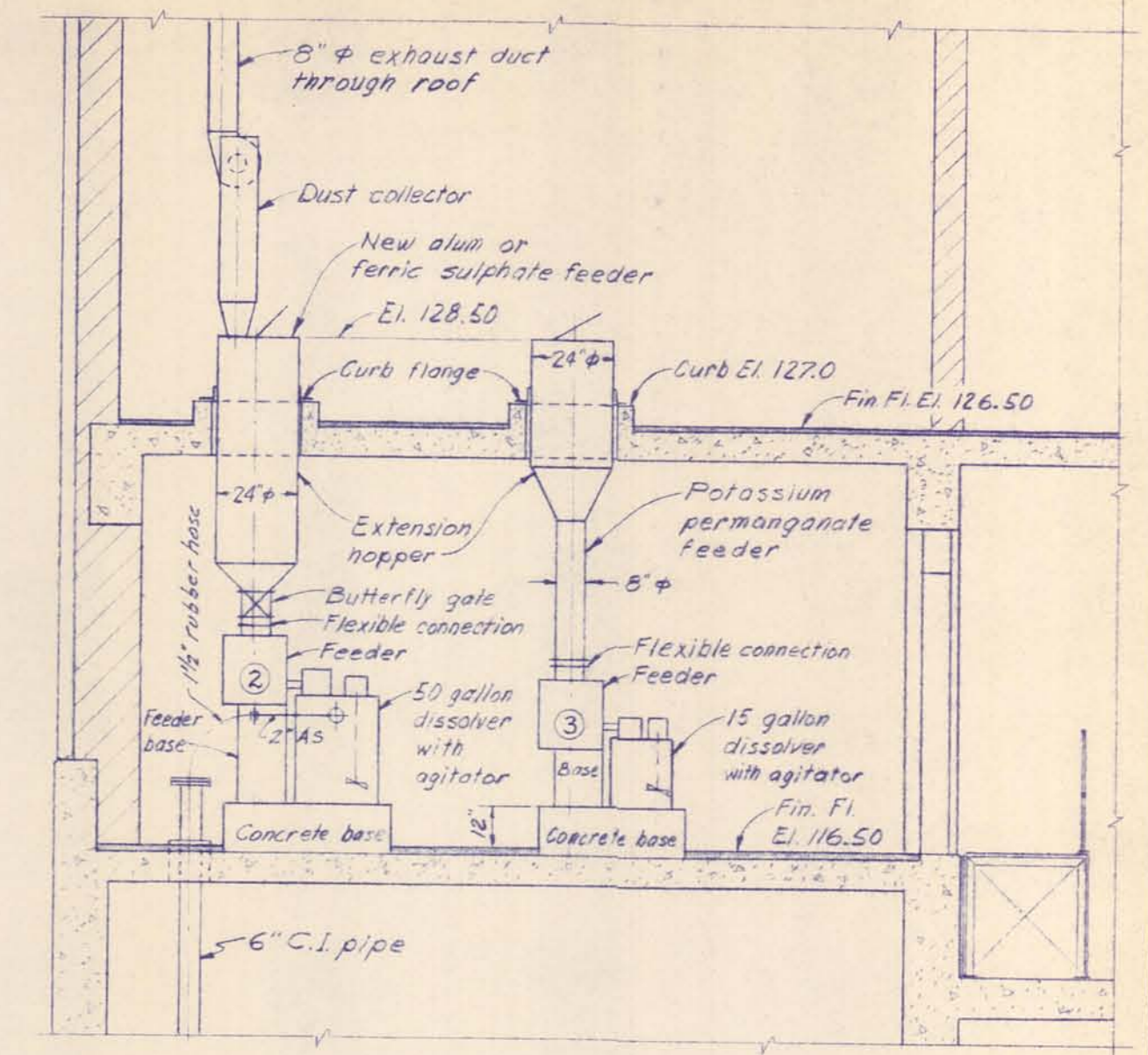
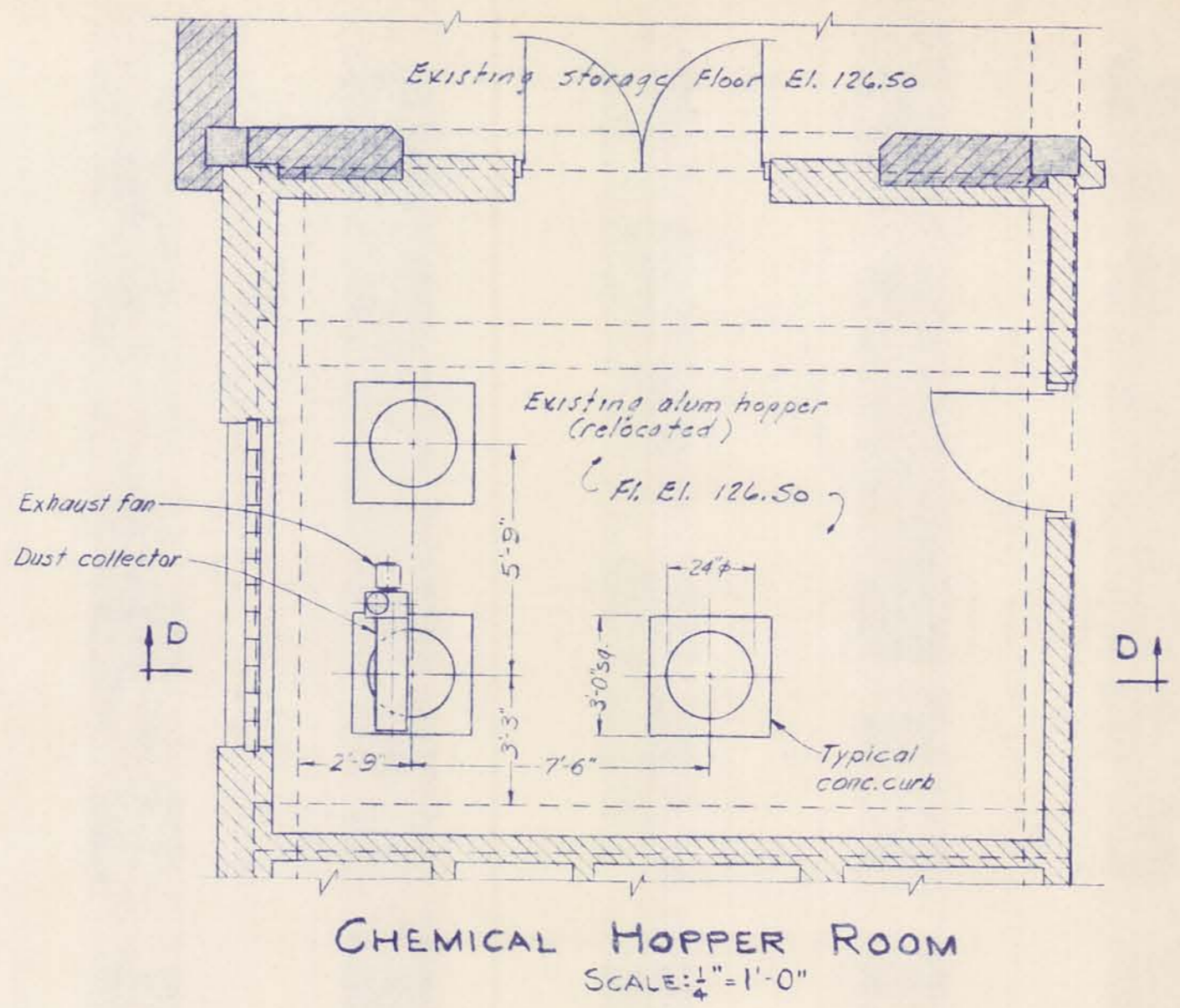
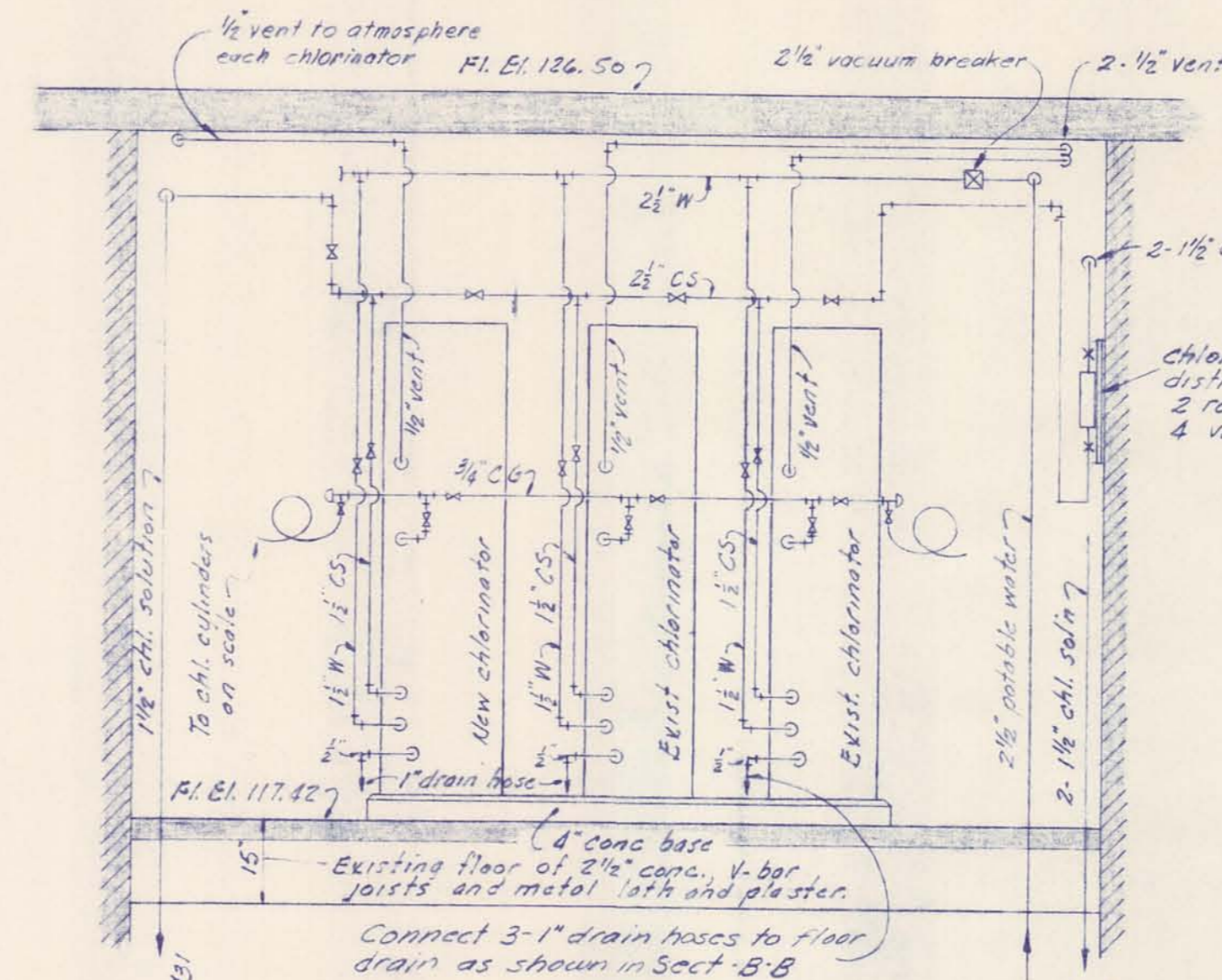
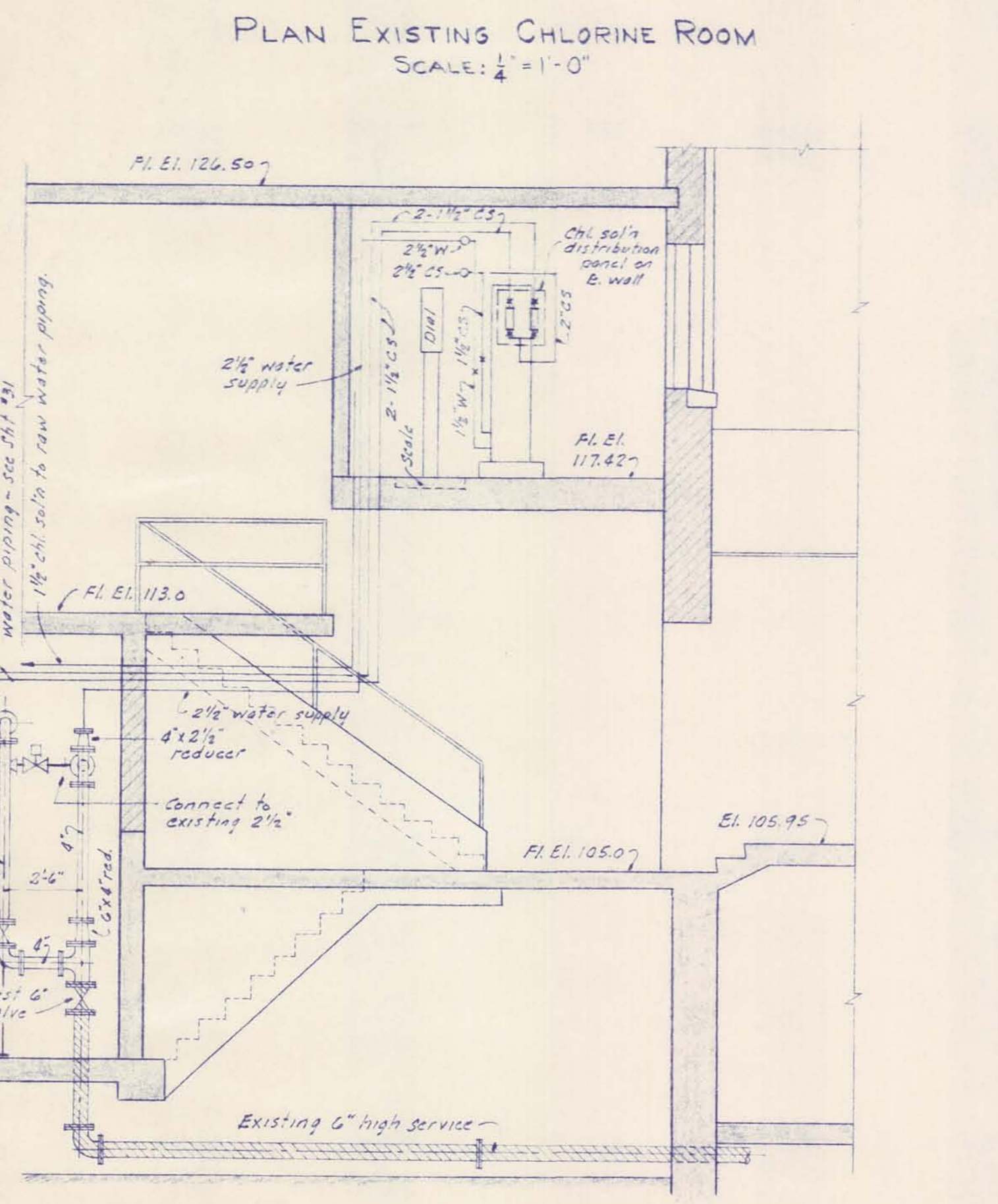
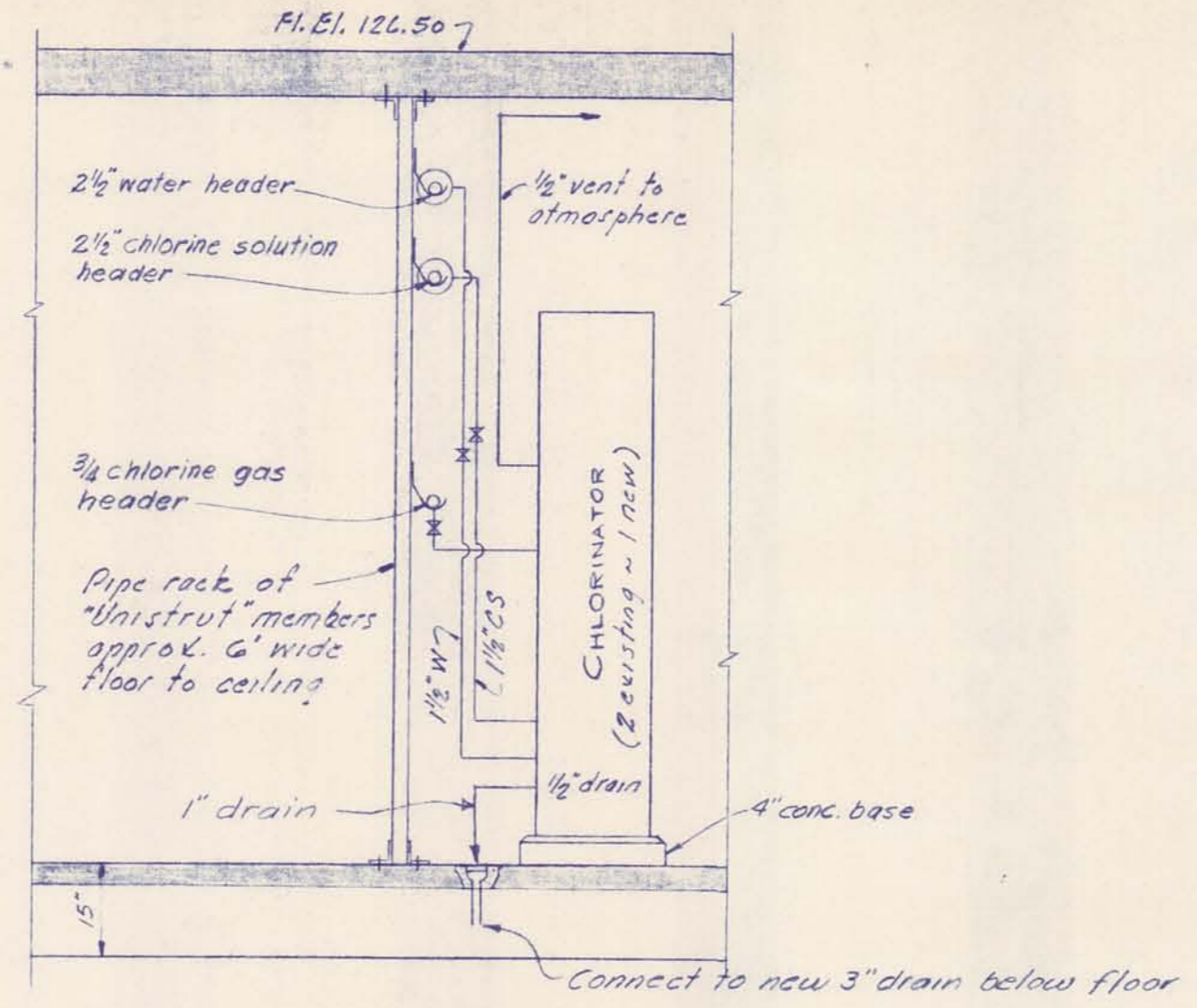
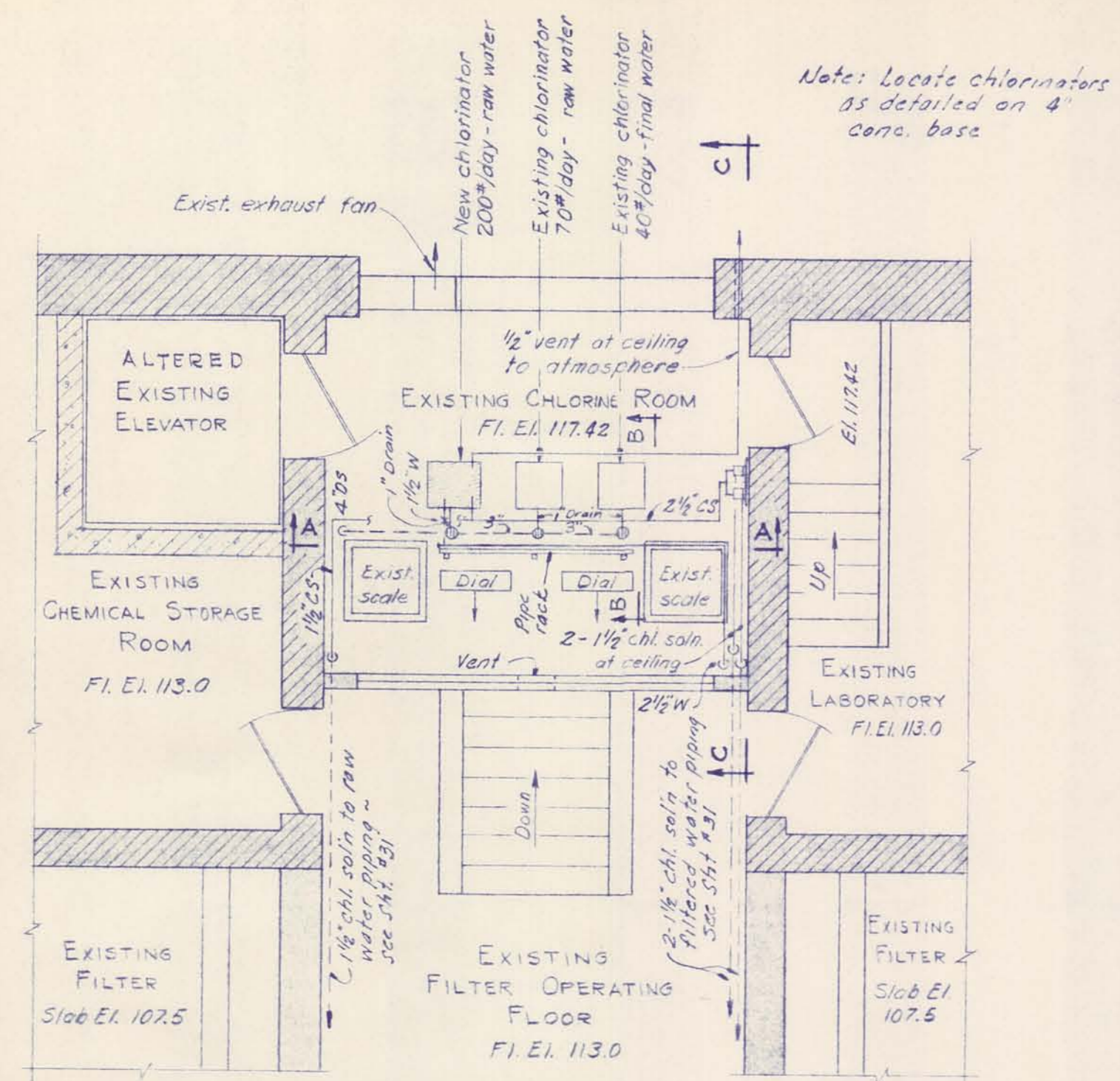
SAFOD PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6582

ADDITIONS
WATER TREATMENT
PLANT 1965
28 OF 33

SAFOD PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6582

G NUMBER

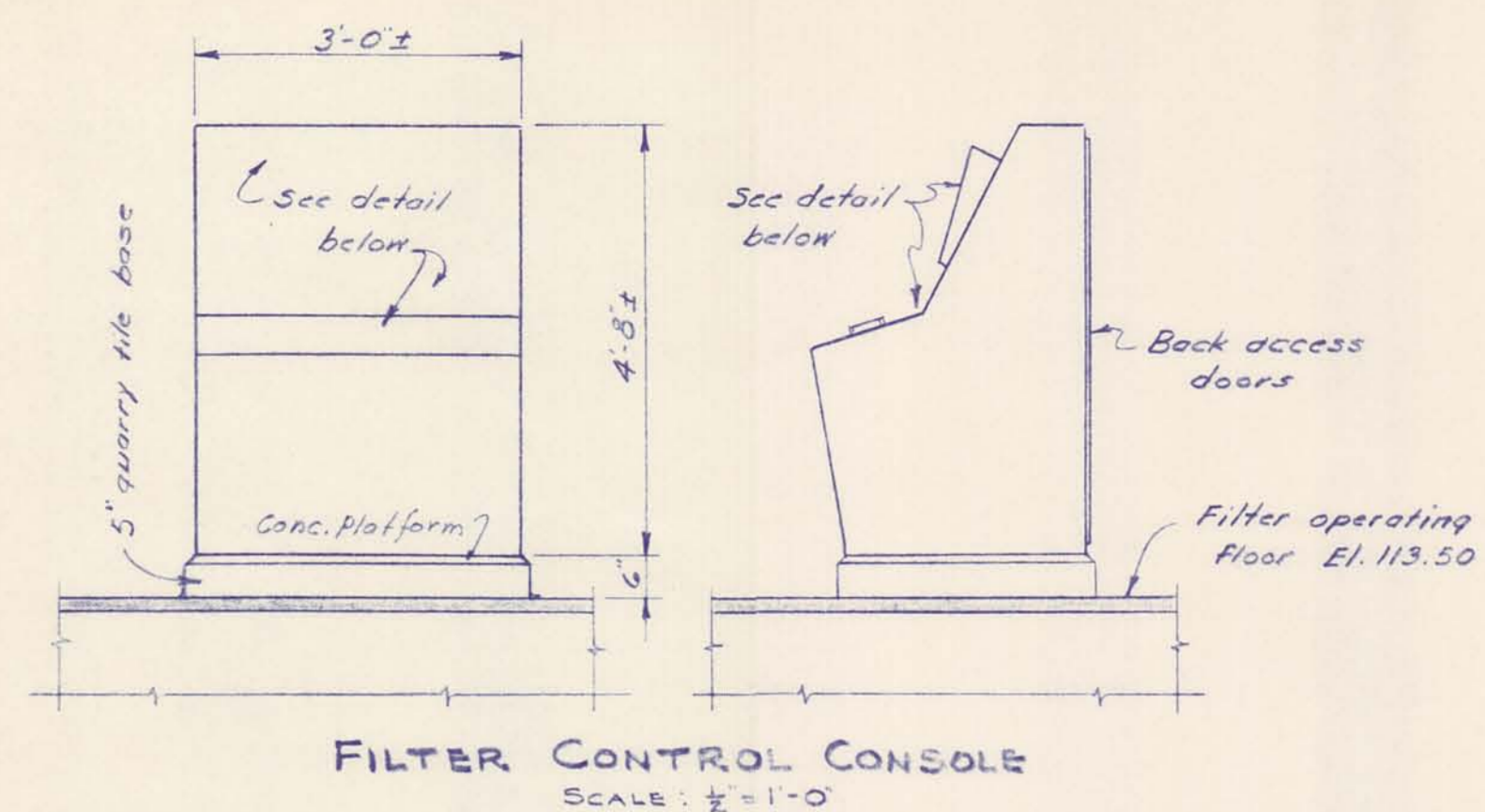
NEW HOPE, MINNESOTA
OFF NUMBER 6582



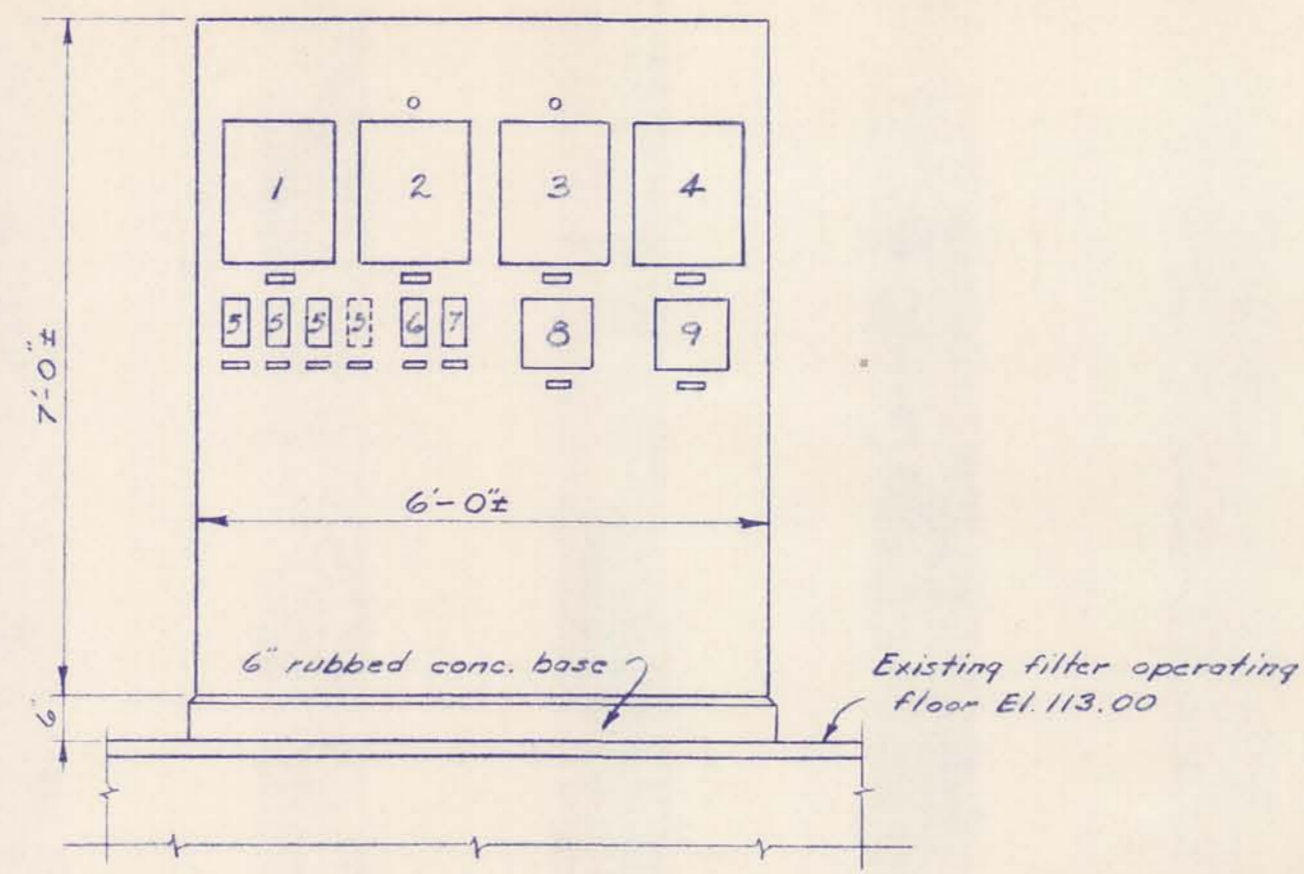
- ① RELOCATE POSITION OF EXISTING ALUM FEEDER
- ② NEW FERRIC SULPHATE OR ALUM FEEDER
- ③ NEW POTASSIUM PERMANGANATE FEEDER

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE AS NOTED	ISSUED MAR 1965	CHLORINE ROOM CHEMICAL FEED ROOM SECTIONS & DETAILS	
DRAWN P.A.L.	TRACED R.E.G.	CONTRACT 1965 W-2	
ISSUE	NATURE OF REVISION	DATE	SHEET 28 OF 33

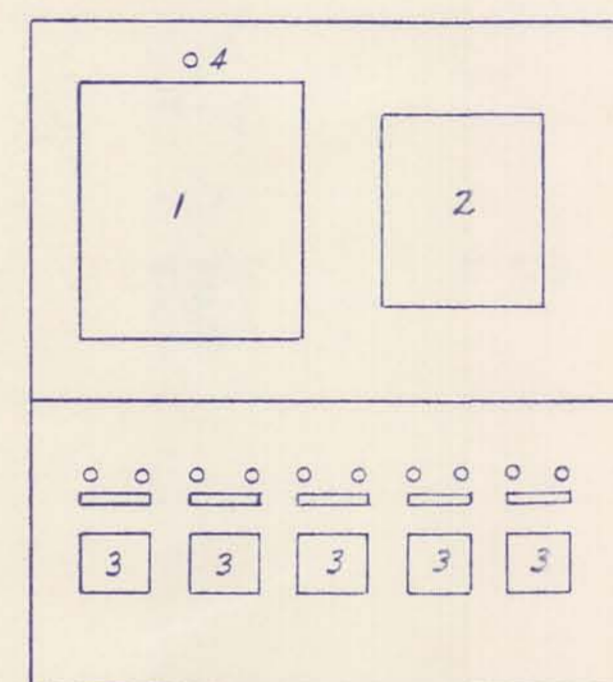
WATER TREATMENT PLANT 1965
 PLANT 1965
 29 OF 33
 SAFECO PRODUCTS • NEW HAVEN, CONNECTICUT
 REORDER BY PART NUMBER 6522
 SAFECO PRODUCTS • NEW HAVEN, MINNESOTA
 REORDER BY PART NUMBER 6522
 SAFECO PRODUCTS • NEW HAVEN, MINNESOTA
 REORDER BY PART NUMBER 6522
 SAFECO PRODUCTS • NEW HAVEN, MINNESOTA
 REORDER BY PART NUMBER 6522



FILTER CONTROL CONSOLE
SCALE: 1/2" = 1'-0"



AUXILIARY CONTROL PANEL
SCALE: 1/2" = 1'-0"



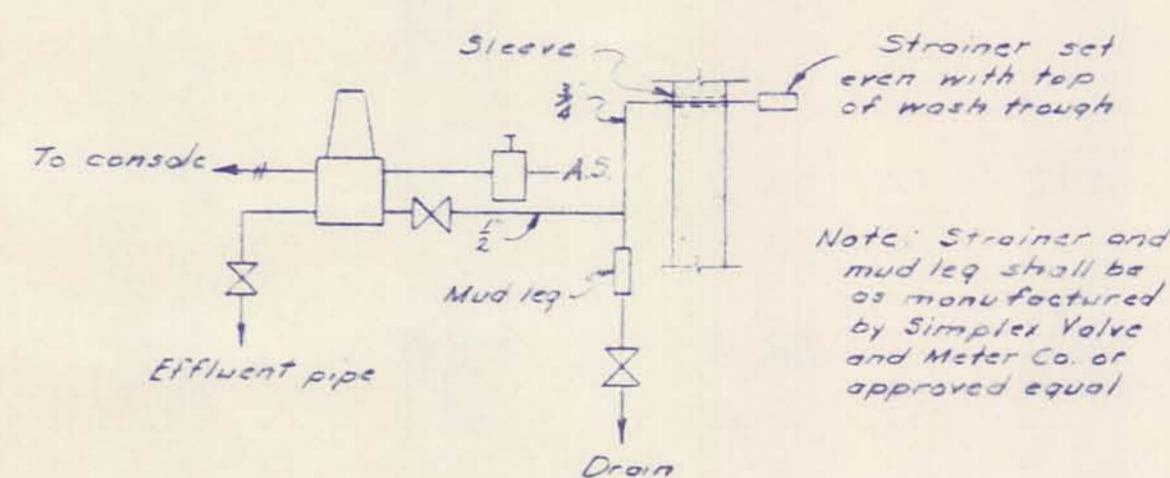
FILTER CONTROL CONSOLE DETAIL
NO SCALE - 3 REQ'D

CONTROL ITEMS

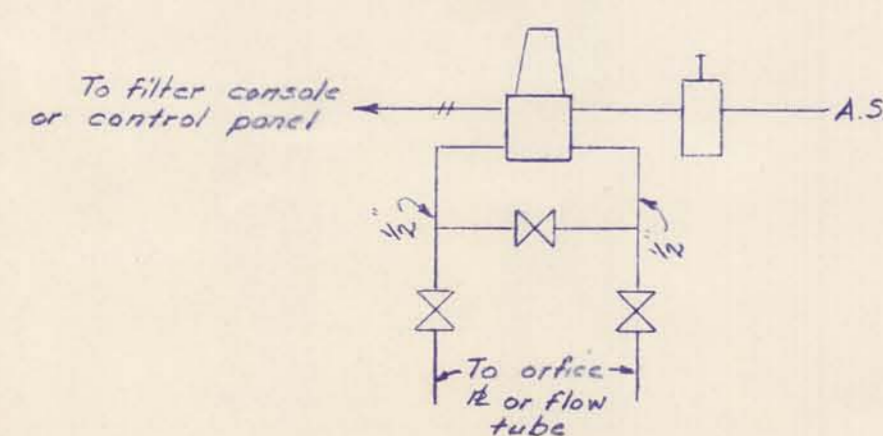
1. Rate of flow and loss of head recorder and controller
2. Wash water indicator and flow control station
3. Open-closed control switches for filter shut-off valves with red and green indicating lights (1-influent, 1-effluent, 1-wash water and 1-surface wash)
4. Red light - loss of head alarm

CONTROL ITEMS

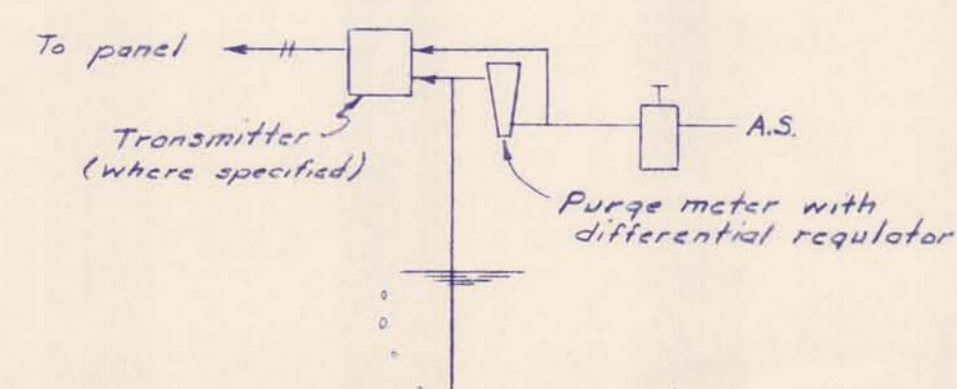
1. Raw water flow control station - recorder, totalizer & controller
2. Coagulation tank and filter level control and indicating station with alarm light
3. Reservoir level indicator and controller with high and low level alarm light
4. Existing and future elevated tank recorder - 2 pan.
5. Low service pump start-stop pushbutton station (1 future) with red and green indicating lights
6. Surface wash pump start-stop pushbutton station with red and green indicating lights
7. Wash water pump start-stop pushbutton station with red and green indicating lights
8. Wash water indicator and flow control station
9. Wash water recorder and totalizer



LOSS OF HEAD D/P

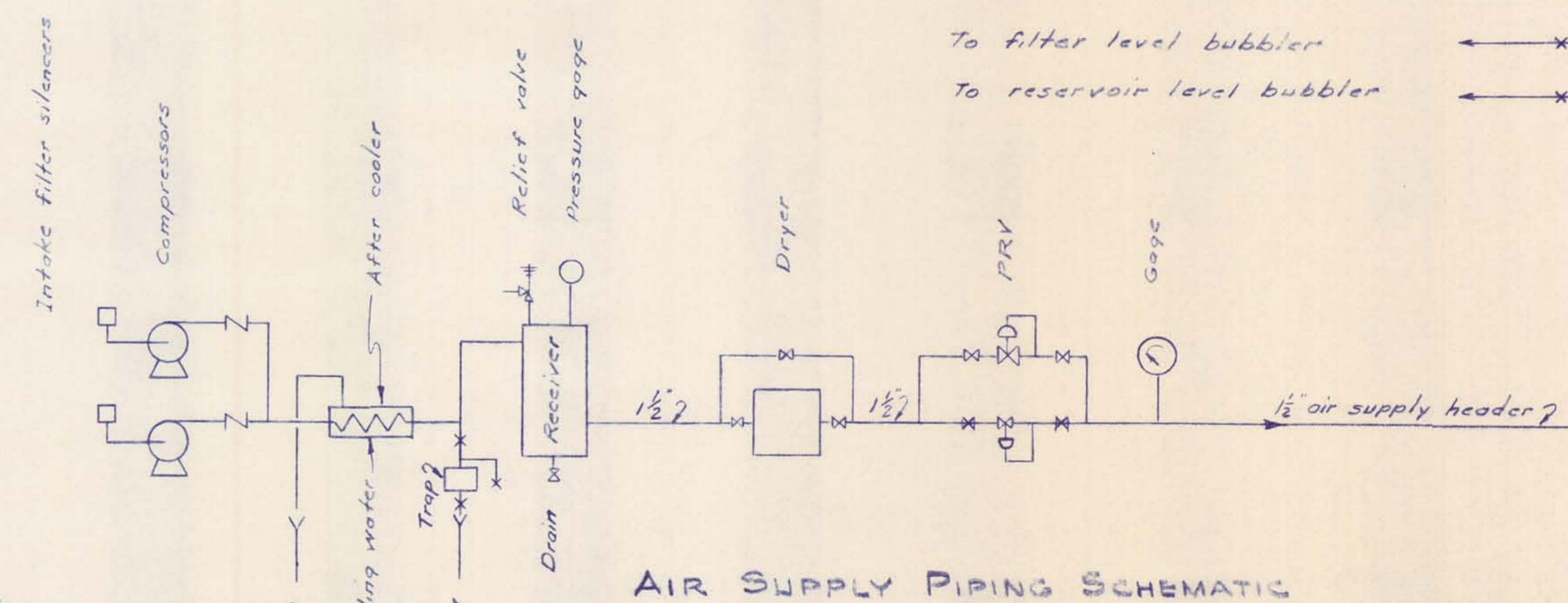
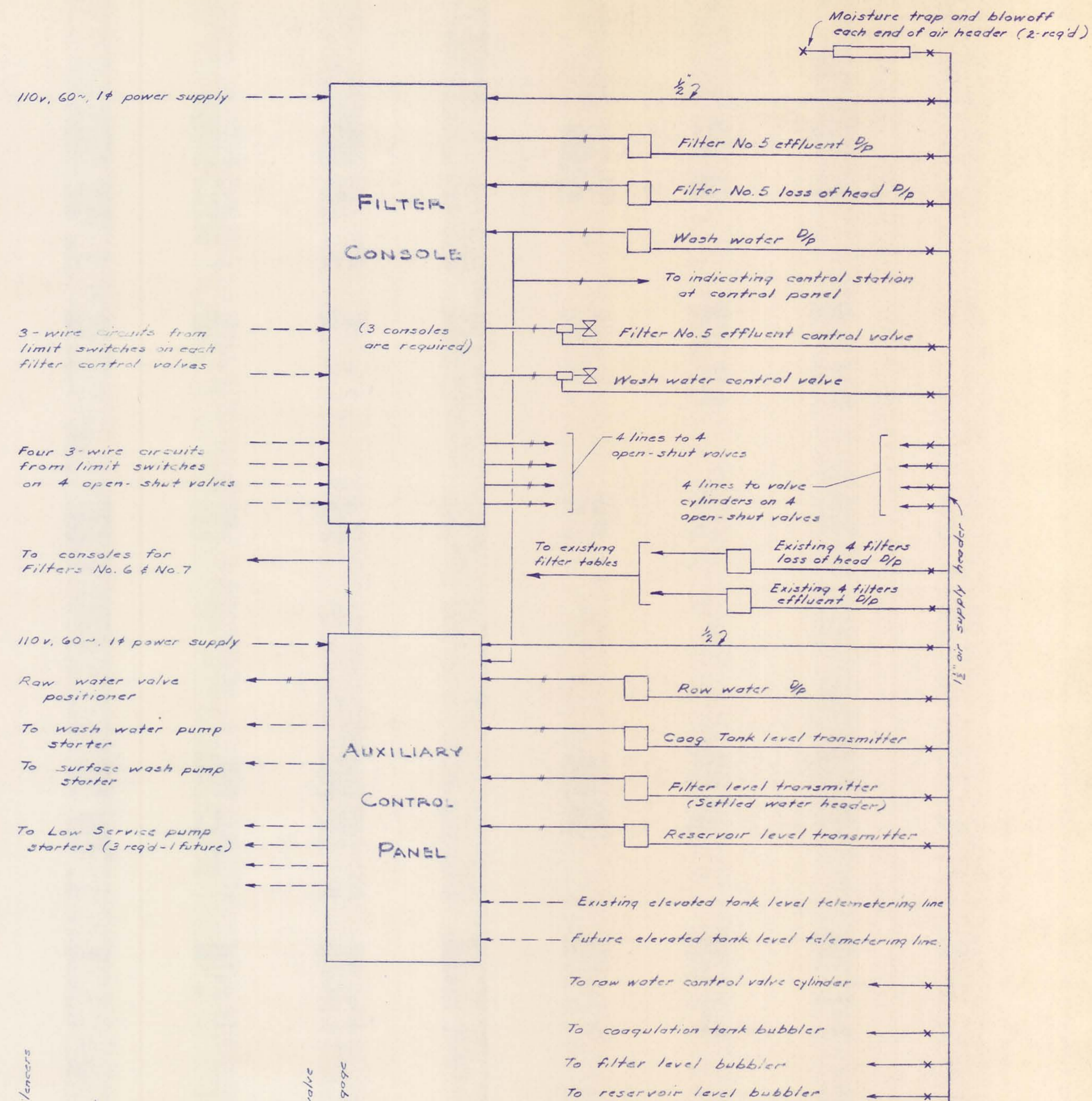


FLOW D/P



BUBBLER ASSEMBLY

TYPICAL CONTROL SYSTEM DETAILS
NO SCALE



AIR SUPPLY PIPING SCHEMATIC

Note: All air lines to valve cylinders shall be 3/8" copper tubing. Other air lines shall be 1/2" copper tubing unless shown otherwise.
 Console for Filters No. 6 and No. 7 similar to that shown for filter No. 5. Wash water Dp and control valve are common.
 * Each filter requires 4 open-shut valves 1-influent, 1-drain, 1-wash water and 1-surface wash

M'NAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE AS NOTED	ISSUED MAR. 1965				
DRAWN P.A.L.	TRACED J.E.D.	CHECKED J.C.B.			
ISSUE	NATURE OF REVISION	DATE			
CONTRACT 1965 W-2			SHEET 29 OF 33		

DRAWING NUMBER

DRAWING NUMBER

ADDITIONS
WATER TREATMENT
PLANT 1965
30 OF 33

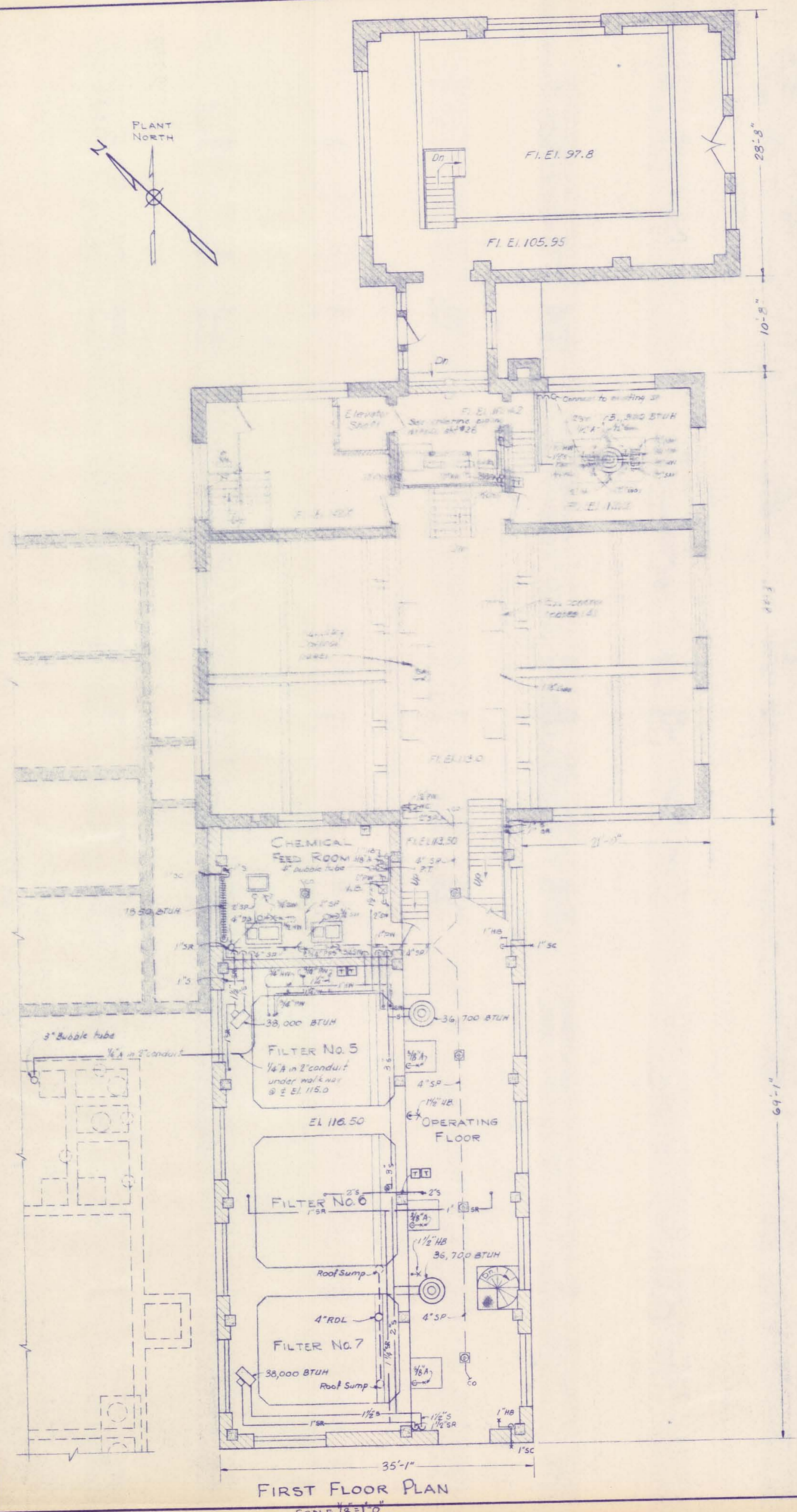
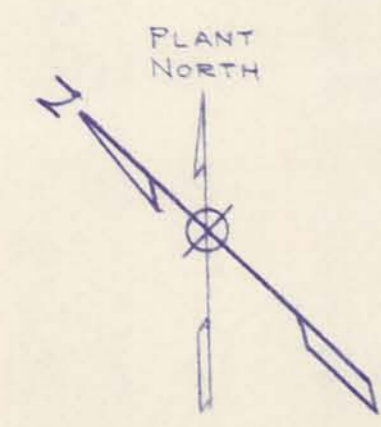
3 NUMBER

BARCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

BARCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

BARCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

BARCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

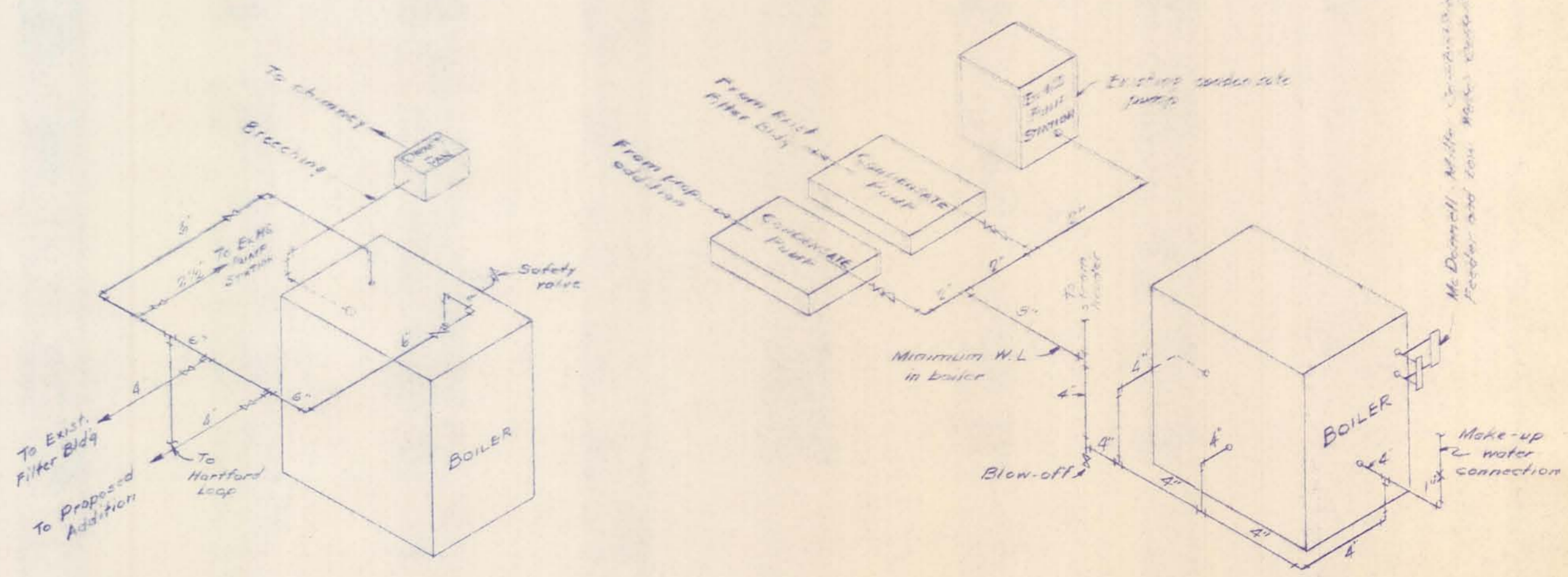
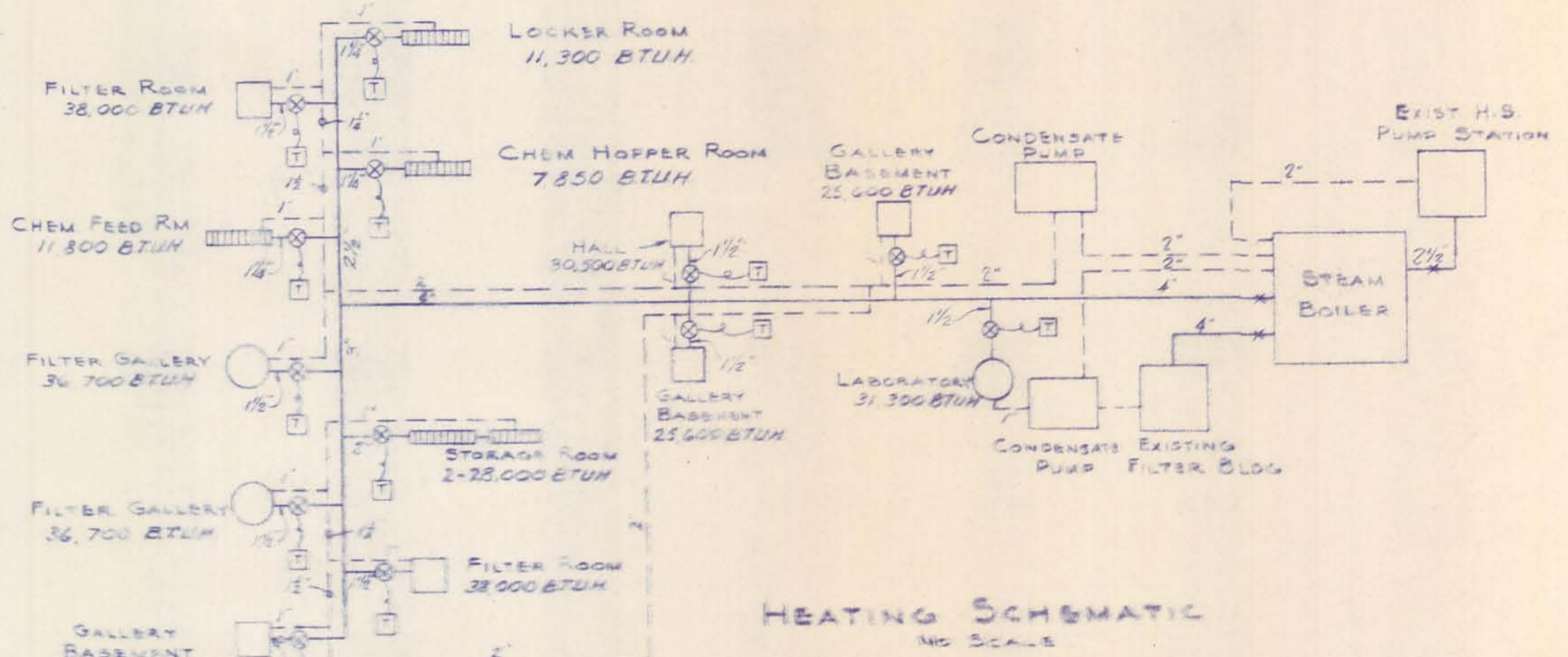
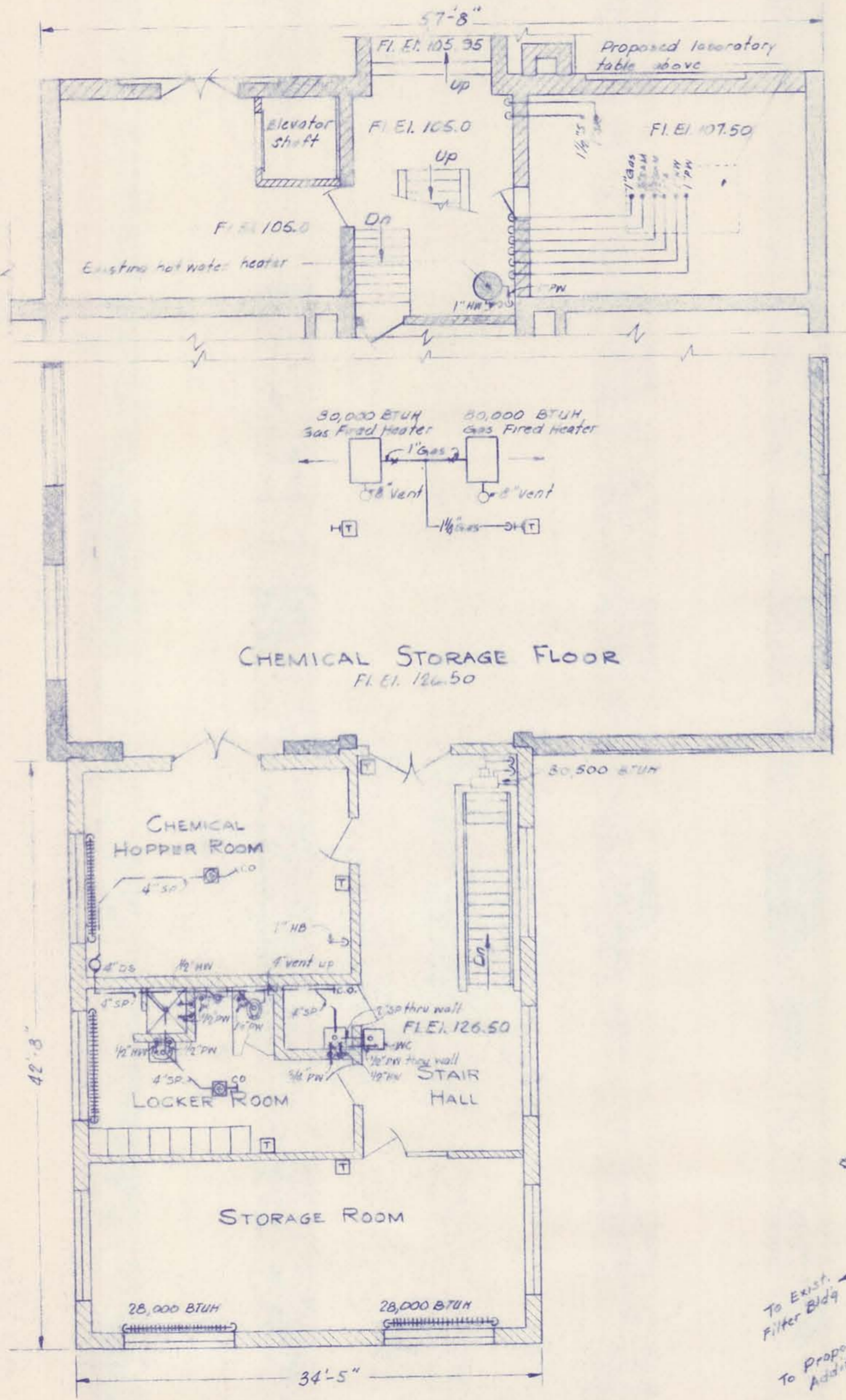


FIRST FLOOR PLAN
SCALE 1/8"=1'-0"

SECOND FLOOR PLAN
SCALE 1/8"=1'-0"

PLUMBING AND HEATING SYMBOLS

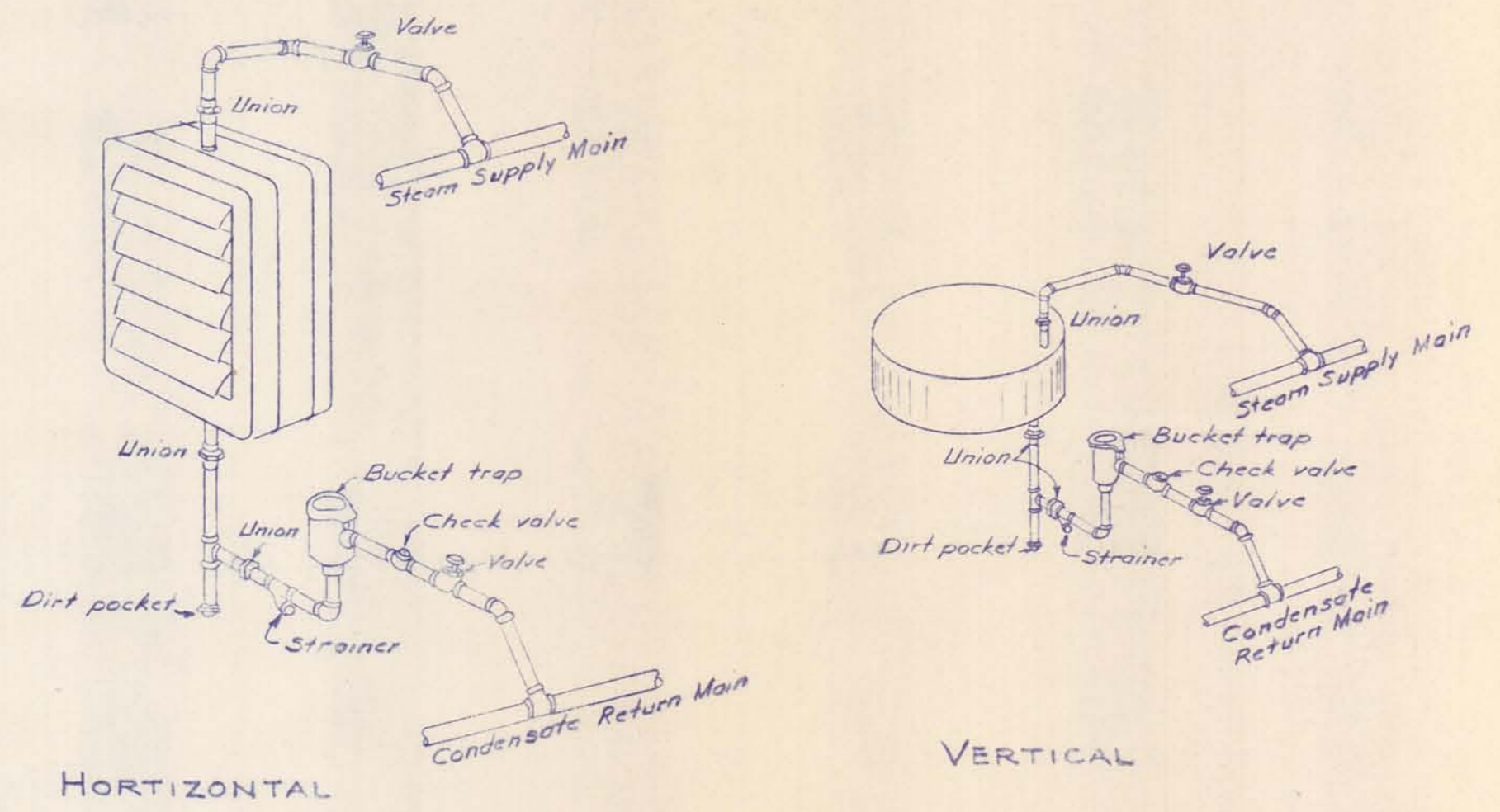
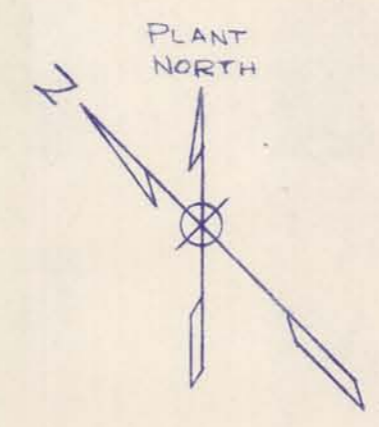
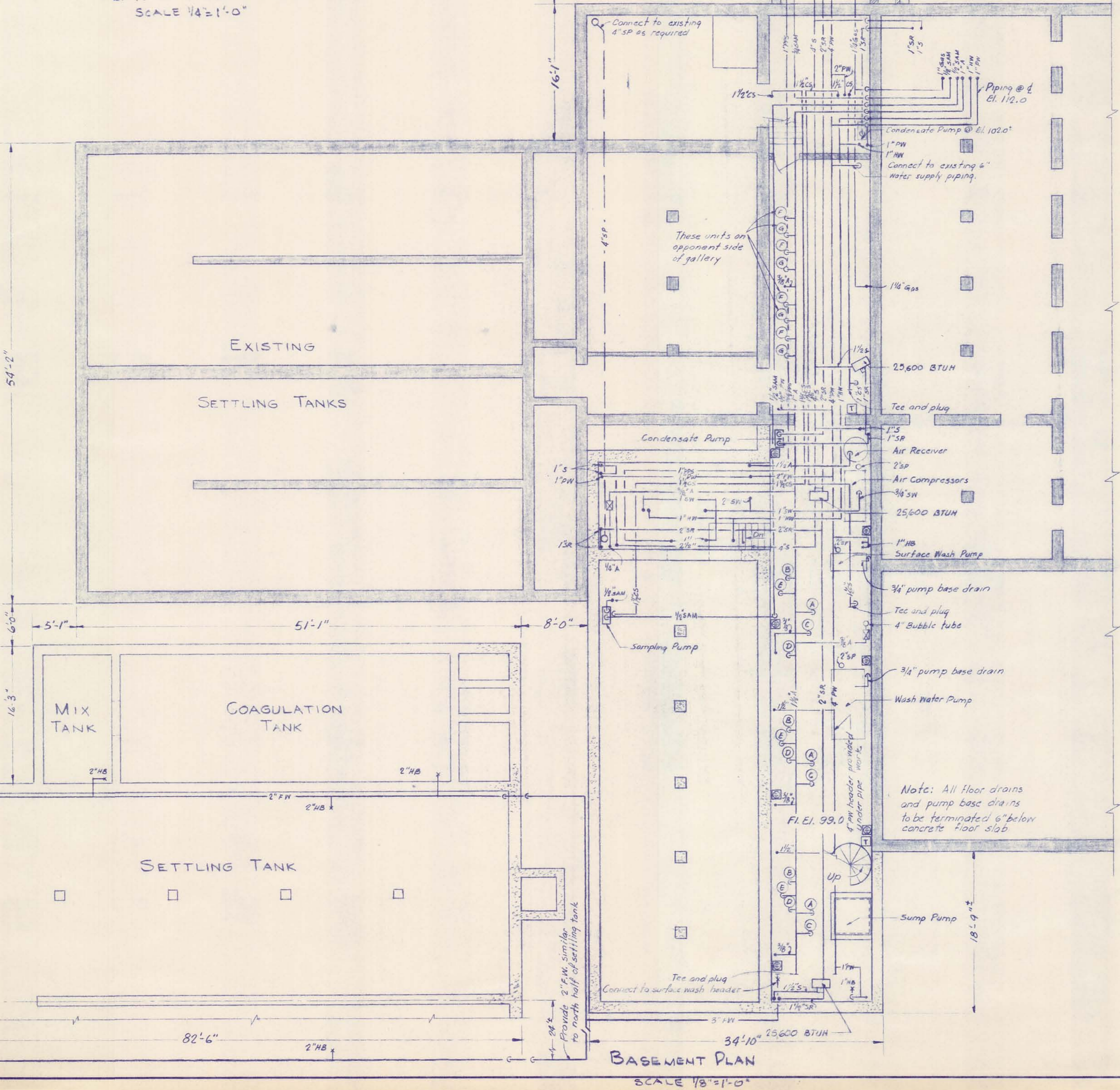
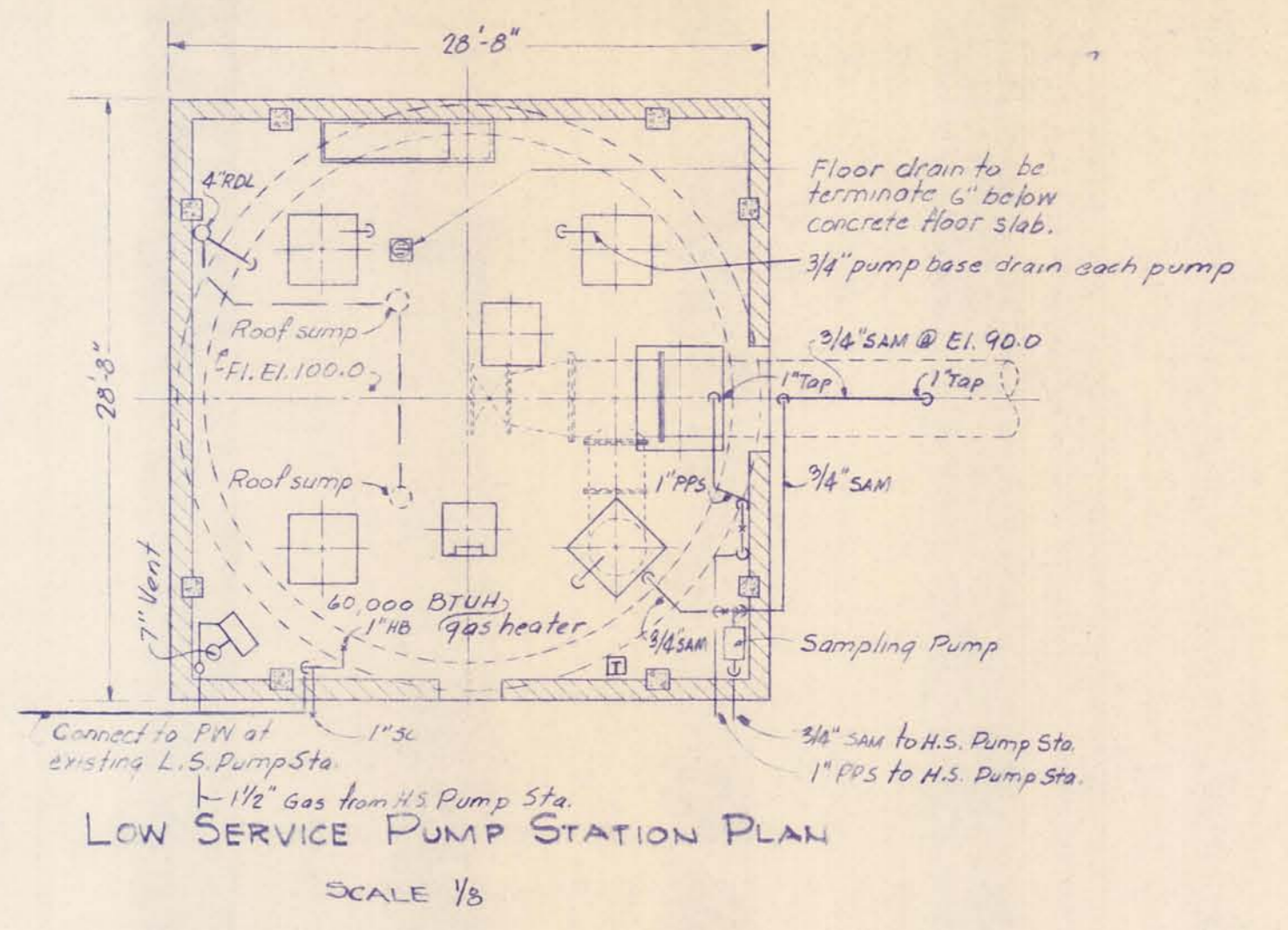
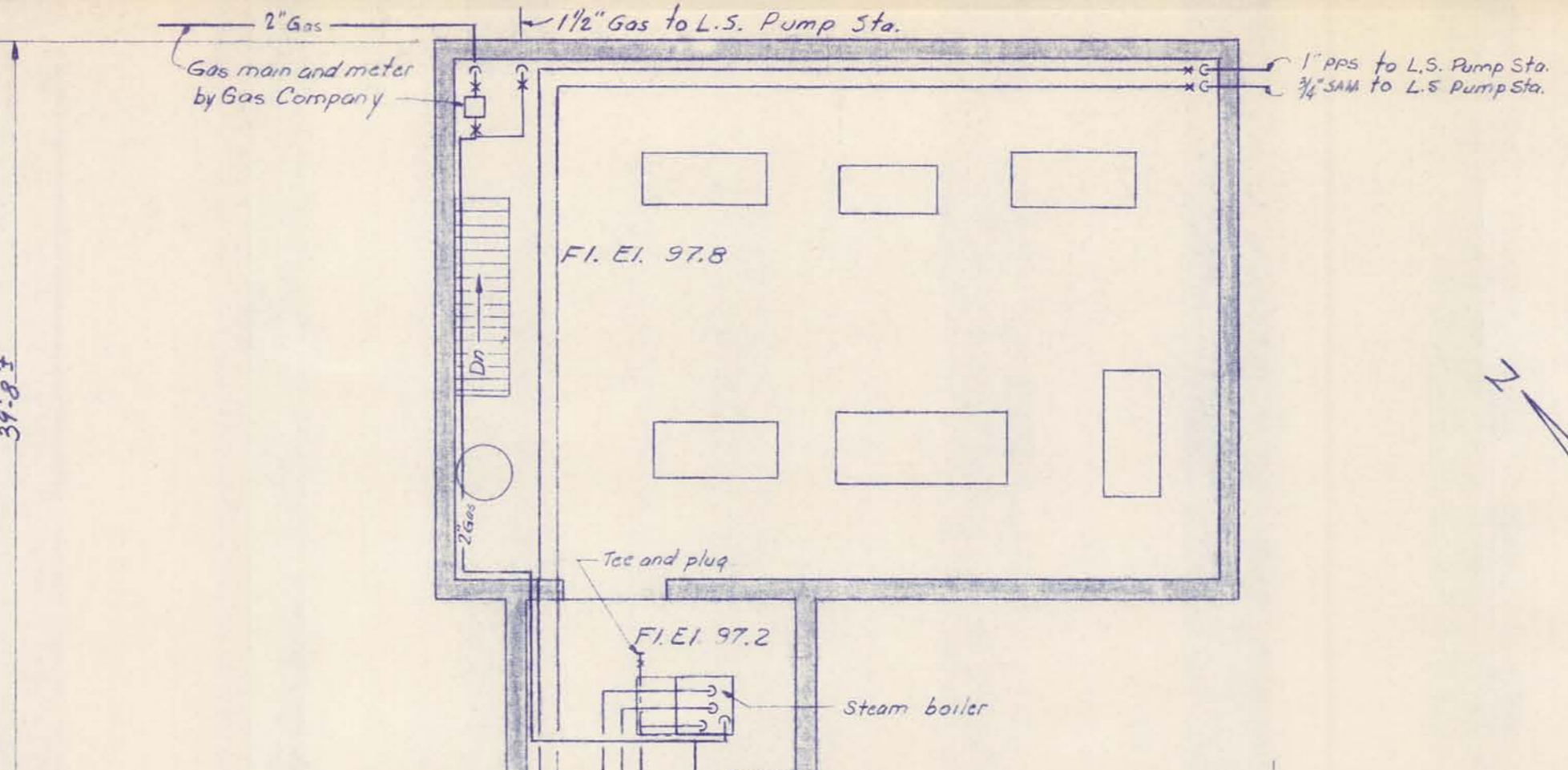
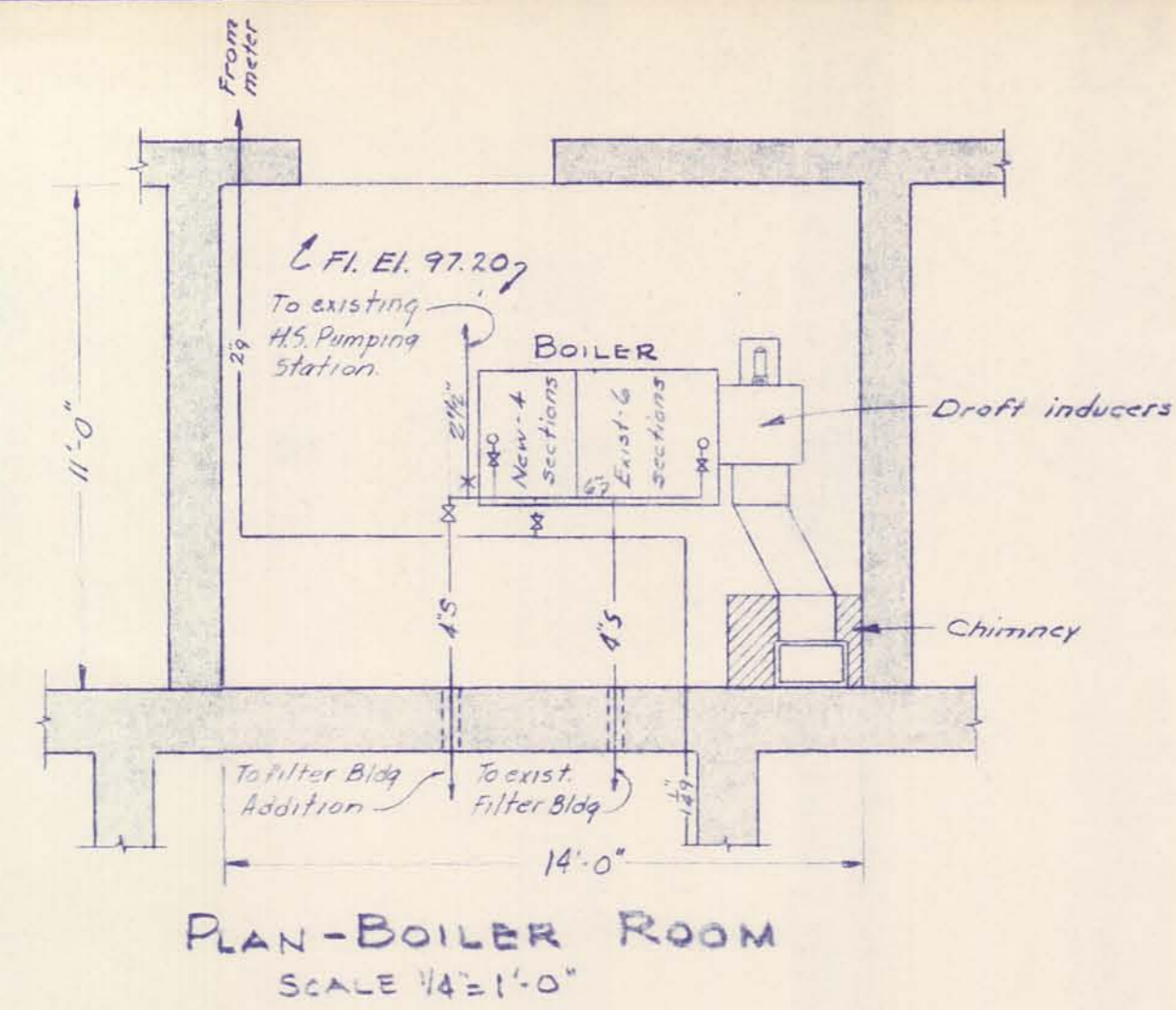
PW	Potable water	xHB	Hose bibb - 1" size unless noted
NW	Hot water	S&W	Stop and waste
SW	Service water	ODS	Downspout
CS	Chlorine solution	ORDL	Roof drain leader
AS	Alum solution	OVent	Vent
SAM	Sample lines	OBubble Tube	Bubble tube
PPS	Potassium Permanganate solution	S	Steam supply
A	Air piping	SR	Steam return
Gas	Gas piping	T	Thermostat
Drain	Drain piping	Control	Control wiring
FD	Floor drain	Conv	Convectors
CO	leanout	Unit	Unit heater
PR	Pipe riser	RT	Running trap
PD	Pipe down	AV	Pneumatic valve (solist)
PRV	Pressure reducing valve	SP	Soil pipe
CF	Carbon feed	VB	Vacuum break
F	Fluoride feed	WC	Water cooler
V	Valve	PT	Pneumatic transmitter
SC	Sill cock - 1" size unless noted	PW	Flushing water



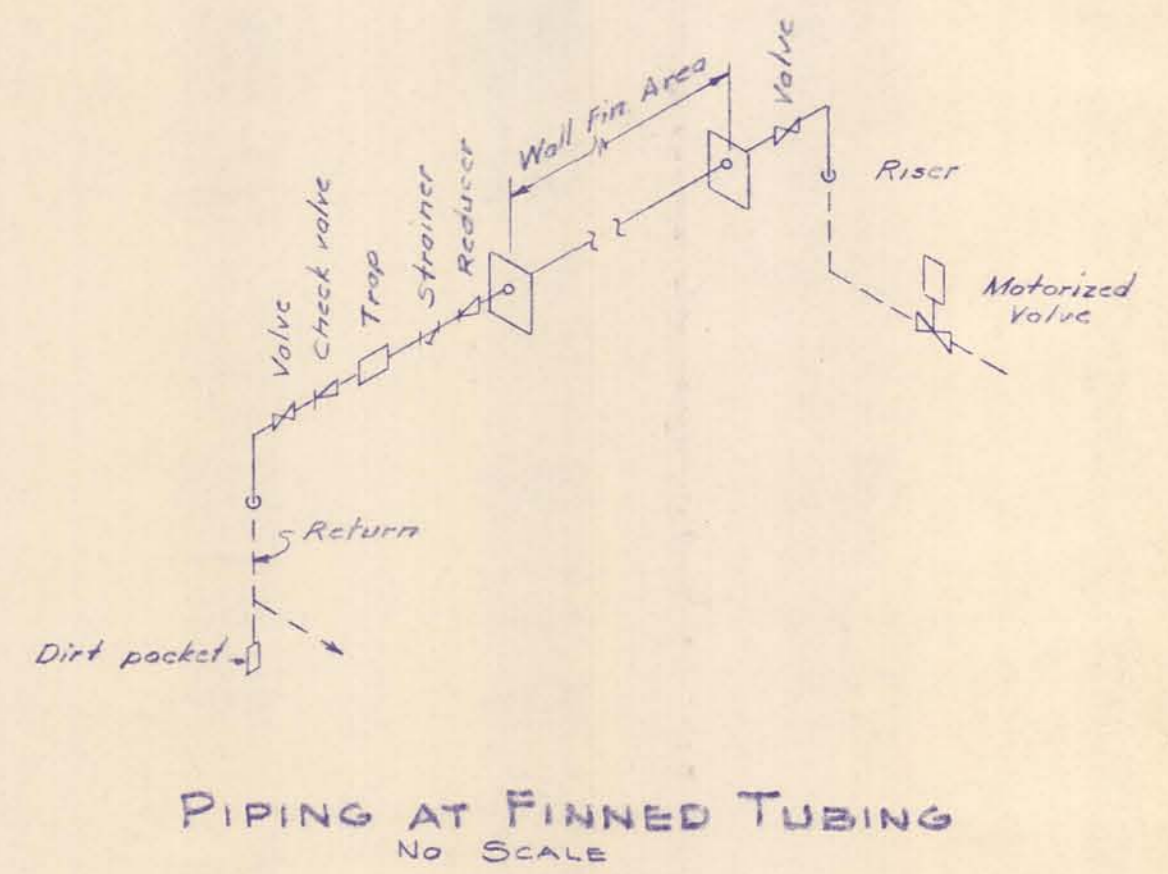
STEAM PIPING AT BOILER
NO SCALE

RETURN PIPING AT BOILER
NO SCALE

M'NAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE 1/8"=1'-0" OR AS NOTED	ISSUED MAR. 1965	ISSUED MAR. 1965	PLUMBING AND HEATING DETAILS AND SCHEMATICS		
DRAWN PAL	TRACED REG	CHECKED J.C.S.	CONTRACT 1965 W-2		
ISSUE	NATURE OF REVISION	DATE	SHEET 30 OF 33		



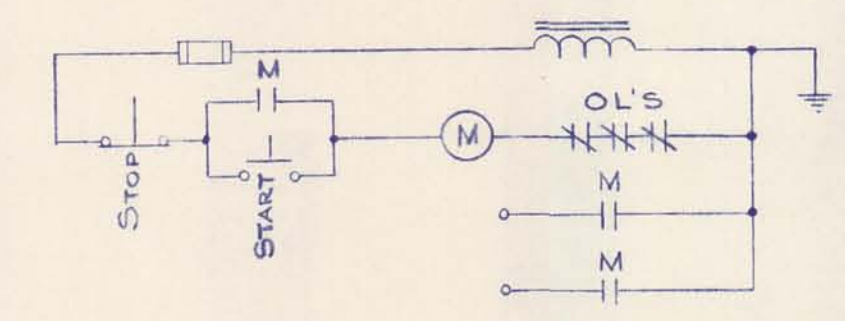
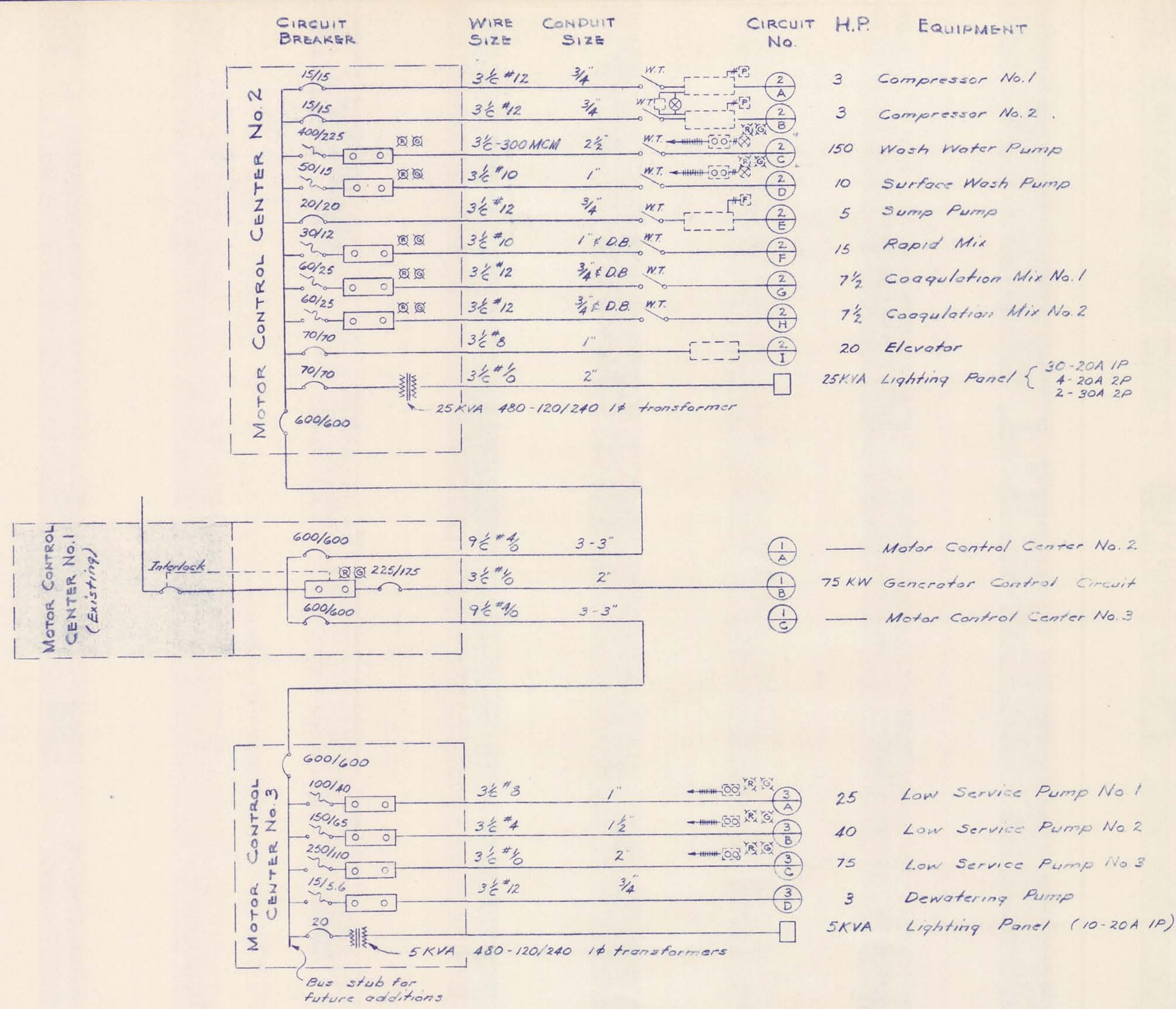
- LEGEND
- (A) Influent valve
 - (B) Drain valve
 - (C) Wash water valve
 - (D) Effluent valve
 - (E) Surface wash valve
 - (F) Loss-of-head transmitter - existing four
 - (G) Rate-of-flow transmitter - existing four



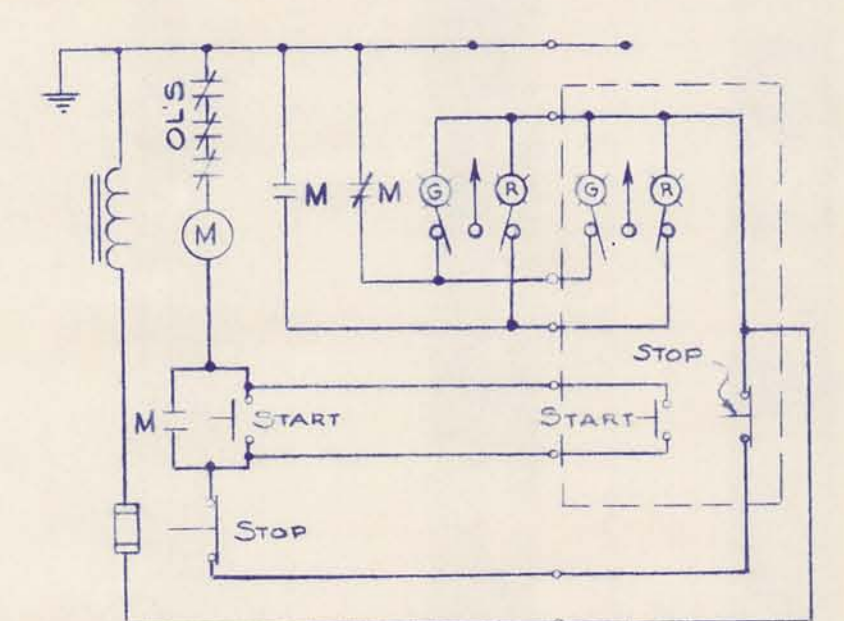
MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALBENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION	
SCALE 1/8"=1'-0"	ISSUED MARCH 1965	PLUMBING AND HEATING DETAILS	
DRAWN P.A.L.	TRACED REG.	CHECKED J.C.S.	
ISSUE	NATURE OF REVISION	DATE	
CONTRACT 1965 W-2		SHEET 31 OF 33	

LEGEND

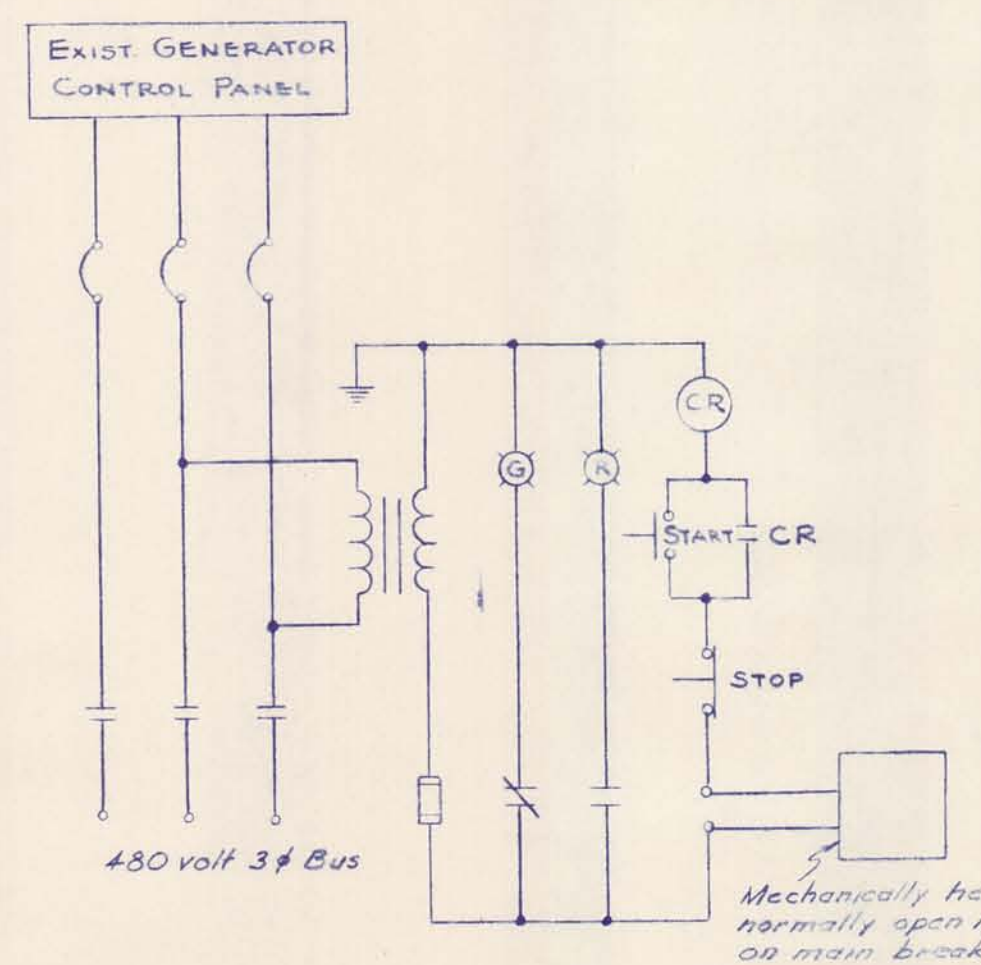
SYMBOLS	DESCRIPTION
	Wall mounted incandescent luminaire
	200 watt incandescent luminaire
	48" fluorescent luminaire with 4-F40 lamps
	110 volt circuit and switch
	110 volt circuit and 3 way switch
	Duplex convenience outlet
	Special 110 volt outlet
	220 volt single phase special outlet
	Telephone outlet
	Telephone circuit
	Fractional horsepower starter
	Starter with pushbuttons in cover
	Starter with hand-off-auto switch
	250 w mercury vapor lamp
	Furnished with equipment
	440 volt motor with circuit switch
	Disconnect switch
	Fused disconnect
	Water tight
	Electric solenoid valve
	Pilot light, red, green, amber
	Motorized valve
	Float switch or liquid level control switch
	Limit switch
	Pressure switch
	Thermostat or timer
	Special 110 volt outlet for heater fan
	Flood light (500 watt)
	Control wiring
	Remote pushbutton station
	Electric clock
	Lockout attachment
	Direct burial cable
	Alarm station



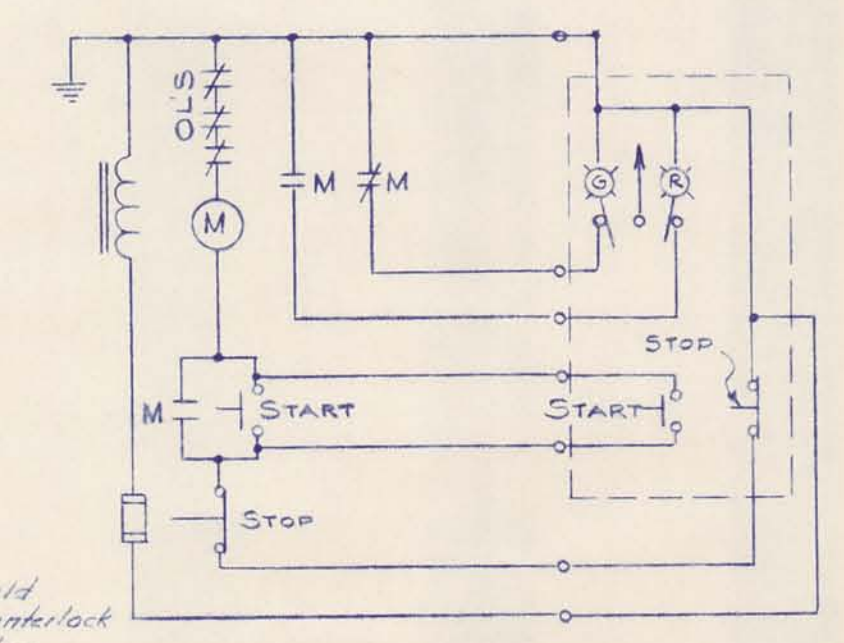
COAGULATION MIXERS



WASH WATER PUMP AND SURFACE WASH PUMP

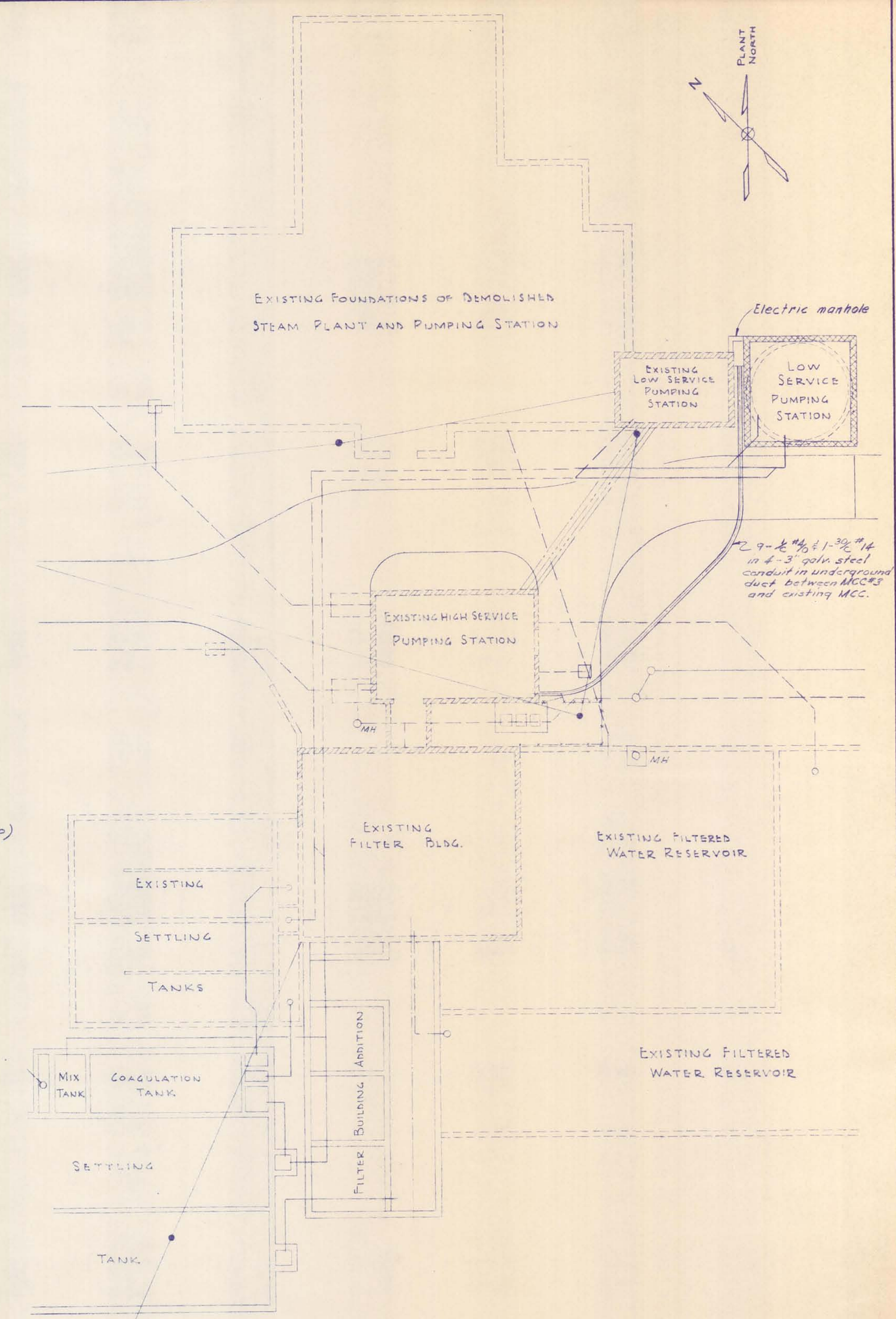


GENERATOR CONTROL CIRCUIT

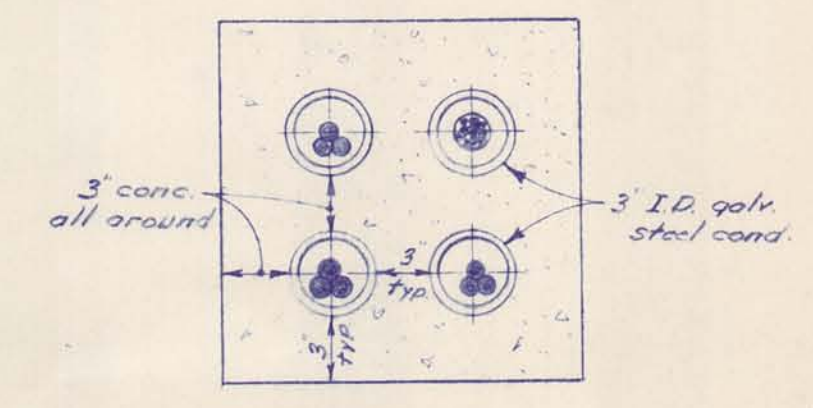


LOW SERVICE PUMPS

WIRING SCHEMATICS

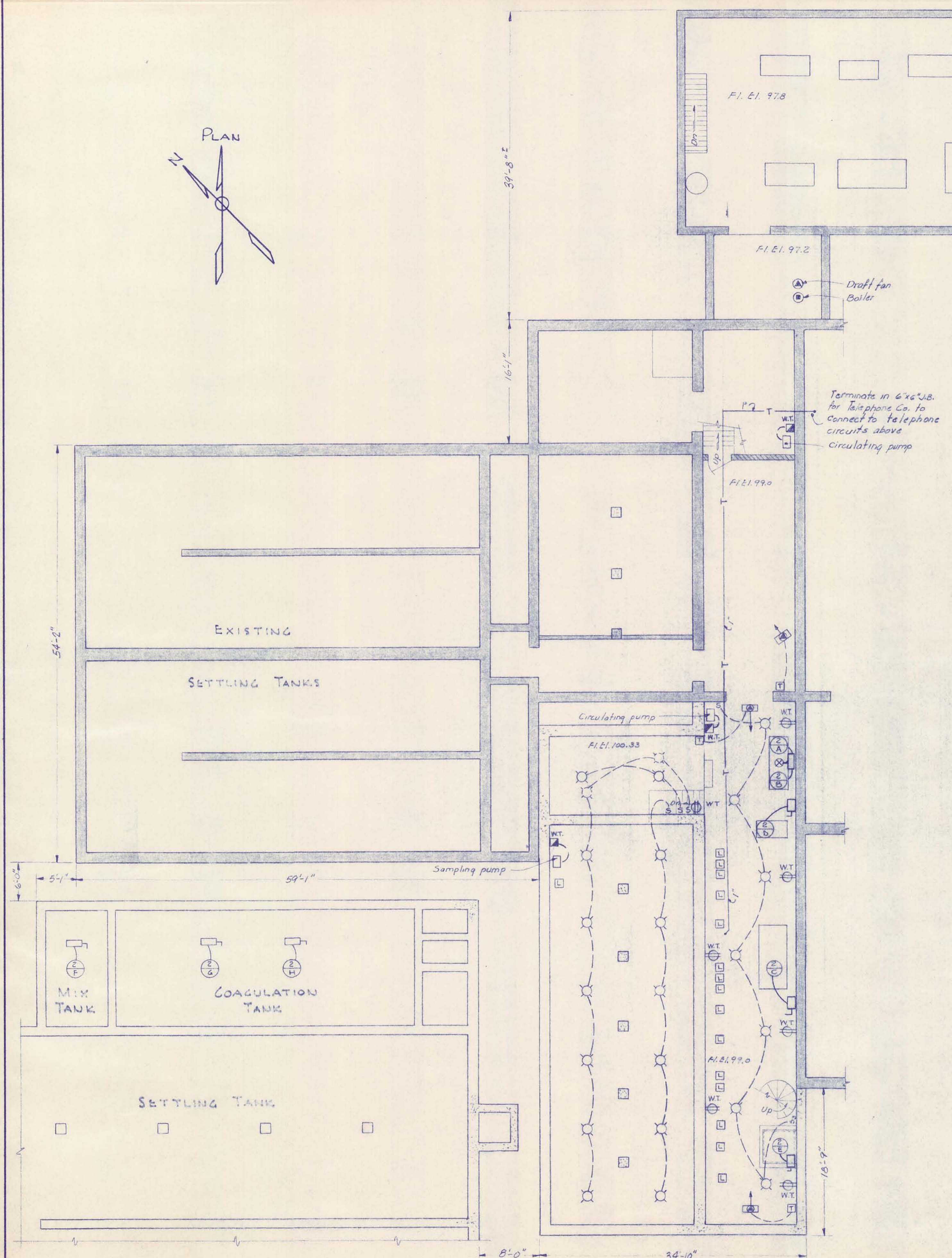
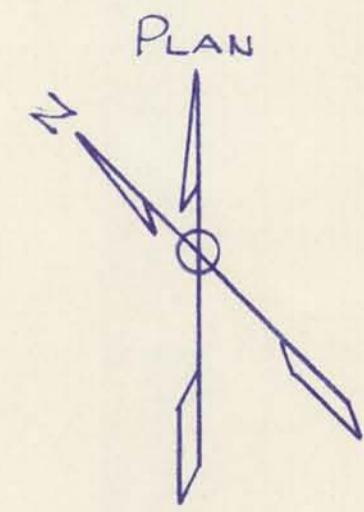


SITE PLAN
SCALE: 1" = 20'

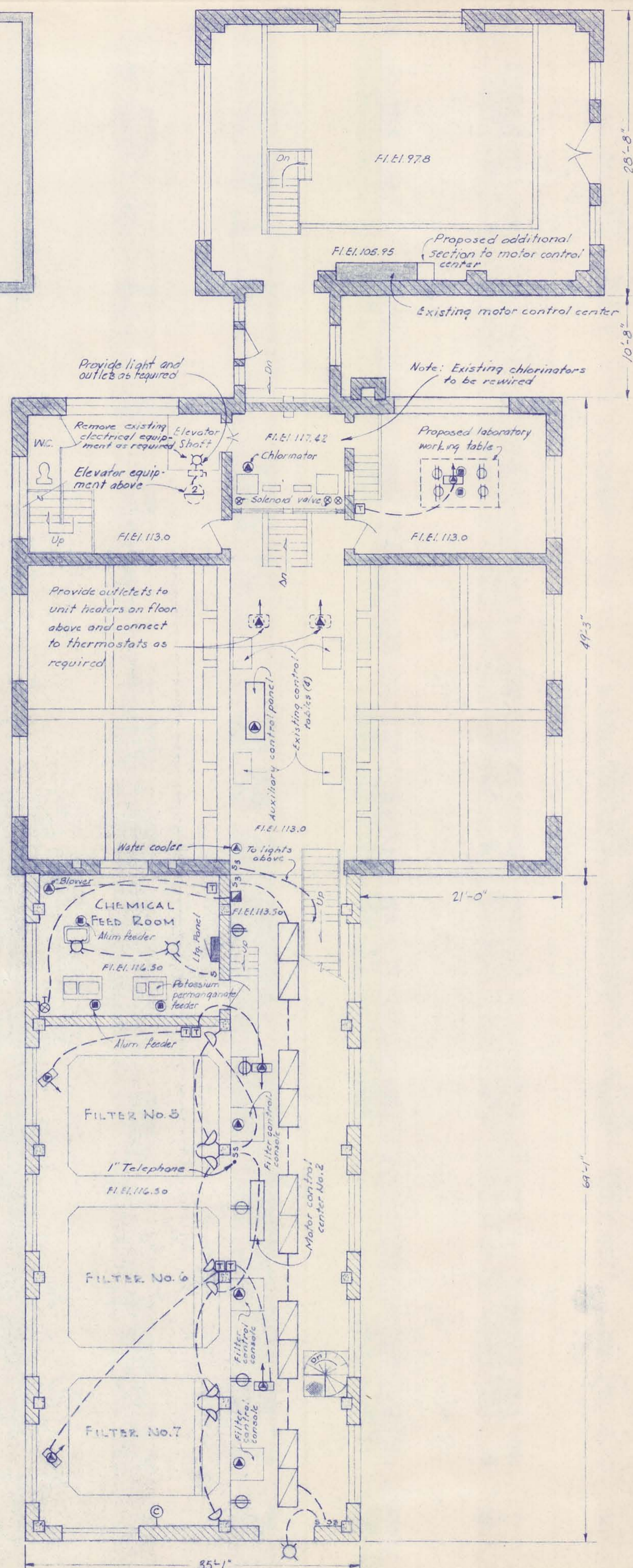


UNDERGROUND DUCT DETAIL
NO SCALE

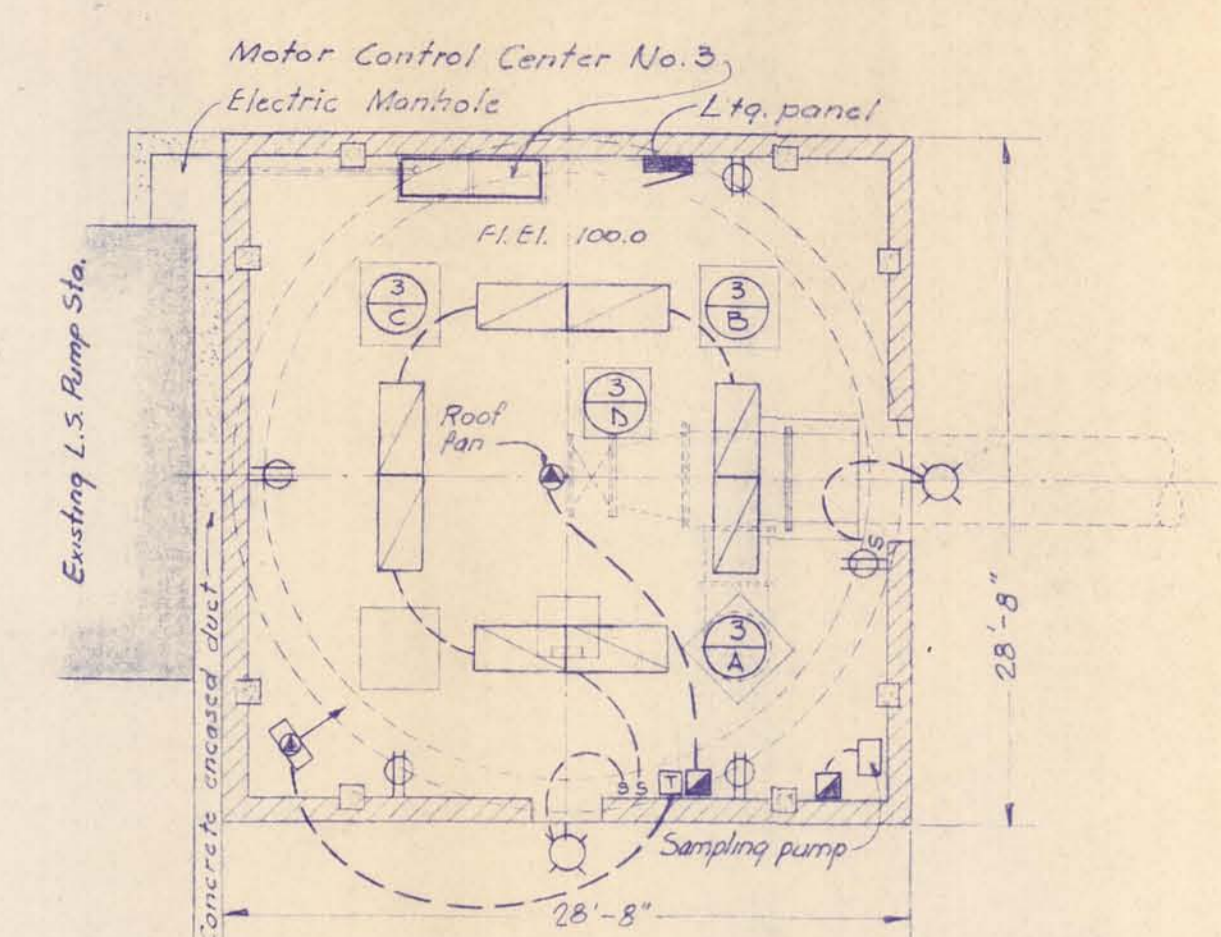
McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE AS NOTED	ISSUED MAR 1965	ELECTRICAL WORK		
DRAWN J.L.M.	TRACED J.E.D.			CHECKED J.C.B.
ISSUE	NATURE OF REVISION			DATE
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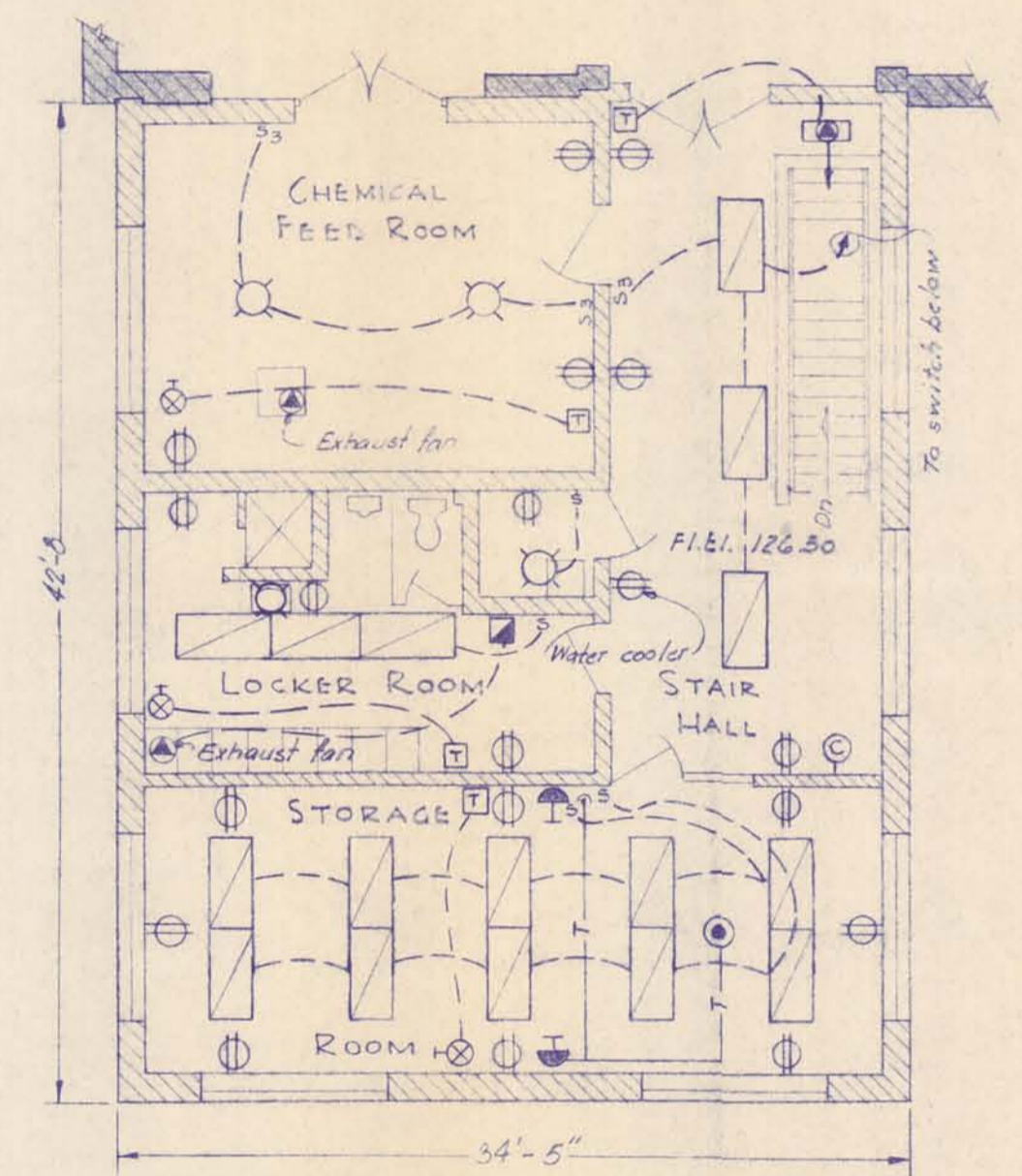
BASEMENT PLAN
SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"



LOW SERVICE PUMP STATION
SCALE 1/8" = 1'-0"



SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

MCMANEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN			ALPENA, MICHIGAN ADDITIONS TO WATER TREATMENT PLANT AND LOW SERVICE PUMPING STATION		
SCALE 1/8" = 1'-0"	ISSUED MAR. 1, 1965		ELECTRICAL WORK		
DRAWN J.L.M.	TRACED V.H.C.	CHECKED J.C.S.			
ISSUE	NATURE OF REVISION	DATE			
CONTRACT 1965 W-2			SHEET 33 OF 33		