

# **APPENDIX B**

## **Existing Station Drawings**

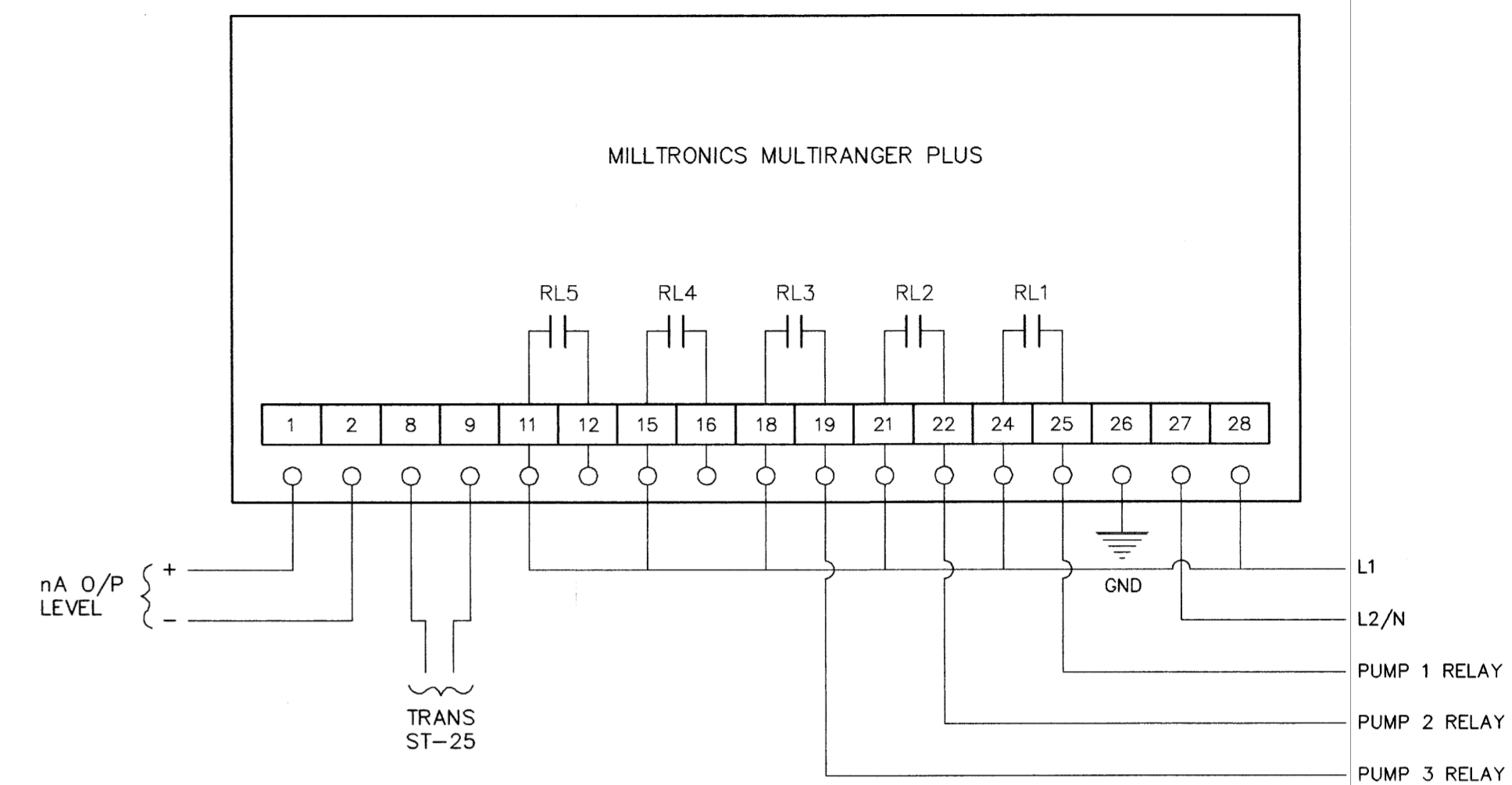
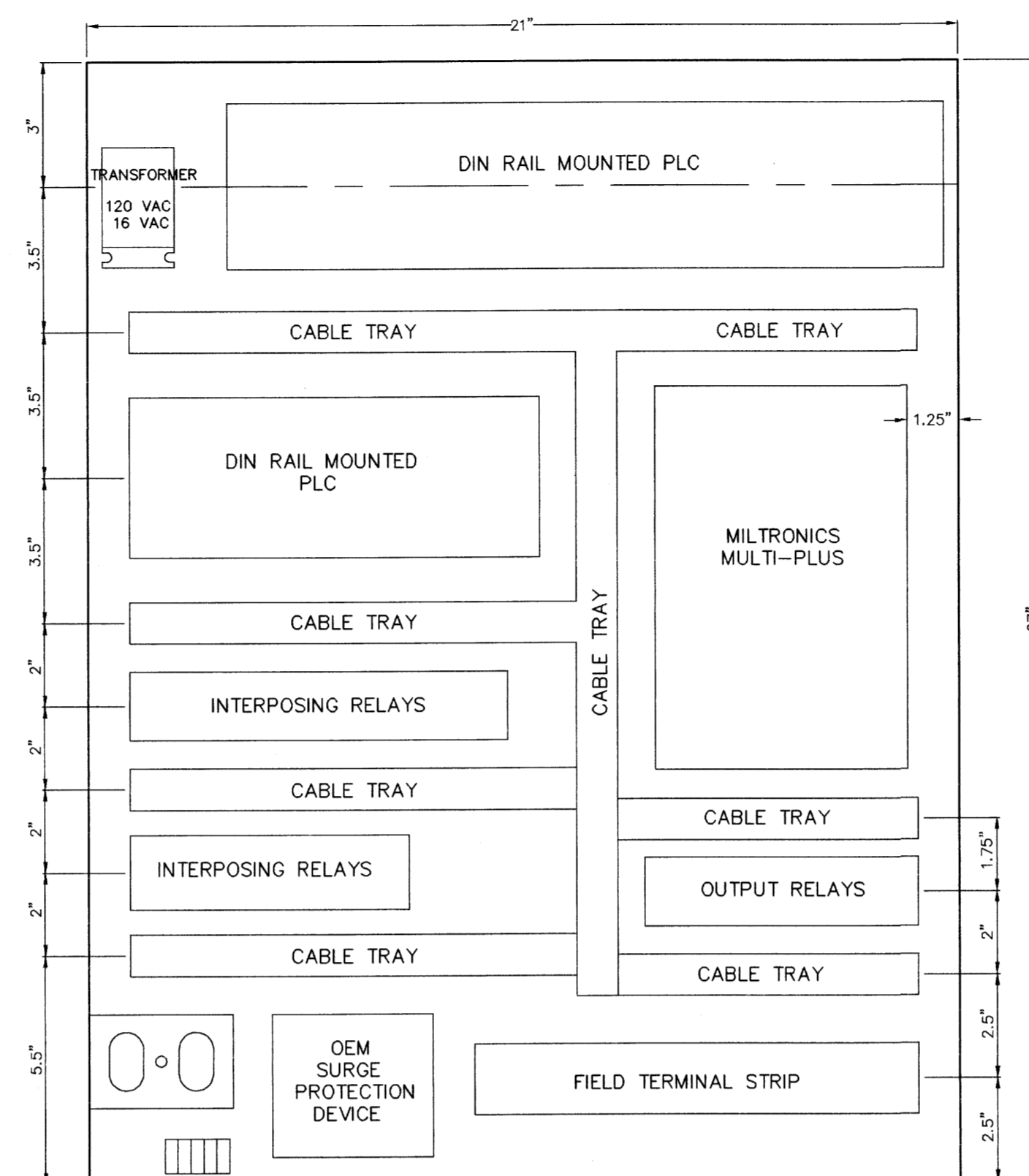
ALARM WIRING TEMPLATE

ALARM INPUT	DESCRIPTION	PLC ADDRESS	COLOR
ALARM INPUT 1	LOCKOUT	10001	BLUE
ALARM INPUT 2	OVERFLOW	10002	BLUE/WHITE
ALARM INPUT 3	STATION FLOOD	10003	BLUE/RED
ALARM INPUT 4	LOW INSTR. AIR	10004	BLUE/BLACK
ALARM INPUT 5	LOW TEMP.	10005	RED
ALARM INPUT 6	LOSS OF SEAL WATER	10006	RED/BLACK
ALARM INPUT 7	GENERATOR RUN	10007	RED/WHITE
ALARM INPUT 8	POWER FAILURE	10008	ORANGE
ALARM INPUT 9	FLOOD STATION HIGH WET WELL	10009	ORANGE/RED
ALARM INPUT 10	FLOOD STATION FLOOD	10010	ORANGE/BLACK
ALARM INPUT 11	GENERATOR FAIL	10011	BLACK
ALARM INPUT 12	WET WELL UPPER	10012	BLACK/WHITE
ALARM INPUT 13	COM/PUMP FAILURE	10013	BLACK/RED
ALARM INPUT 14			GREEN
ALARM INPUT 15			GREEN/BLACK
ALARM INPUT 16			GREEN/WHITE

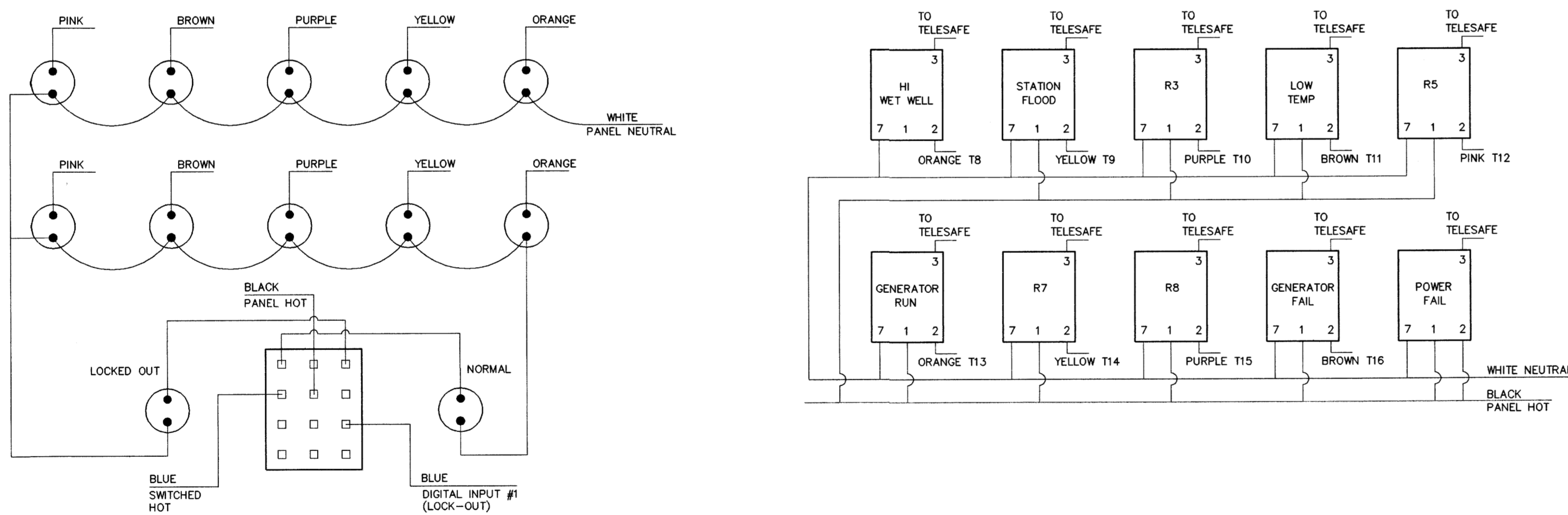
Any other types of alarms are to be wired to alarm inputs 14 through 16. Otherwise call the Metershop for further instructions.

ANALOG WIRING	PLC ADDRESS
INPUT 1	LIFT LEVEL 30001
INPUT 2	FLOOD LEVEL 30002
INPUT 3	FLOW 30003

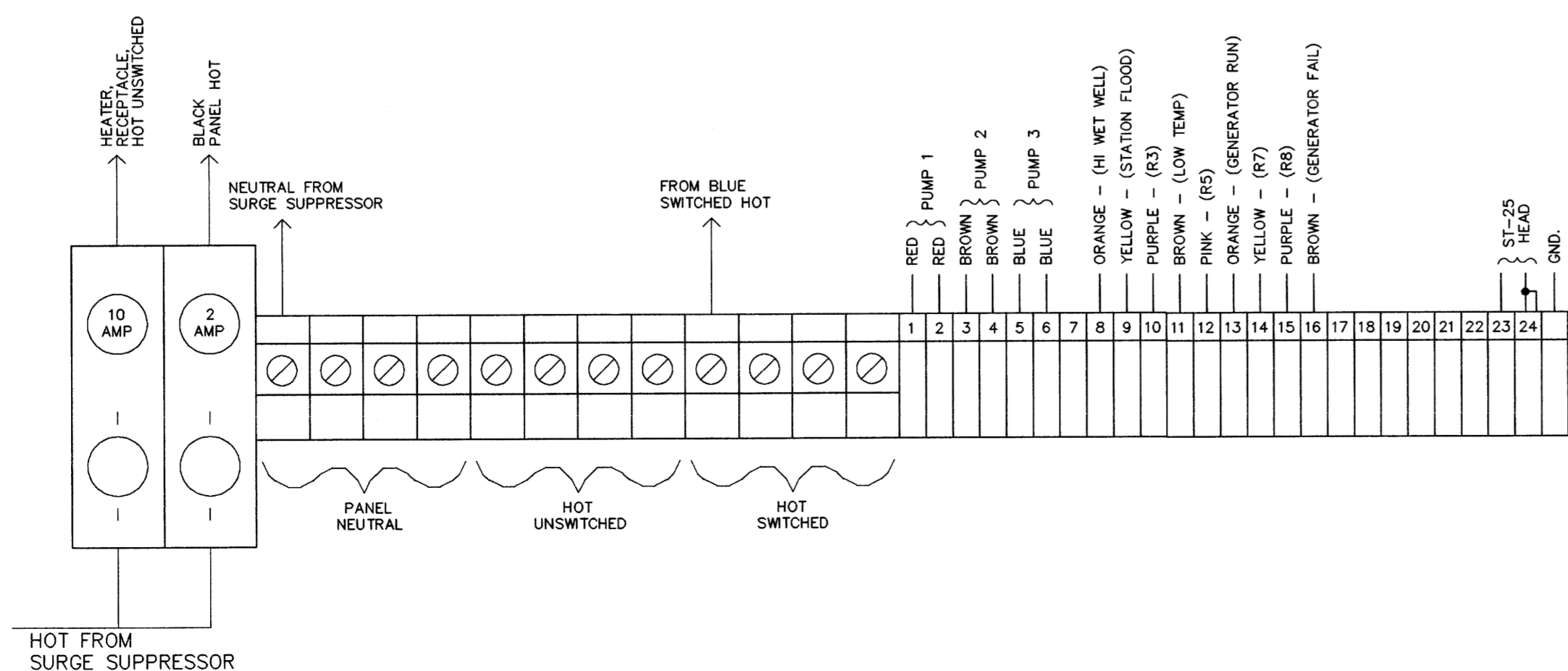
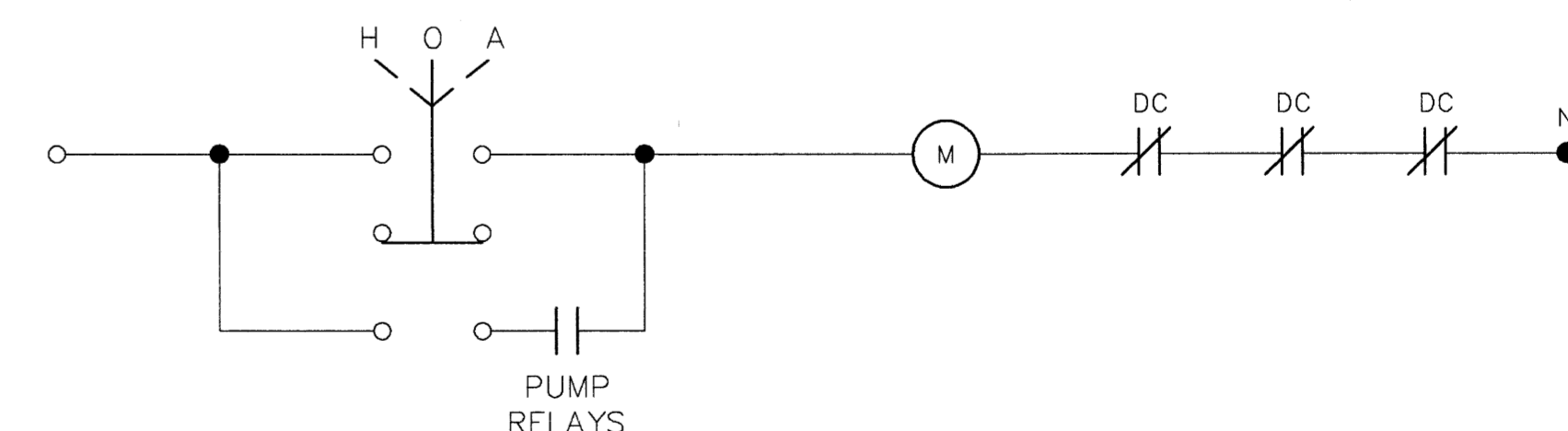
BACK PANEL LAYOUT



WIRING DIAGRAM



TYPICAL MOTOR STARTER

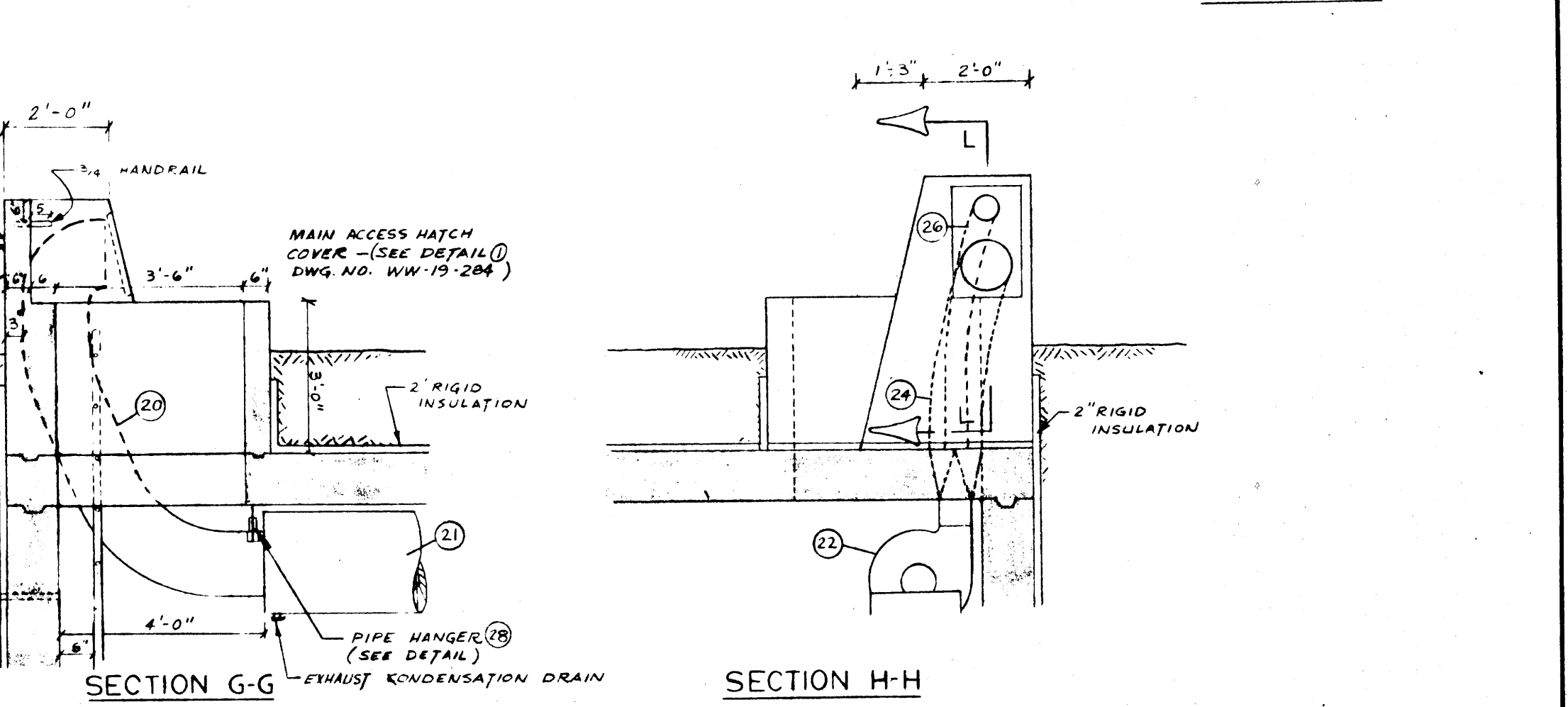
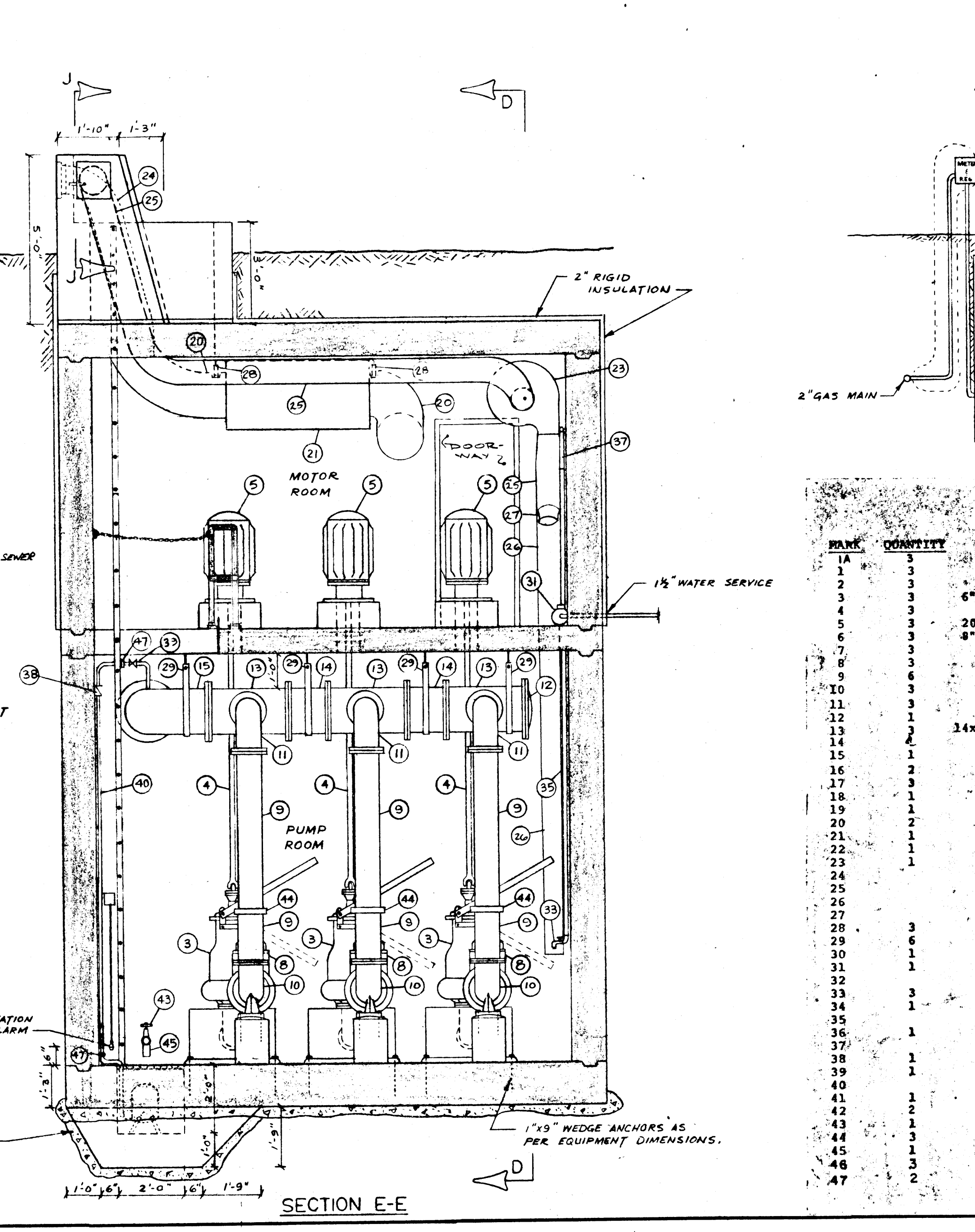
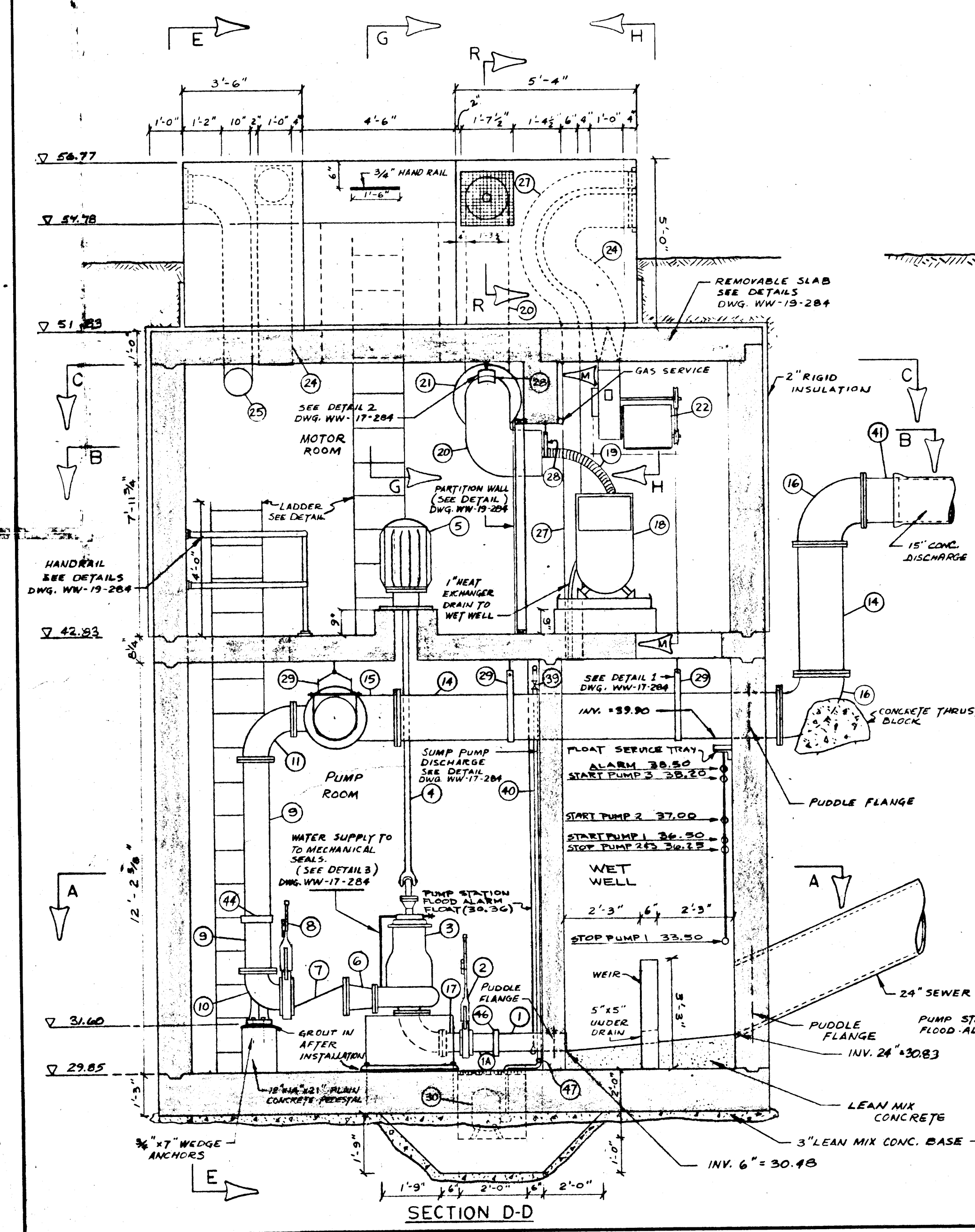
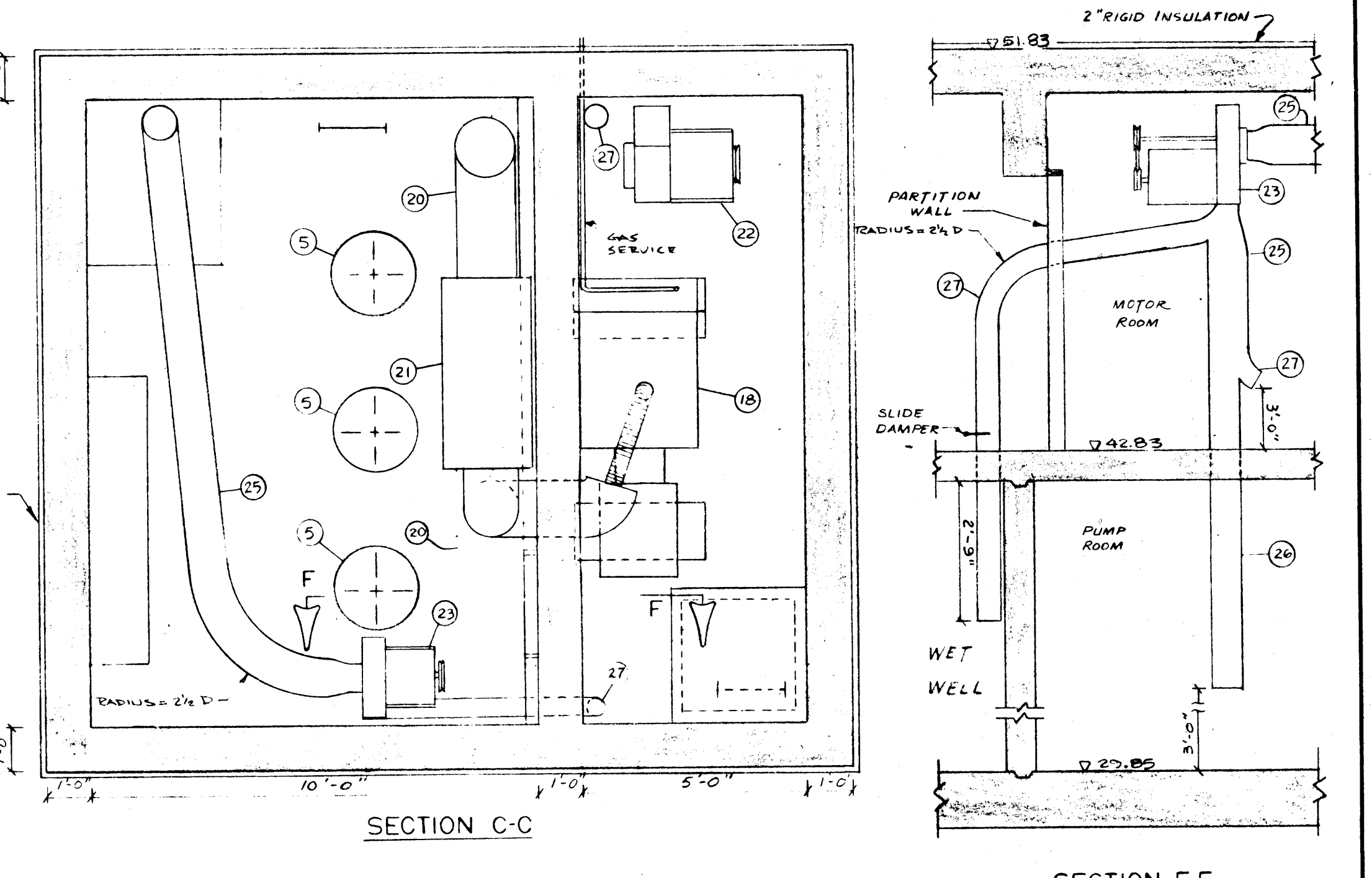
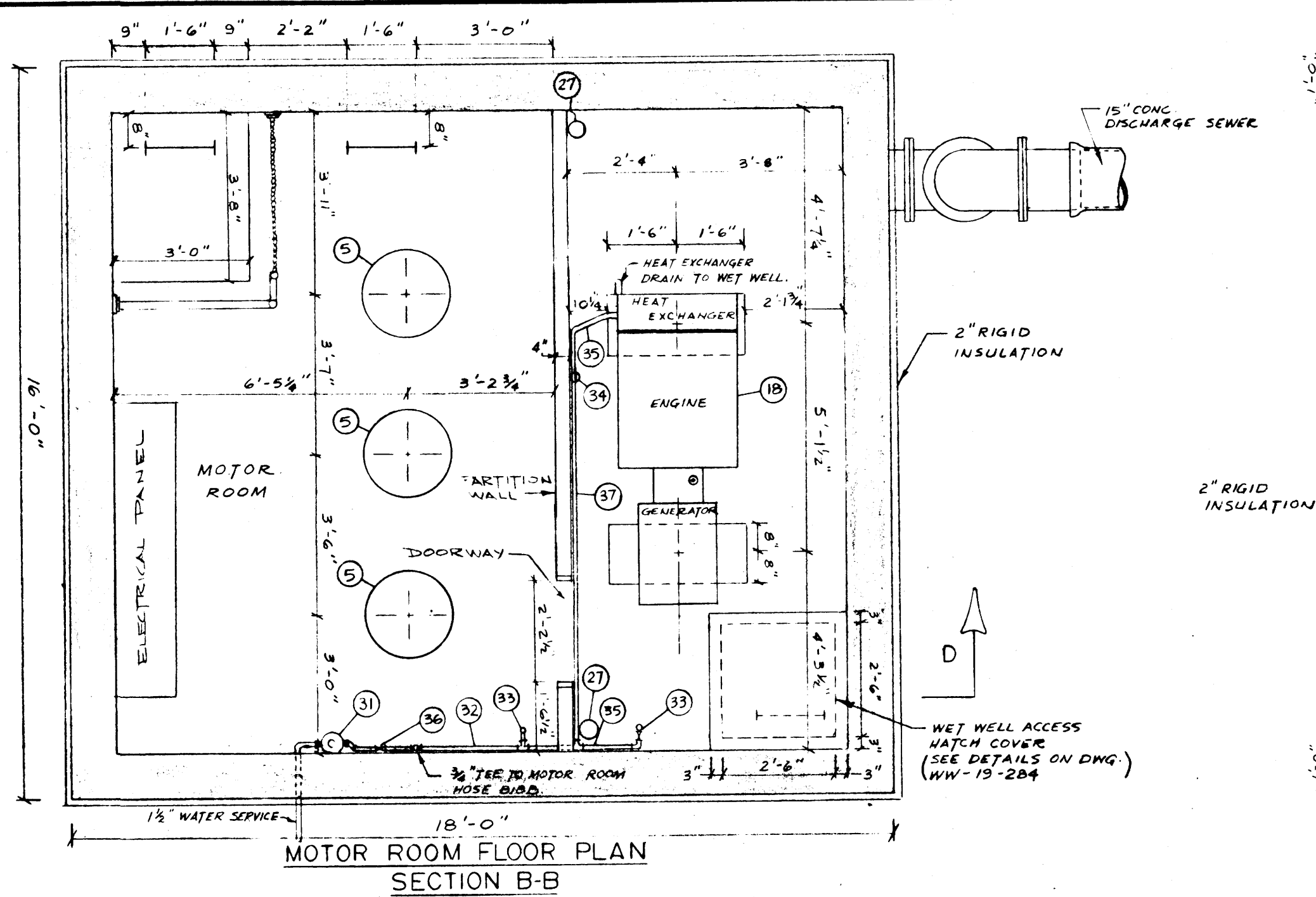
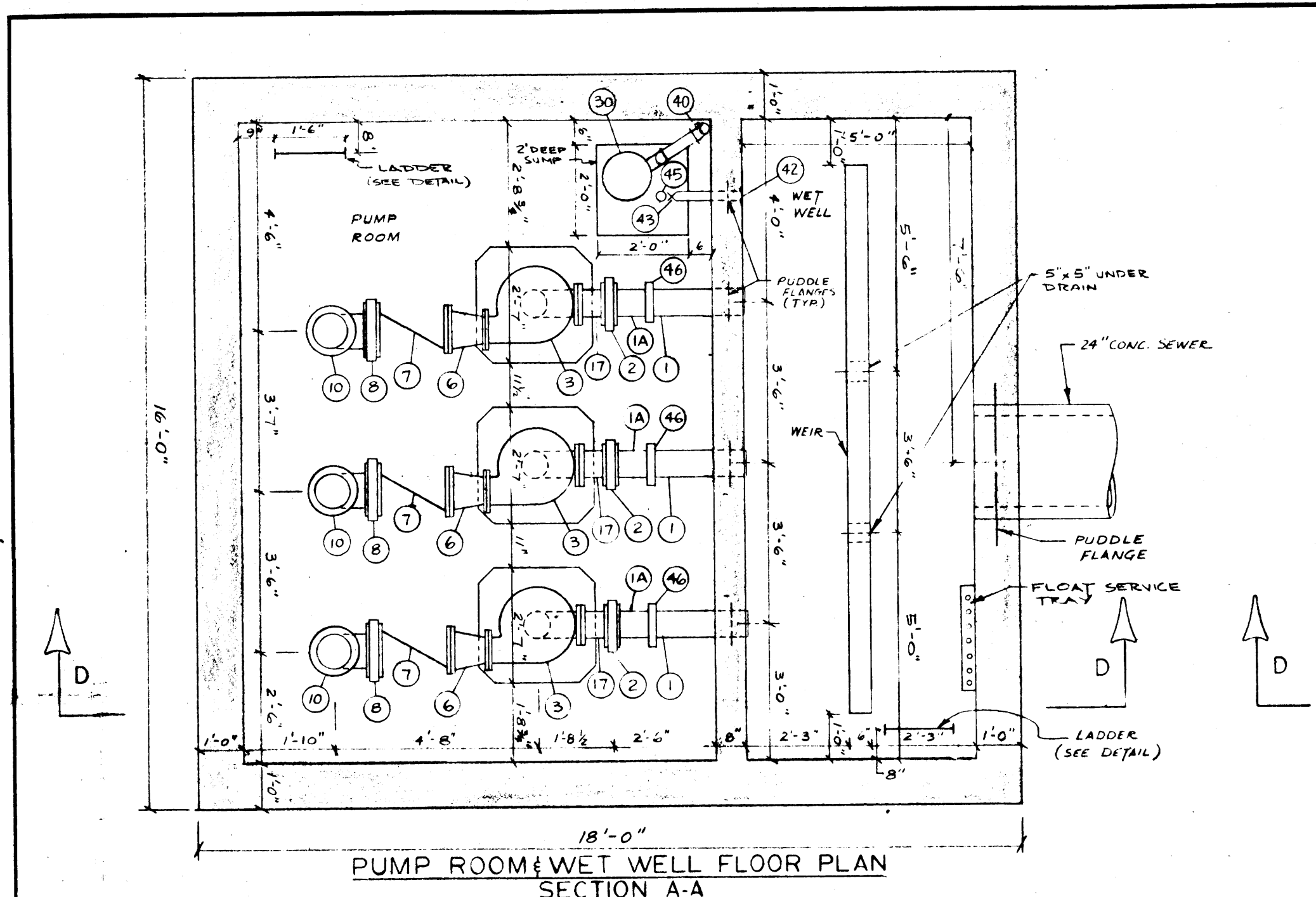


C:\DRAWINGS\MASTER\SEWPUMP\4319 Mod Mar 04 09:22:19 1998

B.M. ELEV.	FIELD BOOK #:	<b>CITY OF WINNIPEG</b> <b>WATER AND WASTE</b> <b>ENGINEERING DIVISION</b>	ENGINEER'S SEAL		<b>THE CITY OF WINNIPEG</b> <b>WATER AND WASTE DEPARTMENT</b>
POSTED TO LBIS			DESIGNED BY BS		
			DRAWN BY TM	APPROVED BY	SHEET OF
			HOR. SCALE VERTICAL N.T.S.	RELEASED FOR CONSTRUCTION	CITY DRAWING NUMBER
			NO. REVISIONS	DATE 1998 02 27	DATE
					4319
					ELECTRICAL AND CONTROL PLOT DATE: 1998 02 27

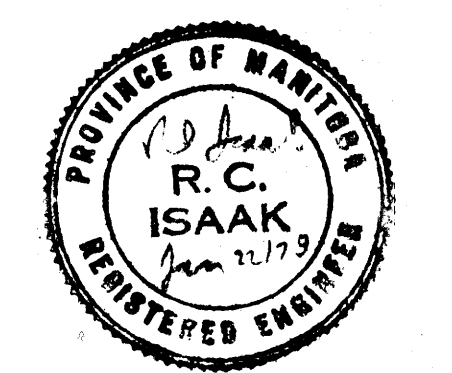
FILE # LD10191

DETAILS



**SCHEDULE 1**

MARK	QUANTITY	SIZE	DESCRIPTION
1A	3	6"	C.I. PIPE - FLANGED ONE END - CUT GROOVED ONE END.
1	3	6"	C.I. Pipe - Plain One End - CUT GROOVED ONE END.
2	3	6"	Knife Gate Valve - Wafler
3	3	6"	Pump Drive Shaft
5	3	20 H.P.	Electric Motor, 600V, 3 Phase, 60 Cycle
6	3	8"	C.I. Concentric Reducer - F.E.E.
7	3	8"	C.I. Swing Check Valve - F.E.E.
8	3	8"	Knife Gate Valve - Wafler
9	3	8"	C.I. Pipe - Flanged One End - Cut Grooved One End
10	3	8"	C.I. 90° Base Elbow - F.E.E.
11	3	8"	C.I. 90° Long Radius Elbow - F.E.E.
12	1	14"	C.I. Blind Flange
13	1	14x14x8	C.I. Tee - F.E.E.
14	1	14"	C.I. Pipe - F.E.E.
15	1	14"	C.I. 90° Long Radius Elbow - F.E.E.
16	2	14"	C.I. Short Radius Elbow - F.E.E.
17	3	6"	C.I. Pipe - F.E.E.
18	1	55 KW	Generator
19	1	34"	Flexible Exhaust Pipe
20	2	14"	Exhaust Pipe & 6" Thick Insulation
21	1	14"	Muffler & 6" Thick Insulation
22	1	12"	Ventilation Fan
23	1	8"	Ventilation Fan
24	1	12"	UPVC Pipe
25	1	10"	UPVC Pipe
26	1	8"	UPVC Pipe
27	1	6"	UPVC Pipe
28	3	3/4"	Grinnell Fig. 300A Adjustable Clevis
29	6	14"	Grinnell Fig. 590 Adjustable Clevis
30	1	2"	Sump Pump
31	1	5/8"	Water Meter
32	1	1 1/2"	Copper Water Service
33	3	3/4"	Rose Bibbs
34	1	7"	Brass Water Strainer
35	1	3/4"	Copper Water Service
36	1	1 1/2"	Bronze Gate Valve
37	1	1"	Copper Water Service
38	1	2"	Bronze Swing Check Valve
39	1	2"	Bronze Gate Valve
40	1	2"	P.V.C. PIPE, SCHEDULE 80
41	1	14"	C.I. Pipe - Flanged One End - Plain One End
42	2	3"	C.I. Pipe - Threaded One End - Plain One End
43	1	3"	Bronze Gate Valve
44	1	8"	Victaulic Coupling Style No. 77
45	1	3"	Bronze 90° Street Elbow
46	3	6"	VICTAULIC COUPLING STYLE NO.77
47	2	2"	P.V.C. UNION



REV. NO.	DATE	DESCRIPTION	BY
5	MAR 24/80	GENERAL REVISION	M.M.
4	MAY 25/79	REVISED TO AS-BUILT	E.J.
3	APR 3/78	REVISED PUMP SUCTION PIPE DETAILS, GENERATOR	M.M.
2	FEB 1/78	EXHAUST PIPING & SCHEDULE	M.M.
1	JAN 31/78	REVISED SCHEDULE - SUPPLIED BY OWNER DESIGNATION	M.M.
A		ADDED TO MARK 3 & DELETED FROM MARK 6.	M.M.
		REVISED WEIR, INSULATION, SUMP PUMP DISCHARGE & MISC. DETAILS	M.M.

REVISIONS FILE # LD10191

THE CITY OF WINNIPEG  
WATERWORKS, WASTE AND DISPOSAL DIVISION

LARCHDALE PUMP STATION  
FLOOR PLANS AND SECTIONS

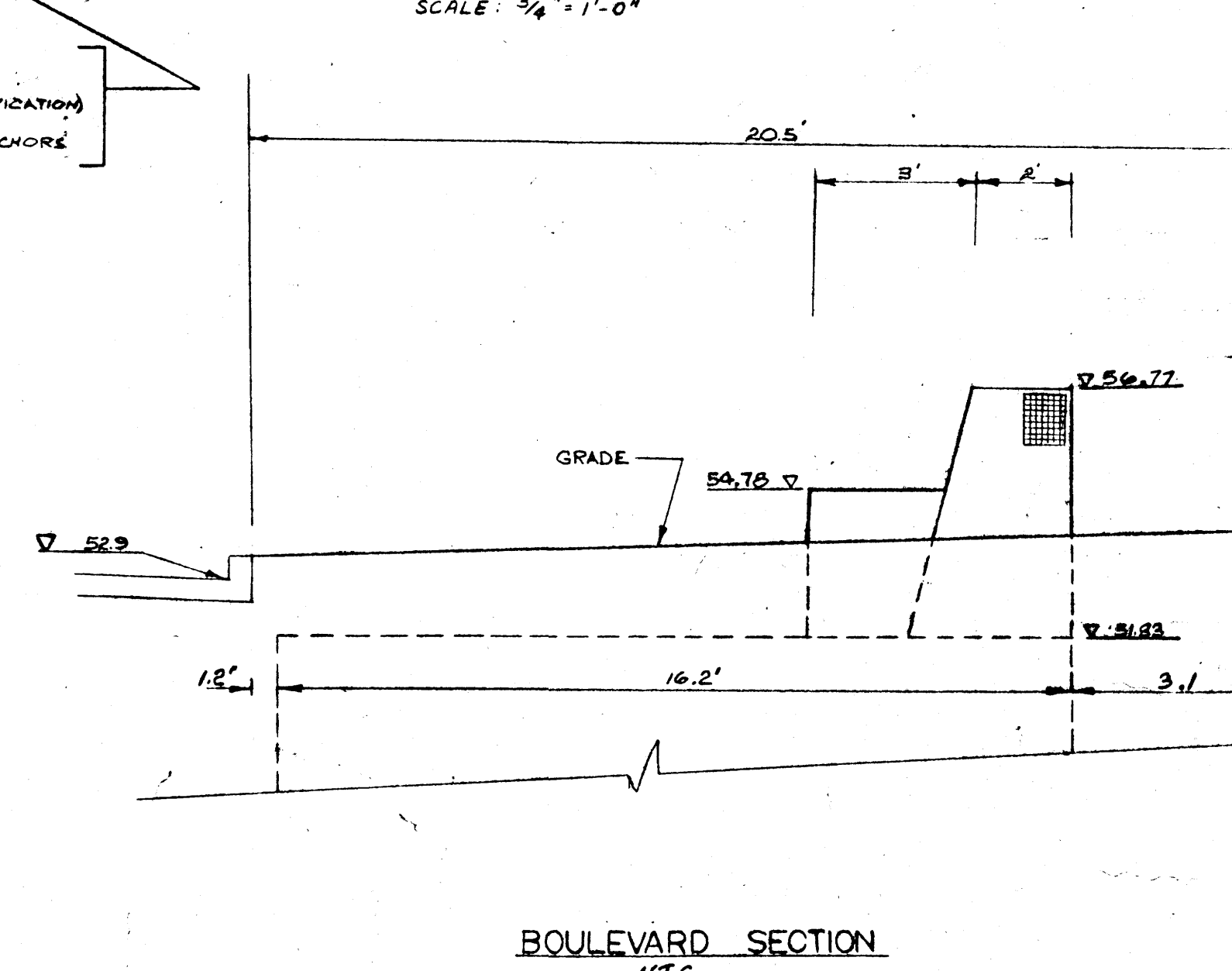
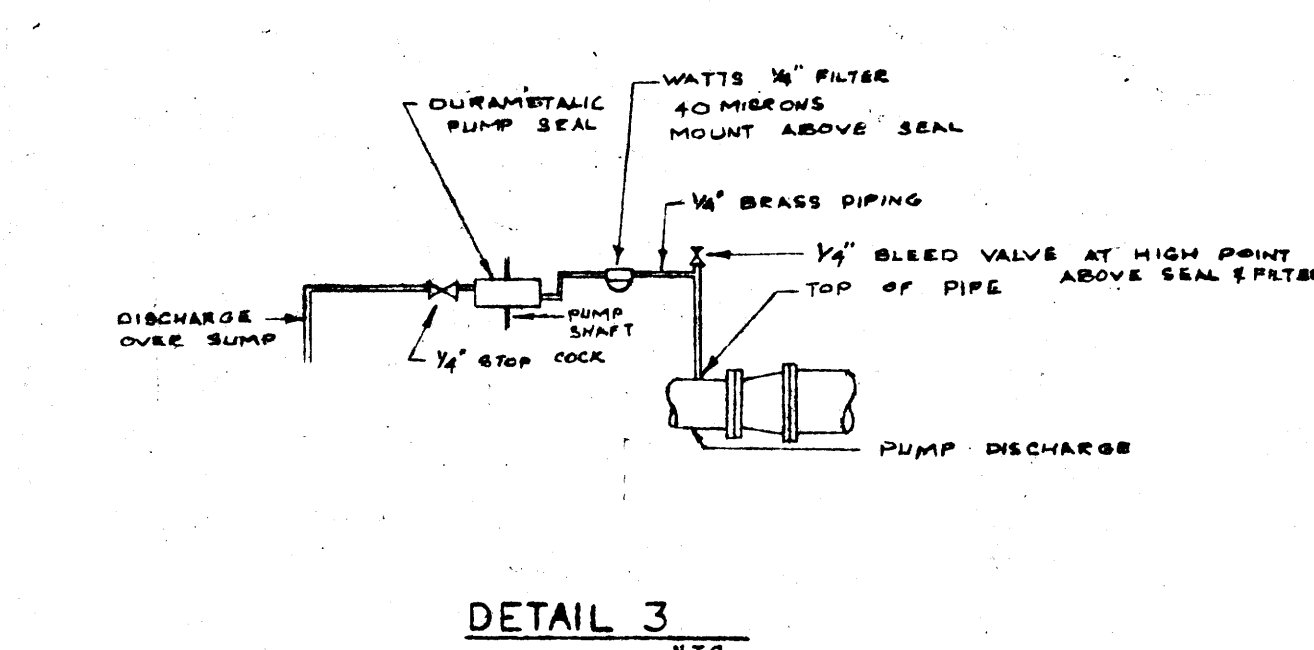
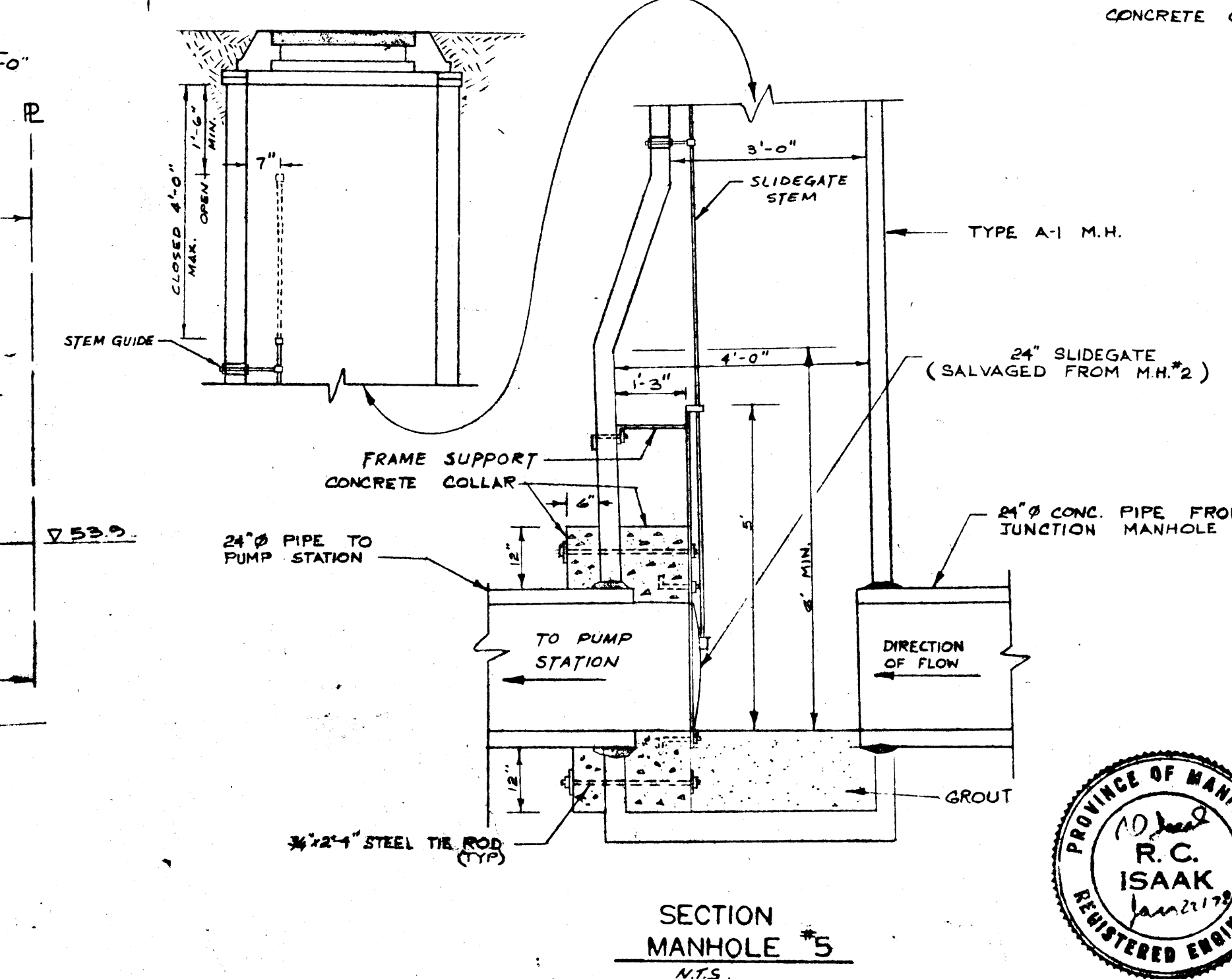
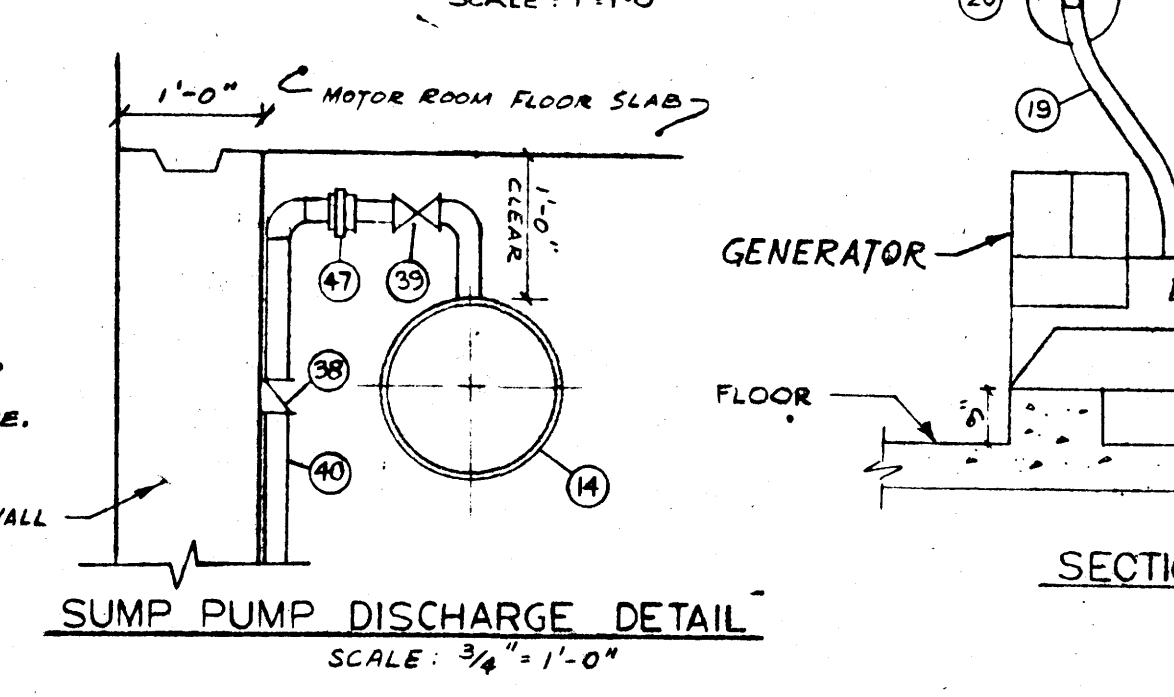
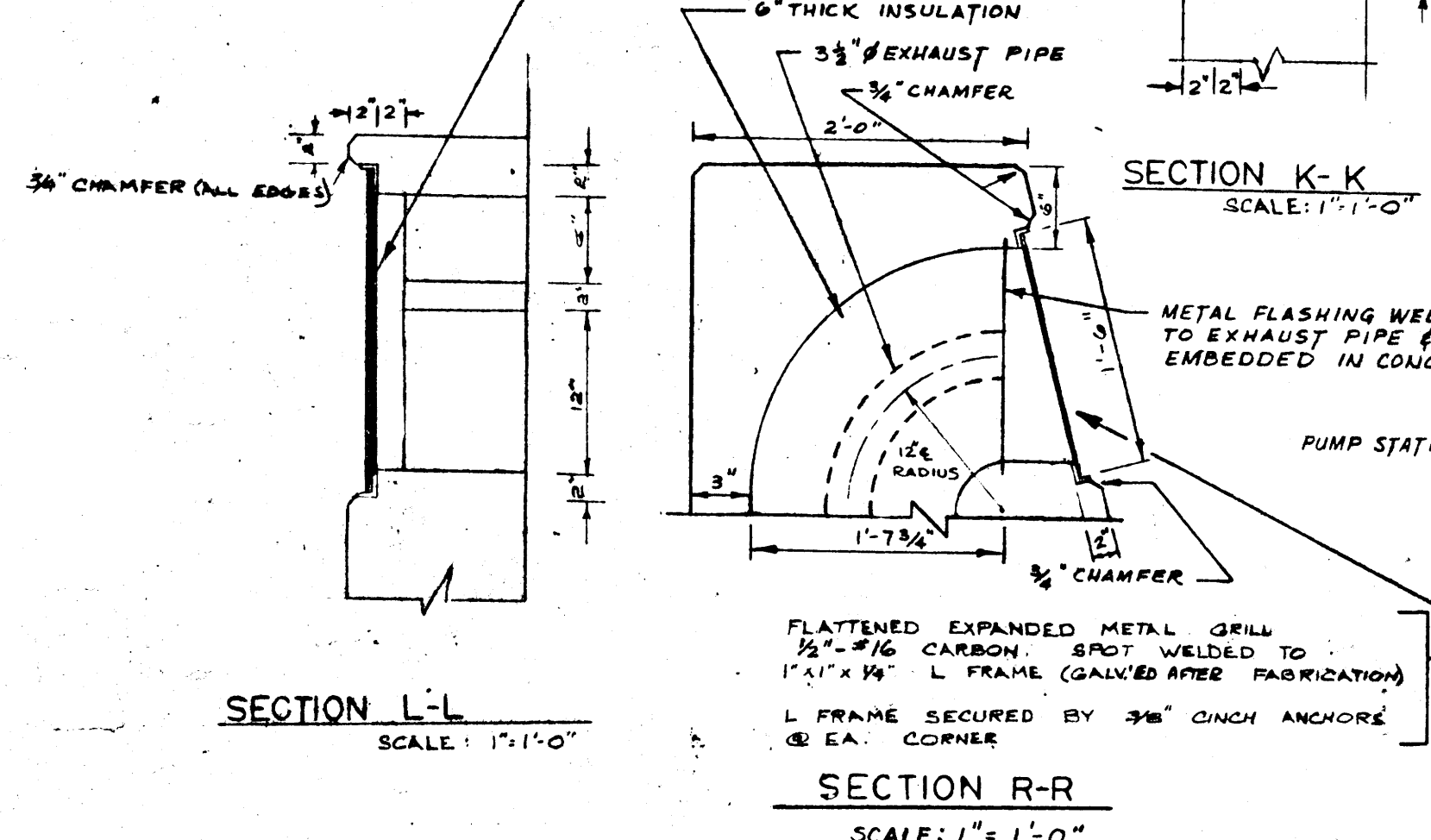
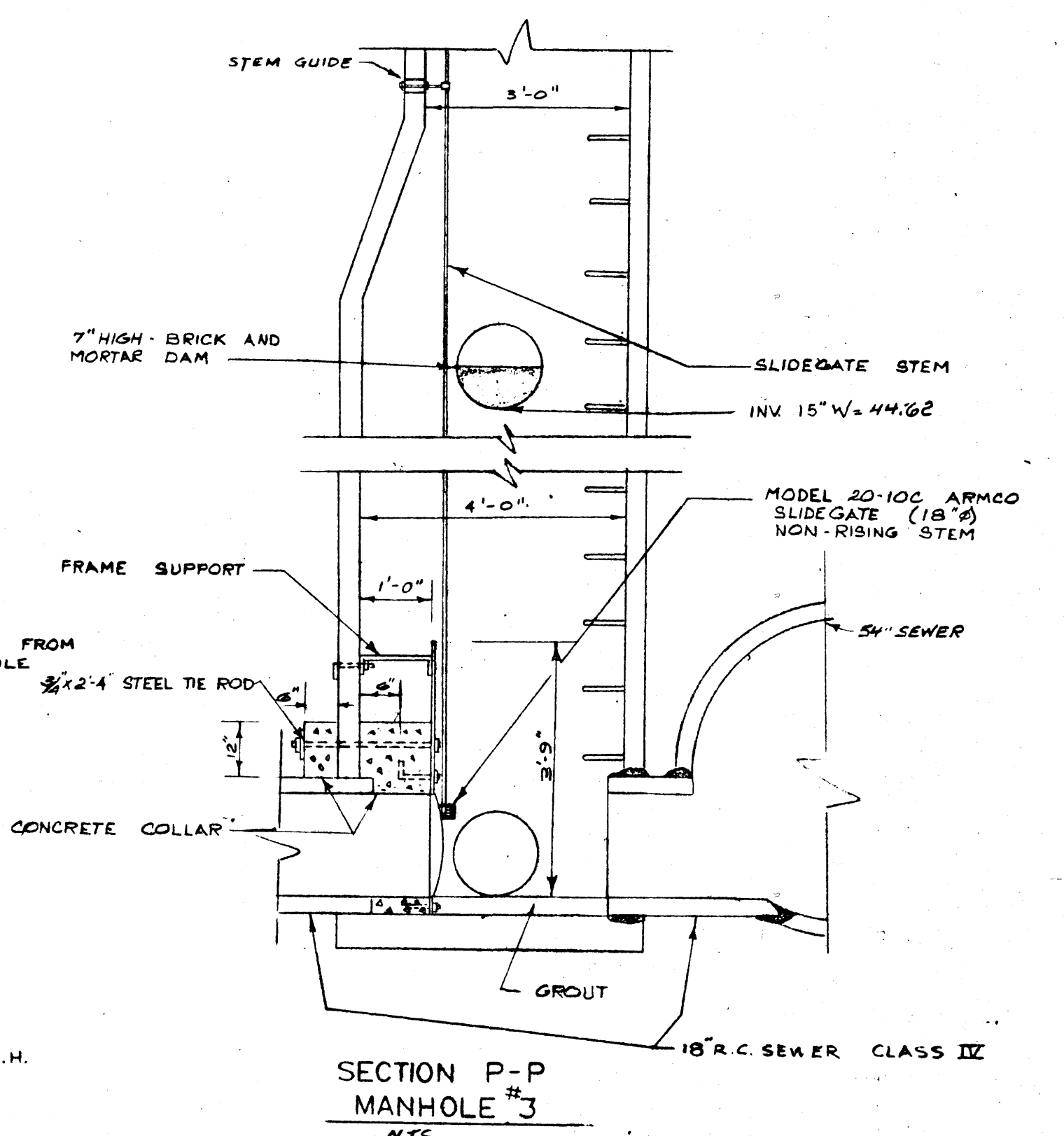
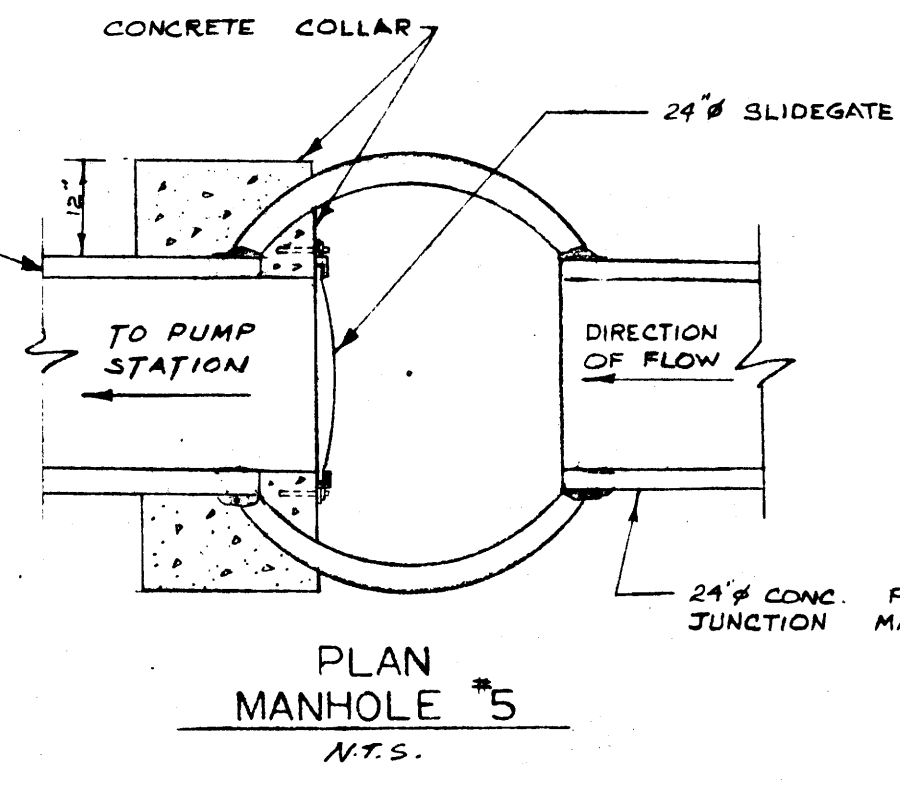
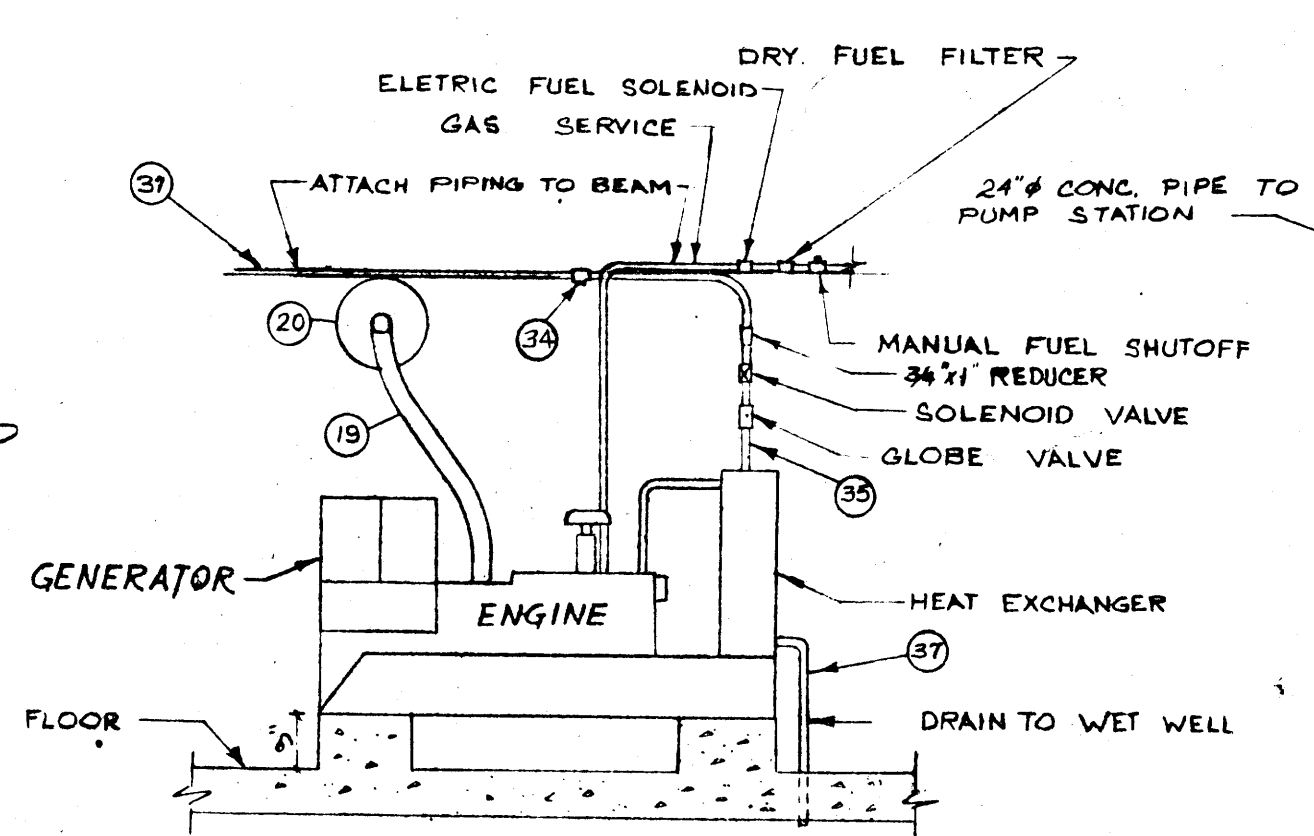
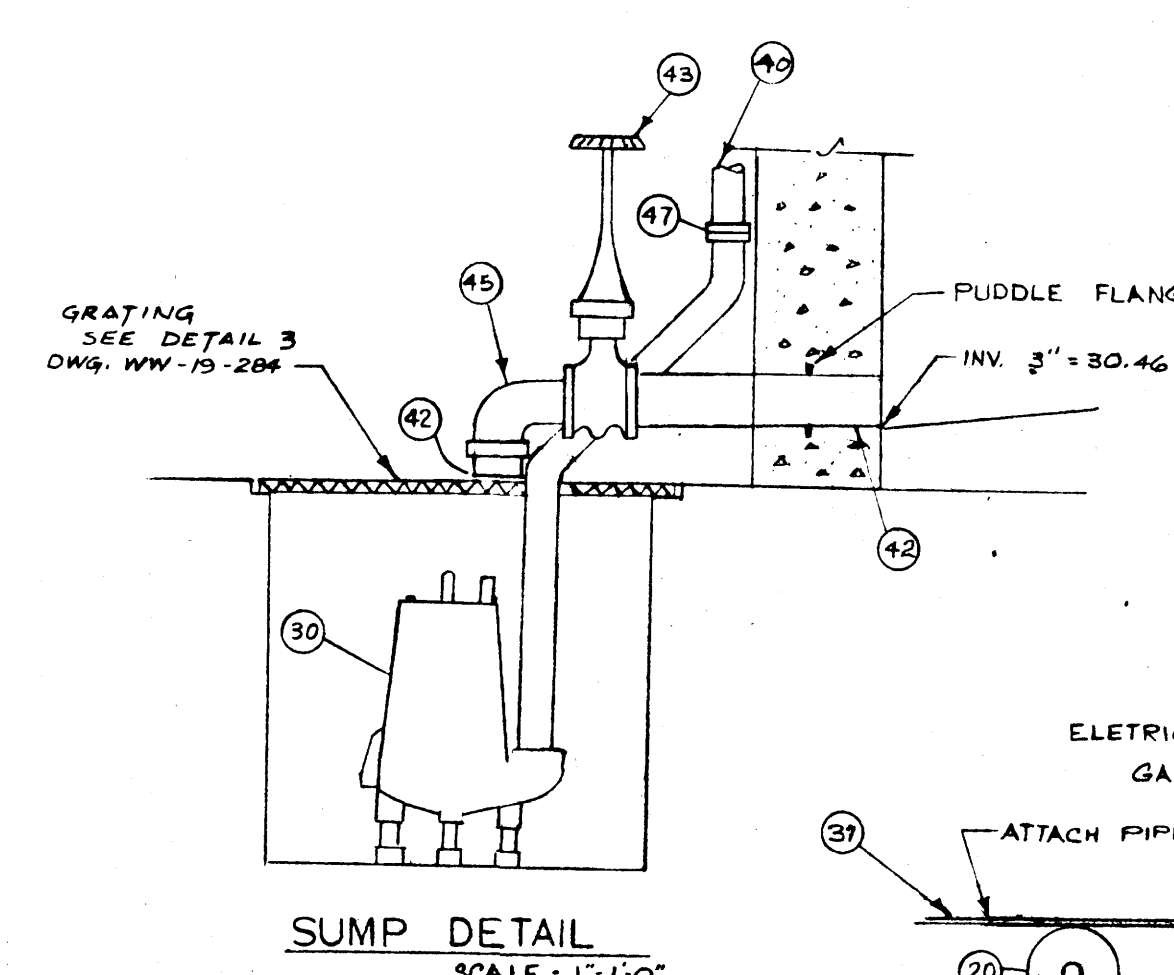
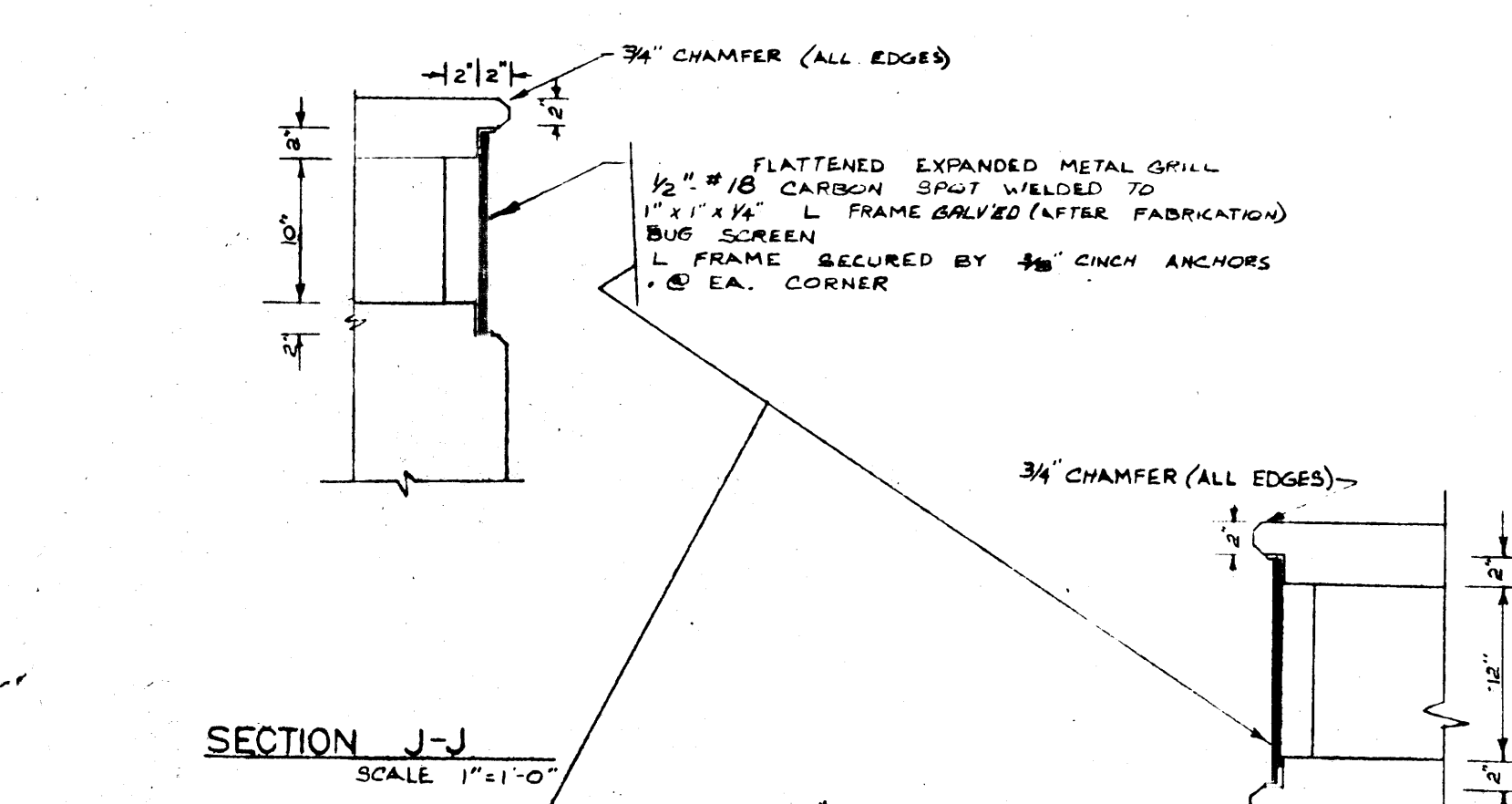
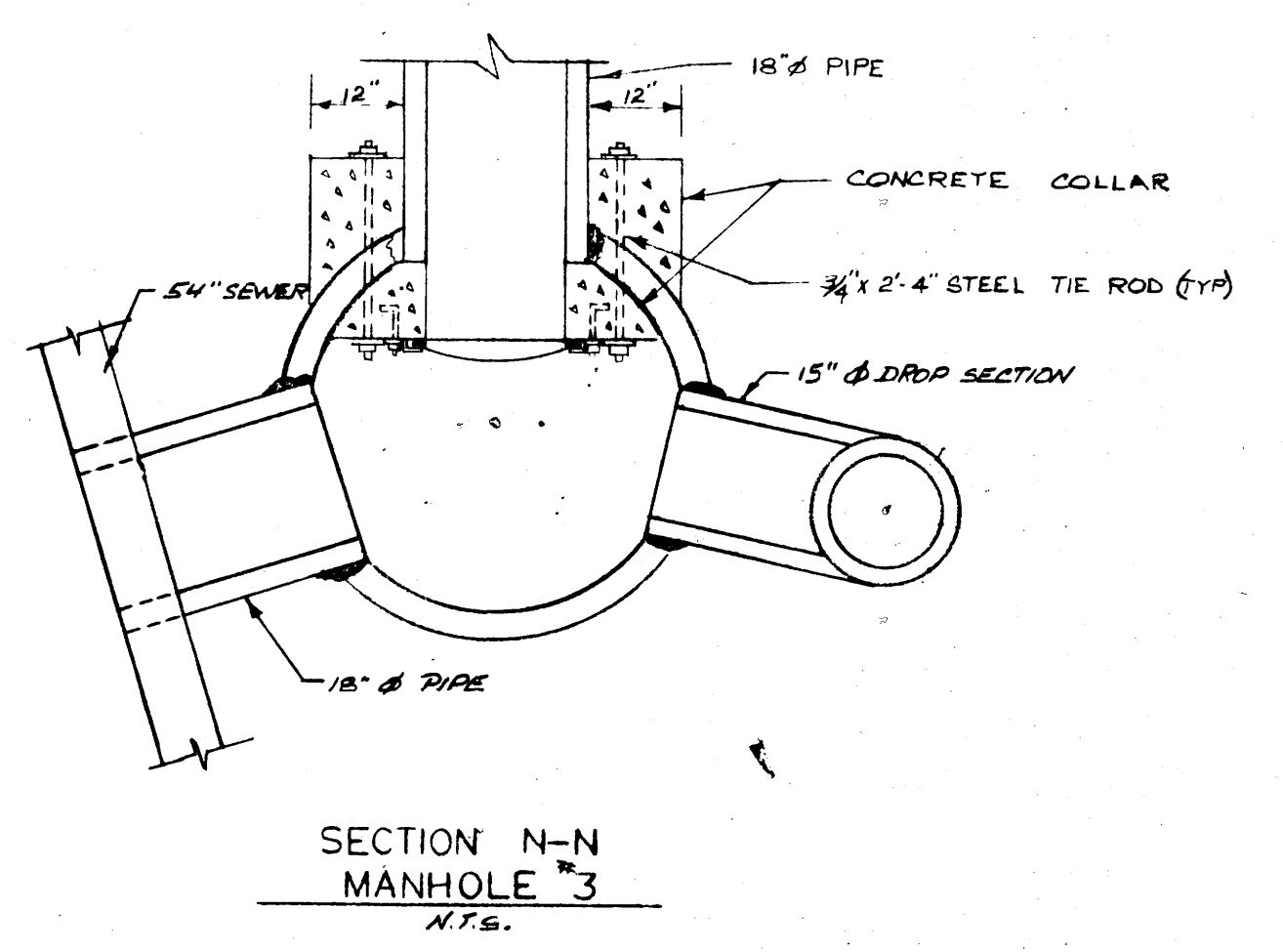
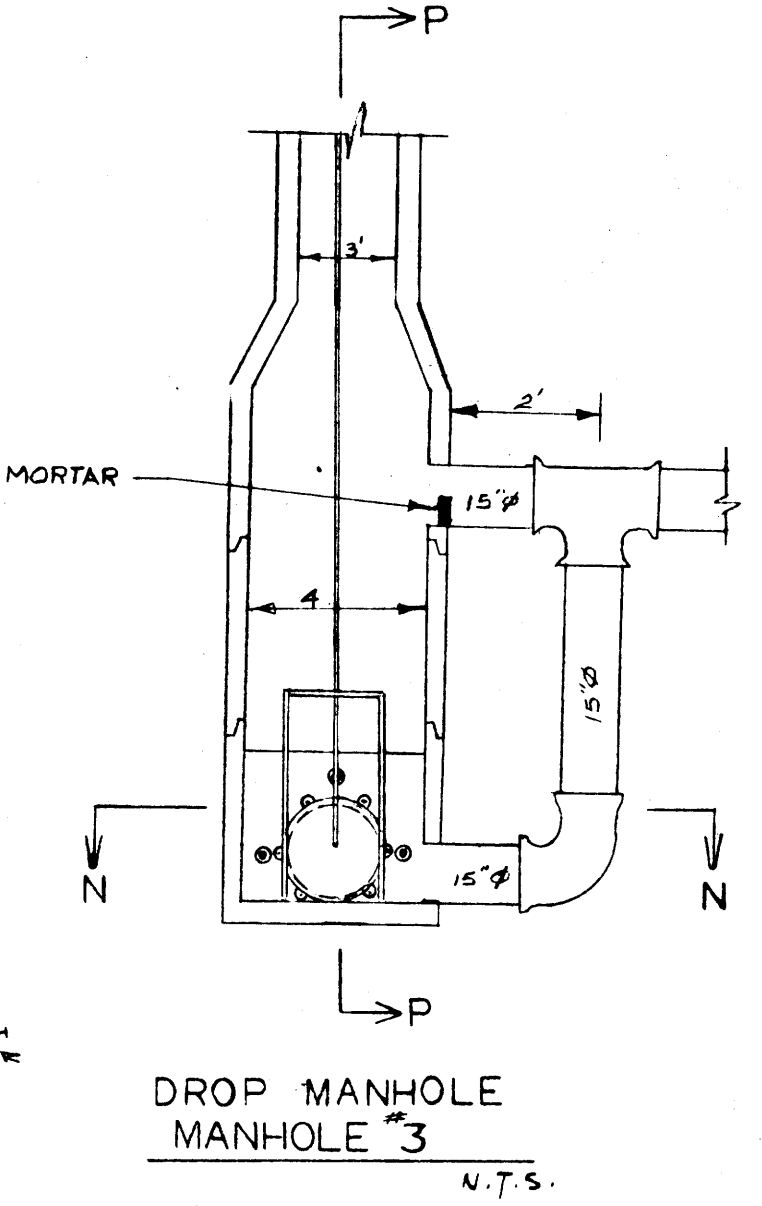
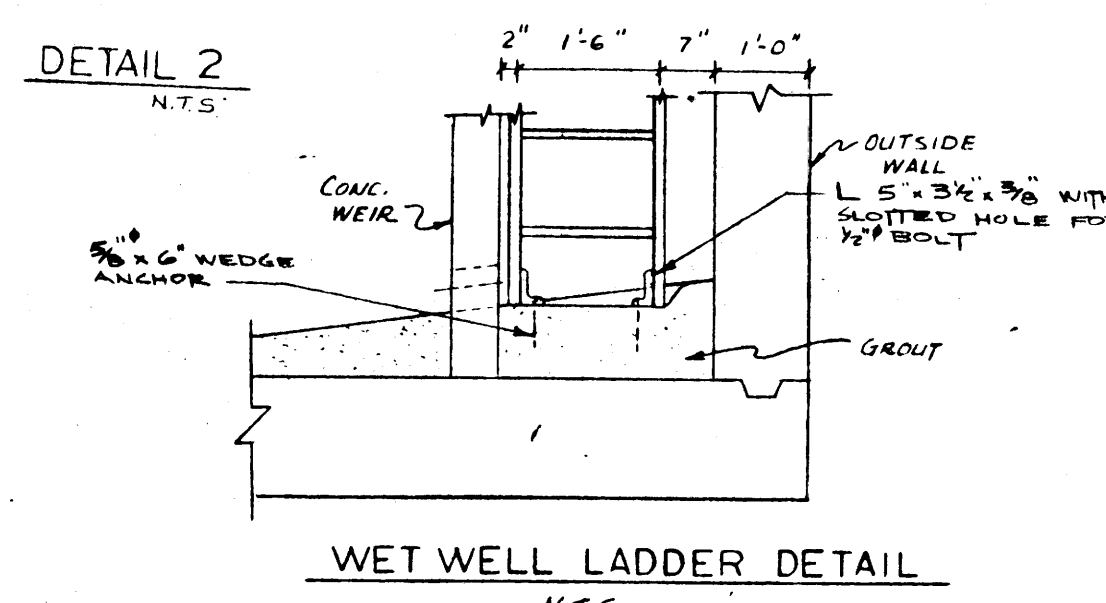
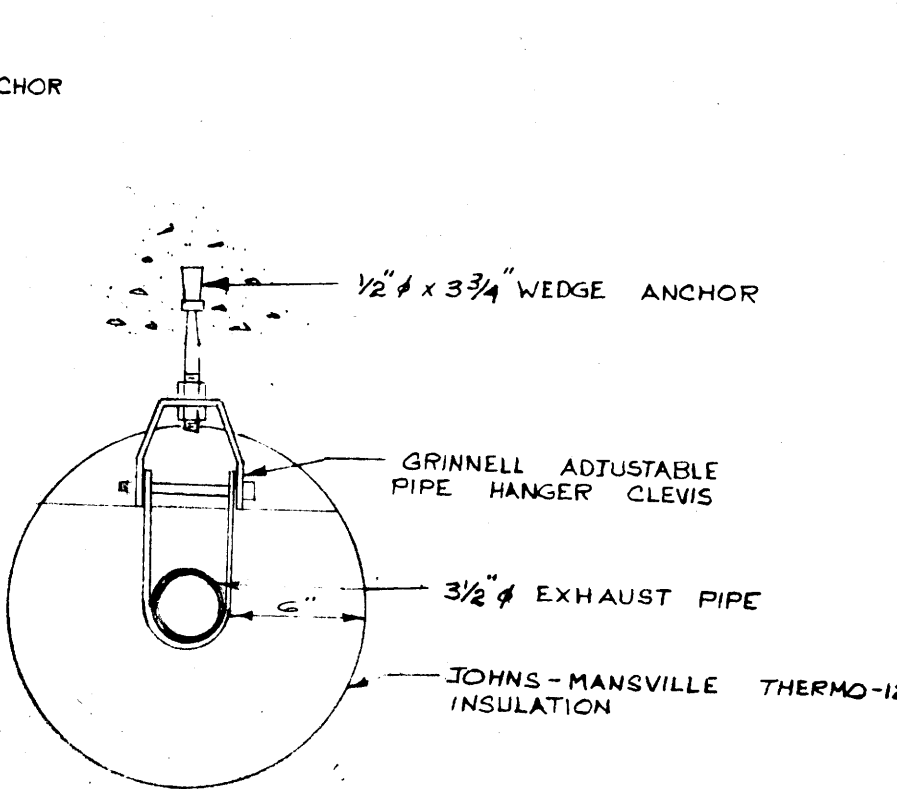
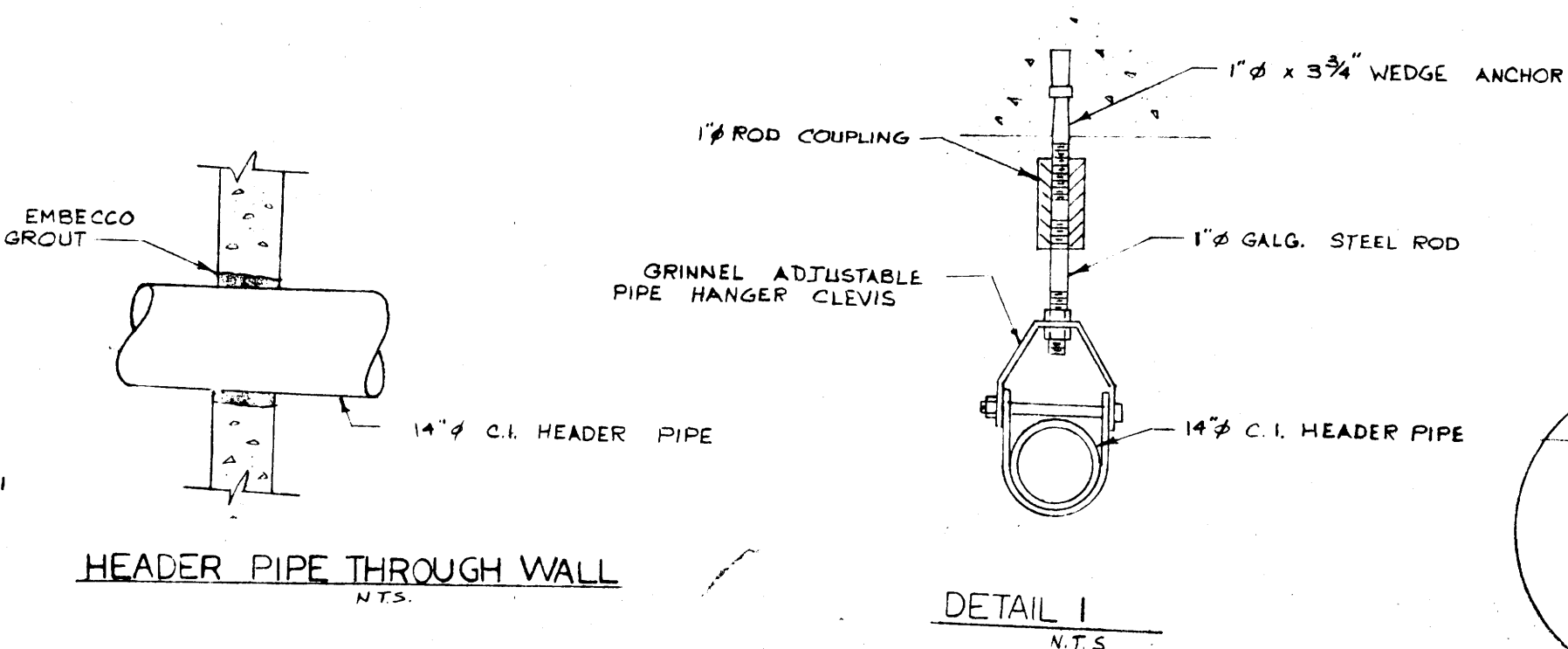
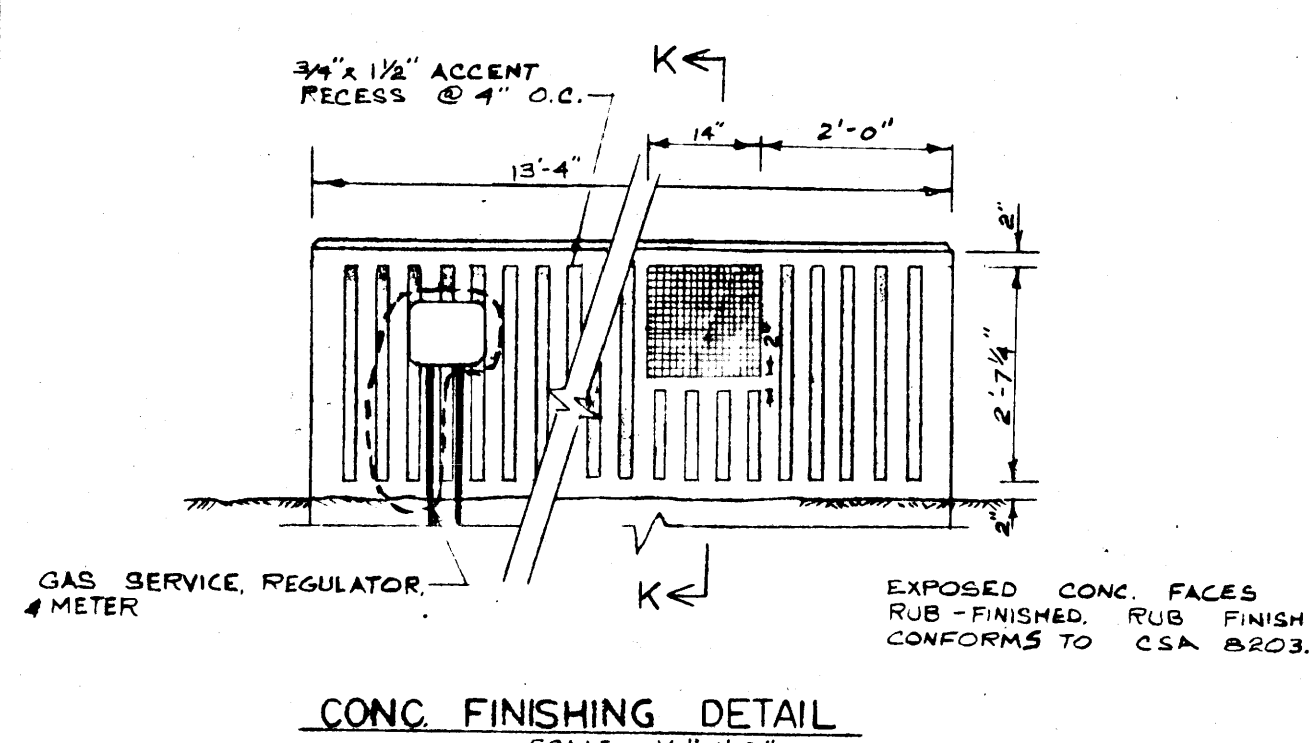
TEMPLETON ENGINEERING COMPANY  
PROFESSIONAL ENGINEERS  
WINNIPEG MANITOBA

CHECKED	R.J.	DRAWN	M.M.	SCALE	3/8" = 1'-0"
APPROVED	R.C.I.	DATE	JAN. 20, 1978	DWG. NO.	WW-16-284

LD-426

FILE # LD10192

DETAILS



REV. No.	DATE	DESCRIPTION	BY
4	DAR 24/80	REVISED TO AS-BUILT	TR-J
3	MAY 25/79	REVISED TO AS-BUILT	M.M.
2	APR. 3/78	ADDED GENERATOR EXHAUST PIPE DETAIL	M.M.
1	JAN. 31/78	DETAILS ADDED	M.M.

REVISIONS FILE # LD 10192

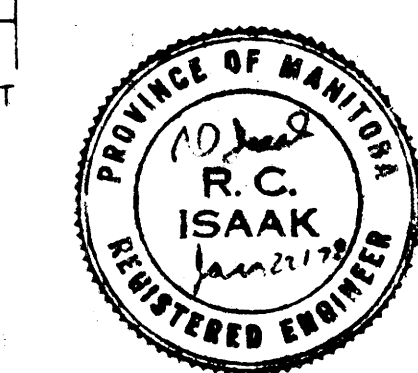
THE CITY OF WINNIPEG  
WATERWORKS, WASTE AND DISPOSAL DIVISION

LARCHDALE PUMP STATION

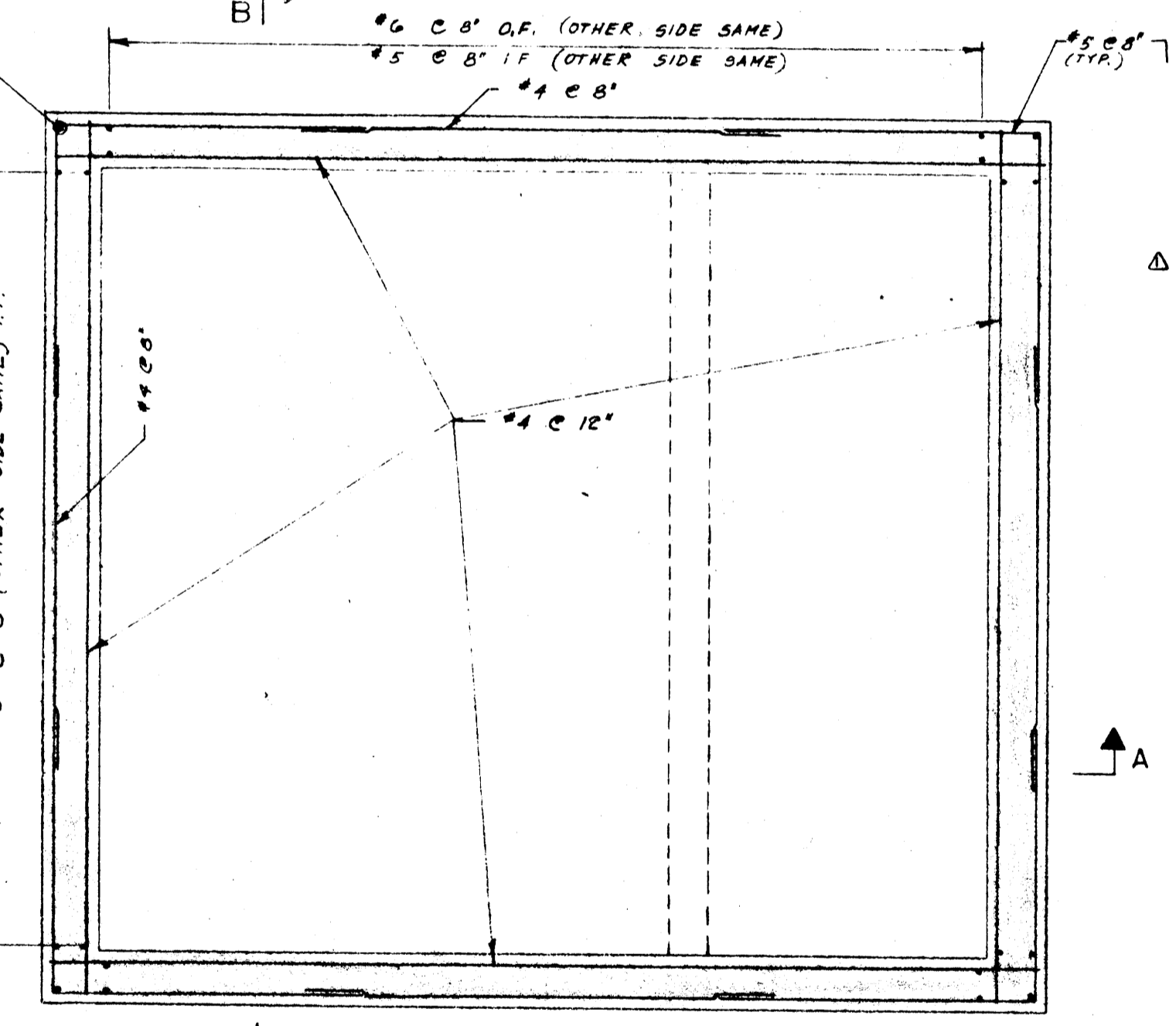
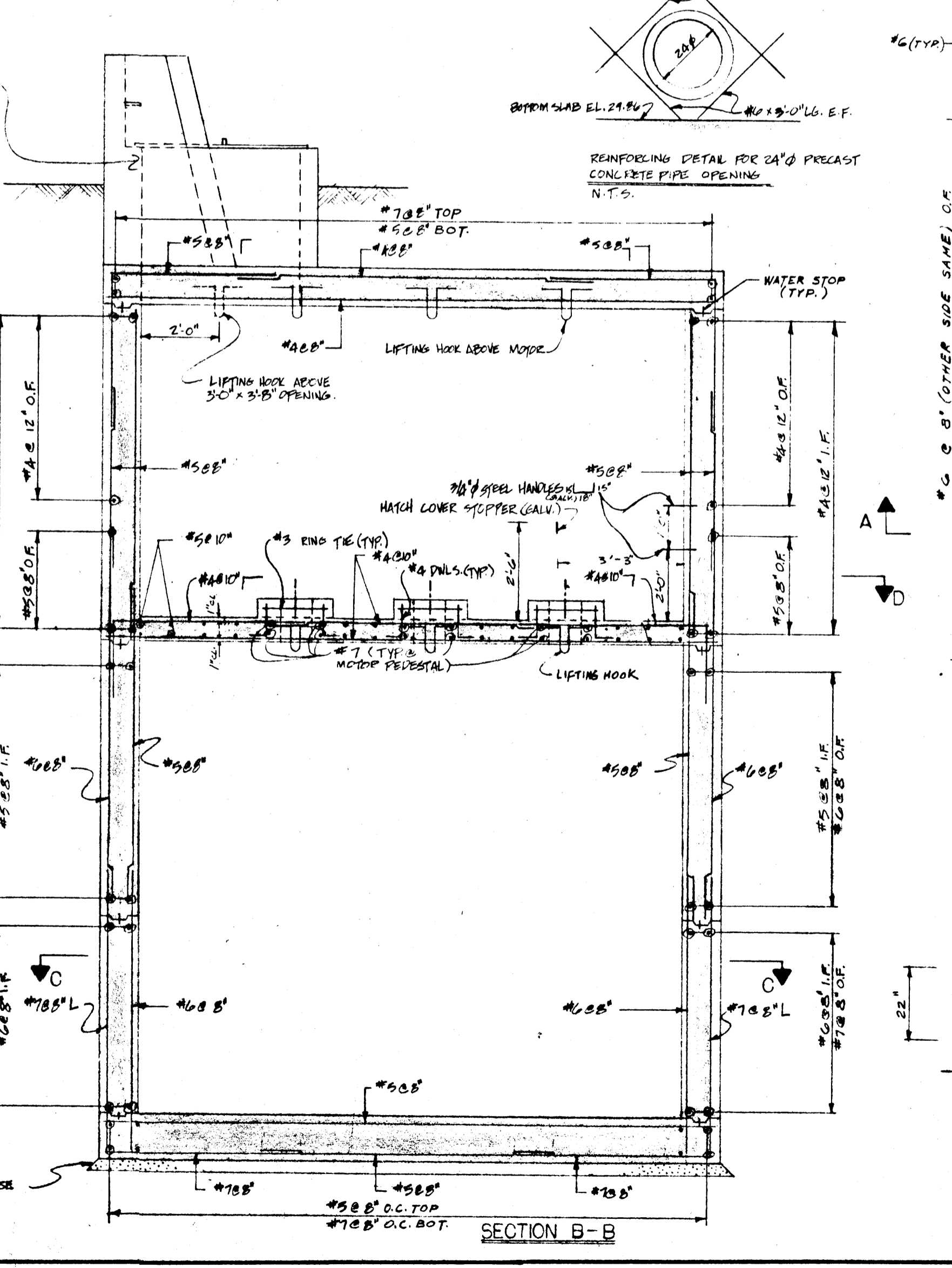
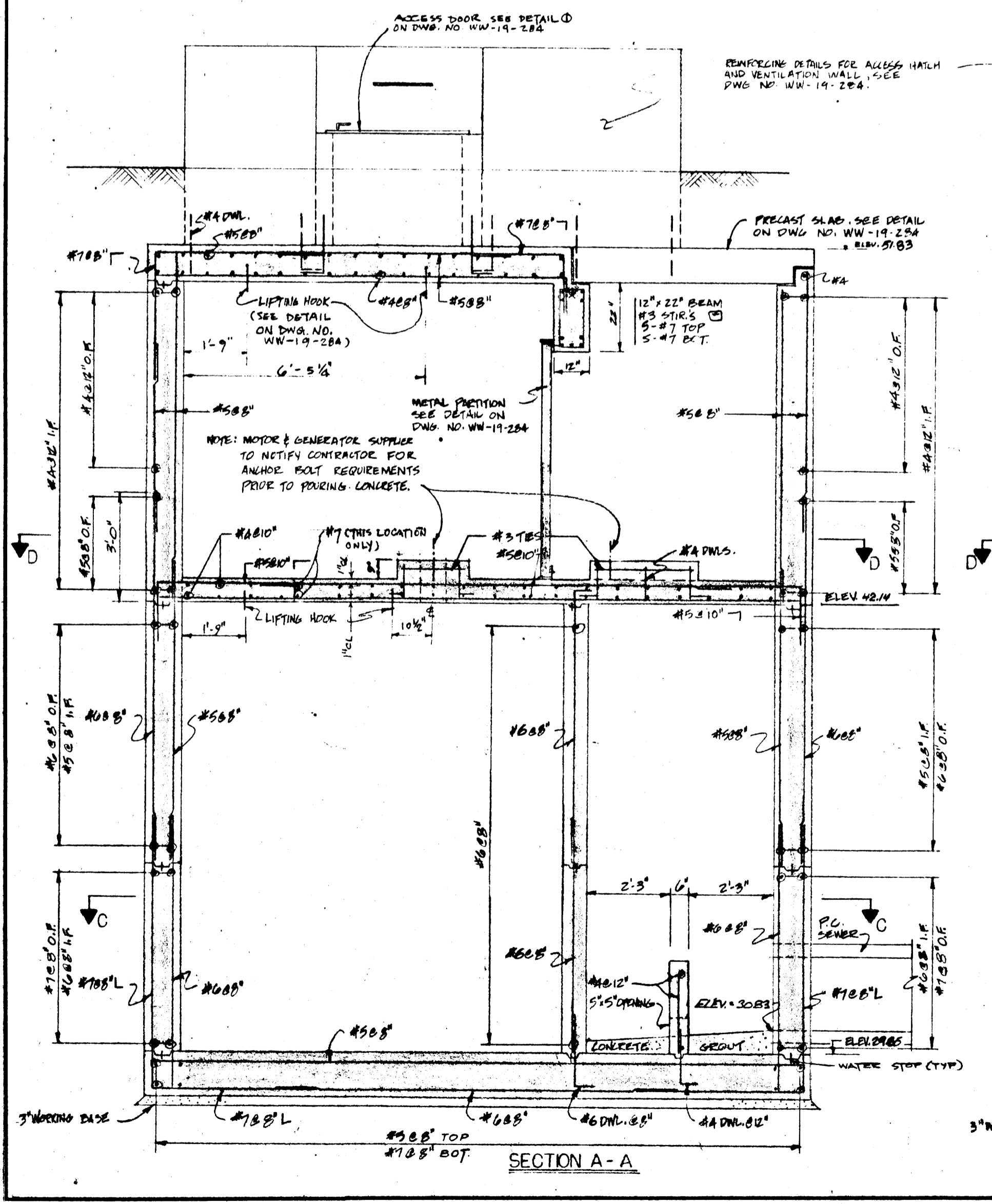
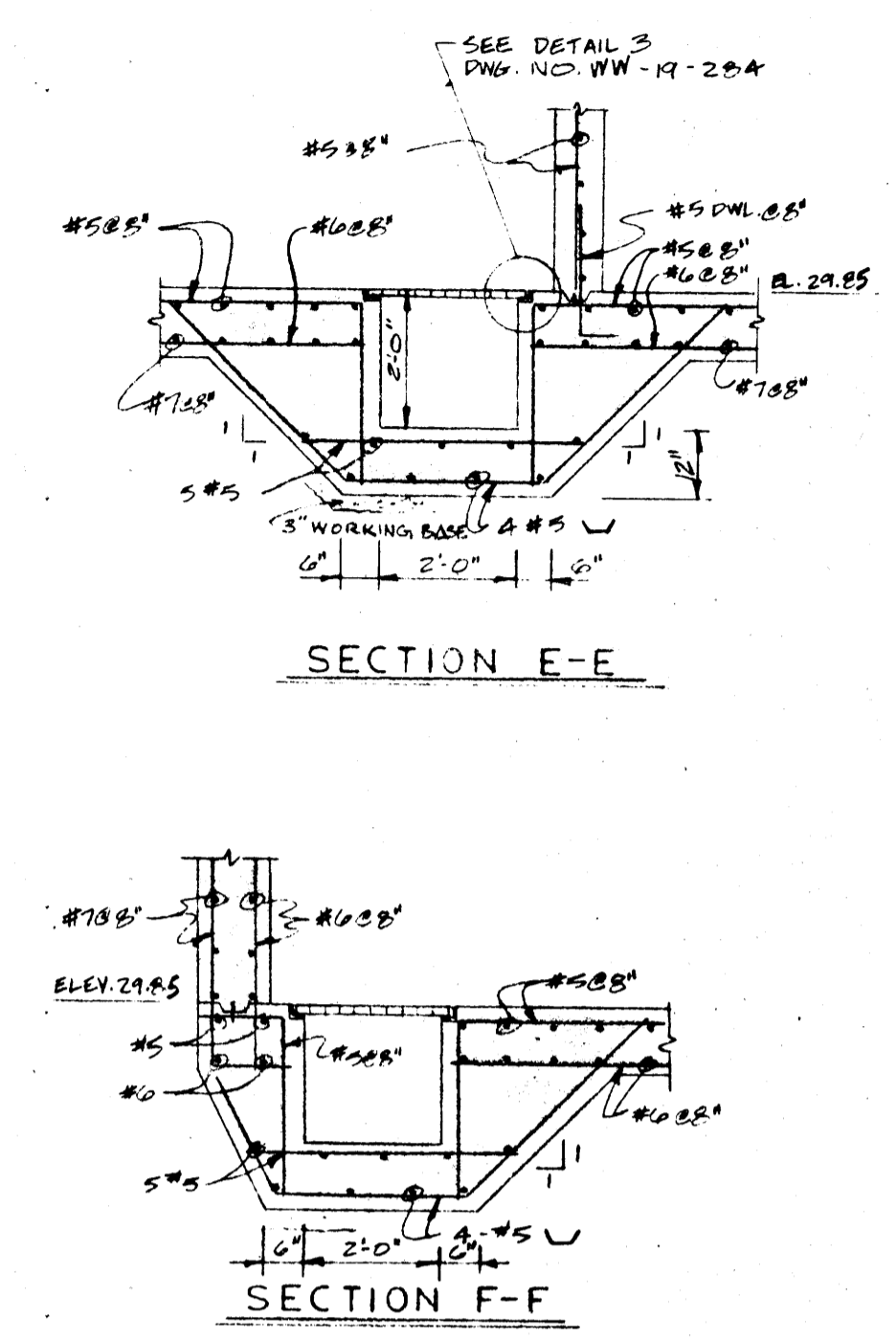
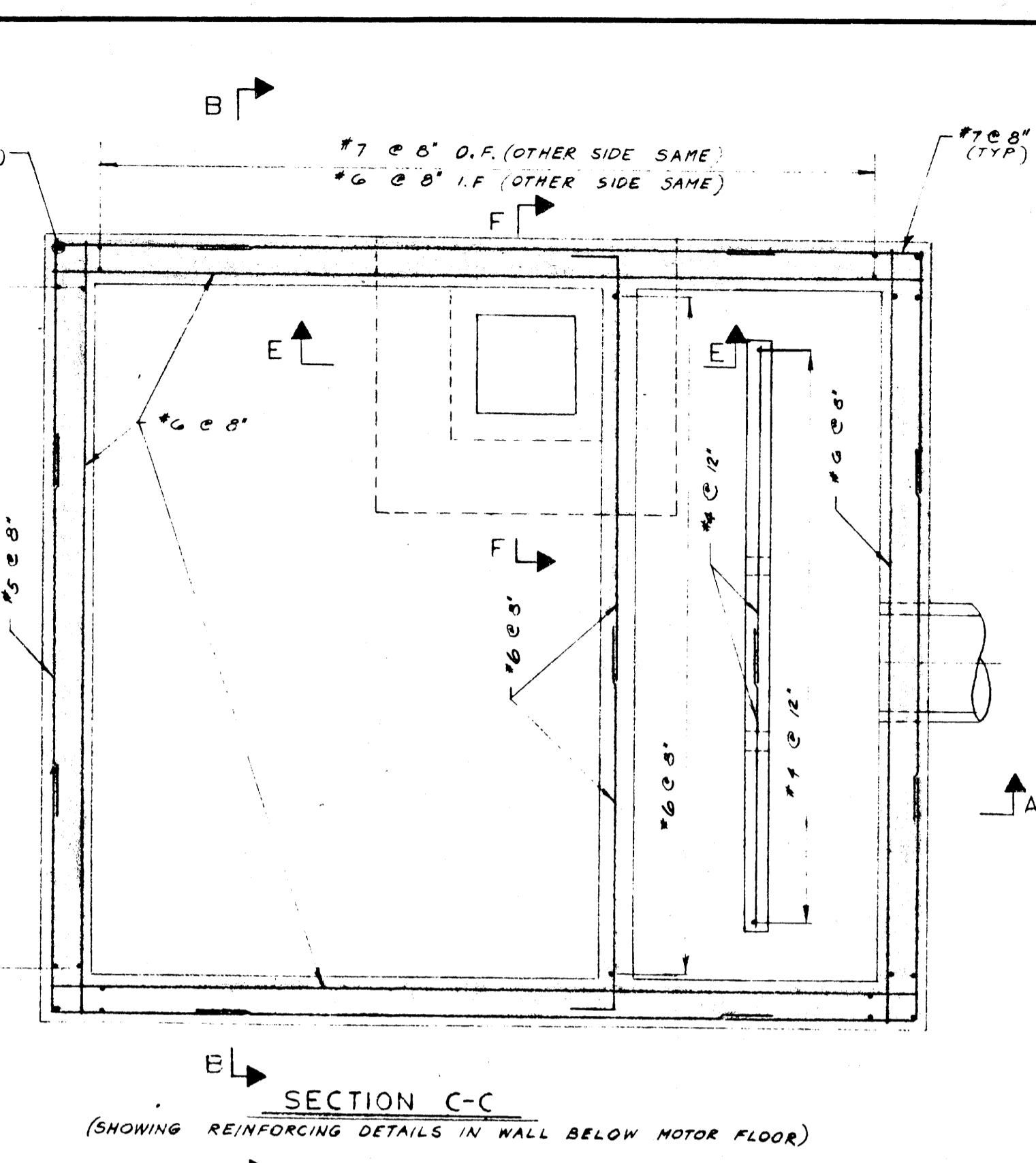
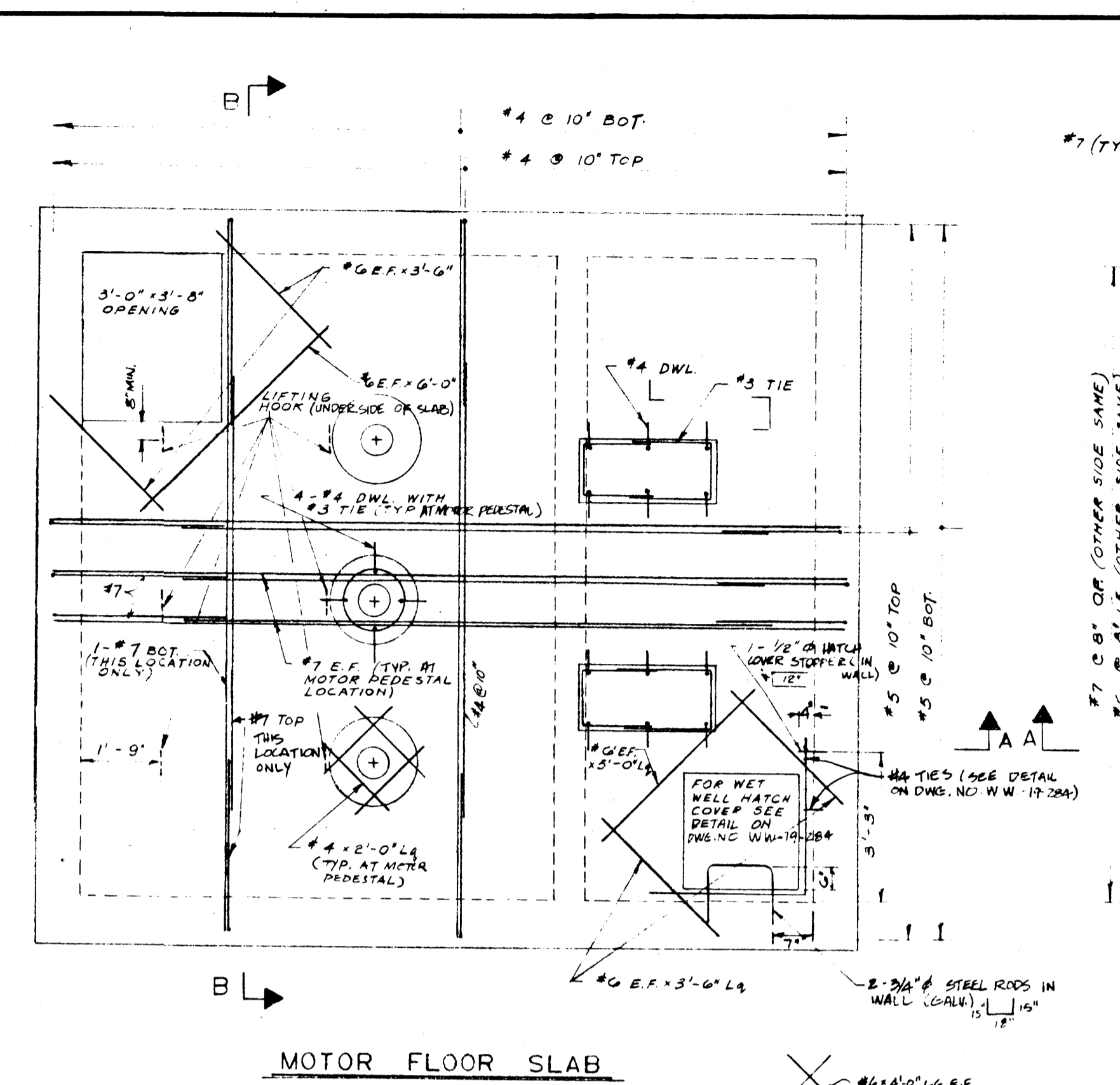
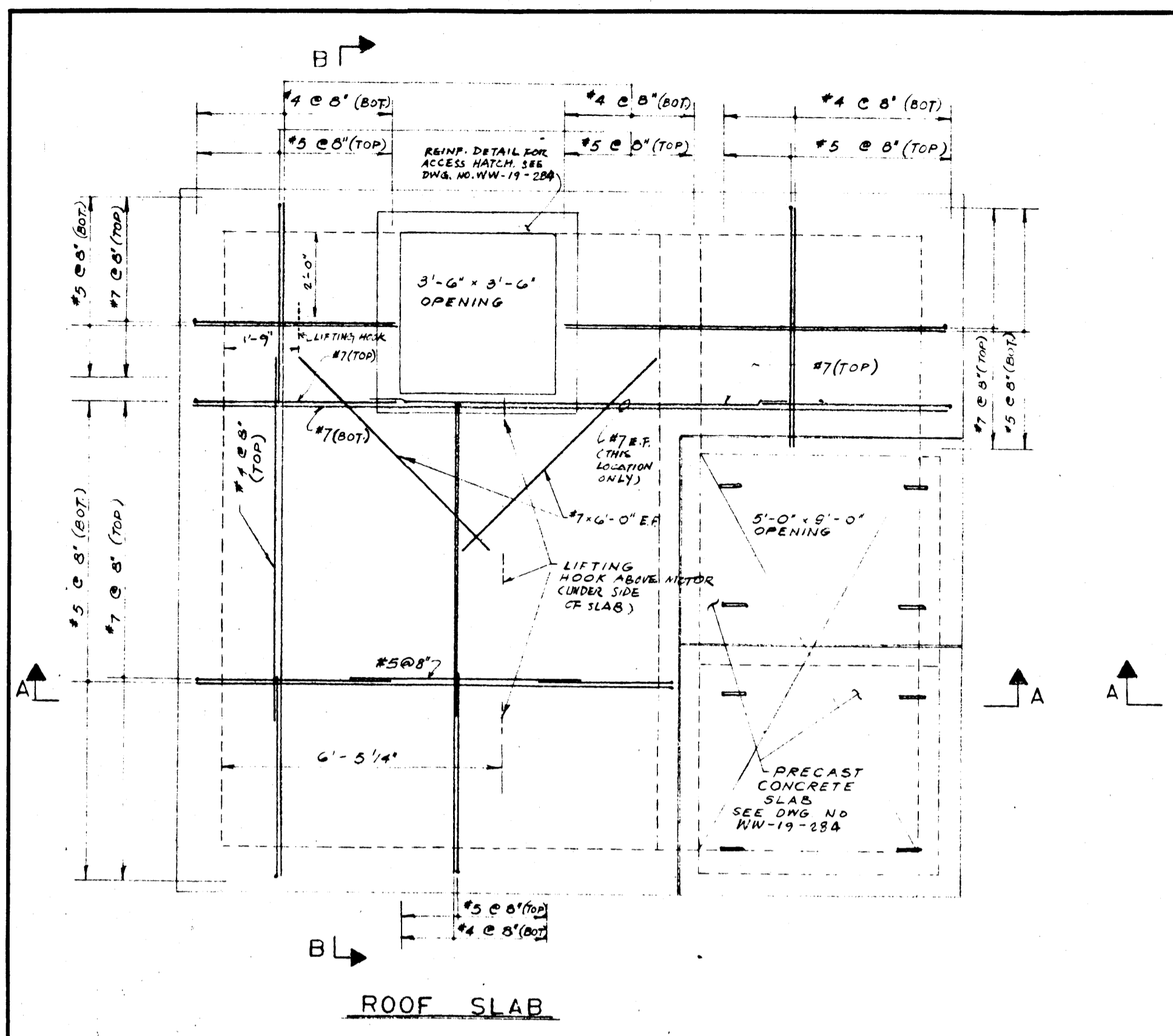
SECTIONS & DETAILS

TEMPLETON ENGINEERING COMPANY  
PROFESSIONAL ENGINEERS  
WINNIPEG MANITOBA

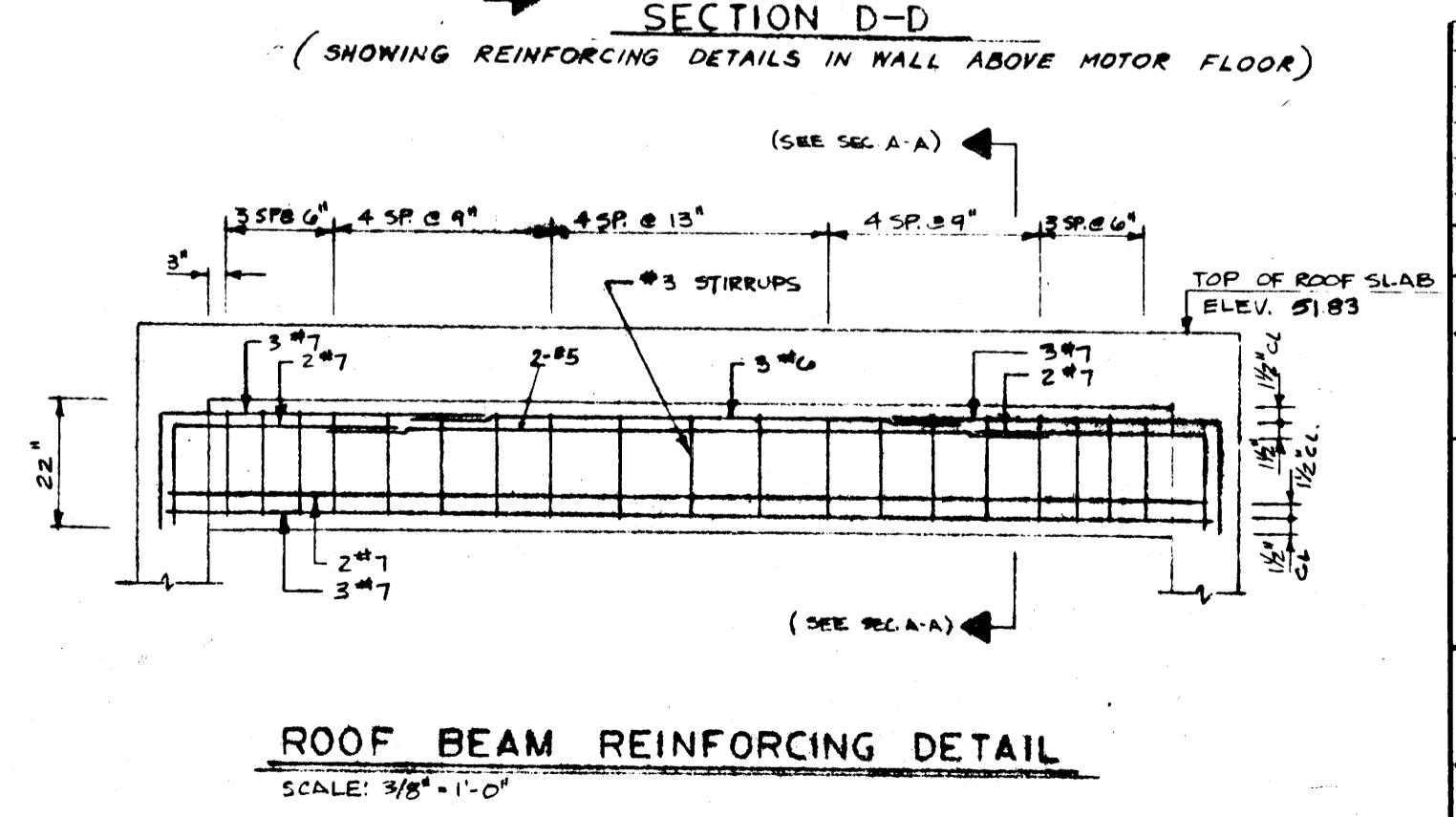
CHECKED	SCALE
R J	AS SHOWN
APPROVED	DWG. No.
R C I	WW-17-284



FILE # LD10193



- GENERAL NOTES**
- 1) CONCRETE MIN. COMPRESSIVE STRENGTH 3000 P.S.I. (LEAD MIN. CONCRETE IS 3000 P.S.I.)
  - 2) CONCRETE CONTAINS SULPHATE RESISTANT TYPE 20 CEMENT
  - 3) CONCRETE MAX. SIZE OF AGGREGATE IS 1" MAX. SLUMP IS 3"
  - 4) REINFORCING STEEL IS OF INTERMEDIATE GRADE DEFORMED BARS WITH MIN.  $f_y = 40000$  P.S.I.
  - 5) CONCRETE PROTECTION FOR REINFORCING STEEL IS 1" EXCEPT AS NOTED
  - 6) STEEL REINFORCING IS IN ACCORDANCE WITH LATEST A.C.I. DETAILING MANUAL.



REV. No.	DATE	DESCRIPTION	BY
4	MAR 24/80	REVISED TO AS-BUILT	M.D.
3	APR 17/78	REVISED BAR SIZES FOR INTERIOR WALL BETWEEN PUMP ROOM AND WET WELL	R.J.
2	MAR 15/78	REVISED REINFORCING LOCATION DESIGNATIONS	M.M.
1	JAN 30/78	TRASH RACK DELETED, WET WELL GENERAL NOTES REVISED	M.M.

REVISIONS FILE # LD10193

THE CITY OF WINNIPEG  
WATERWORKS, WASTE AND DISPOSAL DMSION

LARCHDALE PUMP STATION  
STRUCTURAL SECTIONS AND DETAILS

TEMPLETON ENGINEERING COMPANY  
PROFESSIONAL ENGINEERS MANITOBA

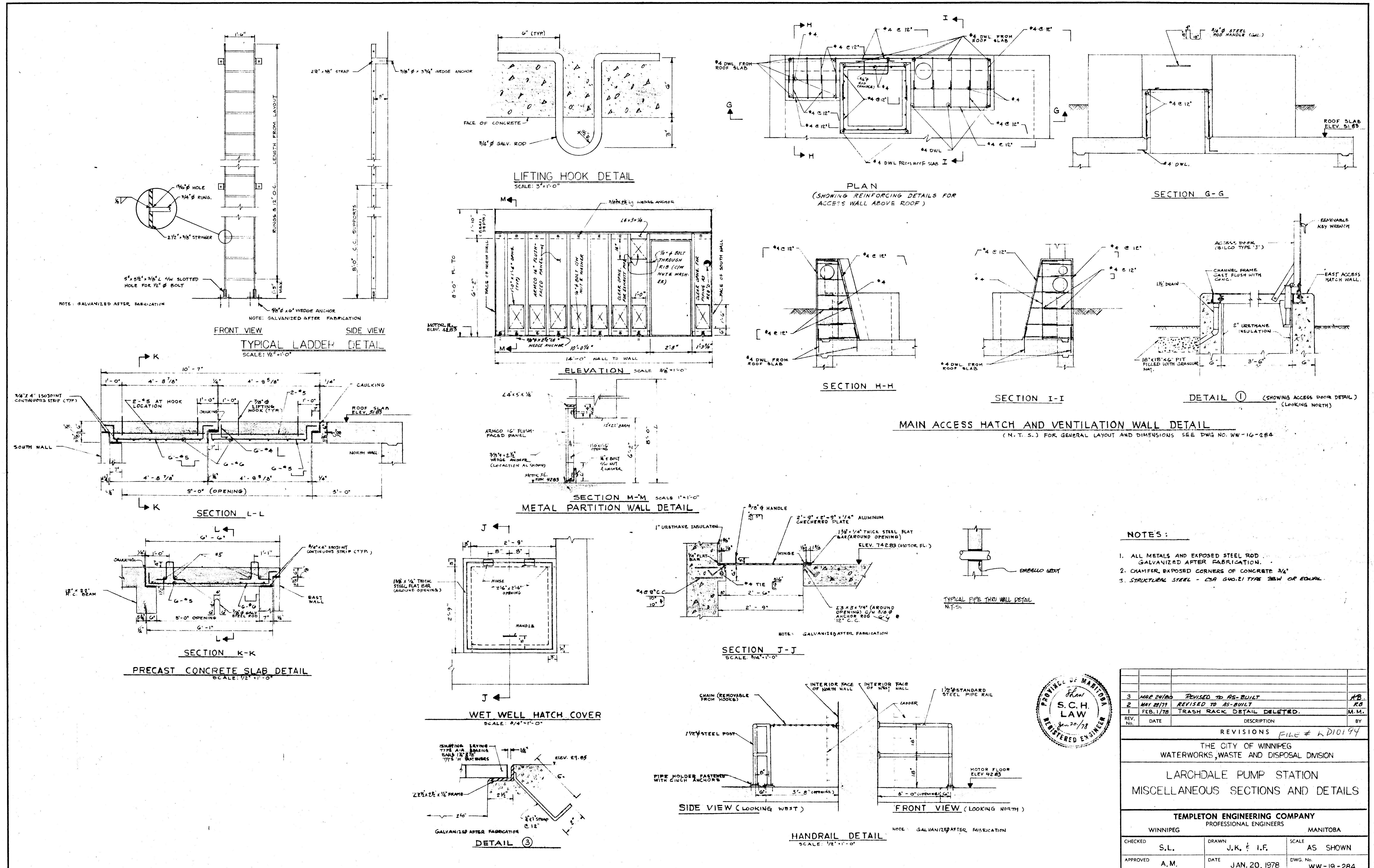
CHECKED S.L.	DRAWN J.K. & I.F.	SCALE 3/8" = 1'-0"
APPROVED A.M.	DATE JAN 20, 1978	DWG. No. WW-18-284

LD-428

FILE # LD10194

REF. or DRAWING No. LD429

DETAILS



- NOTES:**
1. ALL METALS AND EXPOSED STEEL ROD GALVANIZED AFTER FABRICATION.
  2. CHAMFER EXPOSED CORNERS OF CONCRETE 3/4"
  3. STRUCTURAL STEEL - CSA G40.21 TYPE 35W OF EQUAL.



REV. NO.	DATE	DESCRIPTION	BY
3	MAY 24/80	REVISED TO AS-BUILT	RB
2	MAY 20/79	REVISED TO AS-BUILT	RB
1	FEB. 1/78	TRASH RACK DETAIL DELETED.	M.M.

REVISIONS FILE # LD10194

THE CITY OF WINNIPEG  
WATERWORKS, WASTE AND DISPOSAL DIVISION

LARCHDALE PUMP STATION  
MISCELLANEOUS SECTIONS AND DETAILS

TEMPLETON ENGINEERING COMPANY  
PROFESSIONAL ENGINEERS  
WINNIPEG MANITOBA

CHECKED	S.L.	DRAWN	J.K. & I.F.	SCALE	AS SHOWN
APPROVED	A.M.	DATE	JAN. 20, 1978	DWG. No.	WW-19-284