



CITY OF ALBUQUERQUE , NEW MEXICO
WATER RESOURCES DEPARTMENT

WASTEWATER TREATMENT FACILITY

IMPROVEMENTS – PHASE IIB – 1

CONTRACTS NO. 2 & 3
PLANS SET NO. 1

SLUDGE THICKENING SYSTEM EXPANSION

RECORD DRAWING

DATE: *glee* DRAFTED BY: *MCA*

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
24	3	15	20	18	8																							

NO.	DATE	REVISIONS	APPROVED

DESIGNED _____
DRAWN _____
CHECKED _____
APPROVED _____
DATE NOV 1984


MOLZEN-CORBIN
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A JOINT VENTURE

NO SCALE
GRAPHIC SCALE


CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1 , CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 TITLE SHEET

M-C NO. 831721
G-01 1 of 111
SC NO. 8387

DRAWINGS INDEX

GENERAL

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5	G-05	GRADING PLAN DETAILS
6	G-06	YARD PIPING PLAN
7	G-07	YARD PIPING PLAN
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22	S-08	SLUDGE THICKENER BUILDING - CRANE RAIL, POLYMER TANK AND PLATFORM DETAILS
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HEATING, VENTILATION & AIR CONDITIONING

SHEET NO.	DRAWING NO.	
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SHEET NO.	DRAWING NO.	
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90	E-04	ELECTRICAL SITE PLAN 3
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93	E-07	POWER AND CONTROL - NEW MAIN FLOOR
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96	E-10	ELECTRICAL - EXISTING BASEMENT
97	E-11	MOTOR CONTROL CENTER 28
98	E-12	MOTOR CONTROL CENTER 29
99	E-13	480V SWITCHGEAR; PANELBOARD SCHEDULES
100	E-14	MISCELLANEOUS DETAILS
101	E-15	ELECTRICAL DETAILS
102	E-16	MCC TERMINATION PANEL
103	E-17	SCHEMATICS 1-5 AND LEGEND
104	E-18	SCHEMATICS 6-11
105	E-19	SCHEMATICS 12-14
106	E-20	SCHEMATICS 15-20
107	E-21	SCHEMATICS 21-24
108	E-22	SCHEMATICS 25-26
109	E-23	SCHEMATICS 31-33 & NOTES
110	E-24	ONE-LINE DIAGRAM - EXISTING
111	E-25	ONE-LINE DIAGRAM - NEW

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DESIGNED	
DRAWN	JMP
CHECKED	
APPROVED	
DATE	NOV. 1984

NO.	DATE	REVISIONS	APPROVED
7-16-85		ADD DRAWING NO. M-21	

**MOLZEN-CORBIN**

**STANLEY CONSULTANTS**

A JOINT VENTURE

NO SCALE
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
DRAWINGS INDEX

M-C NO. 831721	G-02	2 OF 111
SC NO.		

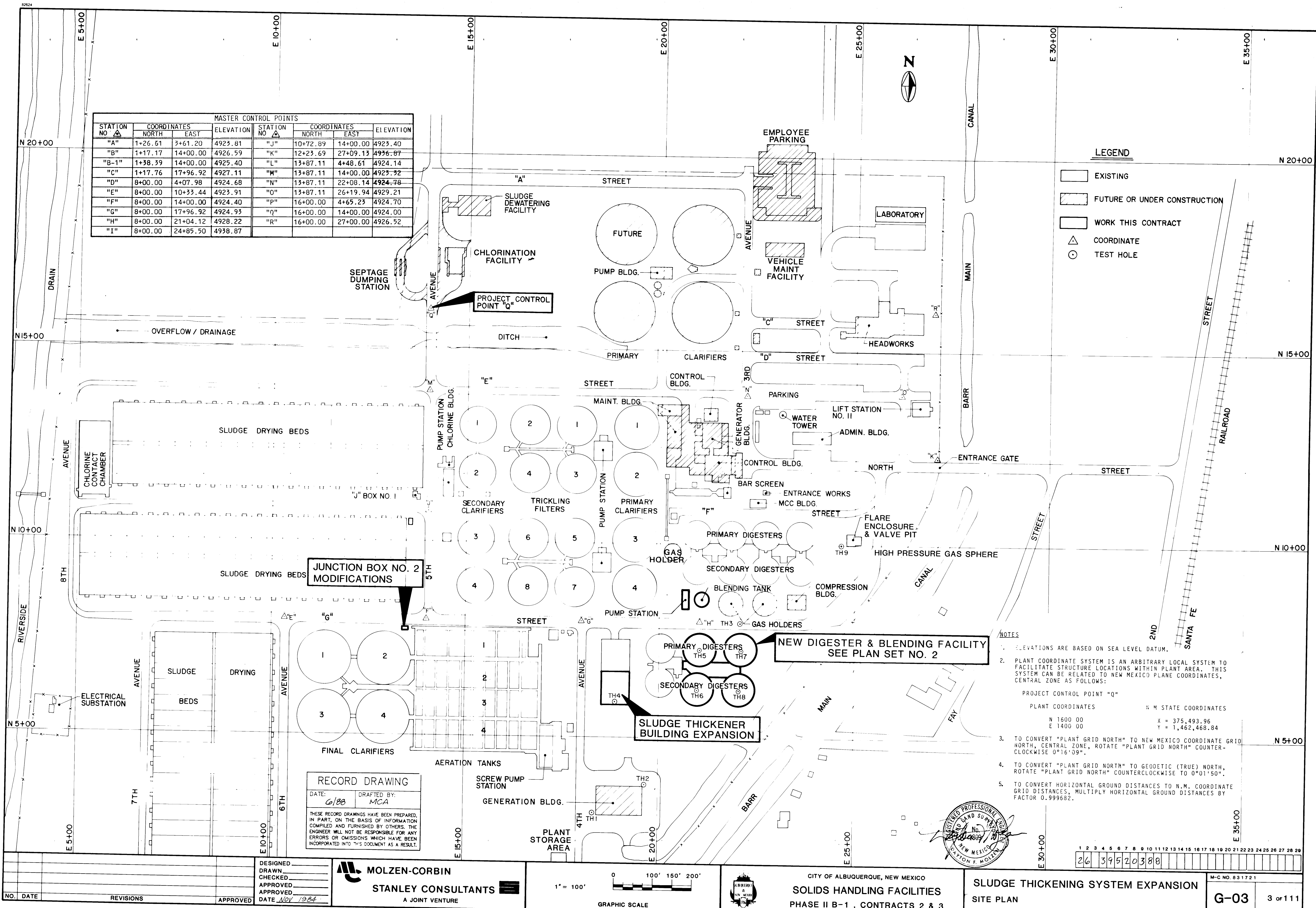
MASTER CONTROL POINTS							
STATION NO. 	COORDINATES		ELEVATION	STATION NO. 	COORDINATES		ELEVATION
	NORTH	EAST			NORTH	EAST	
"A"	1+26.61	3+61.20	4923.81	"J"	10+72.89	14+00.00	4923.40
"B"	1+17.17	14+00.00	4926.59	"K"	12+23.69	27+09.13	4936.87
"B-1"	1+38.39	14+00.00	4925.40	"L"	13+87.11	4+48.61	4924.14
"C"	1+17.76	17+96.92	4927.11	"M"	13+87.11	14+00.00	4923.32
"D"	8+00.00	4+07.98	4924.68	"N"	13+87.11	22+08.14	4924.78
"E"	8+00.00	10+33.44	4923.91	"O"	13+87.11	26+19.94	4929.21
"F"	8+00.00	14+00.00	4924.40	"P"	16+00.00	4+65.23	4924.70
"G"	8+00.00	17+96.92	4924.93	"Q"	16+00.00	14+00.00	4924.00
"H"	8+00.00	21+04.12	4928.22	"R"	16+00.00	27+00.00	4926.52
"I"	8+00.00	24+85.50	4938.87				

LEGEND	
	EXISTING
	FUTURE OR UNDER CONSTRUCTION
	WORK THIS CONTRACT
Δ	COORDINATE
$\odot$	TEST HOLE

- NOTES
- ELEVATIONS ARE BASED ON SEA LEVEL DATUM.
 - PLANT COORDINATE SYSTEM IS AN ARBITRARY LOCAL SYSTEM TO FACILITATE STRUCTURE LOCATIONS WITHIN PLANT AREA. THIS SYSTEM CAN BE RELATED TO NEW MEXICO PLANE COORDINATES, CENTRAL ZONE AS FOLLOWS:
PROJECT CONTROL POINT "Q"
PLANT COORDINATES
N 1600 00
E 1400 00
N M STATE COORDINATES
X = 375,493.96
Y = 1,462,468.84
 - TO CONVERT "PLANT GRID NORTH" TO NEW MEXICO COORDINATE GRID NORTH, CENTRAL ZONE, ROTATE "PLANT GRID NORTH" COUNTERCLOCKWISE 0°16'09".
 - TO CONVERT "PLANT GRID NORTH" TO GEODETIC (TRUE) NORTH, ROTATE "PLANT GRID NORTH" COUNTERCLOCKWISE TO 0°01'50".
 - TO CONVERT HORIZONTAL GROUND DISTANCES TO N.M. COORDINATE GRID DISTANCES, MULTIPLY HORIZONTAL GROUND DISTANCES BY FACTOR 0.999682.



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DESIGNED	
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CHECKED	
APPROVED	
DATE: NOV 1984	

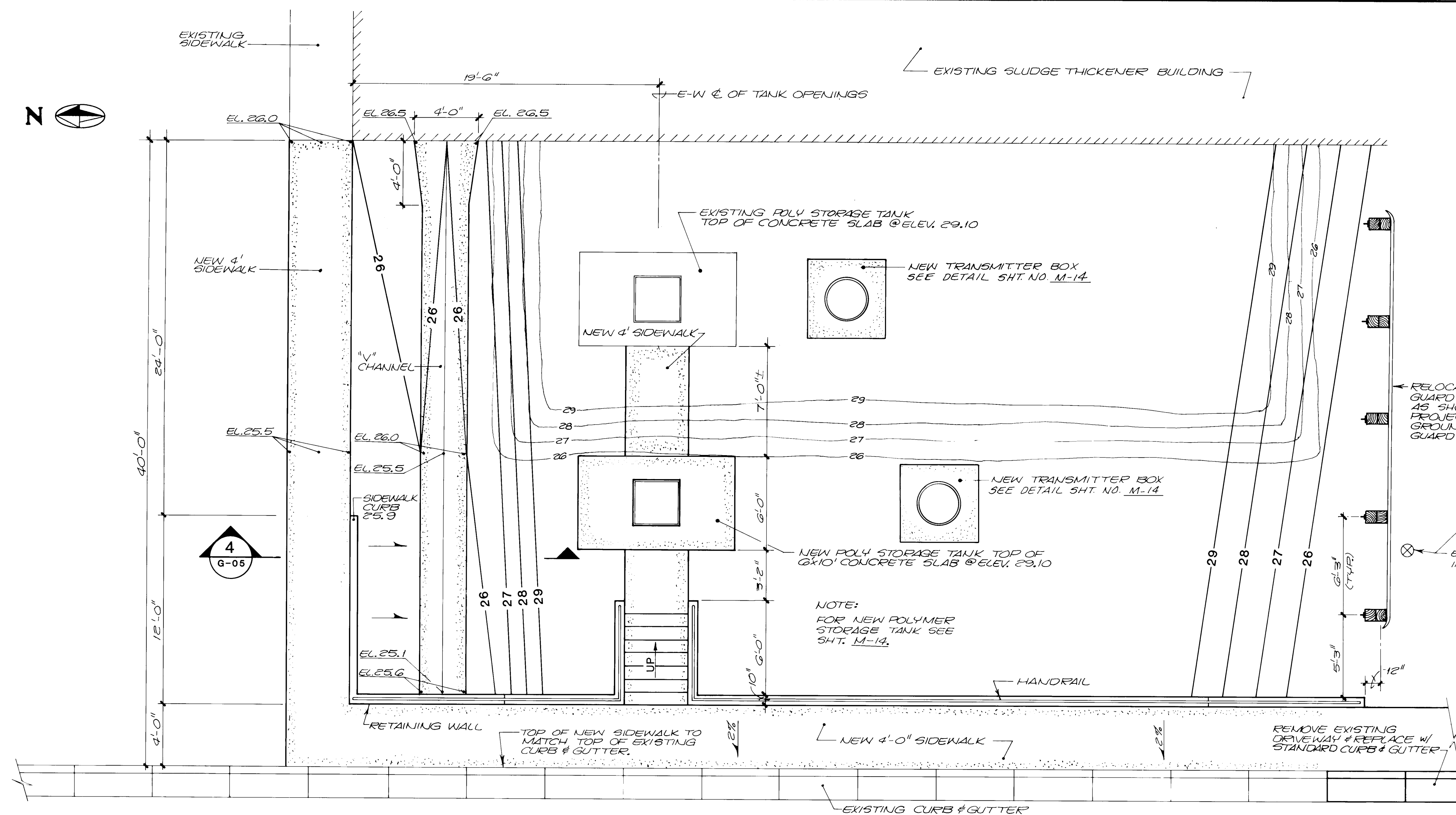
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	STANLEY CONSULTANTS
A JOINT VENTURE	



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

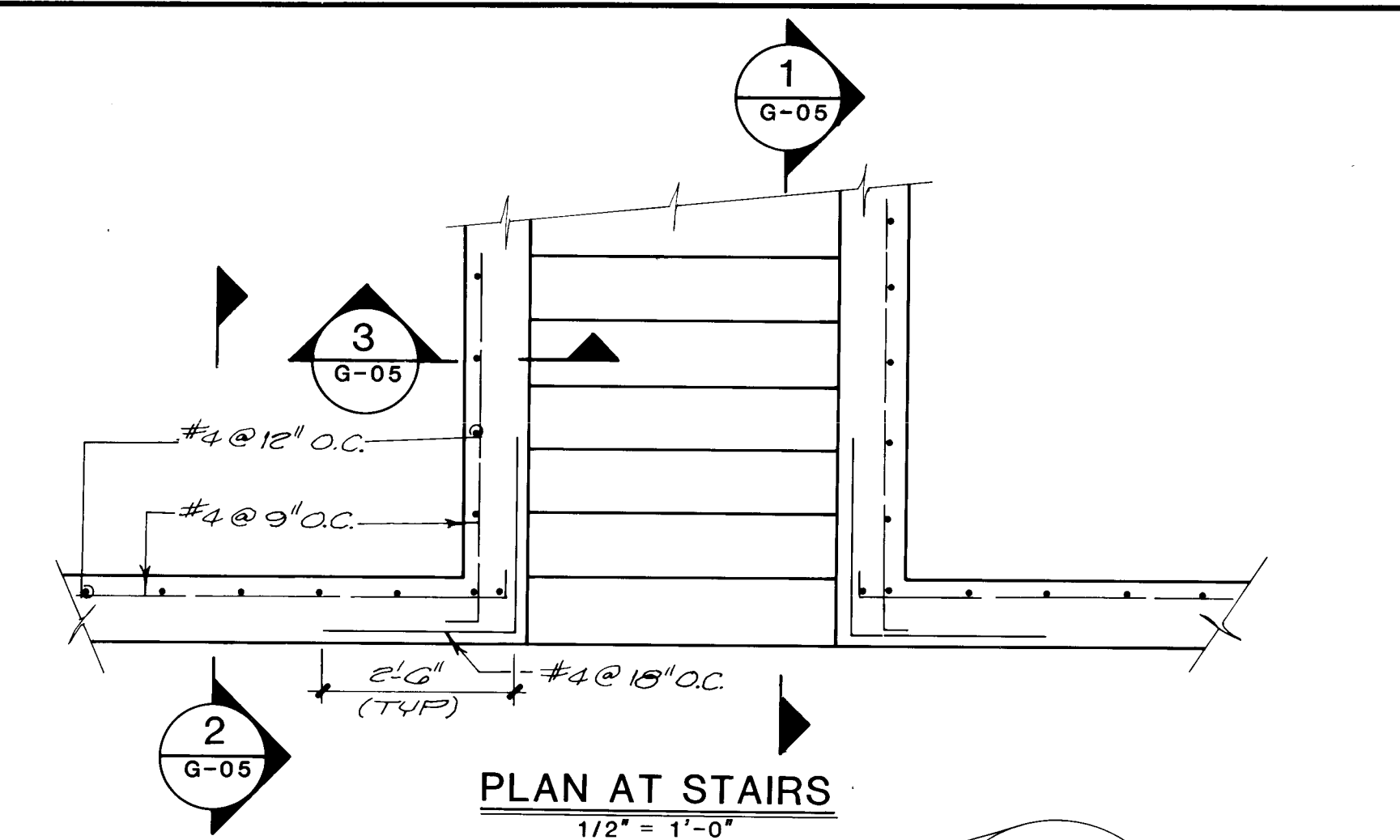
SLUDGE THICKENING SYSTEM EXPANSION
SITE PLAN

M-C NO. 831721	G-03	3 OF 111
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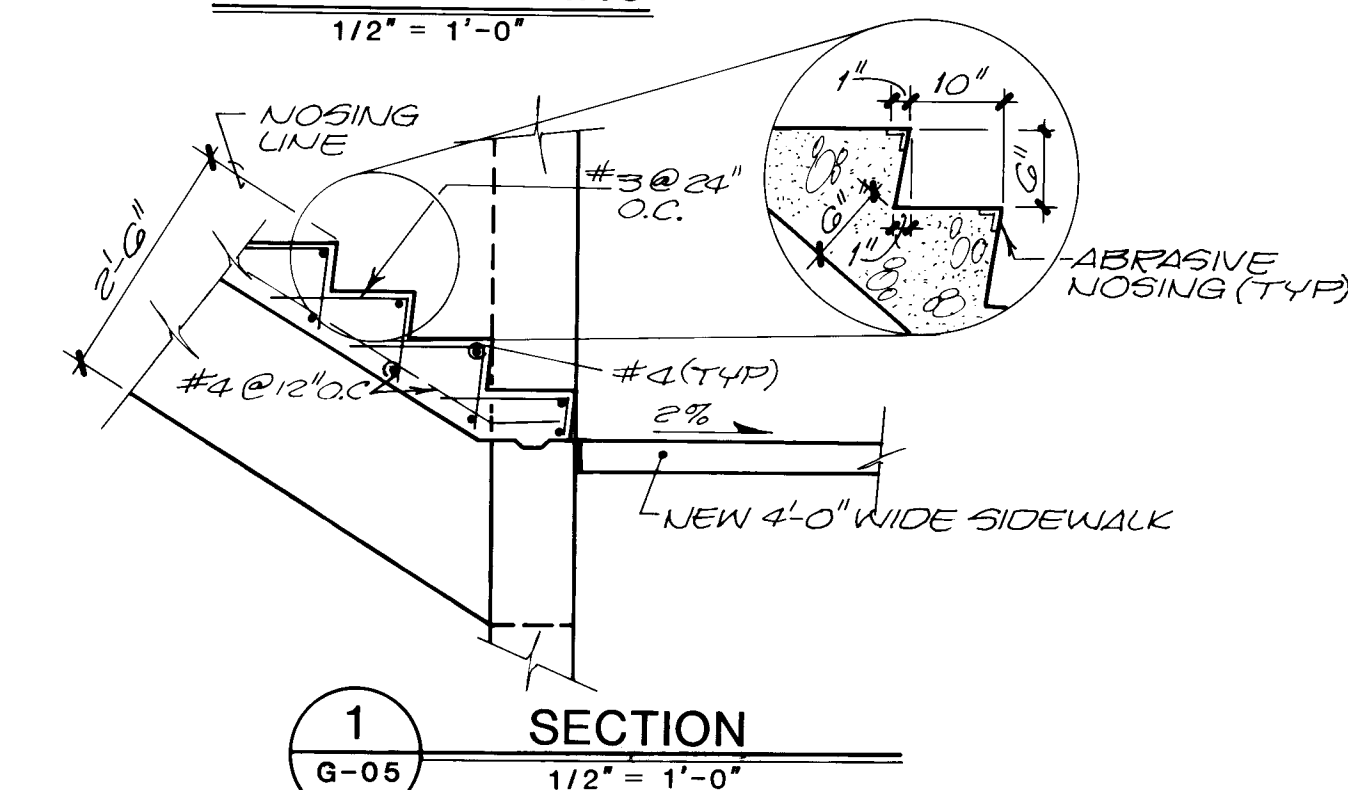


PLAN
1/4" = 1'-0"

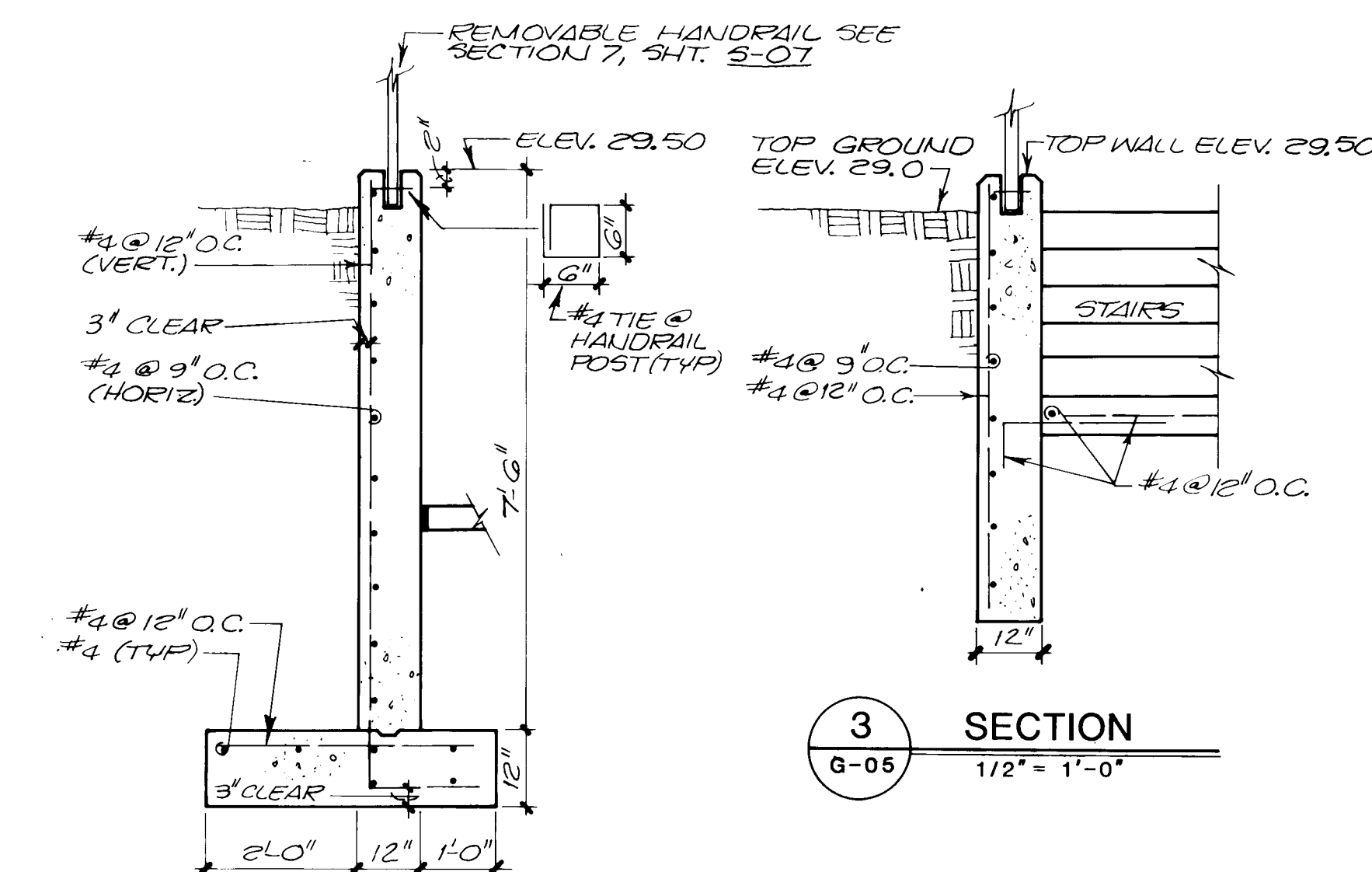
LEGEND
 -26- NEW CONTOUR
 -26- EXISTING CONTOUR
 EL. 26.0 - SPOT ELEVATION



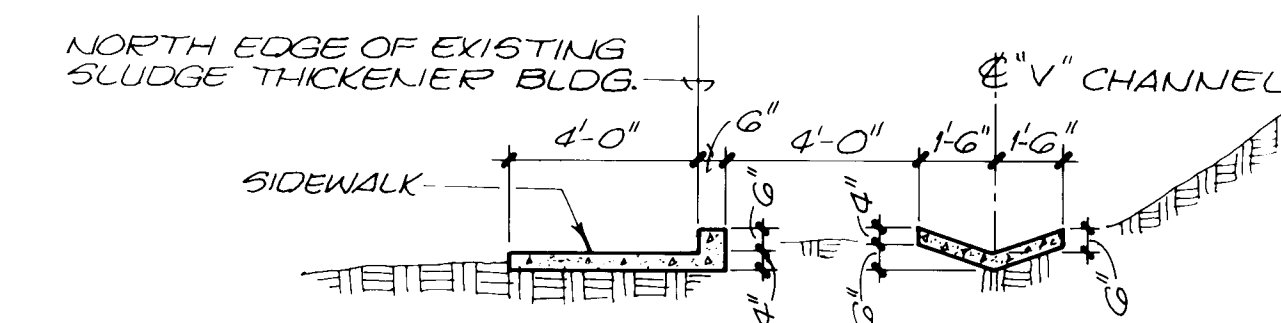
PLAN AT STAIRS
1/2" = 1'-0"



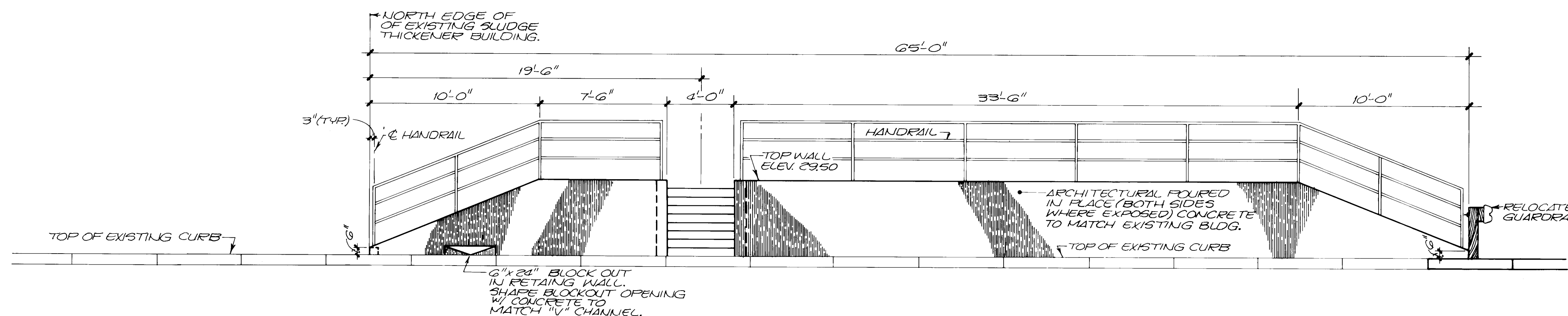
SECTION 1
1/2" = 1'-0"



SECTION 2
1/2" = 1'-0"



SECTION 3
1/2" = 1'-0"



WALL ELEVATION
1/4" = 1'-0"

RECORD DRAWING

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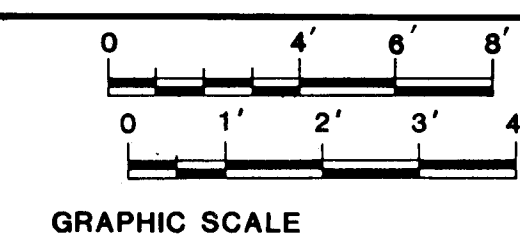
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26	37	52	05	88																								

NO.	DATE	REVISIONS	APPROVED

DESIGNED: LVG
 DRAWN: LVG
 CHECKED: LMR
 APPROVED: LMR
 DATE: NOV. 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

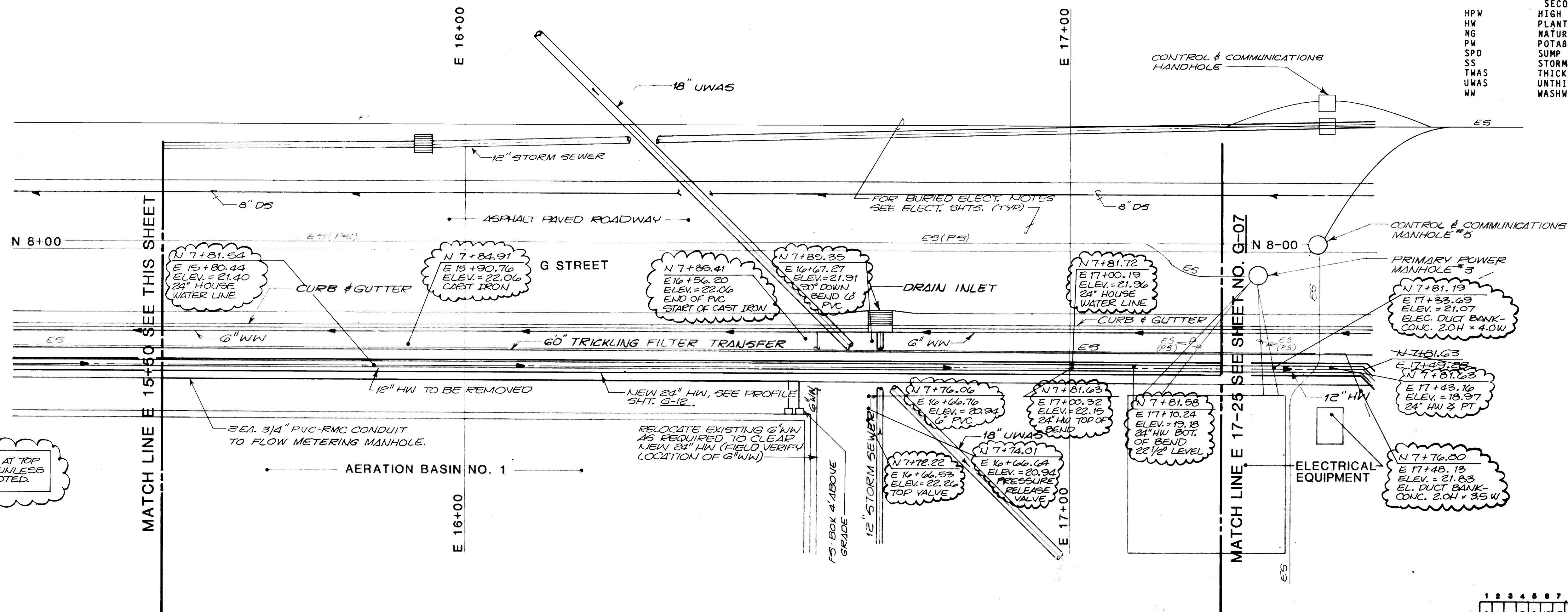
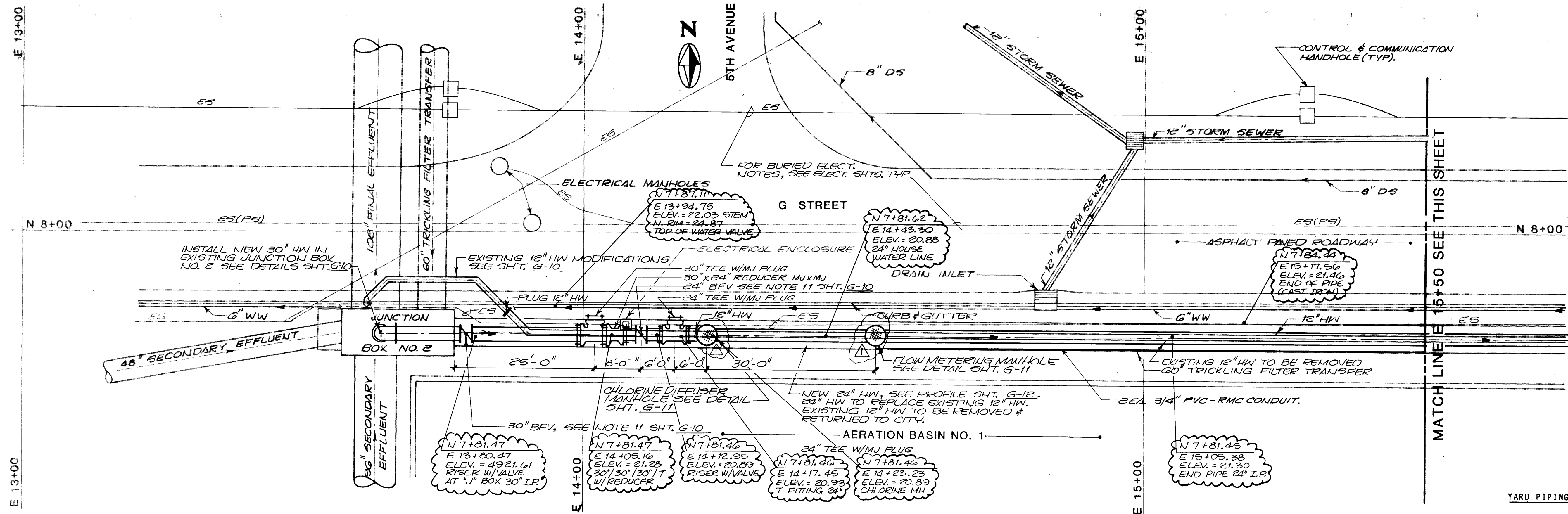
1/4" = 1'-0"
 1/2" = 1'-0"



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 GRADING PLAN DETAILS

M-C NO. 831721
G-05
 5 of 111
 SC NO.



RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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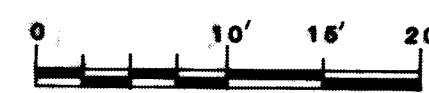
24 39 52 06 88

DESIGNED LMR, ACC	
DRAWN STAFF	
CHECKED LMR	
APPROVED	
APPROVED	
DATE NOV 1994	
7/17/85 RELOCATE MANHOLES	
NO. DATE	REVISIONS
	APPROVED

DESIGNED LMR, ACC
DRAWN STAFF
CHECKED LMR
APPROVED
APPROVED
DATE NOV 1994

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1"=10'±0"



GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

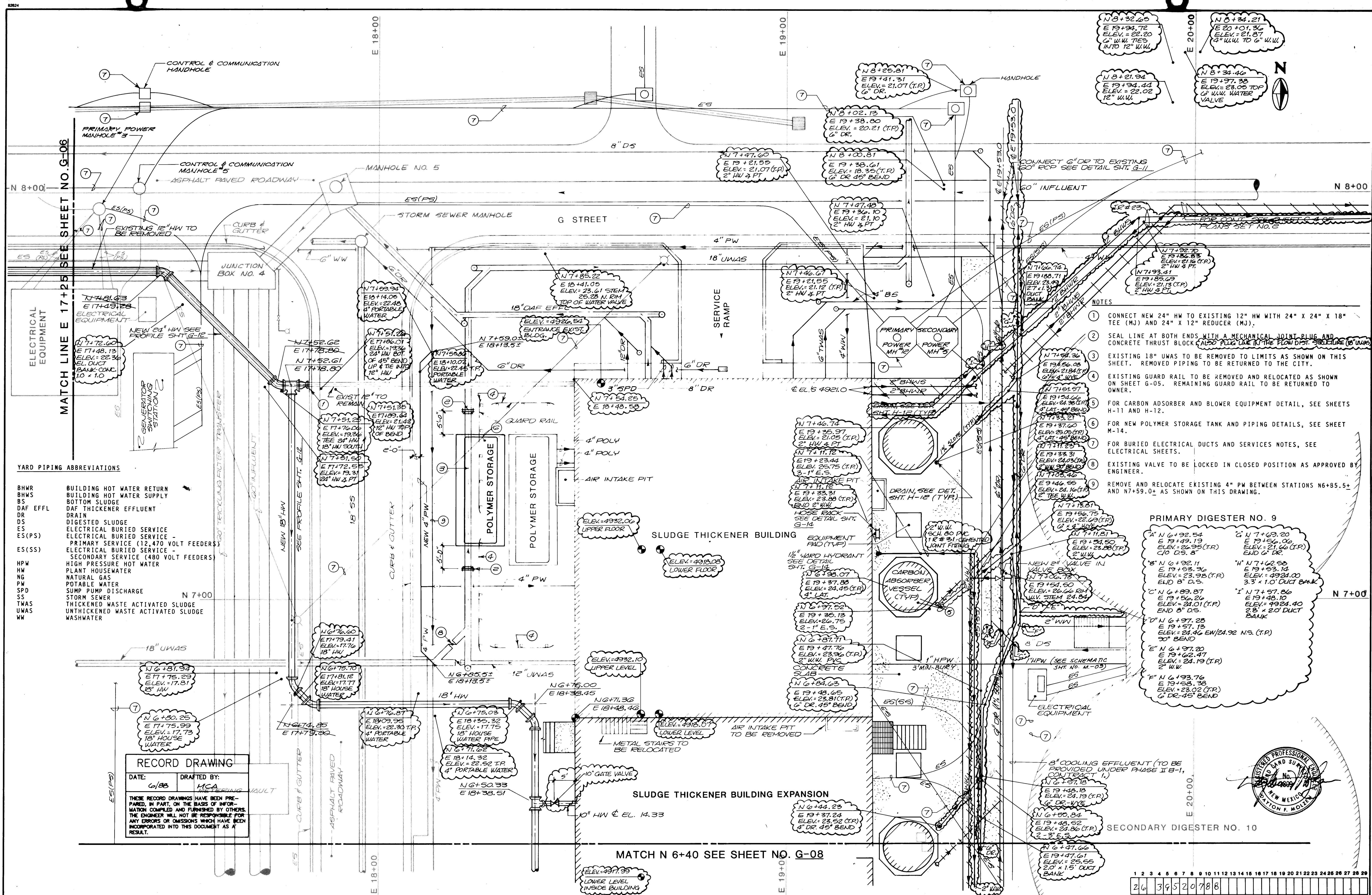
SLUDGE THICKENING SYSTEM EXPANSION
YARD PIPING PLAN

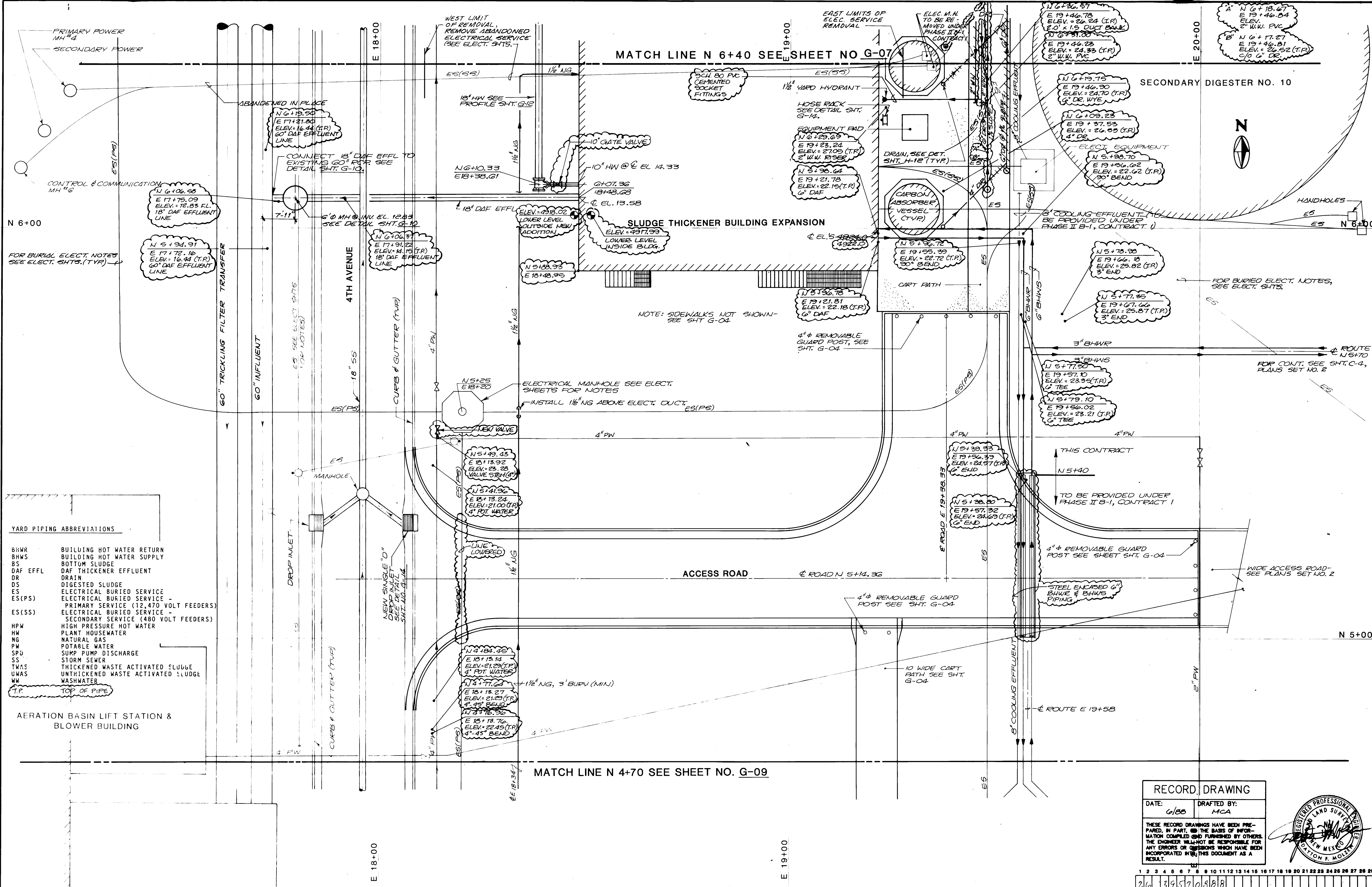
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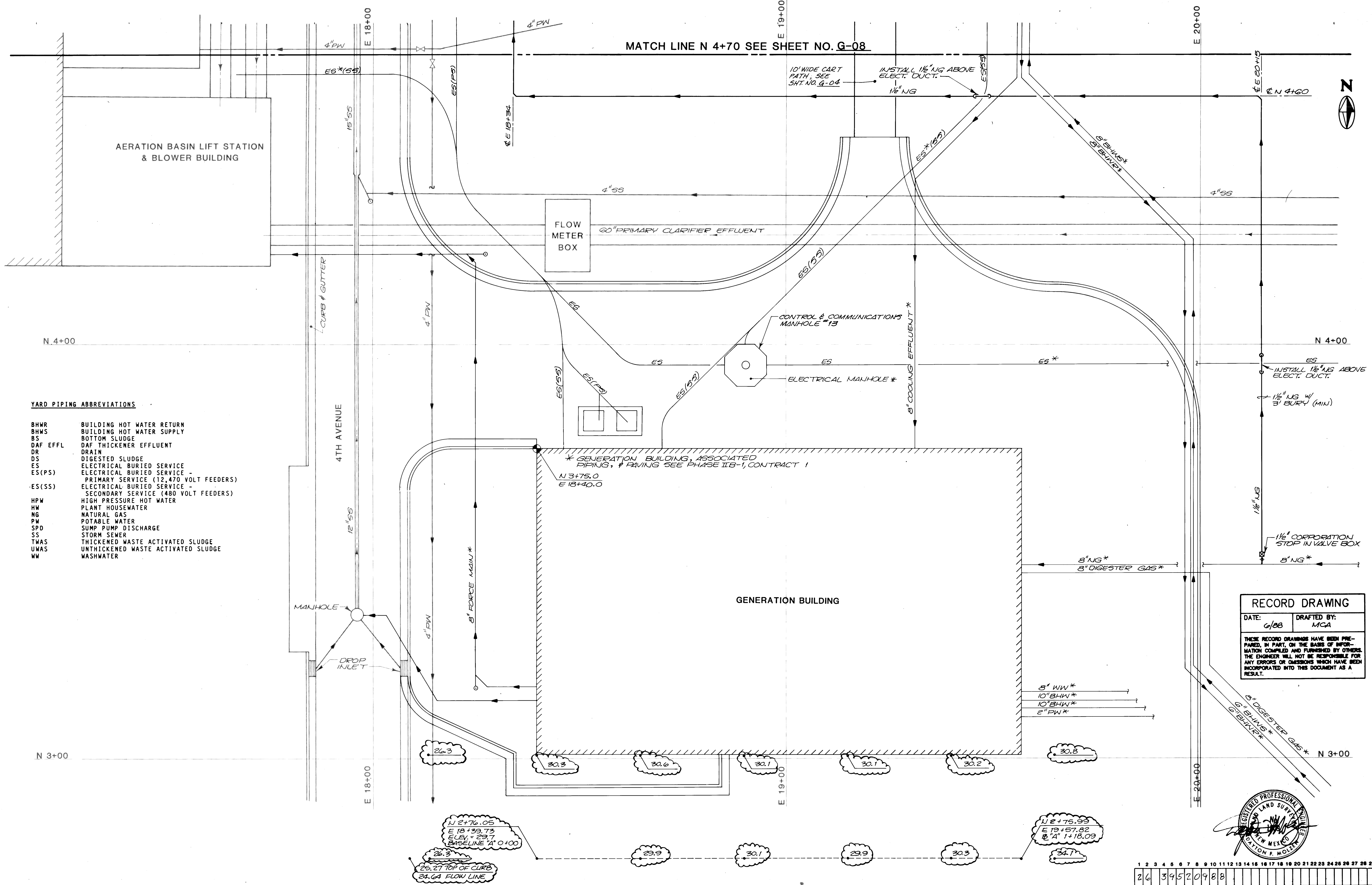
G-06

80 NO.

0-111







YARD PIPING ABBREVIATIONS

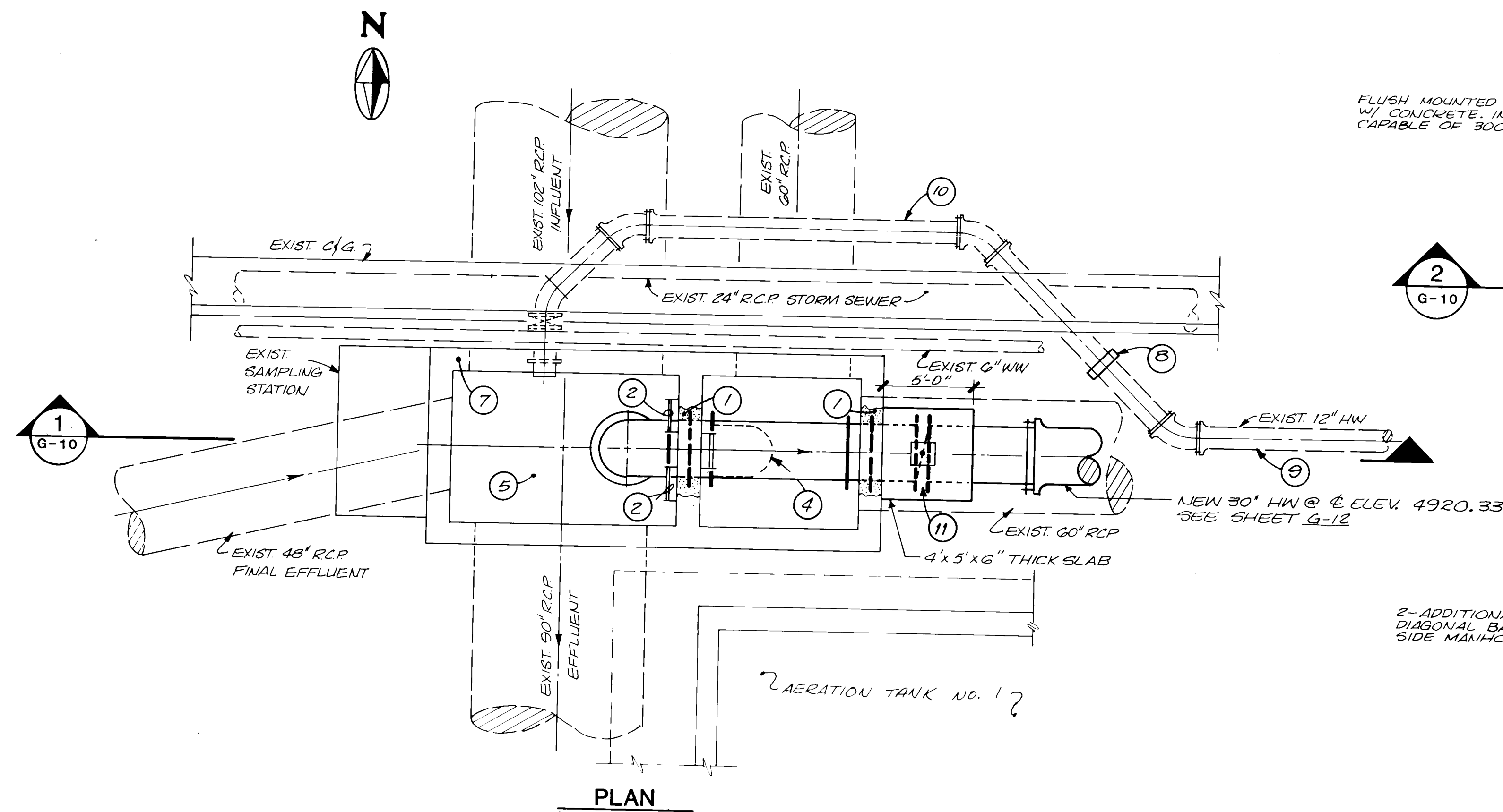
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF EFFL	DAF THICKENER EFFLUENT
DR	DRAIN
DS	DIGESTED SLUDGE
ES	ELECTRICAL BURIED SERVICE
ES(PS)	ELECTRICAL BURIED SERVICE - PRIMARY SERVICE (12,470 VOLT FEEDERS)
ES(SS)	ELECTRICAL BURIED SERVICE - SECONDARY SERVICE (480 VOLT FEEDERS)
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PW	POTABLE WATER
SPD	SUMP PUMP DISCHARGE
SS	STORM SEWER
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTHICKENED WASTE ACTIVATED SLUDGE
WM	WASHWATER

RECORD DRAWING

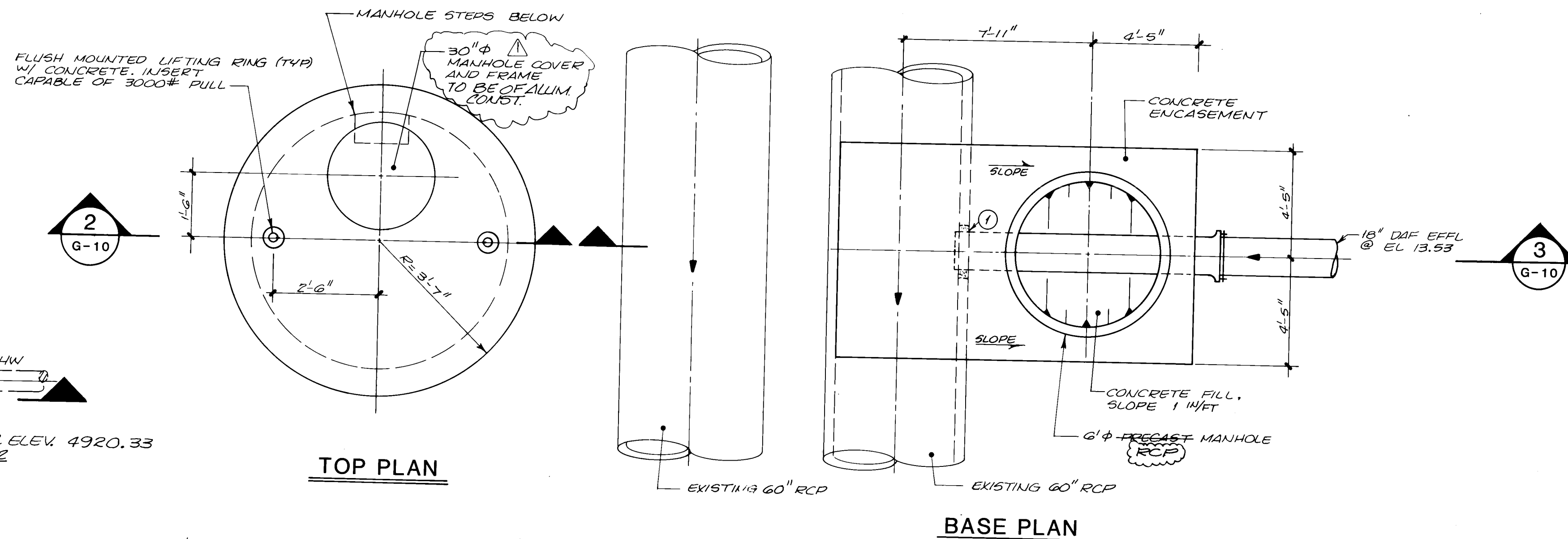
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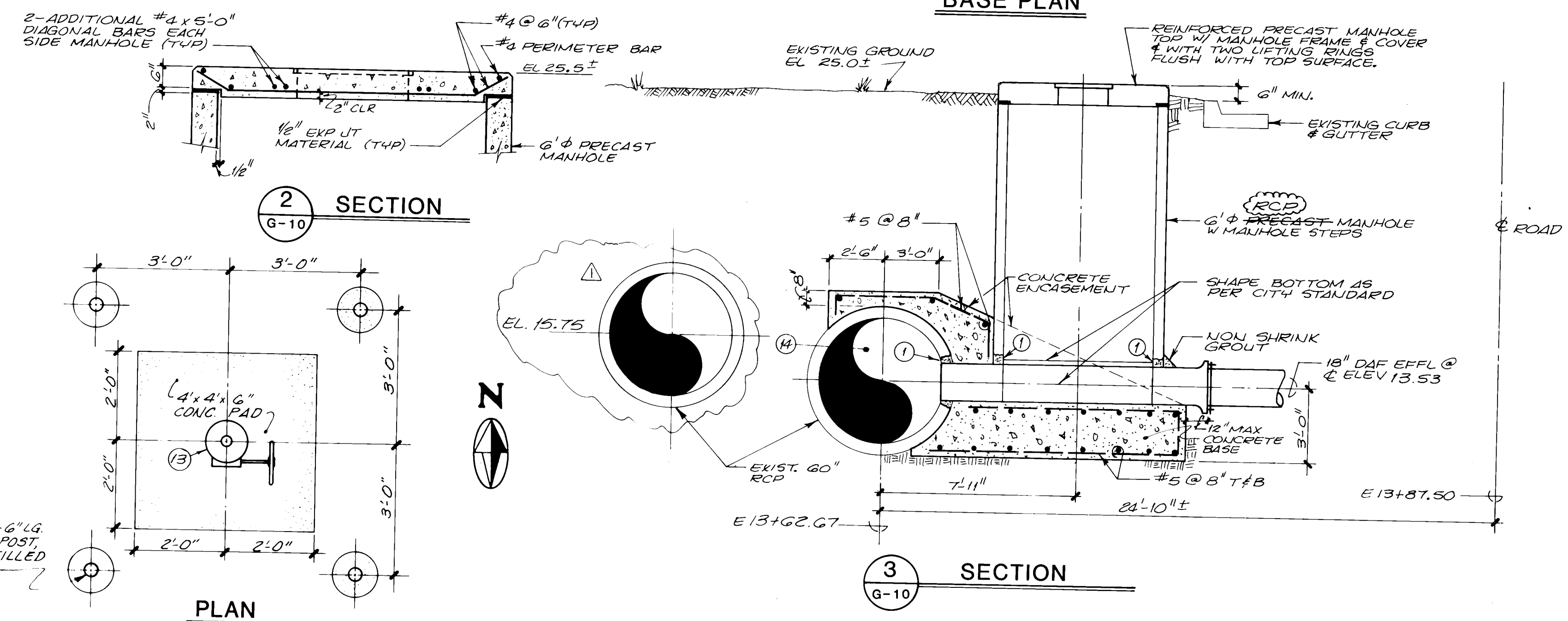


PLAN



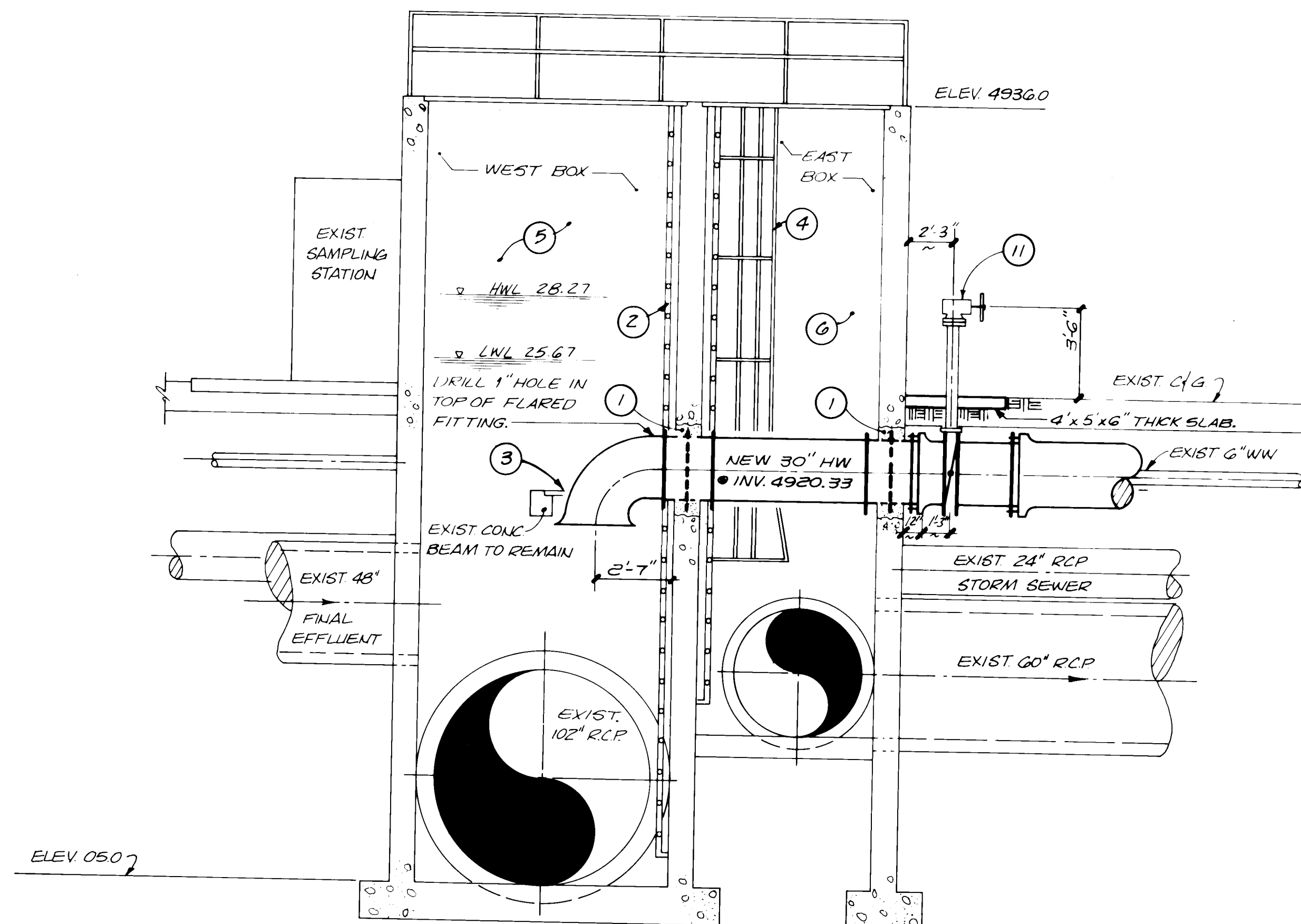
TOP PLAN

BASE PLAN

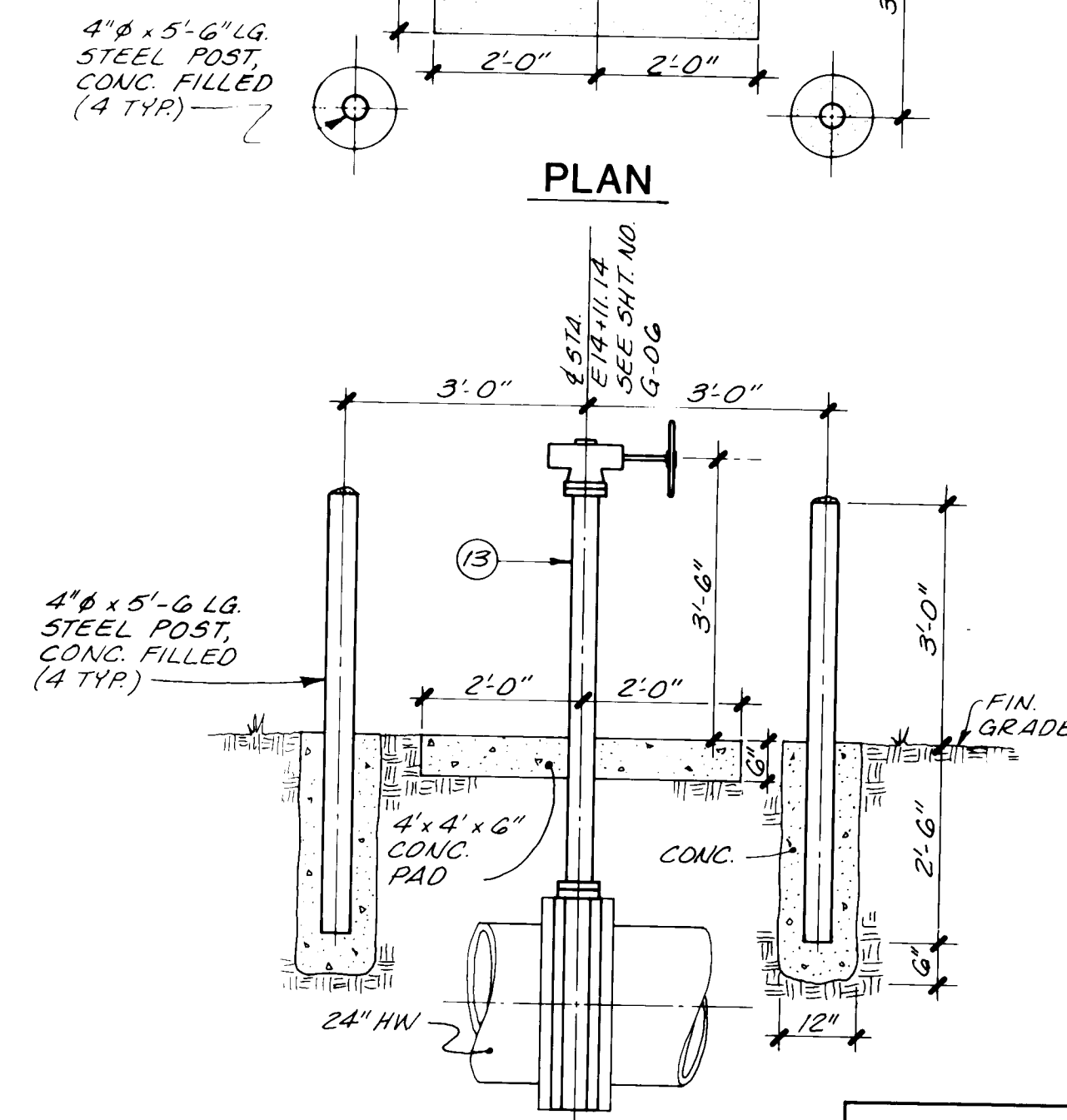


SECTION 2

SECTION 3

DAF EFFL MANHOLE
NTSSECTION 1
G-10

JUNCTION BOX NO. 2 MODIFICATIONS



DETAIL 'A'

N.T.S. (SEE SHEET NO. G-06
FOR LOCATION)

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NOTES

- 1 REMOVE EXISTING CONCRETE AND REINFORCING ONLY AS REQUIRED TO INSTALL NEW PIPE. FILL OPENING AROUND PIPE WITH EPOXY GROUT.
- 2 CUT EXISTING LADDERS AS NEEDED TO CLEAR NEW PIPING. USE SIMILAR LADDER MATERIALS TO SECURE LADDER TO STRUCTURE.
- 3 REMOVE EXISTING METAL PLATFORM.
- 4 REMOVE EXISTING LADDER IN GOOD CONDITION AND RETURN TO CITY.
- 5 CONTRACTOR TO INSTALL NEW PIPING WHILE WEST BOX REMAINS IN SERVICE.
- 6 NEW PIPING CAN BE INSTALLED WITH EAST BOX OUT OF SERVICE. CONTRACTOR RESPONSIBLE FOR MAINTAINING DEWATERED CONDITION IN EAST BOX OF JUNCTION BOX NO. 2. CITY CANNOT GUARANTEE THIS BOX WILL REMAIN DRY AT ALL TIMES. SEE SECTION 1010 OF THE SPECIFICATIONS.
- 7 CONTRACTOR TO SCHEDULE CONSTRUCTION WORK/PROCESS FLOW DIVERSIONS WITH PLANT OPERATIONS. SEE SECTION 1010 OF THE SPECIFICATIONS.
- 8 CUT EXISTING 12\"/>

NO.	DATE	REVISIONS	APPROVED
7-16-85	REVISE NOTE 14, ADD NOTE 15, ADD ELEV.		
NO.	DATE	REVISIONS	APPROVED
	NOV 1984		



MOLZEN-CORBIN

STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"

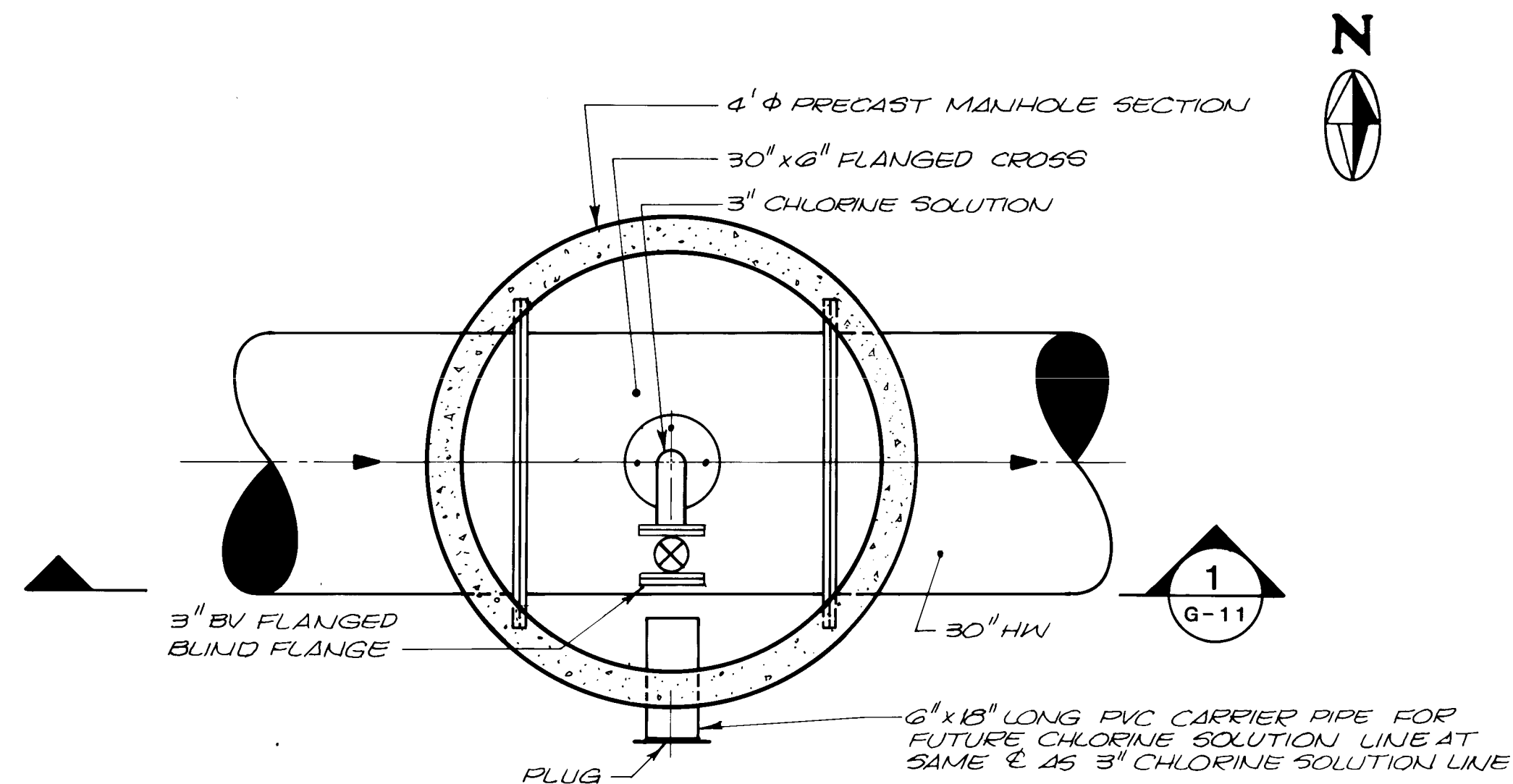
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3SLUDGE THICKENING SYSTEM EXPANSION
YARD PIPING - DETAILS

M-C NO. 831721

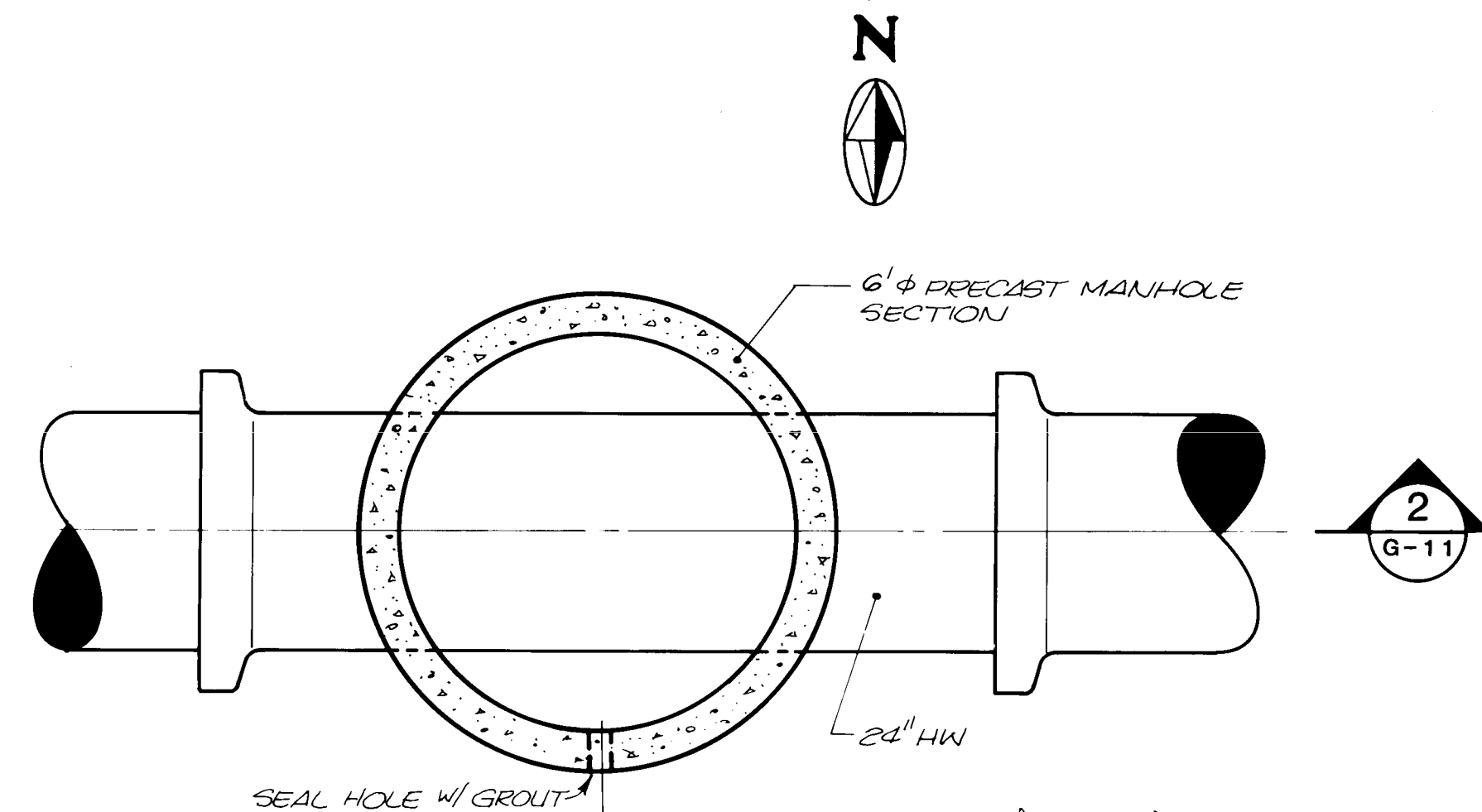
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SC NO.



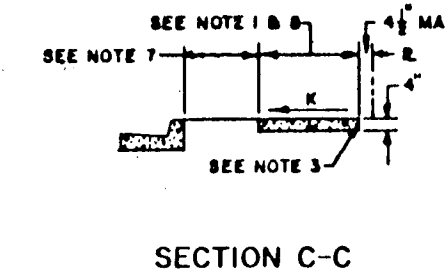
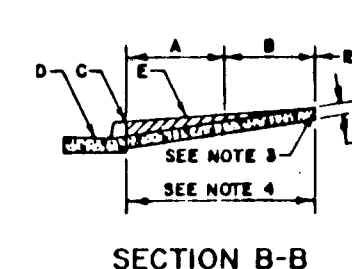
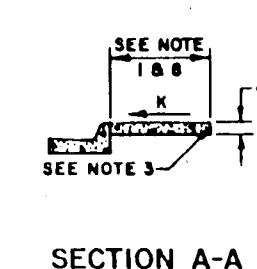
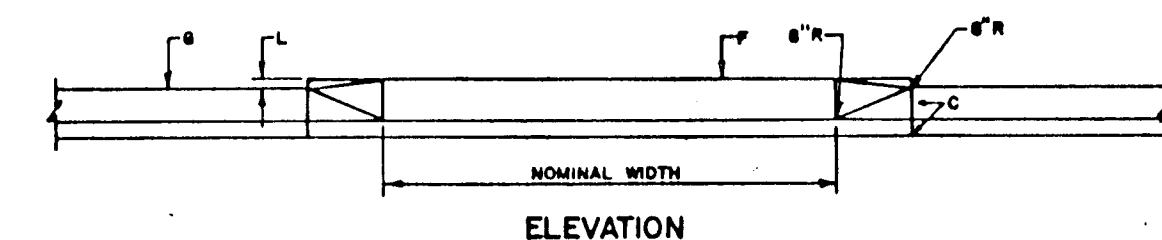
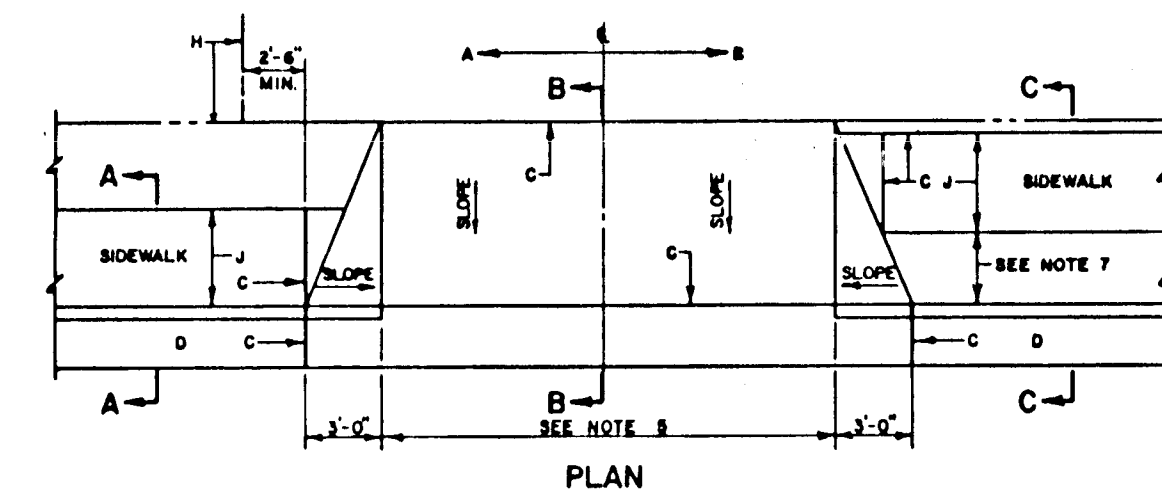
CHLORINE DIFFUSER MANHOLE PLAN

NTS



FLOW METERING MANHOLE

NTS



GENERAL NOTES:

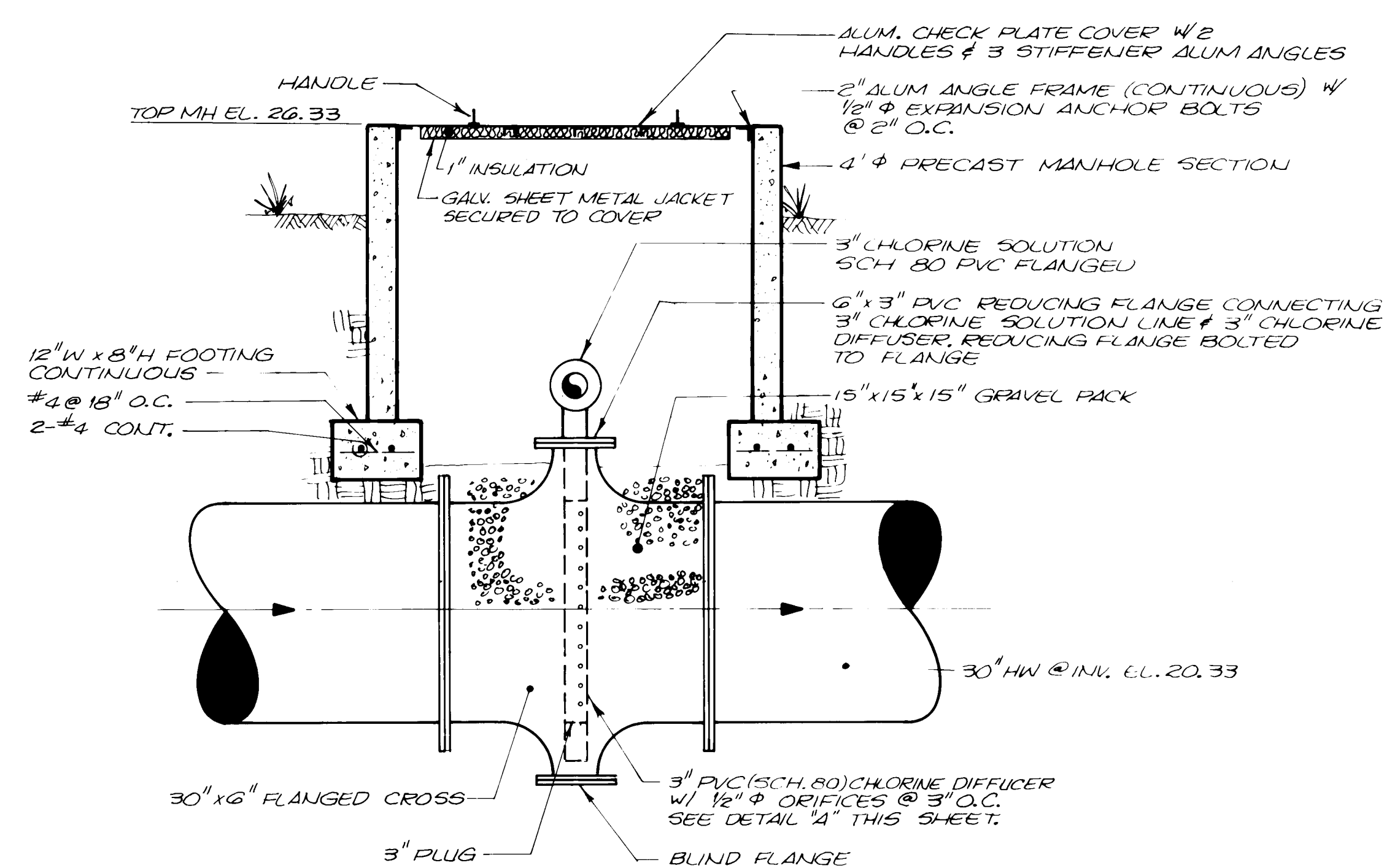
1. DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY ENGINEER AND/OR TRAFFIC ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. REQUEST FOR VARIANCES WITH A PLAN OR SKETCH SHALL BE SUBMITTED TO THE CITY ENGINEER AND/OR TRAFFIC ENGINEER.
3. EXPANSION JOINT WHERE SIDEWALK OR DRIVEPAD ABUTS BUILDINGS, FENCES, WALLS OR OTHER IMMOVABLE OBJECTS.
4. ALL DRIVEPADS SHALL BE A MIN. OF 6" IN DEPTH OR SHALL BE CONSTRUCTED FROM THE BACKS OF CURB TO PROPERTY LINE, WHICH EVER IS GREATER.
5. DRIVEPADS WIDER THAN 18" (NOMINAL), TO HAVE EXPANSION JOINT AT MIDPOINT. DRIVEPAD WIDER THAN 36" TO HAVE 3 EXPANSION JOINTS MAX. BETWEEN JOINT EQUALLY SPACED.
6. CURB TYPE SIDEWALK TO BE USED ONLY WHEN RIGHT-OF-WAY WILL NOT PERMIT THE USE OF SET-BACK SIDEWALK OR IN AREAS THAT HAVE CURB TYPE SIDEWALK.
7. SETBACK TO BE DETERMINED BY AVAILABLE RIGHT-OF-WAY, IF LESS THAN 2' USE CURB TYPE SIDEWALK.
8. FOR SIDEWALK WIDTH, SEE CHAPTER 23 SECTION 4 OF THE DEVEL. PROC. MANUAL.
9. SUBGRADE UNDER SIDEWALKS & DRIVEPADS SHALL BE COMPACTED TO 90% MAX DENSITY AS DETERMINED BY ASTM D-1557 TO A DEPTH OF 6".

CONSTRUCTION NOTES:

- A. CURB TYPE SIDEWALK AREA.
- B. OFFSET SIDEWALK AREA.
- C. EXPANSION JOINT, ADJUST TO FIELD CONDITIONS ON REPLACEMENT WORK.
- D. CURB & BUTTES.
- E. SLOPE TO BE ADJUSTED TO PROVIDE UNIFORM TRANSITION BETWEEN DRIVEPAD & SIDEWALK.
- F. TOP OF DRIVEPAD.
- G. TOP OF CURB.
- H. PROPERTY LINE.
- I. VARIABLE.
- J. SLOPE 1" PER FT.

DRIVEWAY DETAILS

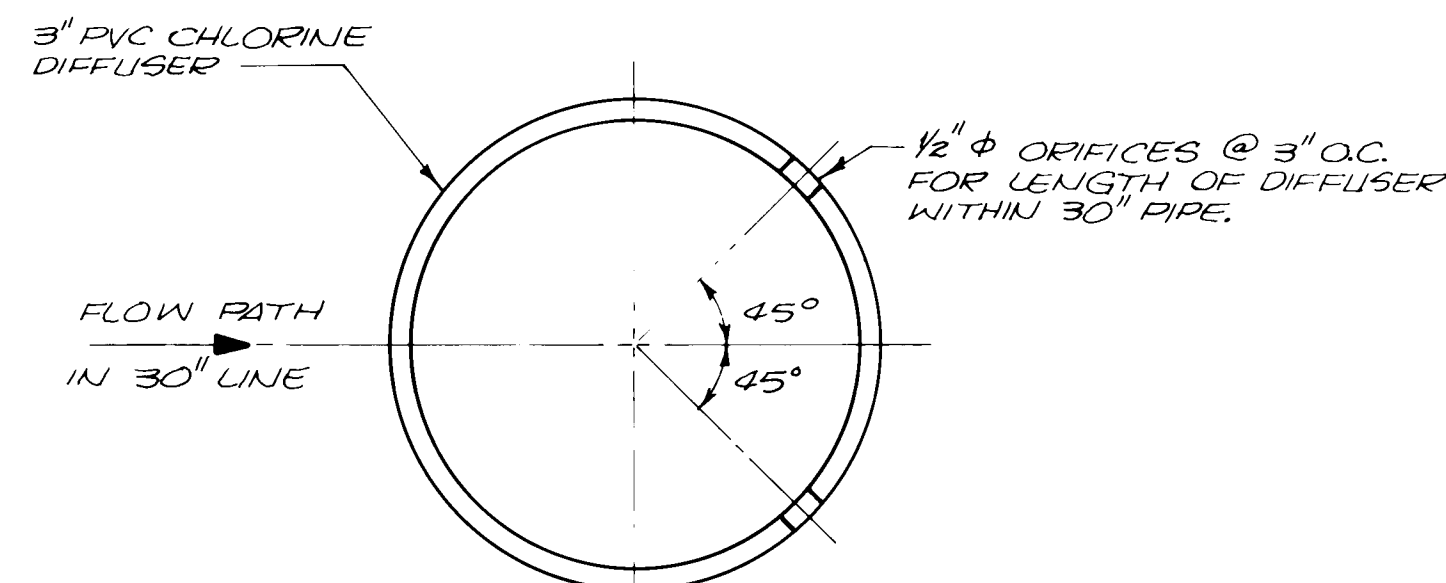
NTS



SECTION 1

NTS

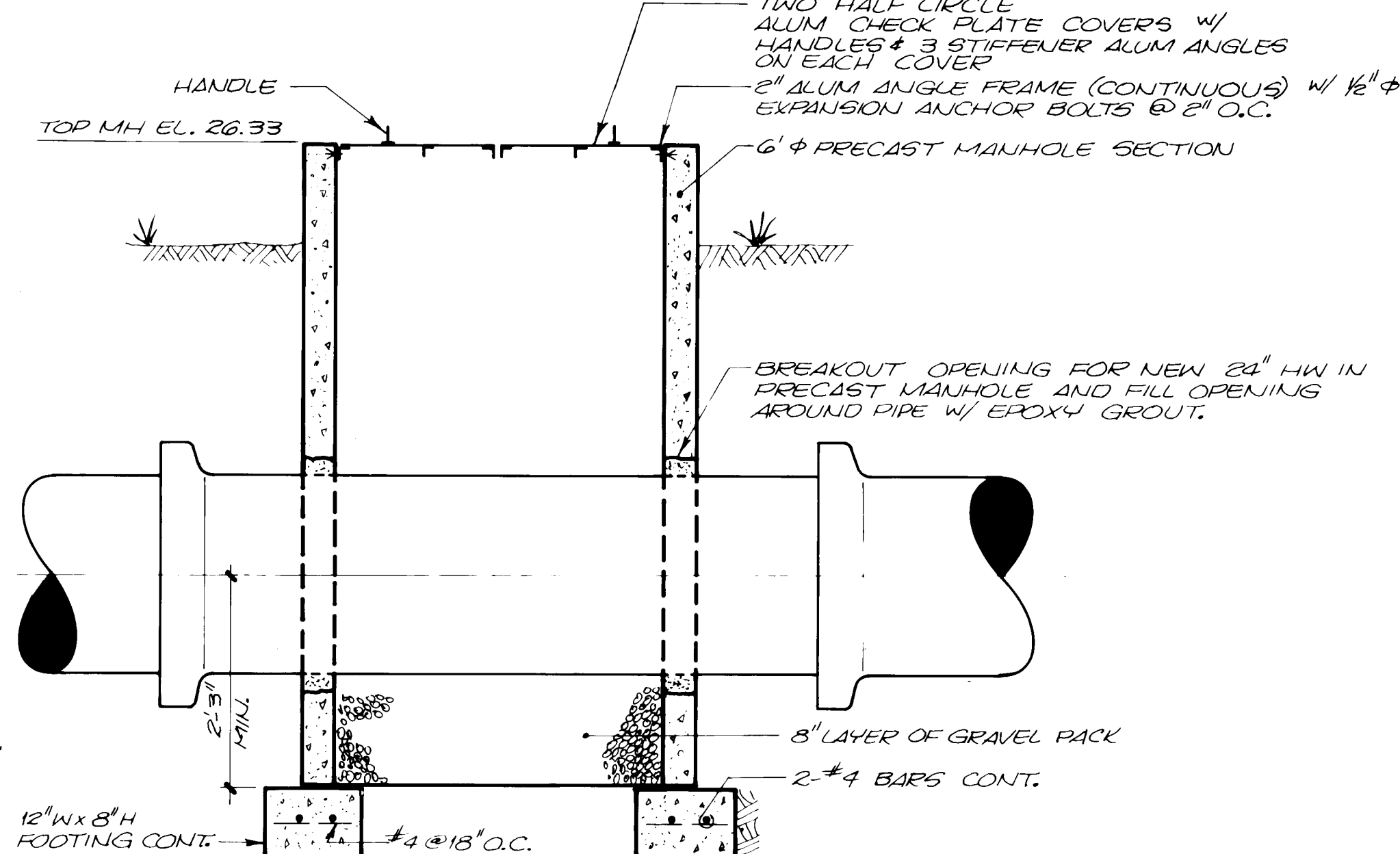
NOTE: SEAL ALL PENETRATIONS WITH NON-SHRINK GROUT.



PLAN

DETAIL "A"

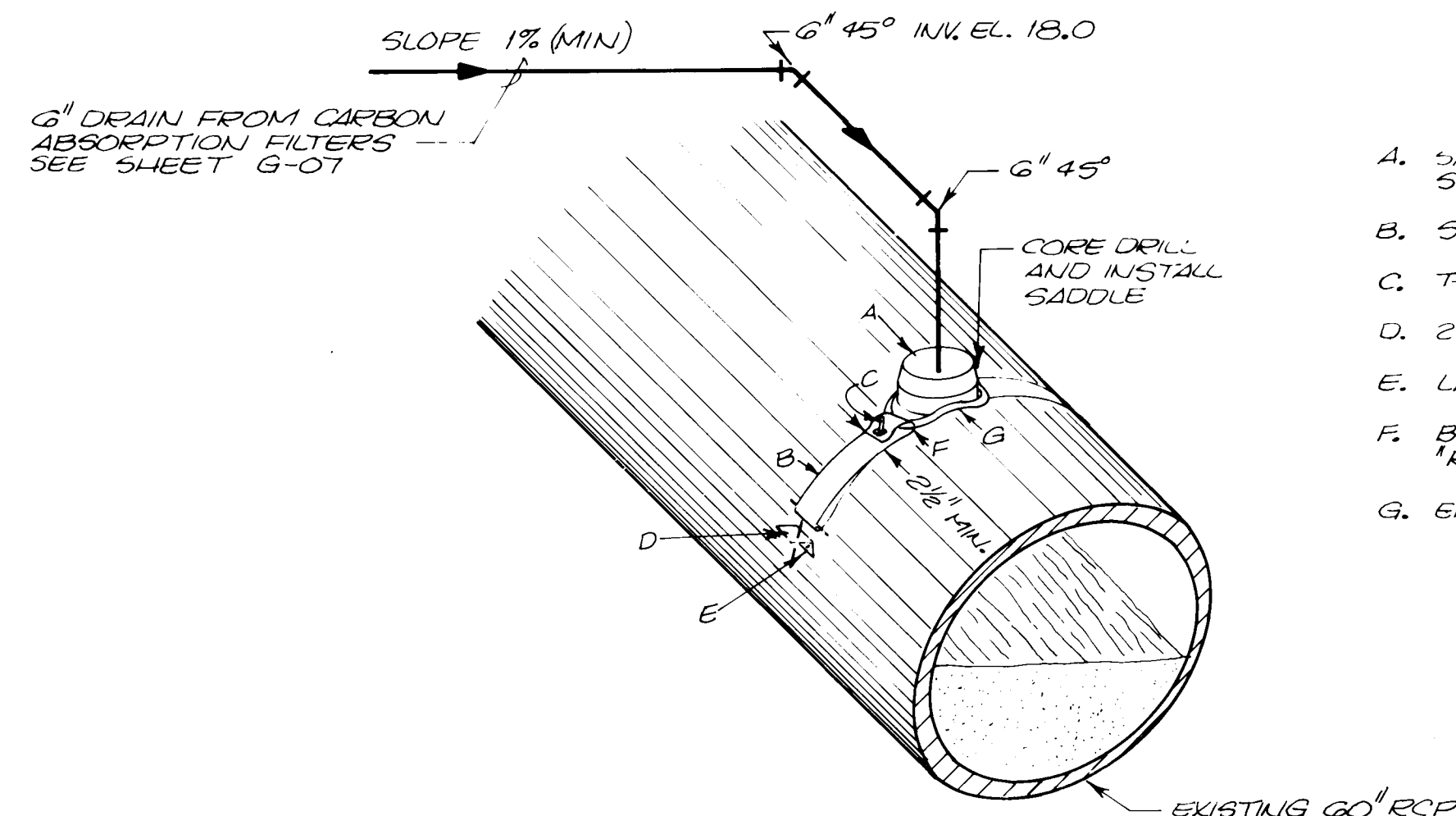
NTS



SECTION 2

NTS

NOTE: SEAL ALL PENETRATIONS WITH NON-SHRINK GROUT.



CONNECTION TO EXISTING 60" RCP DETAIL

NTS

- A. SADDLE; CAST IRON BODY; SEAL TITE BY GENCO, OR EQUAL.
- B. STRIPS; STAINLESS STEEL.
- C. T-BOLTS; STAINLESS STEEL.
- D. 2" x 2", 1/4" STAINLESS STEEL ANGLE @ 6" BELOW E OF PIPE.
- E. LAG SCREW W/ EXPANSION SHIELD; STAINLESS STEEL.
- F. BITUMINOUS MATERIAL; 1/4" THICK MINIMUM; "Ramtek" OR EQUAL.
- G. EPOXY COAT EXPOSED CORED SECTION.

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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26	39	52	11	88																									

DESIGNED	LMR ACC
DRAWN	LGARCIA
CHECKED	LMR
APPROVED	
APPROVED	
DATE	NOV 1984

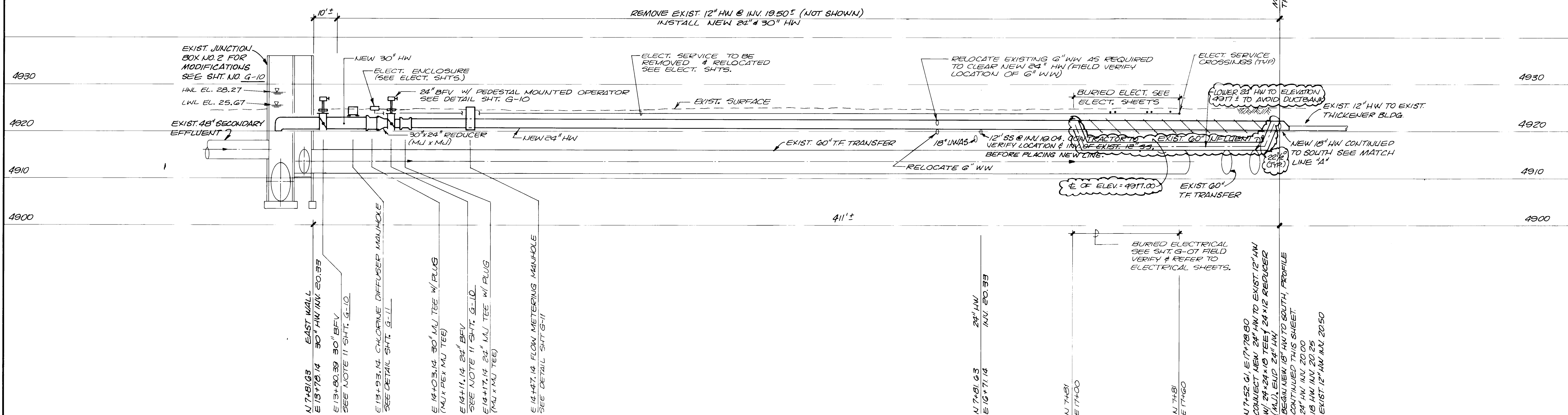
7/17/85	DELETE GEN. NOTES 1 & 2, CONST. NOTE L
NO.	DATE

MOLZEN-CORBIN	STANLEY CONSULTANTS
A JOINT VENTURE	

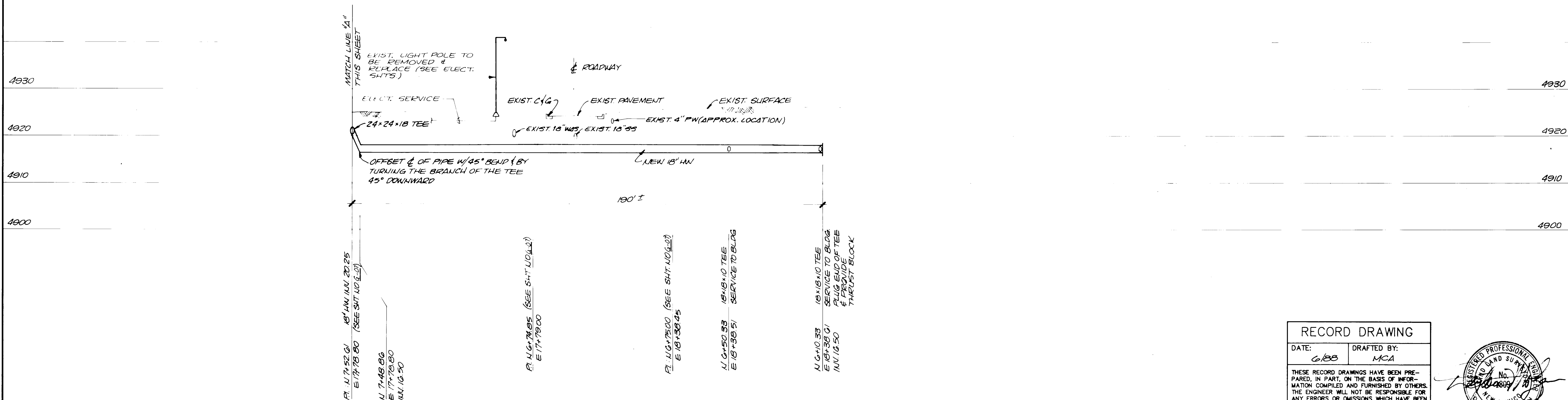
NO SCALE	GRAPHIC SCALE
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CITY OF ALBUQUERQUE, NEW MEXICO	SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3	

SLUDGE THICKENING SYSTEM EXPANSION	YARD PIPING DETAILS - MISCELLANEOUS MANHOLES
G-11	11 OF 111
SG NO.	

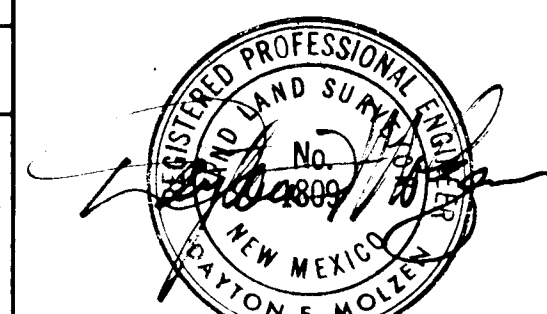


NEW 30" & 24" HW PROFILE



NEW 18" HW PROFILE

RECORD DRAWING	
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[illegible][illegible]

DESIGNED LMR, AC
DRAWN RA
CHECKED LMR
APPROVED _____
APPROVED _____
DATE NOV 1984

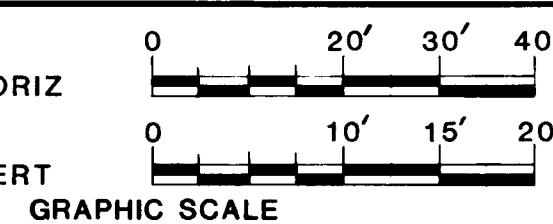


MOLZEN-CORBIN

STANLEY CONSULTANTS

A JOINT VENTURE

1" = 20'-0" HORIZ

$$1'' = 10' - 0'' \text{ VERT}$$


CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION

M-C NO. 831721

G-12

12 OF 111

SC NO.

PIPE JOINTS & FITTINGS			
DESCRIPTION	SCHEMATIC	THREE LINE	ONE LINE & ISOMETRIC
FLANGE			
GROOVED COUPLING			
MECHANICAL JOINT			
SCREWED JOINT			
SLIP-ON JOINT			
WELDED JOINT			
HARNESS TYPE COUPLING	H	H	H
SLEEVE TYPE COUPLING			
UNION			
FLEXIBLE CONNECTOR			
CONCENTRIC REDUCER			
ECCENTRIC REDUCER			
BLIND FLANGE	I	I	I
METER	M	M	M
STRAINER			
PRESSURE GAUGE			
THERMOMETER			
FLEXIBLE REDUCER ECCENTRIC			
CLEANOUT (CO)			
FLUSHING CONNECTION WITH ISOLATION VALVE			

VALVE SYMBOLS				
DESCRIPTION	ONE LINE		THREE LINE	
	STEM PERP TO PLANE OF DWG	STEM PRL TO PLANE OF DWG	STEM PERP TO PLANE OF DWG	STEM PRL TO PLANE OF DWG
GATE VALVE (GV)				
PLUG VALVE (PV)				
BUTTERFLY VALVE (BFV)				
BALL VALVE (BV)				
SWING CHECK VALVE (SCV)				
BALL CHECK VALVE (BCV)				
SOLENOID VALVE (SV)				
AIR CHECK VALVE (ACV)				
PRESSURE REDUCING VALVE (PRV)				
KNIFE GATE VALVE (KV)				
DIAPHRAGM VALVE (DV)				
THREE WAY VALVE (TWV)				
FOURWAY VALVE (FWV)				
AUTO AIR AND VACUUM RELEASE (AVR)	AVR	AVR	AVR	AVR
AUTO AIR RELEASE (AR)	AR	AR	AR	AR
GLOBE VALVE (GL)				
PRESSURE RELIEF				
CORPORATION STOP (CS)				
VEE BALL VALVE (VB)				
ELECTRIC ACTUATOR ON VALVE				
THERMAL FLUID BALL VALVE (TBV)				
BACKPRESSURE SUSTAINING VALVE				
PRESSURE RELIEF (ANGLE TYPE)				

PROCESS SYSTEM ABBREVIATIONS

AIR	COMPRESSED AIR
ART	AIR RETENTION TANK
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF	DISSOLVED AIR FLOTATION
DAF EFFL	DAF THICKENER EFFLUENT
DIL	DILUTION WATER
HPS	HIGH PRESSURE HOT WATER STATION
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PAC	PROCESS AIR COMPRESSOR
POLY	POLYMER
PW	POTABLE WATER
REC	DAF RECIRCULATION
SPD	SUMP PUMP DISCHARGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTHICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER
WWS	WASHWATER STATION

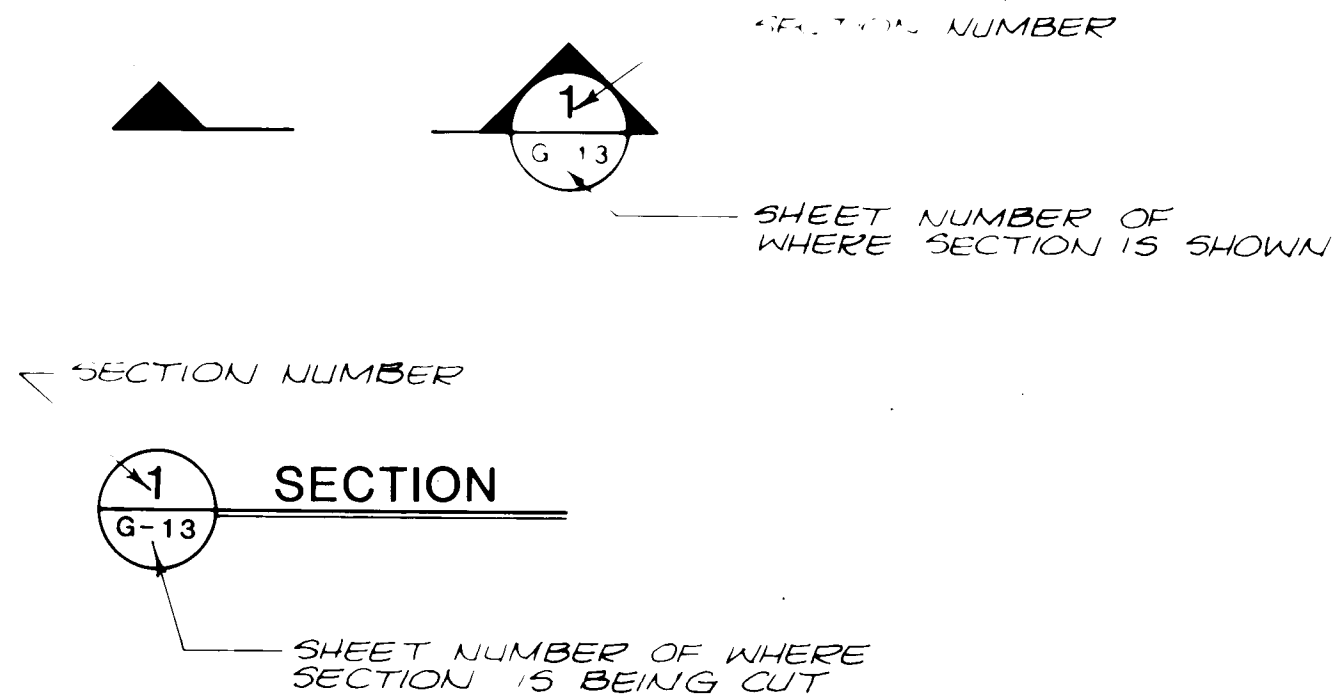
YARD PIPING ABBREVIATIONS

BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF EFFL	DAF THICKENER EFFLUENT
DR	DRAIN
DS	DIGESTED SLUDGE
ES	ELECTRICAL BURIED SERVICE
ES(PS)	ELECTRICAL BURIED SERVICE - PRIMARY SERVICE (12,470 VOLT FEEDERS)
ES(SS)	ELECTRICAL BURIED SERVICE - SECONDARY SERVICE (480 VOLT FEEDERS)
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PW	POTABLE WATER
SPD	SUMP PUMP DISCHARGE
SS	STORM SEWER
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTHICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER

DESCRIPTION	SYMBOLS
FLOOR DRAIN (FD)	
CLEAN OUT (CO)	
EQUIPMENT DRAIN (ED)	
NON-FREEZE YARD HYDRANT	
YARD HYDRANT	

MATERIAL SYMBOLS

	COMPACTED EARTH
	EXISTING EARTH
	CONCRETE
	CONCRETE BLOCK
	CONCRETE WEARING COURSE
	BRICK
	SAND
	GRANULAR FILL
	GRATING
	CHECKERED PLATE
	STEEL
	ALUMINUM
	CAST IRON



NO.	DATE	REVISIONS	APPROVED

DESIGNED	
DRAWN	STAFF
CHECKED	LMP
APPROVED	
DATE	NOV 1984

MOLZEN-CORBIN

STANLEY CONSULTANTS

A JOINT VENTURE

NO SCALE

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO

SOLIDS HANDLING FACILITIES

PHASE II B-1, CONTRACTS 2 & 3

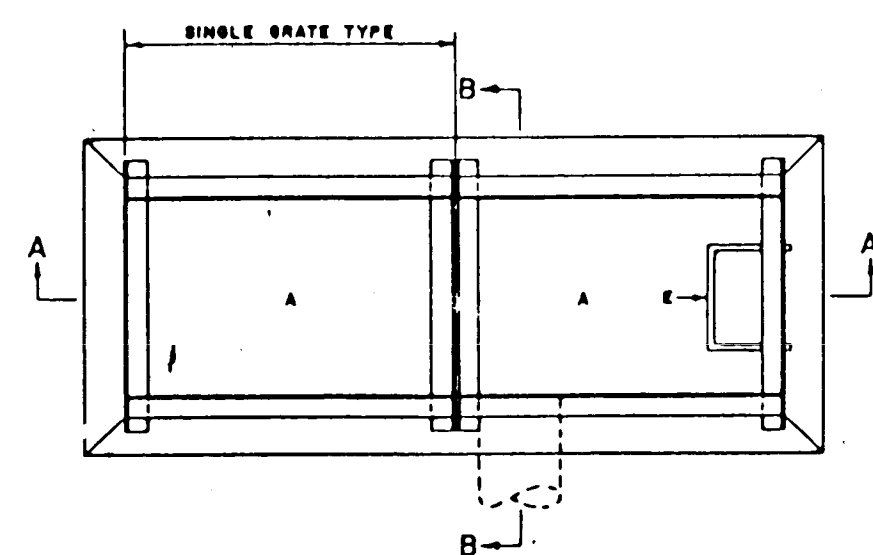
SLUDGE THICKENING SYSTEM EXPANSION

STANDARD SYMBOLS

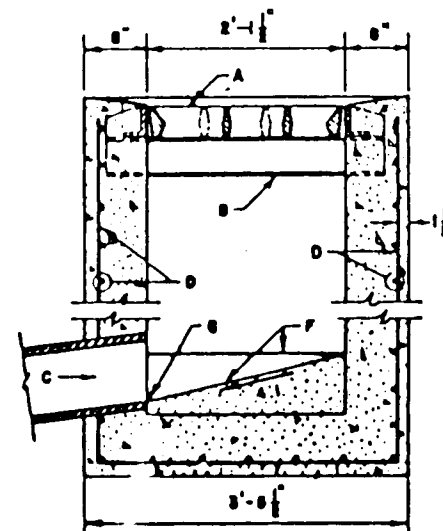
RECORD DRAWING	
DATE: 6/88	DRAFTED BY: MCA
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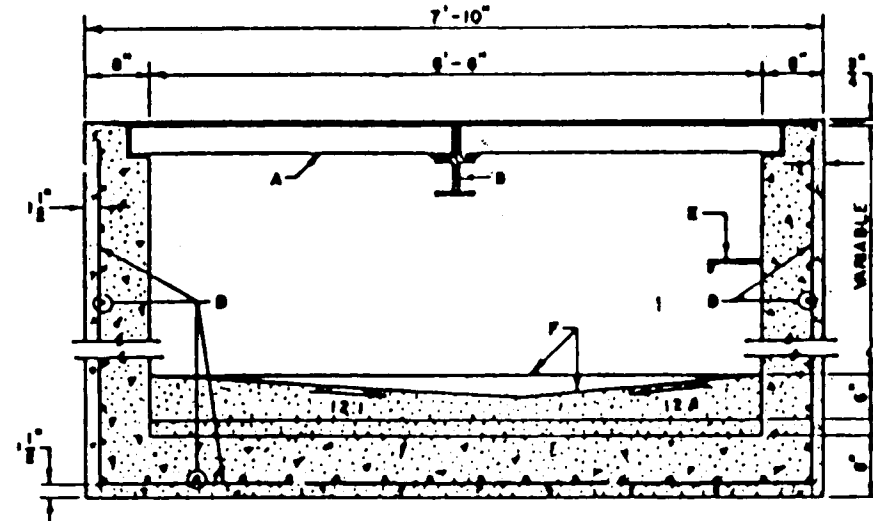
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26	39	52	13	88																								
G SYSTEM EXPANSION																												
M-C NO.															881721													
G-13															13 of 111													
SC NO.																												



PLAN



SECTION B-B



SECTION A-A

* CITY OF ALBUQUERQUE - CONTRACT
DOCUMENTS FOR PUBLIC WORKS
CONTRACT NO. 84-2

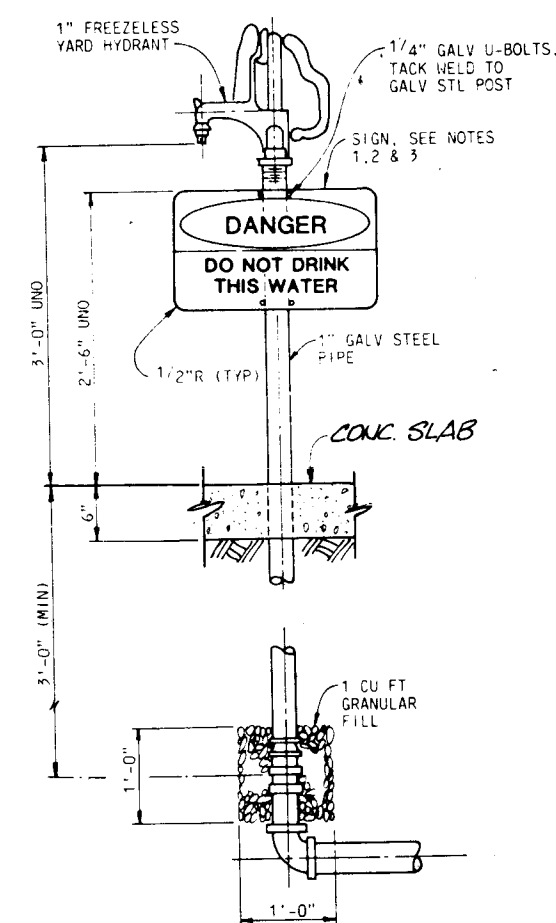
CATCH BASIN DETAIL-TYPE "D"

GENERAL NOTES:

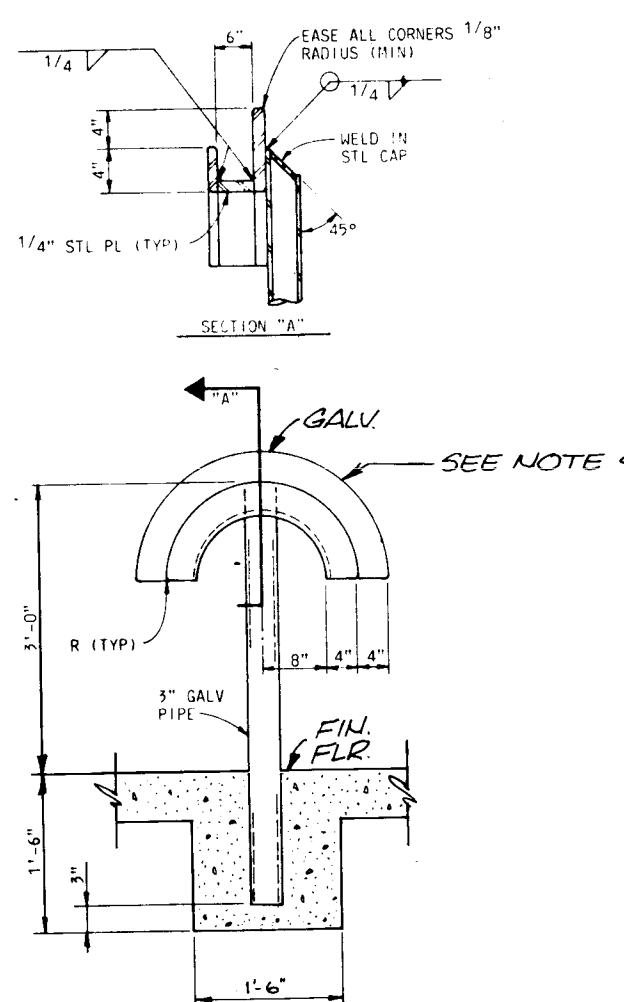
1. FOR SINGLE GRATE TYPE CATCH BASIN, MOVE ONE END WALL TO FORM NEW SINGLE GRATE CATCH BASIN.
2. FRAME OF GRATING SHALL BE WELDED AND/OR RIVETED.
3. AFTER CLEANING SURFACE OF SCALE, RUST ETC. GRATING FRAME AND CENTER SUPPORT TO BE PAINTED WITH ONE SHOP COAT RED OXIDE. TWO FINISH COATS ALUMINUM PAINT (ASBHO MARK).

CONSTRUCTION NOTES:

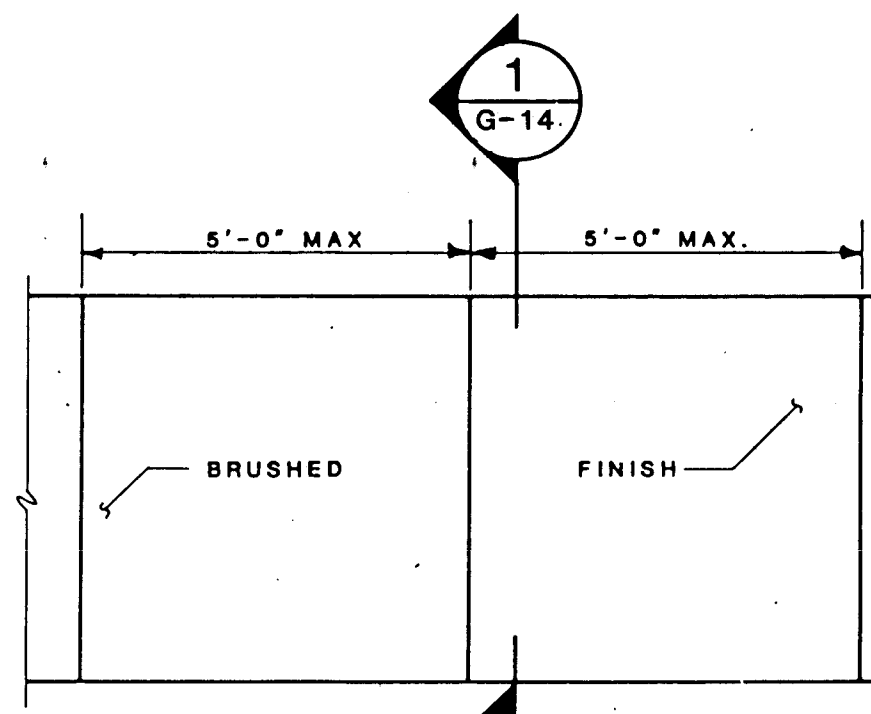
- A. FOR FRAME & GRATING, SEE DWG. K-6, K-8 & K-10.
- B. SEE DWG. K-11 FOR CENTER SUPPORT ASSEMBLY.
- C. CUT ONE HORIZONTAL AND ONE VERTICAL BAR MAX. AT PIPE OPENING.
- D. NO. 4 BARS @ 8" O.C. EACH WAY.
- E. USE STANDARD STEPS, FIRST STEP TO BE 18" FROM TOP OF GRATE & SMALL PROTRUSION 1" SPACING BETWEEN STEPS TO BE 18" O.C. LAST STEP TO BE 18" MAX. FROM BOTTOM.
- F. CONC. FILL, SEE NOTE E DWG. K-1.
- G. INVERT PER DESIGN.



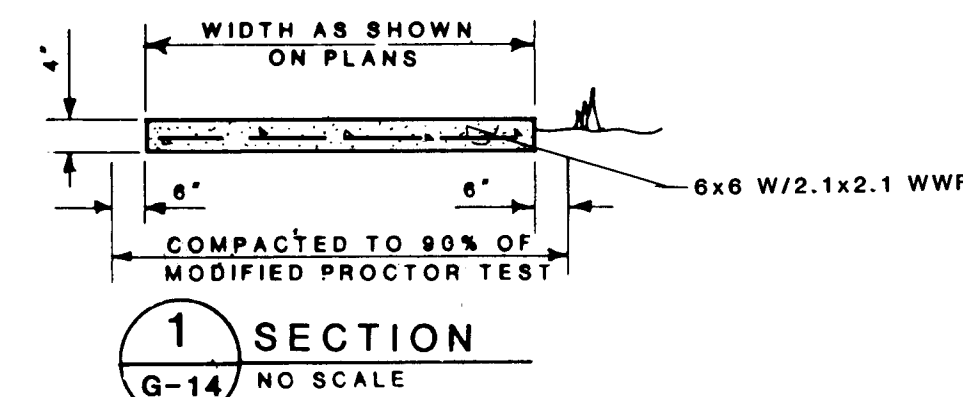
YARD HYDRANT DETAIL



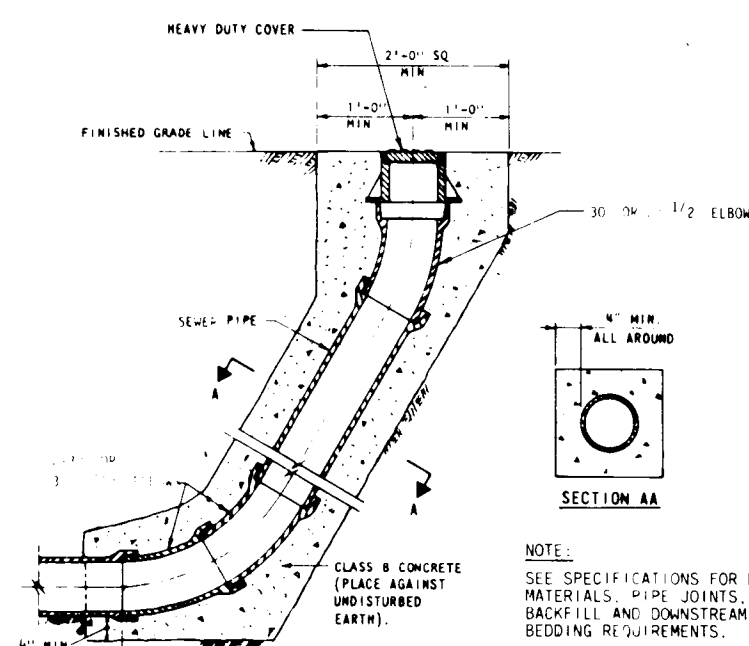
HOSE RACK DETAIL



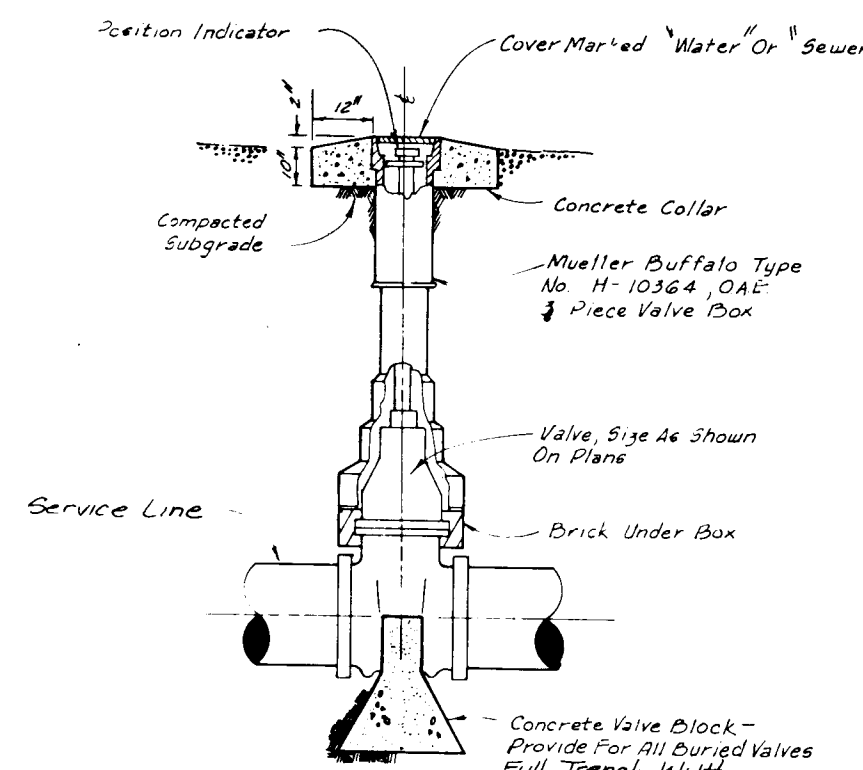
PROVIDE CONTRACTION JOINTS AT 5'-0" O.C. OMIT SEALER. PROVIDE 1/2" TRANSVERSE EXPANSION JOINTS AT MAX. 90'-0" AND 1/2" LONGITUDINAL EXPANSION JOINTS BETWEEN SIDEWALK AND ADJACENT STRUCTURES.



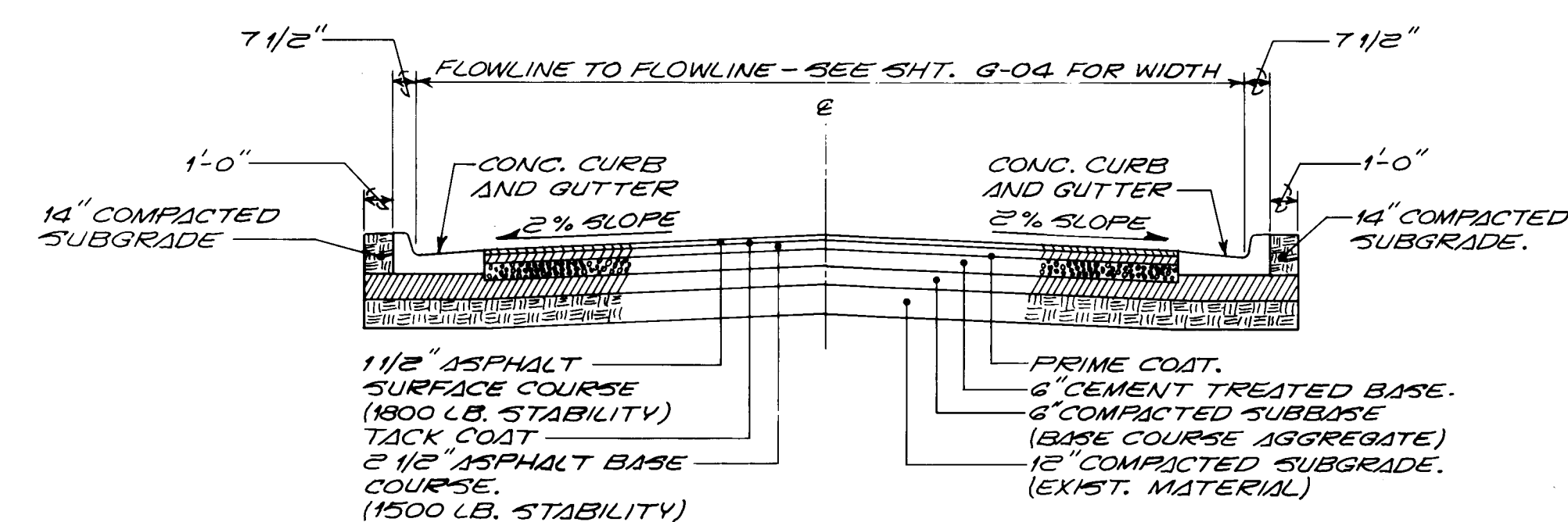
CONCRETE SIDEWALK DETAIL



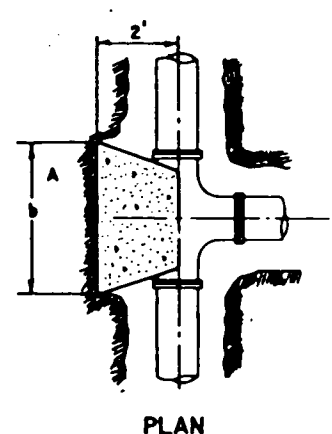
NON-PRESSURE YARD CLEAN OUT DETAIL



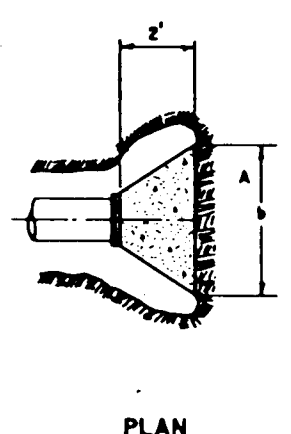
VALVE BOX DETAIL



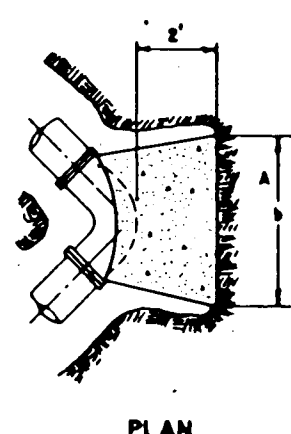
TYPICAL ROADWAY PAVING SECTION



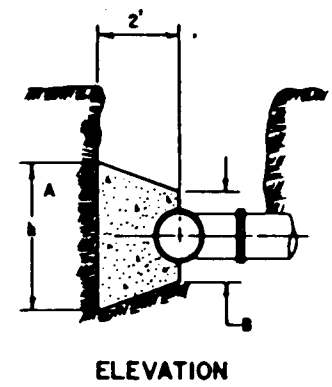
PLAN



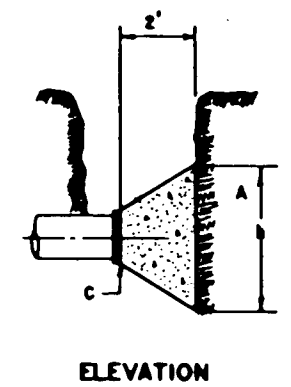
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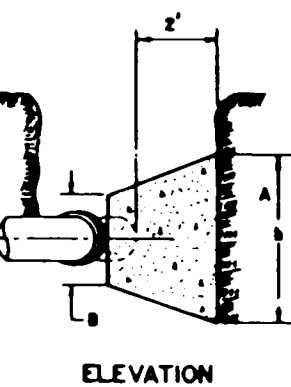
PLAN



ELEVATION



ELEVATION

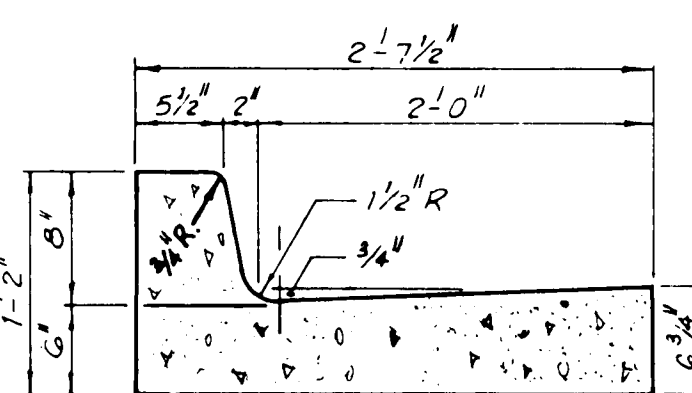


ELEVATION

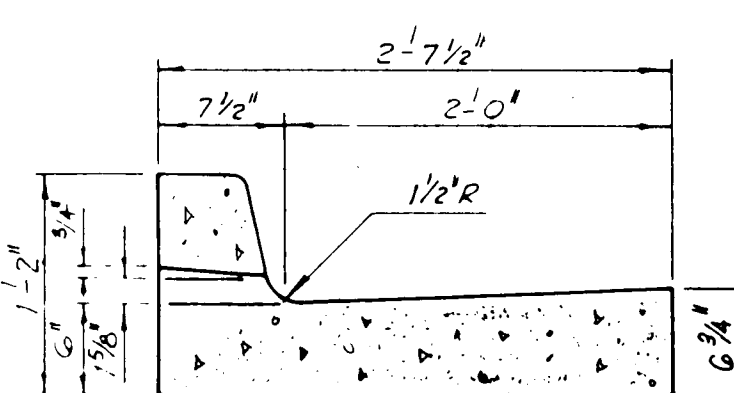
PIPE SIZE (INCHES)	THRUST BLOCK (INCHES)	THRUST BLOCK (INCHES)	THRUST BLOCK (INCHES)	THRUST BLOCK (INCHES)	THRUST BLOCK (INCHES)
12"	12"	12"	12"	12"	12"
14"	14"	14"	14"	14"	14"
16"	16"	16"	16"	16"	16"
18"	18"	18"	18"	18"	18"
20"	20"	20"	20"	20"	20"
22"	22"	22"	22"	22"	22"
24"	24"	24"	24"	24"	24"
26"	26"	26"	26"	26"	26"
28"	28"	28"	28"	28"	28"
30"	30"	30"	30"	30"	30"
32"	32"	32"	32"	32"	32"
34"	34"	34"	34"	34"	34"
36"	36"	36"	36"	36"	36"
38"	38"	38"	38"	38"	38"
40"	40"	40"	40"	40"	40"
42"	42"	42"	42"	42"	42"
44"	44"	44"	44"	44"	44"
46"	46"	46"	46"	46"	46"
48"	48"	48"	48"	48"	48"
50"	50"	50"	50"	50"	50"

THRUST BLOCK DETAILS

CONSTRUCTION NOTES:
A. UNDISTURBED EARTH.
B. O.D. OF PIPE + 8".
C. O.D. OF CAP OR PLUG,
MIN. 12" x 12".

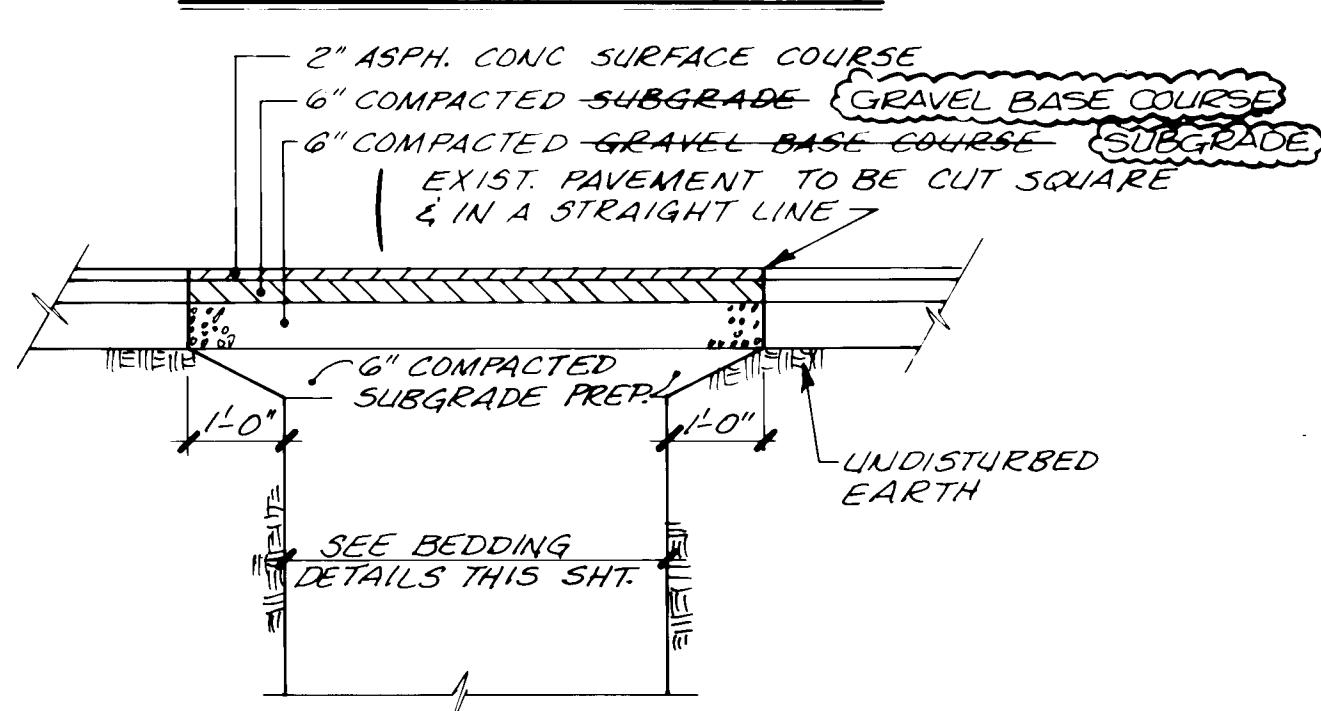


STANDARD CURB & GUTTER

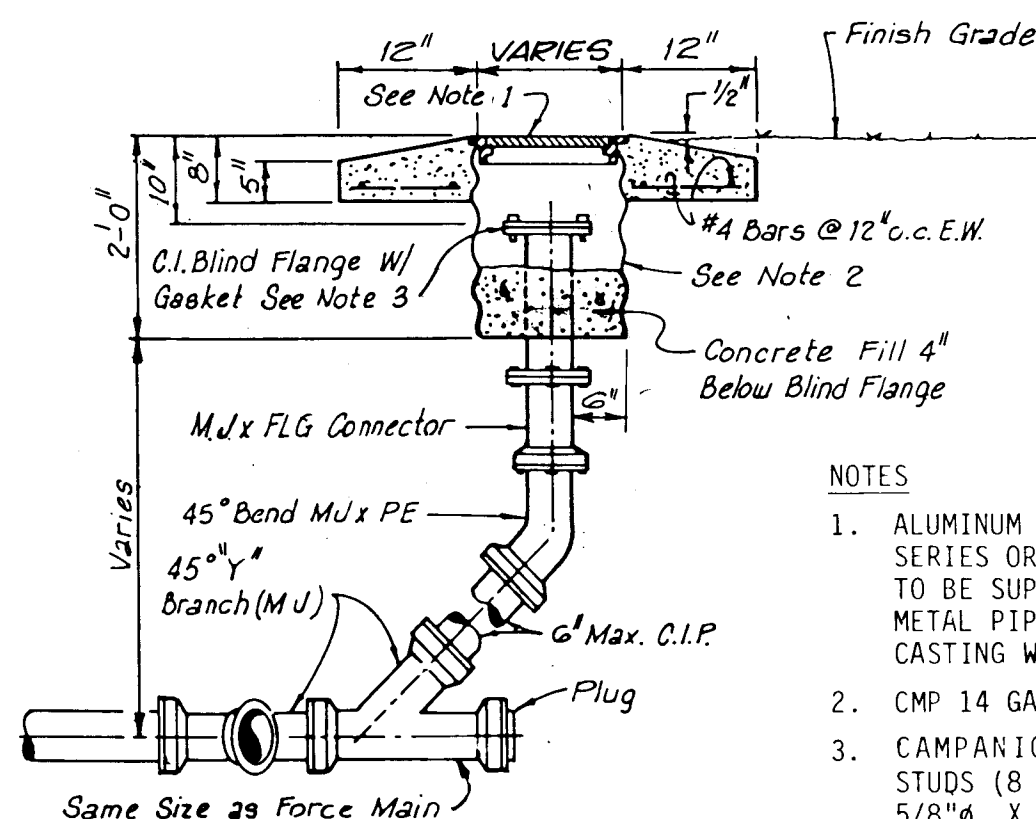


LAYDOWN CURB

CURB & GUTTER DETAIL



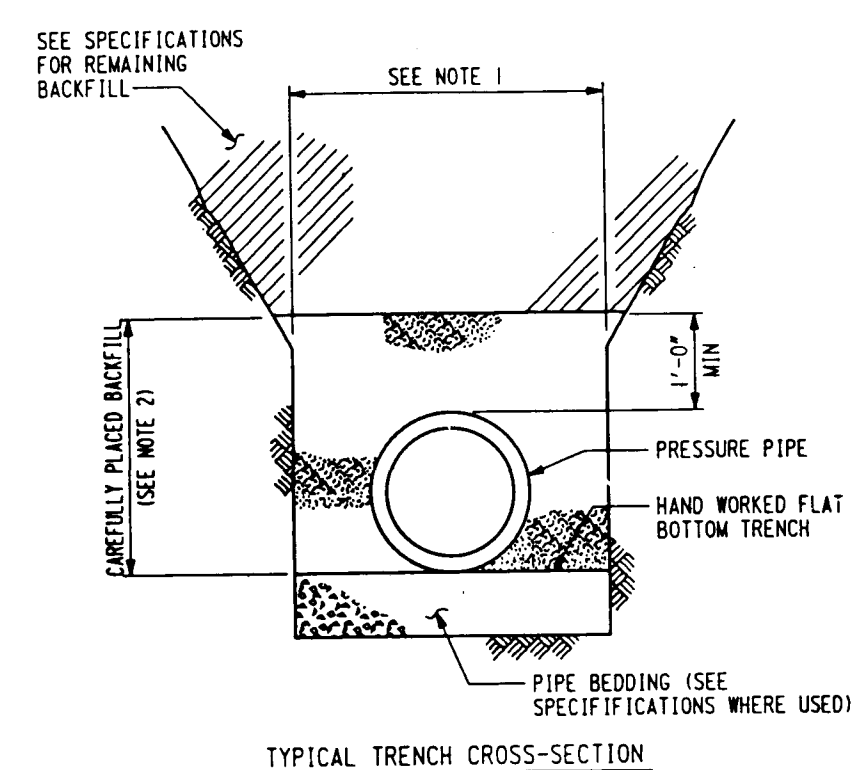
PAVEMENT CUT & REPLACEMENT DETAIL



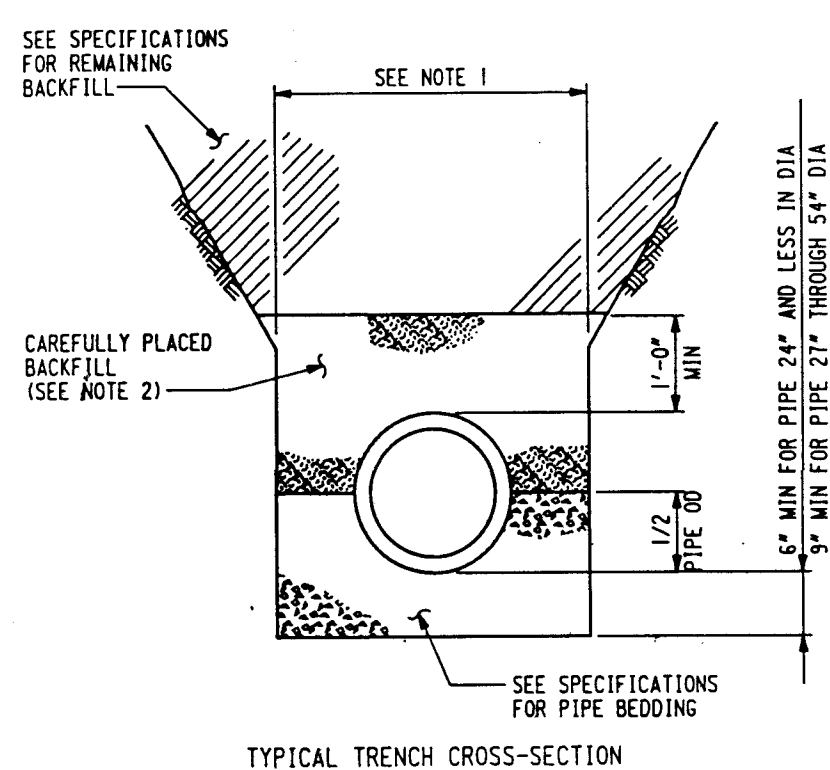
PRESSURE TYPE YARD CLEAN OUT DETAIL

NOTES:

1. ALUMINUM FRAME AND SOLID LTD. NEENAH R-5900 SERIES OR EQUAL. BARREL PORTION OF FRAME CASTING TO BE SUPPLIED W/4-1/2" HOLES 90° APART CORRUGATED METAL PIPE TO BE FIELD DRILLED & BOLTED TO FRAME CASTING W/4-7/16" BOLTS.
2. CMP 14 GAGE. DIPPED IN COAL TAR ENAMEL.
3. CAMPANION FLANGE TO BE THREADED FOR 5/8" x 3" STUDS (8 REQ) BLIND FLANGE TO BE DRILLED FOR 5/8" x 3" STUDS.



PRESSURE PIPE BEDDING DETAIL



NON-PRESSURE PIPE BEDDING DETAIL

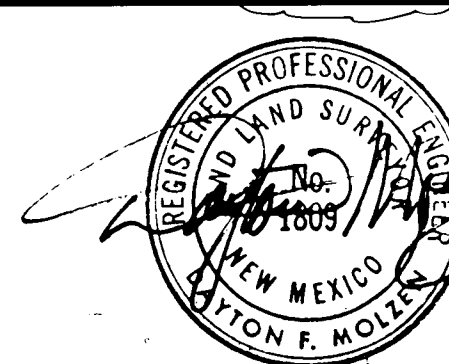
- NOTES:
1. MAXIMUM TRENCH WIDTH = PIPE OUTSIDE DIAMETER PLUS 2".
 2. CAREFULLY PLACED BACKFILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL, FREE FROM DEBRIS, STONES LARGER THAN 1/2", ORGANIC MATTER, FROZEN MATERIAL, AND COMPACTED TO 90% MAXIMUM DENSITY, ASTM D1557. SELECT BACKFILL MAY BE SUBSTITUTED FOR JOB EXCAVATED MATERIAL AND SHALL BE USED WHERE REMAINING BACKFILL IS SPECIFIED TO BE SELECT BACKFILL MATERIAL.

- NOTES:
1. FOR ALLOWABLE TRENCH WIDTH SEE SPECIFICATIONS.
 2. CAREFULLY PLACED BACKFILL SHALL BE CAREFULLY COMPACTED, FINELY DIVIDED, JOB EXCAVATED MATERIAL, FREE FROM DEBRIS, STONES LARGER THAN 1/2", ORGANIC MATTER AND FROZEN MATERIAL, COMPACTED TO 90% MAXIMUM DENSITY, ASTM D1557. SELECT BACKFILL MAY BE SUBSTITUTED FOR JOB EXCAVATED MATERIAL AND SHALL BE USED WHERE REMAINING BACKFILL IS SPECIFIED TO BE SELECT BACKFILL MATERIAL.

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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26	39	52	1	4	8																							

NO.	DATE	REVISIONS	APPROVED
7-17-85		PRESSURE PIPE BEDDING DETAIL, CS-25 CHANGED FROM CS-20	

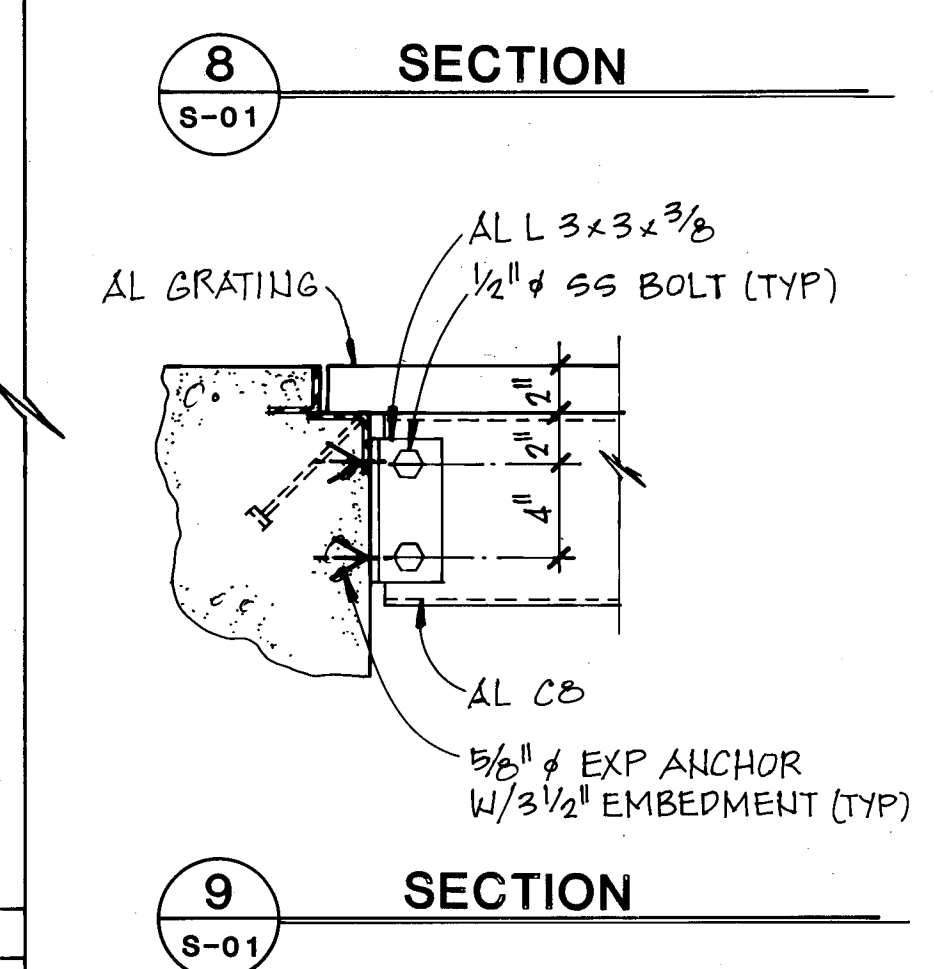
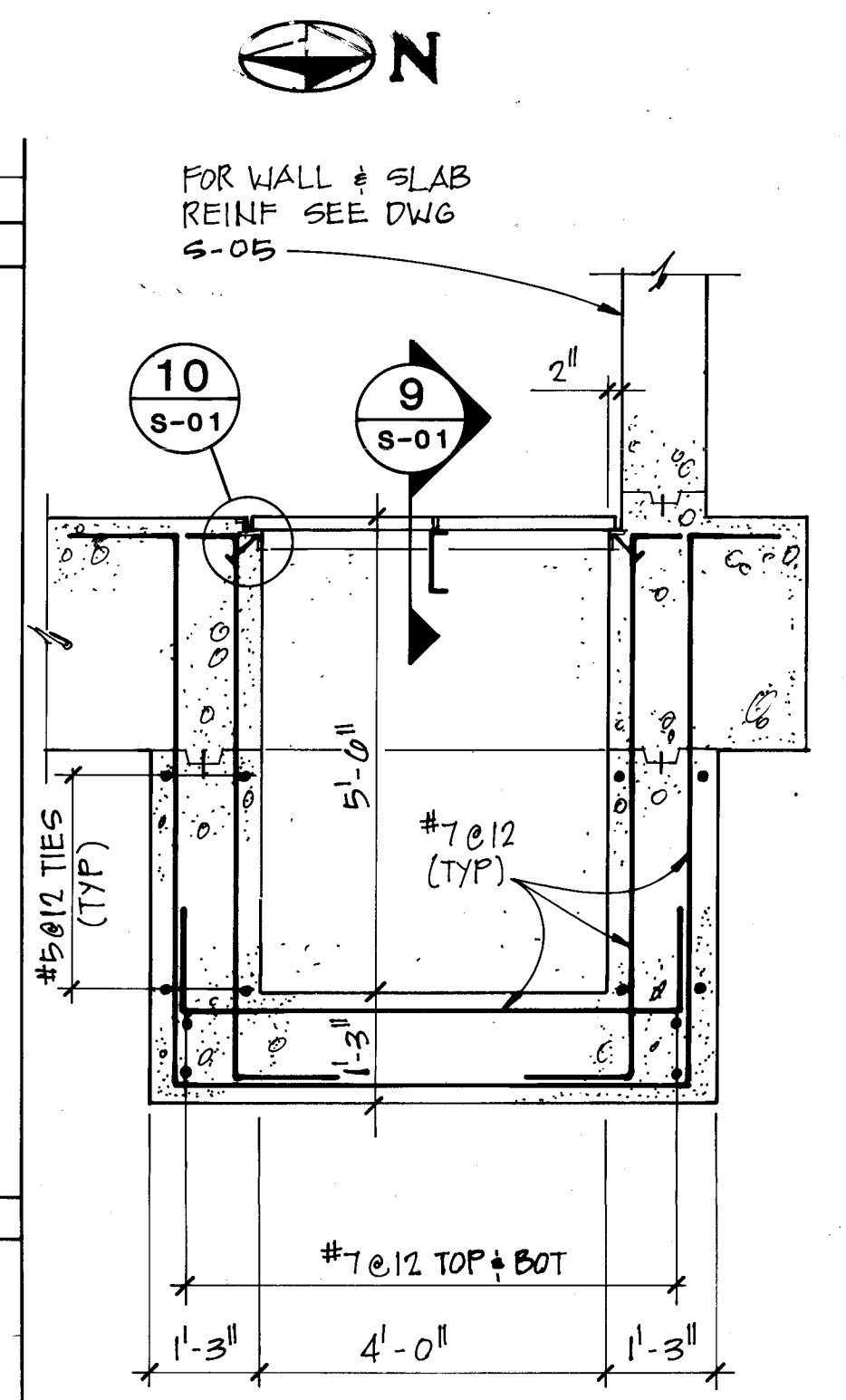
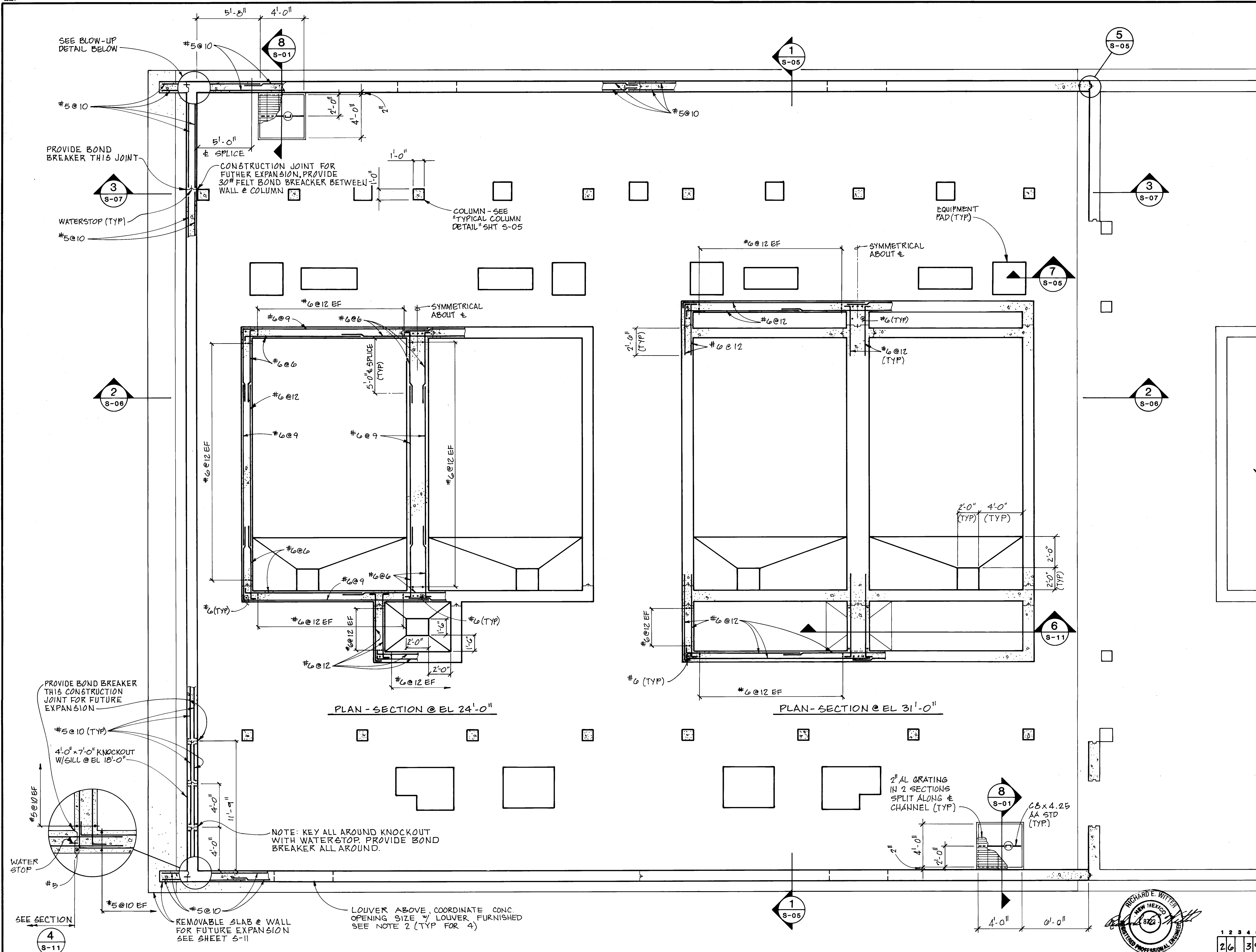
DESIGNED	
DRAWN	
CHECKED	
APPROVED	
DATE	NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

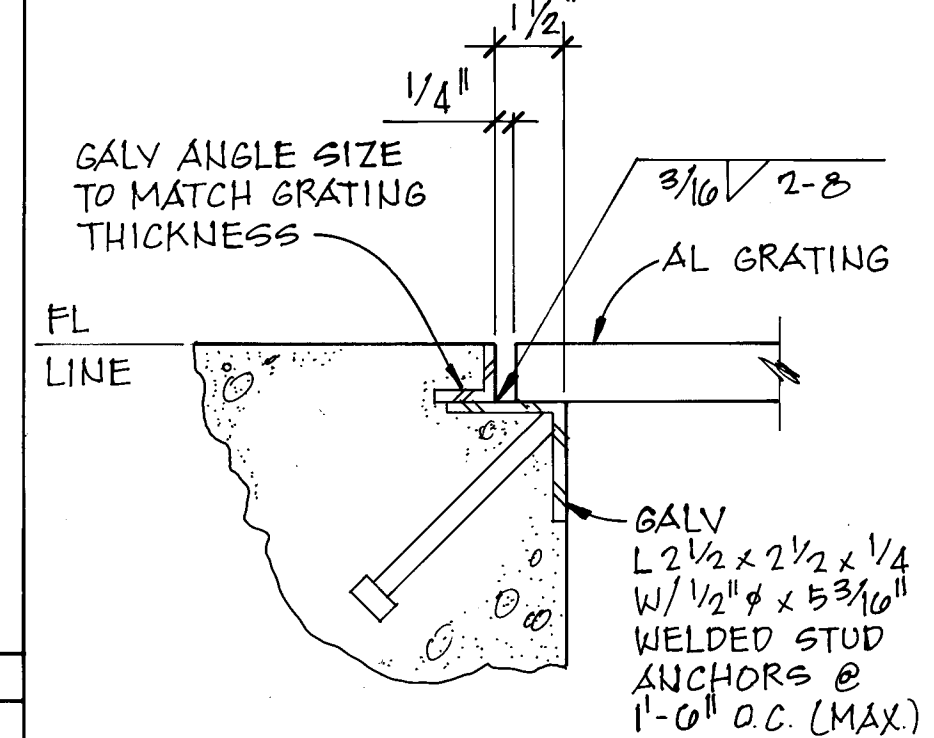
NO SCALE
GRAPHIC SCALE

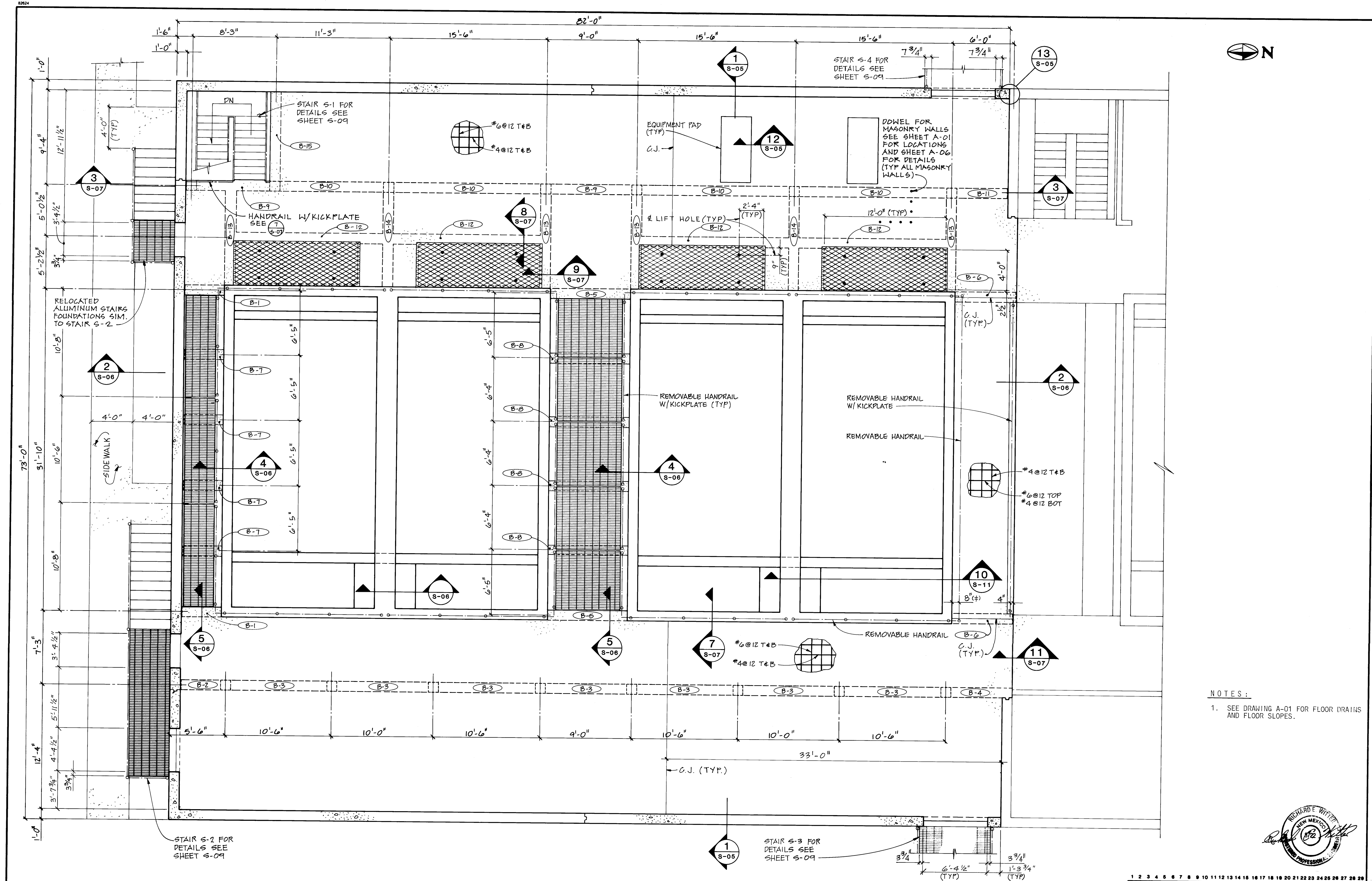
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
STANDARD DETAILS (CIVIL)
G-14
14 of 111
SC NO.



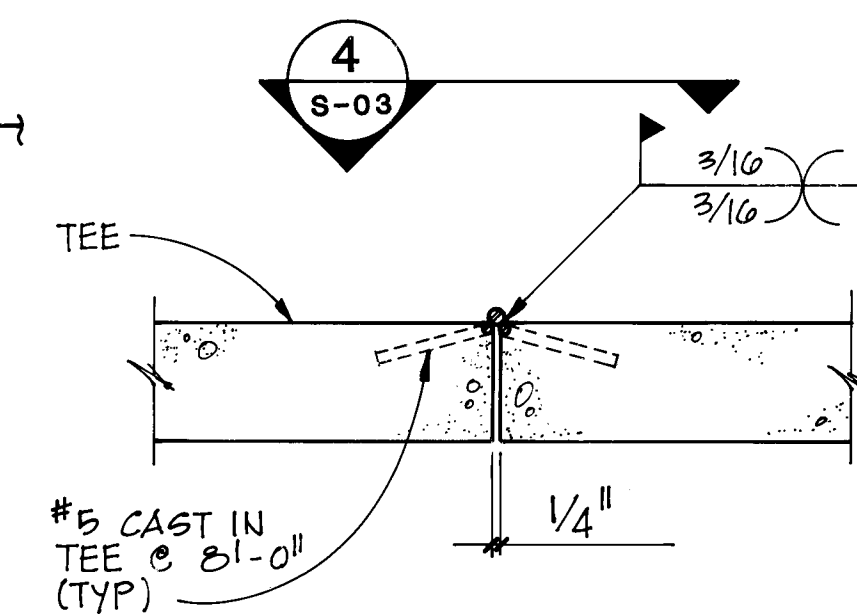
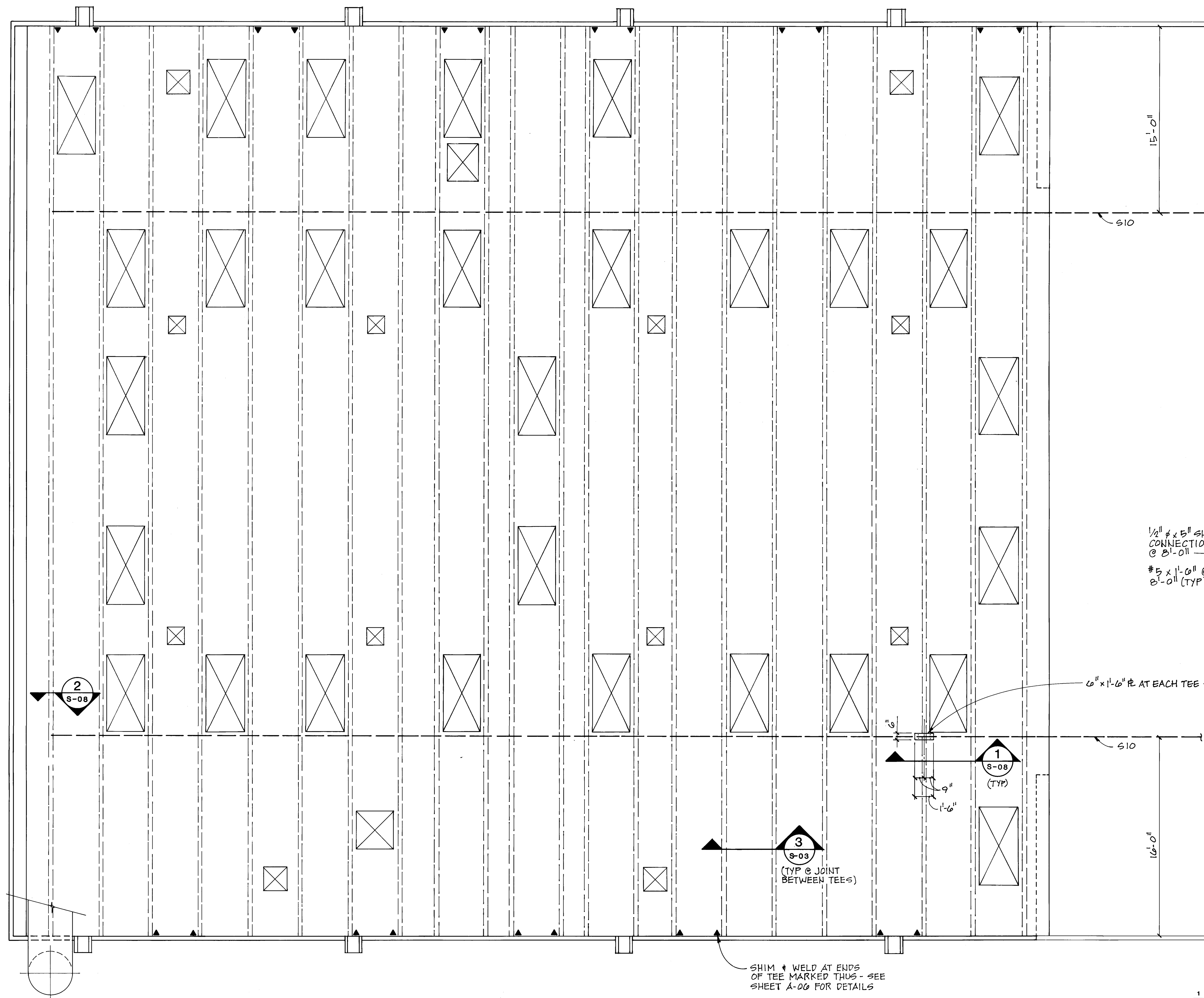
- NOTES:**
- SEE DRAWING A-02 FOR FLOOR DRAINS AND FLOOR SLOPES.
 - SEE DRAWING H-03, 09 & 10 FOR LOWER SIZE & LOCATIONS.
 - SEE DRAWINGS M-04, M-05, AND M-06 FOR BELOW GRADE AND EMBEDDED PIPING.



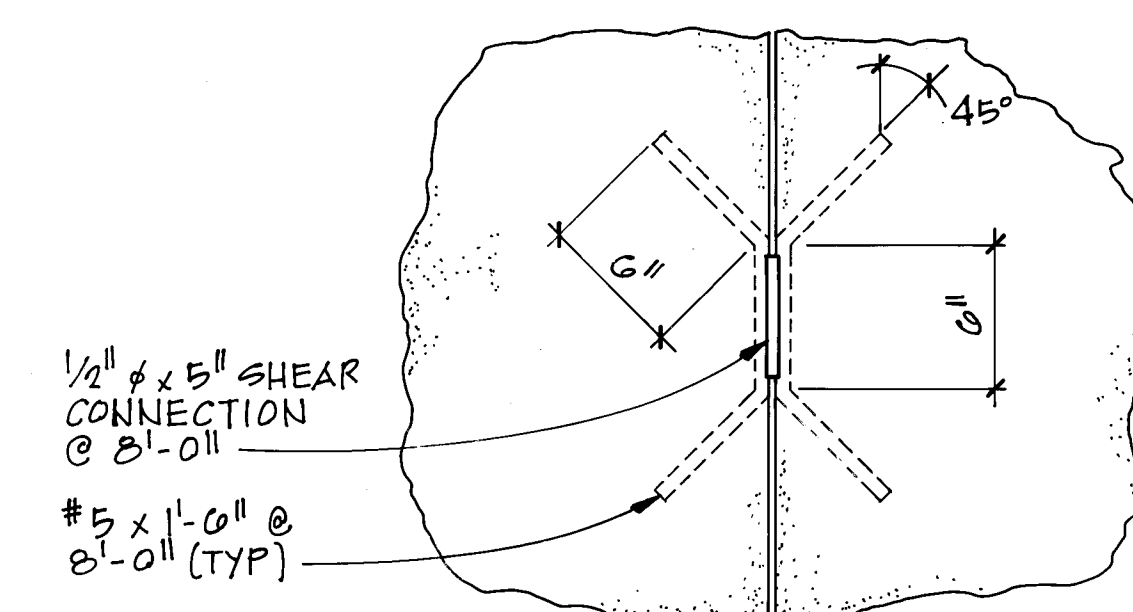


NOTES:
1. SEE DRAWING A-01 FOR FLOOR DRAINS AND FLOOR SLOPES.

DESIGNED <i>B. J. Schmitt</i> DRAWN <i>M. Pieper</i> CHECKED <i>R. J. Smith</i> APPROVED <i>R. J. Smith</i> DATE OCT. 1, 1984		MOLZEN-CORBIN STANLEY CONSULTANTS A JOINT VENTURE		1/4" 1'-0" GRAPHIC SCALE		CITY OF ALBUQUERQUE, NEW MEXICO SOLIDS HANDLING FACILITIES PHASE II B-1, CONTRACTS 2 & 3		SLUDGE THICKENING SYSTEM EXPANSION SLUDGE THICKENER BUILDING MAIN FLOOR PLAN		M-C NO. 831721 S-02 SC NO. 83871-62	
RECORD DRAWING REVISED FOR BIDDING NO. DATE REVISIONS										1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 26 39 52 16 88	



3 SECTION
S-03
1-1/2"=1'-0"



4 SECTION
S-03
1-1/2"=1'-0"

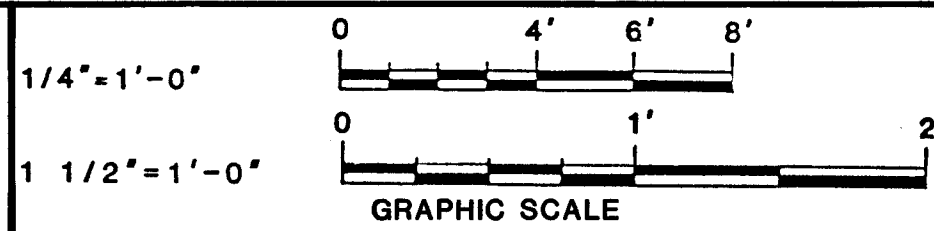
NOTE:
SEE SHEET A-09 AND H-07 FOR
ROOF OPENINGS AND DUCTWORK.



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
26	39	52	17	8																									

DESIGNED <i>R. J. Corbin</i>	RECORD DRAWING
DRAWN <i>M. J. Corbin</i>	REVISED FOR BIDDING
CHECKED <i>R. J. Corbin</i>	REVISIONS
APPROVED <i>R. J. Corbin</i>	
DATE OCT. 1, 1984	

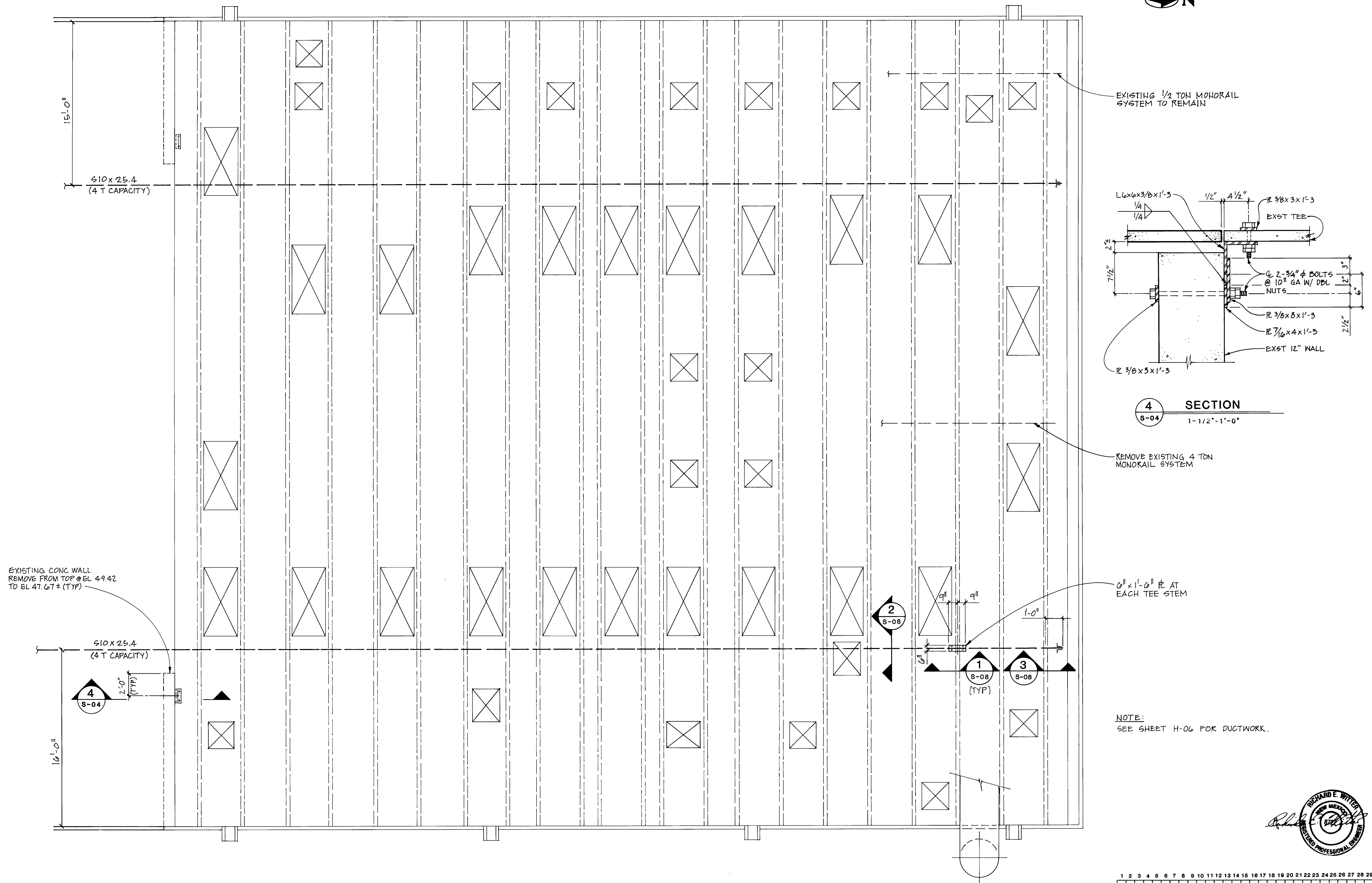
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1. CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
SLUDGE THICKENER BUILDING
STRUCTURAL ROOF PLAN - SHEET 1

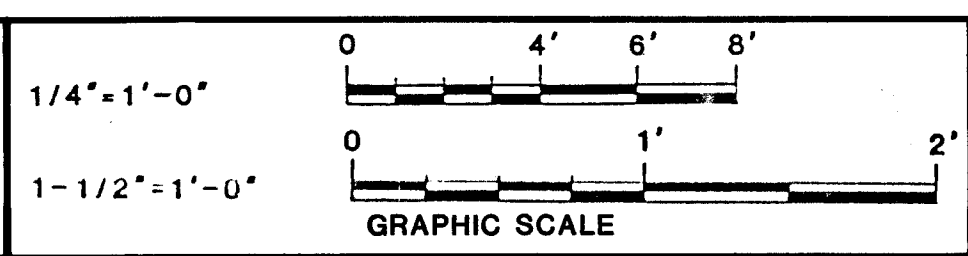
M-C NO.	S-03	OF
SC NO.	8387-63	



NO.	DATE	REVISIONS
1	11/14/84	RECORD DRAWING
2	11/14/84	REVISED FOR BIDDING

DESIGNED *[Signature]*
DRAWN M. PIERER
CHECKED *[Signature]*
APPROVED *[Signature]*
DATE OCT. 1, 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE



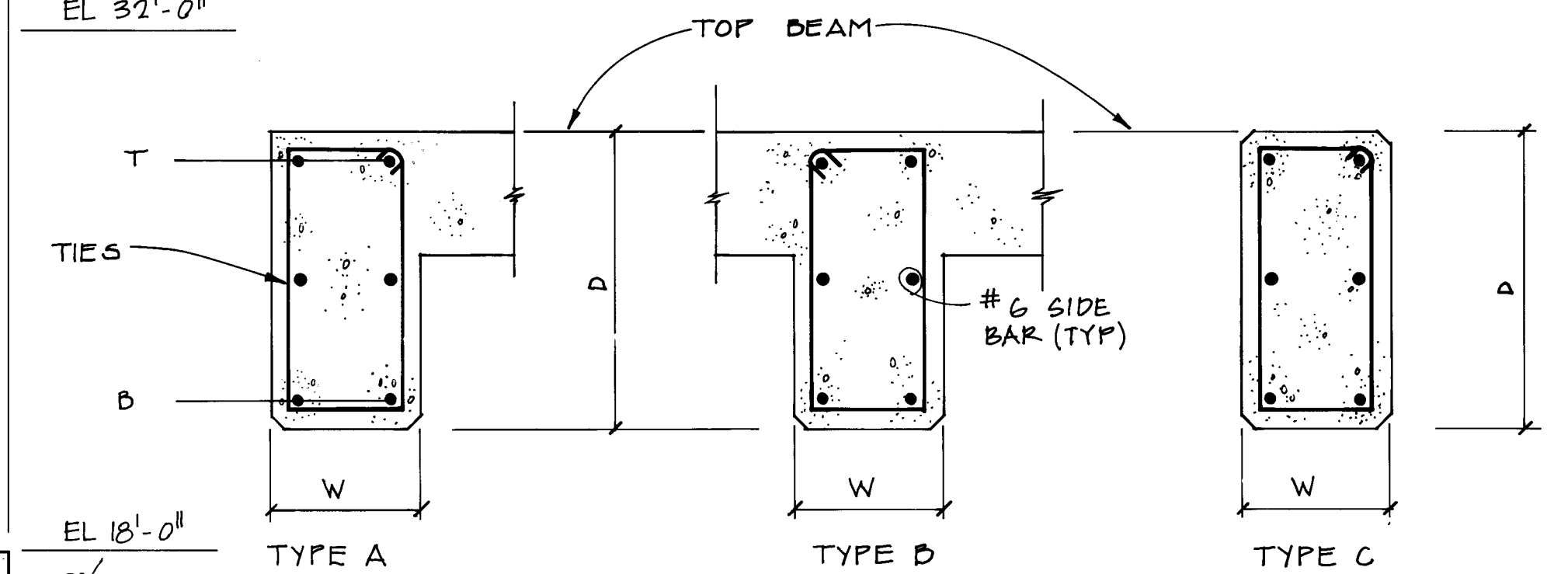
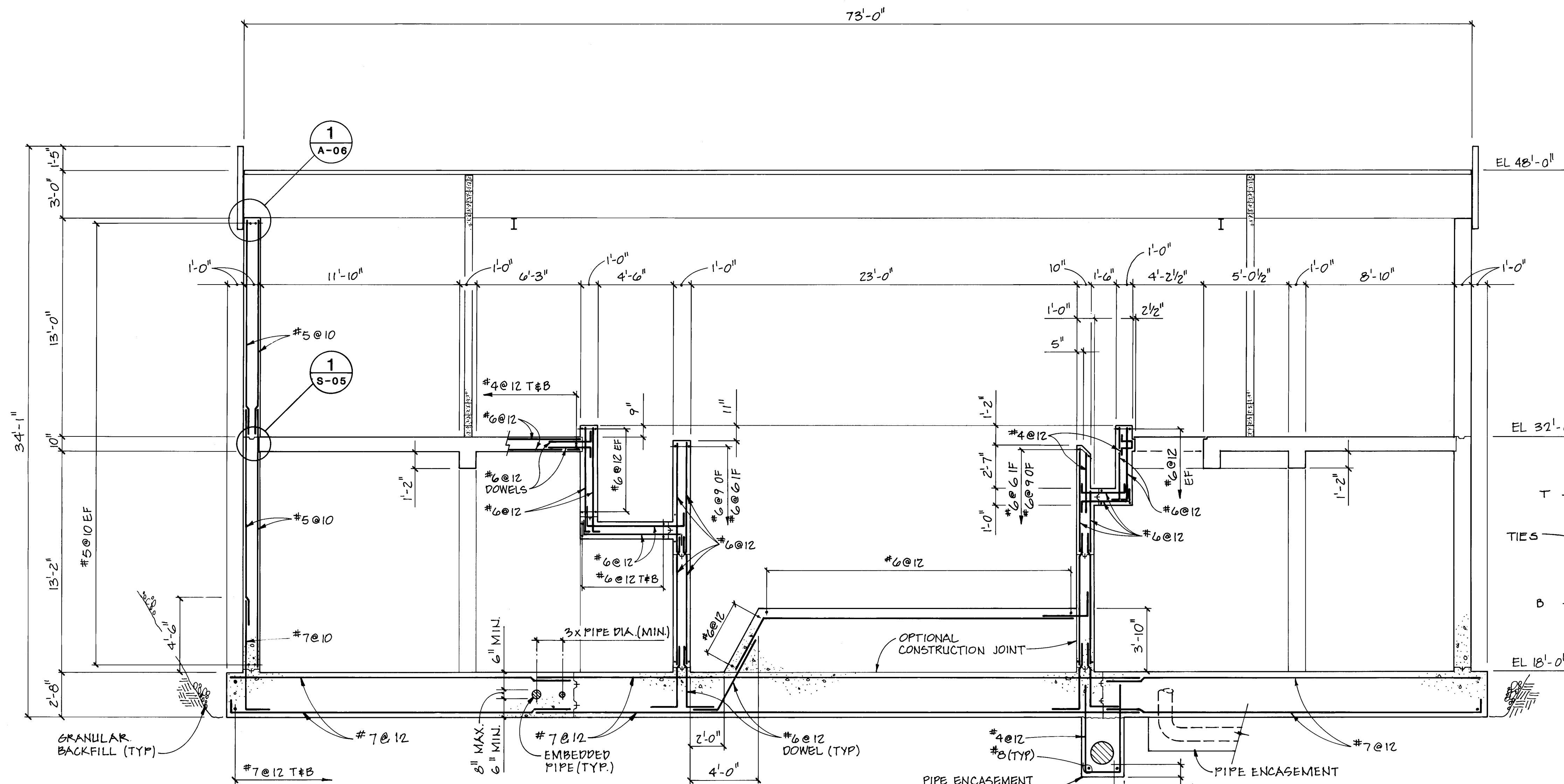
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
SLUDGE THICKENER BUILDING
STRUCTURAL ROOF PLAN - SHEET 2

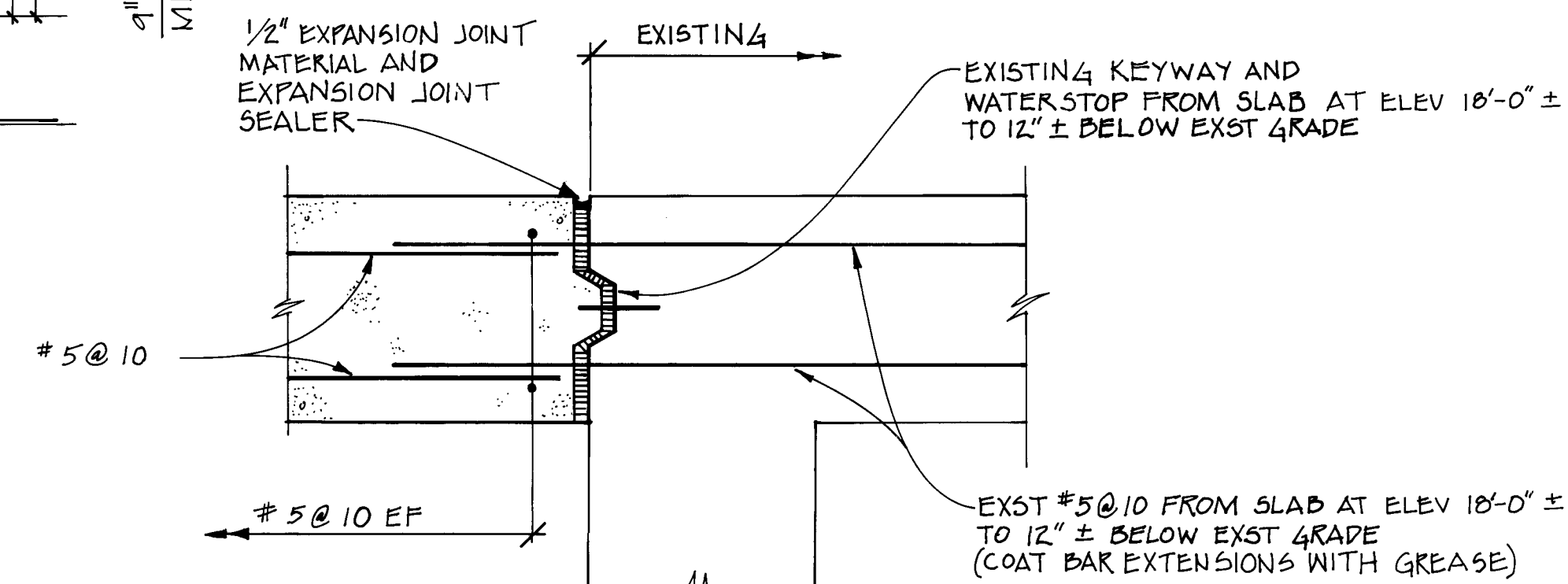
M-C NO.
S-04 OF
SC NO. 8387-64



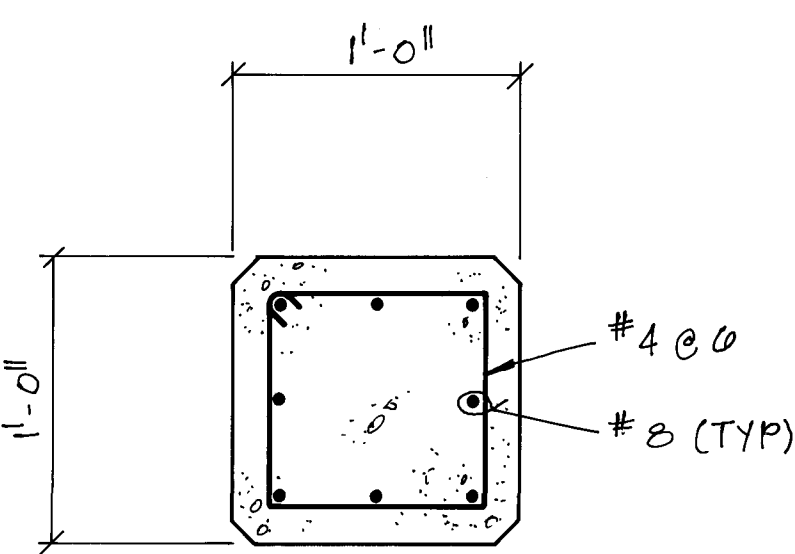
BEAM SCHEDULE								
BEAM NO	SIZE		TOP OF BEAM EL	TYPE	REINFORCING			REMARKS
	W	D			B (BOT)	T (TOP)	TIES	
B-1	12"	24"	32'-0"	A	2#6	2#6	#4 @ 9	
B-2, B-3	12"	24"	32'-0"	B	2#8	2#8	#4 @ 9	
B-4	12"	24"	32'-0"	B	2#8	2#8	#4 @ 9	
B-5	12"	24"	32'-0"	A	2#6	2#6	#4 @ 9	
B-6	12"	24"	32'-0"	B	2#6	2#8	#4 @ 9	
B-7, B-8	12"	20"	30'-11 1/4"	C	2#6	2#6	#4 @ 9	
B-9, B-10, B-11	12"	24"	32'-0"	A&B	2#8	2#8	#4 @ 9	ADD 1-#8 X 12'-0" TOP SEE SECT 3 ON S-07
B-12, B-13	12"	24"	32'-0"	A&B	2#8	2#8	#4 @ 9	
B-14	12"	24"	32'-0"	B	2#8	2#8	#4 @ 9	
B-15	12"	24"	32'-0"	A	2#8	2#8	#4 @ 9	



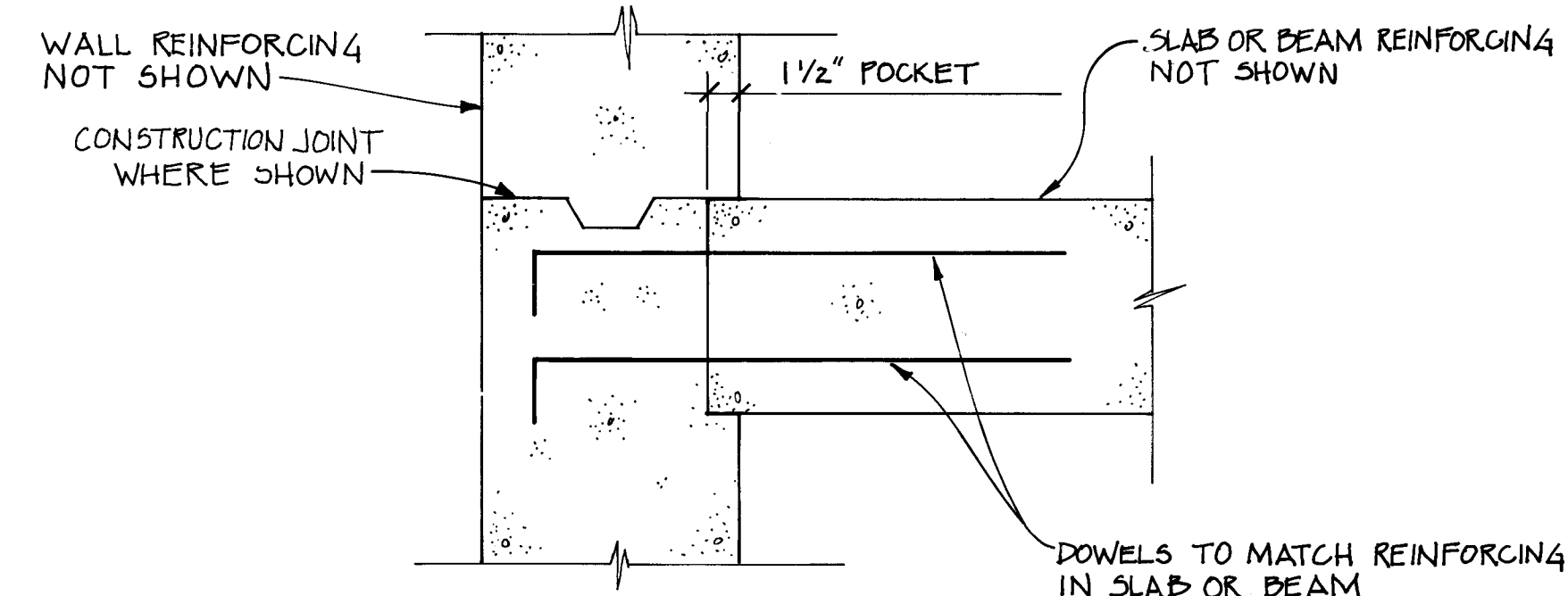
SECTION
1/4" = 1'-0"



DETAIL
1-1/2" = 1'-0"



TYPICAL COLUMN DETAIL
1 1/2" = 1'-0"



DETAIL
1 1/2" = 1'-0"

- NOTES:
- SEE DRAWINGS M-04, M-05 AND M-06 FOR BELOW GRADE AND EMBEDDED PIPING.

DESIGNED	RECORD DRAWING
DRAWN	REVISED FOR BIDDING
CHECKED	REVISIONS
APPROVED	
DATE	

DESIGNED	RECORD DRAWING
DRAWN	REVISED FOR BIDDING
CHECKED	REVISIONS
APPROVED	
DATE	

MOLZEN-CORBIN	STANLEY CONSULTANTS
A JOINT VENTURE	

1/4" = 1'-0"	1-1/2" = 1'-0"
GRAPHIC SCALE	

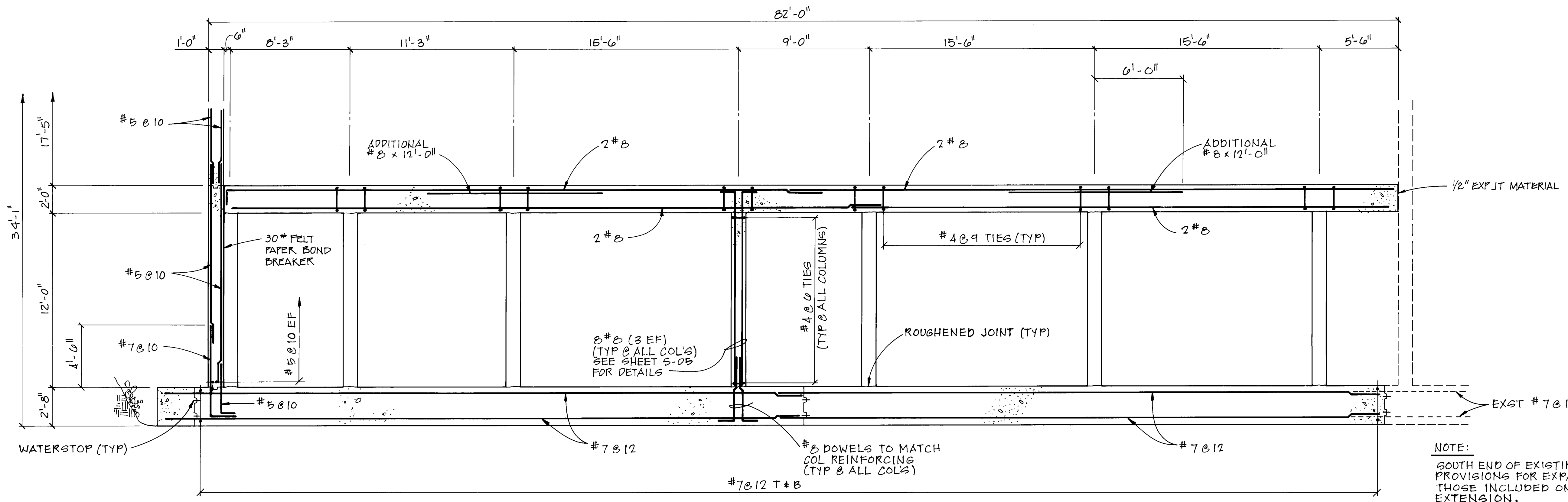
CITY OF ALBUQUERQUE, NEW MEXICO	SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3	

SLUDGE THICKENING SYSTEM EXPANSION	SLUDGE THICKENER BUILDING
BUILDING SECTIONS AND DETAILS - SHEET 1	



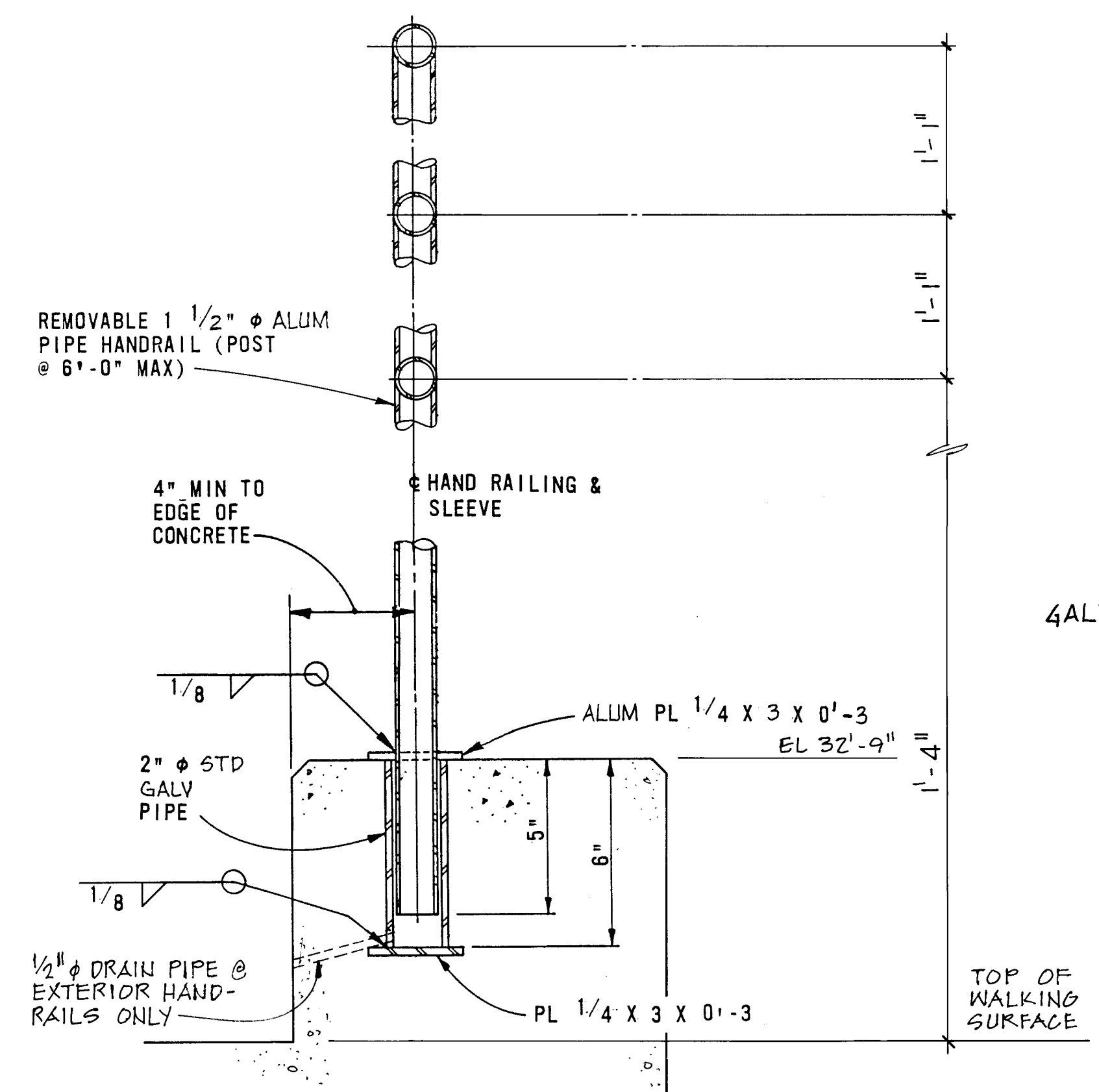
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26	39	52	19	88																								

M-C NO.	S-05	OF
SC NO.	8337-65	

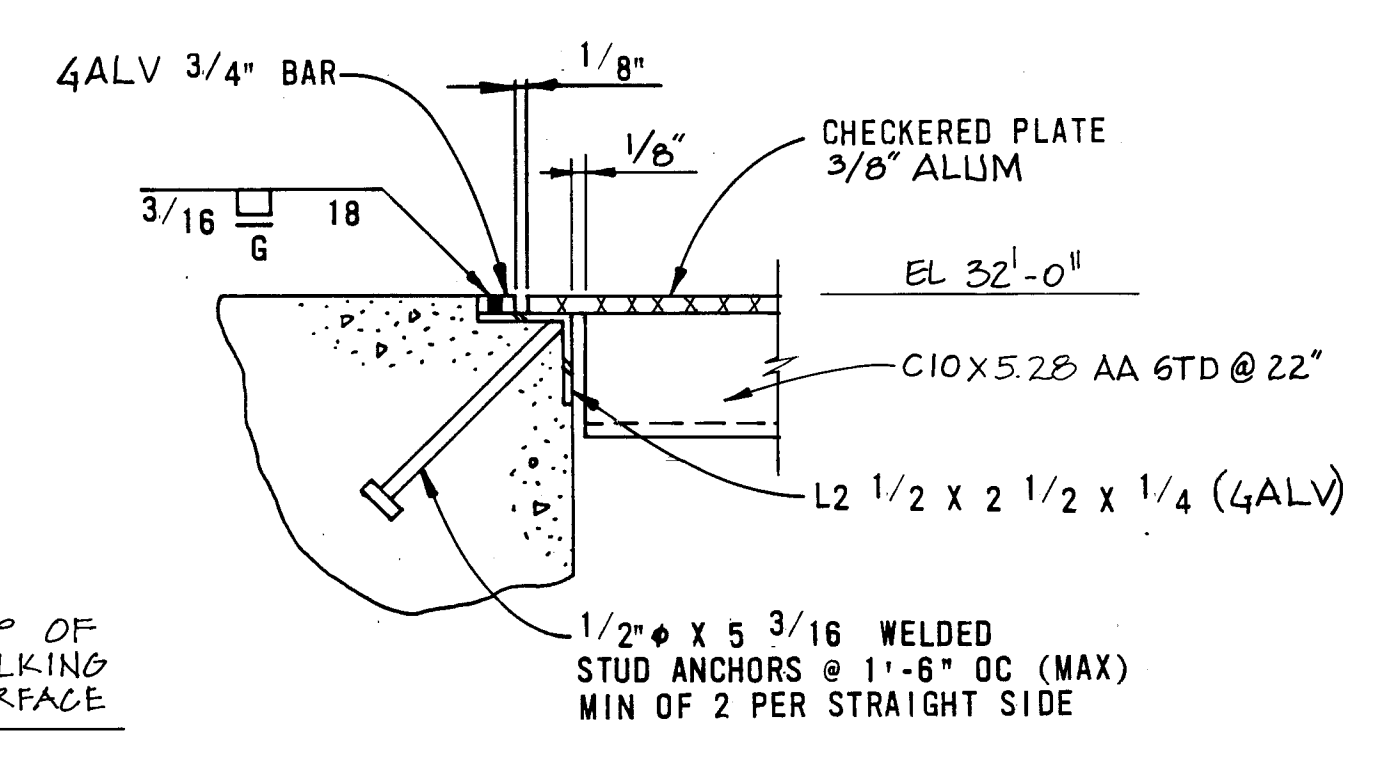


NOTE:
SOUTH END OF EXISTING FACILITY HAS PROVISIONS FOR EXPANSION SIMILAR TO THOSE INCLUDED ON SOUTH END OF EXTENSION.

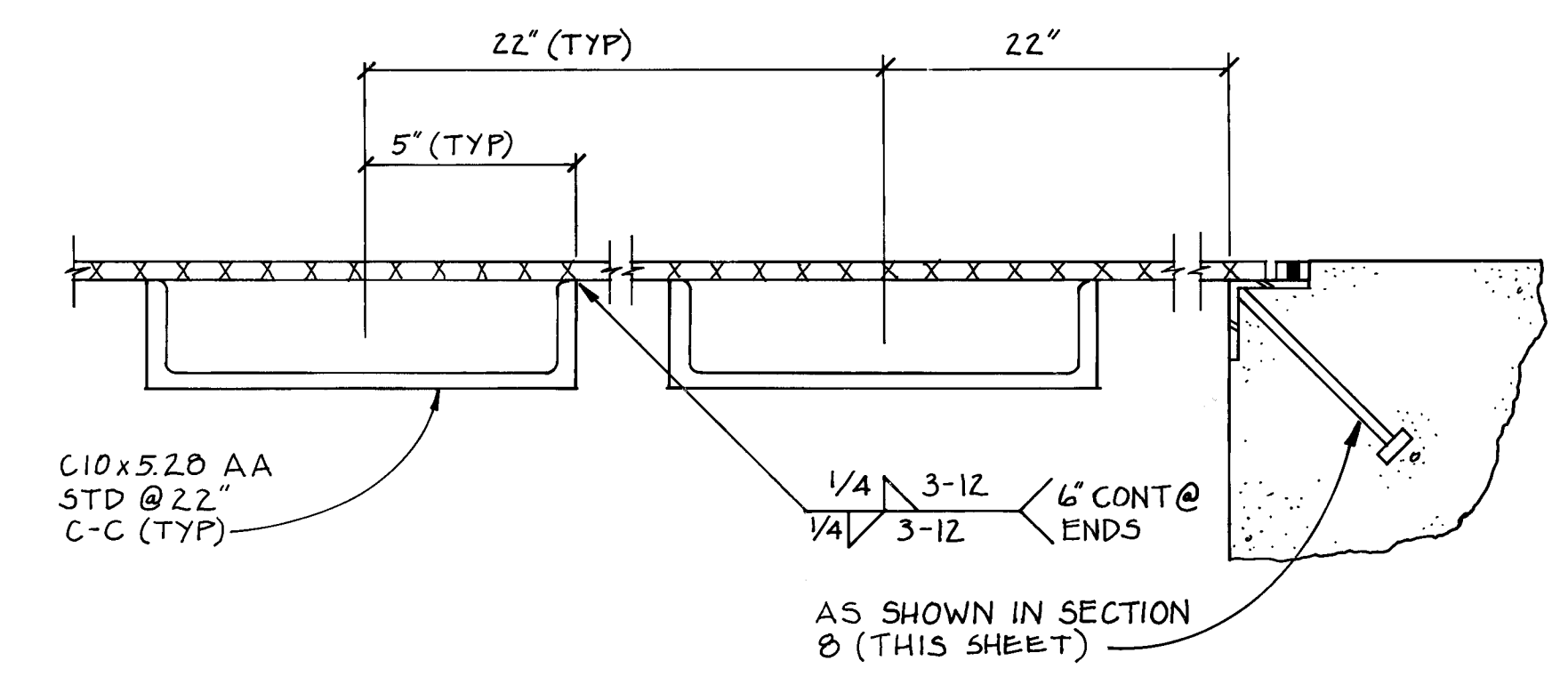
3 SECTION
1/4" = 1'-0"



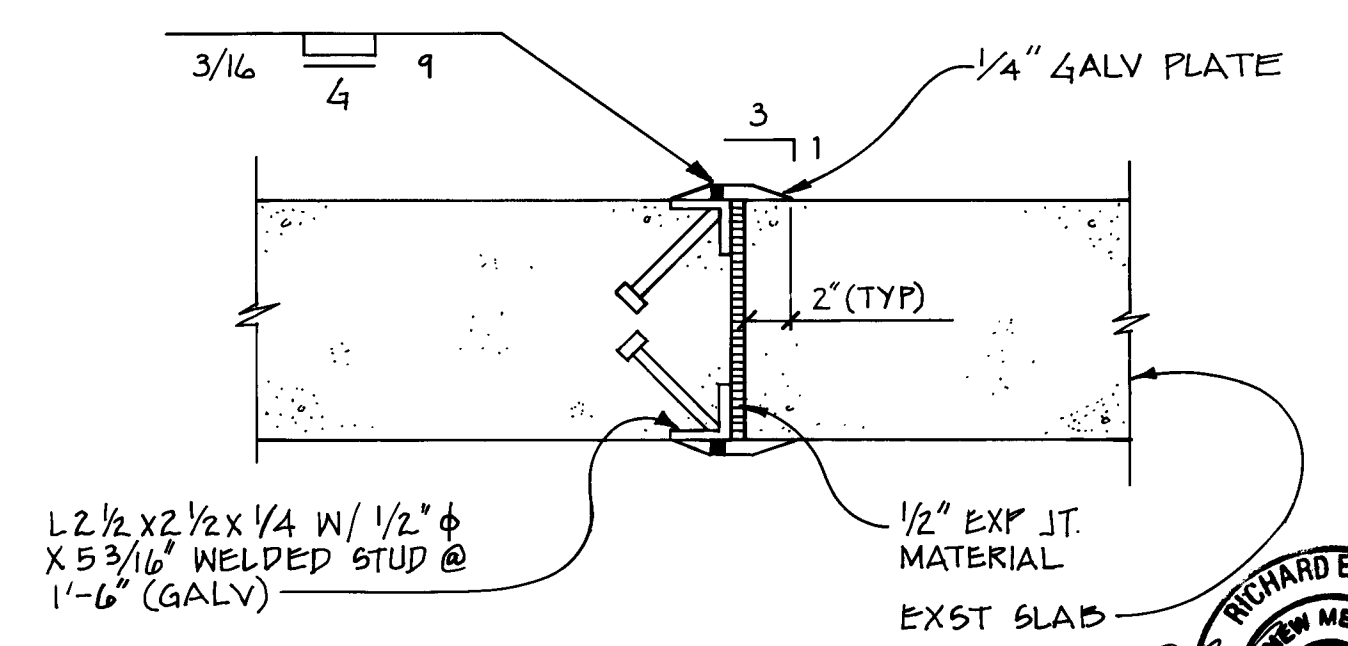
15 SECTION
3" = 1'-0"



8 SECTION
3" = 1'-0"

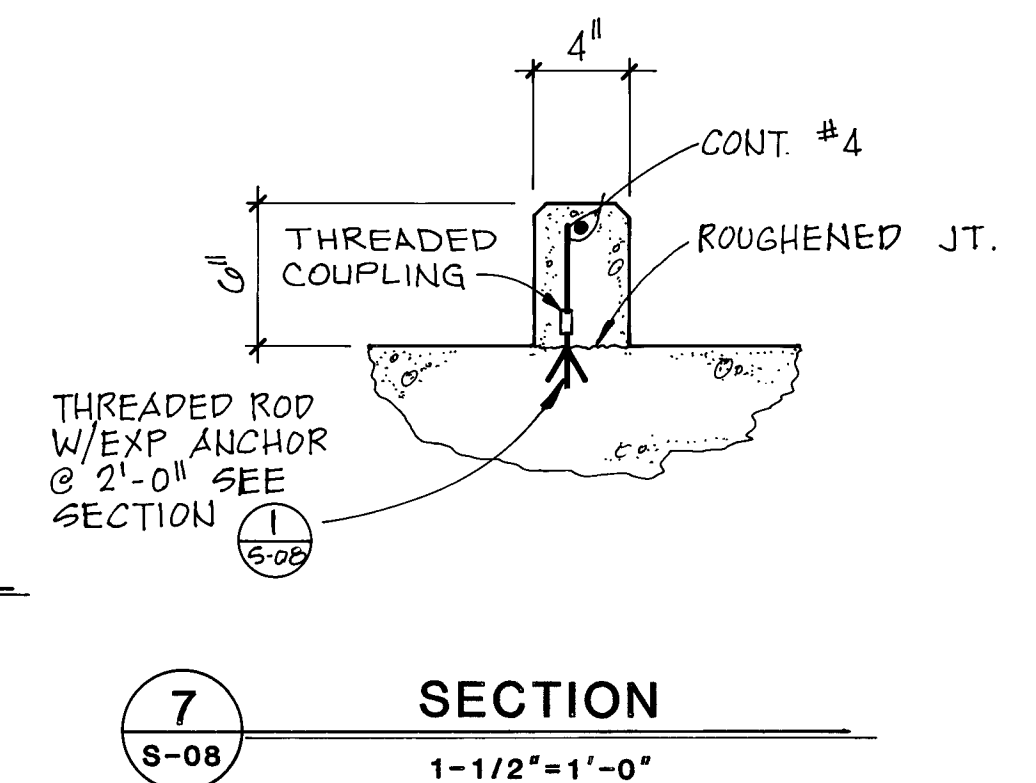
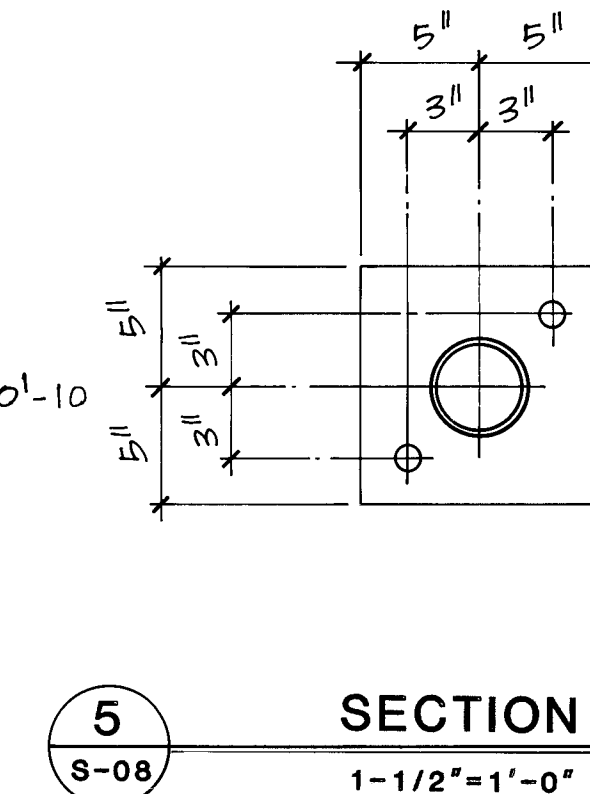
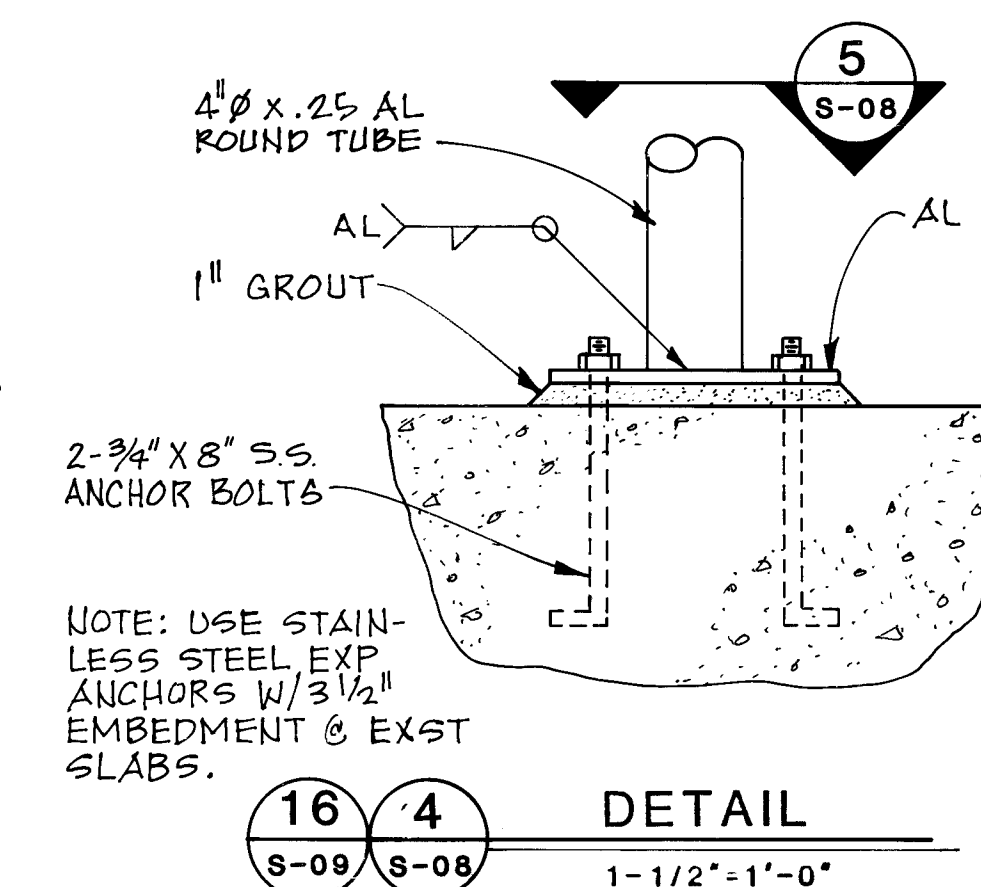
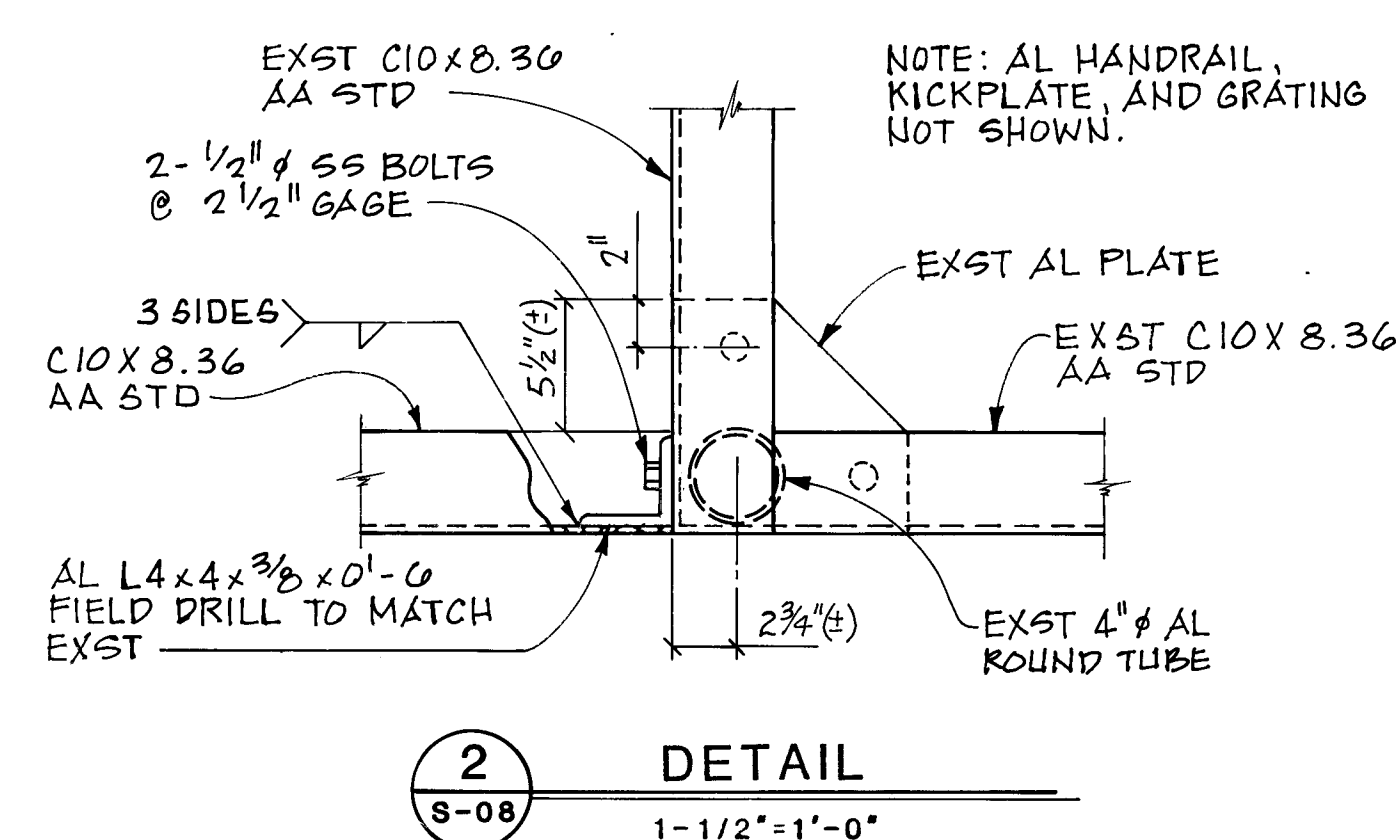
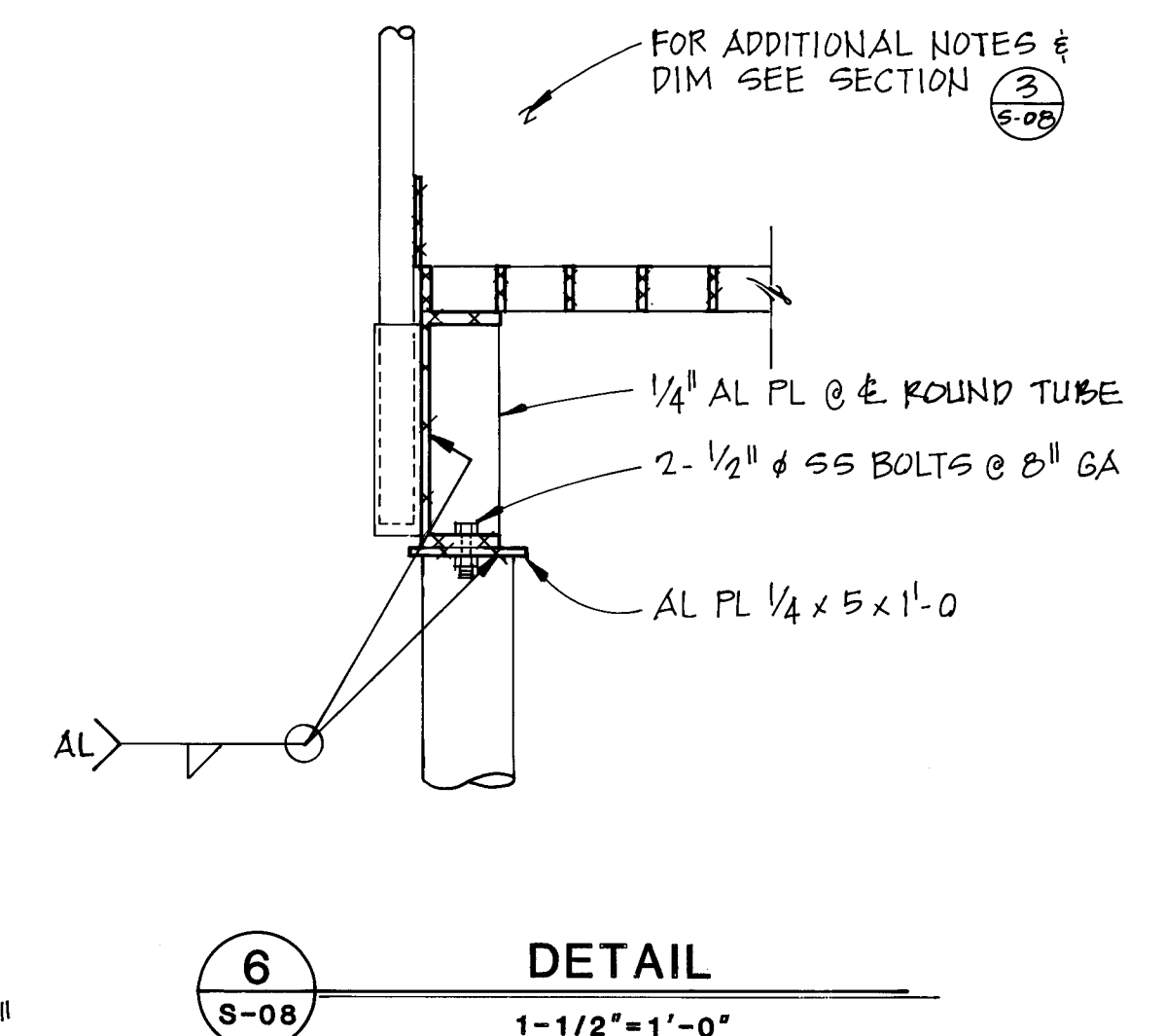
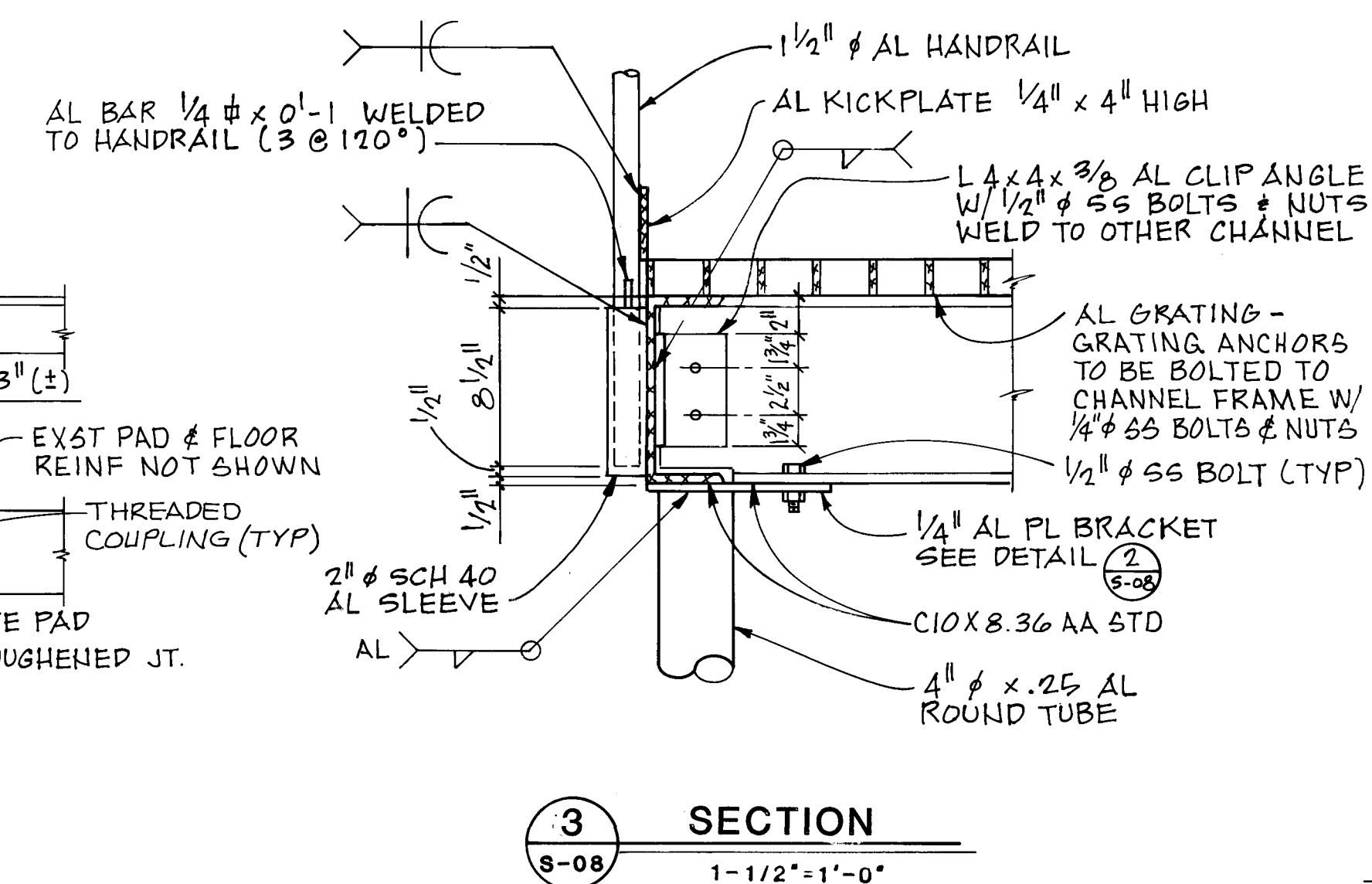
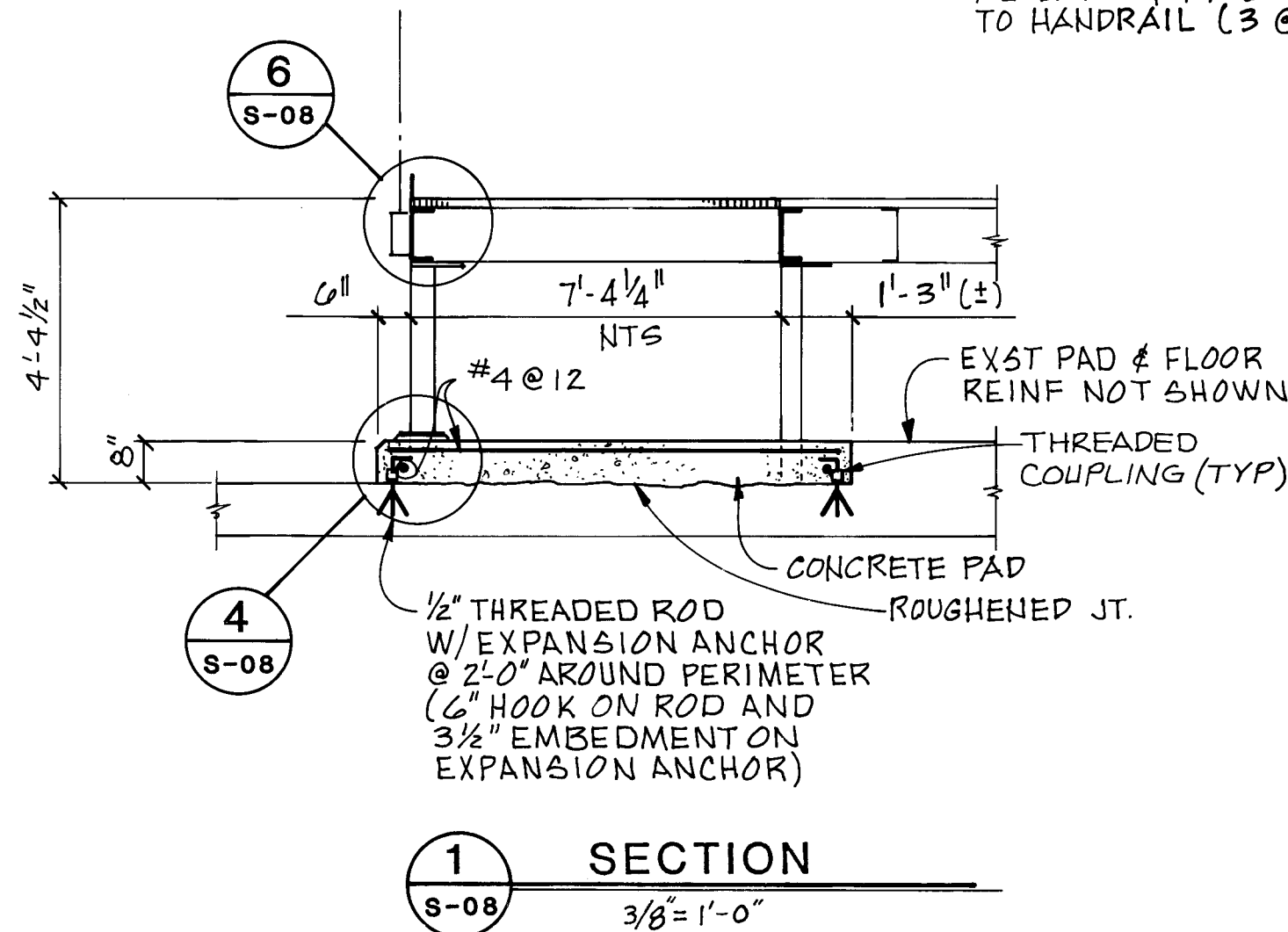
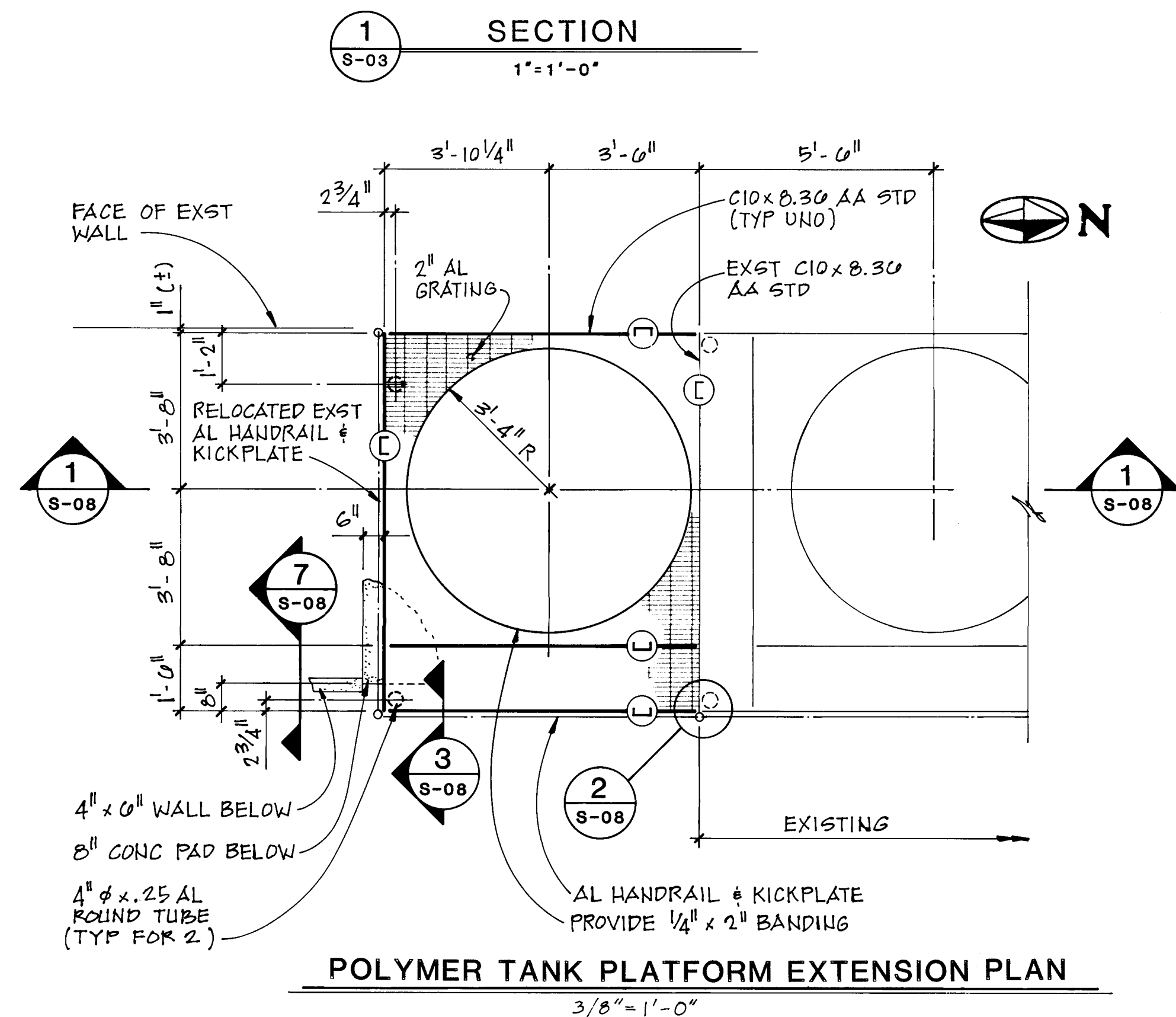
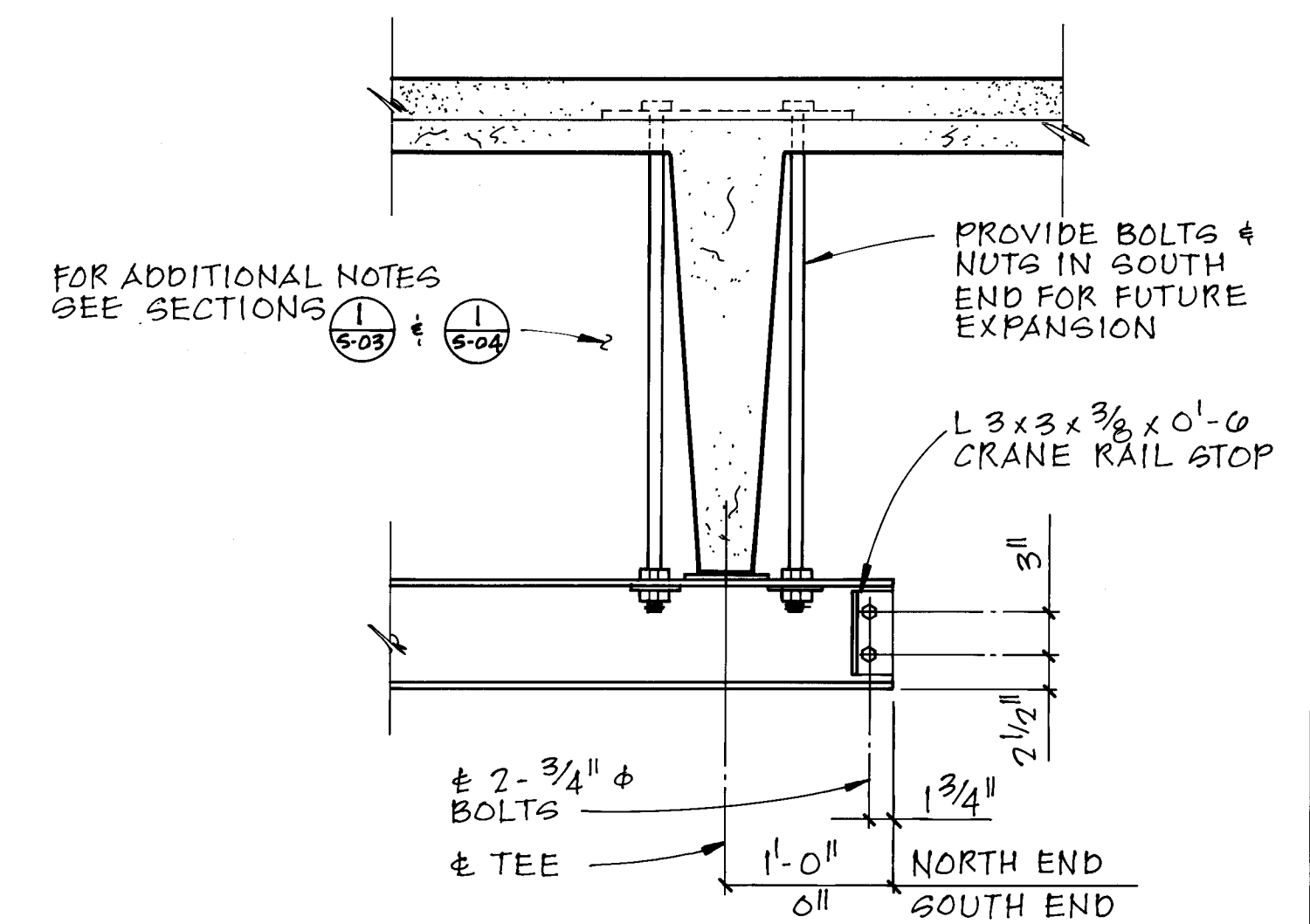
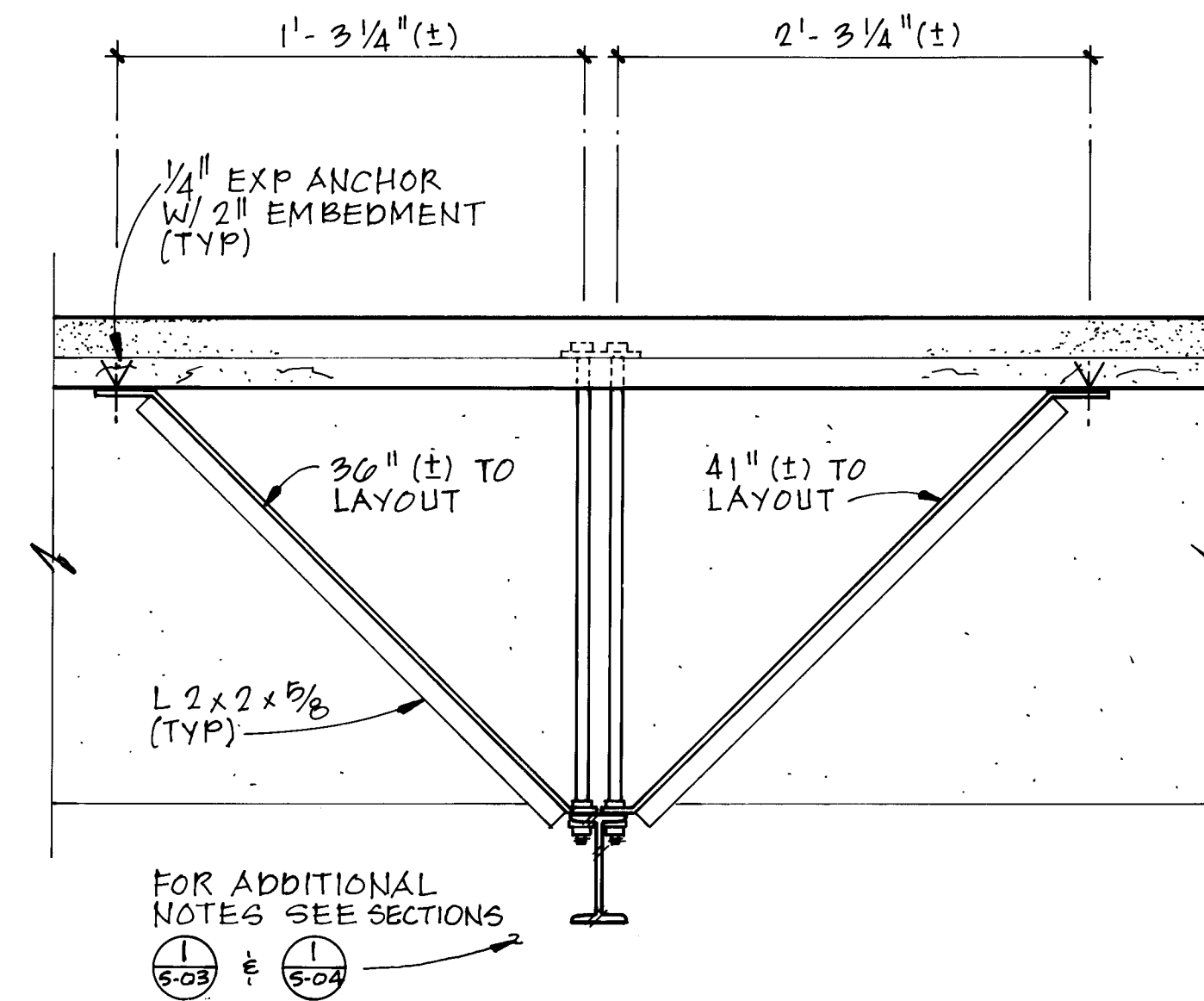
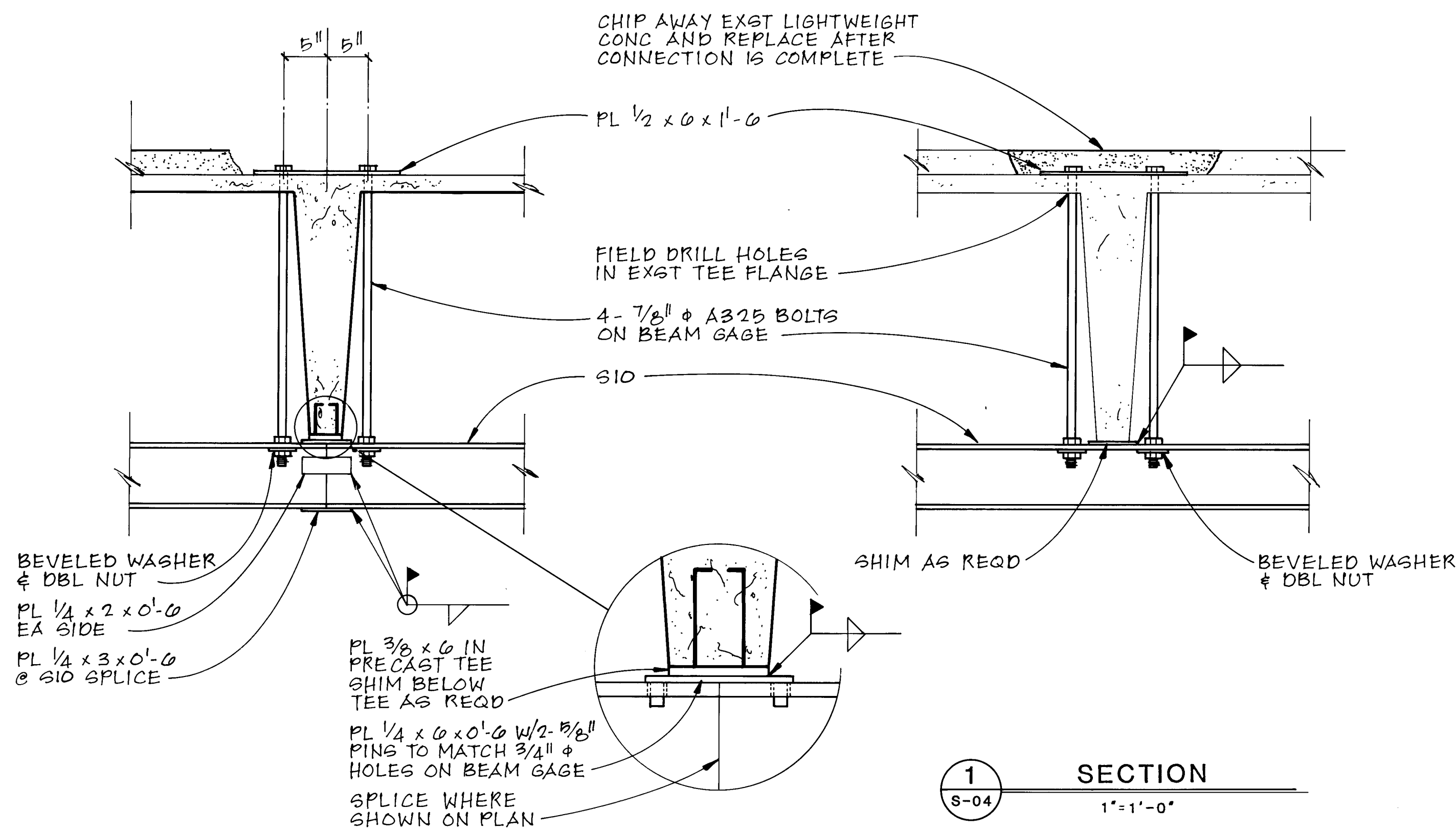


9 SECTION
3" = 1'-0"



11 SECTION
1 1/2" = 1'-0"





NOTE:
SEE DRAWING M-10 FOR LOCATION

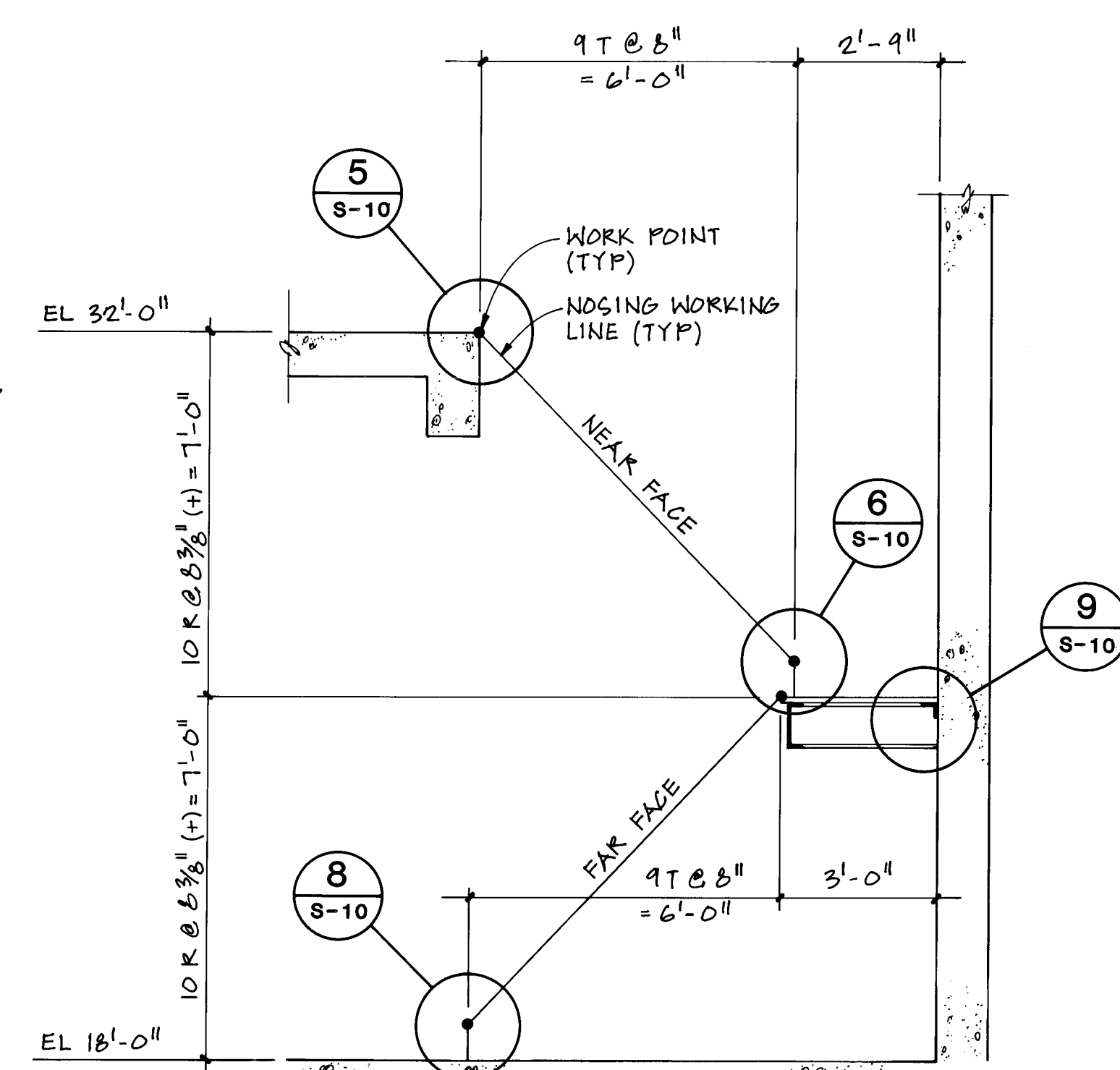
DESIGNED <i>K.B. Smith</i>	STANLEY CONSULTANTS
DRAWN <i>D. HUMISTON</i>	A JOINT VENTURE
CHECKED <i>R. Schmitt</i>	
APPROVED <i>R. Schmitt</i>	
DATE OCT. 1, 1984	

DESIGNED <i>K.B. Smith</i>	STANLEY CONSULTANTS
DRAWN <i>D. HUMISTON</i>	A JOINT VENTURE
CHECKED <i>R. Schmitt</i>	
APPROVED <i>R. Schmitt</i>	
DATE OCT. 1, 1984	

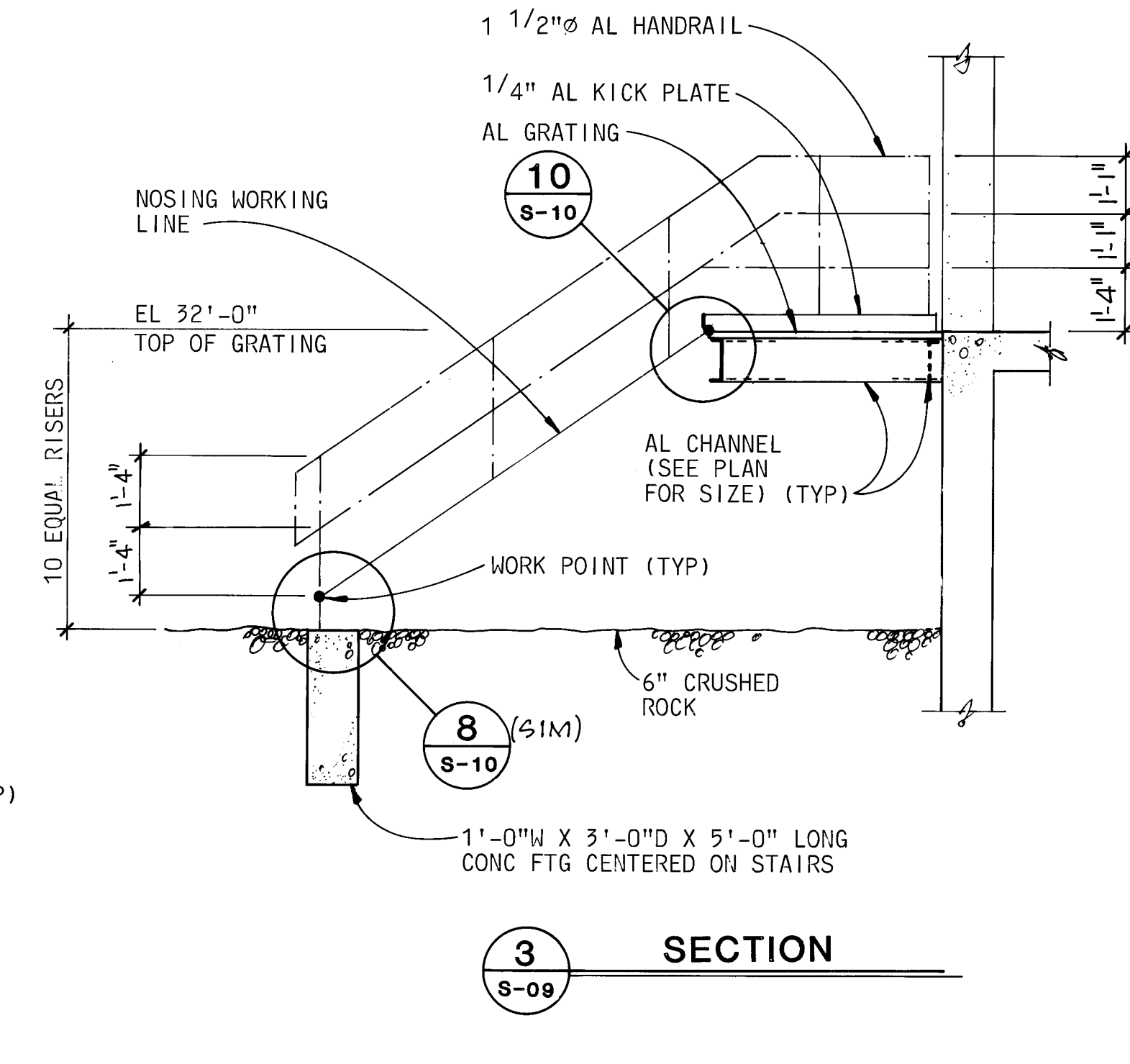
1'-1'-0"	0 1' 2'
1'-1/2'-1'-0"	0 1' 2'
	GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO	SLUDGE THICKENING SYSTEM EXPANSION
SOLIDS HANDLING FACILITIES	SLUDGE THICKENER BUILDING
PHASE II B-1, CONTRACTS 2 & 3	CRANE RAIL AND POLYMER TANK
	PLATFORM DETAILS

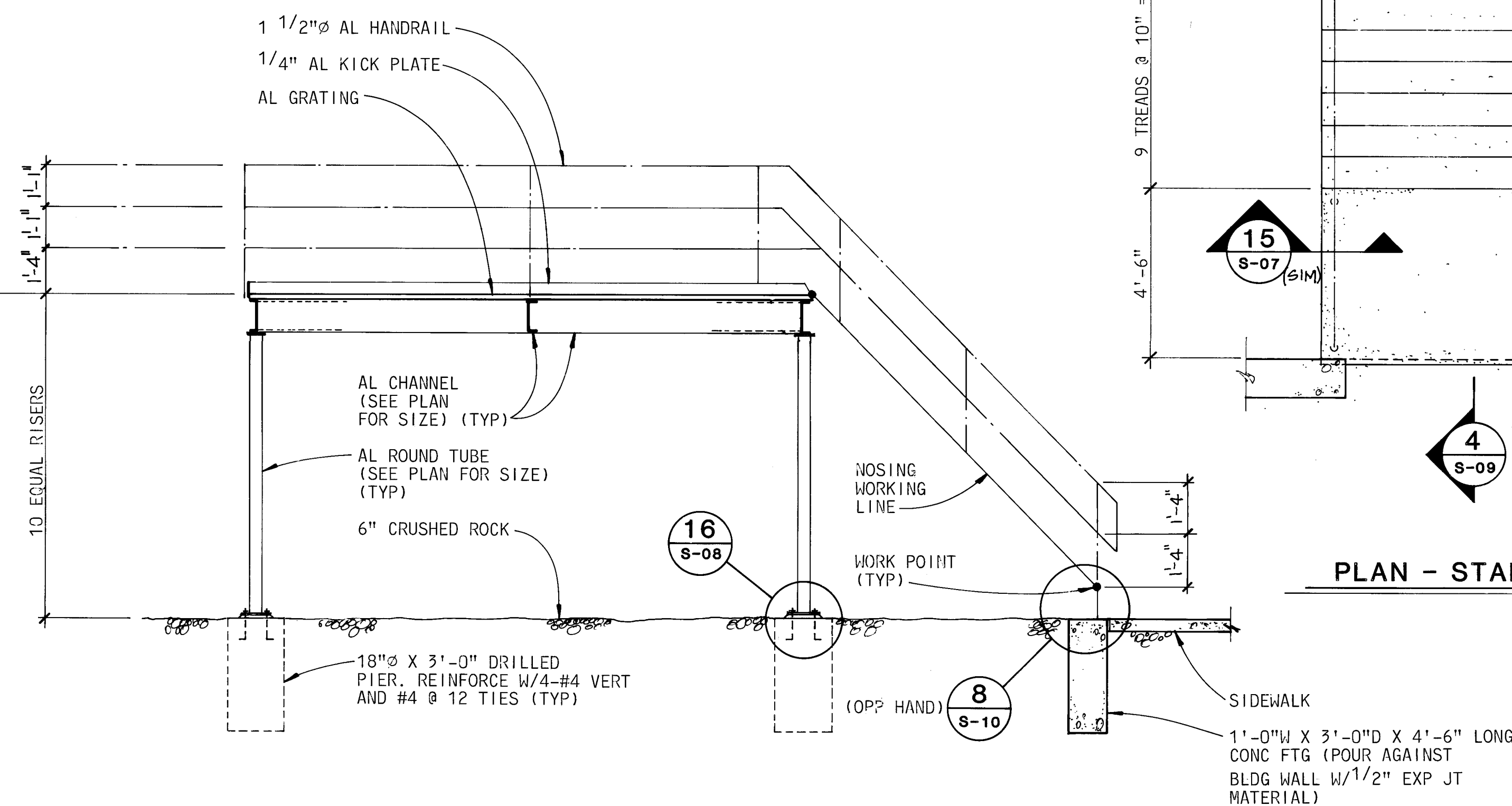
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	M-C NO.
26 39 52 22 8	S-08
	OF
	SC NO. 8337-68



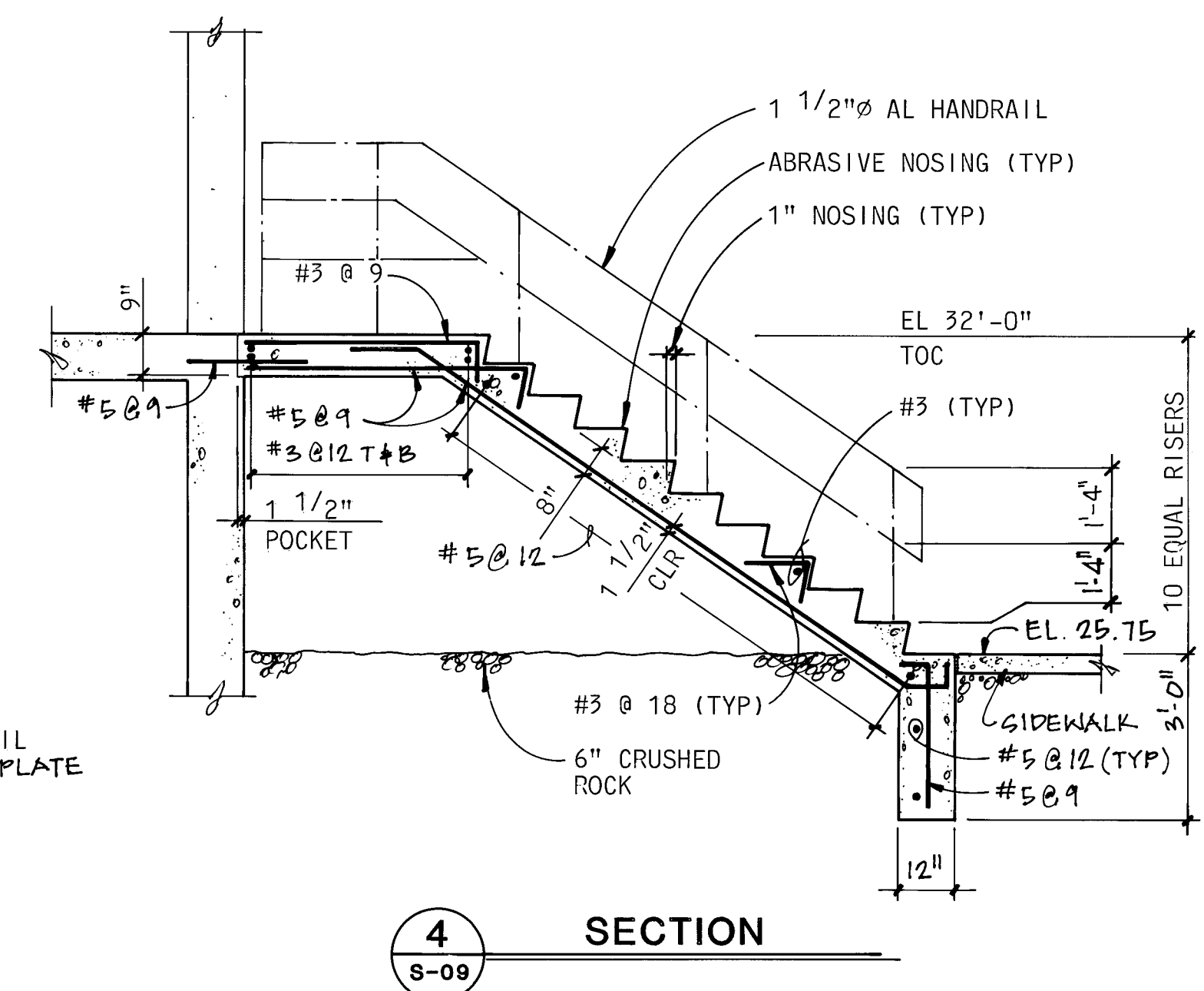
SECTION



PLAN - STAIR S-3



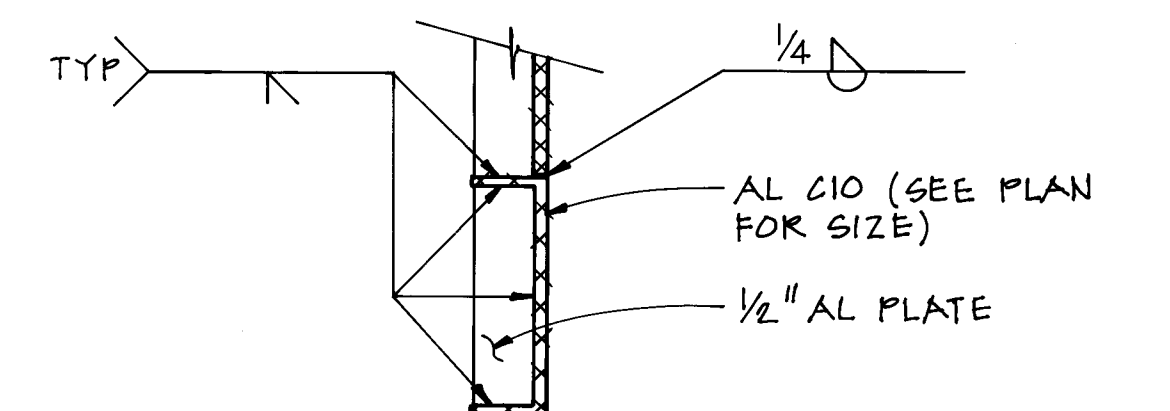
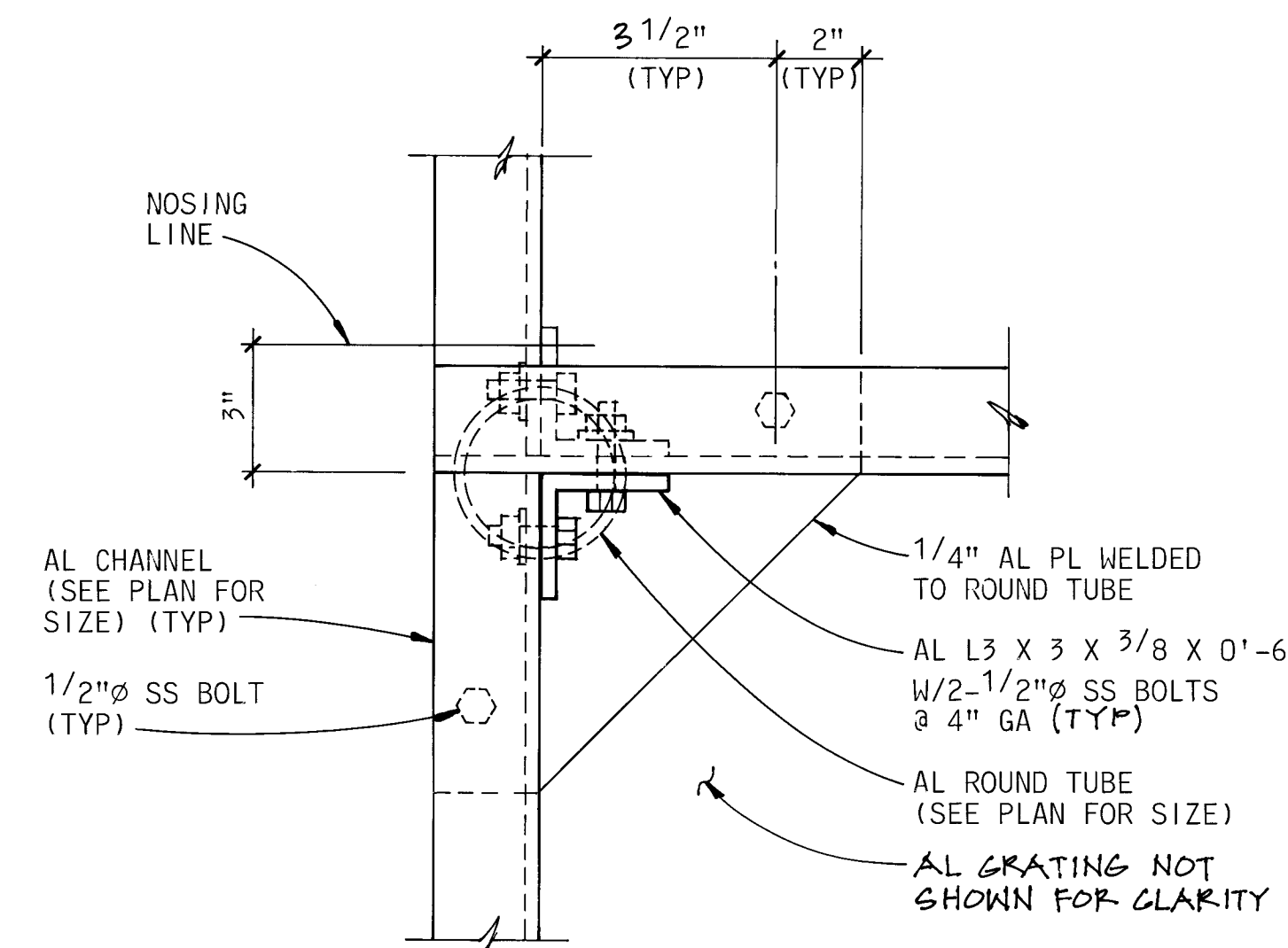
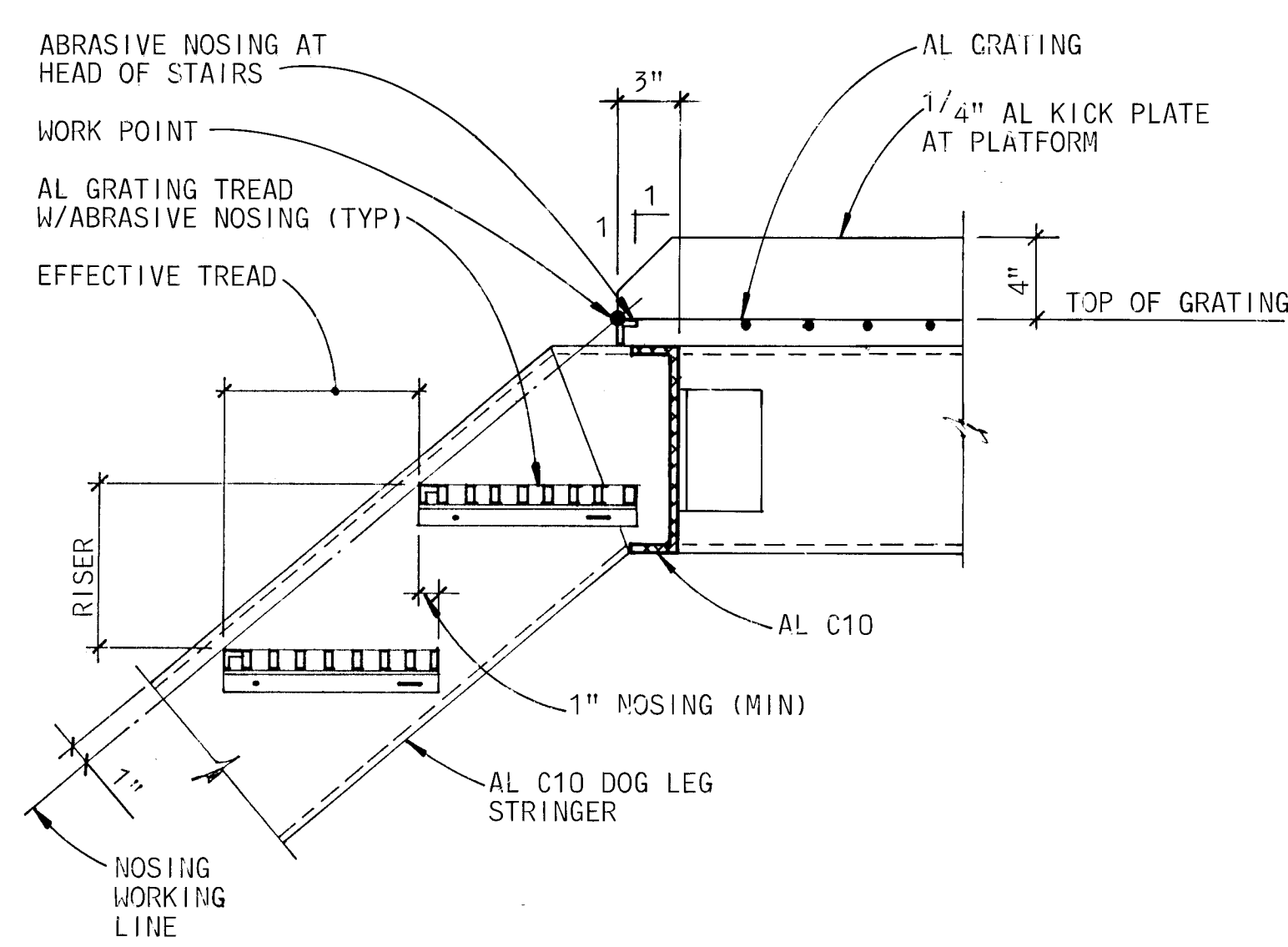
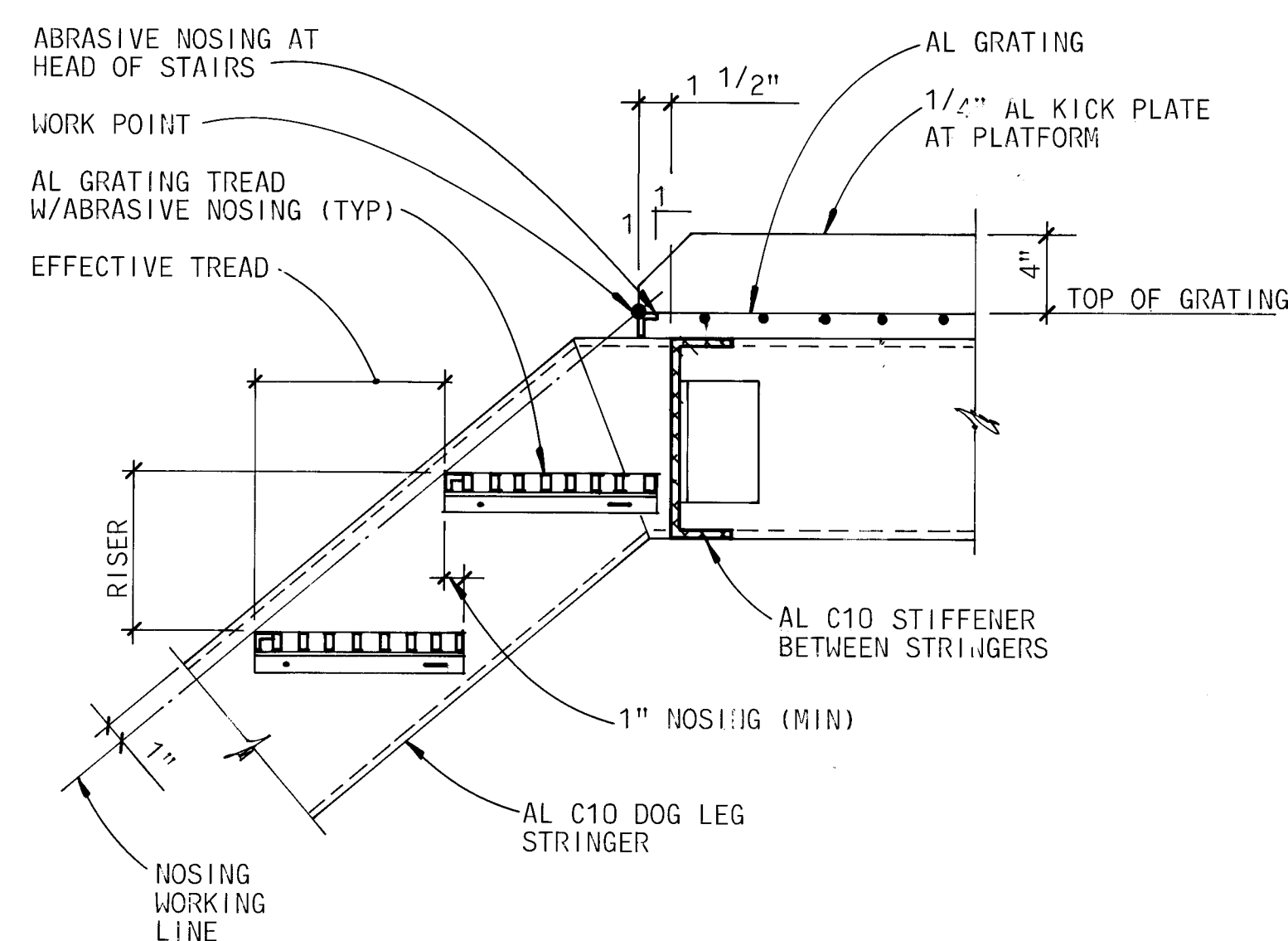
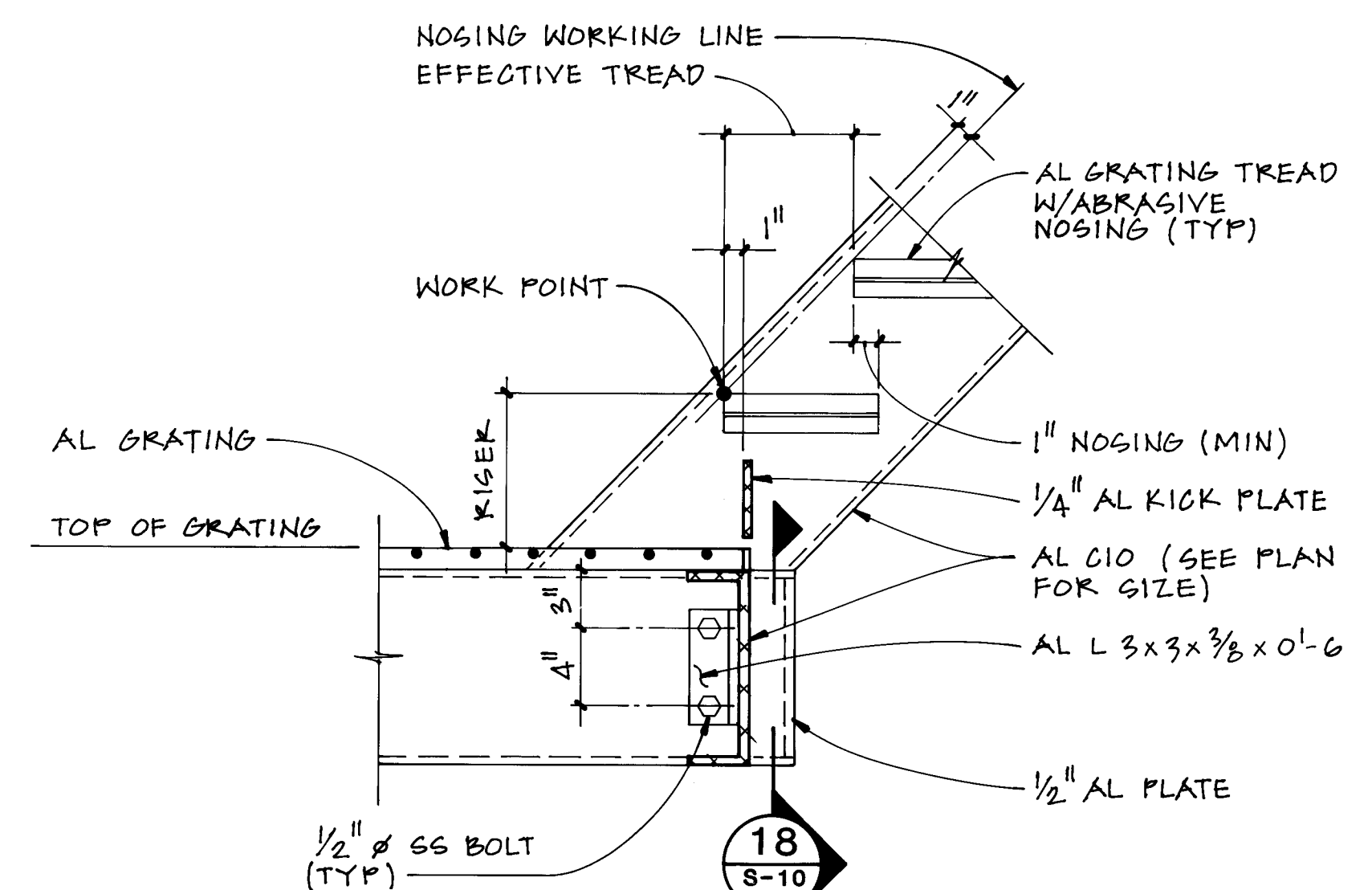
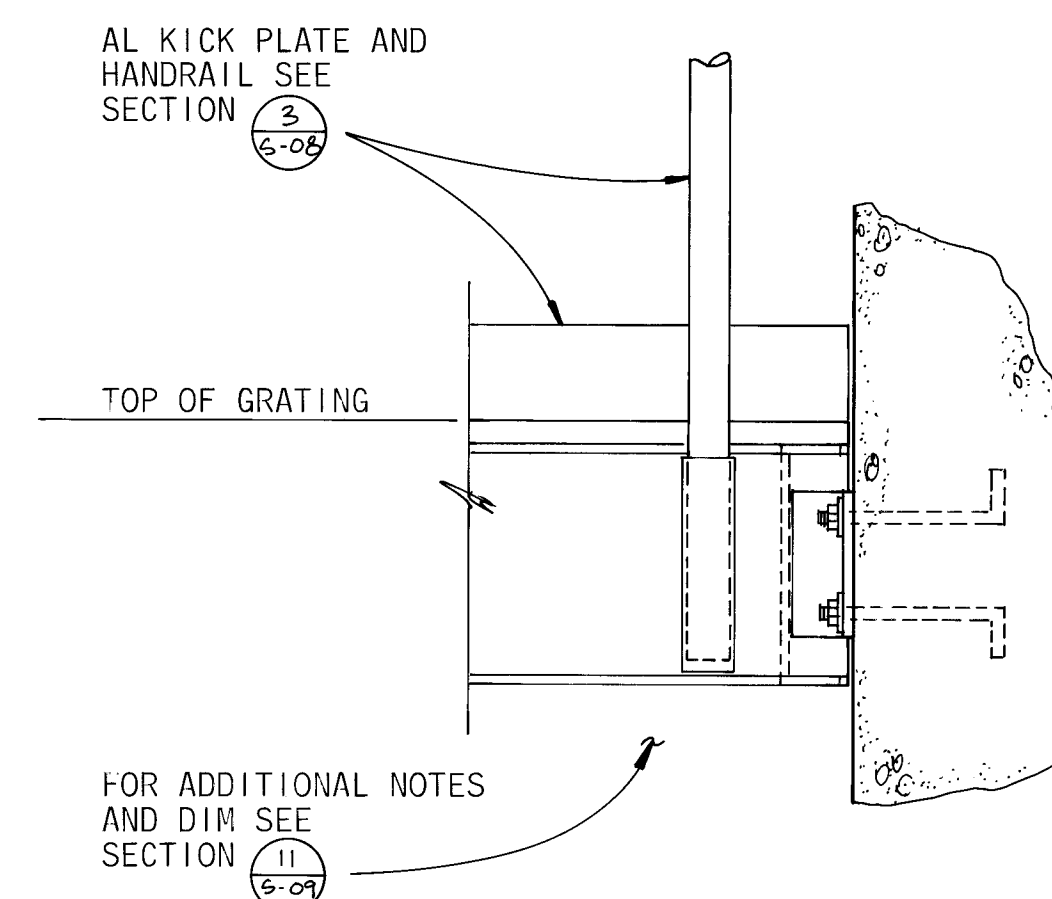
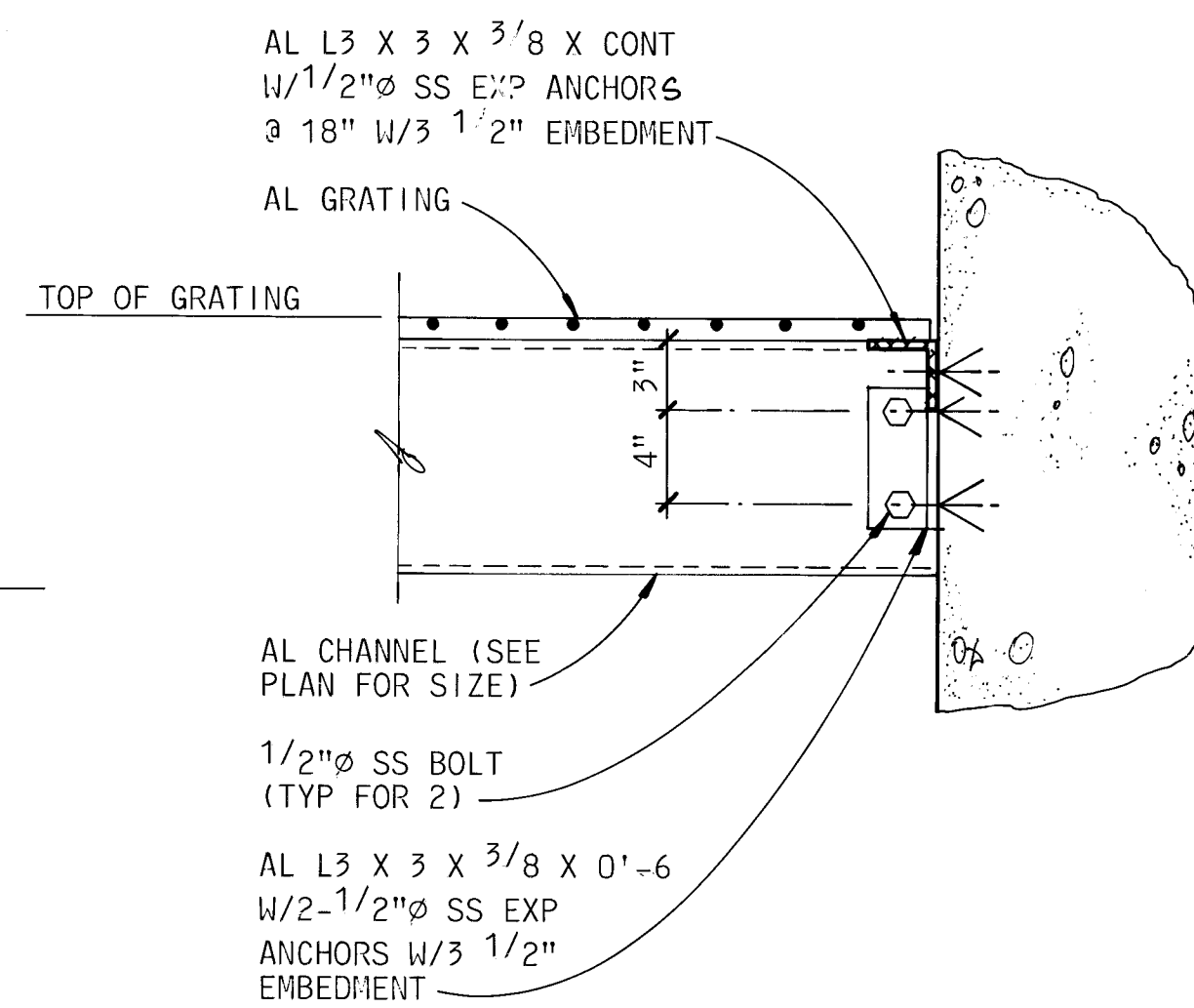
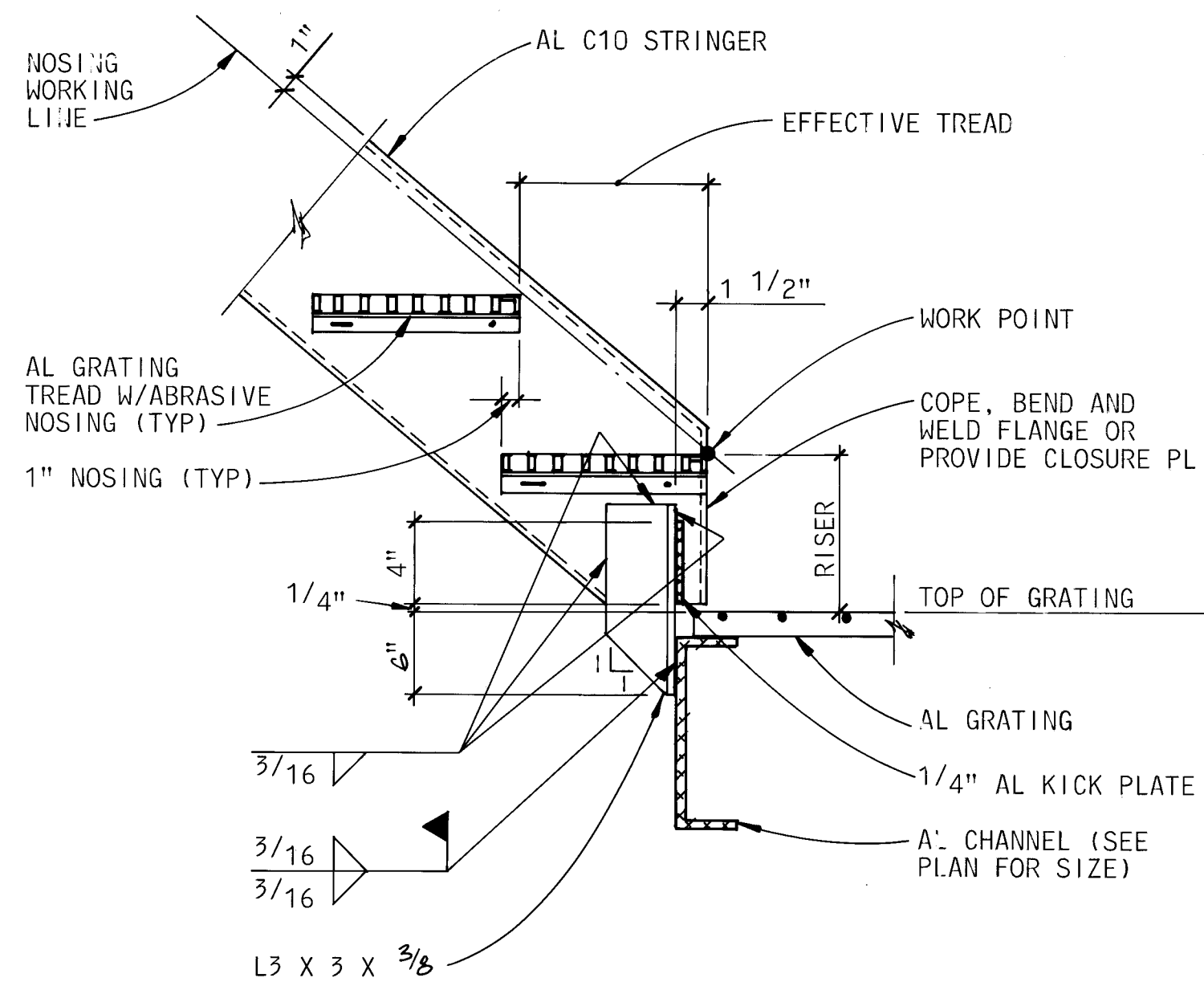
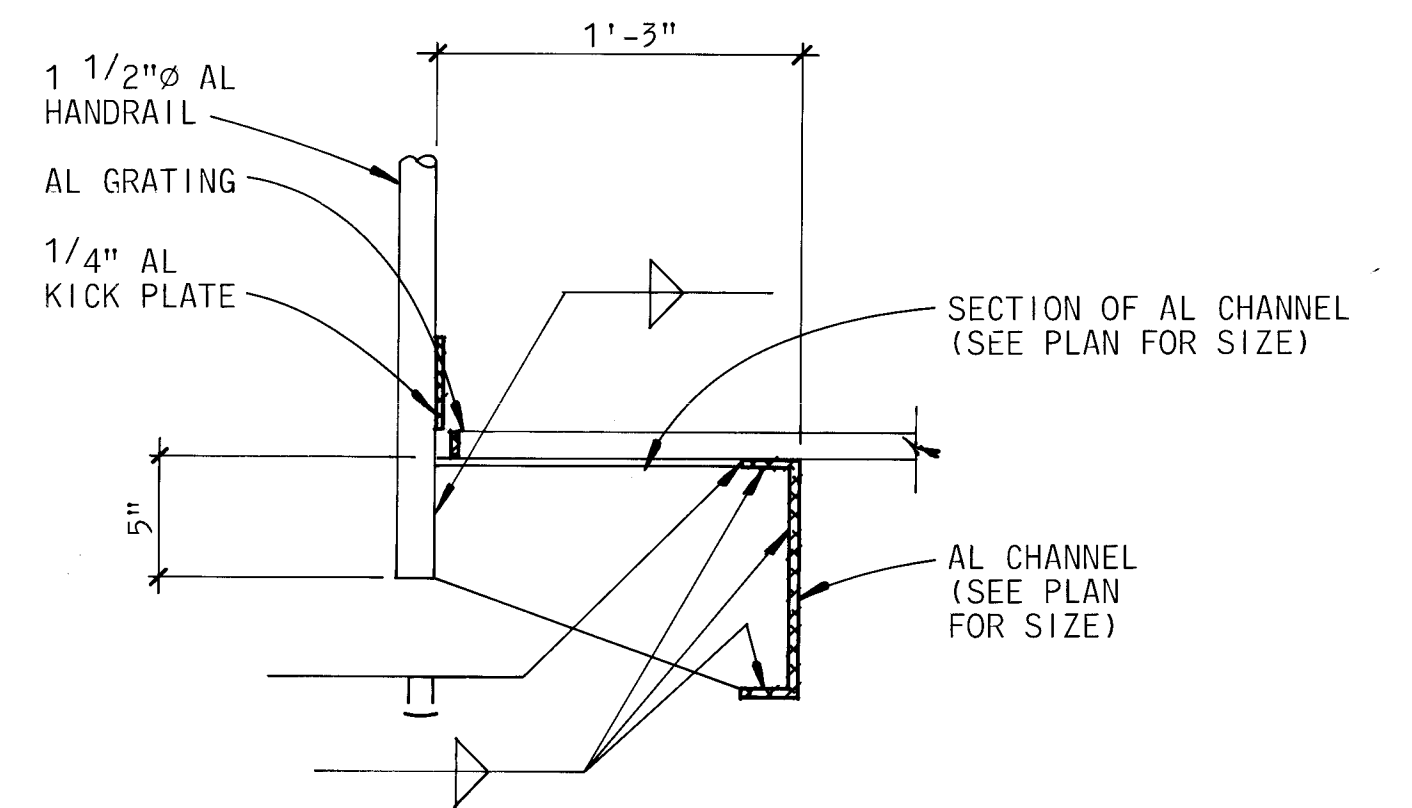
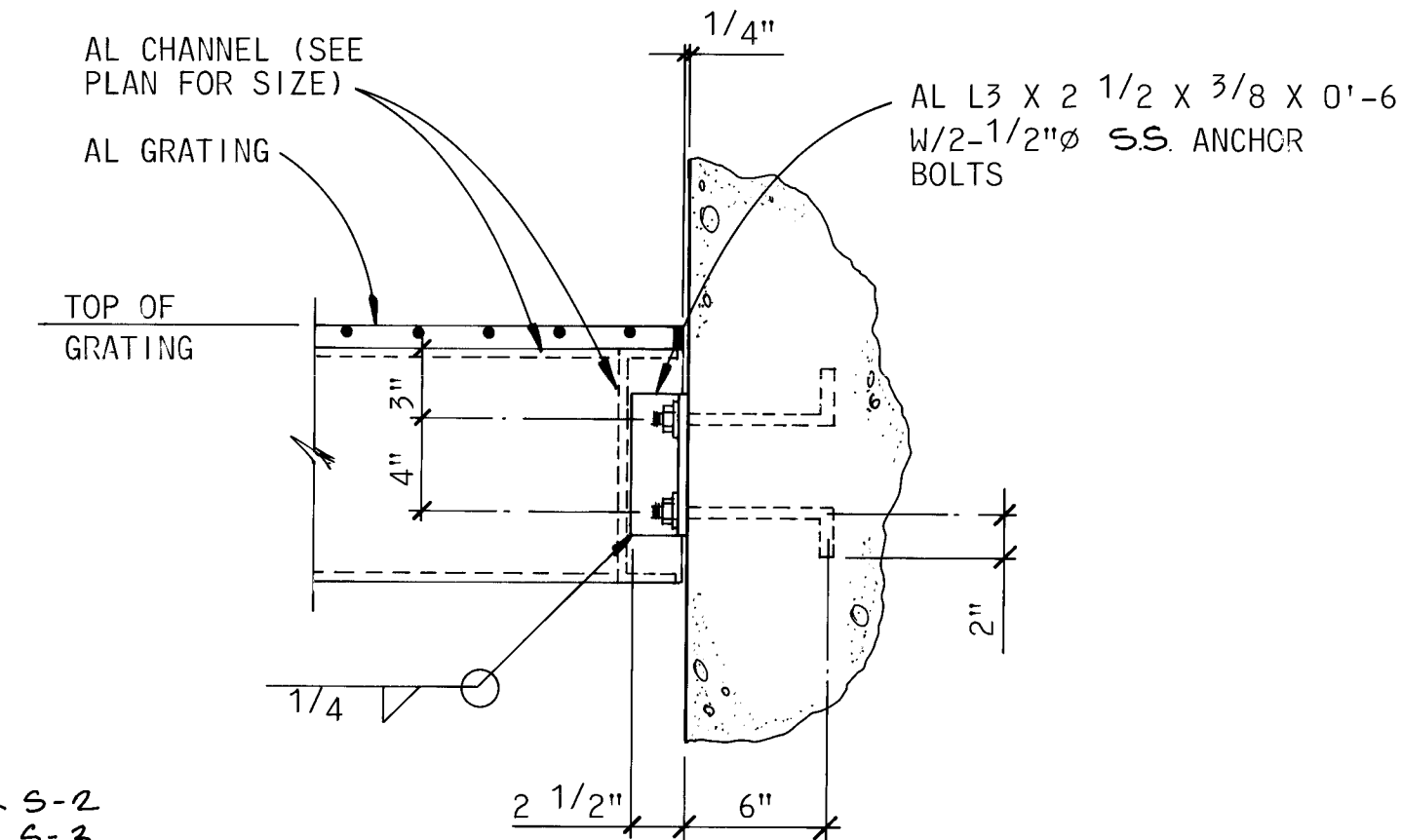
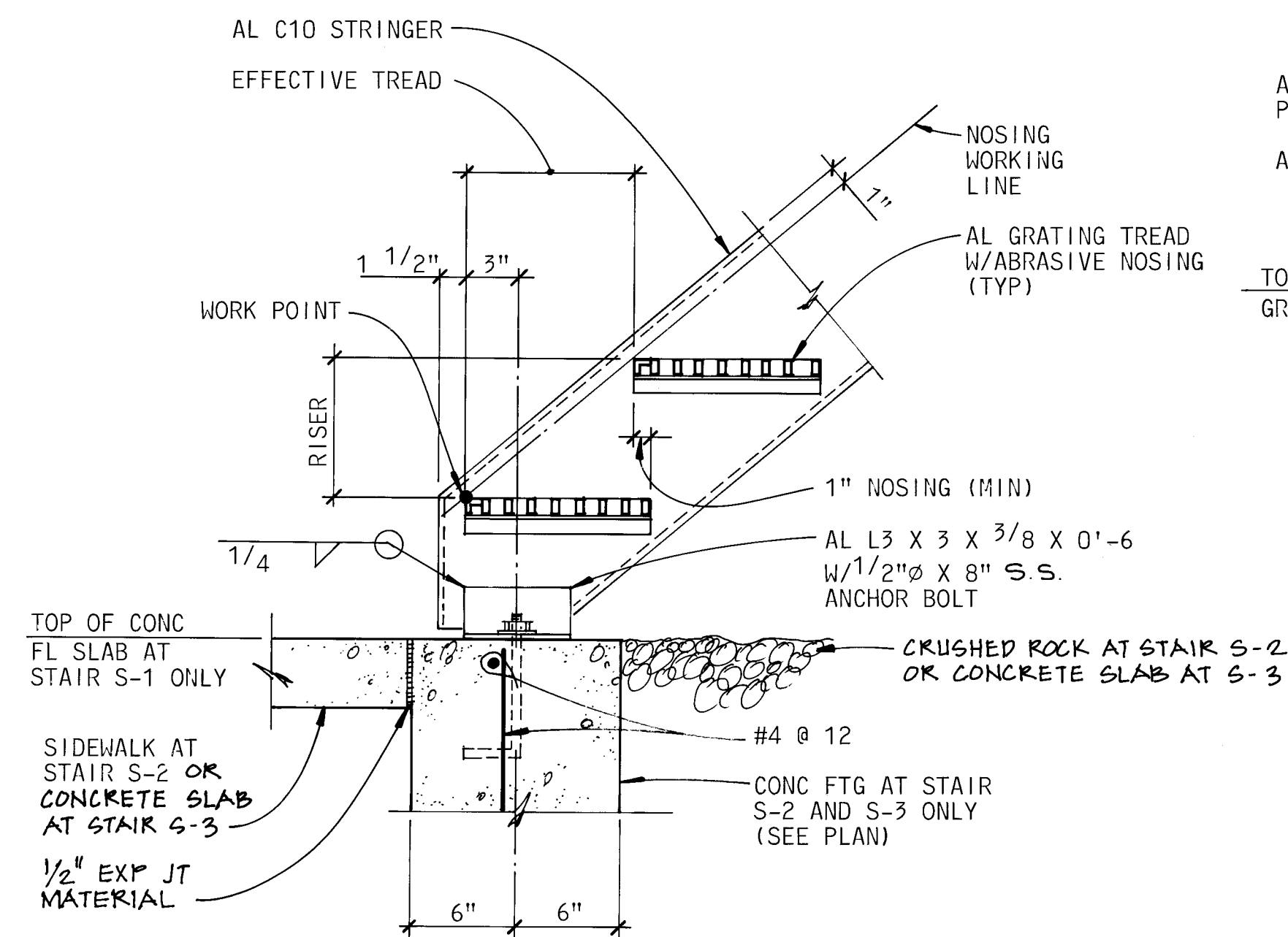
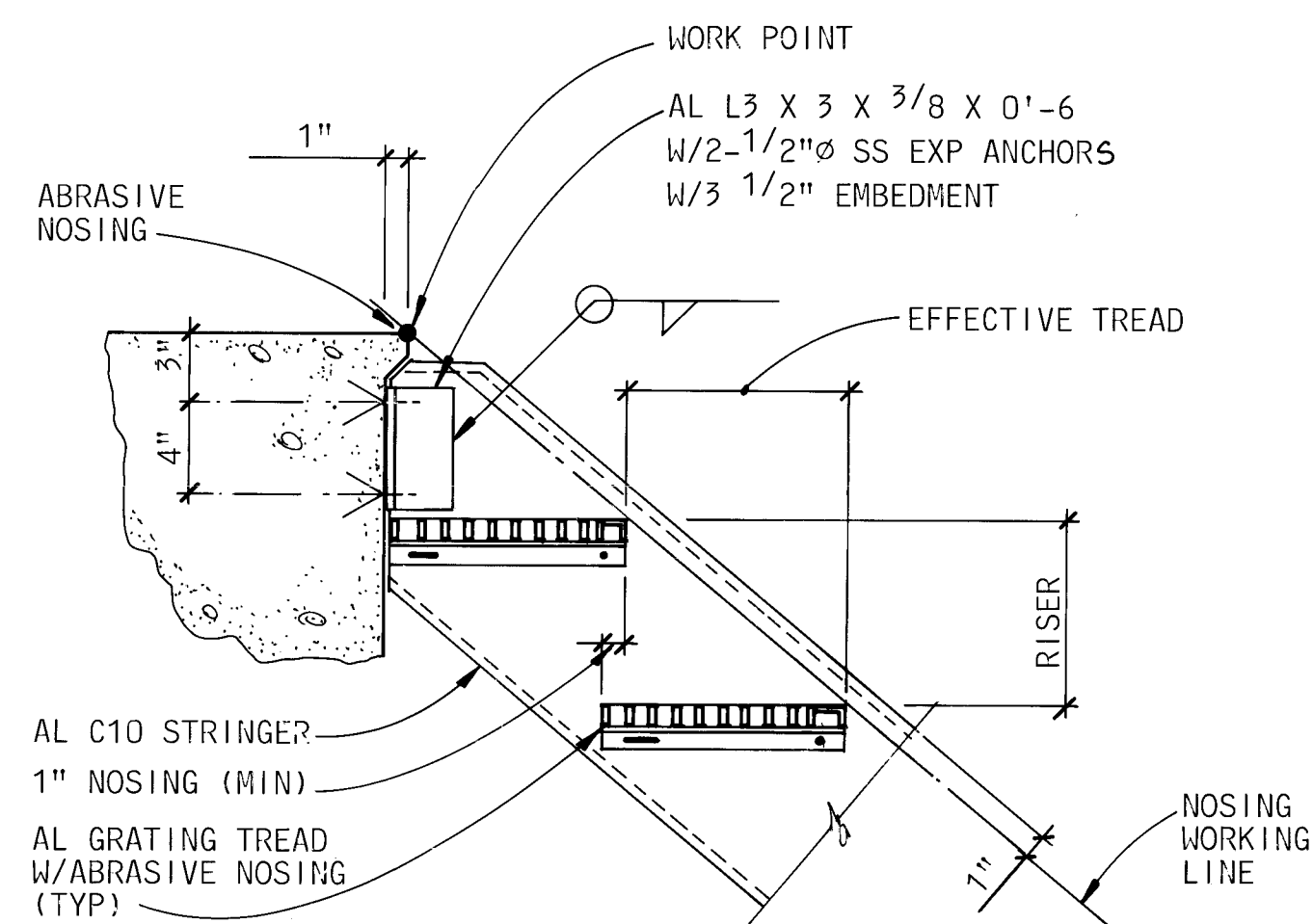
SECTION

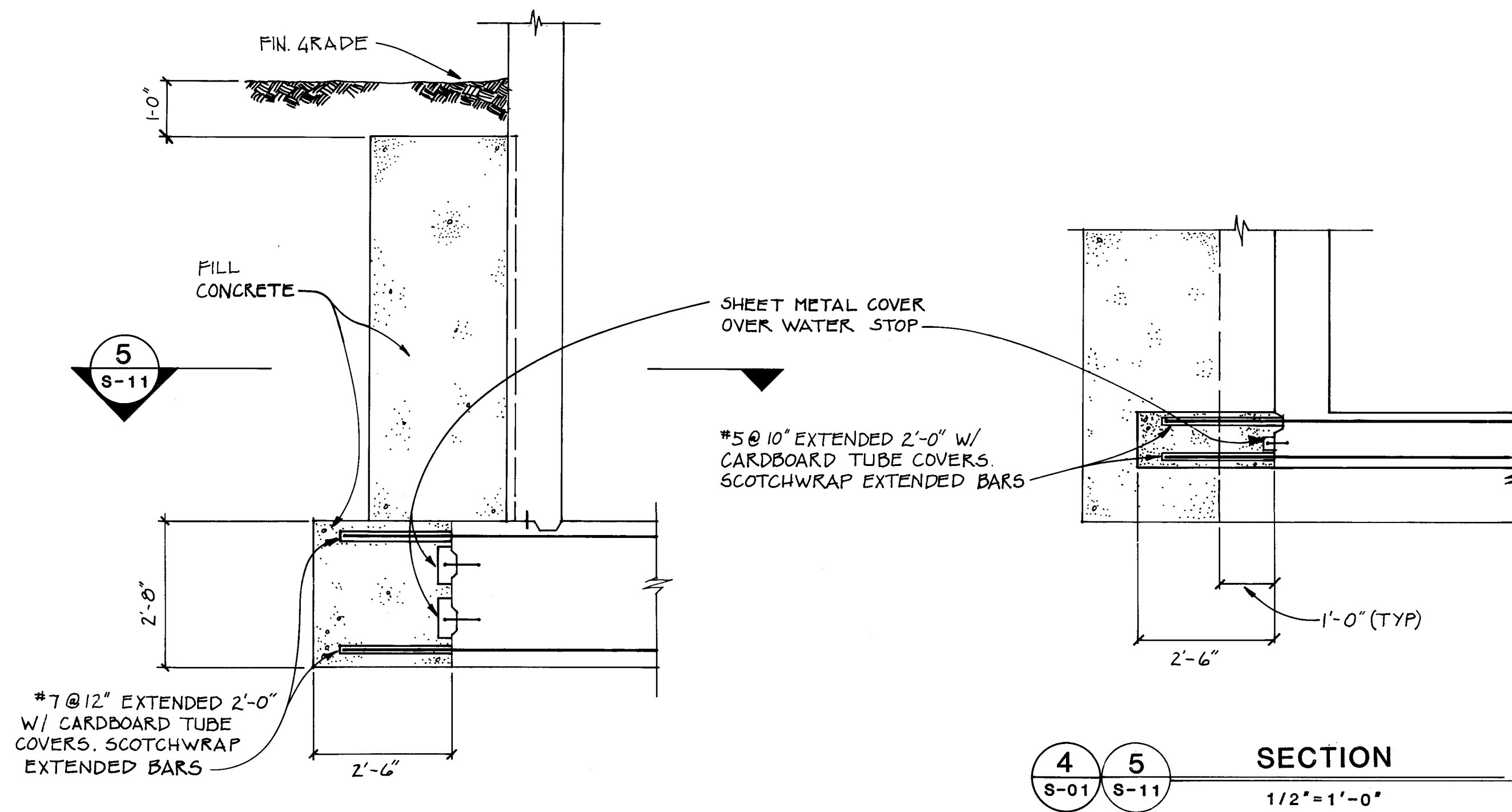


PLAN - STAIR S-4

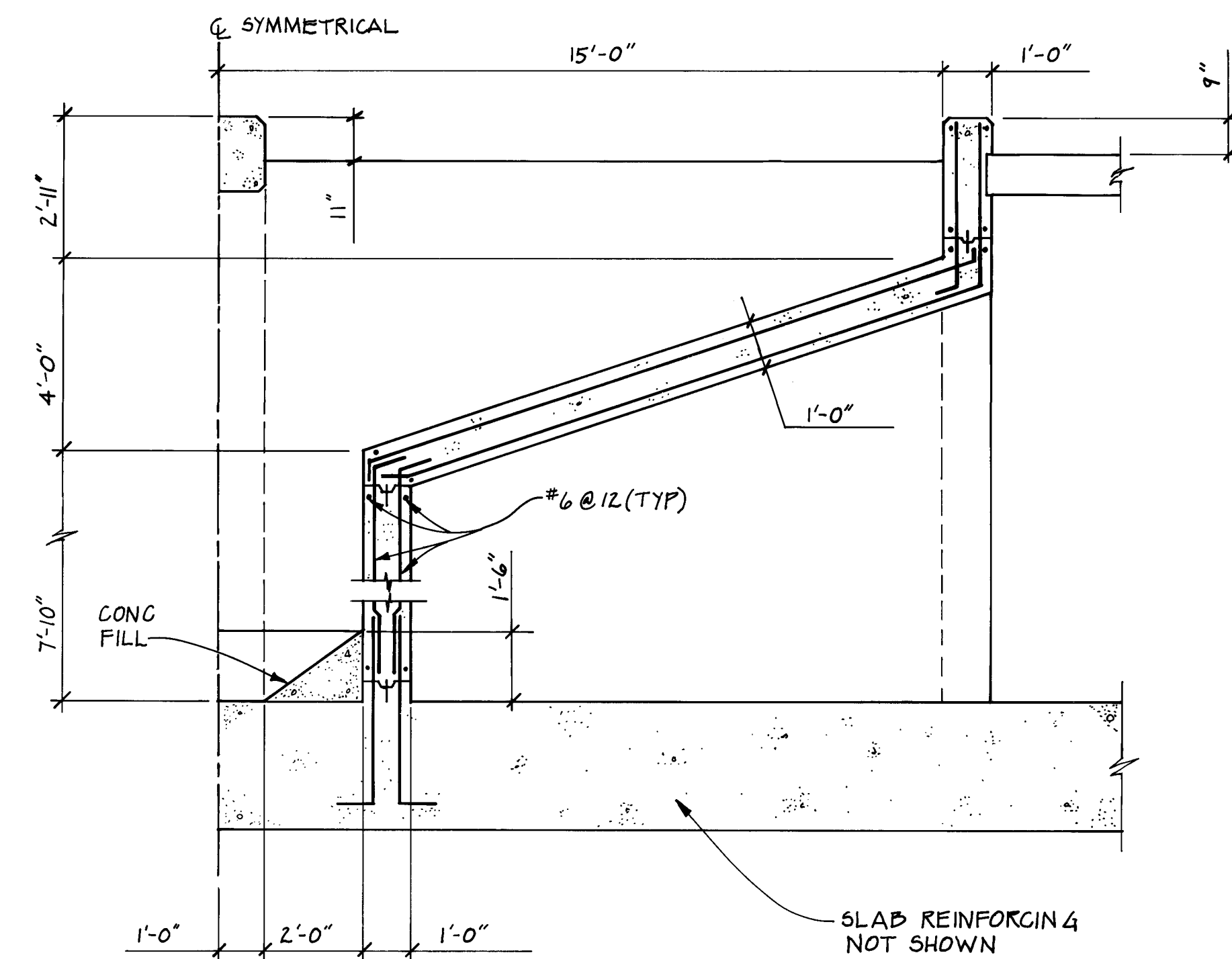
SECTION

M-C NO.	
S-09	OF
SC NO. 8387-69	

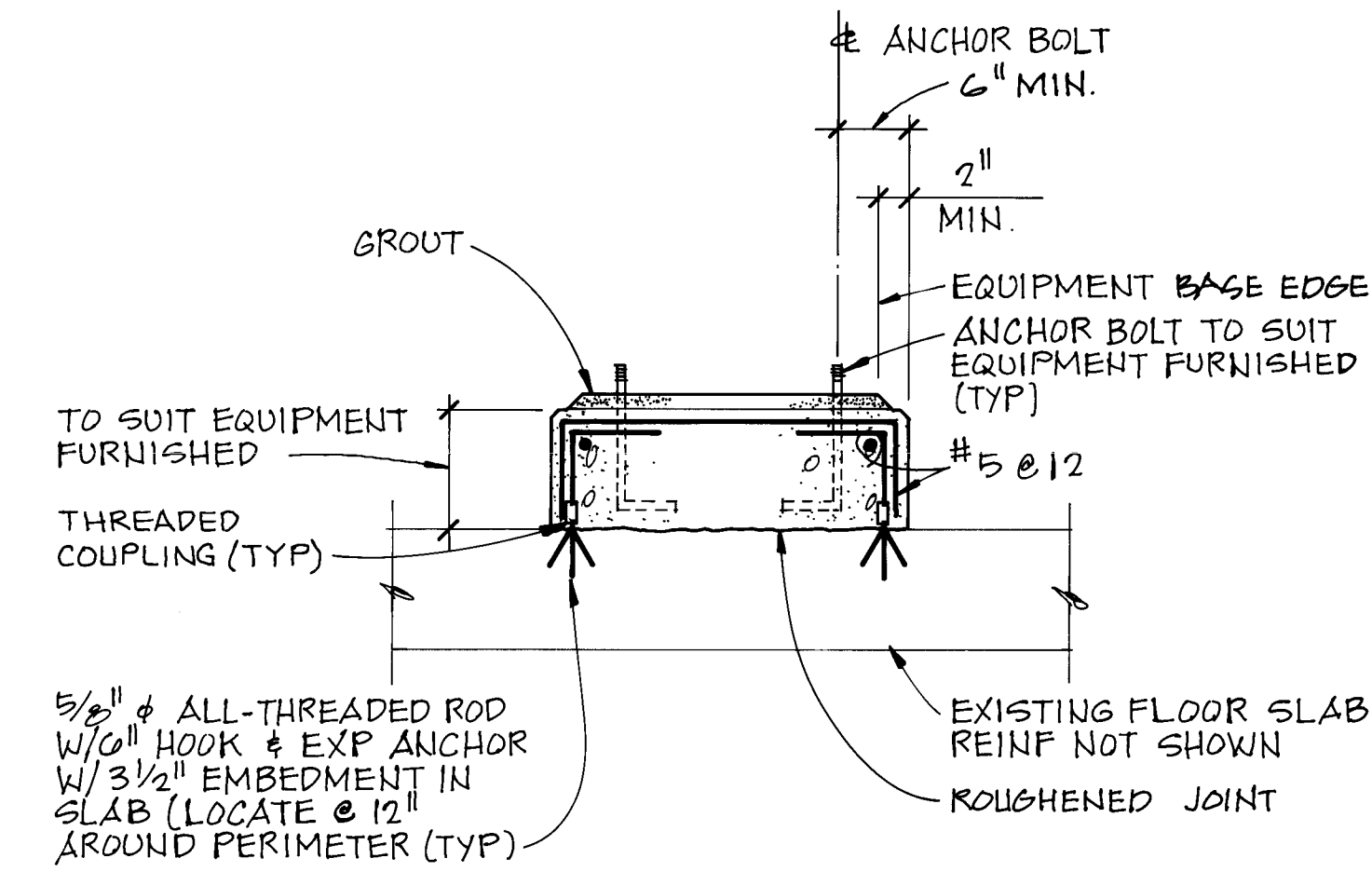
[illegible]



SECTION
1 4
S-08 S-01
1/2" = 1'-0"

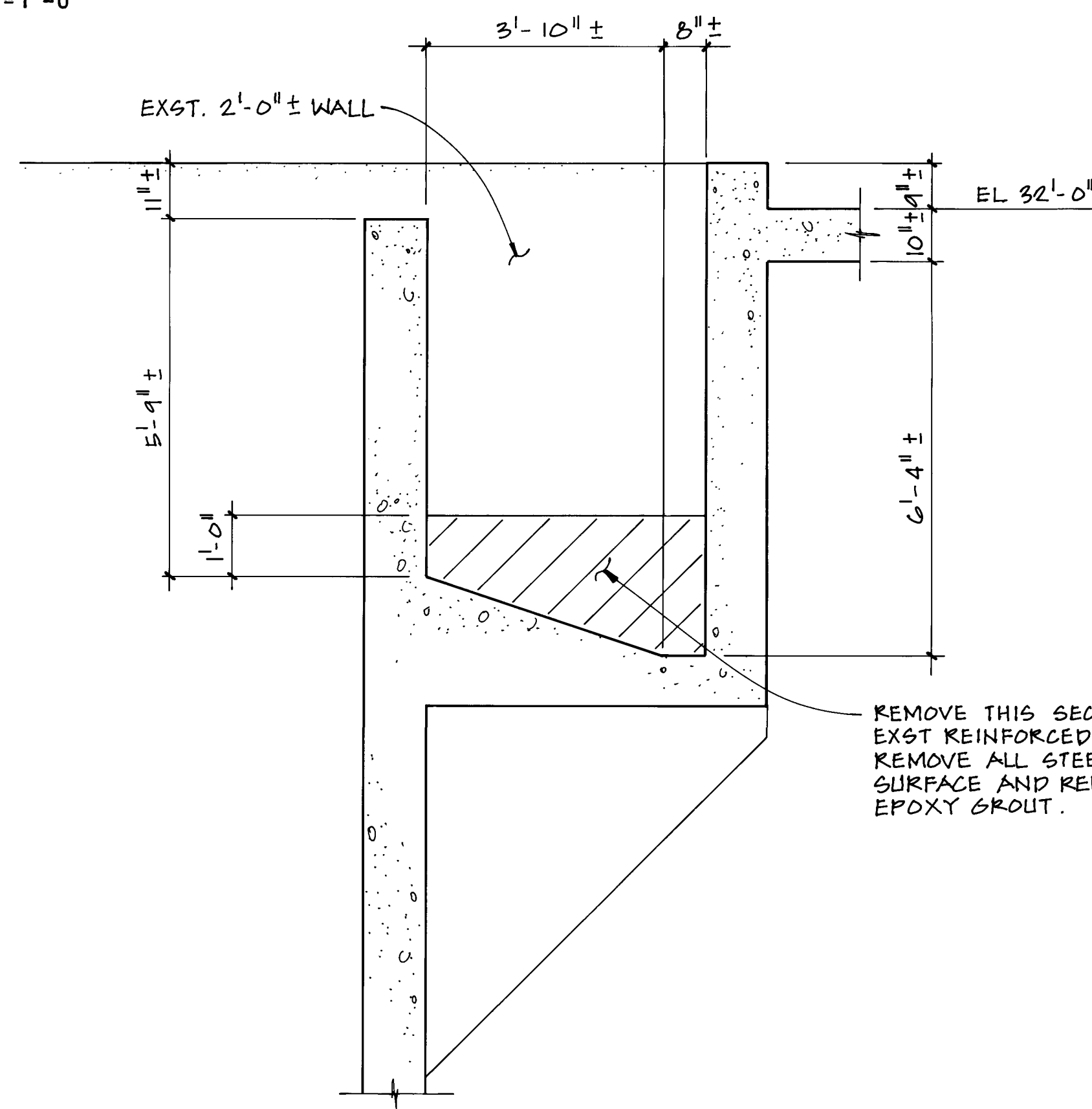


SECTION
6 10
S-01 S-02
3/8" = 1'-0"



TYPICAL EQUIPMENT PAD IN EXISTING BUILDING

NO SCALE
NOTE: IF EQUIPMENT PAD THICKNESS IS INSUFFICIENT TO DEVELOP ANCHOR BOLT, USE THREADED ROD W/ EXP ANCHOR EMBEDDED IN SLAB.



SECTION
1
A-03



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	39	52	25	88																								

DESIGNED <i>R. Nichols</i>	DRAWN <i>D. Nichols</i>	CHECKED <i>R. Nichols</i>	APPROVED <i>R. Nichols</i>
NO. DATE	REVISIONS	APPROVED	DATE OCT. 1, 1984

MOLZEN-CORBIN	STANLEY CONSULTANTS	A JOINT VENTURE
----------------------	----------------------------	-----------------

3/8" = 1'-0"	1/2" = 1'-0"	GRAPHIC SCALE
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CITY OF ALBUQUERQUE, NEW MEXICO	SOLIDS HANDLING FACILITIES	PHASE II B-1, CONTRACTS 2 & 3
---------------------------------	-----------------------------------	-------------------------------

SLUDGE THICKENING SYSTEM EXPANSION	SLUDGE THICKENER BUILDING	MISCELLANEOUS CONCRETE DETAILS
M-C NO.	S-11	OF
SC NO. 8387-511		

STRUCTURAL

STEEL NOTES:

1. STRUCTURAL STEEL SHALL BE ASTM A-36.
2. ALUMINUM SHALL BE 6061-T6 OR 6063-T6.
3. DIMENSIONS: TO CENTERLINES OF COLUMNS AND BEAMS, BACKS OF CHANNELS AND ANGLES AND TOP SURFACES OF BEAMS AND TUBES, UNLESS OTHERWISE SHOWN.
4. ELEVATIONS: REFER TO TOP SURFACE OF FLANGE OF MEMBER, UNLESS OTHERWISE SHOWN.
5. FRAMING MEMBERS NOTED BY DEPTH AND WEIGHT SHALL CONFORM TO THE AISC OR AA SPECIFICATIONS. FRAMING MEMBERS NOTED BY DEPTH ONLY ARE FULLY SIZED ON ANOTHER PLAN OR ELEVATION DRAWING.
6. UNLESS NUMBER OF BOLTS ARE SPECIFICALLY CALLED OUT ON PLANS, DETAILS OF BOLTED CONNECTIONS ARE NOT INTENDED TO SHOW EXACT NUMBER OF BOLTS, BUT ARE SYMBOLIC ONLY. DESIGN CONNECTION FOR NUMBER OF BOLTS REQUIRED BY SPECIFICATION. USE MINIMUM OF 2 BOLTS IN ANY CONNECTION.
7. DETAILING OF MEMBERS AND CONNECTIONS ARE NOT INTENDED TO BE COMPLETE. CONTRACTOR SHALL COMPLETE DETAILS ON SHOP DRAWINGS SUBMITTED FOR OWNER REVIEW.
8. CONTRACTOR SHALL PROVIDE AS MUCH WELDING AS PRACTICAL IN THE SHOP. CONTRACTOR'S SHOP DRAWINGS SHALL DISTINGUISH BETWEEN FIELD AND SHOP WELDING AND DETAILS SHALL BE PROVIDED TO SHOW FIELD WELDING.
9. BEAMS HAVING FLG.(S) COPED LONGER THAN LENGTH OF CONNECTION ANGLE(S), OR FLANGE AND WEB COPED TO DEPTH GREATER THAN REQUIRED FOR NORMAL FLANGE THICKNESS PLUS FILLET SHALL BE WEB REINFORCED TO CARRY LOAD UNLESS FABRICATOR'S CONNECTION DESIGN COMPUTATION PROVES REINFORCEMENT UNNECESSARY.

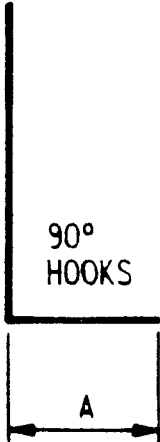
CONCRETE AND REINFORCING STEEL NOTES:

1. CONCRETE STRENGTH AT 28 DAYS:
FILL CONCRETE AND DUCT BANKS _____ 2,500 PSI
ALL OTHER CONCRETE _____ 4,000 PSI
2. REINFORCING STEEL: ASTM A615, GRADE 60.
3. KEYWAY DIMENSIONS: DEPTH 1 1/2" WIDTH 1/3 THAT OF MEMBER UNLESS OTHERWISE SHOWN.
4. ALL CONSTRUCTION JOINTS SHALL HAVE KEYWAYS UNLESS SHOWN OTHERWISE.
5. CONSTRUCTION JOINTS AS SHOWN MAY BE VARIED TO SUIT PLACING SEQUENCE PROVIDED THE LOCATION OR DELETION OF CONSTRUCTION JOINTS IS APPROVED BY OWNER.
6. CONCRETE SHALL NOT BE LOADED UNTIL IT HAS CURED SUFFICIENTLY AND HAS BEEN PROPERLY SUPPORTED TO WITHSTAND THE LOAD TO BE IMPOSED.
7. MAIN REINFORCING CONCRETE COVER UNLESS OTHERWISE SHOWN: 2" WITH FOLLOWING EXCEPTION: 3" WHEN DEPOSITED AGAINST EARTH: 3/4" FOR WALLS AND SLABS NOT EXPOSED TO EARTH, WEATHER, OR CONTINUOUSLY MOIST ATMOSPHERE.
8. MINIMUM BAR SPLICE: CLASS B AS SHOWN IN TABLE BELOW, UNLESS OTHERWISE SHOWN.
9. REINFORCING CONTINUOUS AROUND ALL CORNERS UNLESS OTHERWISE SHOWN.
10. WELDING OF REINFORCING BARS AT CROSSING POINTS NOT PERMITTED.
11. REINFORCING STEEL SHALL BE SHIFTED TO CLEAR EMBEDDED ITEMS: OBTAIN OWNERS APPROVAL.
12. EXPOSED CONCRETE CORNER CHAMFER: 3/4" UNLESS OTHERWISE SHOWN.
13. REINFORCING BARS SHALL BE CONTINUOUS THRU CONSTRUCTION JOINTS, AND NON-CONTINUOUS THRU EXPANSION JOINTS.
14. TOP REINFORCING IN SLABS, BEAMS AND GRADE BEAMS MAY BE SPLICED IN MIDSPAN BETWEEN SUPPORTS. BOTTOM REINFORCING MAY BE SPLICED OVER OR NEAR SUPPORTS.
15. EMBEDMENT LENGTHS SHALL BE IN ACCORDANCE WITH THE TABLE SHOWN UNLESS OTHERWISE INDICATED.
16. THE TABLE SHOWN ON THIS SHEET SHALL BE USED IN DETERMINING LAP SPLICE LENGTHS WHERE LENGTHS ARE NOT OTHERWISE INDICATED. SPLICE LENGTHS SHALL BE BASED ON THE SMALLER BAR BEING LAPPED.
17. PROVIDE ONE #4 X 4"-6" EXTRA DIAGONAL REINFORCING EACH FACE AT CORNERS OF ALL RECTANGULAR OPENINGS AND AT 45 DEGREES WITH MAIN REINFORCING FOR CIRCULAR OPENINGS UNLESS SHOWN OTHERWISE.

LAP SPLICES AND EMBEDMENT LENGTHS - INCHES (CLASS B)				
BAR SIZES NO	LAP SPLICE		EMBEDMENT	
	TOP BARS *	OTHER BARS	TOP BARS *	OTHER BARS
3	16	12	13	12
4	22	16	17	12
5	27	20	21	15
6	33	24	25	18
7	41	30	32	23
8	55	39	42	30
9	69	49	53	38
10	88	63	67	48
11	108	77	83	59

* TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST IN THE MEMBER BELOW THE REINFORCEMENT.

STANDARD REBAR HOOKS	
BAR SIZES	A
#3	6
#4	8
#5	10
#6	1'-0"
#7	1'-2"
#8	1'-4"
#9	1'-7"
#10	1'-10"
#11	2'-0"



GENERAL

LOADING

1. ROOF LOADS:
LIVE LOAD: 20 PSF
CRANE LOAD: 4 TON
MECHANICAL LOAD: 15 PSF OR EQUIPMENT WEIGHT.
2. FLOOR LIVE LOAD: 150 PSF OR EQUIPMENT WEIGHT.
3. PLATFORM LIVE LOAD: 100 PSF.
4. WIND LOAD: 70 MPH WIND, EXPOSURE C.
5. EARTHQUAKE LOAD: SEISMIC ZONE 2.

GENERAL LEGEND

ABBREVIATIONS:

ABBREVIATIONS USED ON DRAWING IN GENERAL CONFORM TO ANSI Y1.1-1972 PUBLISHED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS. REFER TO THIS PUBLICATION FOR CLARIFICATION OF ABBREVIATIONS USED.

LEGEND FOR SPECIAL DIMENSIONING

DIMENSIONS AND/OR ELEVATIONS MARKED THUS (*) ARE APPROXIMATE. OBTAIN FINAL DIMENSIONS FOR CONSTRUCTION FROM THE ENGINEER.
DIMENSIONS AND/OR ELEVATIONS MARKED THUS (+) ARE ASSUMED AND MAY BE VARIED TO SUIT EQUIPMENT FURNISHED. FINAL DIMENSIONS ARE SUBJECT TO THE REVIEW OF THE ENGINEER.
DIMENSIONS AND/OR ELEVATIONS MARKED THUS (±) MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
DIMENSIONS ARE GENERALLY TO SCALE, BUT SHOULD NOT BE SCALED. USE DIMENSIONS SHOWN. N.T.S. (NOT TO SCALE) IS SHOWN ONLY WHERE DIMENSION IS OBVIOUSLY OUT OF SCALE.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

26 39 52 26 88

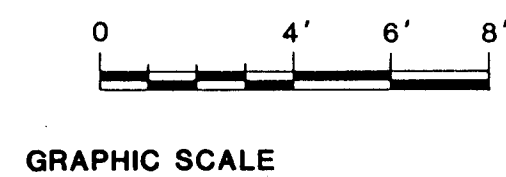
				DESIGNED <i>R. J. Schultz</i> DRAWN <i>R. J. Schultz</i> CHECKED <i>R. J. Schultz</i> APPROVED <i>R. J. Schultz</i> DATE OCT. 1, 198	 MOLZEN-CORBIN STANLEY CONSULTANTS A JOINT VENTURE	NO SCALE GRAPHIC SCALE	 CITY OF ALBUQUERQUE, NEW MEXICO SOLIDS HANDLING FACILITIES PHASE II B-1.CONTRACTS 2 & 3	SLUDGE THICKENING SYSTEM EXPANSION GENERAL NOTES	M-C NO. S-12 OF SC NO. 8387-612
 6178 NO. DATE 11/14/84	RECORD DRAWING REVISED FOR BIDDING REVISIONS								

NO.	DATE	REVISIONS	APPROVED

DESIGNED W.D.S.
DRAWN STAFF
CHECKED W.D.S.
APPROVED
APPROVED
DATE 10/1/2024

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"



GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
MAIN FLOOR PLAN

M-C NO. 831721

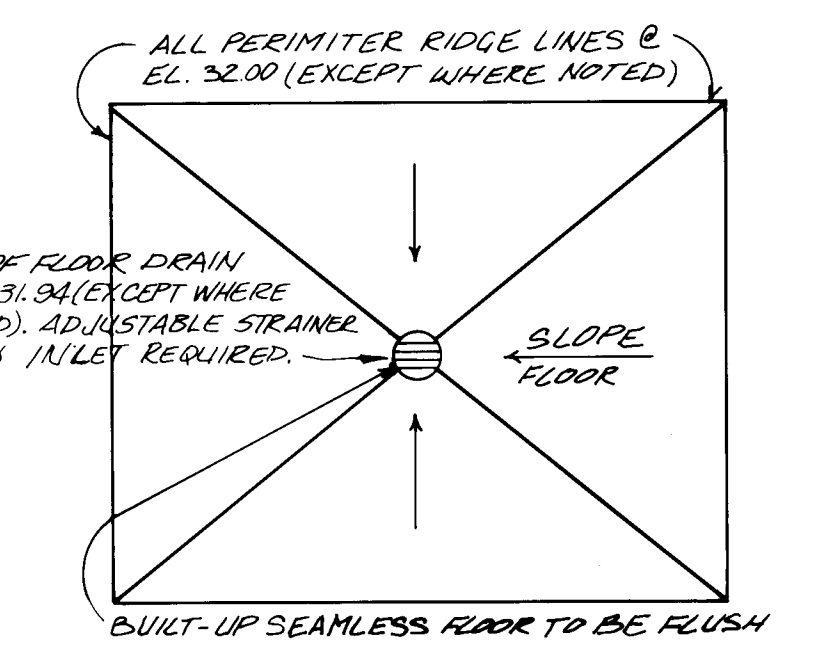
A-01

27 OF 111

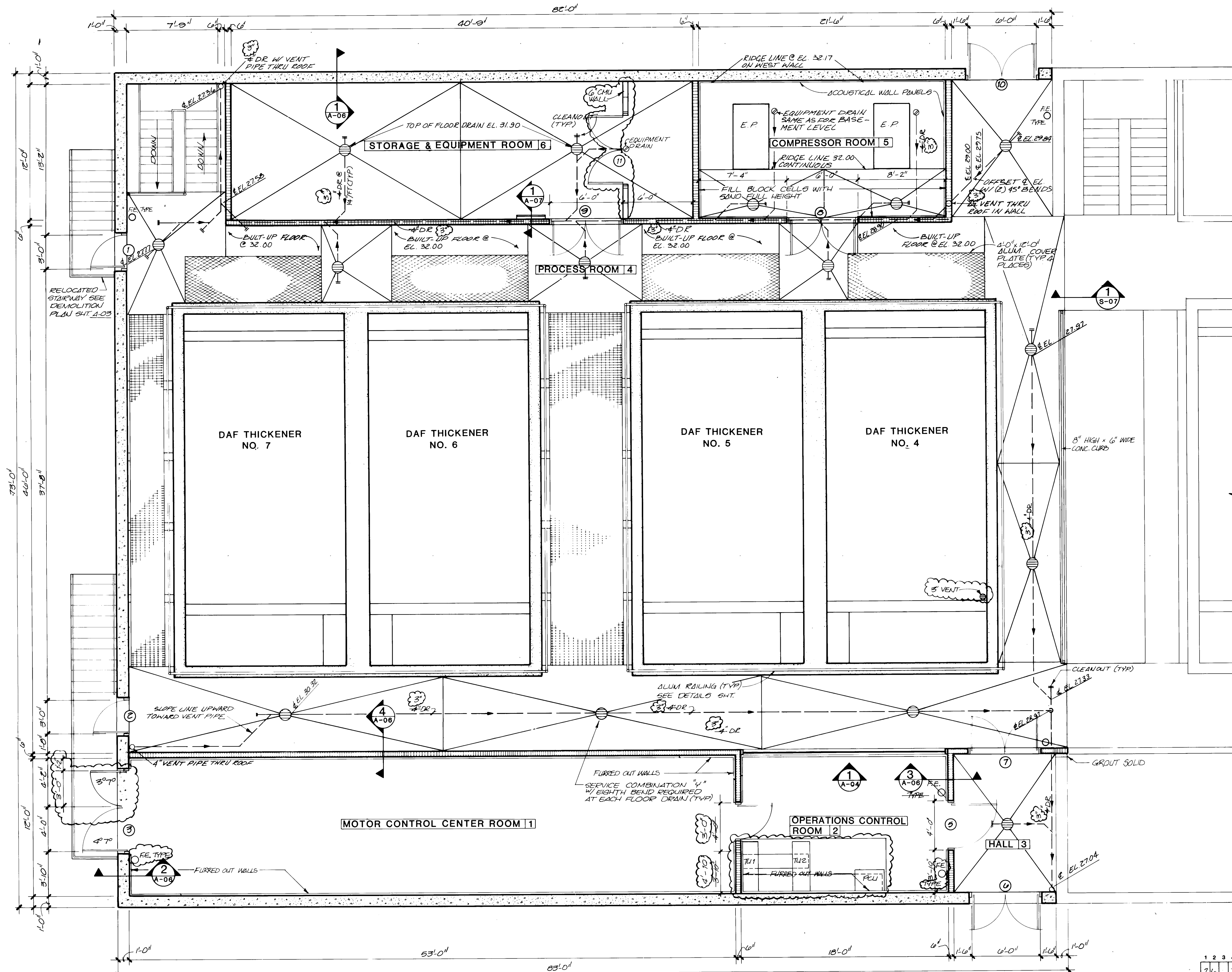
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26	39	52	27	88																								

TYPICAL DRAIN AREA DETAIL
NTS

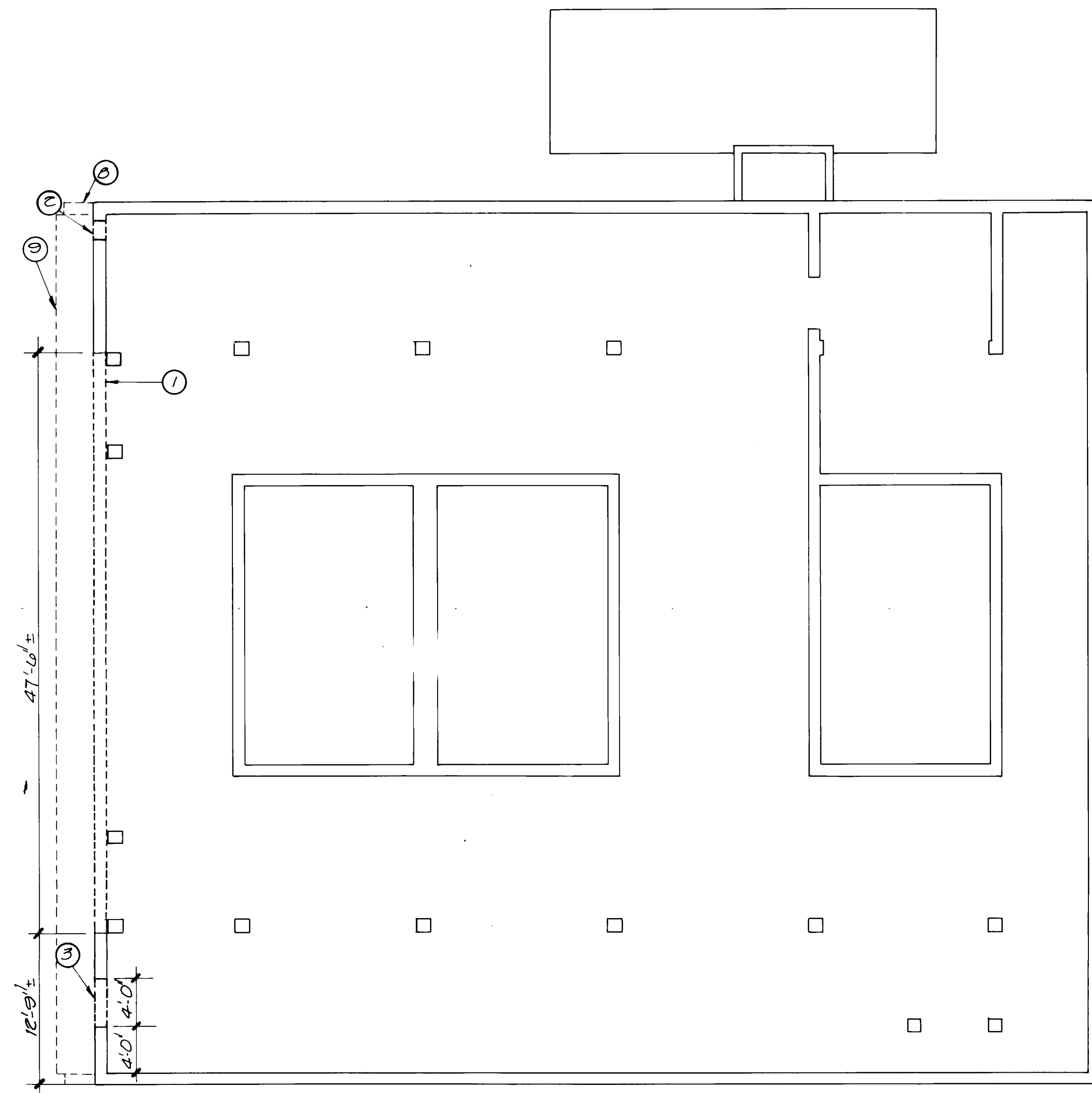


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DATE: 6/88 DRAFTED BY: NCA
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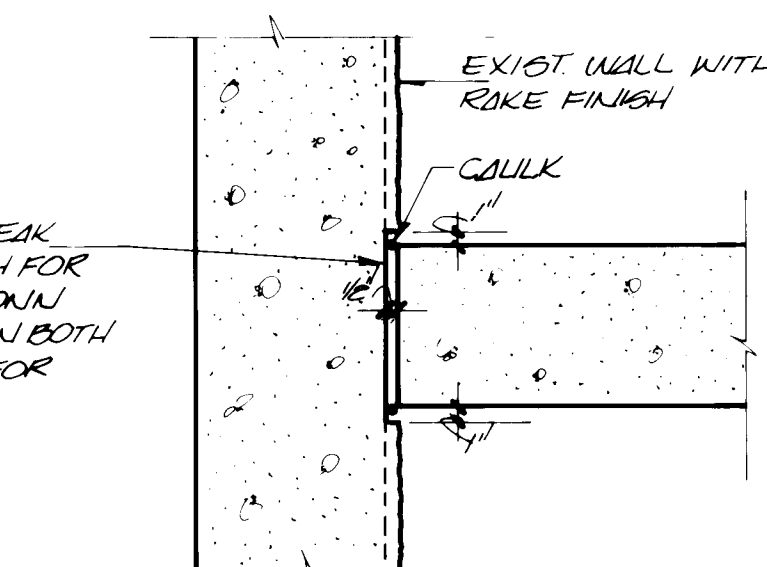


NOTE

PROVIDE POSITIVE MEANS OF DUST CONTROL,
MAINTAIN CLIMATE CONTROL AND OPERATION
OF EXISTING FACILITY DURING DEMOLITION.
SEE SPECS SECTION 2050

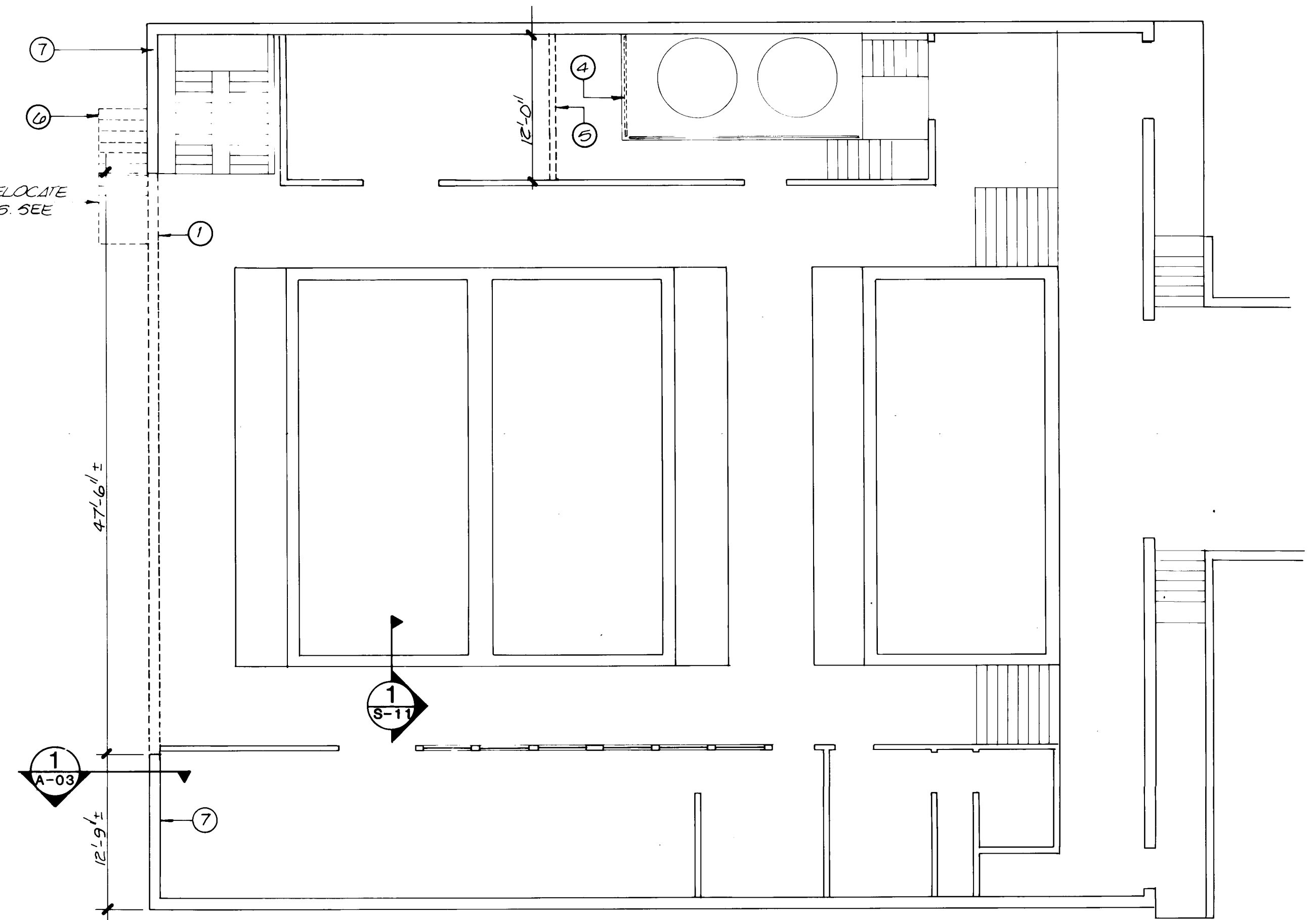
**BASEMENT FLOOR PLAN DEMOLITION**

SAW CUT AND BREAK
OUT RAKE FINISH FOR
SLAB TO WALL CONN.
ALLOW 1" SPACE ON BOTH
SIDES OF SLAB FOR
DEFLECTION.

**1 SECTION****LEGEND**

- ① REMOVE EXISTING 12" CONCRETE WALL FROM SLAB AT EL. 18'-0"± TO TOP AT EL. 49.42'±. WALL TO BE REMOVED AT EXISTING CONSTRUCTION JOINTS WITH BOND BREAKER.
- ② REMOVE PORTION OF EXISTING 12" REINFORCED CONCRETE WALL FOR INSTALLATION OF 12" DIA. D.I.P. SEE SHT. M-04
- ③ REMOVE EXISTING 4'-0" X 7'-0" KNOCKOUT AT EXISTING CONSTRUCTION JOINTS WITH BOND BREAKER.
- ④ REMOVE EXISTING ALUMINUM HANDRAIL.
- ⑤ REMOVE EXISTING C.M.U. WALL.
- ⑥ REMOVE AND RELOCATE EXISTING STAIRS. FOR RELOCATION, SEE SHT. A-01
- ⑦ SAW CUT AND REMOVE EXISTING WALL ABOVE EL. 47.67'±. SEE SECTION ④ S-04
- ⑧ REMOVE EXISTING WINGWALL. DETAILS SIMILAR TO ⑤ S-11
- ⑨ REMOVE EXISTING SLAB PROJECTION. DETAILS SIMILAR TO ④ S-11

CUT CONCRETE
& RESTEEL

**MAIN FLOOR PLAN DEMOLITION****RECORD DRAWING**

DATE: 6/88 DRAFTED BY: MCA

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26	34	5	2	2	9	8	8																					

NO.	DATE	REVISIONS	APPROVED

DESIGNED WPS
DRAWN STAFF
CHECKED WPS
APPROVED
DATE NOV 1988

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/8" = 1'-0"
0 4' 8' 12' 16'
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

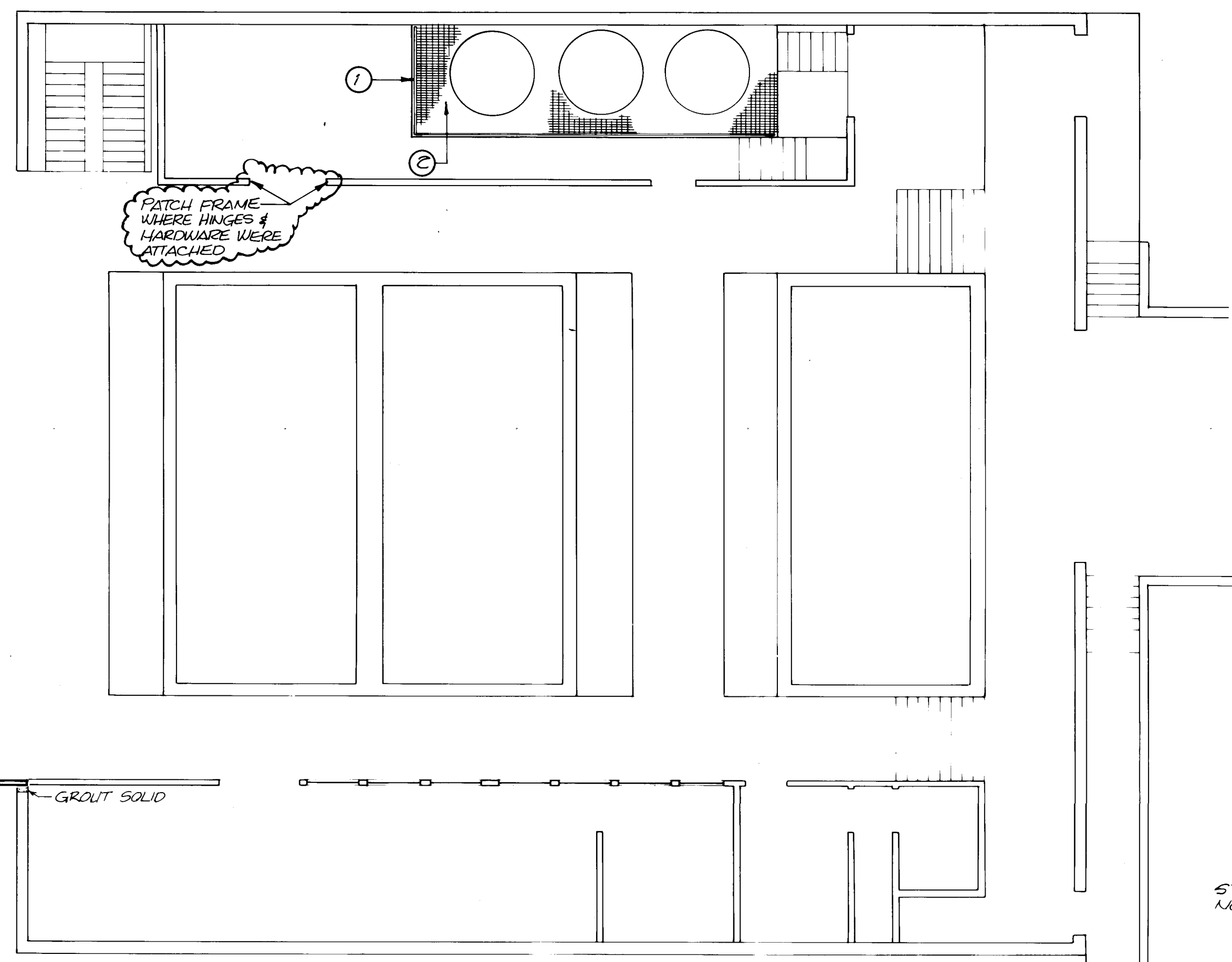
SLUDGE THICKENING SYSTEM EXPANSION
DEMOLITION PLANS

M-C NO. 831721
A-03 29 OF 111
SC NO.

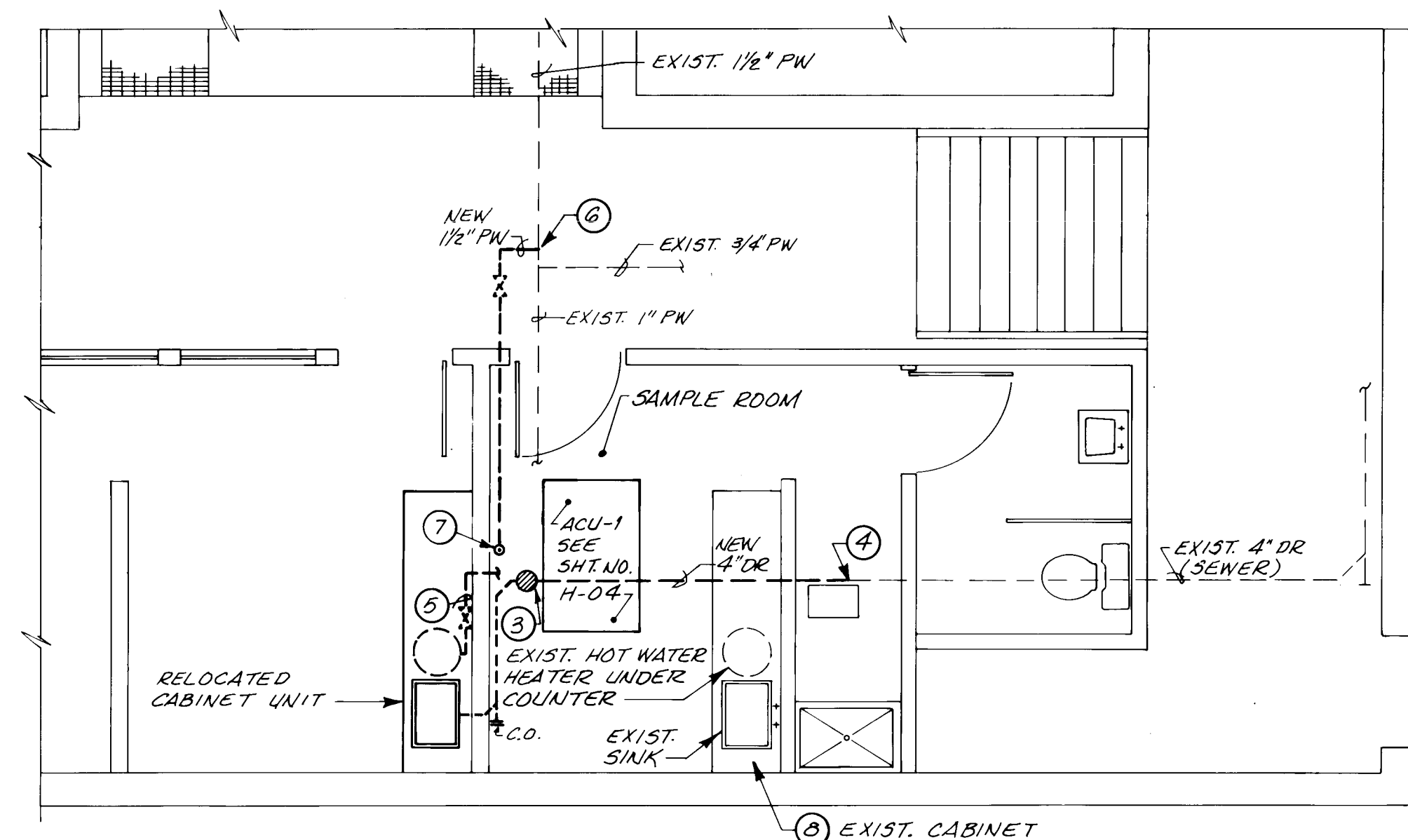
LEGEND

- ① INSTALL NEW ALUMINUM HANDRAIL PER STRUCTURAL DETAILS.
- ② INSTALL NEW ALUMINUM PLATFORM AND CONCRETE PAD. SEE DETAIL SHEET S-08.
- ③ INSTALL EQUIPMENT DRAIN WITH "P-TRAP" IN EXISTING FLOOR. FOR FLOOR PENETRATION, SEE DETAIL SHEET M-20.
- ④ CONNECT NEW 4" DR (1/4"/FT. MIN. SLOPE) TO EXISTING 4" SEWER DR UNDER MAIN FLOOR CEILING. EXTEND 4" SEWER DR AS REQUIRED TO SERVICE THE RELOCATED SINK DRAIN. CORE DRILL ALL FLOOR PENETRATIONS.
- ⑤ INSTALL 1/4" HOT WATER LINE (INSULATED). CONNECT NEW LINE TO EXISTING HOT WATER HEAT AND INCLUDE SHUTOFF VALVE ON NEW LINE. LINE TO BE PLACED IN CABINET AND EXTENDED THROUGH WALL. LINE TO BE CONTINUED TO ACU-1 AS REQUIRED FOR SERVICE.
- ⑥ CONNECT NEW 1 1/2" PW TO EXISTING 1 1/2" PW AT BASEMENT CEILING HEIGHT. CONTRACTOR VERIFY LOCATION WITH ENGINEER.
- ⑦ CORE DRILL 2" HOLE IN SLAB AND FILL W/EPOXY GROUT. EXTEND LINE TO AIR CONDITIONER AS REQUIRED.
- ⑧ EXISTING CABINET UNIT INCLUDING SINK, HOT WATER HEATER, PLUMBING SYSTEM AND FIXTURES, AND ALL OTHER CABINET ACCESSORIES TO BE REMOVED AND RELOCATED TO ADJACENT SOUTH ROOM AS SHOWN. EXTEND ALL UTILITY SERVICES INCLUDING ELECTRICAL FOR WATER HEATER, 1" POTABLE WATER, 4" SEWER, AND ANY OTHER MISCELLANEOUS WATER SERVICE LINES FOR ALL PLUMBING FIXTURES REQUIRED TO MATCH ORIGINAL INSTALLATION.

NOTE: RE-ROOF EXISTING BUILDING.

**MAIN FLOOR PLAN REMODEL**

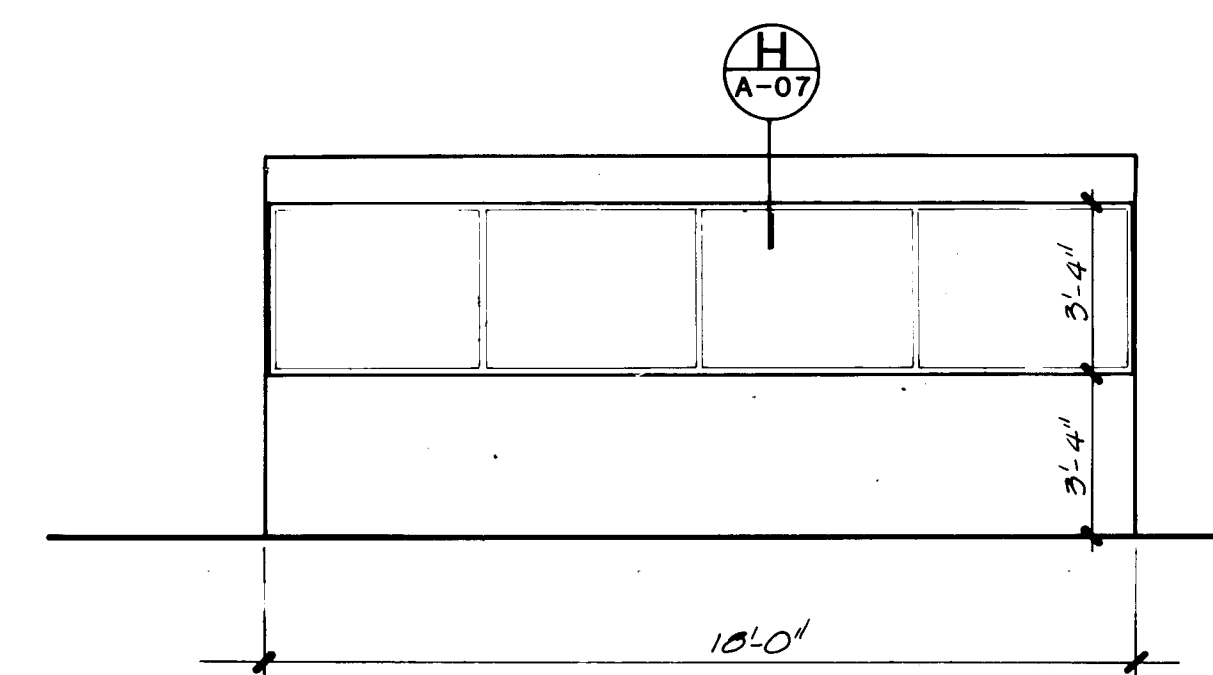
1/8" = 1'-0"



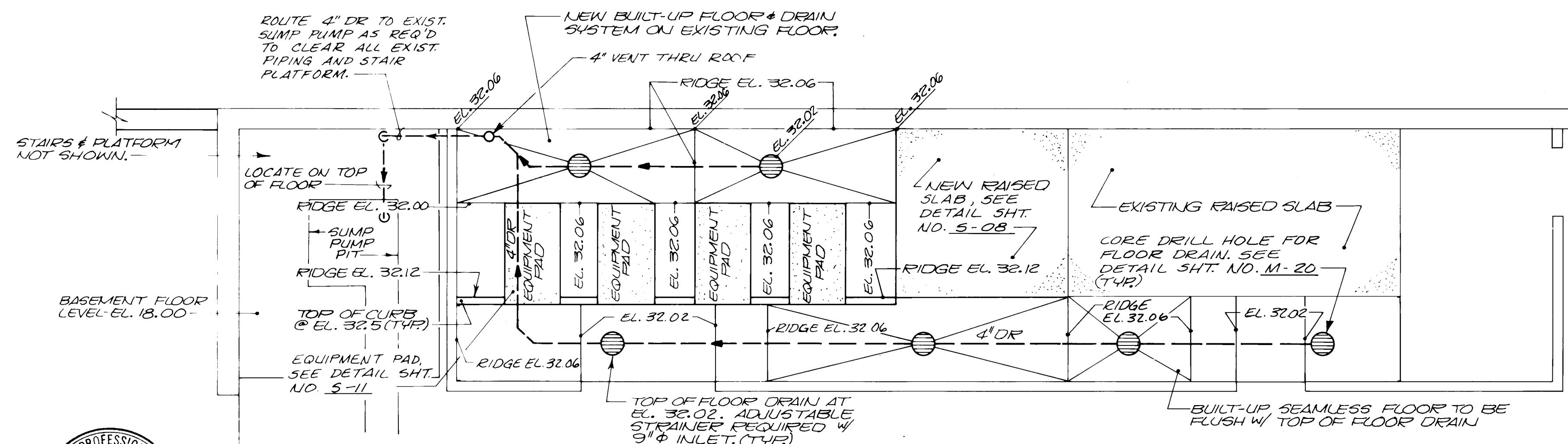
NOTE: WATER & SEWER PLUMBING SYSTEMS TO RELOCATED CABINET UNIT NOT SHOWN, SEE ⑧

SAMPLE ROOM MODIFICATIONS

1/4" = 1'-0"

**1 OPERATIONS CONTROL CENTER ROOM ELEVATION**

1/4" = 1'-0"

**EXISTING POLYMER PROCESS ROOM - FLOOR DRAIN SYSTEM MODIFICATIONS**

NTS

RECORD DRAWING

DATE: 6/20 DRAFTED BY: MCA

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DESIGNED *WDS*
DRAWN *STW*
CHECKED *WDS*
APPROVED
DATE *NOV 1994*

**MOLZEN-CORBIN****STANLEY CONSULTANTS**

A JOINT VENTURE

1/4" = 1'-0"

1/8" = 1'-0"

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
REMODEL PLAN AND INTERIOR ELEVATIONS

M-C NO. 831721

A-04

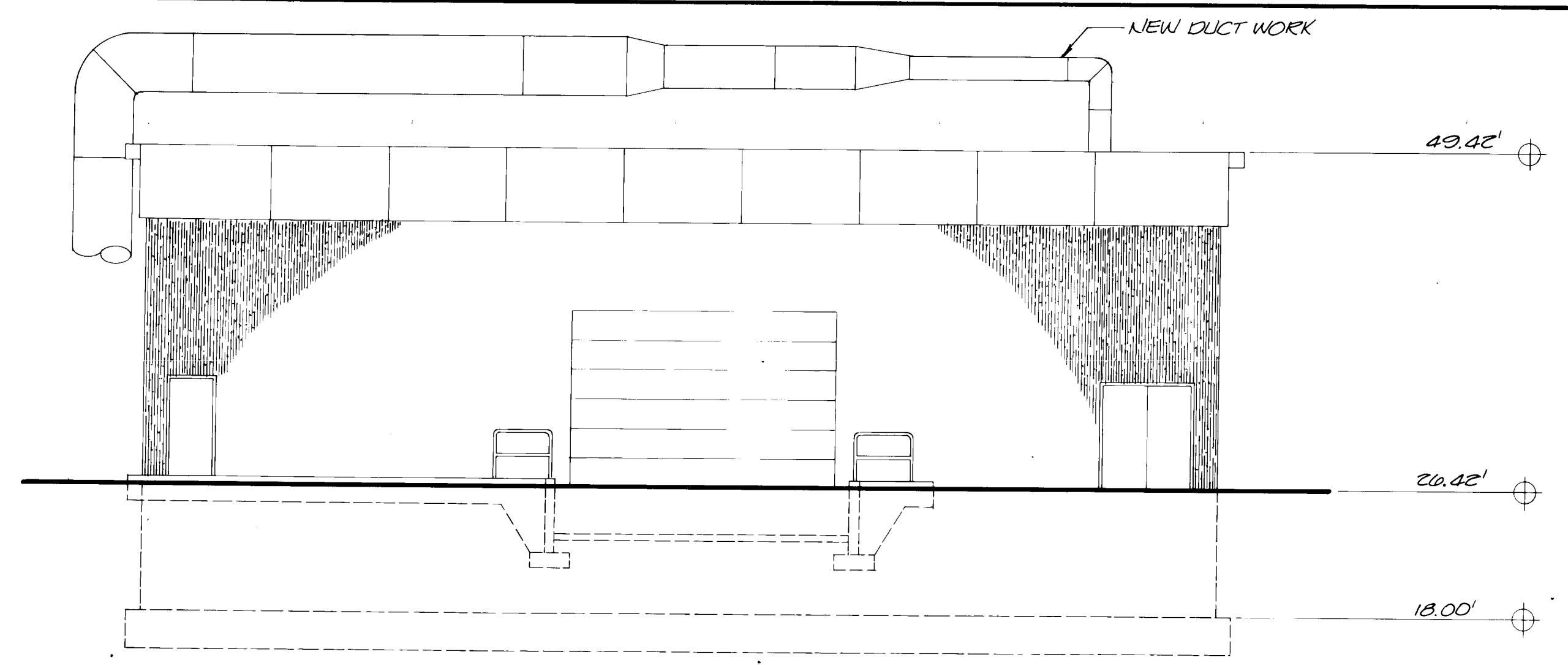
30 of 111

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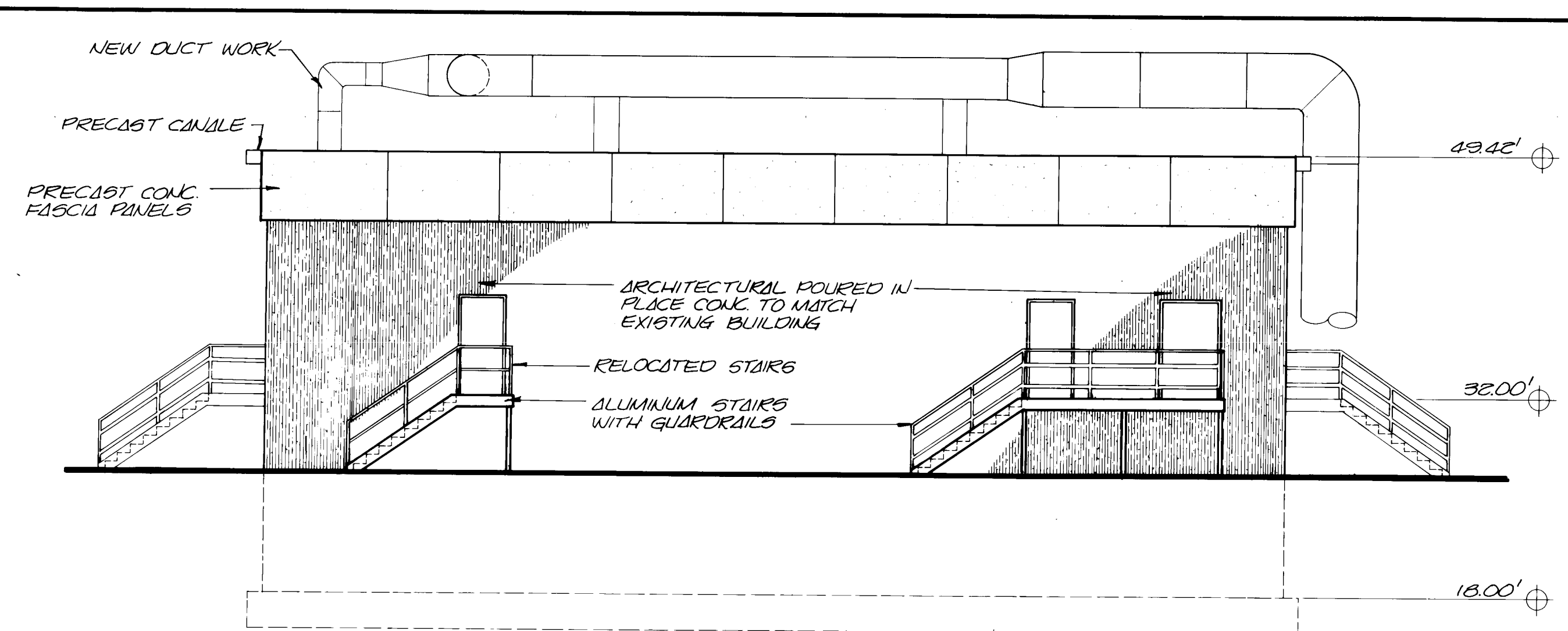
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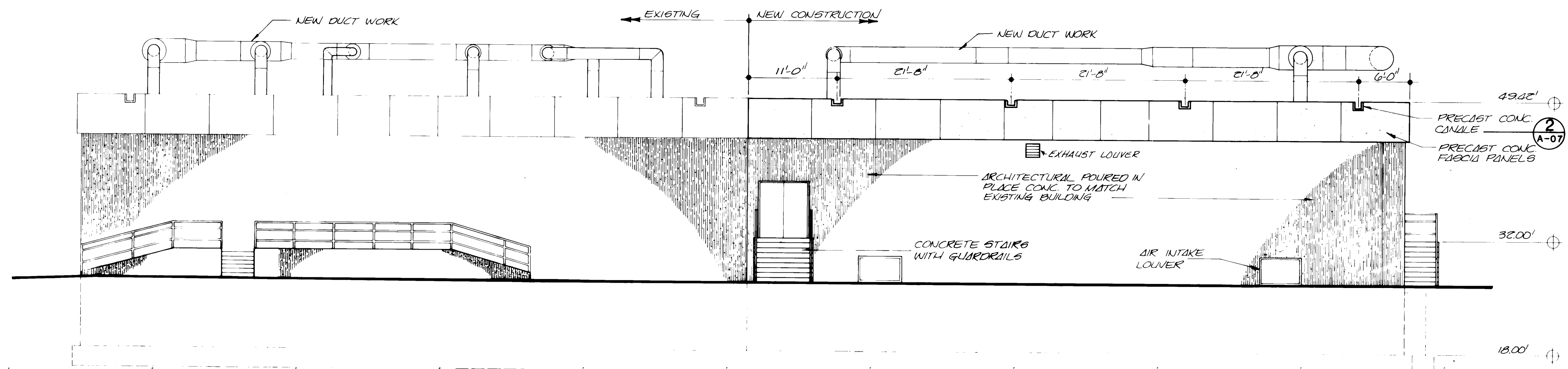
NO.	DATE	REVISIONS	APPROVED



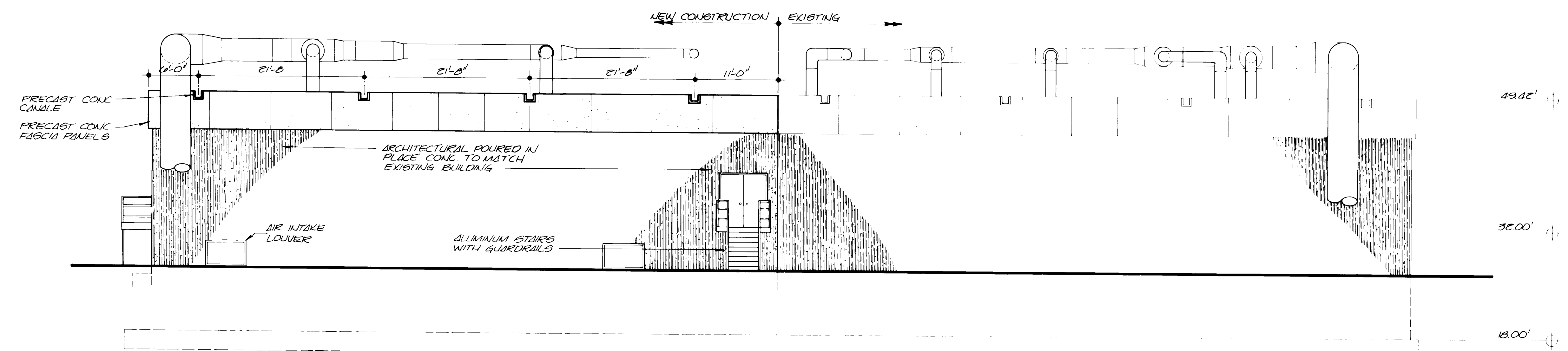
EXISTING NORTH ELEVATION



SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION

RECORD DRAWING	
DATE: 6/88	DRAFTED BY: MCA
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NO.	DATE	REVISIONS	APPROVED

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DRAWN STAE
CHECKED WDS.
APPROVED
DATE NOV 1984

**MOLZEN-CORBIN**
STANLEY CONSULTANTS
A JOINT VENTURE

1/8" = 1'-0"



GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
ELEVATIONS

M-C NO. 831721

A-05 31 of 111

SC NO.

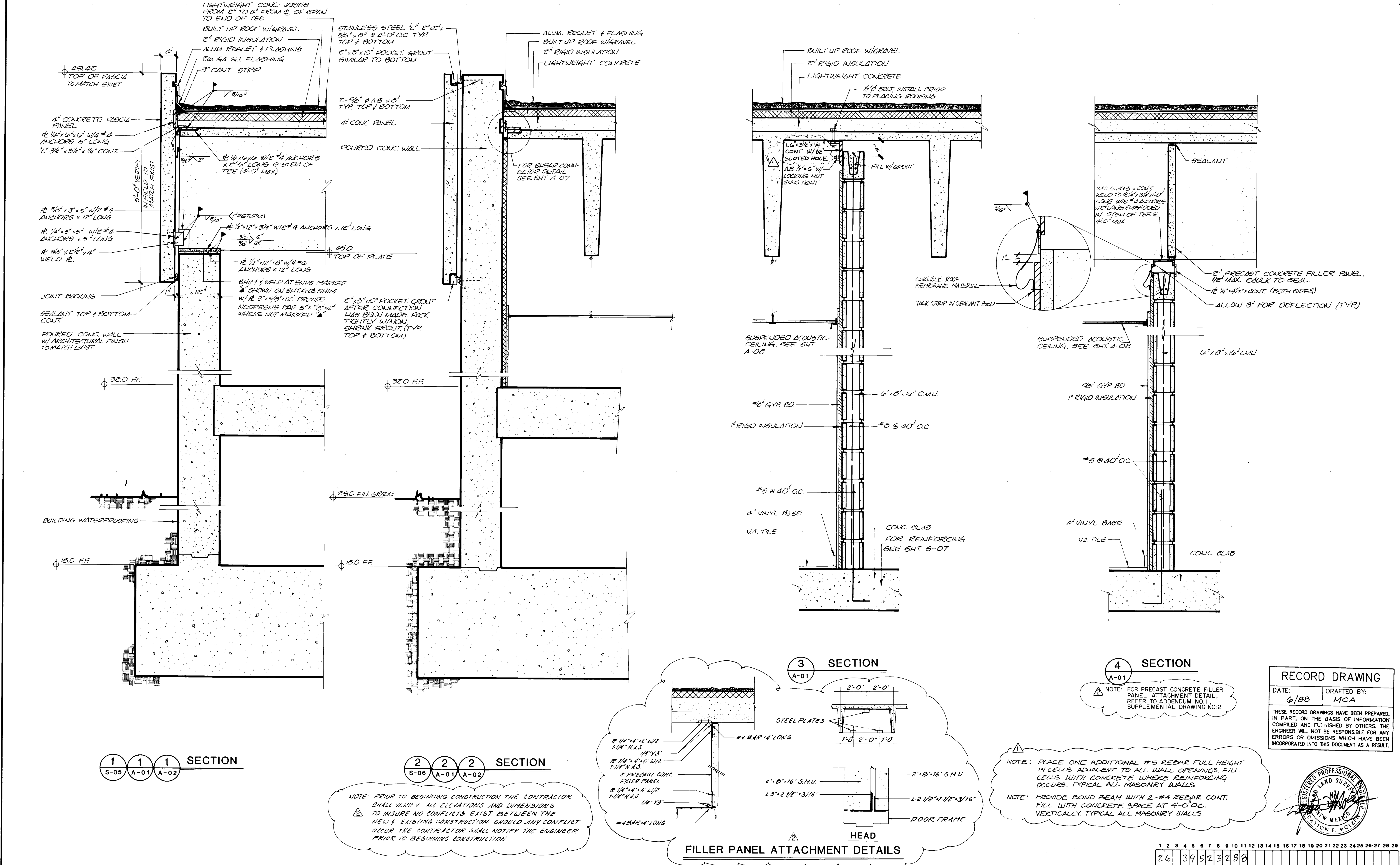
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DRAWN <i>STAFF</i>	
CHECKED <i>W.D.S.</i>	
APPROVED	
APPROVED	
DATE <i>NOV 1994</i>	

DESIGNED <i>W.D.S.</i>	
DRAWN <i>STAFF</i>	
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DATE <i>NOV 1994</i>	

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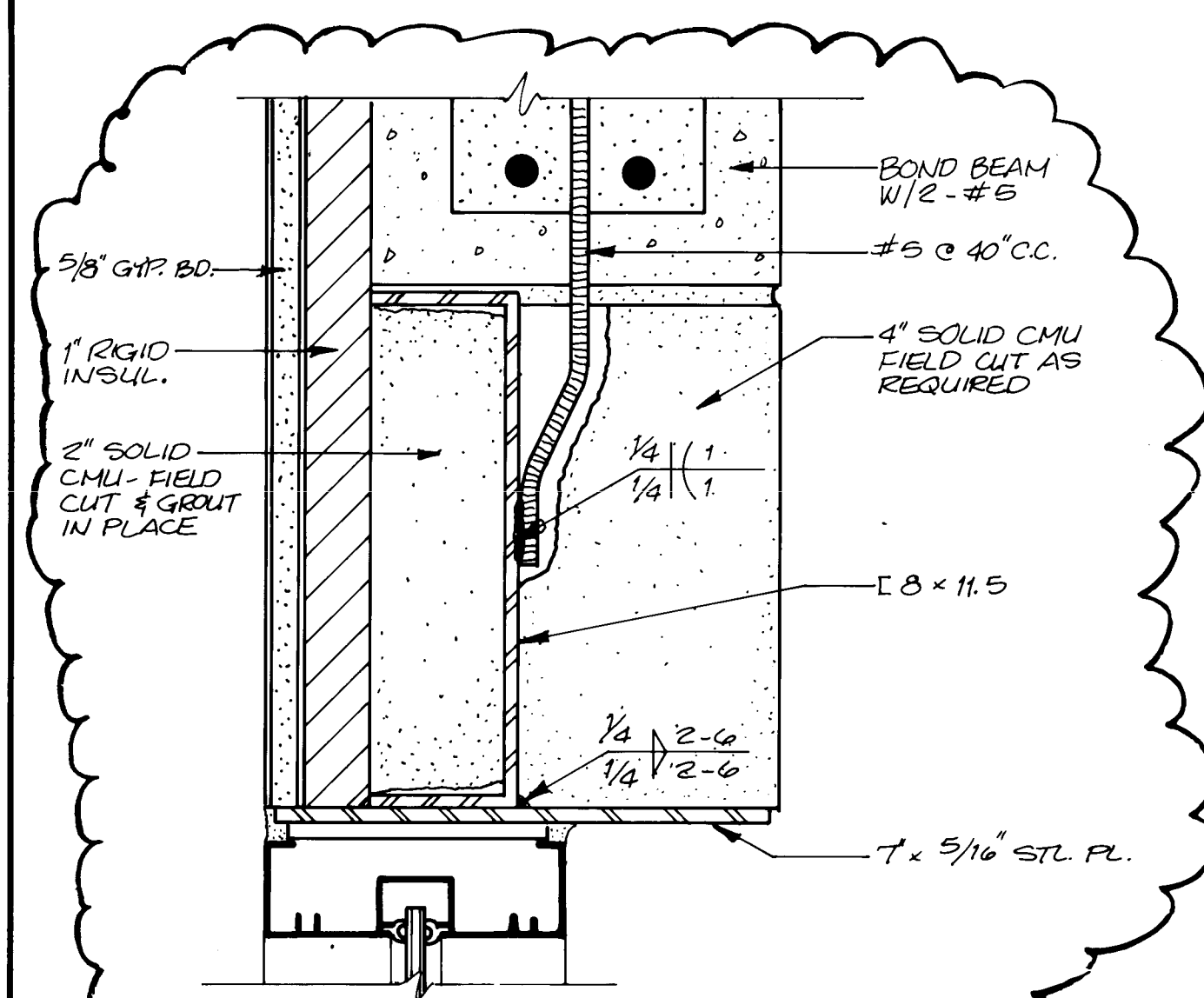
7/17/85	ADD NOTE, MOVE NOTE, FILLER PANEL DETAIL	DESIGNED <i>W.D.S.</i>	
4/2/85	MASONRY WALL REINFORCING & ANGLE CONN.	DRAWN <i>STAFF</i>	
NO.	DATE	REVISIONS	APPROVED

DESIGNED <i>W.D.S.</i>	
DRAWN <i>STAFF</i>	
CHECKED <i>W.D.S.</i>	
APPROVED	
APPROVED	
DATE <i>NOV 1994</i>	

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APPROVED	
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DATE <i>NOV 1994</i>	

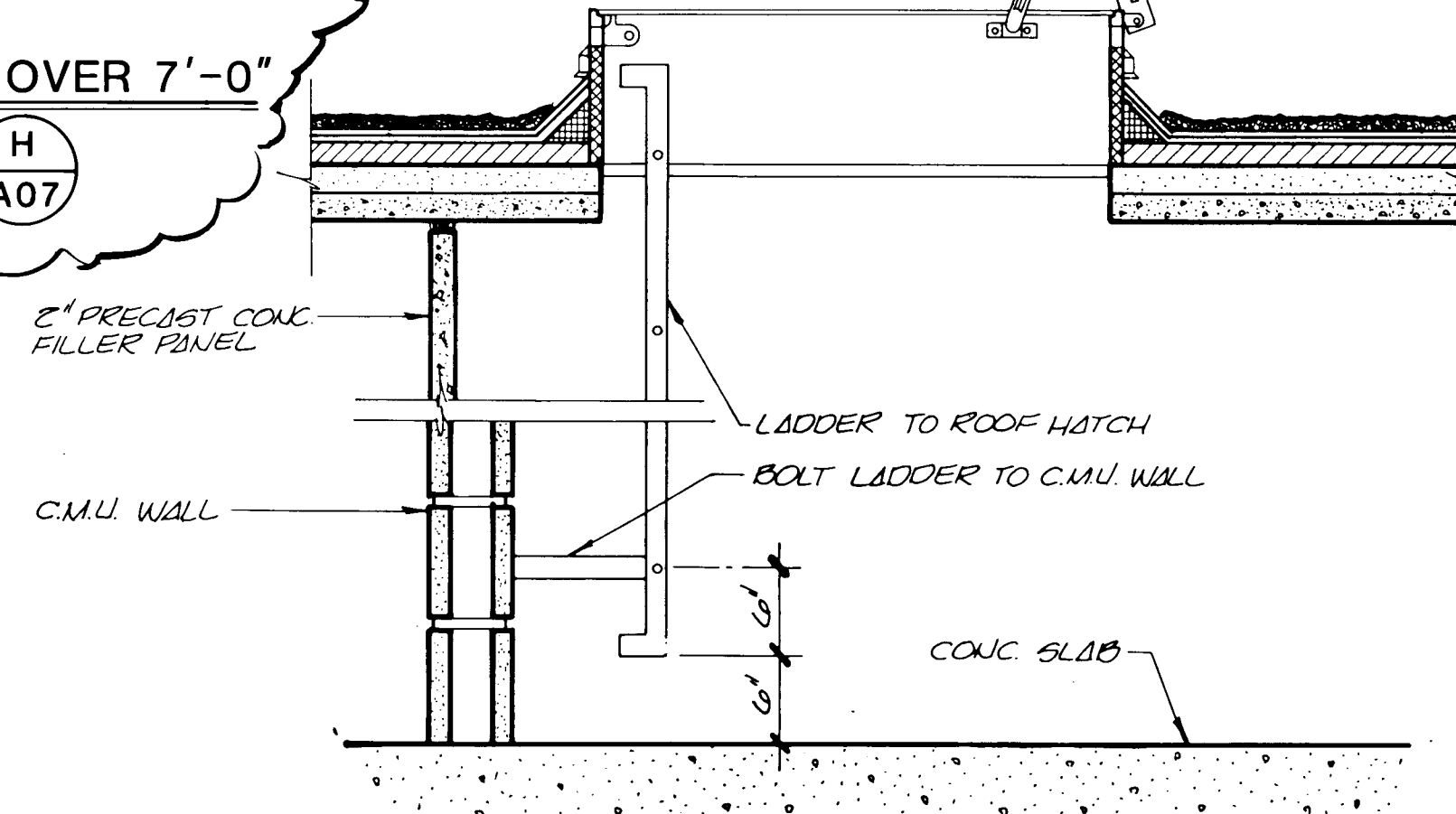
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DATE <i>NOV 1994</i>	



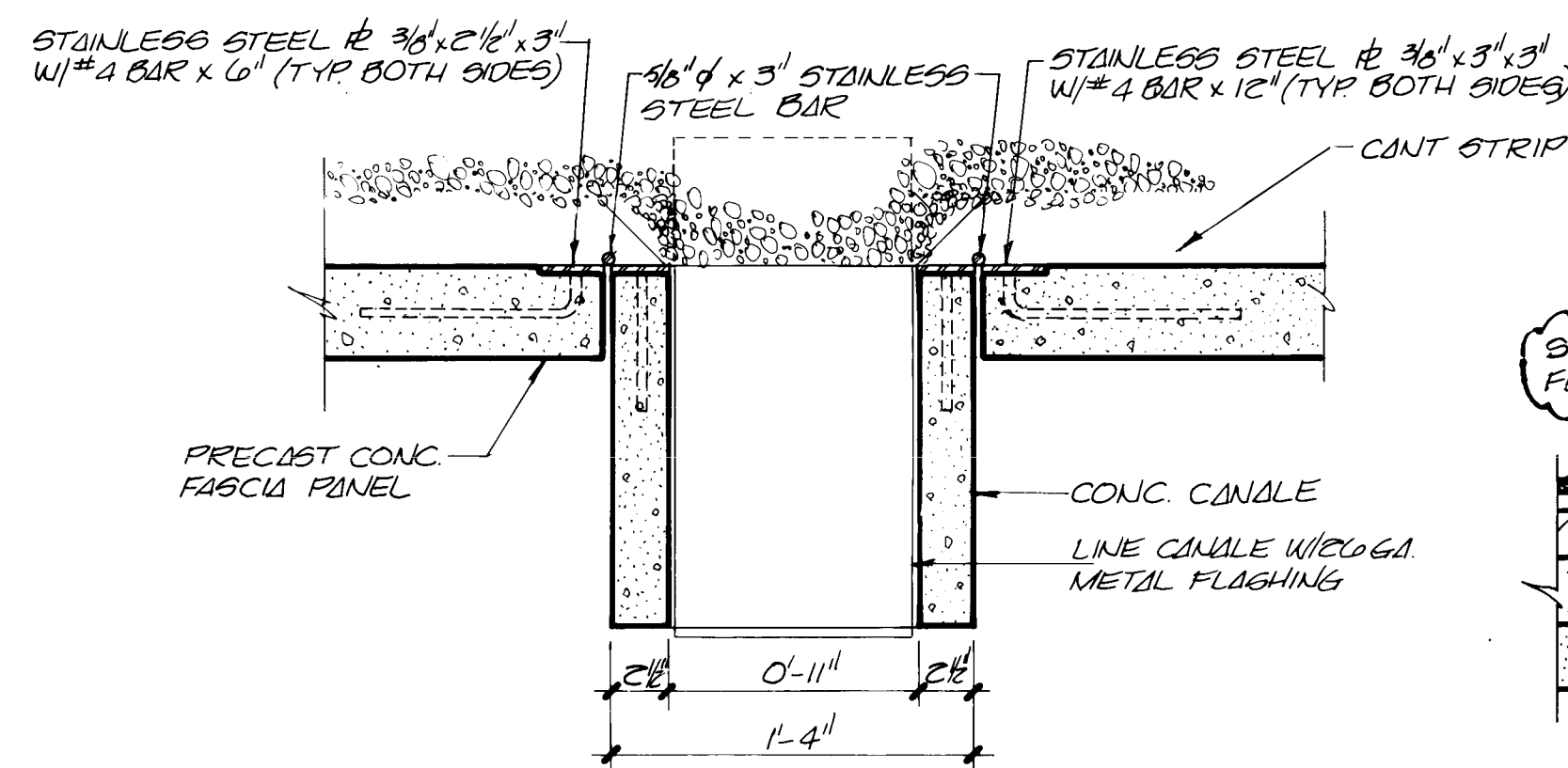
LINTEL BEAM FOR SPANS OVER 7'-0"

N.T.S.
UNDER 7'-0" REFER TO (H) A07
NOTE: BEAR MINIMUM 8" EACH SIDE

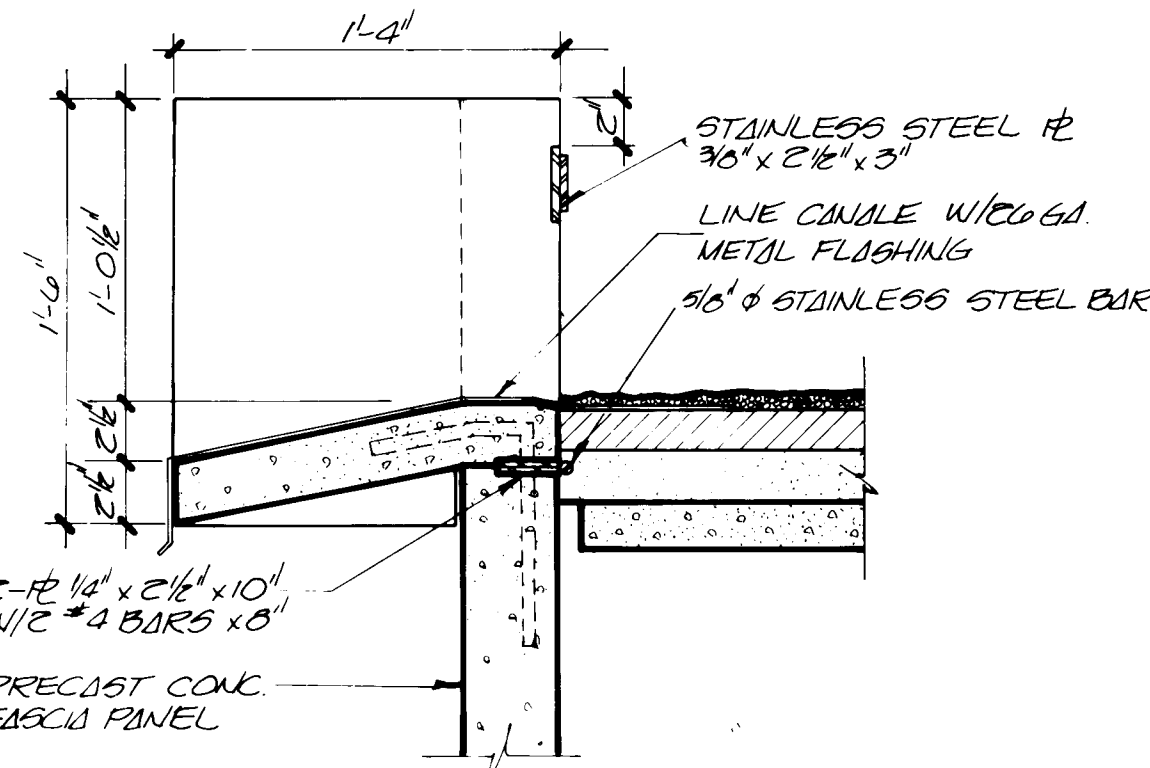


1 ROOF HATCH DETAIL

A09 1'-1/2"=1'-0"



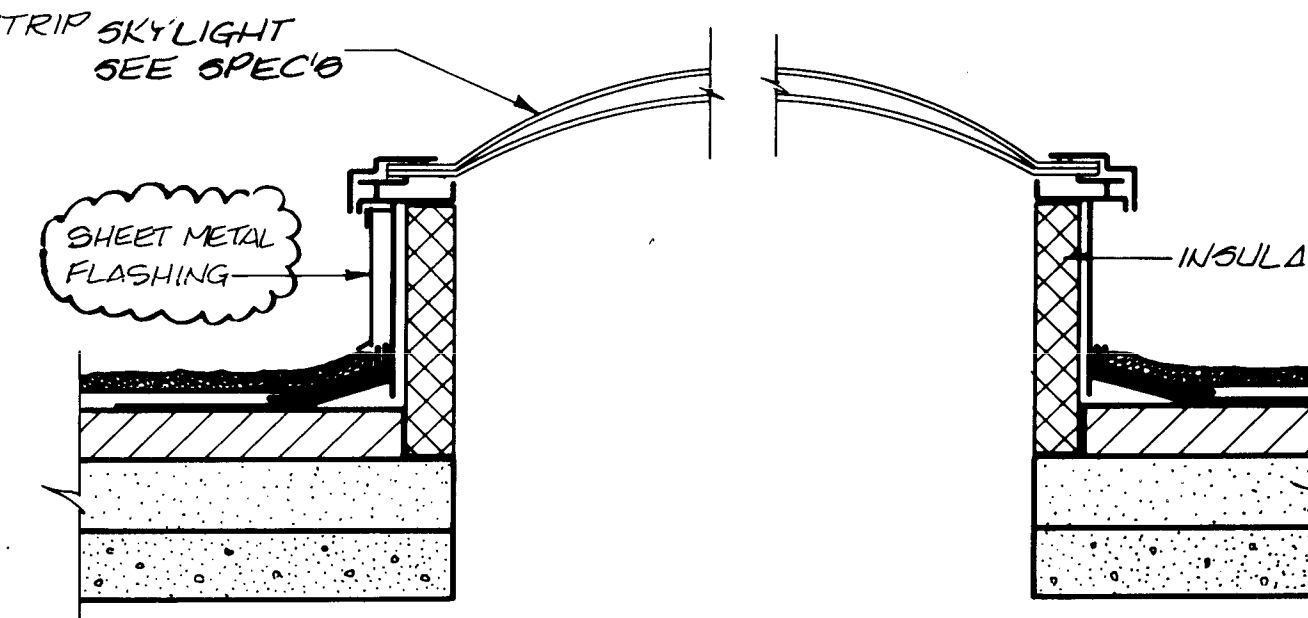
PLAN



SECTION

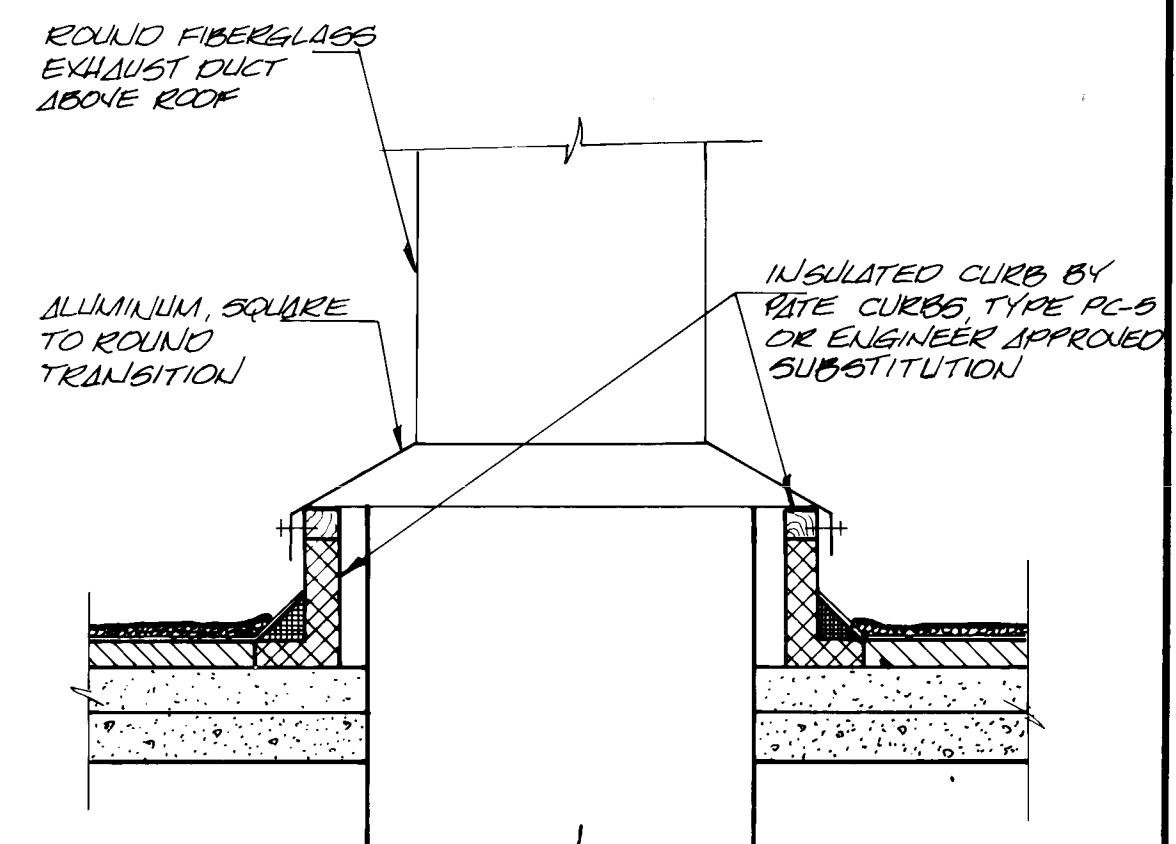
2 CONCRETE CANALE DETAILS

A05 1'-1/2"=1'-0"



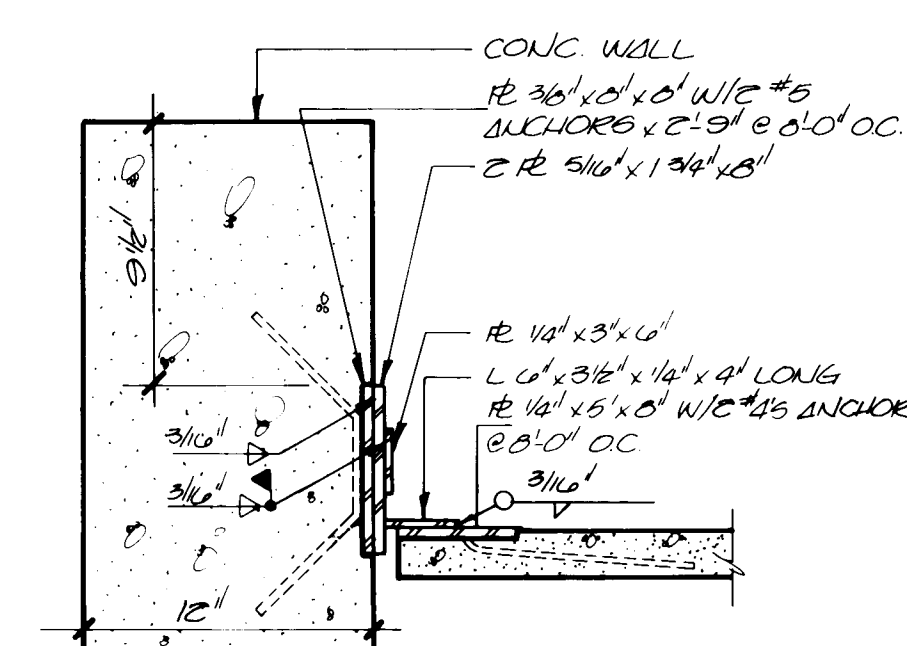
3 SKYLIGHT DETAIL

A09 1'-1/2"=1'-0"

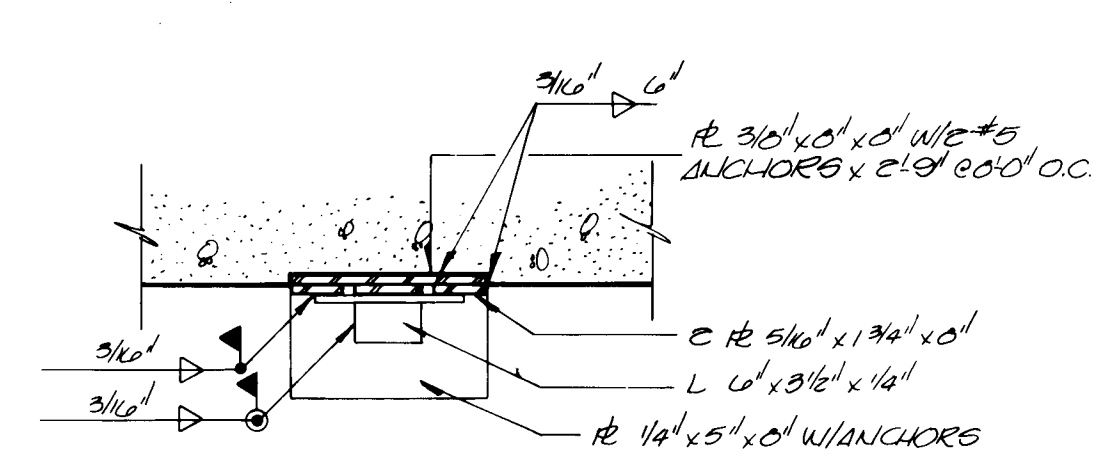


EXHAUST DUCT THRU ROOF DETAIL

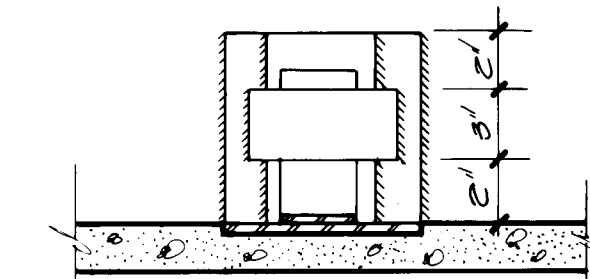
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SECTION



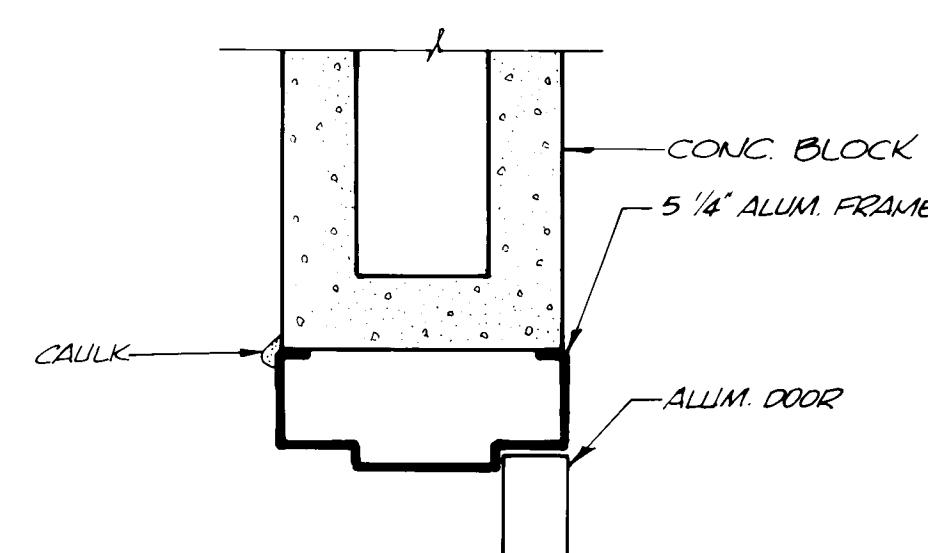
ELEVATION



PLAN

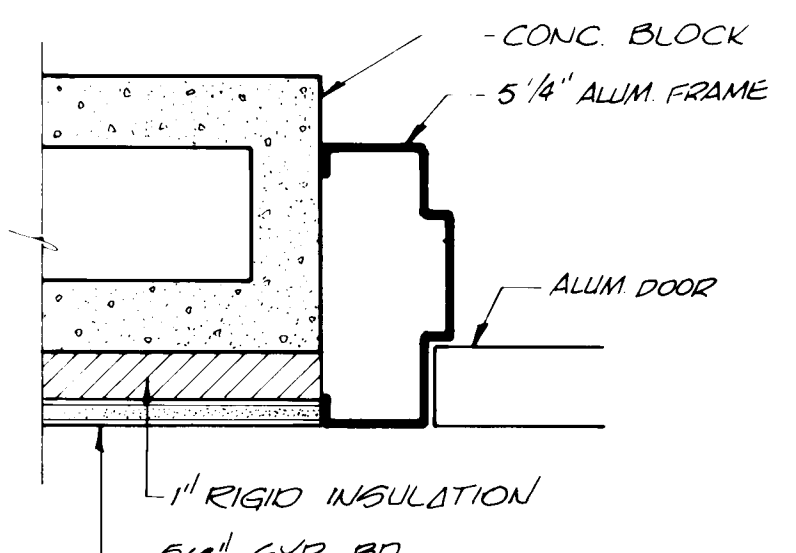
4 SHEAR CONNECTORS DETAILS

A06 1'-1/2"=1'-0"



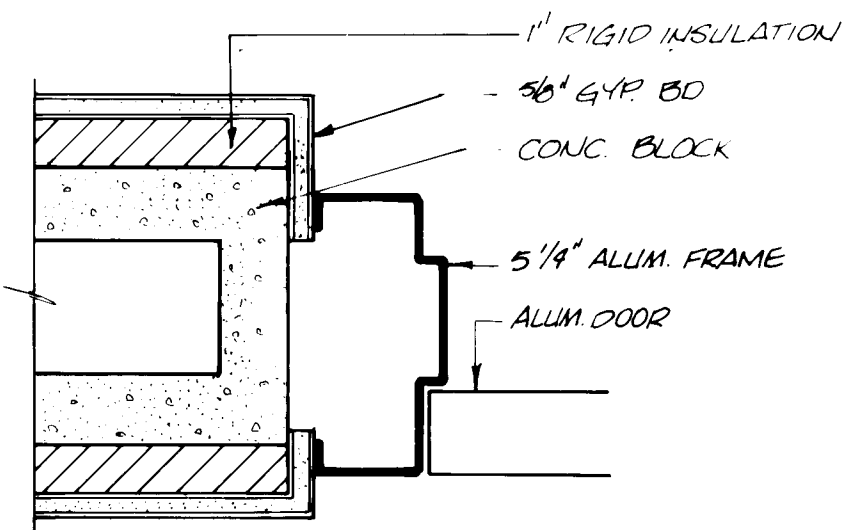
A JAMB

A07 3'-1'-0"



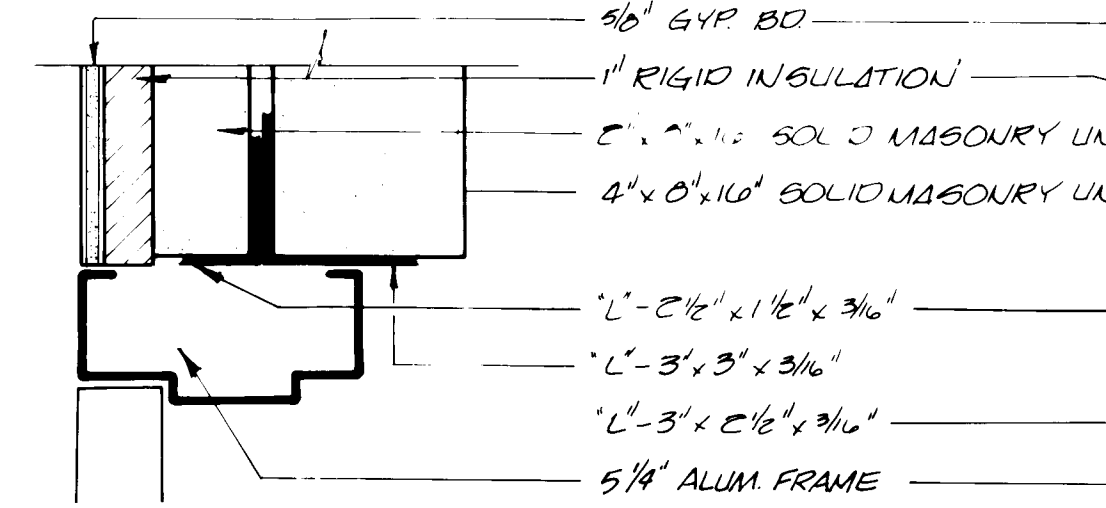
B JAMB

A07 3'-1'-0"



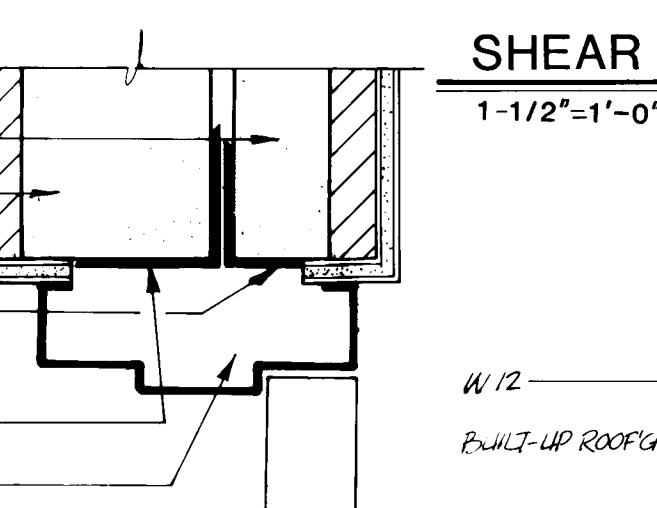
C JAMB

A07 3'-1'-0"



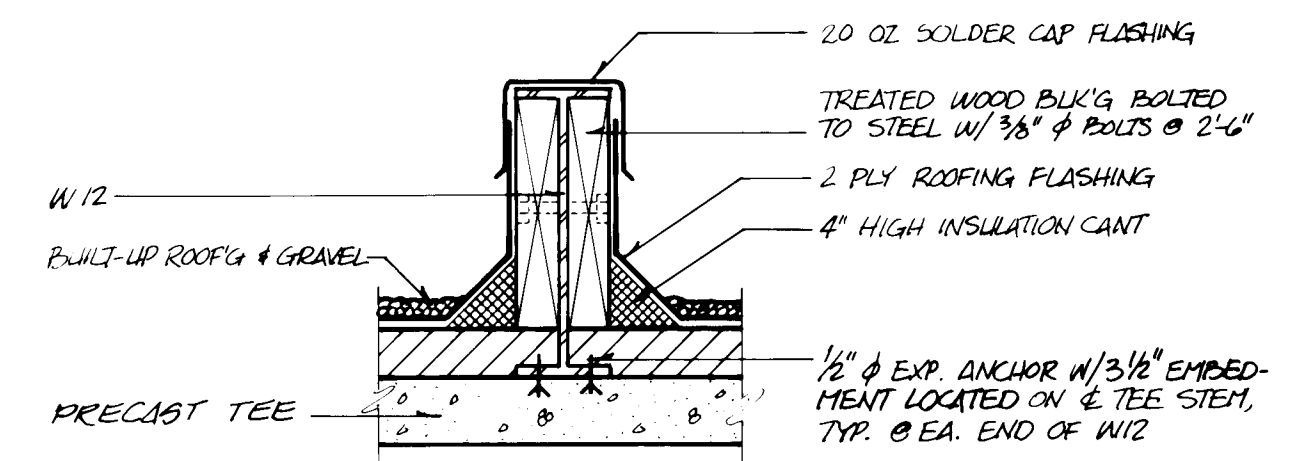
D HEAD

A07 3'-1'-0"



E HEAD

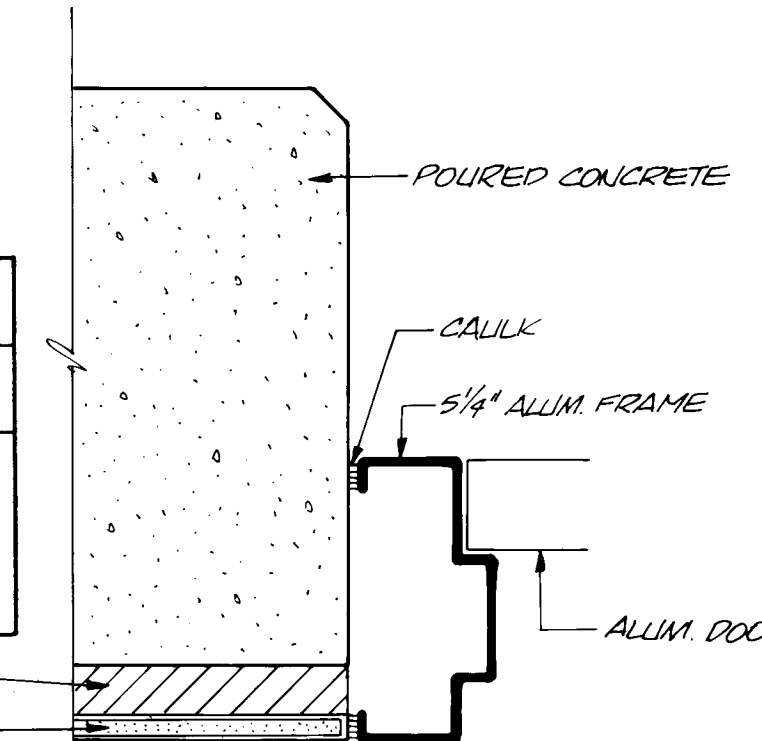
A07 3'-1'-0"



EQUIPMENT CURB DETAIL

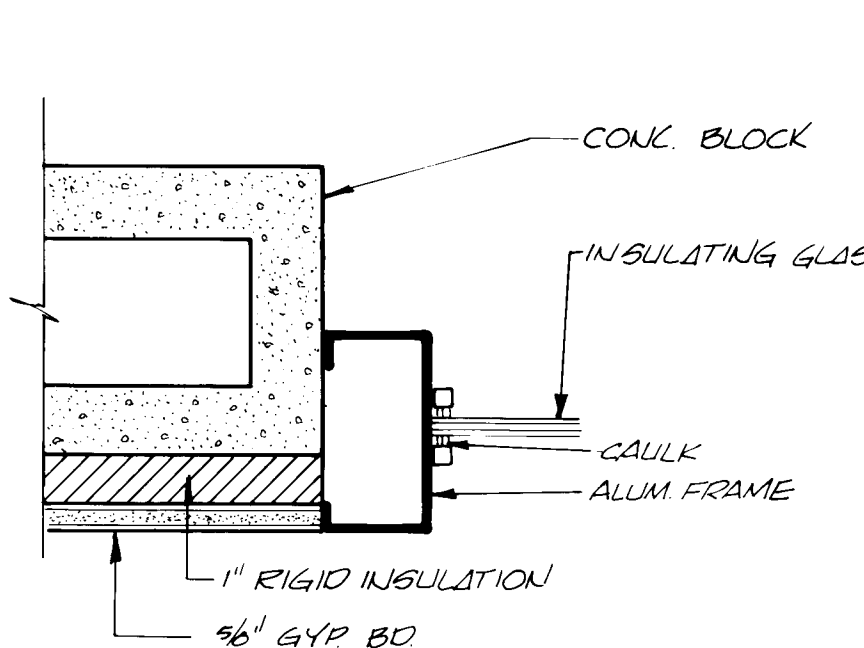
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RECORD DRAWING
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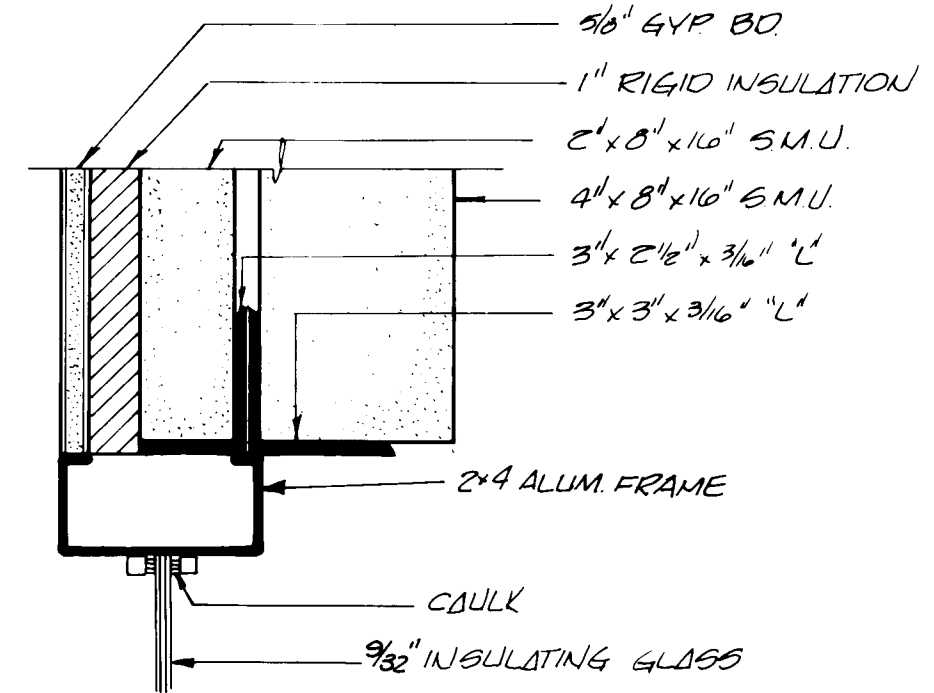
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A07 3'-1'-0"



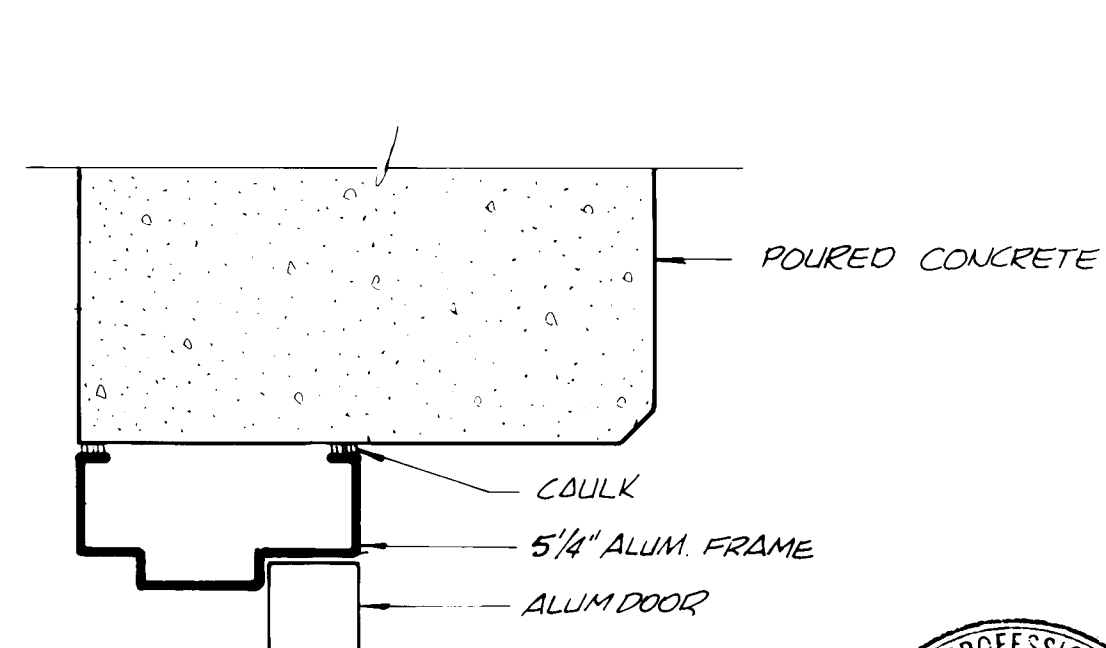
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A07 3'-1'-0"



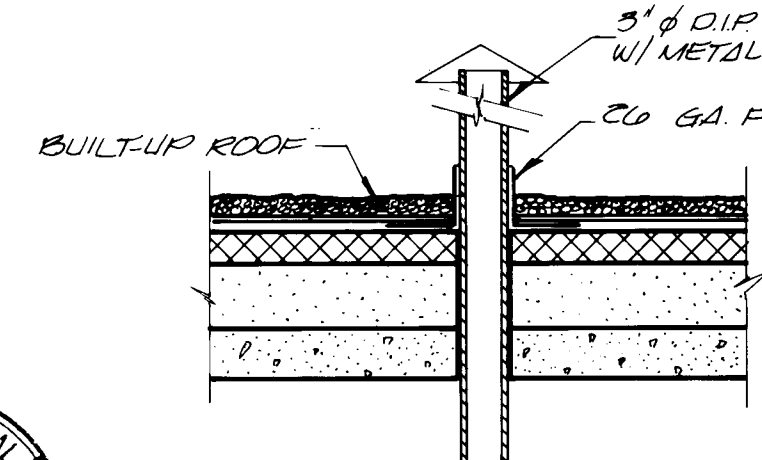
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A07 3'-1'-0"

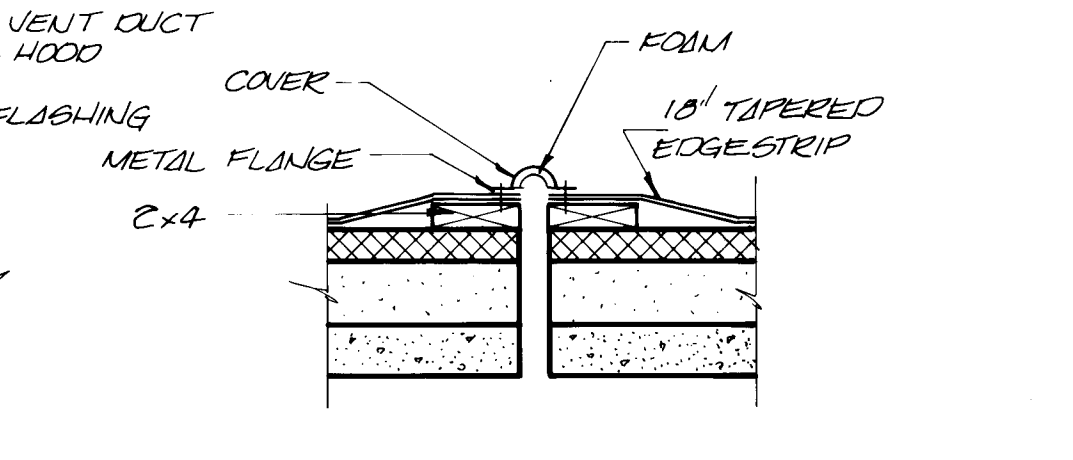


I JAMB & HEAD

A07 3'-1'-0"



VENT DUCT DETAIL



ROOF EXPANSION JOINT DETAIL

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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NO.	DATE	REVISIONS	APPROVED

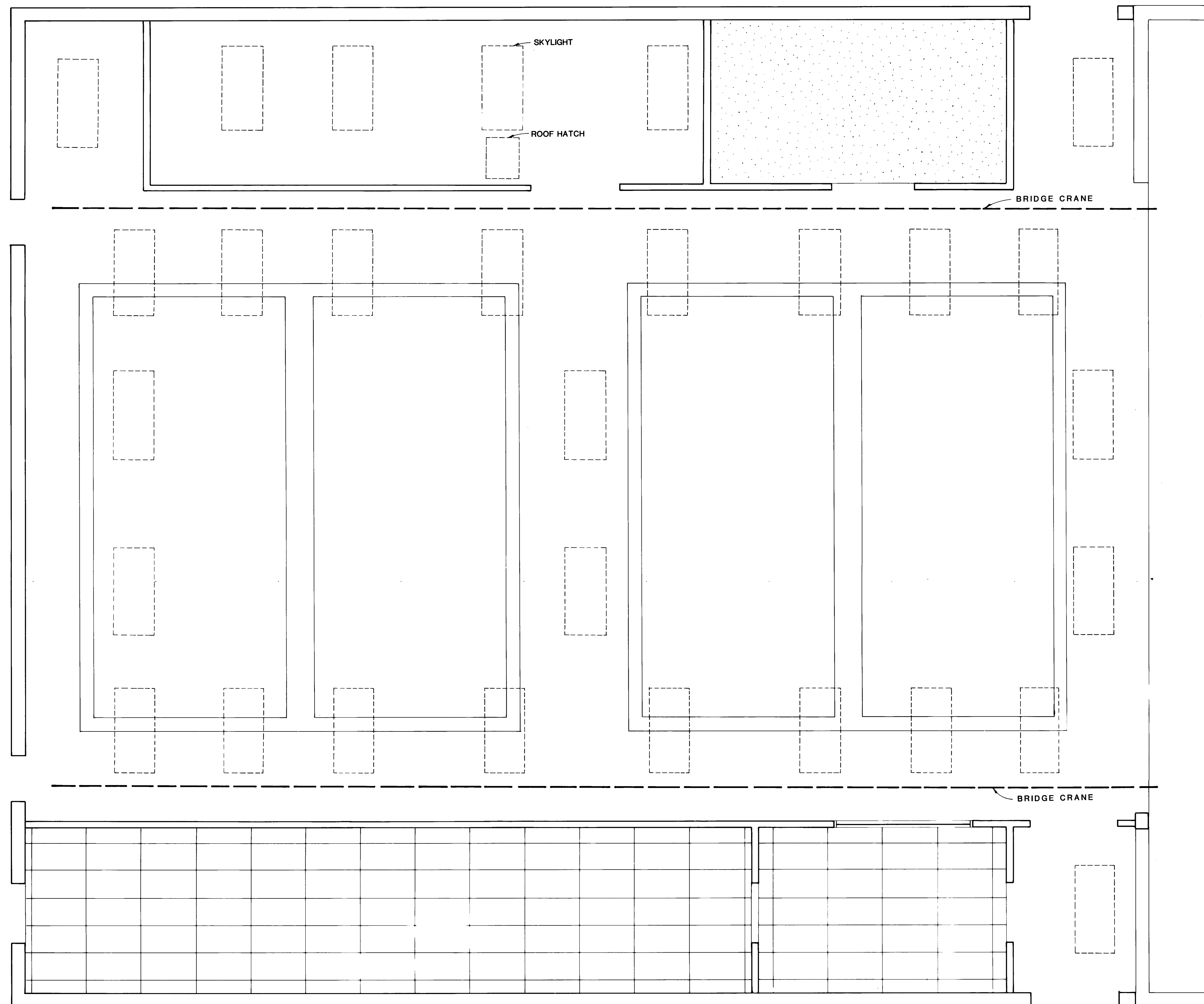
DESIGNED WDS
DRAWN STAE
CHECKED WDS
APPROVED
APPROVED
DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

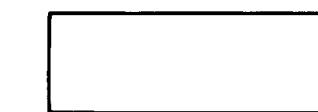
3'-1'-0"
1'-1/2"=1'-0"
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

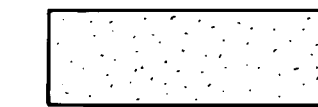
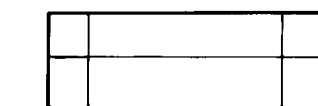
SLUDGE THICKENING SYSTEM EXPANSION
STANDARD DETAILS
M-C NO. 831721
A-07 33 OF 111
SC NO.



LEGEND



EXPOSED STRUCTURE

SPRAYED ACOUSTICAL TREATMENT
ON PRESTRESSED DOUBLE TEES2x4 ACOUSTIC LAY-IN CEILING
9'-6" ABOVE F.F. IN MOTOR CONTROL
CENTER ROOM, 8'-6" IN OPERATIONS
CONTROL ROOM

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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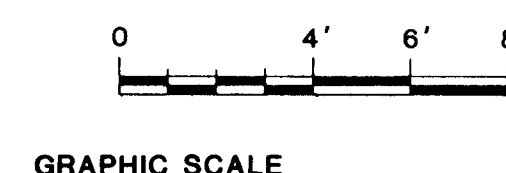
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26	39	52	34	88																								

NO.	DATE	REVISIONS	APPROVED

DESIGNED W.D.S.
DRAWN STAE
CHECKED W.D.S.
APPROVED
DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4"=1'-0"



GRAPHIC SCALE



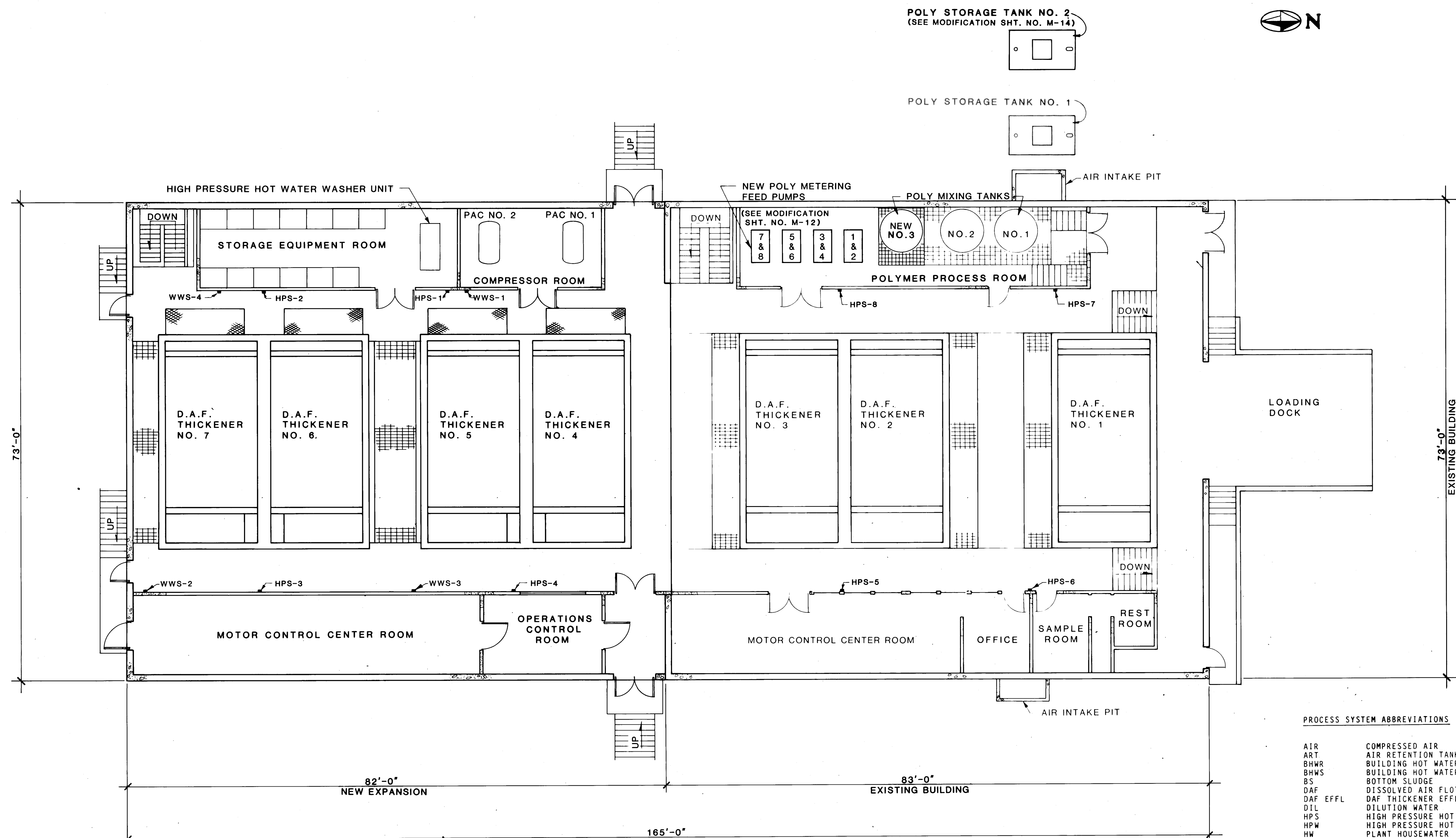
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
REFLECTED CEILING PLAN

M-C NO. 831721
A-08 34 of 111
SC NO.



M-C NO. 831721	
A-09	35 of 111
SC NO.	



GENERAL PROCESS EQUIPMENT LAYOUT

PROCESS SYSTEM ABBREVIATIONS

AIR	COMPRESSED AIR
ART	AIR RETENTION TANK
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF	DISSOLVED AIR FLOTATION
DAF EFFL	DAF THICKENER EFFLUENT
DIL	DILUTION WATER
HPS	HIGH PRESSURE HOT WATER STATION
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PAC	PROCESS AIR COMPRESSOR
POLY	POLYMER
PW	POTABLE WATER
REC	DAF RECIRCULATION
SPD	SUMP PUMP DISCHARGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTHICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER
WWS	WASHWATER STATION

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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26	39	52	36	88																									

NO.	DATE	REVISIONS	APPROVED

DESIGNED LMR & ACC
 DRAWN STAFF
 CHECKED LMR
 APPROVED
 DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/8" = 1'-0"

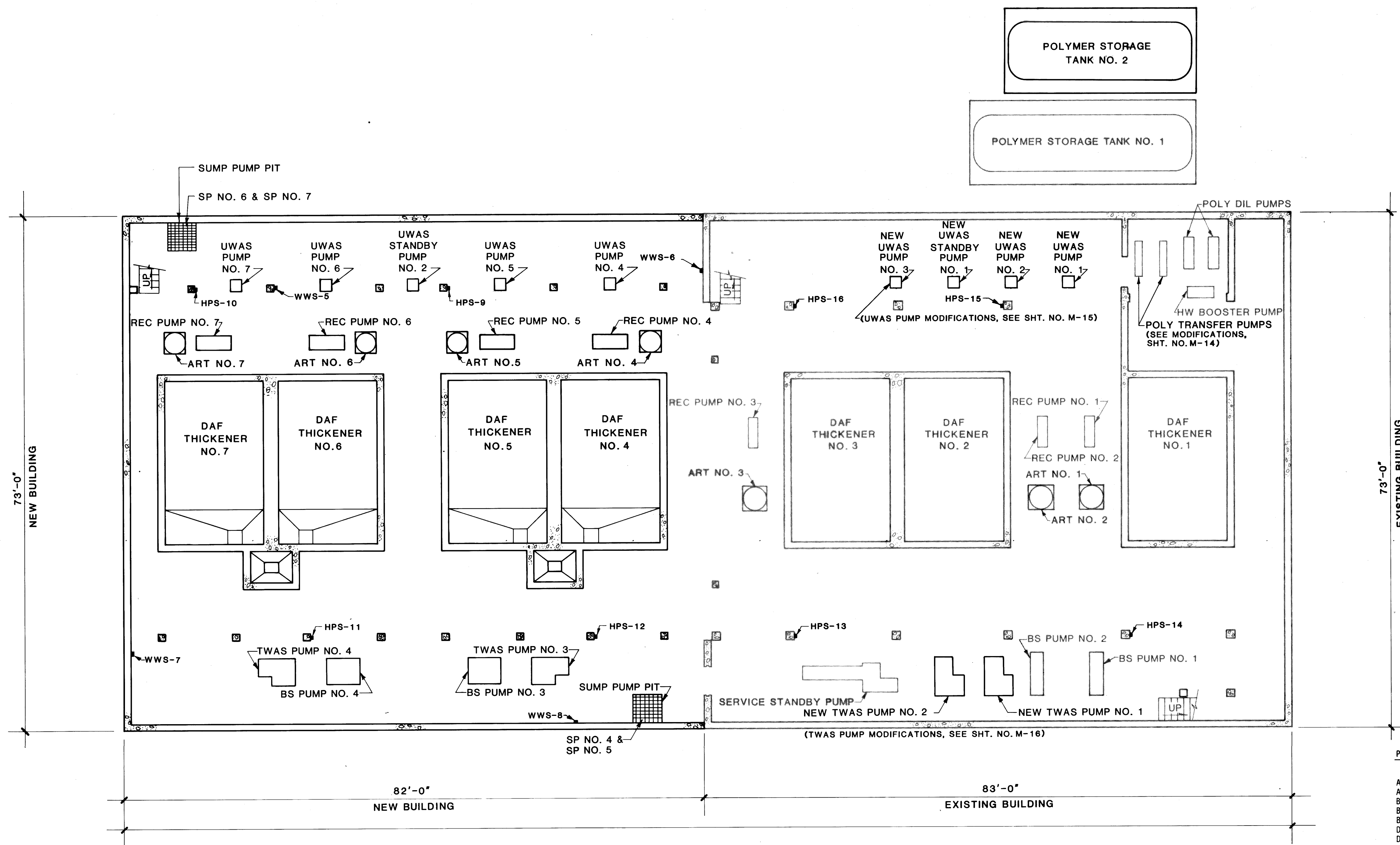
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GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
THICKENING FACILITY-MAIN FLOOR PLAN

M-C NO. 101721
M-01 36 of 111
 SC NO.



GENERAL PROCESS EQUIPMENT LAYOUT

PROCESS SYSTEM ABBREVIATIONS

AIR	COMPRESSED AIR
ART	AIR RETENTION TANK
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF	DISSOLVED AIR FLOTATION
DAF EFFL	DAF THICKENER EFFLUENT
DIL	DILUTION WATER
HPS	HIGH PRESSURE HOT WATER STATION
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PAC	PROCESS AIR COMPRESSOR
POLY	POLYMER
PW	POTABLE WATER
REC	DAF RECIRCULATION
SPD	SUMP PUMP DISCHARGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER
WWS	WASHWATER STATION

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
26	39	52	37	88																									

NO.	DATE	REVISIONS	APPROVED	DESIGNED LME, ACC	DRAWN STAFF	CHECKED LME	APPROVED	DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

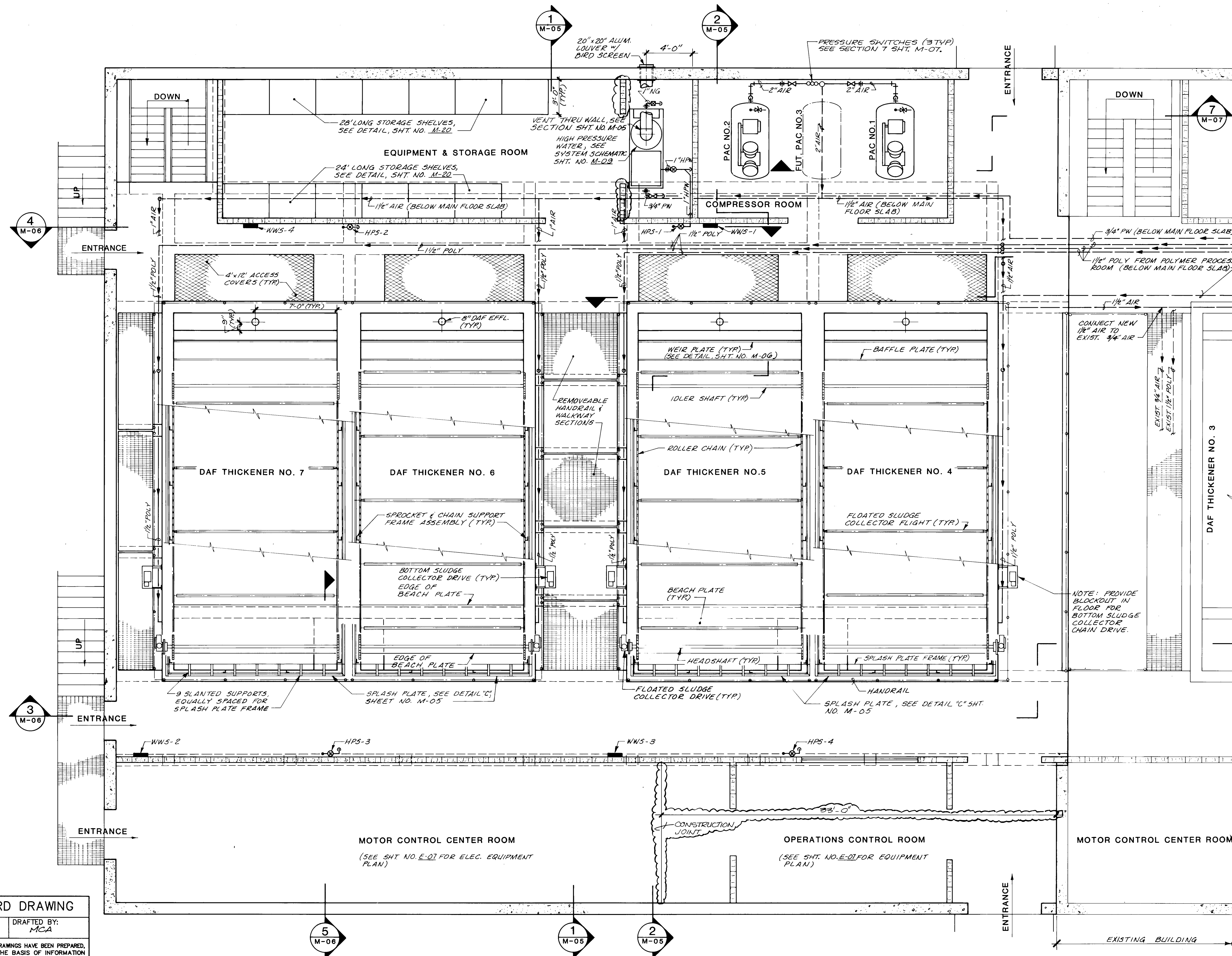
1/8" = 1' - 0"
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
THICKENING FACILITY-BASEMENT FLOOR PLAN

M-C NO. 881781
M-02 37-111
SC NO.



NOTE:

1. WASHWATER STATION DETAIL - SEE SHEET M-20.
2. WASHWATER SYSTEM SCHEMATIC - SEE SHEET M-09.
3. HIGH PRESSURE STATION DETAIL - SEE SHEET M-20.
4. HIGH PRESSURE HOT WATER SYSTEM SCHEMATIC - SEE SHEET M-09.
5. FLOOR DRAIN SYSTEM - SEE SHEET A-01.
6. REFER TO SPECIFICATIONS FOR PIPE SUPPORTS ON SMALL DIAMETER PIPING SYSTEM.

PROCESS SYSTEM ABBREVIATIONS

AIR	COMPRESSED AIR
ART	AIR RETENTION TANK
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF	DISSOLVED AIR FLOTATION
DAF EFFL	DAF THICKENER EFFLUENT
DIL	DILUTION WATER
HPS	HIGH PRESSURE HOT WATER STATION
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PAC	PROCESS AIR COMPRESSOR
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PW	POTABLE WATER
REC	DAF RECIRCULATION
SPD	SUMP PUMP DISCHARGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTHICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER
WWS	WASHWATER STATION

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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DESIGNED LMR & ACC
DRAWN LMR
CHECKED LMR
APPROVED LMR
DATE NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"



GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

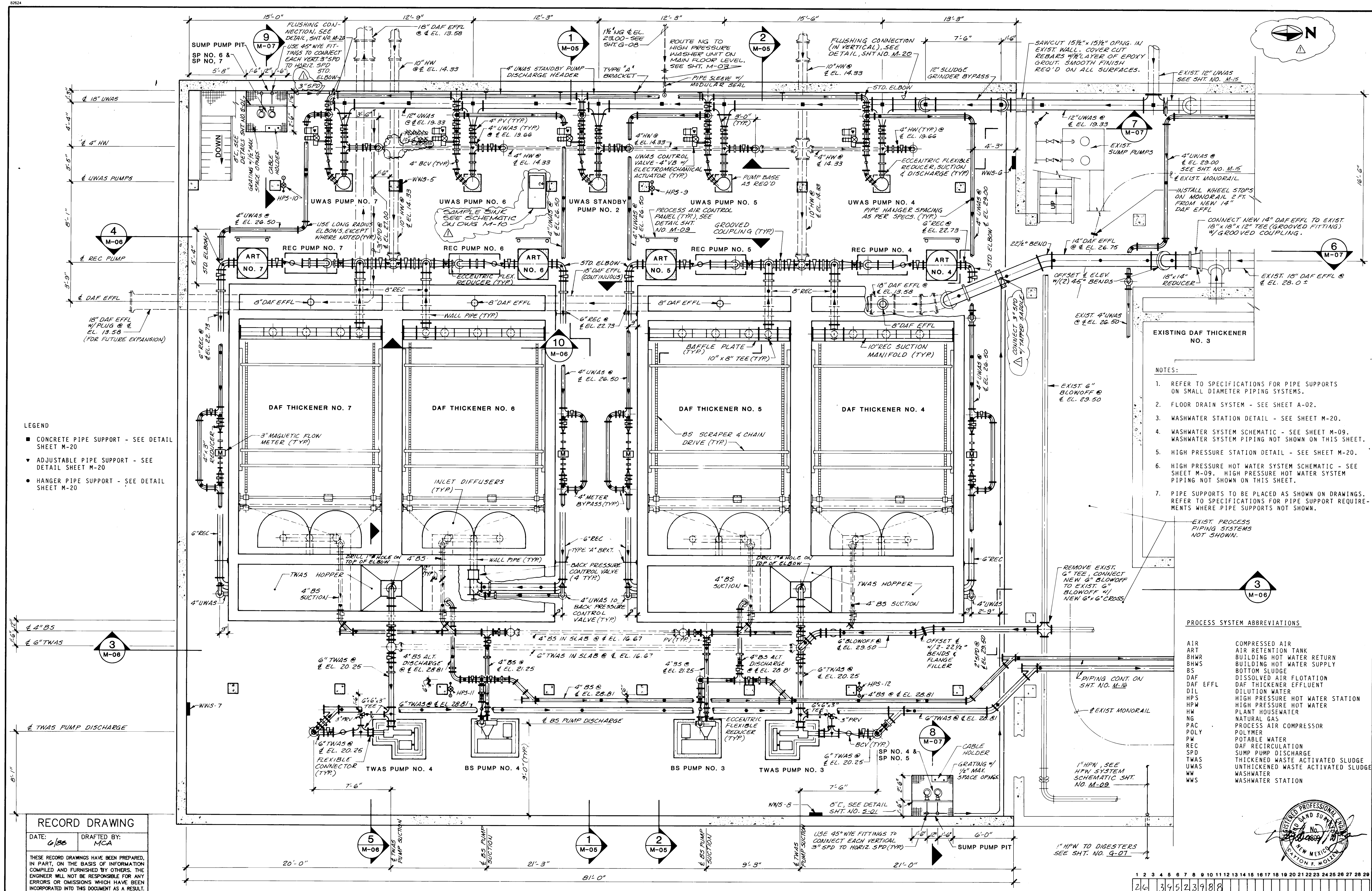
SLUDGE THICKENING SYSTEM EXPANSION
MAIN FLOOR PLAN EXPANSION

M-C NO. 831721

M-03 38 OF 111

SC NO.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 39 52 38 88



- LEGEND
- CONCRETE PIPE SUPPORT - SEE DETAIL SHEET M-20
 - ▼ ADJUSTABLE PIPE SUPPORT - SEE DETAIL SHEET M-20
 - HANGER PIPE SUPPORT - SEE DETAIL SHEET M-20

- NOTES:
- REFER TO SPECIFICATIONS FOR PIPE SUPPORTS ON SMALL DIAMETER PIPING SYSTEMS.
 - FLOOR DRAIN SYSTEM - SEE SHEET A-02.
 - WASHWATER STATION DETAIL - SEE SHEET M-20.
 - WASHWATER SYSTEM SCHEMATIC - SEE SHEET M-09. WASHWATER SYSTEM PIPING NOT SHOWN ON THIS SHEET.
 - HIGH PRESSURE STATION DETAIL - SEE SHEET M-20.
 - HIGH PRESSURE HOT WATER SYSTEM SCHEMATIC - SEE SHEET M-09. HIGH PRESSURE HOT WATER SYSTEM PIPING NOT SHOWN ON THIS SHEET.
 - PIPE SUPPORTS TO BE PLACED AS SHOWN ON DRAWINGS. REFER TO SPECIFICATIONS FOR PIPE SUPPORT REQUIREMENTS WHERE PIPE SUPPORTS NOT SHOWN.

PROCESS SYSTEM ABBREVIATIONS

AIR	COMPRESSED AIR
ART	AIR RETENTION TANK
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF	DAF THICKENER
DAF EFFL	DAF THICKENER EFFLUENT
DIL	DILUTION WATER
DHS	HIGH PRESSURE HOT WATER STATION
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PAC	PROCESS AIR COMPRESSOR
POLY	POLYMER
PW	POTABLE WATER
REC	DAF RECIRCULATION
SPD	SUMP PUMP DISCHARGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER
WWS	WASHWATER STATION

RECORD DRAWING

DATE: 6/86 DRAFTED BY: MCA

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NOTES

- 1/4" DIA. EXPANSION BOLTS (TYP.)
- 20" X 20" ALUMINUM LOUVER WITH BIRD SCREEN.
- SEAL WATERTIGHT ALL AROUND.
- 18" X 18" CONCRETE OPENING.
- SQUARE PIPE COLLAR FLASHING (SEAL ALL AROUND).
- INSTALL EXHAUST VENT AS RECOMMENDED BY THE HIGH PRESSURE HOT WATER UNIT MANUFACTURER.
- 18" O.D. X 16" I.D. DOUBLE WALL PIPE. SEE SPECIFICATION SECTION 15500.
- 12" I.D. X 16" I.D. REDUCER.

ROUTE GAS LINE UP THE OUTSIDE OF BUILDING

AMERICAN METER REGULATOR
1" 1813 C 3/16" ORIFICE

1" ISOLATION VALVE REDUCER

4" UNAS STANDBY PUMP DISCHARGE HEADER @ E.L. 23.00

STD. ELBOW

12" UNAS @ E.L. 19.33

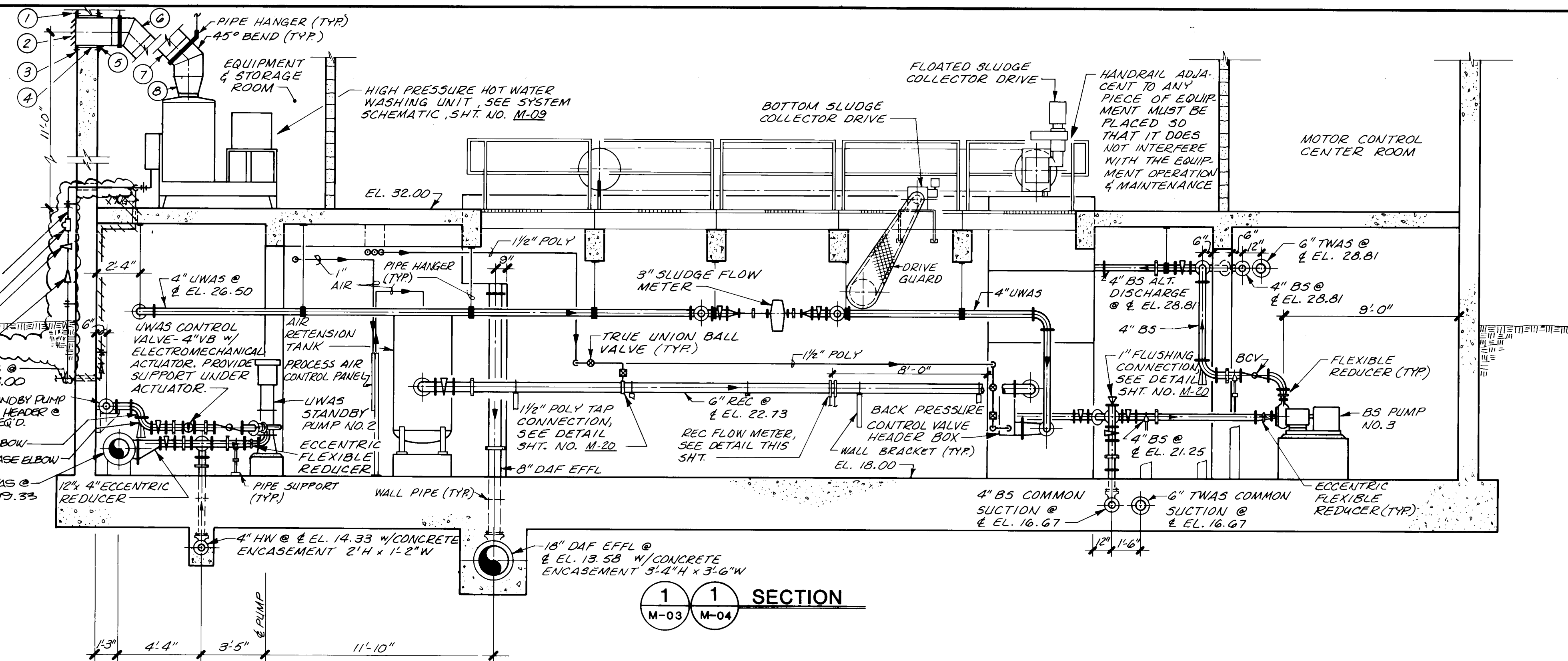
12" 4" ECCENTRIC REDUCER

PIPE SUPPORT (TYP.)

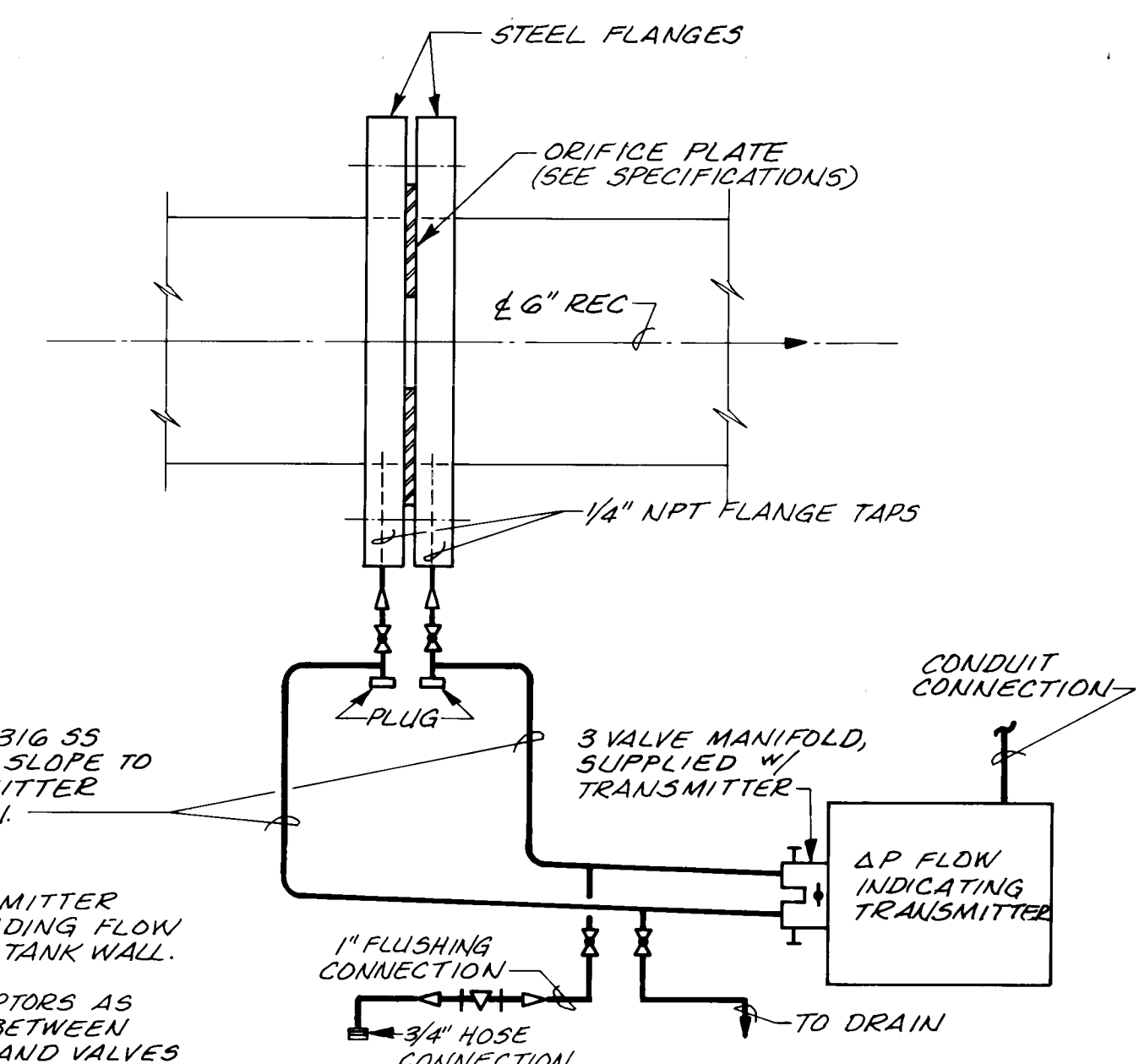
WALL PIPE (TYP.)

4" HW @ E.L. 14.33 W/CONCRETE ENCASUREMENT 2'H X 1-2"W

18" DAF EFFL @ E.L. 13.58 W/CONCRETE ENCASUREMENT 3'-4"H X 3'-6"W

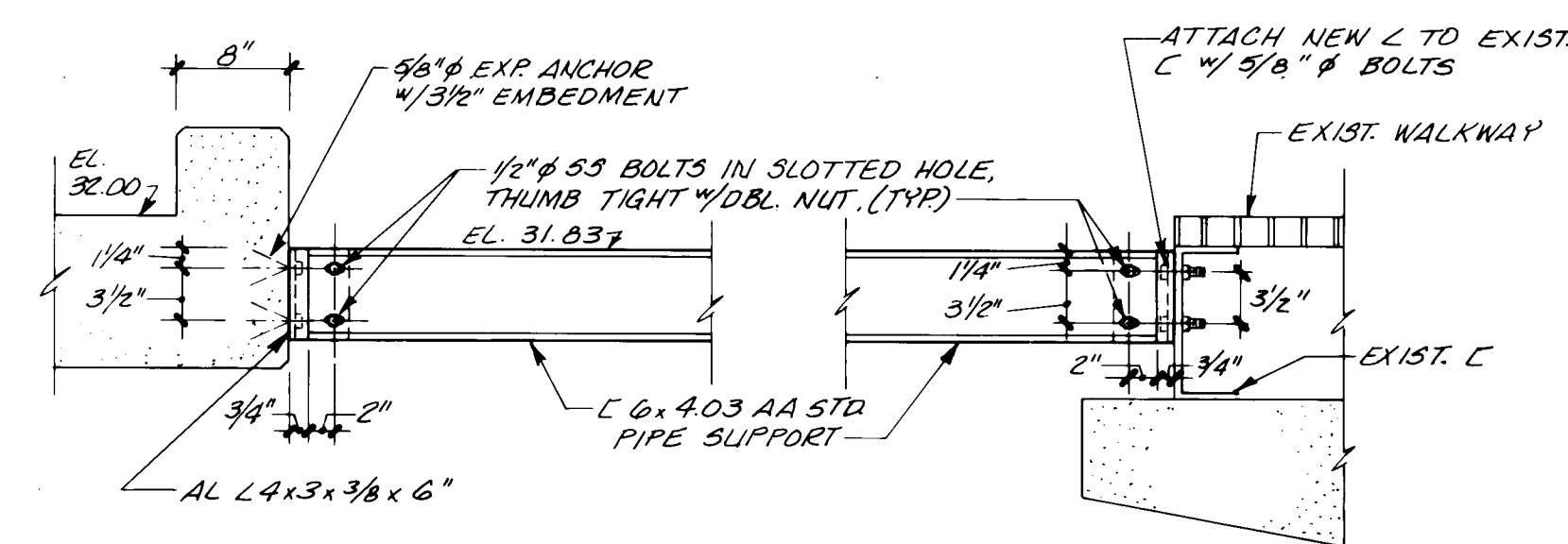
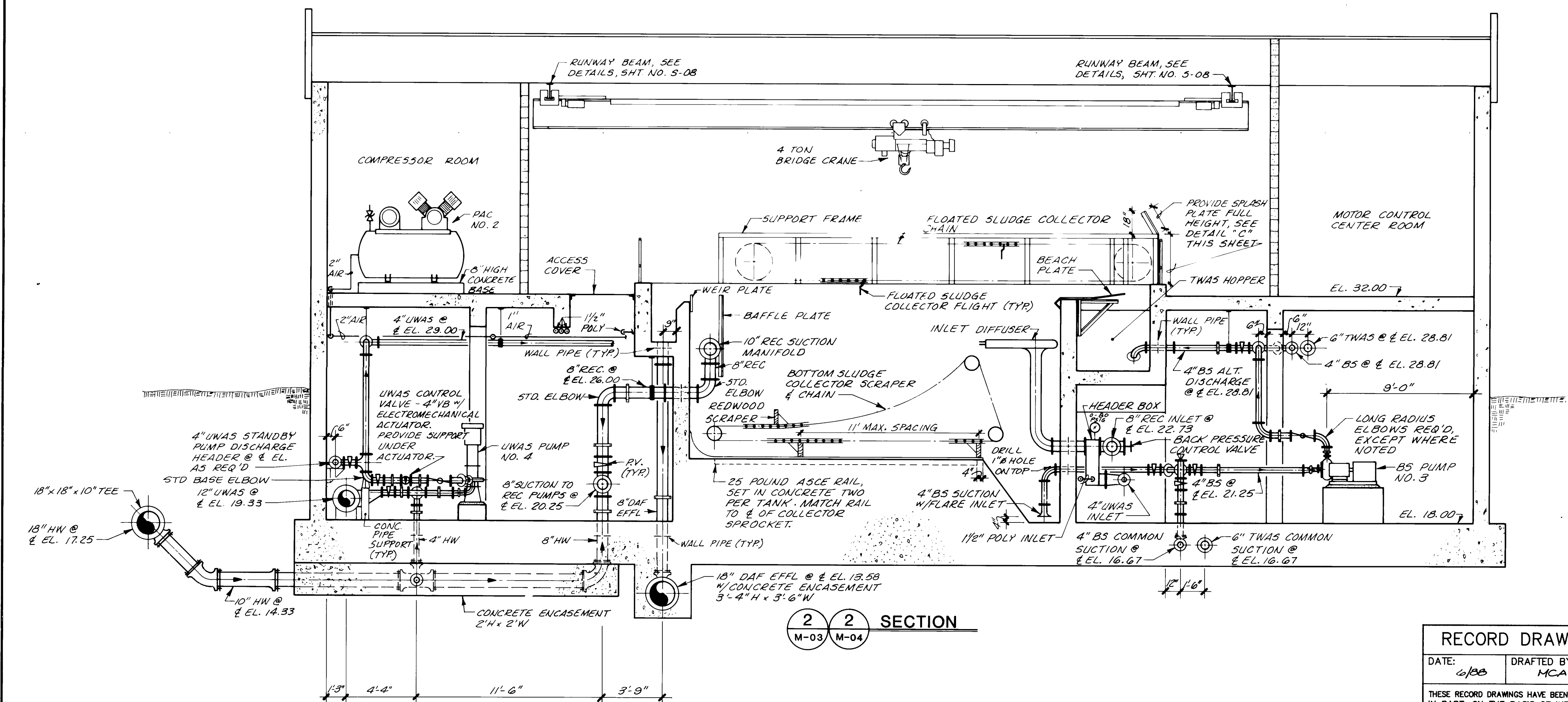


NOTE: NOT ALL PIPE SUPPORTS, HANGERS OR BRACKETS ARE SHOWN ON THESE SECTIONS. SEE SHT. NO. M-04 FOR LOCATIONS & TYPES.



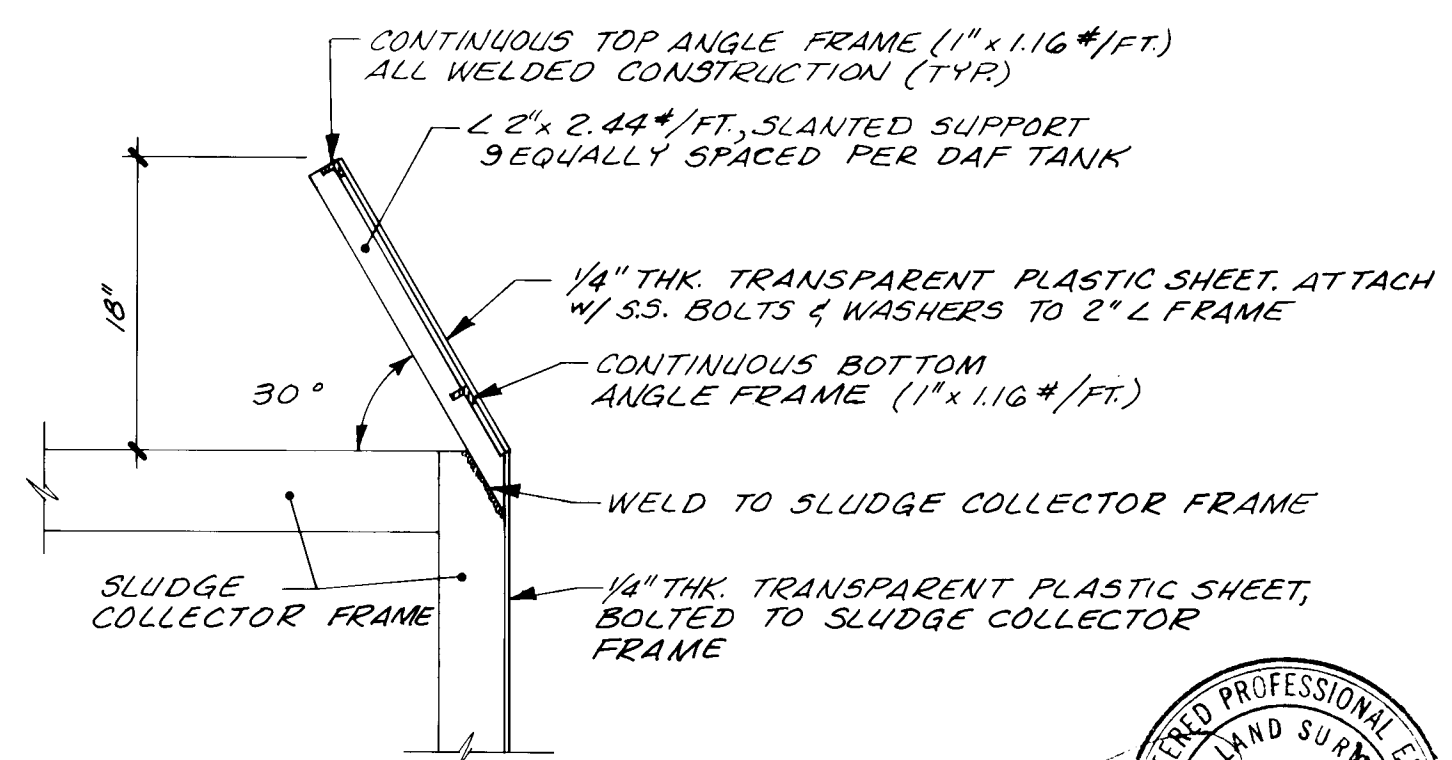
- NOTES:
1. MOUNT TRANSMITTER W/DIRECT READING FLOW INDICATOR ON TANK WALL.
 2. PROVIDE ADAPTORS AS NECESSARY BETWEEN 1/2" SS TUBING, AND VALVES AND TRANSMITTER.

REC FLOW METER DETAIL
NTS



DETAIL "A"
NTS

DETAIL "B"
NTS



DETAIL "C"
NTS

NOTE: PROVIDE AND INSTALL TRANSPARENT SPLASH PLATE PANELS EXTENDING 10 INCHES ALONG TANK SIDE FROM EAST END OF SLUDGE COLLECTOR FRAME.

RECORD DRAWING

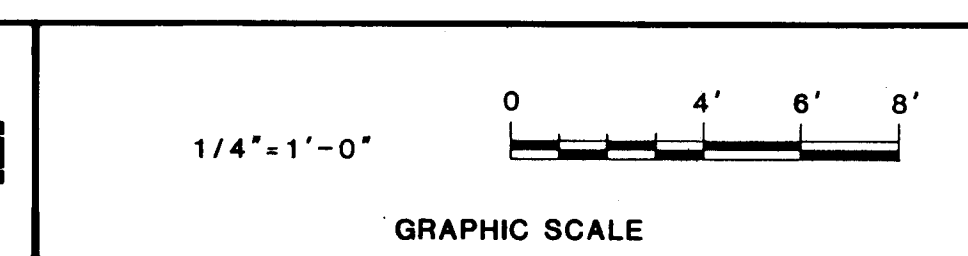
DATE: 6/1/85 DRAFTED BY: MCA

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NO.	DATE	REVISIONS	APPROVED
1	7/1/85	NOTE BELOW DETAIL "C" ADDED	

DESIGNED: LMR, ACC
DRAWN: MCA
CHECKED: LMR
APPROVED: MCA
DATE: NOV 1984

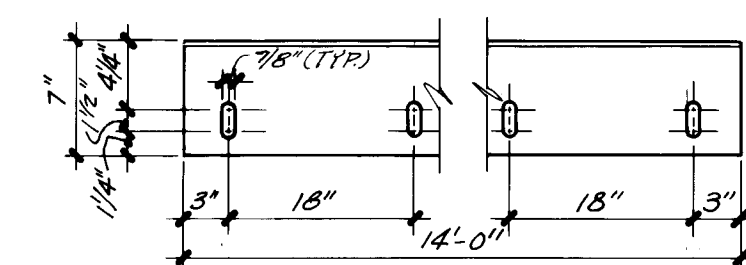
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II, B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION SECTIONS

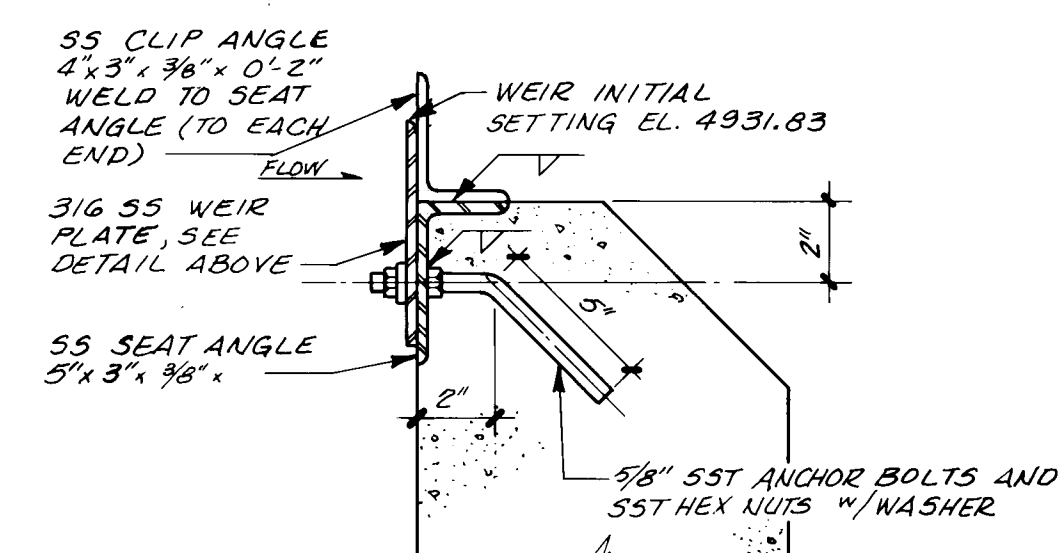
M-C NO. 831721
M-05 40 of 111
SC NO.



ELEVATION

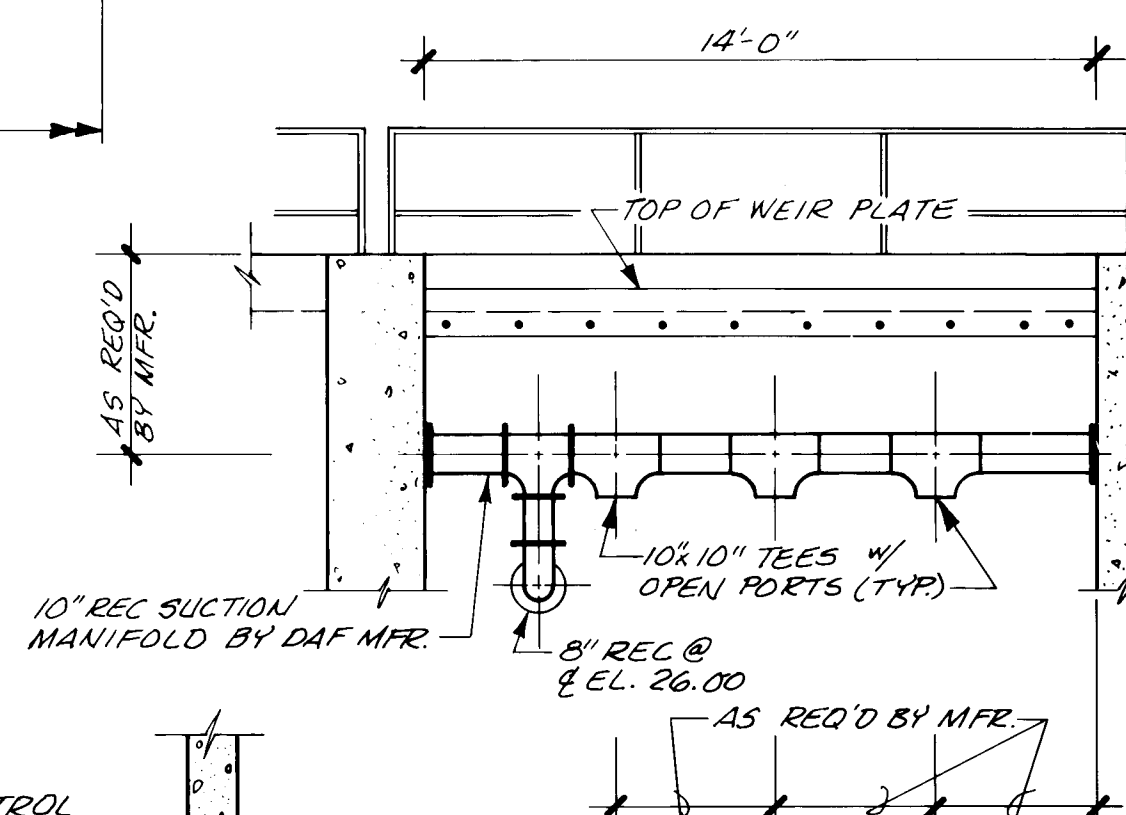
WEIR PLATE DETAILS

NTS



THICKENER WEIR DETAIL

NT



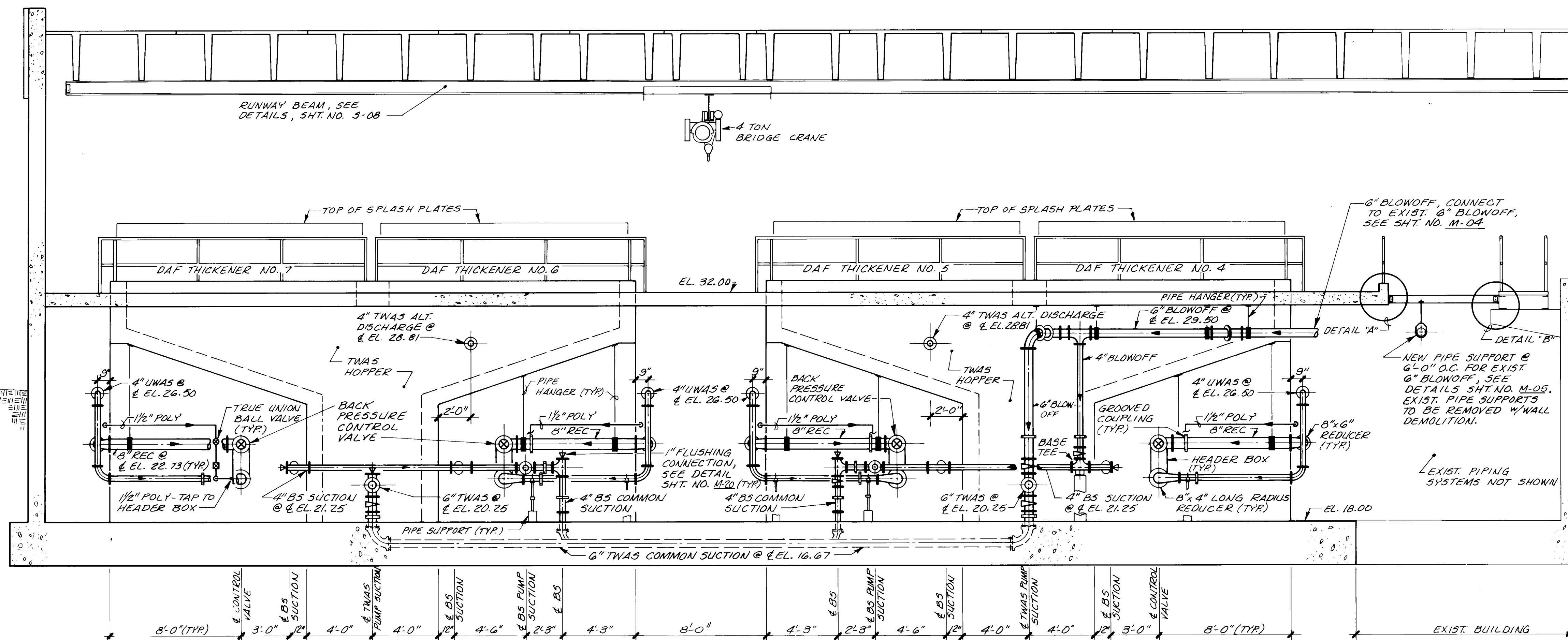
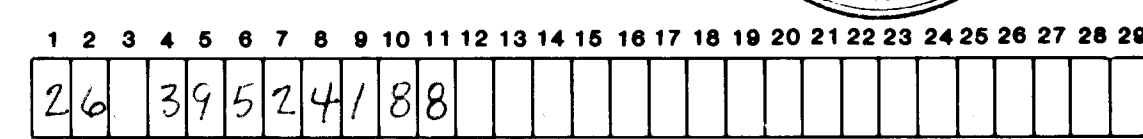
10 SECTION

M-04

RECORD DRAWING

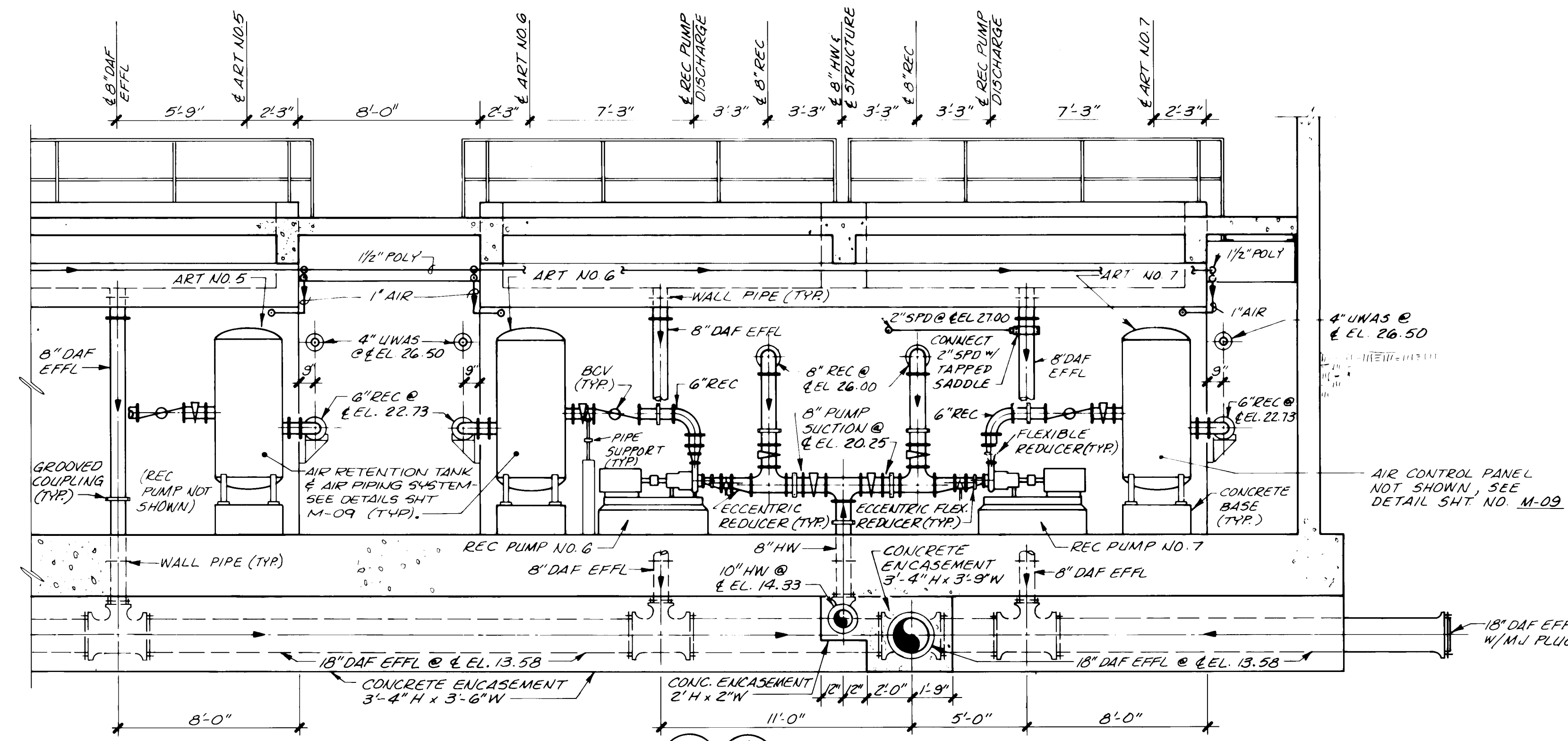
DATE: 6/88	DRAFTED BY: MCA
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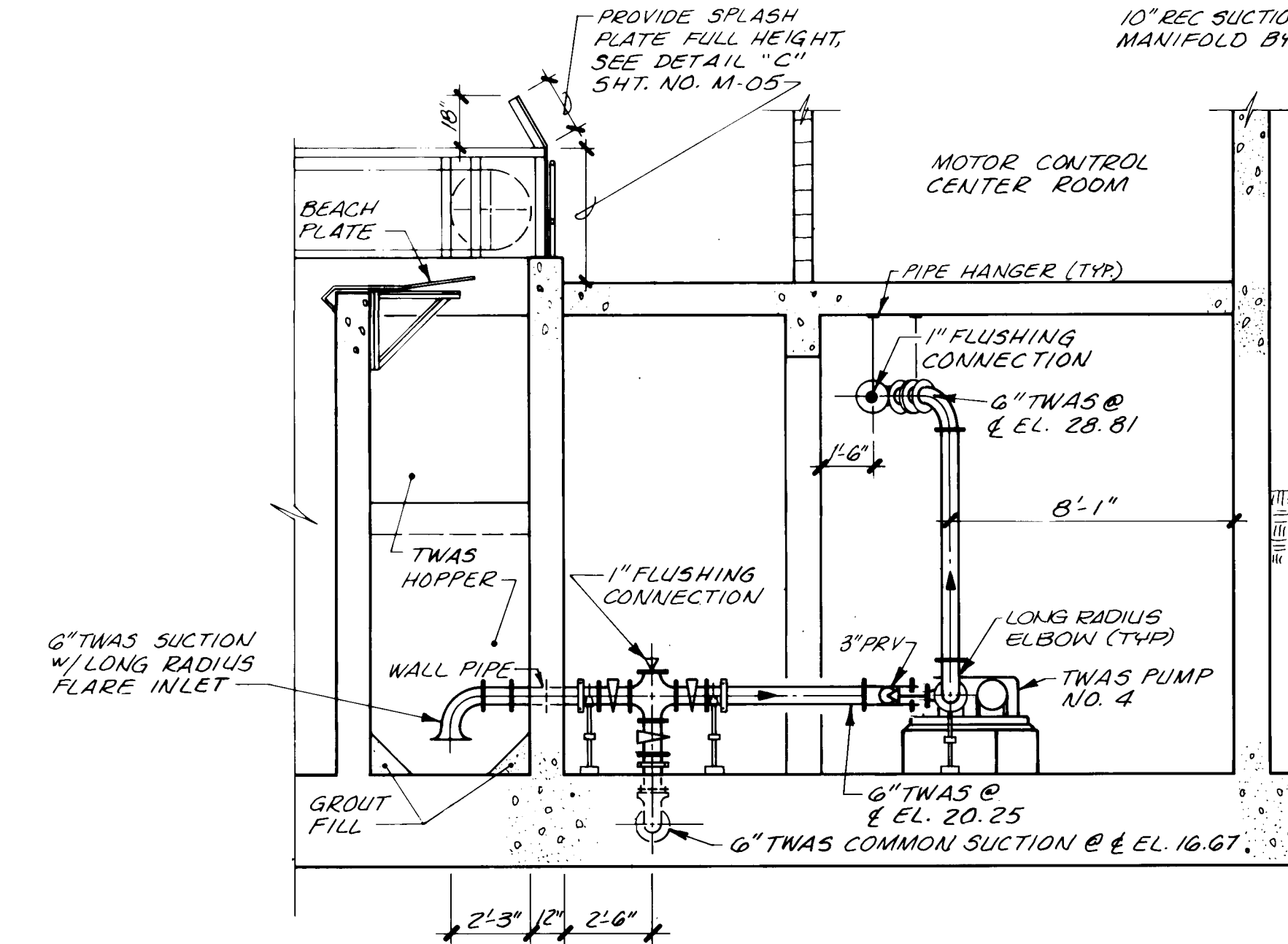
3 3 SECTION

NOTE: NOT ALL PIPE SUPPORTS, HANGERS OR BRACKETS ARE SHOWN ON THESE SECTIONS. SEE SHT. NO. M-04 FOR LOCATIONS & TYPES.



4 4 SECTION

M-03 M-04



5 5 SECTION

M-03 M-04

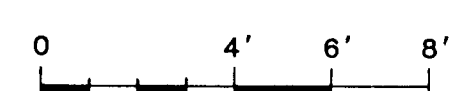
NO.	DATE	REVISIONS	APPROVED

DESIGNED LMR & ACC
DRAWN KHH
CHECKED LMR
APPROVED _____
APPROVED _____
DATE NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" 1' 0"



GRAPHIC SCALE



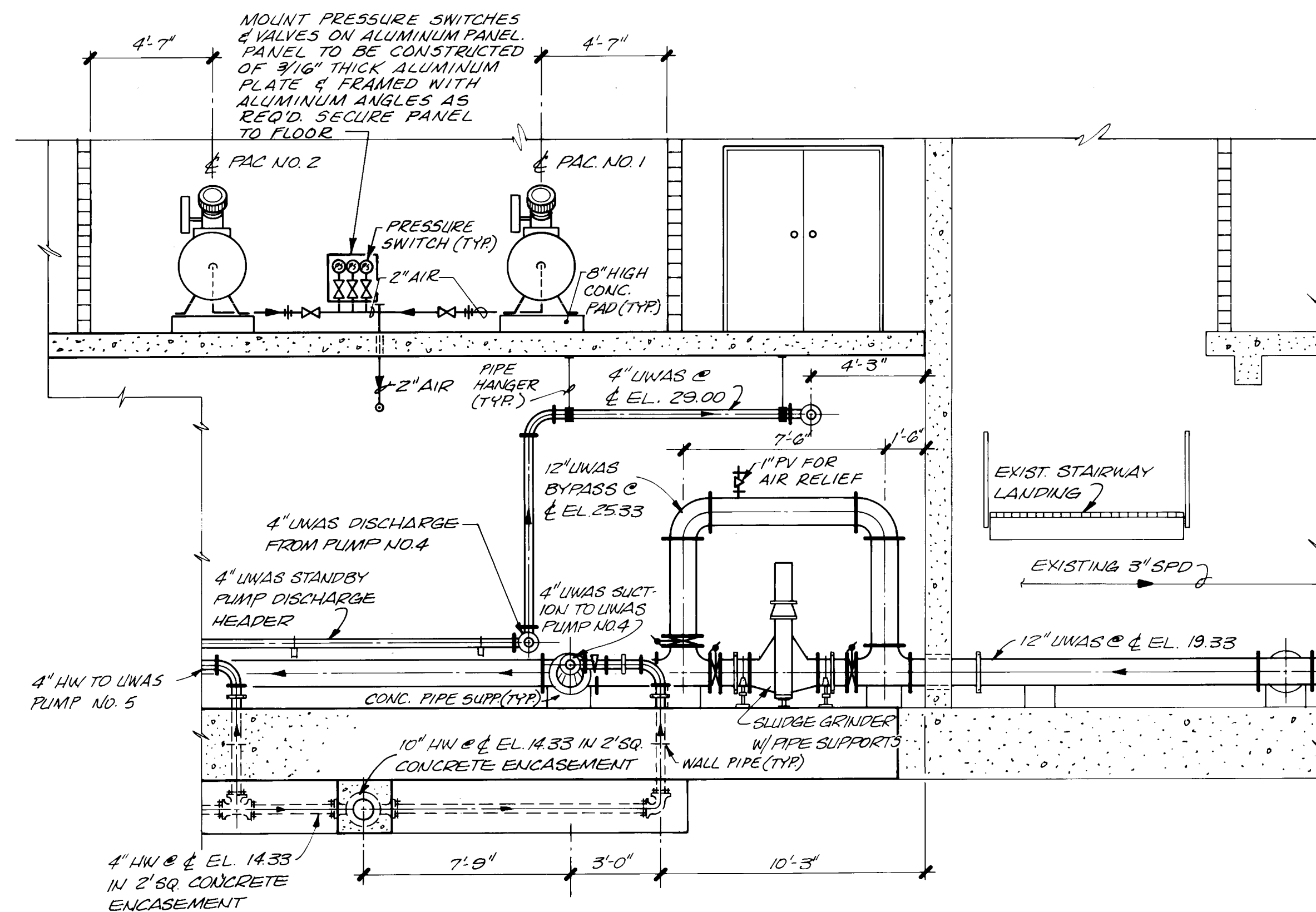
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1 , CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION SECTIONS

M-C NO.	831721
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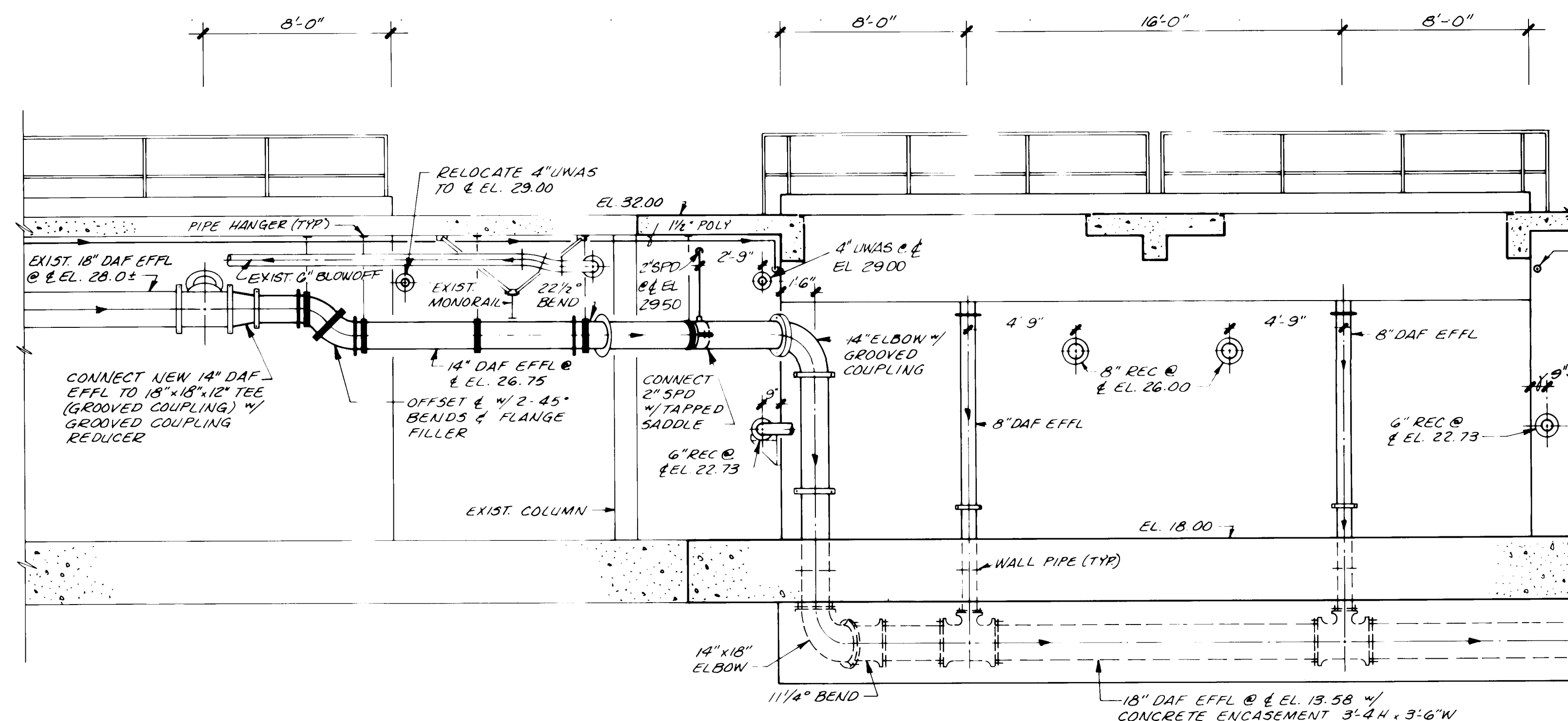
M-06 41 of 111

SC NO

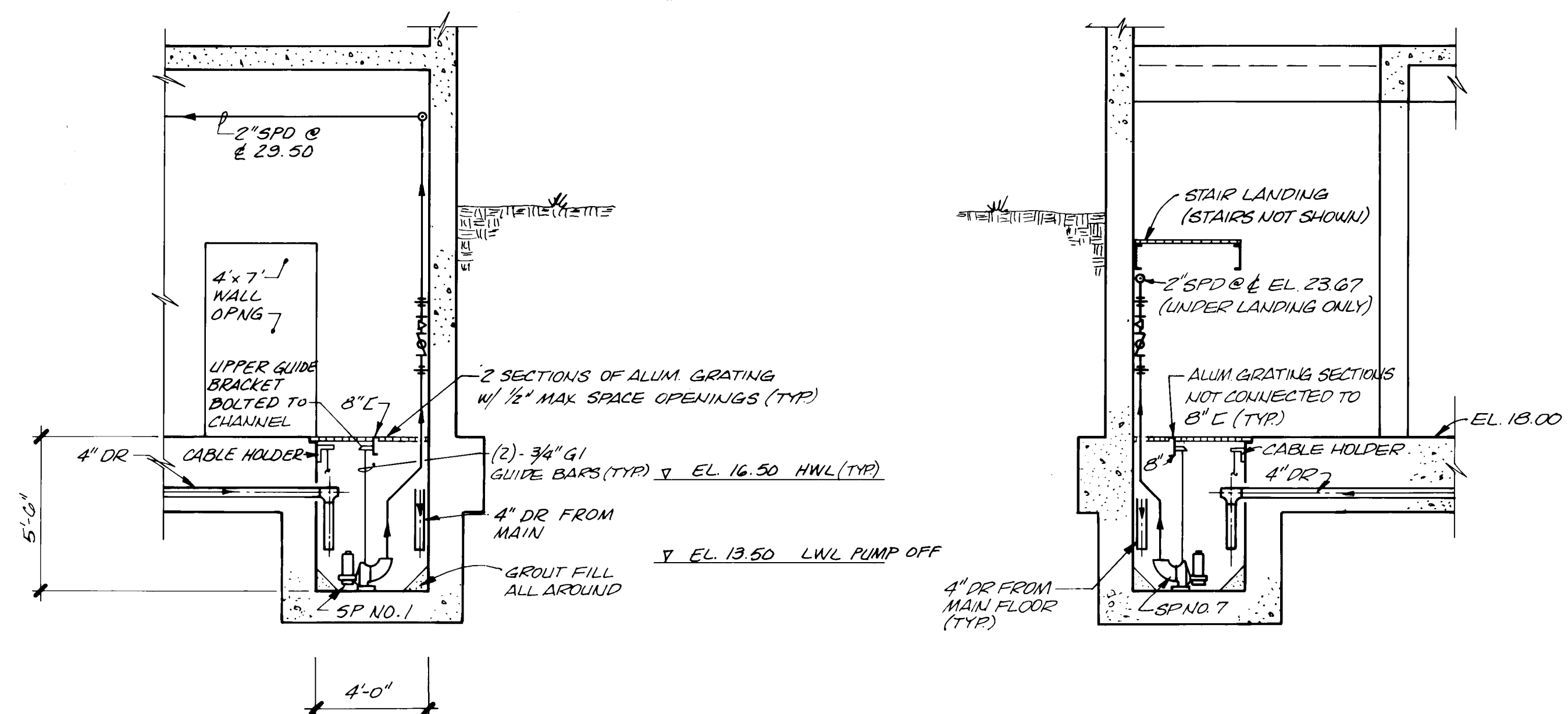


7 7 SECTION
M-03 M-04

NOTE: NOT ALL PIPE SUPPORTS, HANGERS OR BRACKETS ARE SHOWN ON THESE SECTIONS. SEE SHT. NO. M-04 FOR LOCATIONS & TYPES.

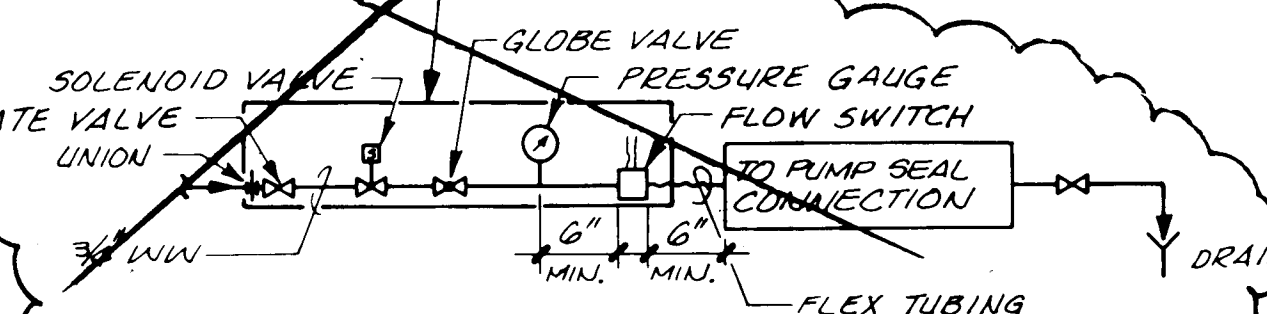


66 SECTION



8 SECTION
M-04

MOUNT VALVES, SWITCH & GAUGE ON ALUMINUM PANEL. PLACE PANEL CLOSE TO PUMP. PANEL CONSTRUCTED OF 3/16" THICK ALUMINUM PLATE & FRAMED WITH ALUMINUM ANGLES AS REQ'D. PANEL FRAME SUPPORT LEGS TO BE SECURED TO FLOOR.

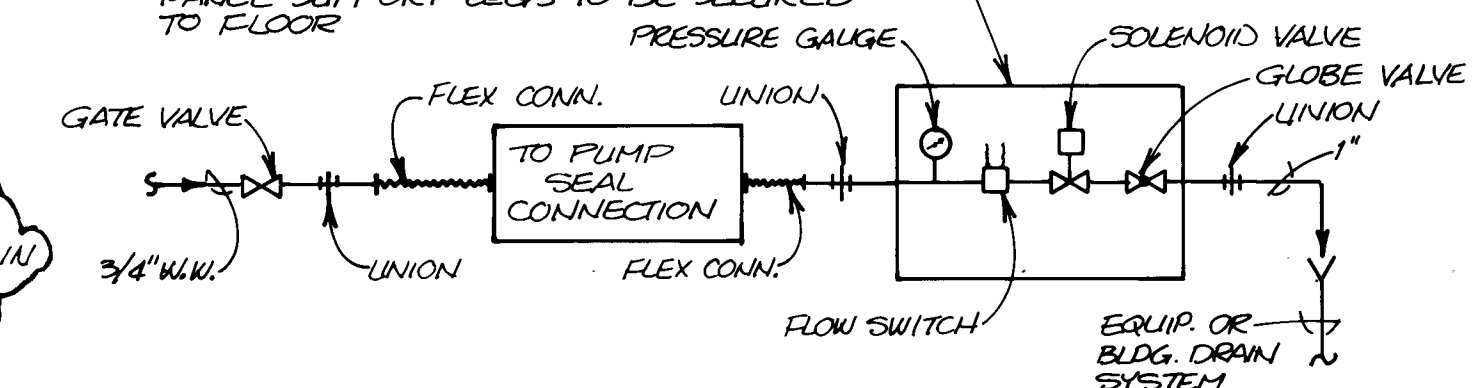


TYPICAL SEAL WATER CONNECTION DETAIL

N

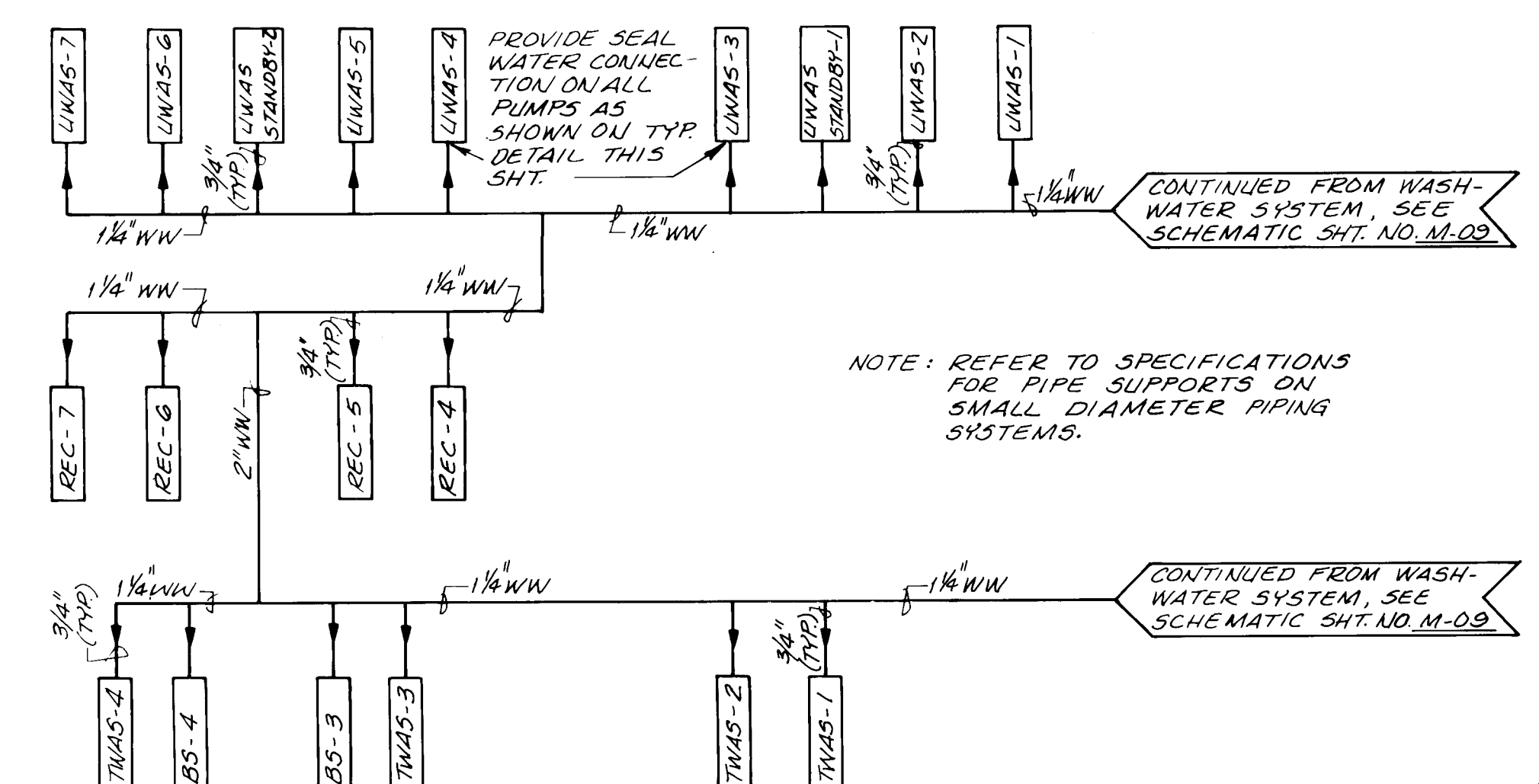
9 SECTION
M-04

MOUNT VALVES SWITCH & GAUGE ON ALLUM. PANELS PLACE PANEL NEXT TO PUMP. PANEL FABR. OF 3/16" ALLUM. RE & FRAMED WITH ALLUM. C'S AS REQ'D. PANEL SUPPORT LEGS TO BE SECURED TO FLOOR



TYPICAL SEALWATER CONNECTION - DETAIL

NITC



NOTE: REFER TO SPECIFICATIONS
FOR PIPE SUPPORTS ON
SMALL DIAMETER PIPING
SYSTEMS.

CONTINUED FROM WASH-
WATER SYSTEM, SEE
SCHEMATIC SHT. NO. M-09

CONTINUED FROM WASH-
WATER SYSTEM, SEE
SCHEMATIC SHT. NO. M-09

RECORD DRAWING

DATE: 6/88	DRAFTED BY: MCA
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PUMP SEAL WATER SYSTEM SCHEMATIC

NTS

[illegible]

						DESIGNED <u>LMB ACC</u>
						DRAWN <u>KHJ</u>
						CHECKED <u>LMB</u>
						APPROVED _____
						DATE NOV 1984
NO.	DATE	REVISIONS				APPROVED

DESIGNED LMR, ACC
DRAWN KAY
CHECKED LMR
APPROVED _____
APPROVED _____
DATE NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" 1'-0"



GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1 . CONTRACTS 2 & 3

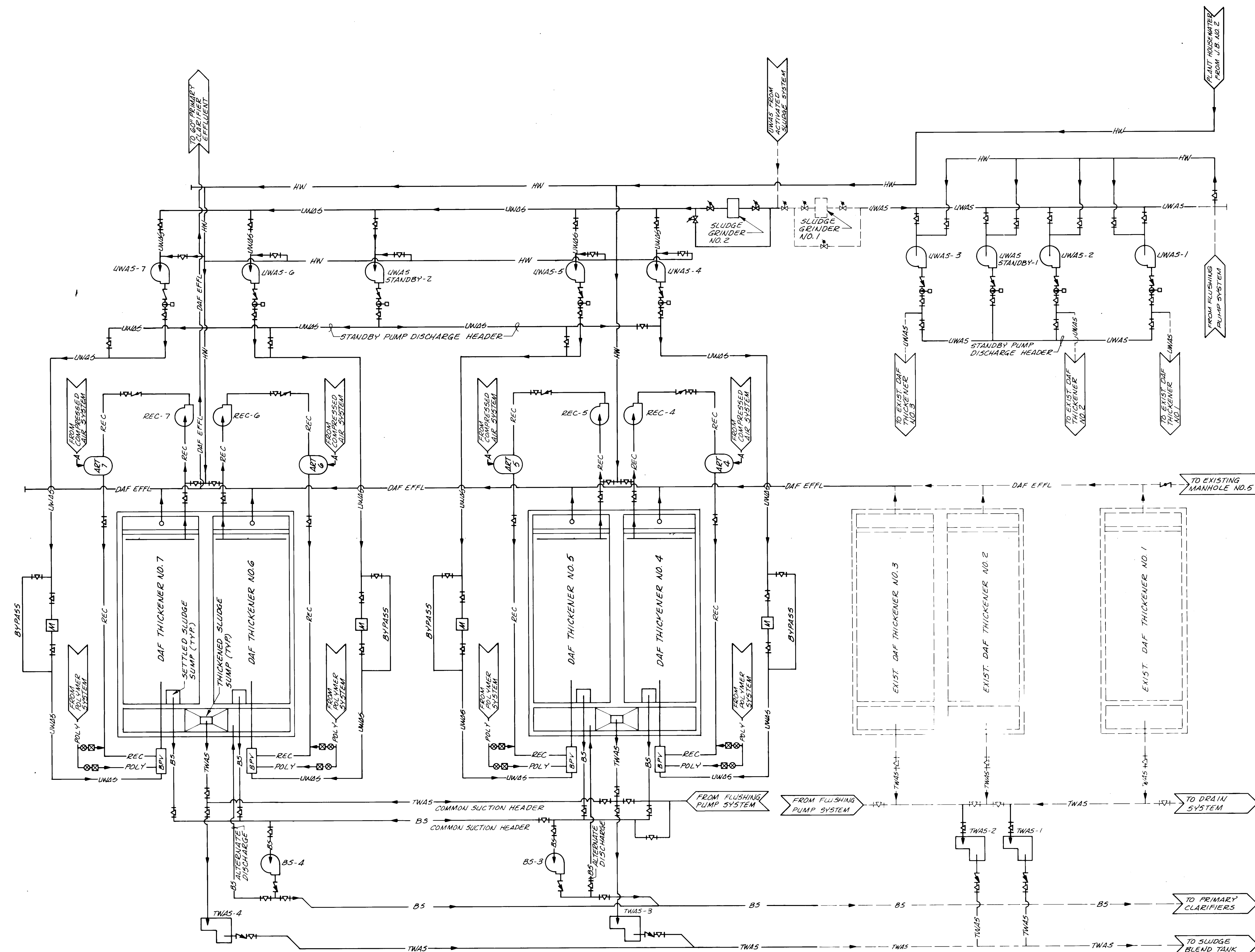
SLUDGE THICKENING SYSTEM EXPANSION SECTIONS

M-C NO. 831721

M-07

42 OF 111

SC NO



PROCESS SYSTEM ABBREVIATIONS

AIR	COMPRESSED AIR
ART	AIR RETENTION TANK
BHWR	BUILDING HOT WATER RETURN
BHWS	BUILDING HOT WATER SUPPLY
BS	BOTTOM SLUDGE
DAF	DISSOLVED AIR FLOTATION
DAF EFFL	DAF THICKENER EFFLUENT
DIL	DILUTION WATER
HPS	HIGH PRESSURE HOT WATER STATION
HPW	HIGH PRESSURE HOT WATER
HW	PLANT HOUSEWATER
NG	NATURAL GAS
PAC	PROCESS AIR COMPRESSOR
POLY	POLYMER
PW	POTABLE WATER
REC	DAF RECIRCULATION
SPD	SUMP PUMP DISCHARGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UWAS	UNTHICKENED WASTE ACTIVATED SLUDGE
WW	WASHWATER
WWS	WASHWATER STATION

LEGEND

	BUTTERFLY VALVE
	KNIFE GATE VALVE
	BALL VALVE
	CORPORATION STOP
	CONTROL VALVE w/ELECTRIC OPERATOR
	PLUG VALVE
	CHECK VALVE
	PIPE CROSSING, NOT CONNECTED
	BPV - BACK PRESSURE CONTROL VALVE
	METER
	CENTRIFUGAL PUMP
	POSITIVE DISPLACEMENT PUMP
	EXISTING FACILITY

NOTE:
EXISTING PROCESS PIPING NOT
SHOWN EXCEPT WHERE NOTED.

RECORD DRAWING

DATE: 6/88 DRAFTED BY: MCA

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 39 52 43 88

NO.	DATE	REVISIONS	APPROVED

DESIGNED: LMR, AGC
DRAWN: MHP
CHECKED: LMR
APPROVED: LMR
DATE: NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NO SCALE
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
THICKENING SYSTEM PROCESS SCHEMATIC

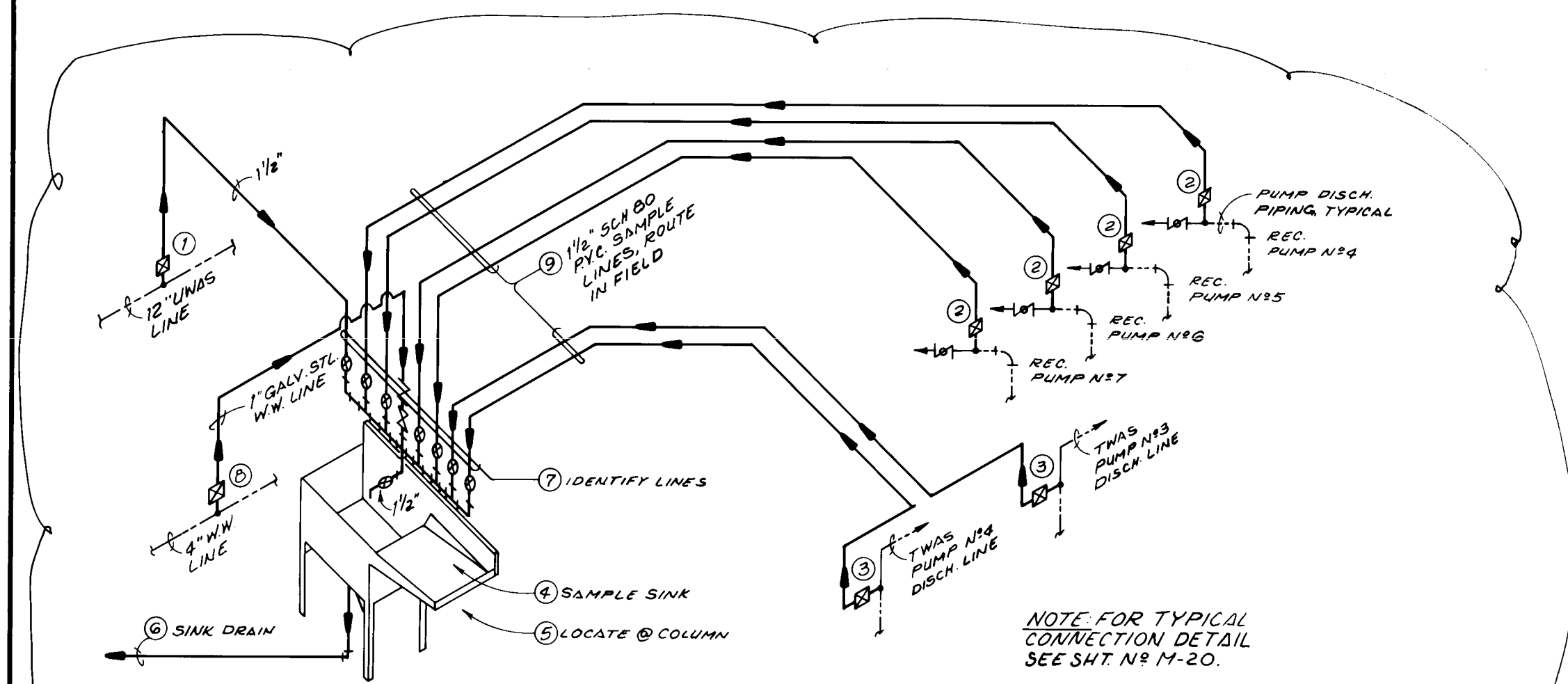
M-C NO. 831721
M-08 43 of 111
SC NO.



- 1 ALL HIGH PRESSURE WATER LINES TO BE INSULATED AND WRAPPED WITH ALUMINUM JACKET (2" O.D.), SEE PIPE SPECS., SHEET M-17.
- 2 3/4" HIGH PRESSURE WATER (HPW) LOOP TO BE SUSPENDED FROM BASEMENT FLOOR CEILING. FIELD PLACE HPW LINES TO CLEAR EXISTING PIPING AND EQUIPMENT SYSTEMS AS APPROVED BY ENGINEER.
- 3 DRILL 3" DIA. HOLE IN EXISTING CONCRETE FLOOR. SEAL OPENING WITH EPOXY GROUT.
- 4 PIPE SUPPORTS TO BE PROVIDED IN ACCORDANCE WITH SPECIFICATIONS.
- 5 WASHWATER STATION LOCATIONS - SEE SHEETS M-03 AND M-04.
- 6 WASHWATER STATION DETAIL - SEE SHEET M-20.
- 7 3" WW TO BE SUSPENDED FROM BASEMENT FLOOR CEILING. PIPE SUPPORTS TO BE IN ACCORDANCE WITH SPECIFICATIONS.
- 8 HIGH PRESSURE HOT WATER STATION - SEE SHEET M-20.

A circular professional engineer seal for the State of New Mexico. The outer ring contains the text "REGISTERED PROFESSIONAL ENGINEER" at the top and "NEW MEXICO" at the bottom. Inside the ring, the text "LAND SURVEYING" is visible. The center of the seal contains the number "No. 1805". The seal is signed with a cursive signature, and the name "BYRON E. MOLZEN" is printed below the seal.

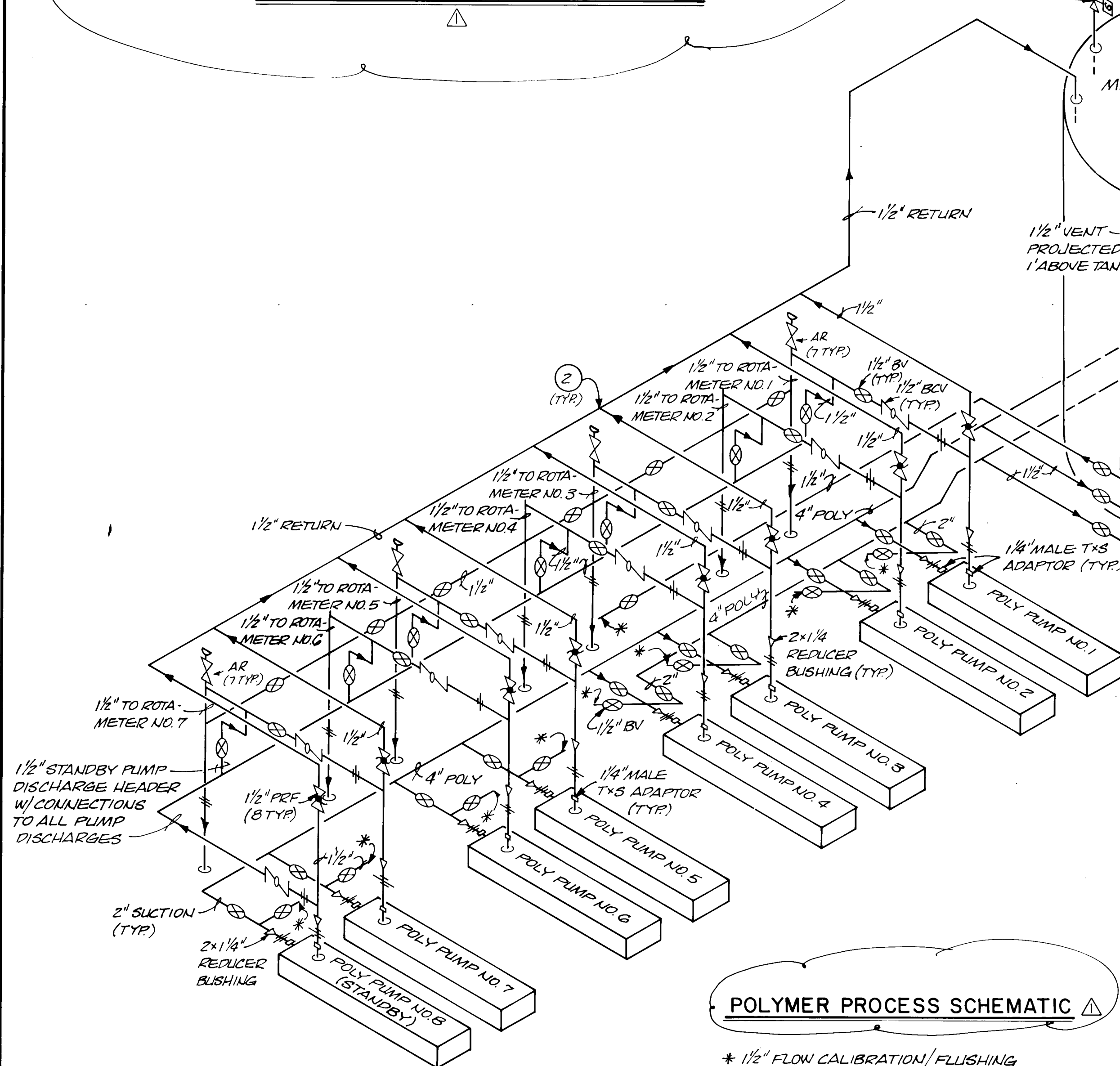
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NOTES

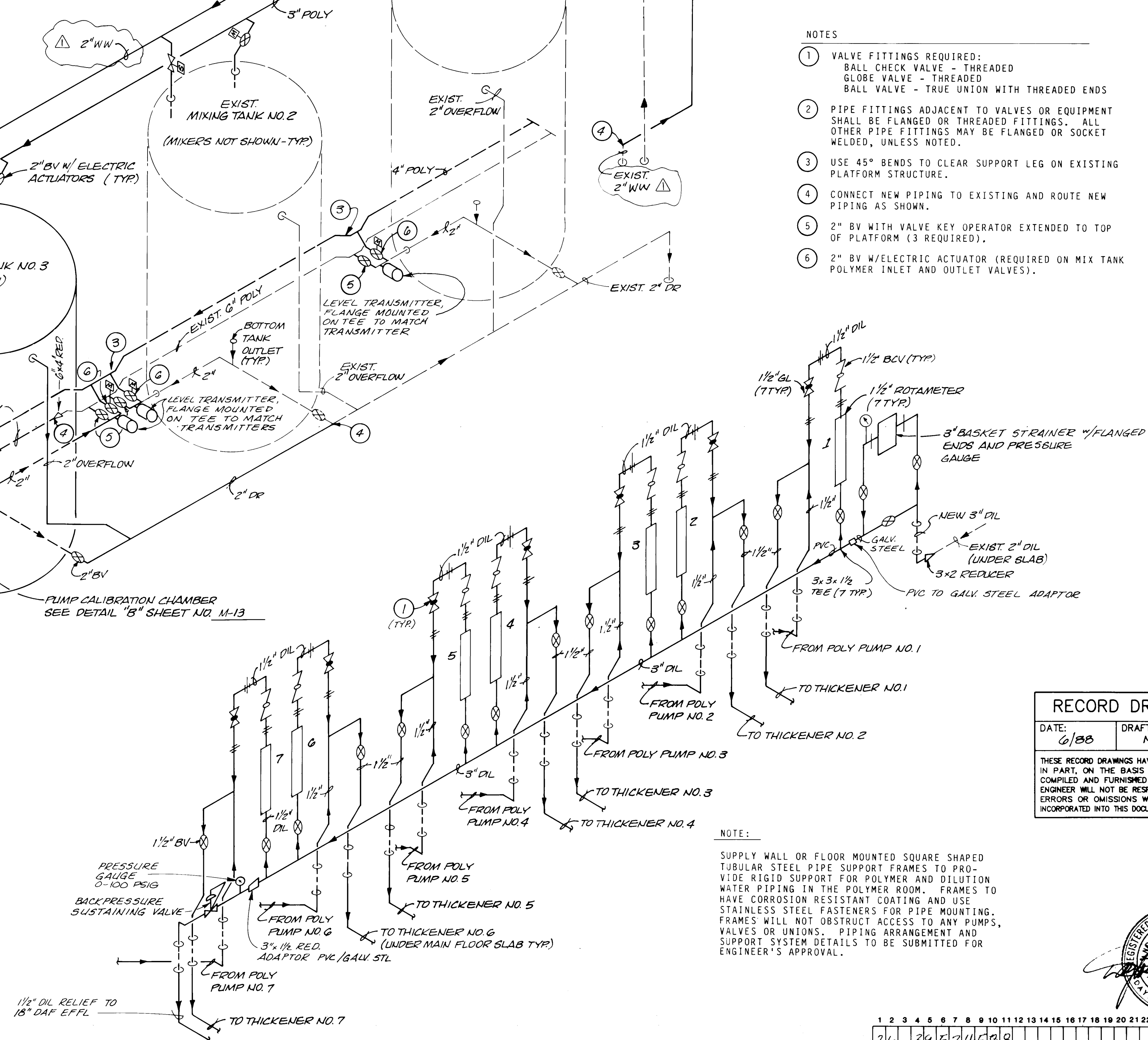
- ① TAP 12" UWS BETWEEN UWS PUMP N°6 AND UWS STANDBY PUMP N°2.
- ② TAP REC. PUMP DISCHARGE BETWEEN 90° BEND AND BALL CHECK VALVE.
- ③ TAP 6" TWS DISCHARGE IN VERTICAL RUN.
- ④ SAMPLE SINK: STAINLESS STEEL, 24" X 24" W/ DRAIN BOARD AND SPLASH BACK, DUKE SERIES 2424 OR APPROVED EQUAL.
- ⑤ LOCATE SINK ON SOUTH SIDE OF COLUMN BETWEEN UWS PUMP N°6 AND UWS STANDBY PUMP N°2.
- ⑥ PROVIDE PERMANENT CONNECTION OF SINK DRAIN LINE TO FLOOR DRAIN SYSTEM.
- ⑦ PROVIDE IDENTIFICATION LABELS ON ALL SAMPLE LINES AT SINK LOCATION.
- ⑧ TAP EXISTING W.W. SYSTEM AT MOST CONVENIENT LOCATION AS APPROVED.
- ⑨ REFER TO DRAWING N°M-04 FOR PLAN LOCATIONS OF EQUIPMENT AND RESPECTIVE CONNECTION POINTS.

PROCESS SAMPLING SYSTEM SCHEMATIC



POLYMER PROCESS SCHEMATIC

* 1/2" FLOW CALIBRATION/FLUSHING CONNECTION (8 TYP). SEE DETAIL "A" SHEET NO. M-12.



NOTES

- ① VALVE FITTINGS REQUIRED:
BALL CHECK VALVE - THREADED
GLOBE VALVE - THREADED
BALL VALVE - TRUE UNION WITH THREADED ENDS
- ② PIPE FITTINGS ADJACENT TO VALVES OR EQUIPMENT SHALL BE FLANGED OR THREADED FITTINGS. ALL OTHER PIPE FITTINGS MAY BE FLANGED OR SOCKET WELDED, UNLESS NOTED.
- ③ USE 45° BENDS TO CLEAR SUPPORT LEG ON EXISTING PLATFORM STRUCTURE.
- ④ CONNECT NEW PIPING TO EXISTING AND ROUTE NEW PIPING AS SHOWN.
- ⑤ 2" BV WITH VALVE KEY OPERATOR EXTENDED TO TOP OF PLATFORM (3 REQUIRED).
- ⑥ 2" BV W/ELECTRIC ACTUATOR (REQUIRED ON MIX TANK POLYMER INLET AND OUTLET VALVES).

RECORD DRAWING

DATE: 6/88
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NOTE:

SUPPLY WALL OR FLOOR MOUNTED SQUARE SHAPED TUBULAR STEEL PIPE SUPPORT FRAMES TO PROVIDE RIGID SUPPORT FOR POLYMER AND DILUTION WATER PIPING IN THE POLYMER ROOM. FRAMES TO HAVE CORROSION RESISTANT COATING AND USE STAINLESS STEEL FASTENERS FOR PIPE MOUNTING. FRAMES WILL NOT OBSTRUCT ACCESS TO ANY PUMPS, VALVES OR UNIONS. PIPING ARRANGEMENT AND SUPPORT SYSTEM DETAILS TO BE SUBMITTED FOR ENGINEER'S APPROVAL.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 39 52 45 88

DESIGNED: LME ACC	7/17/85	2" PW TO 2" WW, SAMPLE SYSTEM SCHEMATIC
DRAWN: DVA		
CHECKED: LME		
APPROVED:		
APPROVED:		
DATE: NOV 1984		



MOLZEN-CORBIN

STANLEY CONSULTANTS

A JOINT VENTURE

NO SCALE

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO

SOLIDS HANDLING FACILITIES

PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION

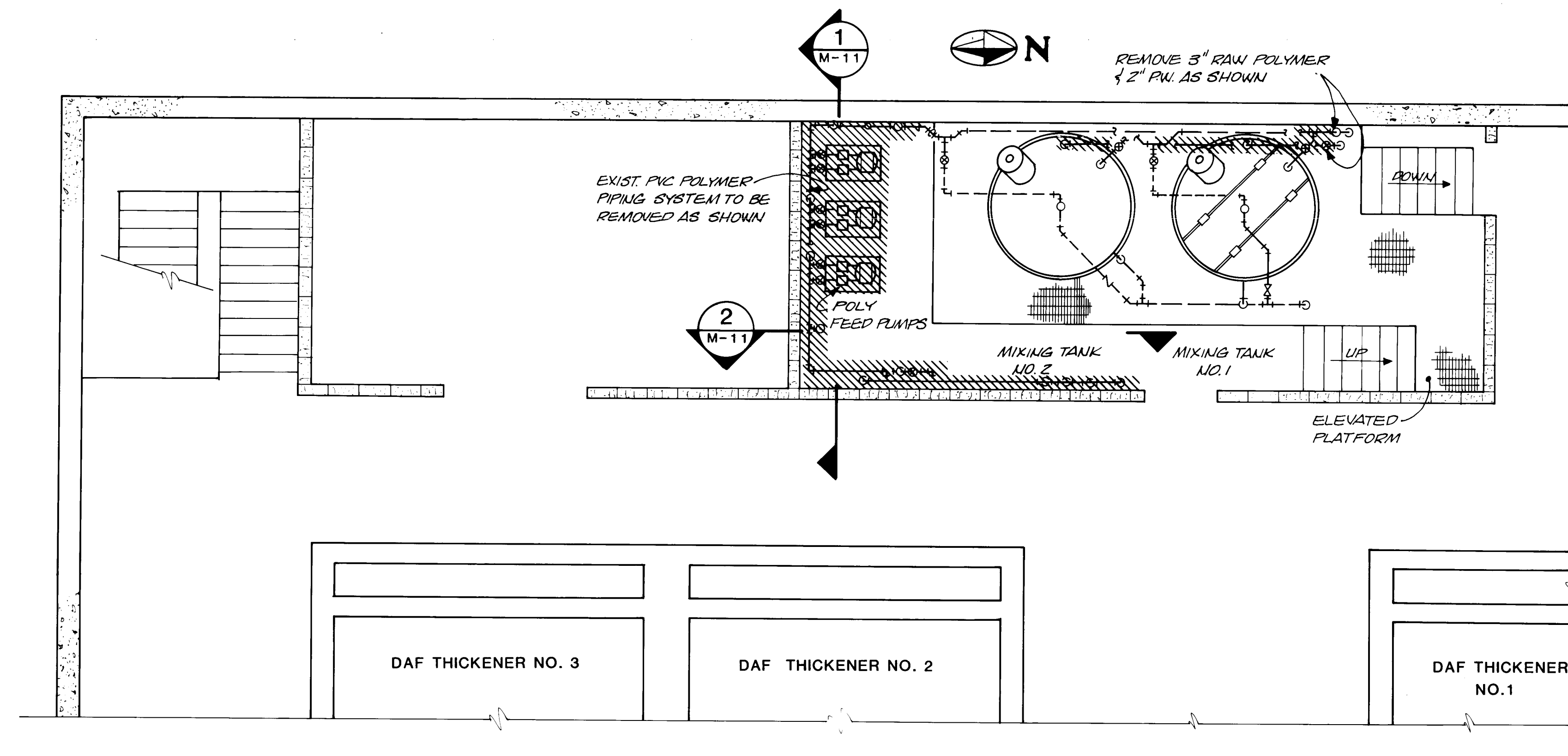
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M-C NO. 831721

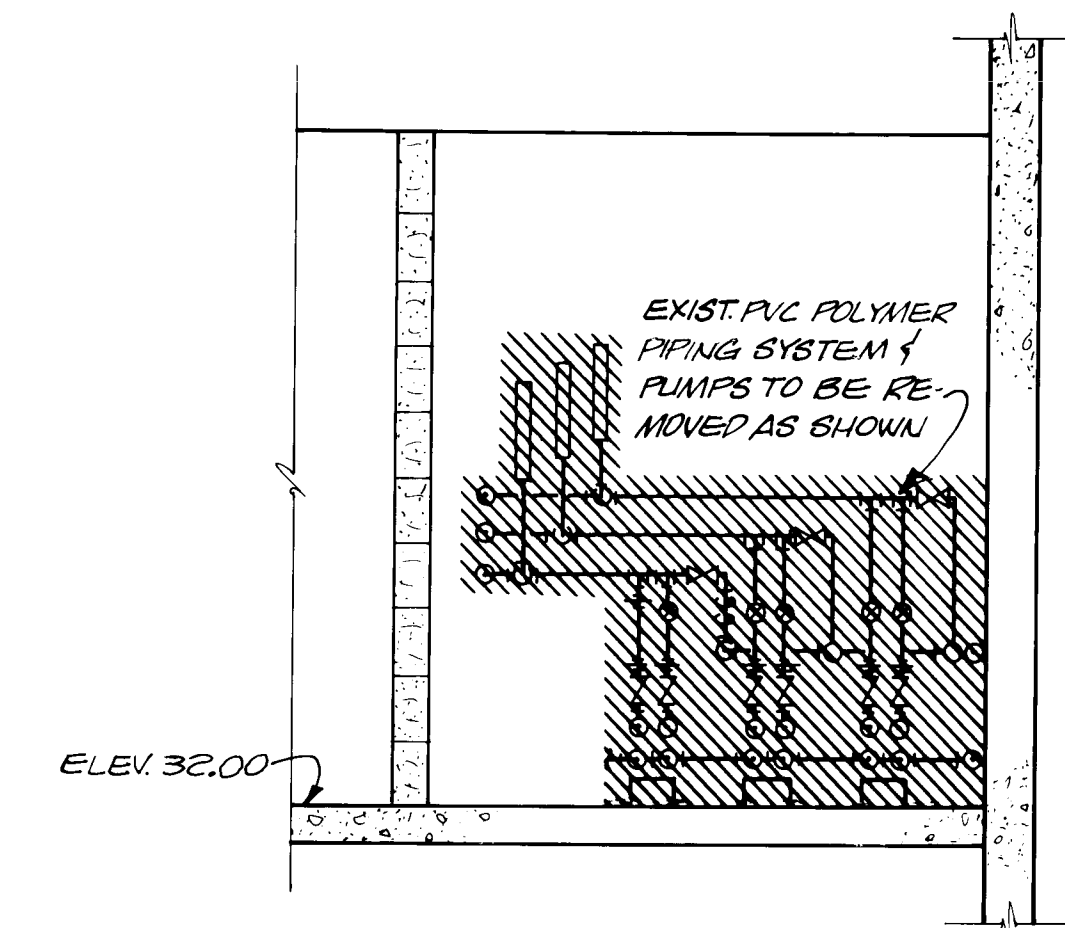
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45 of 111

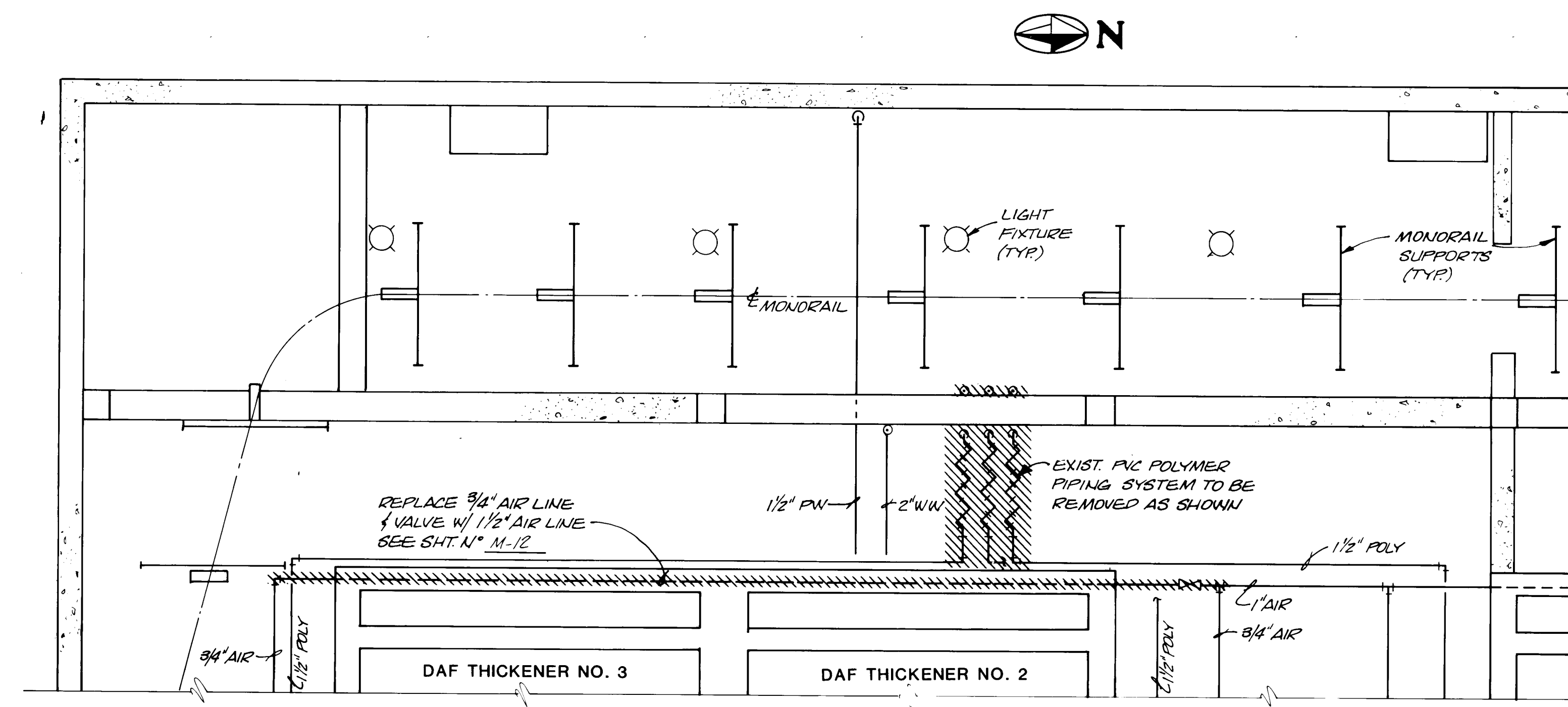
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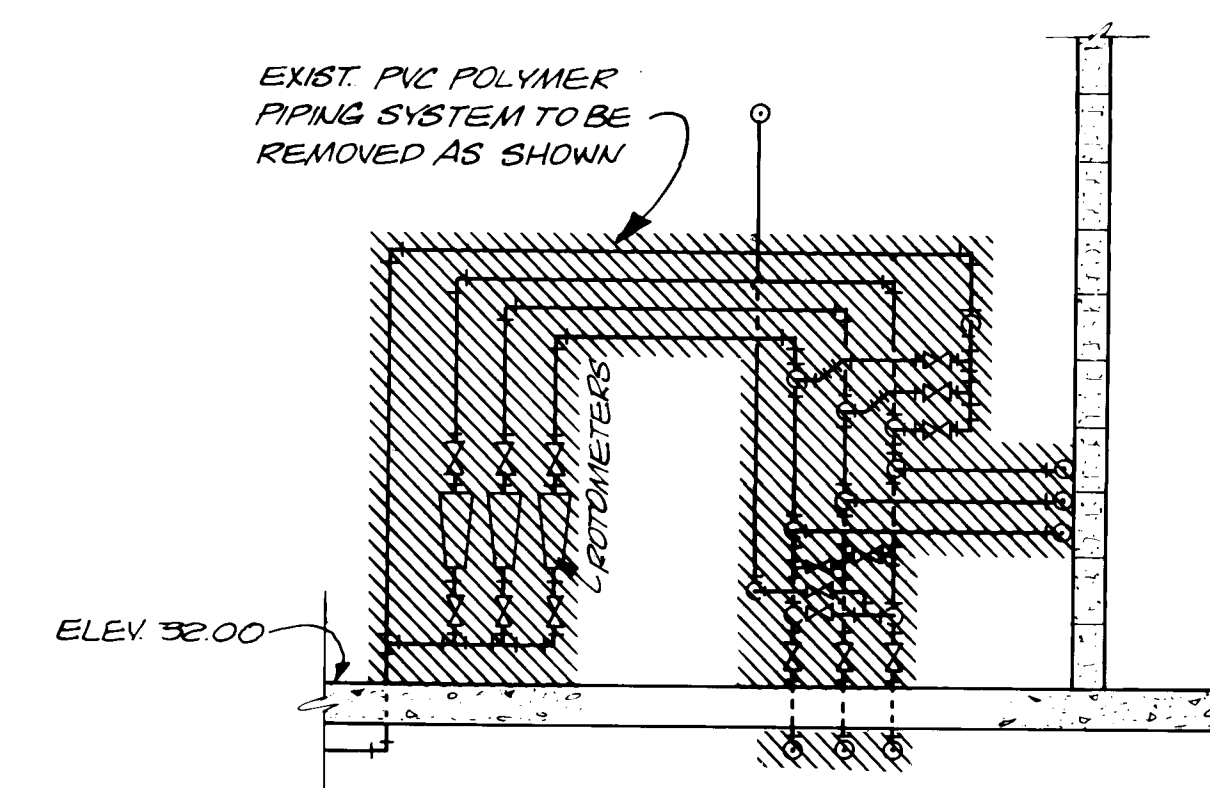
POLYMER ROOM PLAN



1 SECTION



BELOW MAIN FLOOR SLAB PLAN



2 SECTION

LEGEND

EQUIPMENT AND PIPING SYSTEM TO BE
REMOVED AND RETURNED TO THE CITY.

1/4" = 1'-0"

GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3SLUDGE THICKENING SYSTEM EXPANSION
POLYMER PROCESS SYSTEM DEMOLITION

M-C NO. 831721

M-11

46 OF 111

SC NO.

RECORD DRAWING

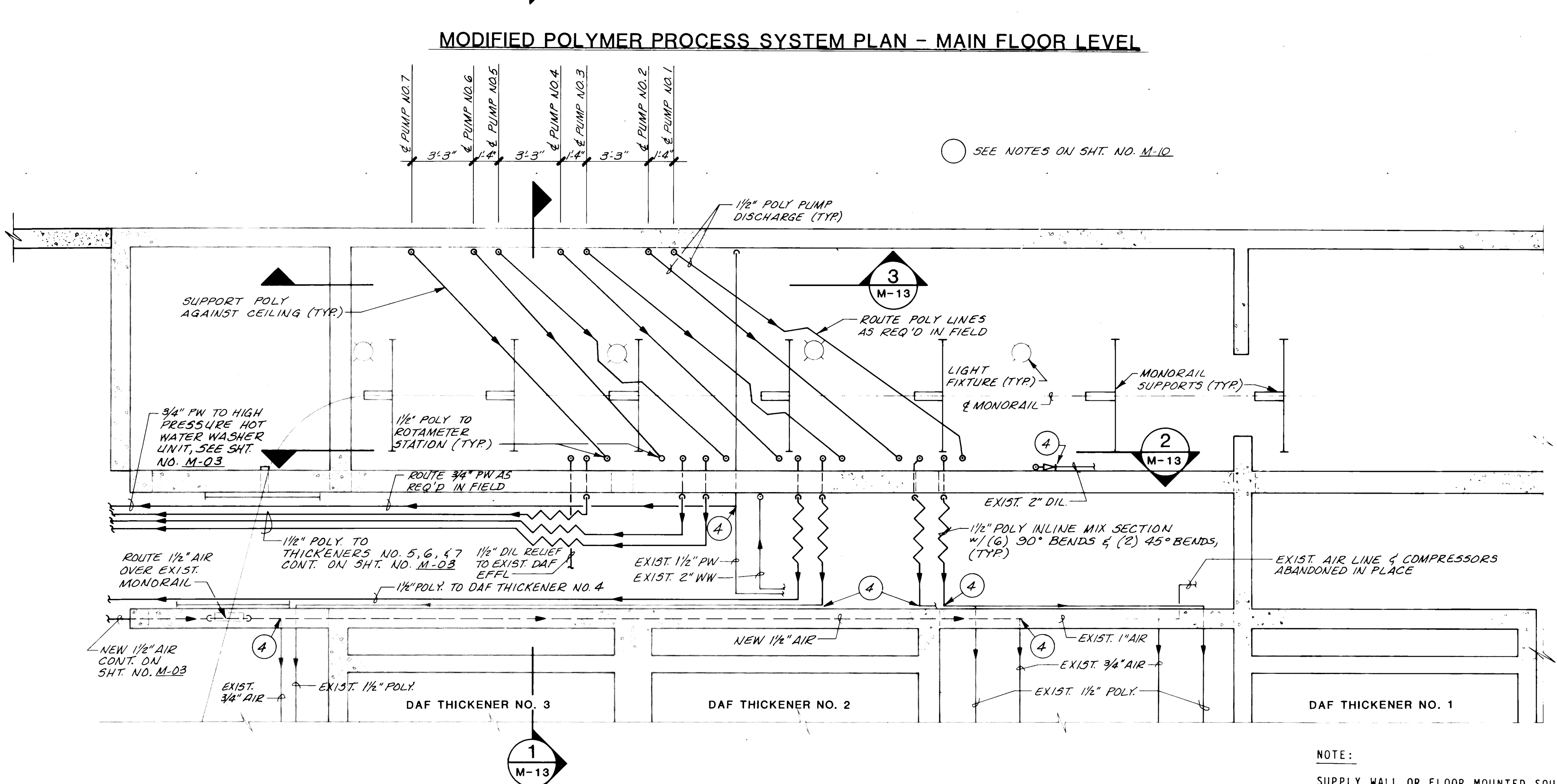
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DESIGNED	LME, ACC
DRAWN	STAFF
CHECKED	LME
APPROVED	
APPROVED	
DATE	NOV 1984

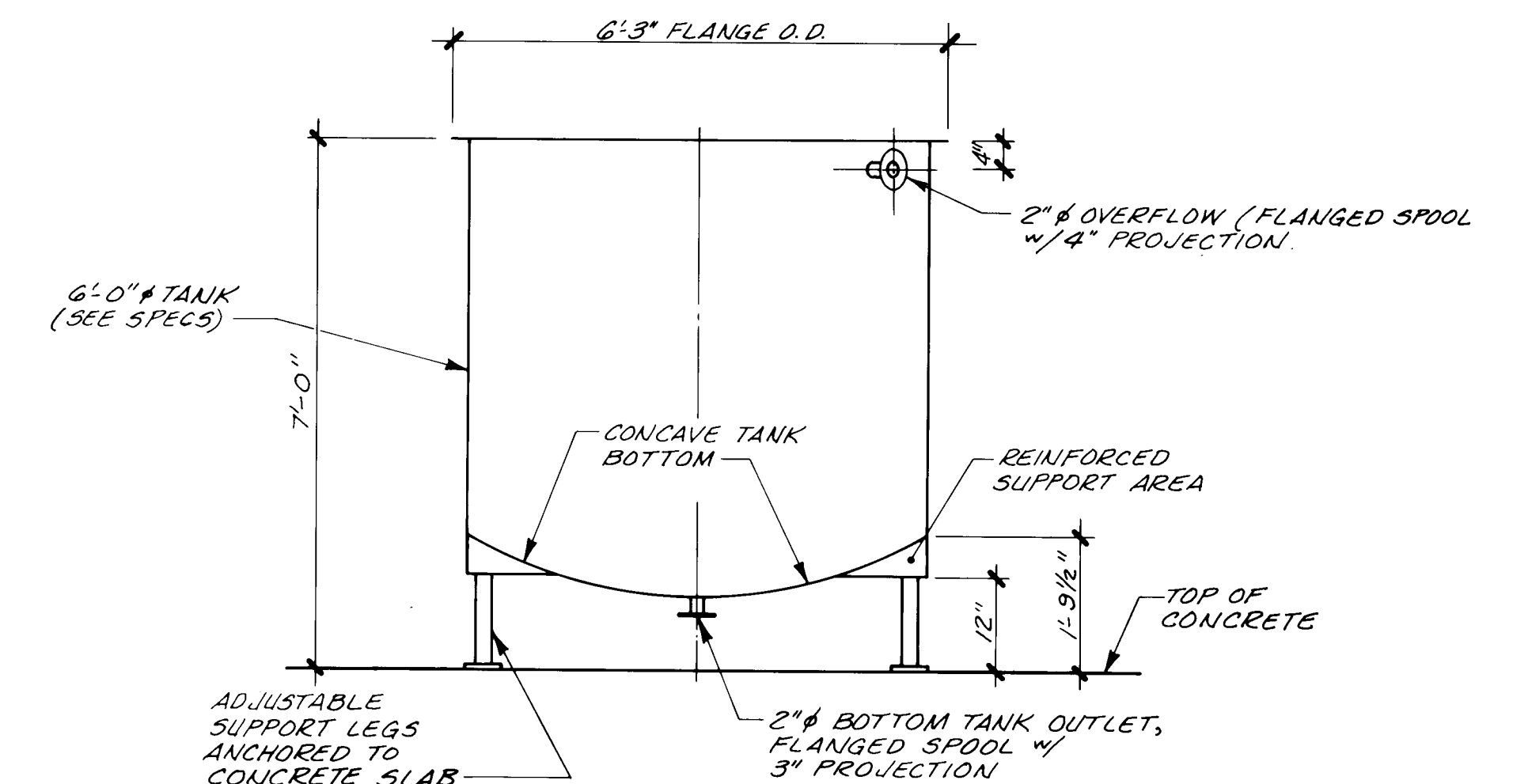
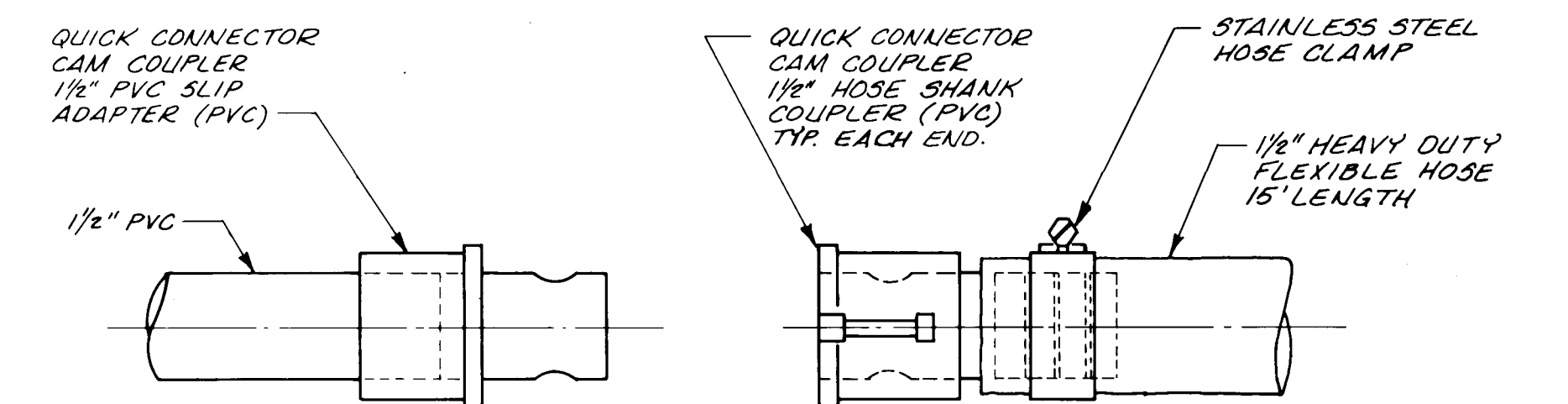
MOLZEN-CORBIN
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A JOINT VENTURE



MODIFIED POLYMER PROCESS SYSTEM PLAN - BASEMENT CEILING LEVEL

NOTE:

SUPPLY WALL OR FLOOR MOUNTED SQUARE SHAPED TUBULAR STEEL PIPE SUPPORT FRAMES TO PROVIDE RIGID SUPPORT FOR POLYMER AND DILUTION WATER PIPING IN THE POLYMER ROOM. FRAMES TO HAVE CORROSION RESISTANT COATING AND USE STAINLESS STEEL FASTENERS FOR PIPE MOUNTING. FRAMES WILL NOT OBSTRUCT ACCESS TO ANY PUMPS, VALVES OR UNIONS. PIPING ARRANGEMENT AND SUPPORT SYSTEM DETAILS TO BE SUBMITTED FOR ENGINEER'S APPROVAL.


$$1/2'' = 1' - 0''$$


HOSE COUPLER

DETAIL A - QUICK LOCK CONNECTOR
NTS

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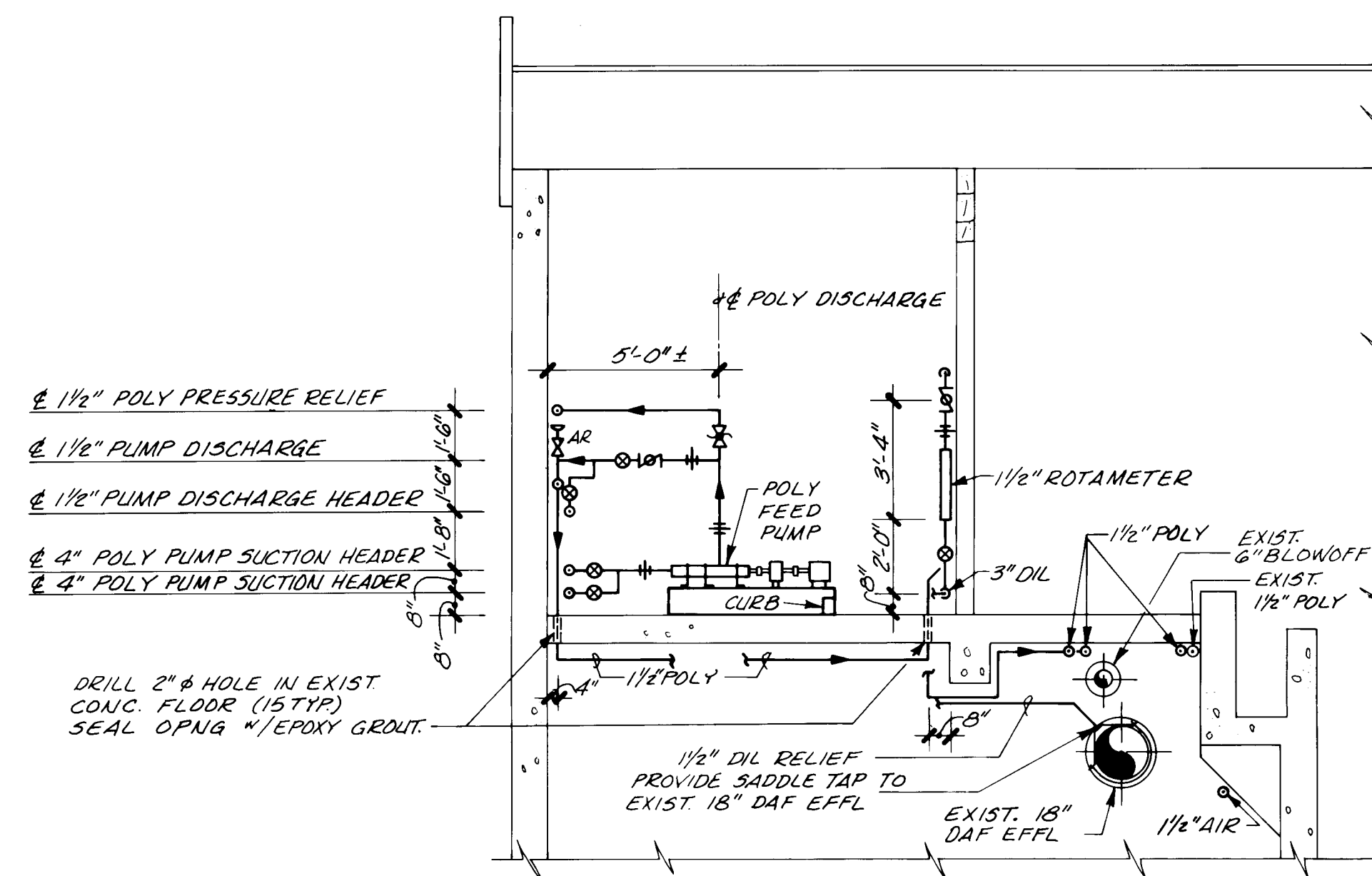
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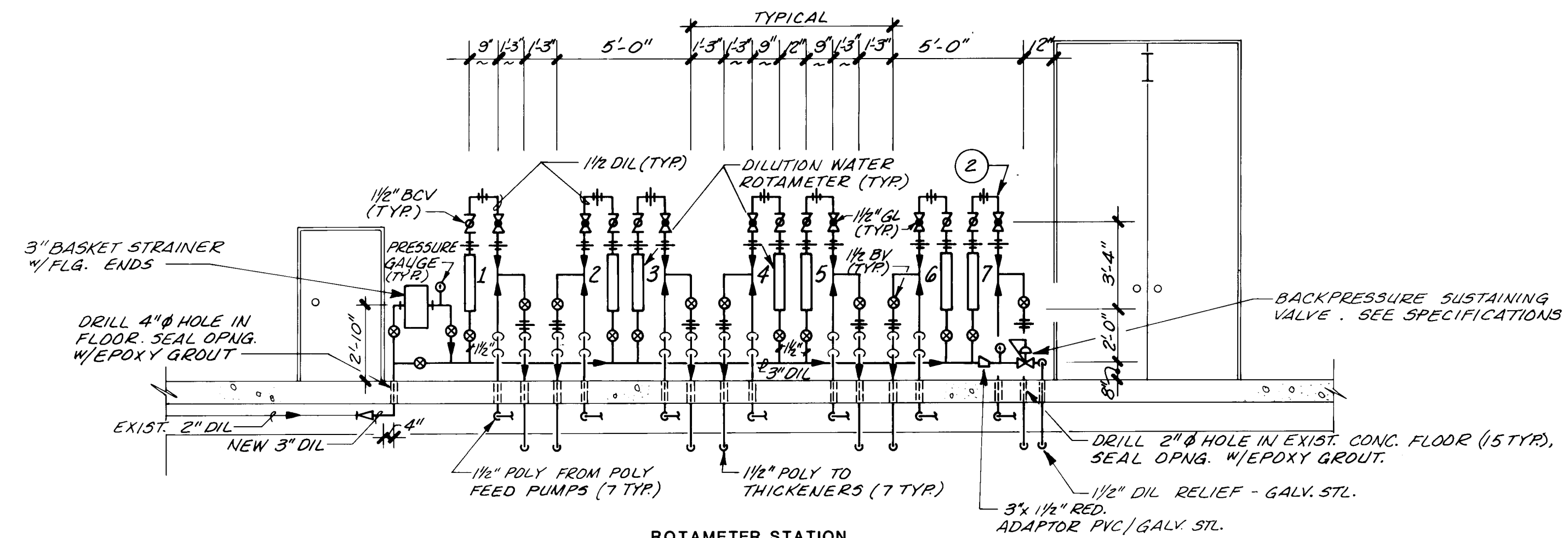
**SLUDGE THICKENING SYSTEM EXPANSION
POLYMER PROCESS SYSTEM MODIFICATIONS -
PLAN**

M 10	47 of 111
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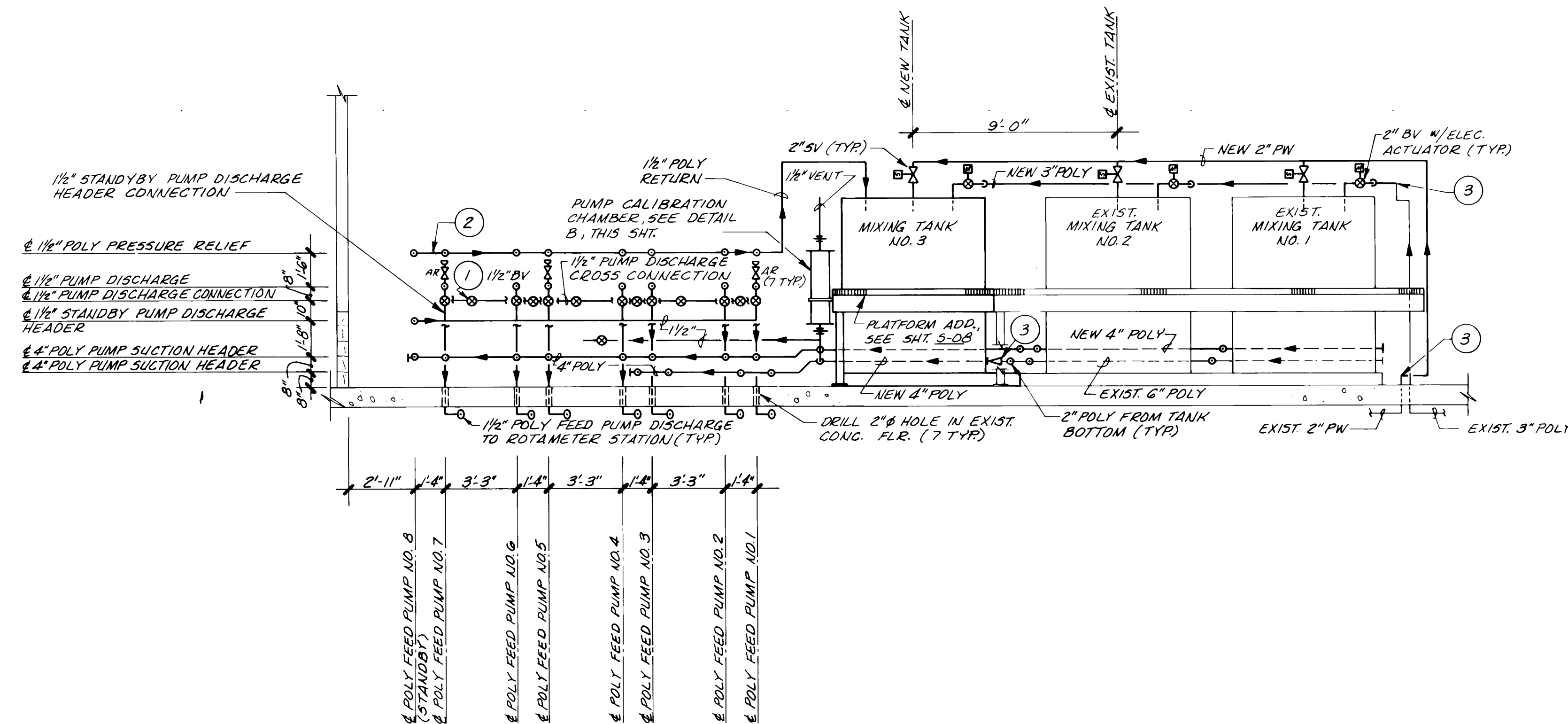
SECTION
1-1
1/4" = 1'-0"



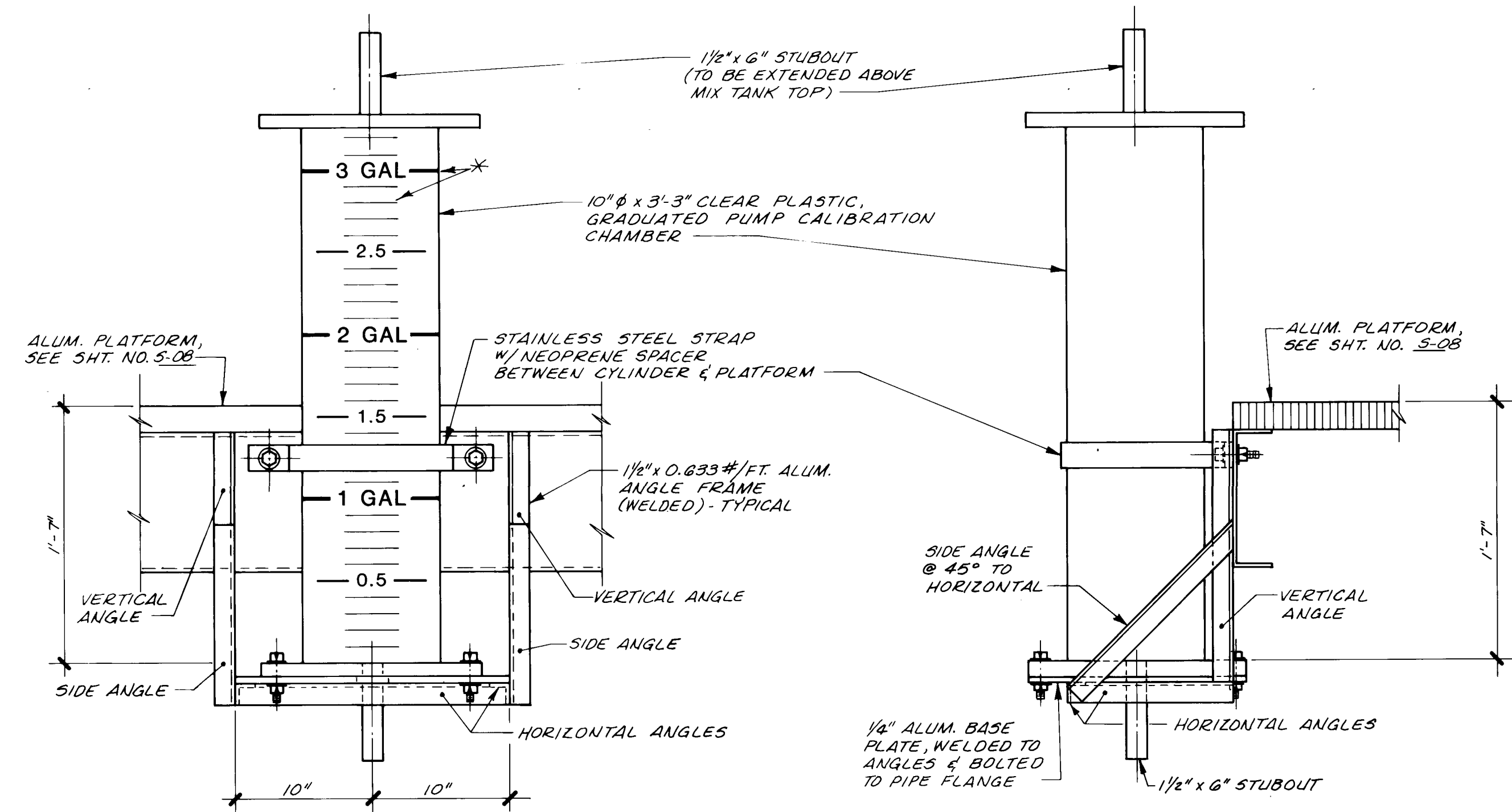
SECTION
2-2
1/4" = 1'-0"

NOTES

- 1 VALVE FITTINGS REQUIRED:
BALL CHECK VALVE - THREADED
GLOBE VALVE - THREADED
BALL VALVE - TRUE UNION WITH THREADED ENDS
- 2 ALL PIPE FITTINGS MAY BE THREADED OR SOCKET TYPE, UNLESS NOTED.
- 3 CONNECT NEW PIPING TO EXISTING AND ROUTE NEW PIPING AS SHOWN.



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



ELEVATION

DETAIL B - PUMP CALIBRATION CHAMBER
1-1/2" = 1'-0"

SECTION

RECORD DRAWING	
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NOTE:

SUPPLY WALL OR FLOOR MOUNTED SQUARE SHAPED TUBULAR STEEL PIPE SUPPORT FRAMES TO PROVIDE RIGID SUPPORT FOR POLYMER AND DILUTION WATER PIPING IN THE POLYMER ROOM. FRAMES TO HAVE CORROSION RESISTANT COATING AND USE STAINLESS STEEL FASTENERS FOR PIPE MOUNTING. FRAMES WILL NOT OBSTRUCT ACCESS TO ANY PUMPS, VALVES OR UNIONS. PIPING ARRANGEMENT AND SUPPORT SYSTEM DETAILS TO BE SUBMITTED FOR ENGINEER'S APPROVAL.

* ETCH SCALE LINES AND LABELS ON CHAMBER AND PAINT LINES AND LABELS BLACK. "GALLON" LINES ARE ALL AROUND; "1/2 GALLON" LINES ARE 8" LONG; "1/10TH GALLON" LINES ARE 4" LONG. SUPPLIER RESPONSIBLE FOR GRADUATING CHAMBER AS DESCRIBED ABOVE. ENGINEER TO FIELD POSITION FACE OF CHAMBER.

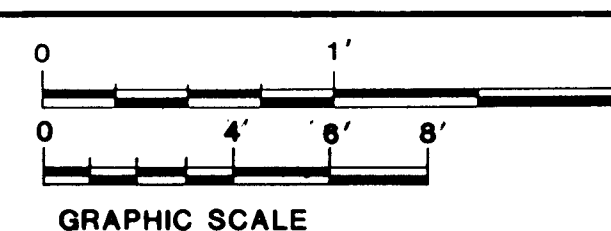
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NO.	DATE	REVISIONS	APPROVED

DESIGNED	LMR, ACC
DRAWN	KAH
CHECKED	LMR
APPROVED	
DATE	NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

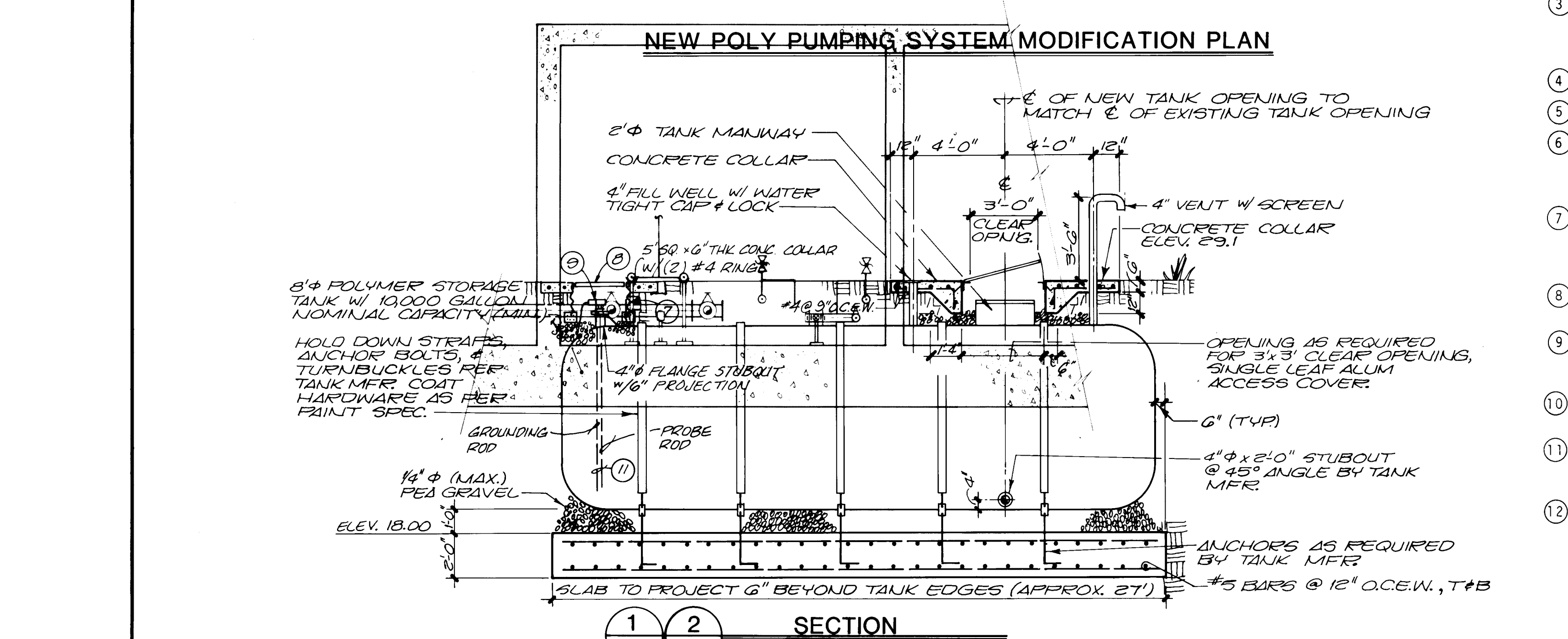
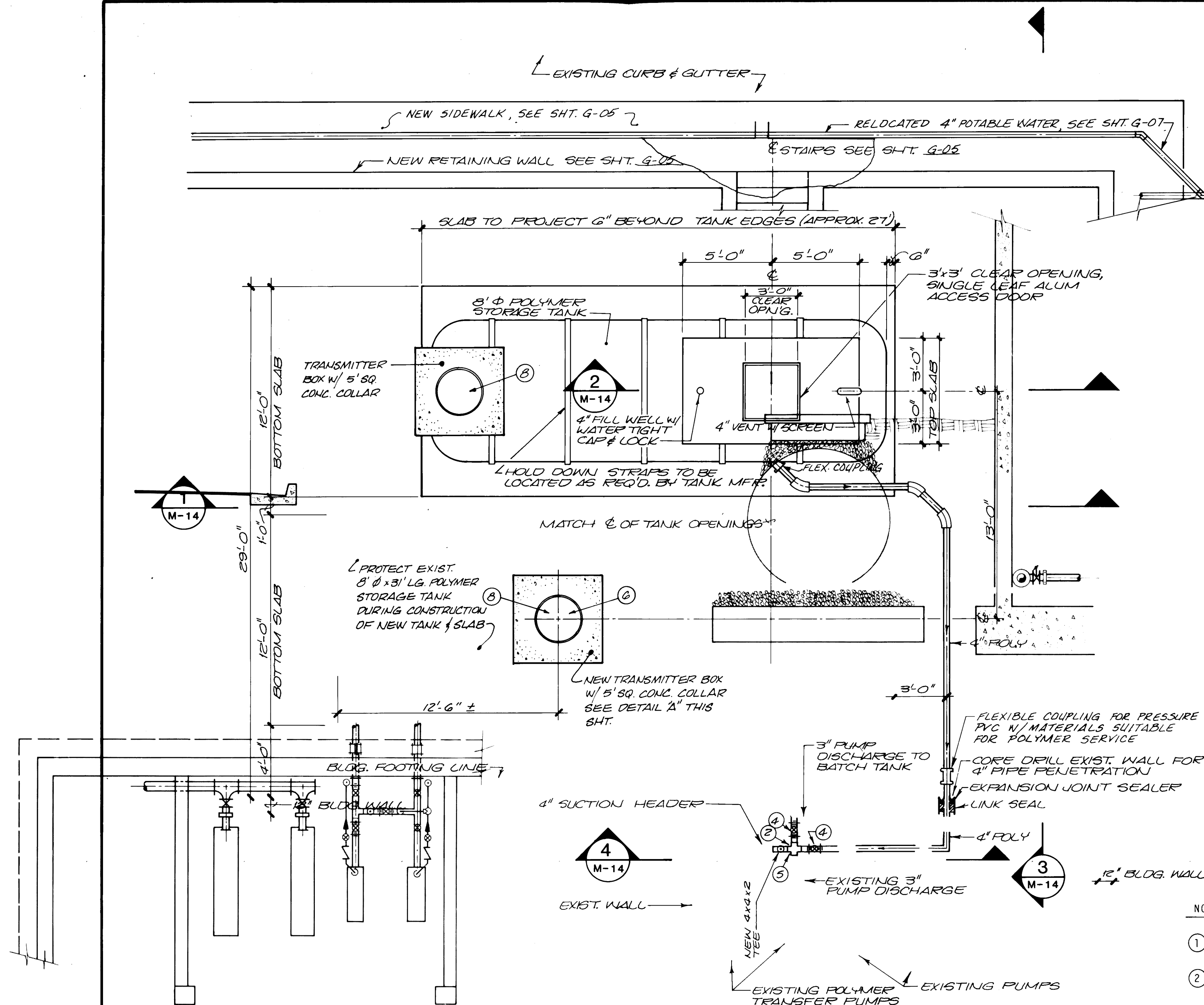
1-1/2" = 1'-0"
1/4" = 1'-0"



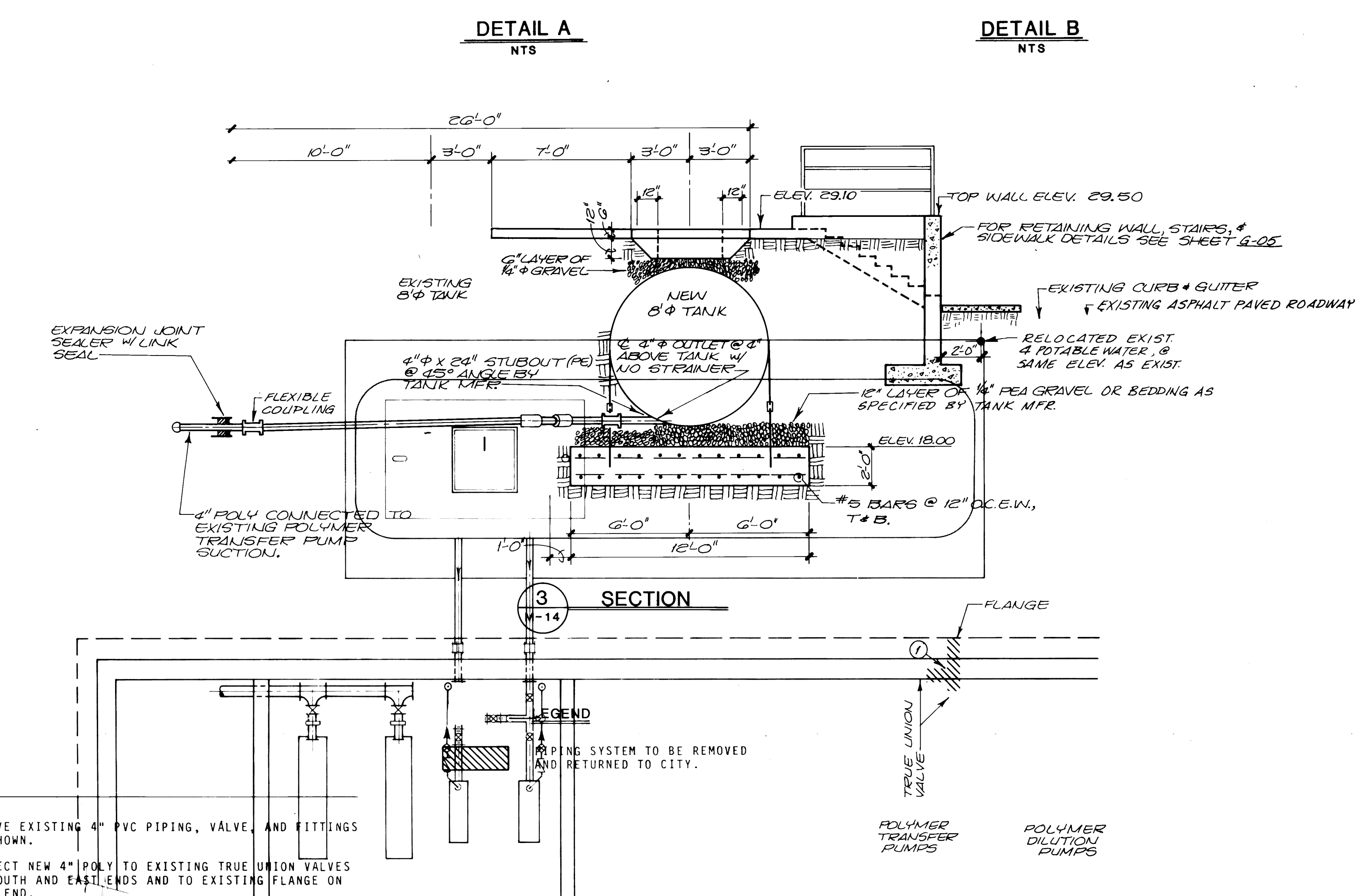
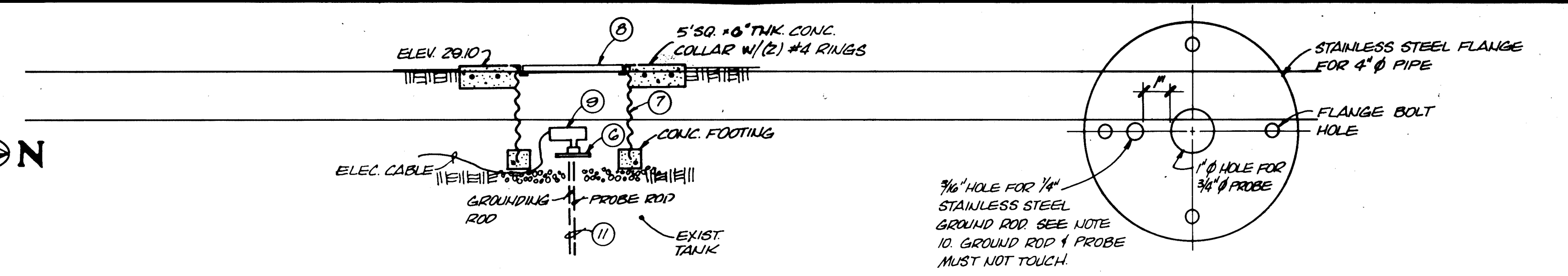
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
POLYMER PROCESS SYSTEM MODIFICATIONS -
SECTIONS

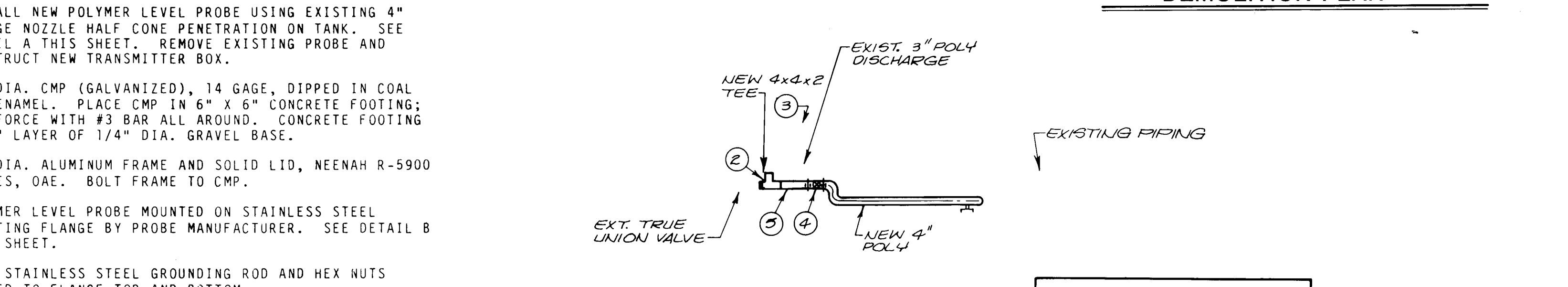
M-C NO. 831721	
M-13	48 OF 111
SC NO.	



DESIGNED <i>L.M.E. ACC</i>	MOLZEN-CORBIN STANLEY CONSULTANTS A JOINT VENTURE	1/4" = 1'-0" GRAPHIC SCALE
DRAWN <i>LVG</i>		
CHECKED <i>CMR</i>		
APPROVED <i>CMR</i>		
DATE <i>NOV 1984</i>		

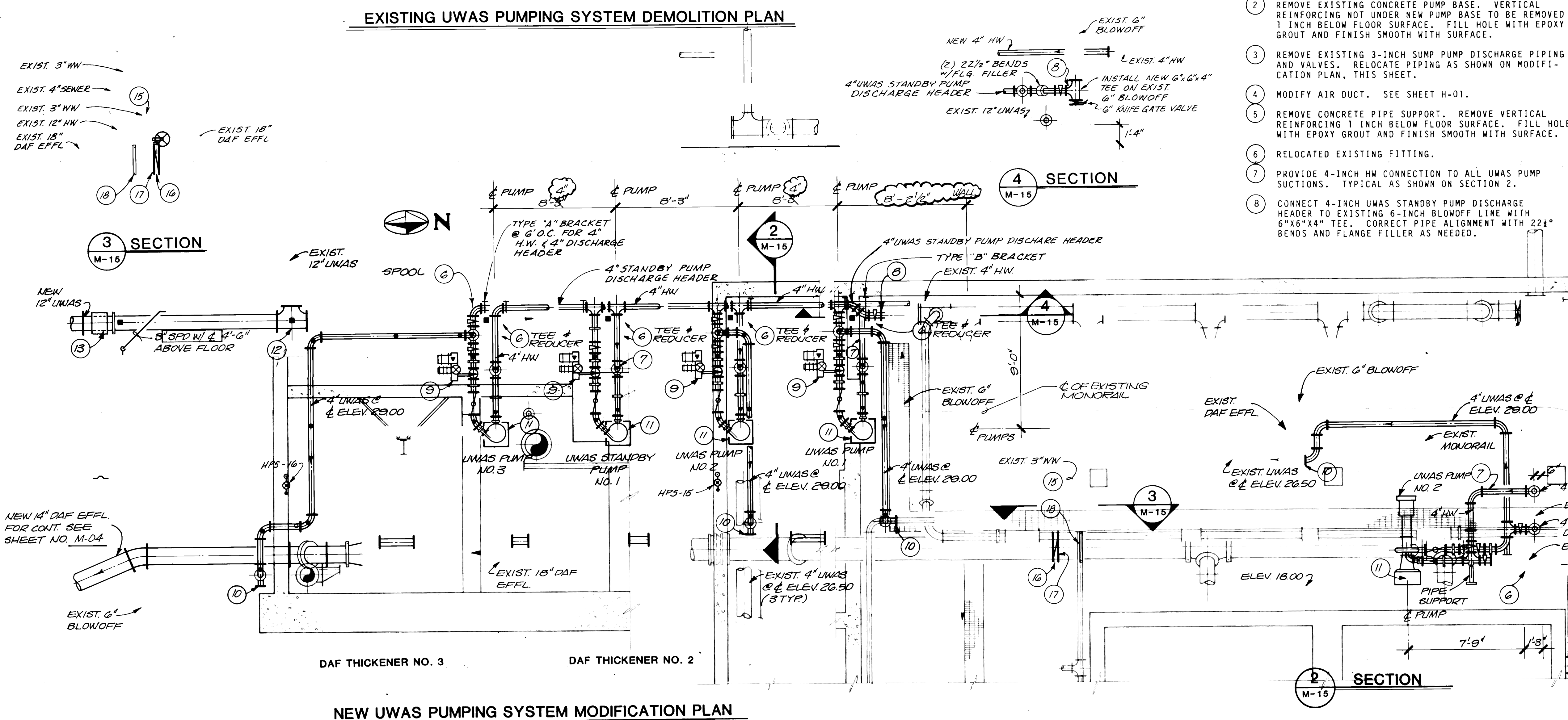
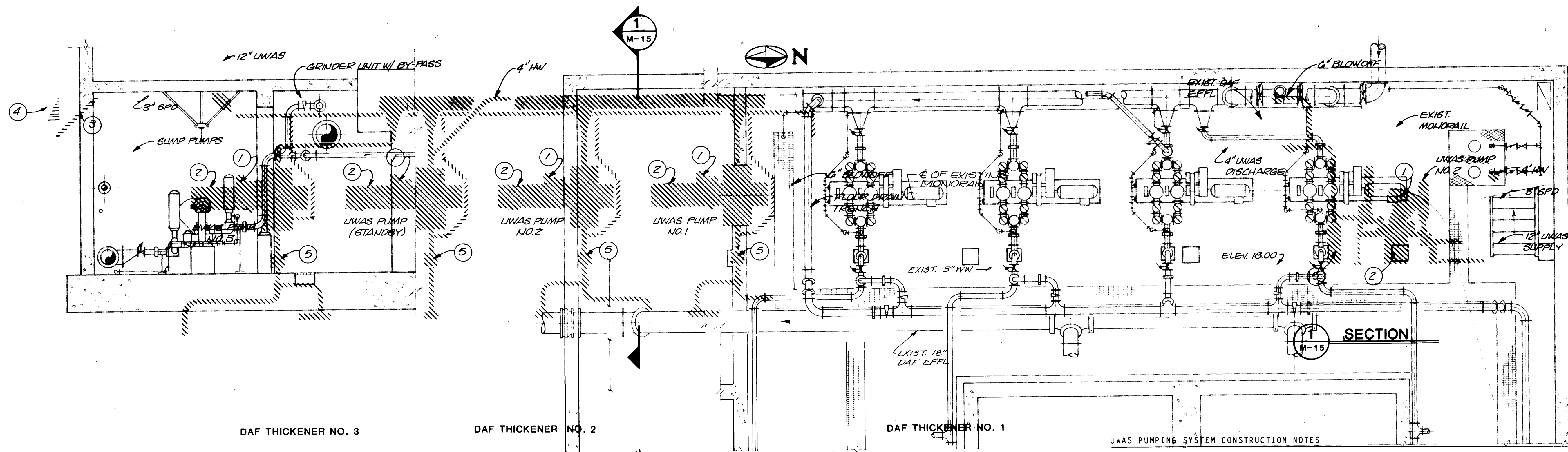


- NOTES
- REMOVE EXISTING 4" PVC PIPING, VALVE, AND FITTINGS AS SHOWN.
 - CONNECT NEW 4" POLY TO EXISTING TRUE UNION VALVES ON SOUTH AND EAST ENDS AND TO EXISTING FLANGE ON WEST END.
 - EXISTING 2" PRESSURE RELIEF VALVE (NOT SHOWN ON PLAN VIEW) TO REMAIN AND BE CONNECTED TO NEW 4" POLY SUCTON AND TO EXISTING 3" POLY DISCHARGE; SIMILAR TO ADJACENT SOUTH PUMP.
 - NEW 4" TRUE UNION BALL VALVE.
 - NEW 4" X 4" CROSS.
 - INSTALL NEW POLYMER LEVEL PROBE USING EXISTING 4" FLANGE NOZZLE HALF CONE PENETRATION ON TANK. SEE DETAIL A THIS SHEET. REMOVE EXISTING PROBE AND CONSTRUCT NEW TRANSMITTER BOX.
 - 30" DIA. CMP (GALVANIZED), 14 GAGE, DIPPED IN COAL TAR ENAMEL. PLACE CMP IN 6" X 6" CONCRETE FOOTING; REINFORCE WITH #3 BAR ALL AROUND. CONCRETE FOOTING ON 6" LAYER OF 1/4" DIA. GRAVEL BASE.
 - 30" DIA. ALUMINUM FRAME AND SOLID LID, NEENAH R-5900 SERIES, OAE. BOLT FRAME TO CMP.
 - POLYMER LEVEL PROBE MOUNTED ON STAINLESS STEEL MOUNTING FLANGE BY PROBE MANUFACTURER. SEE DETAIL B THIS SHEET.
 - 1/4" STAINLESS STEEL GROUNDING ROD AND HEX NUTS BOLTED TO FLANGE TOP AND BOTTOM.
 - KYNAR COATED STAINLESS STEEL PROBE. SUPPLY PROBE LENGTH SUCH THAT BOTTOM OF PROBE IS 8" FROM BOTTOM OF TANK AND GROUNDING ROD IS 6" FROM BOTTOM OF TANK.
 - COORDINATE ALL MODIFICATION WORK ON THIS DRAWING WITH THE PLANT OPERATIONS STAFF. EXISTING POLYMER TANK MUST BE EMPTY PRIOR TO DOING WORK AS DESCRIBED ON NOTES 1, 2, 3, 4, AND 5 ABOVE.



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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 26 39 52 49 88		

CITY OF ALBUQUERQUE, NEW MEXICO SOLIDS HANDLING FACILITIES PHASE II B-1, CONTRACTS 2 & 3		SLUDGE THICKENING SYSTEM EXPANSION POLYMER STORAGE TANK & PUMPING SYSTEM MODIFICATIONS	M-C NO. 831721 M-14 49 of 111 SC NO.
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- 1 REMOVE ALL FOUR EXISTING PUMPS WITH MOTORS, PUMP DRAIN PIPING, AND ACCESSORIES. SEE MODIFIED UWAS PUMPING SYSTEM THIS SHEET.
 - 2 REMOVE EXISTING CONCRETE PUMP BASE. VERTICAL REINFORCING FIT UNDER NEW PUMP BASE TO BE REMOVED 1 INCH BELOW FLOOR SURFACE. FILL HOLE WITH EPOXY GROUT AND FINISH SMOOTH WITH SURFACE.
 - 3 REMOVE EXISTING 3-INCH SUMP PUMP DISCHARGE PIPING AND VALVES. RELOCATE PIPING AS SHOWN ON MODIFICATION PLAN, THIS SHEET.
 - 4 MODIFY AIR DUCT. SEE SHEET H-01.
 - 5 REMOVE CONCRETE PIPE SUPPORT. REMOVE VERTICAL REINFORCING 1 INCH BELOW FLOOR SURFACE. FILL HOLE WITH EPOXY GROUT AND FINISH SMOOTH WITH SURFACE.
 - 6 RELOCATED EXISTING FITTING.
 - 7 PROVIDE 4-INCH HW CONNECTION TO ALL UWAS PUMP SUCTIONS. TYPICAL AS SHOWN ON SECTION 2.
 - 8 CONNECT 4-INCH UWAS STANDBY PUMP DISCHARGE HEADER TO EXISTING 6-INCH BLOWOFF LINE WITH 6"x6"x4" TEE. CORRECT PIPE ALIGNMENT WITH 224° BENDS AND FLANGE FILLER AS NEEDED.
 - 9 4-INCH UWAS CONTROL VALVE WITH ELECTROMECHANICAL ACTUATOR. SEE SPECS.
 - 10 CONNECT 4-INCH UWAS TO EXISTING FLANGED FITTING.
 - 11 NEW CONCRETE PUMP BASE. SEE DETAIL SHEET S-11.
 - 12 CONNECT NEW 12-INCH UWAS TO EXISTING BY REMOVING ELBOW AND REPLACE WITH 12"x12"x12" TEE.
 - 13 CUT OUT OPENING IN CONCRETE WALL FOR PIPE PENETRATION. SEE SHEET M-04.
 - 14 EXISTING PIPE CUT-TO-FIT AT NEW LOCATION.
 - 15 RELOCATE ANY EXISTING LINE AS REQUIRED TO CLEAR NEW VALVE.
 - 16 INSTALL NEW 18" BUTTERFLY VALVE, FLANGED BODY, GRADED MANUAL OPERATOR WITH HANDWHEEL ACTUATOR, AND POSITION INDICATOR (DEZURIK, OR APPROVED EQUIVALENT).
 - 17 CUT EXISTING 18" DIP AND INSTALL NEW FLANGE.
 - 18 CUT EXISTING 18" DIP AND INSTALL NEW GROOVED COUPLING.

LEGEND

 EQUIPMENT AND PIPING SYSTEM TO BE
REMOVED AND RETURNED TO THE CITY.
EXISTING PIPING AND FITTINGS SHOWN
AS REMOVED MAY BE REUSED IF APPROVED
BY THE ENGINEER.

EXISTING

NEW ★

NEW
CONCRETE PIPE SUPPORT - SEE DETAIL
SHEET M-20

ADJUSTABLE PIPE SUPPORT - SEE
DETAIL SHEET M-20

HANGER PIPE SUPPORT - SEE DETAIL
SHEET M-20

NOTE: PIPE SUPPORTS TO BE PLACED AS SHOWN ON DRAWINGS. REFER TO SPECIFICATIONS FOR PIPE SUPPORT REQUIREMENTS WHERE PIPE SUPPORTS NOT SHOWN.

RECORD DRAWING

DATE:	DRAFTED BY:
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[illegible][illegible]

DESIGNED LMR, ACC
DRAWN STAFF
CHECKED LMR
APPROVED _____
APPROVED _____
DATE NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" = 1'-0"

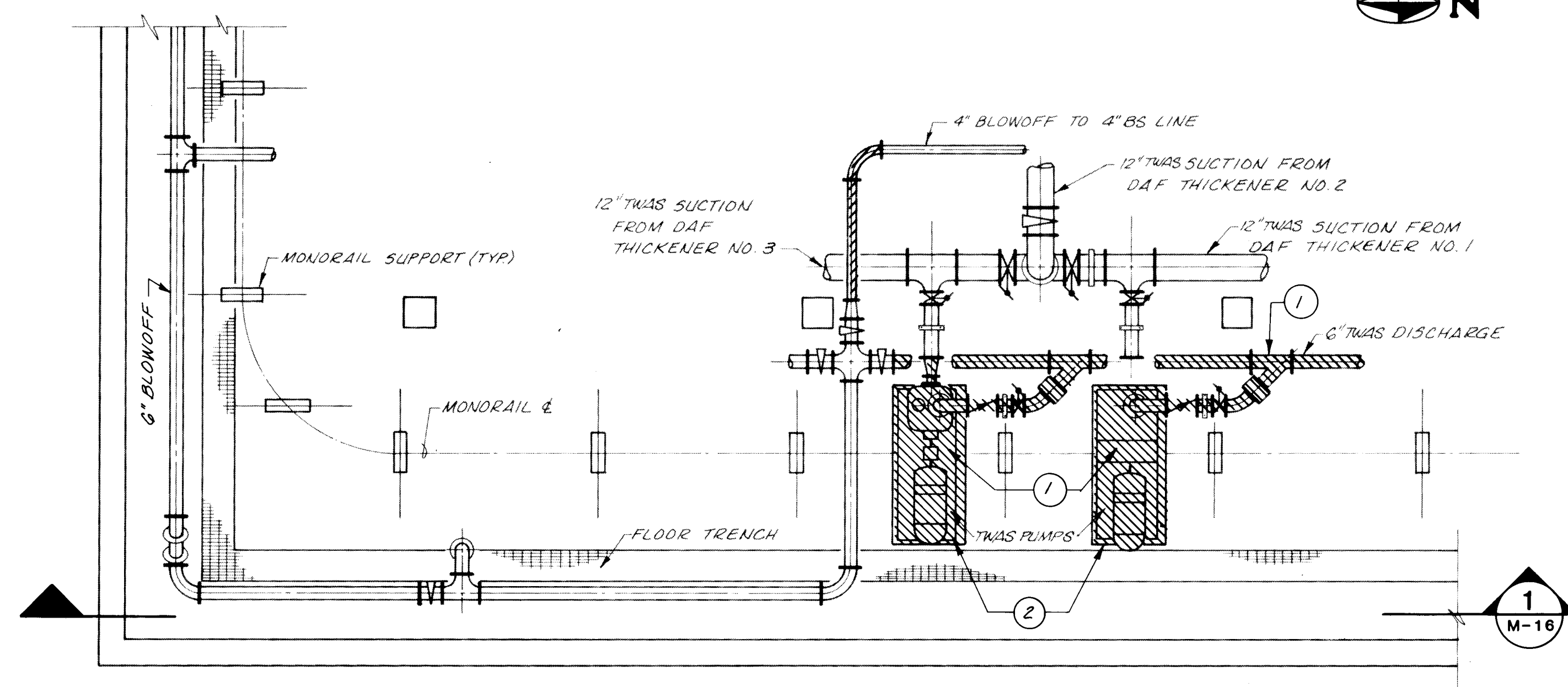
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GRAPHIC SCALE

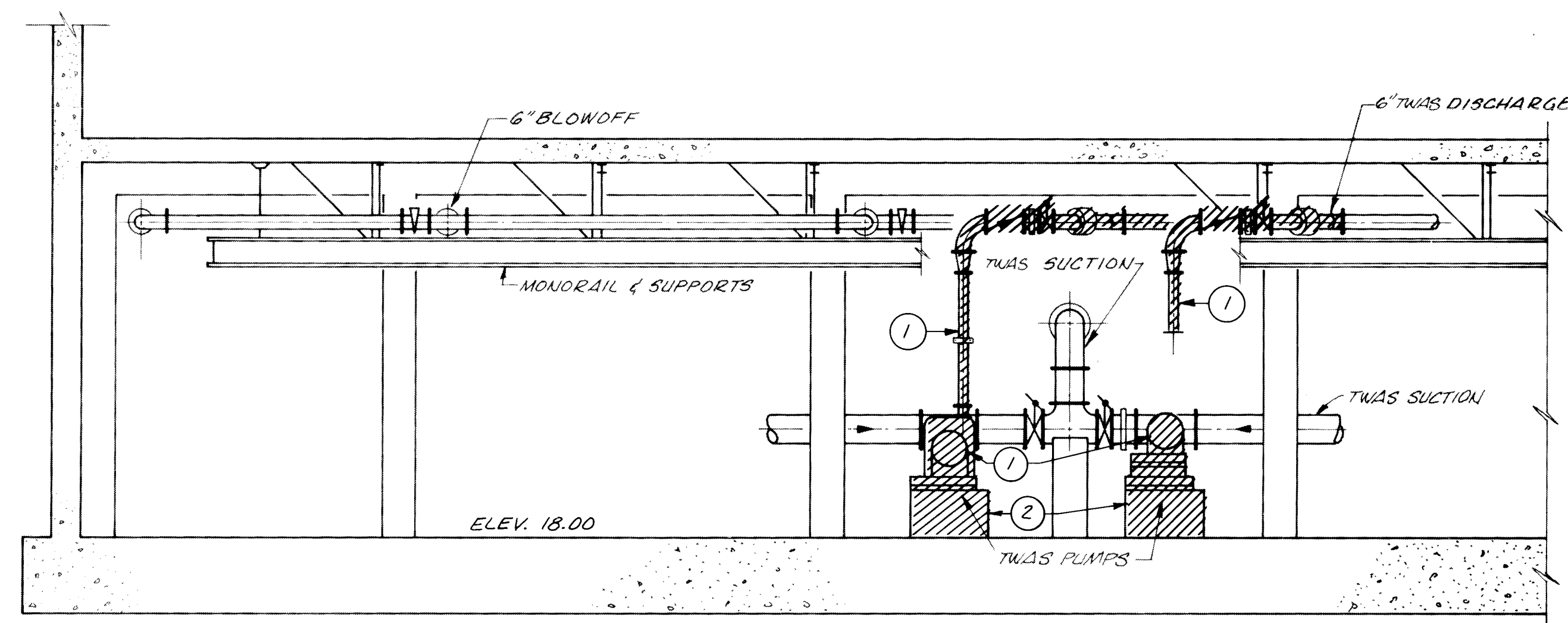
 CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1 , CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION UWAS PUMPING SYSTEM DEMOLITION AND MODIFICATIONS

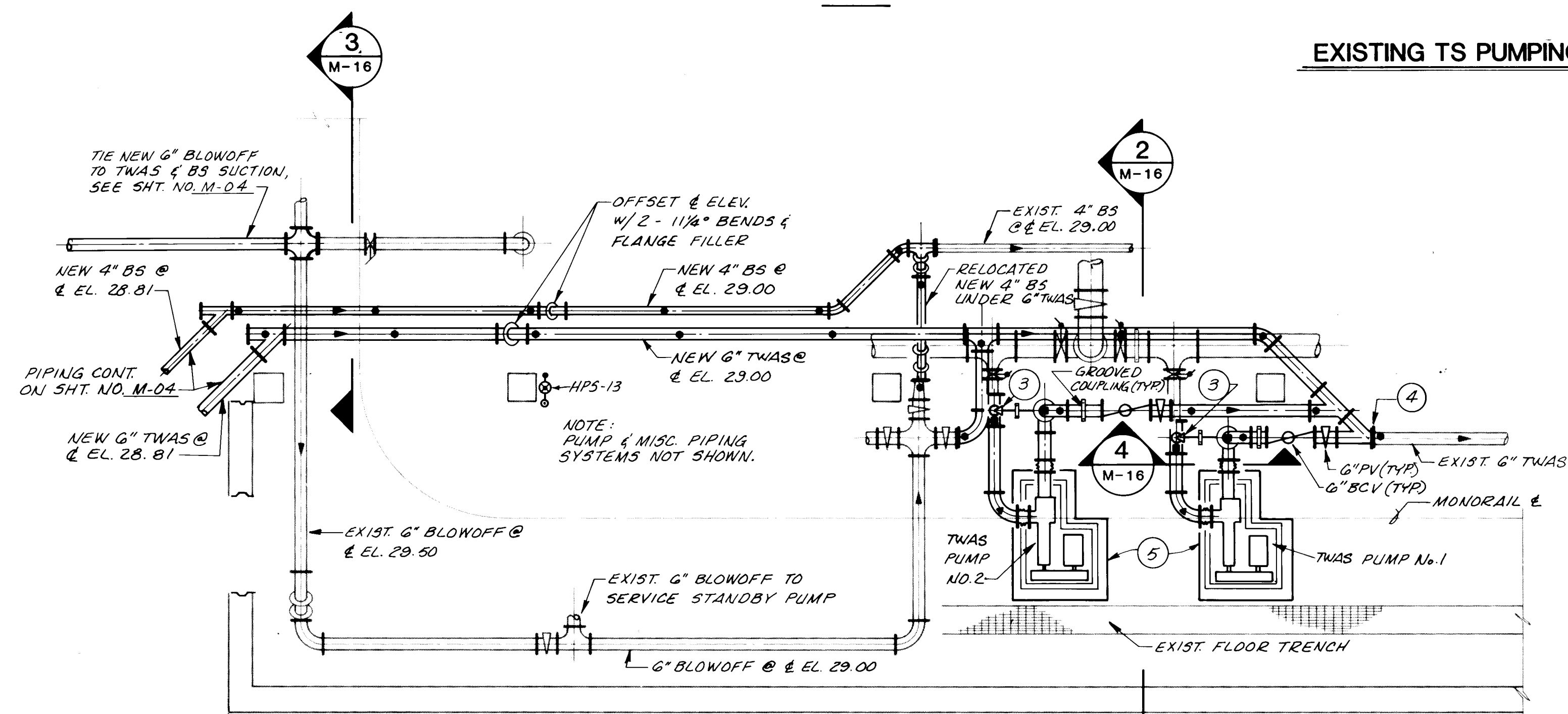
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M-15	50 or 111
SC NO.	



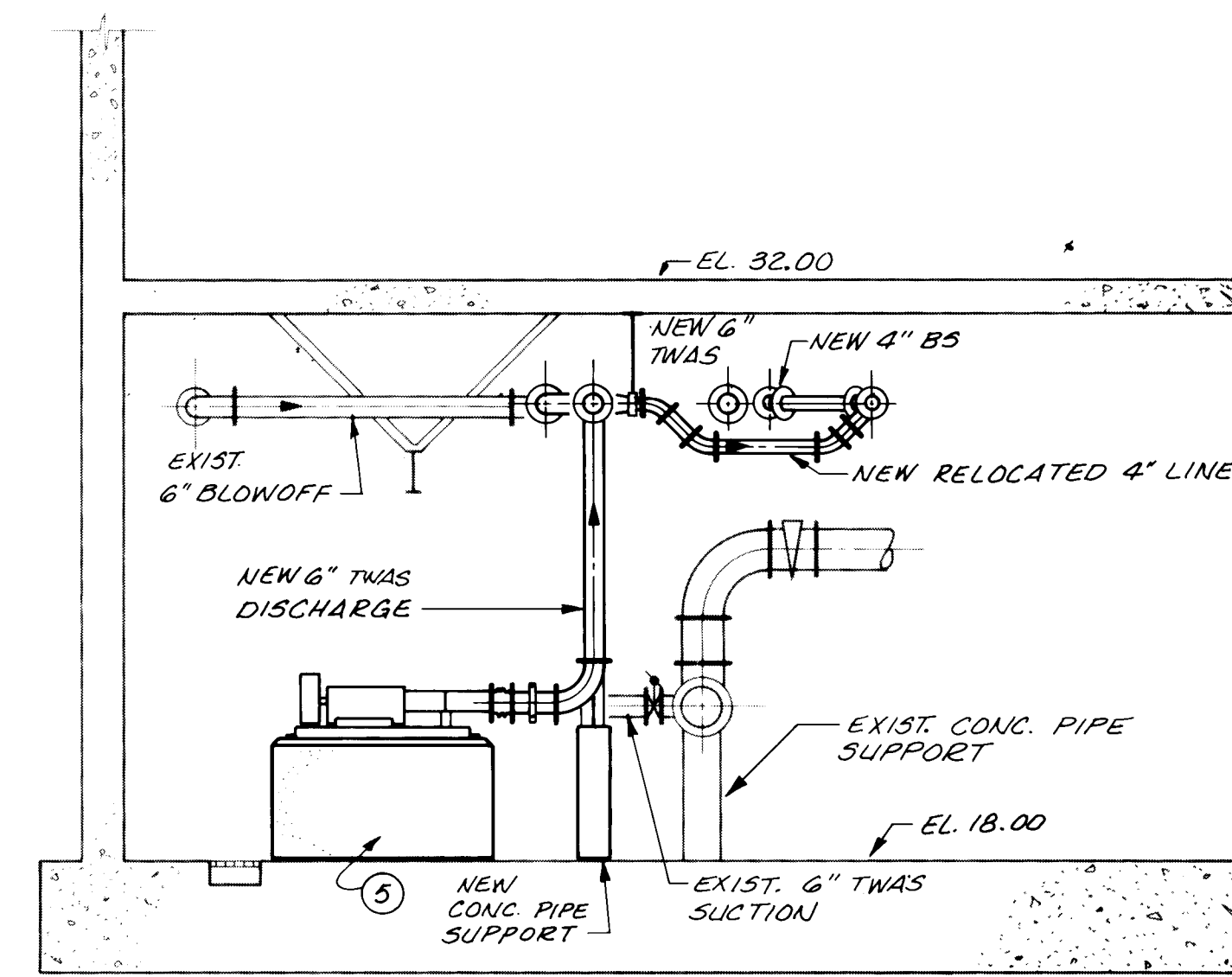
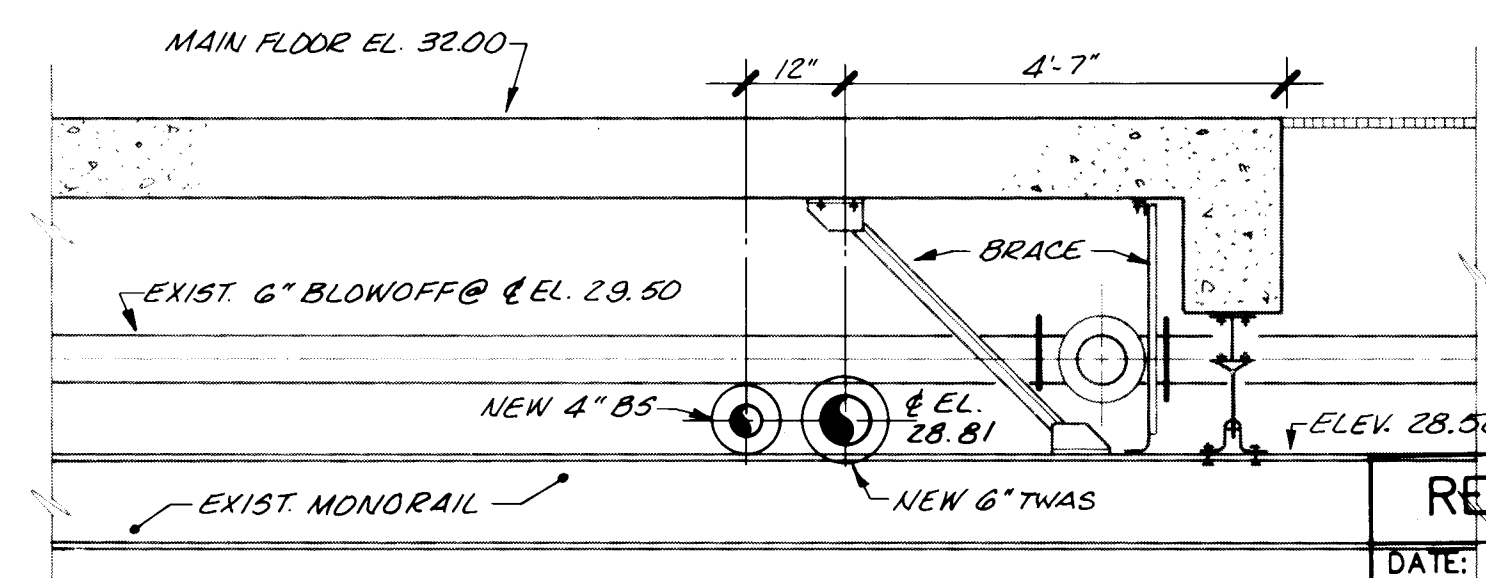
PLAN

1 SECTION
M-16

EXISTING TS PUMPING SYSTEM DEMOLITION



PLAN

2 SECTION
M-163 SECTION
M-16

NEW TS PUMPING SYSTEM MODIFICATIONS

LEGEND

EQUIPMENT AND PIPING SYSTEM TO BE REMOVED AND RETURNED TO THE CITY. EXISTING PIPING AND FITTINGS SHOWN AS REMOVED MAY BE REUSED IF APPROVED BY THE ENGINEER.

EXISTING

NEW

■ CONCRETE PIPE SUPPORT - SEE DETAIL SHEET M-20

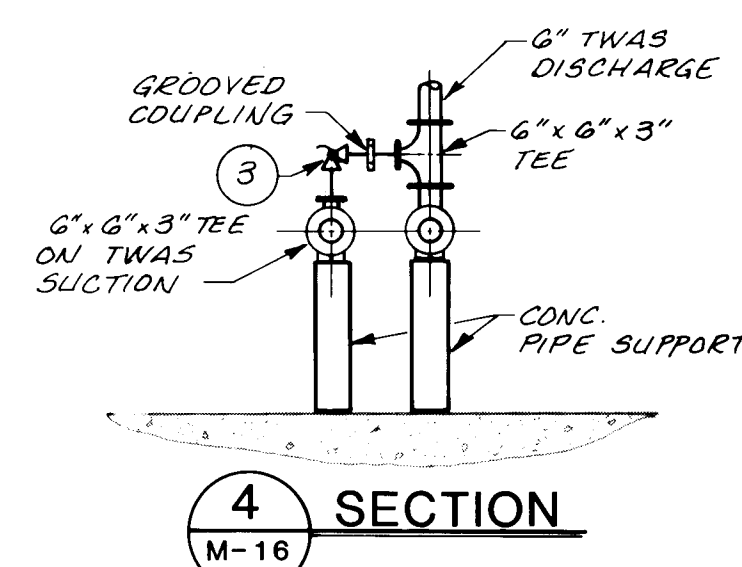
▼ ADJUSTABLE PIPE SUPPORT - SEE DETAIL SHEET M-20

• HANGER PIPE SUPPORT - SEE DETAIL SHEET M-20

NOTE: PIPE SUPPORTS TO BE PLACED AS SHOWN ON DRAWINGS. REFER TO SPECIFICATIONS FOR PIPE SUPPORT REQUIREMENTS WHERE PIPE SUPPORTS NOT SHOWN.

NOTES

- 1 REMOVE EXISTING PUMPS, MOTORS, PUMP DRAIN PIPING, AND ACCESSORIES
- 2 REMOVE EXISTING CONCRETE PUMP BASE, VERTICAL REINFORCING NOT UNDER PUMP BASE TO BE REMOVED 1 INCH BELOW FLOOR SURFACE; FILL HOLE WITH EPOXY GROUT AND FINISH SMOOTH WITH SURFACE.
- 3 3" PRV WITH HORIZONTAL INLET AND VERTICAL OUTLET, SEE SPECIFICATIONS.
- 4 CONNECT NEW 6-INCH TWAS TO EXISTING 6-INCH TWAS PIPING.
- 5 NEW CONCRETE PUMP BASE. SEE DETAIL SHEET S-11.

4 SECTION
M-16

RECORD DRAWING

DATE: 6/88 DRAFTED BY: HCA

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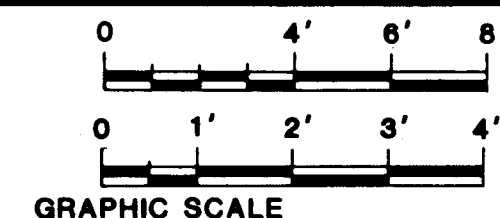
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DESIGNED	LMR, ACC
DRAWN	LMR
CHECKED	LMR
APPROVED	
APPROVED	
DATE	NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"
1/2" = 1'-0"



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
TWAS PUMPING SYSTEM DEMOLITION
AND MODIFICATIONS

M-C NO.	881721
M-16	51 of 111
SC NO.	

PIPE AND INSULATION SCHEDULE							
SERVICE	PIPE			INSULATION			REMARKS
	MATERIAL	MECHANICAL STANDARD	WORKING PRESSURE PSIG	TEMP	MATERIAL	MECHANICAL STANDARD	
POLYMER	POLYVINYL CHLORIDE	SEE SECTION 15050	75-100	AMBIENT	--	--	
BOTTOM SLUDGE	DUCTILE IRON	M-1735	25	80	--	--	
DAF RECIRCULATION	DUCTILE IRON	M-1735	85	80	--	--	
UNTHICKENED WASTE ACTIVATED SLUDGE	DUCTILE IRON	M-1735	10	80	--	--	
DILUTION WATER	GALVANIZED STEEL	M-1720	90	80	--	--	
POTABLE WATER	GALVANIZED STEEL(1)	M-1720	55-85	55	ELASTOMERIC	--	SEE SPECIFICATIONS FOR THICKNESS
PLANT HOUSE WATER	DUCTILE IRON (1)	M-1735	10	55	--	--	
DAF THICKENER EFFLUENT	DUCTILE IRON (1)	M-1735	10	80	--	--	
THICKENED WASTE ACTIVATED SLUDGE	DUCTILE IRON	M-1735	40	80	--	--	
SUMP PUMP DISCHARGE	GALVANIZED STEEL	M-1720	15	80	--	--	
WASHWATER	GALVANIZED STEEL	M-1720	55-85	55	ELASTOMERIC	--	SEE SPECIFICATIONS FOR THICKNESS
FLOOR DRAIN SYSTEM	CAST IRON	M-1776	--	--	--	--	
EQUIPMENT DRAIN LINES	GALVANIZED STEEL	M-1720	--	--	--	--	
ODOR CONTROL DRAIN LINE	POLYVINYL CHLORIDE	SEE SECTION 15050	--	--	--	--	
COMPRESSED AIR	CARBON STEEL	M-1800	180	200	--	--	
HIGH PRESSURE/HOT WATER ABOVE GRADE	CARBON STEEL	M-1860 & M-1905(2)	1000	200	FIBERGLASS	M-1002	
NATURAL GAS	CARBON STEEL	M-1800	2	AMBIENT	--	--	
HIGH PRESSURE/HOT WATER BELOW GRADE	CARBON STEEL(1)	SEE SECTION 15270	1000	200	POLYURETHANE FOAM	--	SEE SPECIFICATIONS FOR PIPE AND INSULATION CONDUIT SYSTEM

- (1) ENCASE PIPE WITH 8 MIL POLYETHYLENE TUBE CONFORMING TO ANSI A21.5. PROVIDE ELECTRICAL CONTINUITY IN ACCORDANCE WITH MECHANICAL STANDARDS M-655 WHICH ARE SHOWN IN PLANS SET NO. 2.
 (2) SEE PLANS SET NO. 2.

NOMINAL INSULATION THICKNESS (INCHES)					
NOMINAL PIPE SIZE (INCHES)	100°-300°F CLASS A	300°-500°F CLASS B	500°-700°F CLASS C	700°-875°F CLASS D	875°-1200°F CLASS E
1/2	1	1	1 1/2	2	2 1/2
3/4	1	1 1/2	2	2	2 1/2
1	1	1 1/2	2	2 1/2	3
1 1/4	1	1 1/2	2 1/2	3	3
1 1/2	1	2	2 1/2	3	3 1/2
2	1 1/2	2	2 1/2	3 1/2	3 1/2
2 1/2	1 1/2	2	3	3 1/2	4
3	1 1/2	2 1/2	3	4	4 1/2
4	1 1/2	2 1/2	3 1/2	4	4 1/2
5	2	3	4	4 1/2	5
6	2	3	4	5	5 1/2
8	2	3 1/2	4 1/2	5	6
10	2 1/2	3 1/2	4 1/2	5 1/2	6
12 & OVER	2 1/2	3 1/2	4 1/2	5 1/2	6
EQUIPMENT	2 1/2	4	5 1/2	6	7

NOTES

- INSULATION THICKNESSES SHOWN ABOVE ARE MINIMUM BLOCK THICKNESSES AND DO NOT INCLUDE FINISHING OR SEALING COATS. FOR FINISH COAT OR JACKET, SEE SPECIFICATIONS.
- ON OUTDOOR EQUIPMENT & PIPING, INSULATION THICKNESS SHOWN ABOVE SHALL BE INCREASED 1/2 INCH.
- ANTI-SWEAT (CLASS S):
 FOR PIPE
 30" AND LESS: SECTIONAL PIPE INSULATION, 1 INCH THICK.
 OVER 30": EMULSION INSULATION, 3/8 INCH FINAL THICKNESS.
 FOR IRREGULAR SURFACES (WATER BOXES, ETC.)
 EMULSION INSULATION, 3/8 INCH FINAL THICKNESS.
 FOR REGULAR SURFACES (TANKS, COOLER, ETC.)
 SECTIONAL OR BLOCK INSULATION, 1 INCH THICK.

REVISIONS: DATE DOWN APP. DATE 2-16-74

MECHANICAL STANDARD INSULATION PIPING AND EQUIPMENT INSULATION THICKNESS

SCALE NONE NO M-1002 REV 0

PIPE	MATERIAL	ASTM A74 CAST IRON	
	SIZES (INCLUSIVE)	2" - 15"	
JOINTS	THICKNESS (1)	SERVICE WEIGHT (SV)	
	TYPE (2)	HUB AND SPIGOT CAULKED	HUB AND PLAIN END COMPRESSION - TYPE
FITTINGS	JOINT MATERIAL	LEAD, ASTM B29 AND JUTE OR OAKUM, OILED	NEOPRENE GASKET CISP1 HSN 75
	MATERIAL	ASTM A74	ASTM A74
NOTES	MINIMUM WALL (1)	SERVICE WEIGHT (SV)	SERVICE WEIGHT (SV)
	(1) AS APPROVED BY STATE AND LOCAL PLUMBING CODES. (2) PUSH-ON COMPRESSION - TYPE JOINTS MAY BE USED WHEN PERMITTED BY STATE AND LOCAL CODES.		

REVISIONS: DATE DOWN APP. DATE 2-16-74

MECHANICAL STANDARD PIPING DESIGN TABLE SOIL WASTE AND VENT PIPING CLASS SP-CISV HUB & SPIGOT FOR DRAINAGE SERVICE ONLY

SCALE NONE NO M-1776 REV 0

STANLEY CONSULTANTS

PIPE	MATERIAL ASTM	A120 OR A53A GALVANIZED	
	MINIMUM PIPE SIZE TO BE USED	3/8"	
PIPE	MINIMUM WALL THICKNESS	PIPE SIZES (INCLUSIVE)	WALL THICKNESS STANDARD WEIGHT
		3/8" - 24"	
JOINTS	TYPE OF JOINT	SCREWED	SOCKET WELDED BUTT WELDED FLANGED
	USE FOR PIPE SIZE (INCL)	3/8" - 2"	NONE NONE 2 1/2" - 24"
FLANGES	MATERIAL, ASTM		A181 II GALVANIZED 150
	PRESSURE CLASS, ANSI		150
FLANGES	FACING		FLAT
	GASKETS		FULL FACE 17/16" RED RUBBER
FLANGES	BOLT STUDS, ASTM		A307 B
	NUTS, ASTM		A307 B HEX. HD
FITTINGS	MATERIAL ASTM	A197 GALVANIZED 150	A126 GALVANIZED 125
	PRESSURE CLASS, ANSI	150	125
FITTINGS	MINIMUM WALL THICKNESS	---	---
	WELDING END	---	---
VALVES-RISING STEM	UNIONS	GROUND JOINT SCREWED	---
	BODY MATERIAL, ASTM	B62 BRONZE	A126 CAST IRON
VALVES-RISING STEM	PRESSURE CLASS, ANSI	125	125
	BONNET TYPE	SCREWED	BOLTED
VALVES-RISING STEM	INTERNAL AND TRIM	BRONZE OR COMP. (1)	RENEWABLE BRONZE
	BYPASS REQUIRED ON VALVES LARGER THAN	---	---

(1) GATE VALVES-BRONZE SEAT AND DISC; GLOBE VALVES-BRONZE SEAT WITH RENEWABLE COMPOSITION DISC.

REVISIONS: DATE DOWN APP. DATE 2-22-74

MECHANICAL STANDARD PIPING DESIGN TABLE GENERAL SERVICE PIPING CLASS ST125G 125 PSIG 220 F

SCALE NONE NO M-1720 REV 1

PIPE	MATERIAL	ANSI A21.51 DUCTILE IRON																																
	SIZES (INCLUSIVE)	3" - 48"																																
	MINIMUM THICKNESS	ANSI A21.50 LAYING CONDITION TYPE - DEPTH OF COVER SHOWN ON DRAWINGS (NOTE 1)																																
JOINTS	TYPE	ANSI A21.11 MECHANICAL OR PUSH-ON TYPE (NOTE 2)																																
	TYPE	ANSI A21.10 DUCTILE IRON																																
FITTINGS	LAYING DIMENSIONS	ANSI A21.10 PRESSURE RATING 3" THROUGH 24" 350 PSI, 30" AND LARGER 250 PSI																																
	GASKETS	ANSI A21.11 PLAIN RUBBER																																
	BOLTS AND NUTS	ANSI A21.11 CAST IRON TEE HEAD																																
GATE VALVES NON-RISING STEM	STANDARD	AWWA C500 GATE VALVES OR AWWA C504 BUTTERFLY VALVES AS SPECIFIED																																
	BODY MATERIAL	ASTM A126 CLASS B CAST IRON																																
	PRESSURE CLASS	AWWA 200 (12" AND SMALLER) AWWA 150 (14" AND LARGER)																																
	BONNET TYPE	BOLTED																																
	INTERNALS AND TRIM	BRASS OR BRONZE																																
	BYPASS	NONE																																
	STEM SEAL	O-RING																																
	DISC	DOUBLE DISC GATE OR PIVOTED DISC BUTTERFLY AS SPECIFIED																																
	NOTES	1. WHEN DEPTH OF COVER FALLS BETWEEN DEPTHS LISTED IN TABLE CHOOSE NEXT GREATER LISTED DEPTH.																																
		MODIFICATION 1																																
<table><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td>REVISIONS</td><td>DOWN</td><td>APP.</td><td>APP.</td><td>DATE</td></tr><tr><td>DRAWN BY</td><td colspan="4">[Signature]</td></tr><tr><td>CHECKED BY</td><td colspan="4">[Signature]</td></tr><tr><td>APPROVED BY</td><td colspan="4">[Signature]</td></tr><tr><td>DATE</td><td colspan="4">5-21-79</td></tr></table>										REVISIONS	DOWN	APP.	APP.	DATE	DRAWN BY	[Signature]				CHECKED BY	[Signature]				APPROVED BY	[Signature]				DATE	5-21-79			
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MECHANICAL STANDARD PIPING DESIGN TABLE		GENERAL SERVICE PIPING CLASS DI150 150 PSIG 120F		SCALE NONE NO. M-1735 REV 0																														

PIPE	MATERIAL ASTM	A53 A OR B TYPE E OR S (1)	
	MINIMUM PIPE SIZE TO BE USED	1/4"	
PIPE	MINIMUM WALL THICKNESS	PIPE SIZES (INCLUSIVE)	WALL THICKNESS
		1/4" - 2"	SCH. 80
PIPE		2 1/2" - 6"	SCH. 40
		8" - 12"	SCH. 20
PIPE		14" - 24"	SCH. 10
	TYPE OF JOINT	SCREWED	SOCKET WELDED BUTT WELDED FLANGED
JOINTS	USE FOR PIPE SIZE (INCL)	1/4" - 2"	NONE 2 1/2" & LARGER 2 1/2" & LARGER
	MATERIAL, ASTM		A105 OR A181 II
FLANGES	PRESSURE CLASS, ANSI		150
	FACING		17/16" R.F. OR FLAT FACE (2)
FLANGES	GASKETS		CRANITE 17/16" THICK
	BOLT STUDS, ASTM		A307 B
FLANGES	NUTS, ASTM		A307 B HEX.
	MATERIAL ASTM	A338 MALLEABLE 150	A234 GRADE WPA OR WPR A126 B OR C CAST IRON 125
FITTINGS	PRESSURE CLASS, ANSI	150	125
	MINIMUM WALL THICKNESS	---	SAME AS PIPE
FITTINGS	WELDING END	---	STD. BEVEL, (5) COM. FLAT RING
	UNIONS	SCREWED, GROUND JOINT	---
VALVES-RISING STEM	BODY MATERIAL, ASTM	B62 BRONZE	NONE A126 B OR C CAST IRON (4) 125 (4)
	PRESSURE CLASS, ANSI	150	125
VALVES-RISING STEM	BONNET TYPE	UNION	BOLTED
	INTERNAL AND TRIM	BRONZE OR COMP. (3)	RENEWABLE BRONZE
VALVES-RISING STEM	BYPASS REQUIRED ON VALVES LARGER THAN	---	---
	(1) ALL THREADED PIPE SHALL BE SEAMLESS (TYPE S). (2) USE FLAT FACE FLANGES FOR MATING WITH 125 POUND CAST IRON FLANGES OF VALVES OR EQUIPMENT. (3) GLOBE VALVES - ASBESTOS COMPOSITION DISCS FOR COLD WATER, AIR OR GAS SERVICE. ALL OTHER SERVICES - BRONZE SEATS AND DISCS. (4) 125 POUND CAST IRON VALVES LIMITED TO 12" MAXIMUM SIZE. FOR 14" AND LARGER SIZES USE ANSI 150 POUND CAST STEEL VALVES, ASTM A216-WCB. (5) NO BACKING RING 3-1/2" AND SMALLER.		

REVISIONS: DATE DOWN APP. DATE 2-22-77

MECHANICAL STANDARD PIPING DESIGN TABLE POWER PIPING CLASS P150A1 150 PSIG 220 F

SCALE NONE NO M-1800 REV 1

PUMP SCHEDULE									
Designation on Drawings	Type	Flow Rate GPM	Head Ft. Water	Motor Data	HP (1)	Max. RPM	Volts	Phase	Hertz
UWAS Pumps No. 1 thru No. 7	Vertical Non-Clog Centrifugal	260	20	3	1200	460	3	60	
UWAS Standby Pumps No. 1 and No. 2	Vertical Non-Clog Centrifugal	260	20	3	1200	460	3	60	
REC Pumps No. 4 thru No. 7	Horizontal Centrifugal	300	175	25	3500	460	3	60	
TWAS Pumps No. 1 thru No. 4	Progressive Cavity	125	75	10	1200	460	3	60	
BS Pumps No. 3 and No. 4	Horizontal Torque Flow	120	50	10	1800	460	3	60	
Polymer Feed Pumps No. 1 thru No. 8	Progressive Cavity	4	185	1	1200	460	3	60	
SP No. 4 thru No. 7 (Sump Pumps)	Submersible Non-Clog Centrifugal	150	30	5	1800	240	3	60	

(1) Estimated horsepower. Actual horsepower shall meet specified operating conditions and manufacturer's requirements.

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DATE: 6/88	DRAFTED BY: MCA
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26	39	52	25	28	8																								

				DESIGNED
				DRAWN <u>STAFF</u>
				CHECKED
				APPROVED
				APPROVED
				DATE <u>NOV 1984</u>
	7/17/85	NOTE CHANGES ON PIPE INSULATION SCHEDULE, PIPE SCHEDULE, ADDED MECHANICAL STD. PIPING DESIGN		
NO.	DATE	REVISIONS	APPROVED	

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

NO SCALE
 GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 PIPING SCHEDULE & SPECIFICATIONS

M-C NO. 831721
M-17
 52 of 111
 SC NO.



WALL BRACKET DETAILS



WALL BRACKET DETAILS



HIGH PRESSURE HOT WATER STATION DETAIL



WASHWATER STATION DETAIL



WASHWATER STATION DETAIL



PIPE DIA LESS THAN 4"



CLEVIS PIPE HANGER



ADJ. PIPE SADDLE SUPPORT						
11011, PIPE Ø	2	3	4	5	6	7
	Ø	Ø	Ø	Ø	MIN.	MAX.
2 ¹ / ₂ " 3 ¹ / ₂ "	1 ¹ / ₂ "	2 ¹ / ₂ "	3"	4"	5"	6 ¹ / ₂ "
4"	2 ¹ / ₂ "	3"	4"	5 ¹ / ₂ "	6"	7"
6"	2 ¹ / ₂ "	3"	4"	5 ¹ / ₂ "	6 ¹ / ₂ "	7 ¹ / ₂ "
8"	2 ¹ / ₂ "	3"	4"	5 ¹ / ₂ "	6 ¹ / ₂ "	7 ¹ / ₂ "
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NO.	DATE	REVISIONS	APPROVED

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DRAWN STAFF
CHECKED LMR
APPROVED _____
APPROVED _____
DATE NOV 1984



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A JOINT VENTURE

NO SCALE

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1 , CONTRACTS 2 & 3

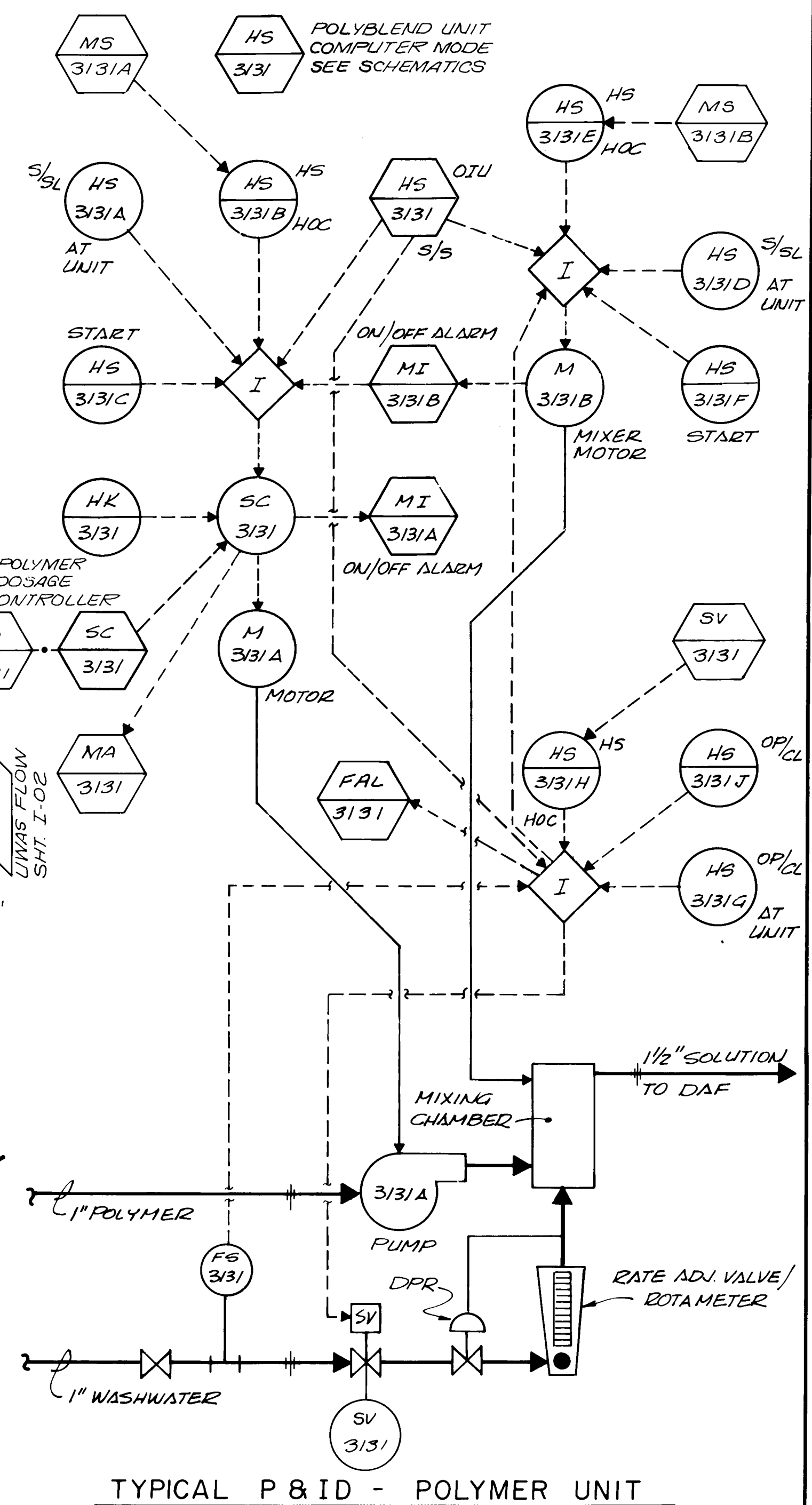
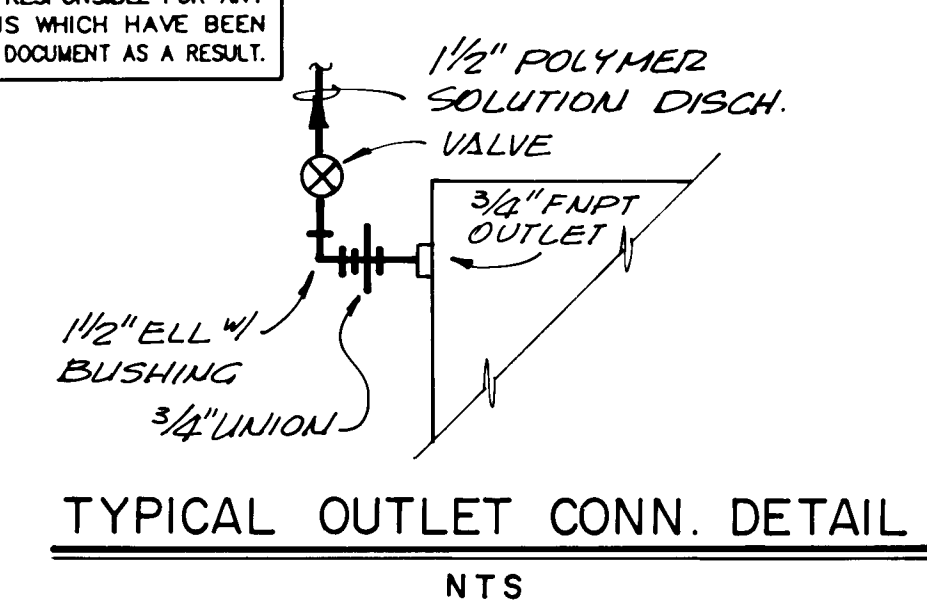
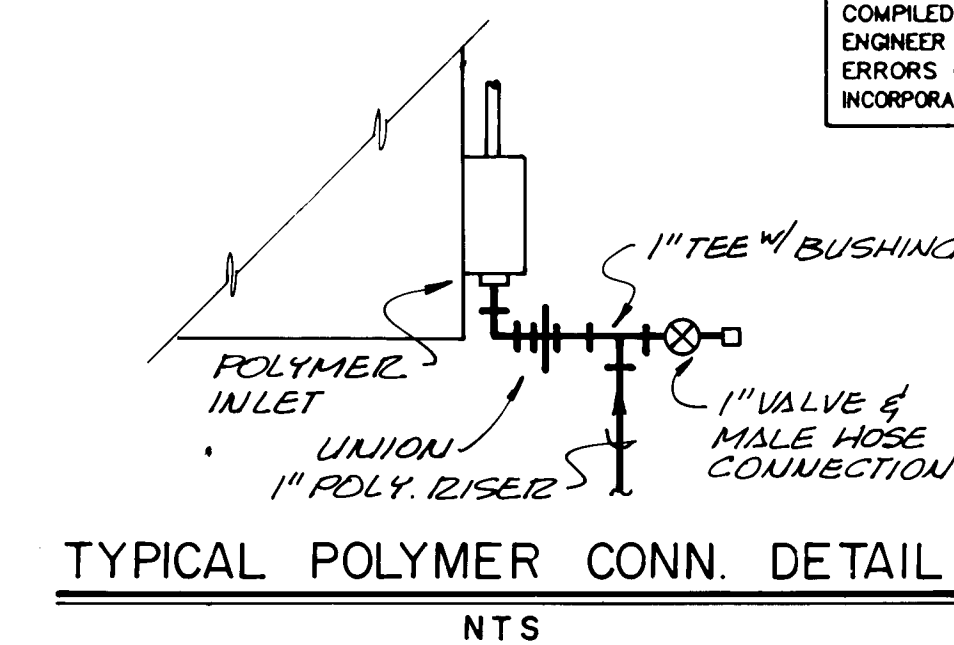
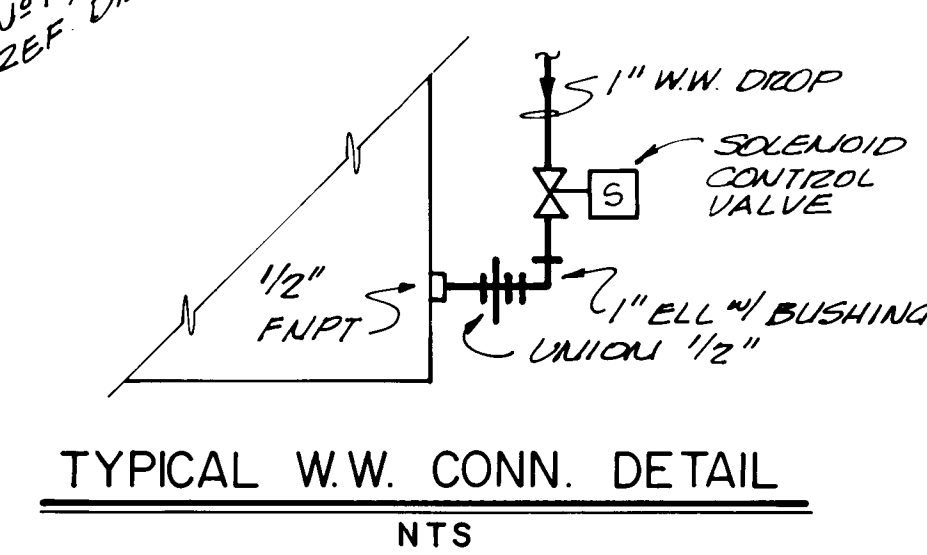
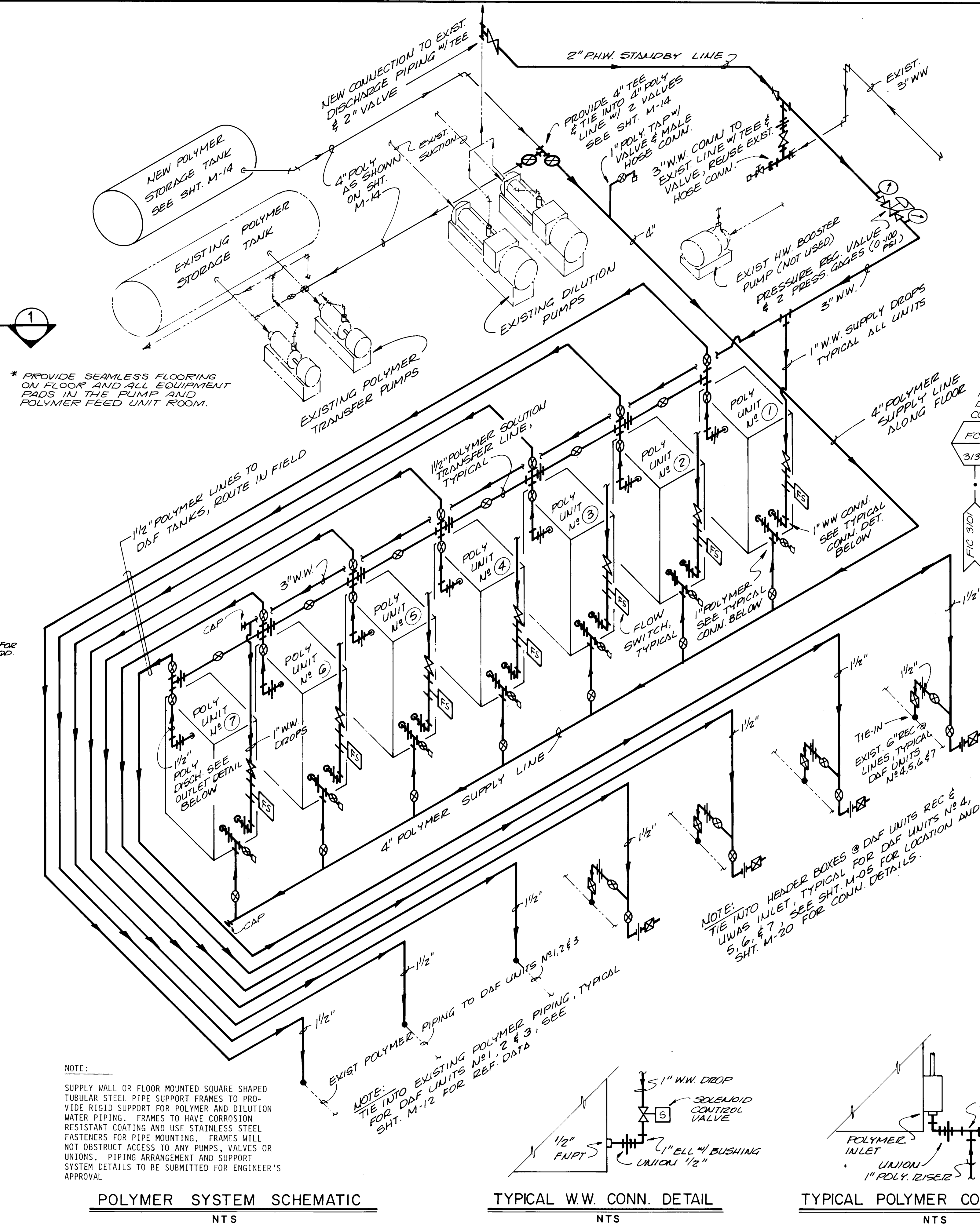
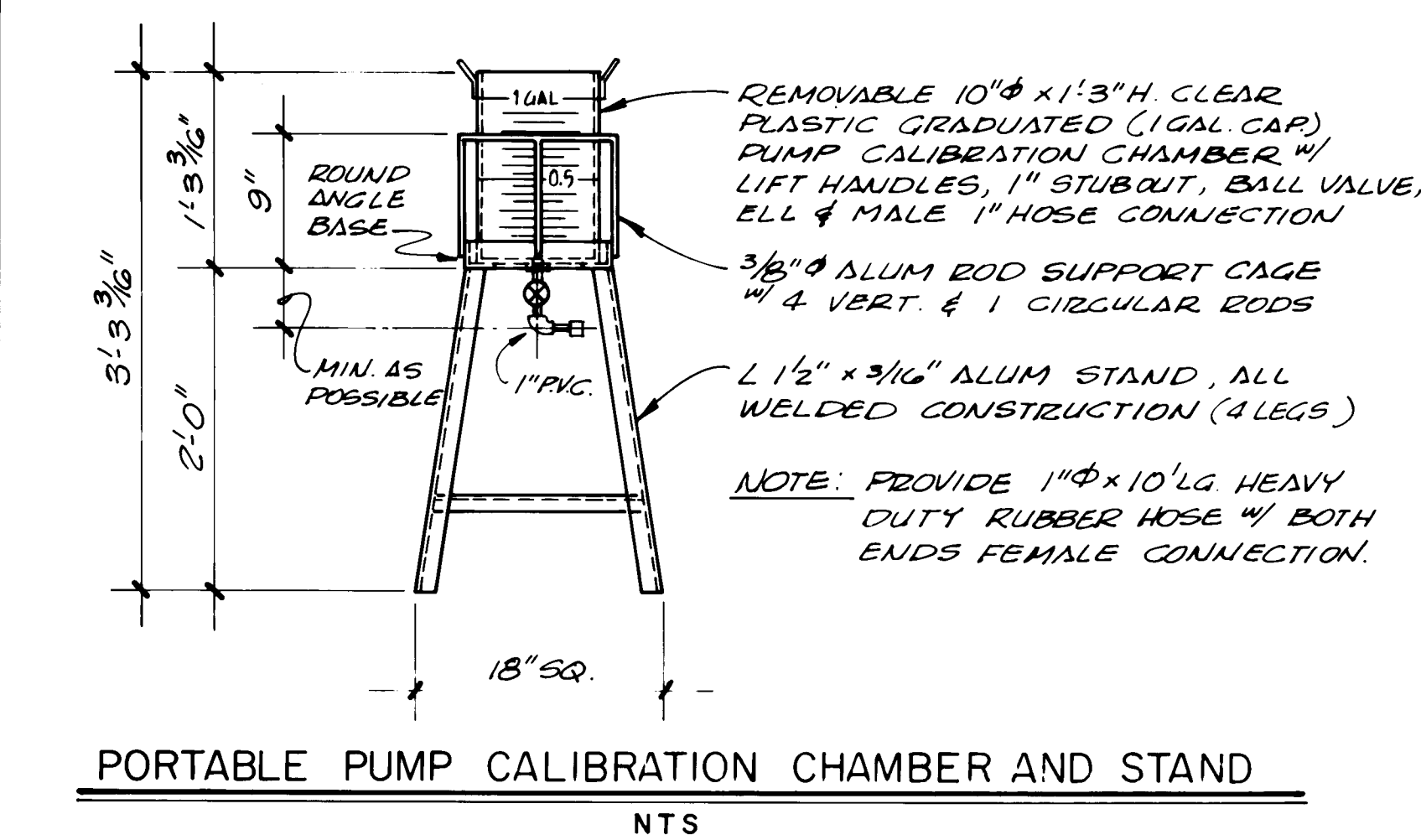
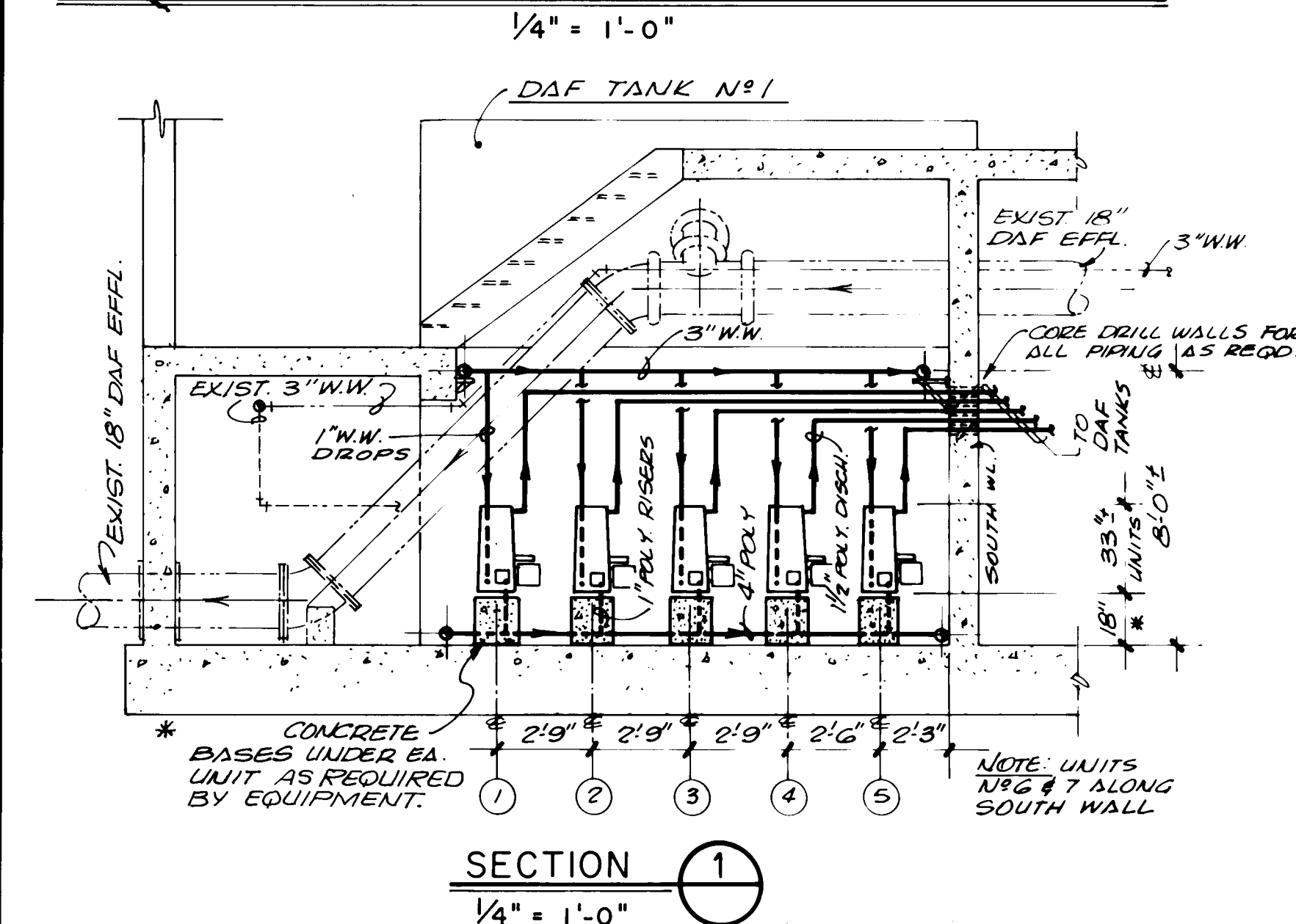
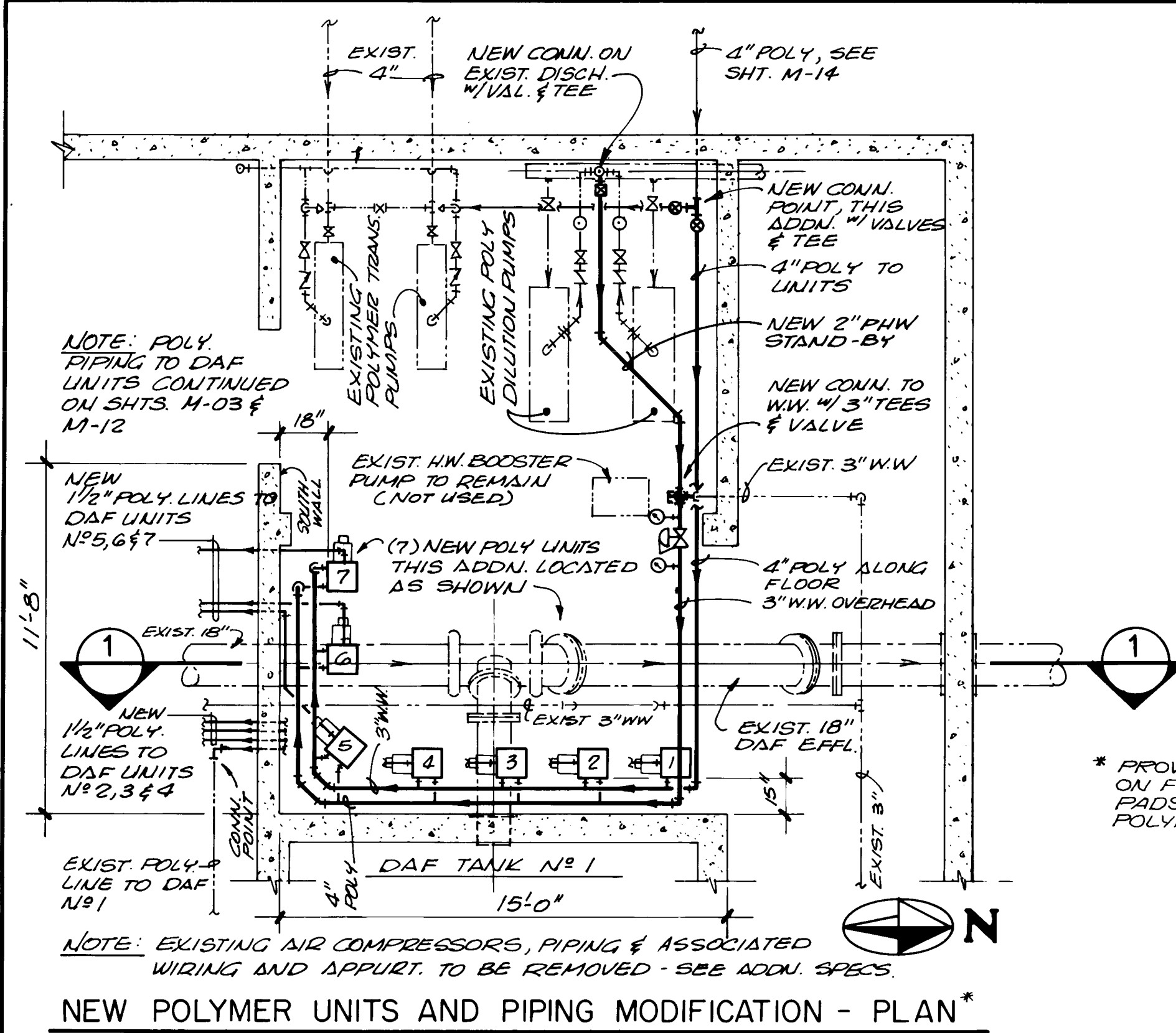
SLUDGE THICKENING SYSTEM EXPANSION
STANDARD DETAILS - PROCESS PIPING

I-C NO. 831721

M-20

5 OF 111

C NO.

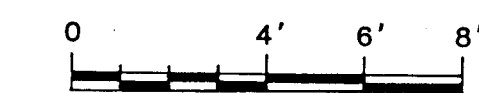
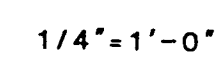


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1	9-85	REISSUED DRAWING CHANGE ORDER NO.	RAGO
1.	12-84	THIS DRAWING ADDED IN ADDENDUM N°1	IZAO
NO.	DATE	REVISIONS	APPROVED



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CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2&3

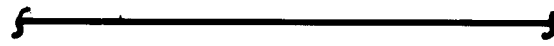
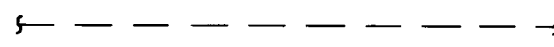
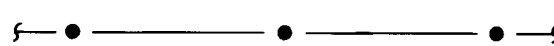
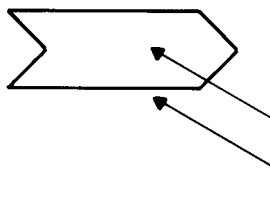
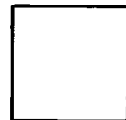
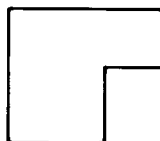
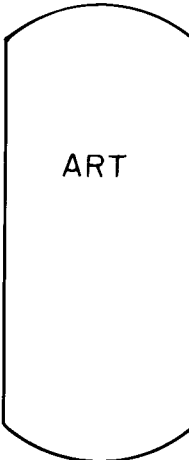
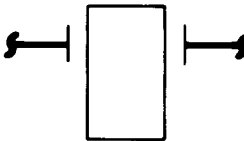
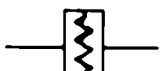
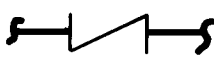
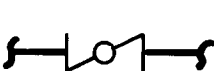
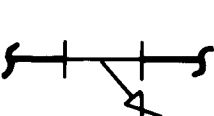
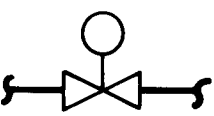
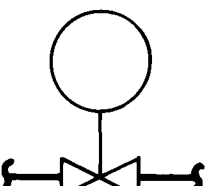
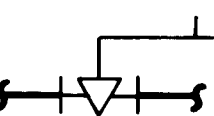
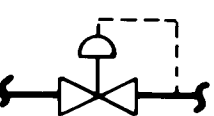
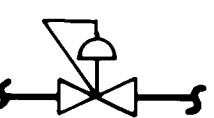
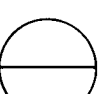
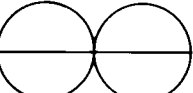
SLUDGE THICKENING SYSTEM EXPANSION
ALTERNATE POLYMER MIXING - FEEDING SYSTEM

M-C NO. 831721

M-21

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SC NO.

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 PROCESS LINE  ELECTRICAL SIGNAL  PROCESS FLOW ARROW  COMPUTER SIGNAL  PROCESS FLOW ENTERING OR LEAVING DRAWING  SIGNAL LINE ENTERING OR LEAVING DRAWING DEVICE TAG NO. DWG NO.		 SLUDGE GRINDER  CENTRIFUGAL PUMP  AIR RECEIVER  POSITIVE DISPLACEMENT PUMP  ART AIR RETENTION TANK  BASKET STRAINER  MOTOR XXXX DESIGNATES TAG NUMBER  CHEMICAL SEAL  QUICK COUPLING		 KNIFE GATE VALVE  CHECK VALVE  GATE VALVE  PLUG VALVE  BALL VALVE  GLOBE VALVE  BALL CHECK VALVE  PRESSURE RELIEF VALVE  Y STRAINER  SOLENOID VALVE  MOTOR OPERATED GATE VALVE  PLUG VALVE WITH LIMIT SWITCH  BACK PRESSURE CONTROL VALVE  PRESSURE REDUCING VALVE  BACK PRESSURE REGULATOR		 FOR DESCRIPTION, SEE TABLE BELOW FIELD DEVICE  PANEL FRONT DEVICE  INTERNAL PANEL DEVICE  DEVICE INTEGRAL TO ONE PANEL MOUNTED DEVICE  MICROPROCESSOR CRT DISPLAYED FUNCTION  MICROPROCESSOR SOFTWARE FUNCTION  LOGIC INTERLOCK S/S START/STOP PUSHBUTTON SWITCH S/SL START/STOP LOCKOUT PUSHBUTTON SWITCH HOA HAND-OFF-AUTO SELECTOR SWITCH HOC HAND-OFF-COMPUTER SELECTOR SWITCH OP/CL OPEN/CLOSE SELECTOR SWITCH OIU OPERATOR INTERFACE UNIT START START PUSHBUTTON SWITCH TEST TEST PUSHBUTTON SWITCH MEANINGS OF IDENTIFICATION LETTERS <table><thead><tr><th colspan="2">FIRST LETTER</th><th colspan="3">SUCCEEDING LETTERS</th></tr><tr><th>MEASURED OR INITIATING VARIABLE</th><th>MODIFIER</th><th>READOUT OR PASSIVE FUNCTION</th><th>OUTPUT FUNCTION</th><th>MODIFIER</th></tr></thead><tbody><tr><td>A ANALYSIS</td><td></td><td>ALARM</td><td></td><td></td></tr><tr><td>B BURNER FLAME</td><td></td><td>USER'S CHOICE</td><td>USER'S CHOICE</td><td>USER'S CHOICE</td></tr><tr><td>C CONDUCTIVITY (ELECTRICAL)</td><td></td><td></td><td>CONTROL</td><td></td></tr><tr><td>D DENSITY (MASS) OR SPECIFIC GRAVITY</td><td>DIFFERENTIAL</td><td></td><td></td><td></td></tr><tr><td>E VOLTAGE (EMF)</td><td></td><td>PRIMARY ELEMENT</td><td></td><td></td></tr><tr><td>F FLOW RATE</td><td>RATIO(FRACTION)</td><td></td><td></td><td></td></tr><tr><td>G GAGING (DIMENSIONAL)</td><td></td><td>GLASS</td><td></td><td></td></tr><tr><td>H HAND (MANUALLY INITIATED)</td><td></td><td></td><td></td><td>HIGH</td></tr><tr><td>I CURRENT (ELECTRICAL)</td><td></td><td>INDICATE</td><td></td><td></td></tr><tr><td>J POWER</td><td>SCAN</td><td></td><td></td><td></td></tr><tr><td>K TIME OR TIME-SCHEDULE</td><td></td><td></td><td></td><td></td></tr><tr><td>L LEVEL</td><td></td><td>LIGHT (PILOT)</td><td></td><td>LOW</td></tr><tr><td>M MOISTURE OR HUMIDITY</td><td></td><td></td><td></td><td></td></tr><tr><td>N USER'S CHOICE</td><td></td><td></td><td></td><td></td></tr><tr><td>O USER'S CHOICE</td><td></td><td>ORIFICE (RESTRICTION)</td><td></td><td></td></tr><tr><td>P PRESSURE OR VACUUM</td><td></td><td>POINT (TEST CONNECTION)</td><td></td><td></td></tr><tr><td>Q QUANTITY OR EVENT</td><td>INTEGRATE OR TOTALIZE</td><td></td><td></td><td></td></tr><tr><td>R RADIOACTIVITY</td><td></td><td>RECORD OR PRINT</td><td></td><td></td></tr><tr><td>S SPEED OR FREQUENCY</td><td>SAFETY</td><td></td><td>SWITCH</td><td></td></tr><tr><td>T TEMPERATURE</td><td></td><td></td><td>TRANSMIT</td><td></td></tr><tr><td>U MULTIVARIABLE</td><td></td><td>MULTIFUNCTION</td><td>MULTIFUNCTION</td><td>MULTIFUNCTION</td></tr><tr><td>V VISCOSITY</td><td></td><td></td><td>VALVE, DAMPER, OR LOUVER</td><td></td></tr><tr><td>W WEIGHT OR FORCE</td><td></td><td>WELL</td><td></td><td></td></tr><tr><td>X UNCLASSIFIED</td><td></td><td></td><td>UNCLASSIFIED</td><td></td></tr><tr><td>Y USER'S CHOICE</td><td></td><td></td><td>RELAY OR COMPUTE</td><td></td></tr><tr><td>Z POSITION</td><td></td><td></td><td>DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT</td><td></td></tr></tbody></table>		FIRST LETTER		SUCCEEDING LETTERS			MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER	A ANALYSIS		ALARM			B BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE	C CONDUCTIVITY (ELECTRICAL)			CONTROL		D DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL				E VOLTAGE (EMF)		PRIMARY ELEMENT			F FLOW RATE	RATIO(FRACTION)				G GAGING (DIMENSIONAL)		GLASS			H HAND (MANUALLY INITIATED)				HIGH	I CURRENT (ELECTRICAL)		INDICATE			J POWER	SCAN				K TIME OR TIME-SCHEDULE					L LEVEL		LIGHT (PILOT)		LOW	M MOISTURE OR HUMIDITY					N USER'S CHOICE					O USER'S CHOICE		ORIFICE (RESTRICTION)			P PRESSURE OR VACUUM		POINT (TEST CONNECTION)			Q QUANTITY OR EVENT	INTEGRATE OR TOTALIZE				R RADIOACTIVITY		RECORD OR PRINT			S SPEED OR FREQUENCY	SAFETY		SWITCH		T TEMPERATURE			TRANSMIT		U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION	V VISCOSITY			VALVE, DAMPER, OR LOUVER		W WEIGHT OR FORCE		WELL			X UNCLASSIFIED			UNCLASSIFIED		Y USER'S CHOICE			RELAY OR COMPUTE		Z POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	
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DESIGNED _____

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CHECKED _____

APPROVED _____

DATE _____

MOLZEN-CORBIN

STANLEY CONSULTANTS

A JOINT VENTURE

NONE

GRAPHIC SCALE

NO. DATE

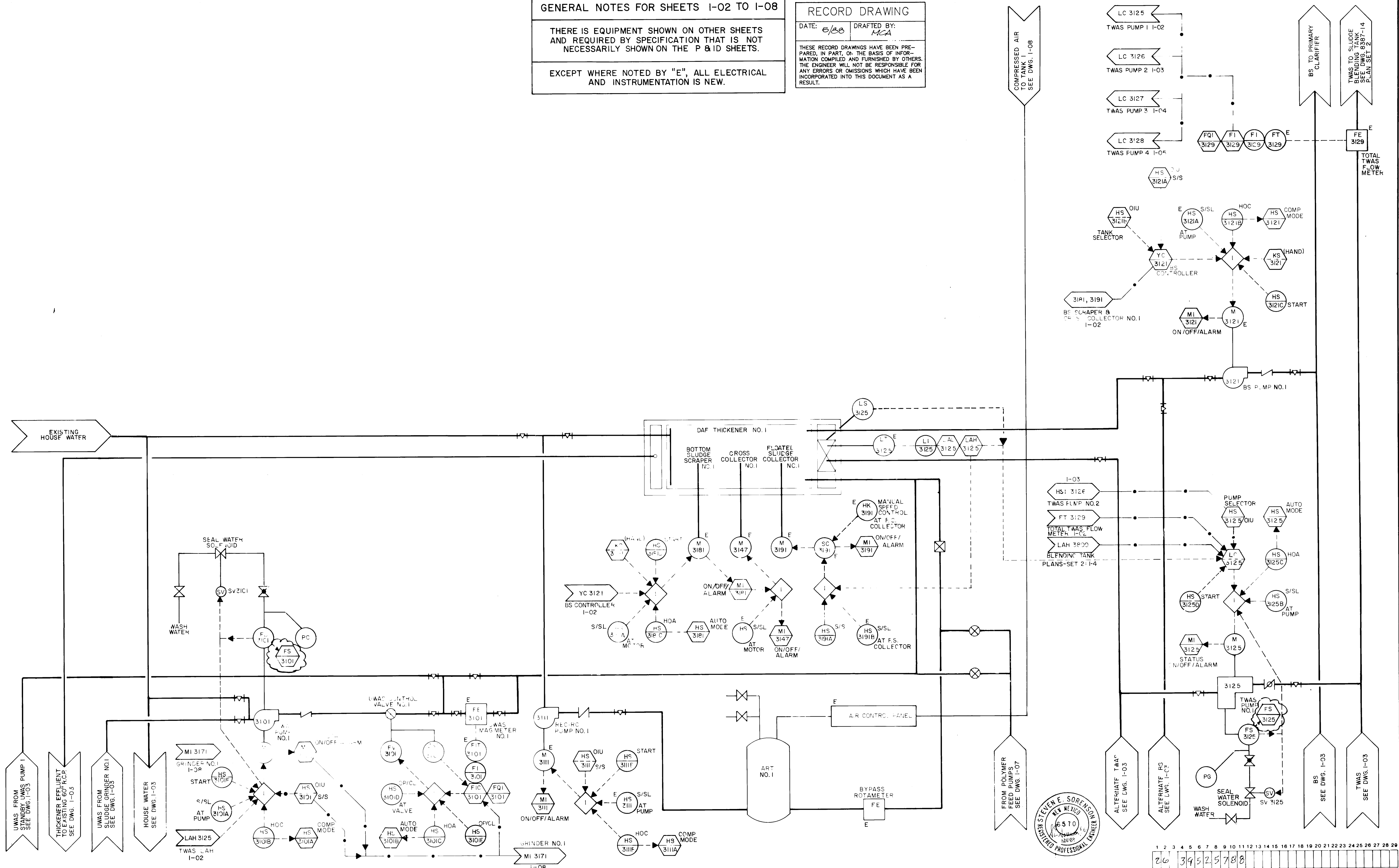
REVISIONS

APPROVED

THERE IS EQUIPMENT SHOWN ON OTHER SHEETS
AND REQUIRED BY SPECIFICATION THAT IS NOT
NECESSARILY SHOWN ON THE P & ID SHEETS.

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STANLEY CONSULTANTS
 A JOINT VENTURE

NONE

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1 , CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION

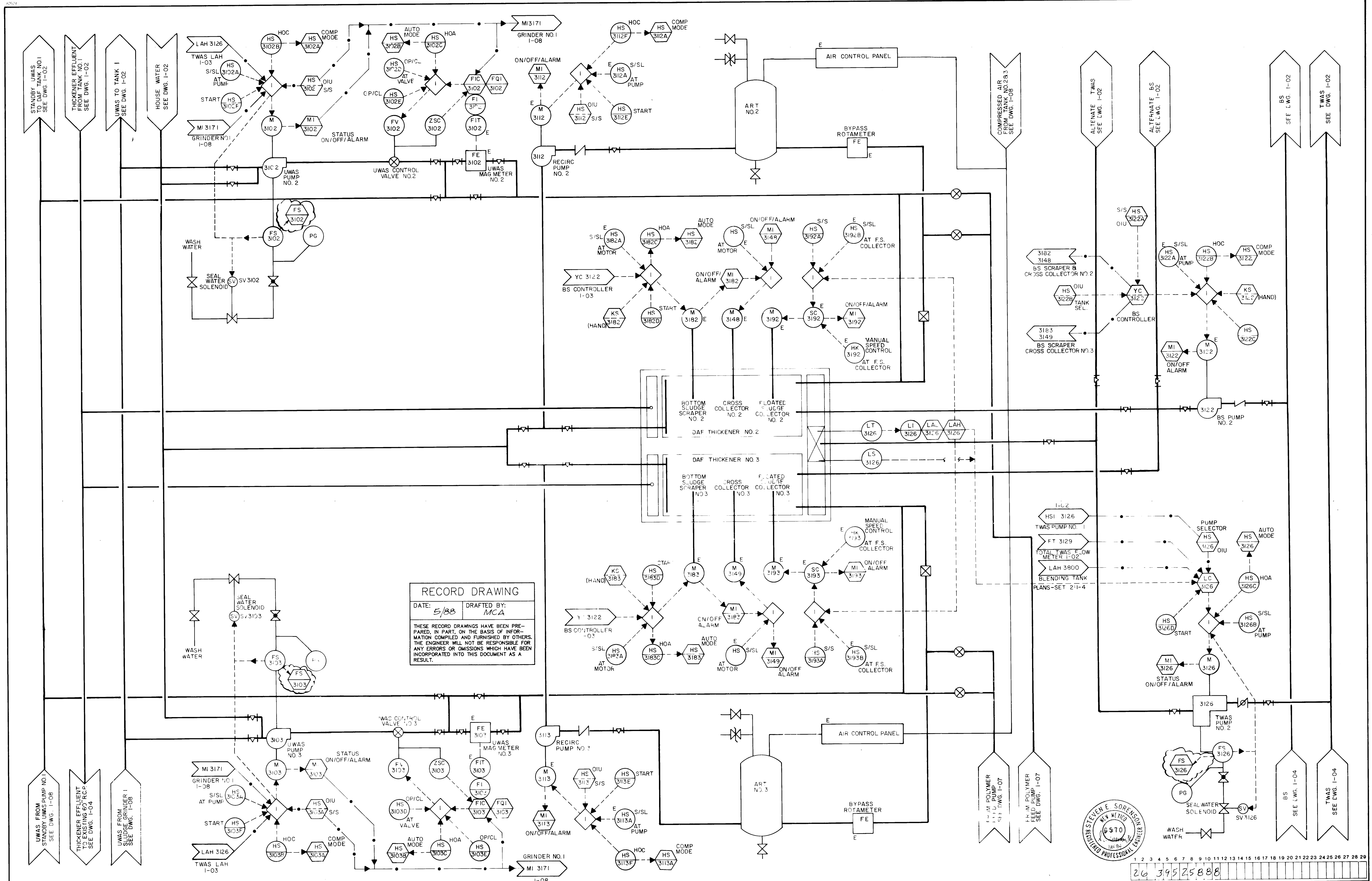
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M-C NO. 831721

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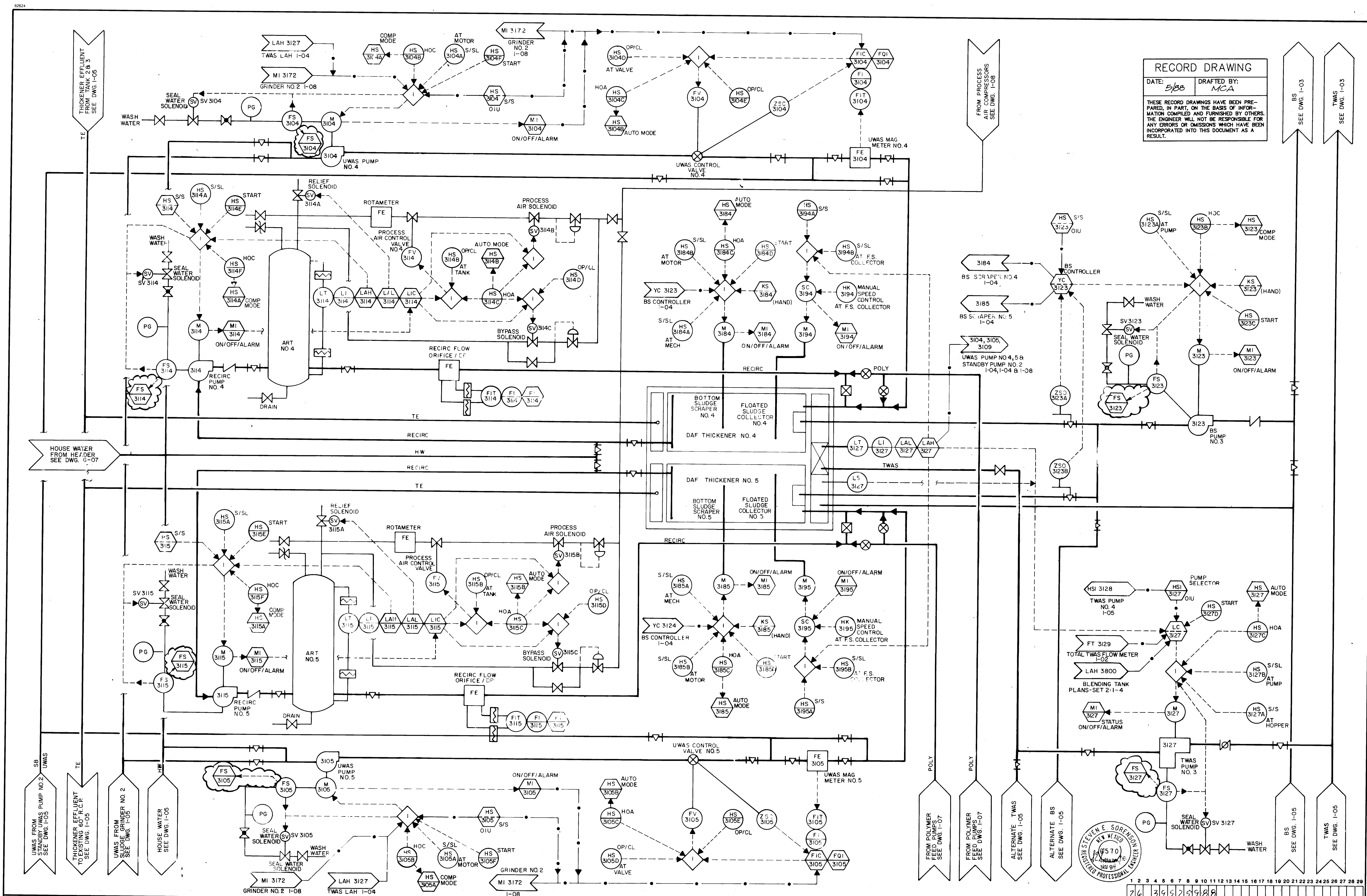
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SC NO.

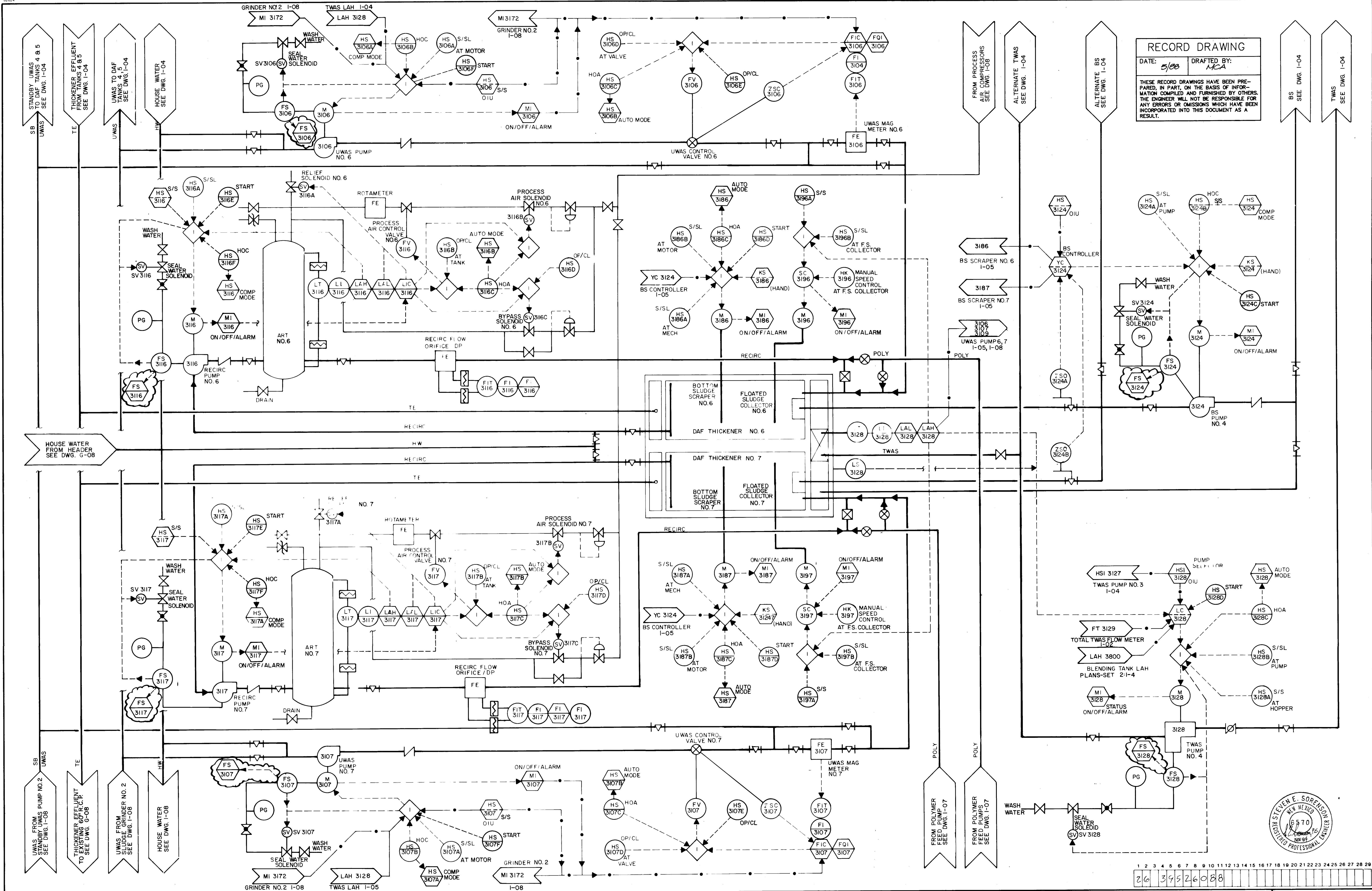


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NONE
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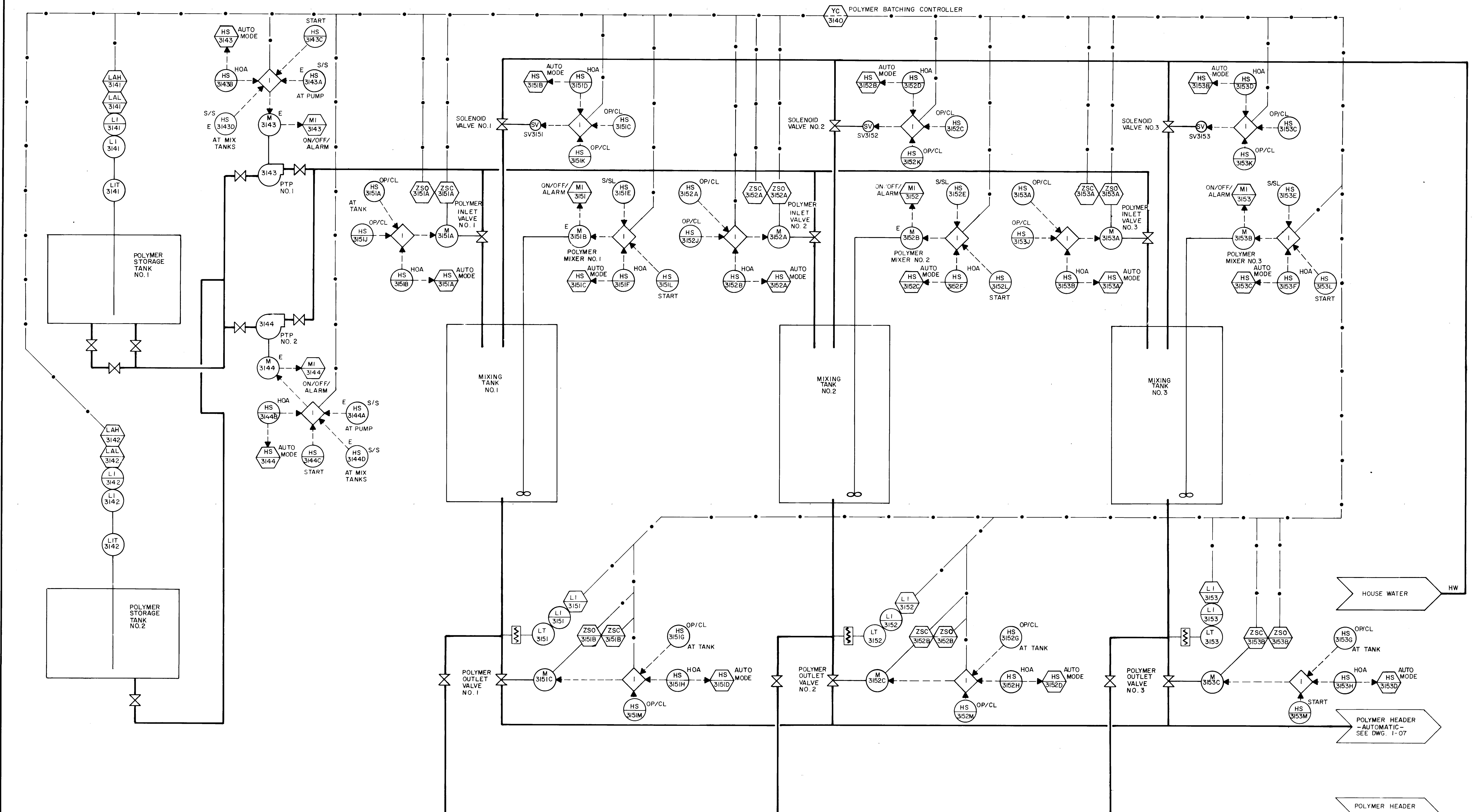
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 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 P&ID TANKS 6 & 7

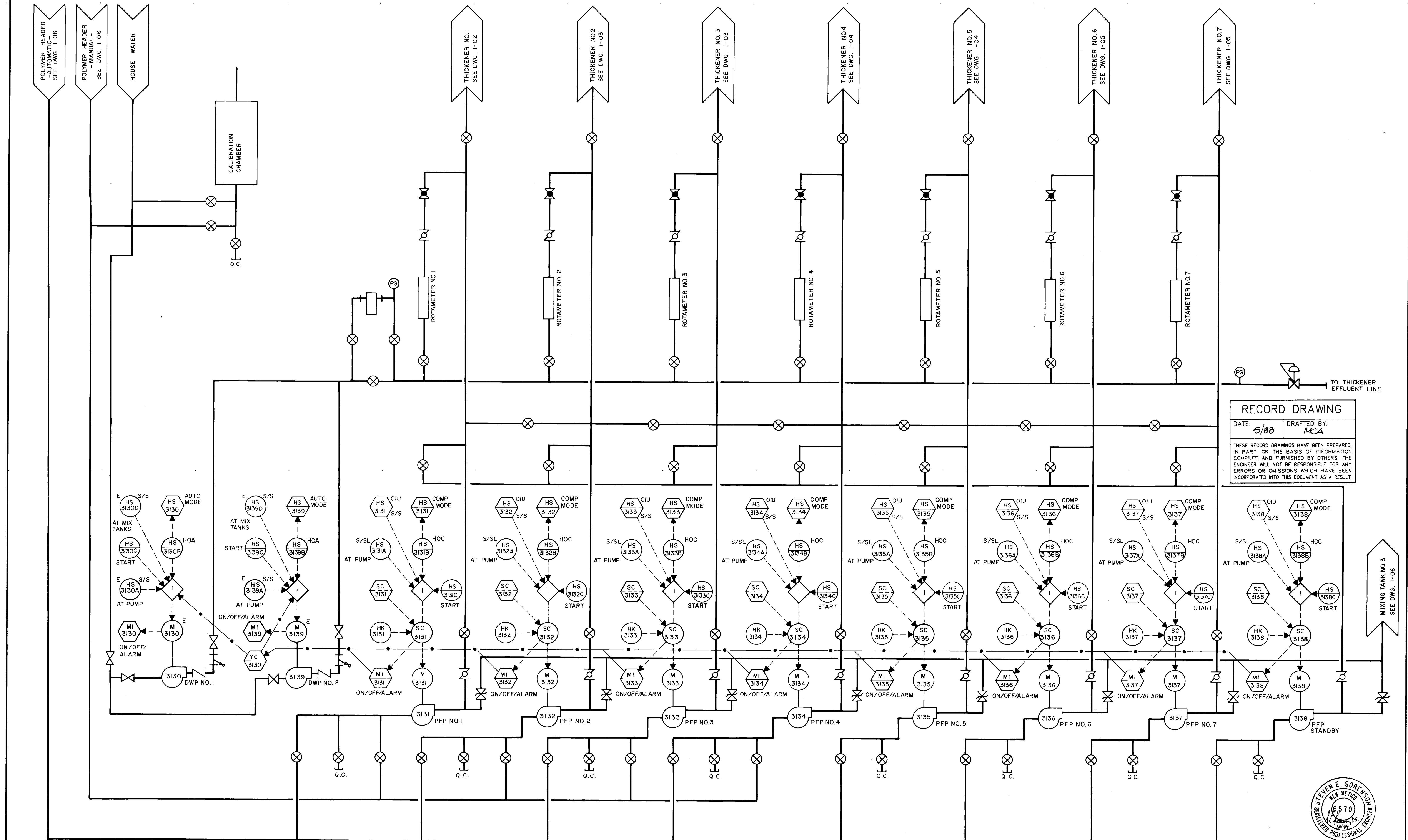
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HOUSE WATER POLYMER HEADER - AUTOMATIC - SEE DWG. I-07 POLYMER HEADER - MANUAL - SEE DWG. I-07 26 39 52 61 88	



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MIXING TANK NO. 3
 SEE DWG. I-06



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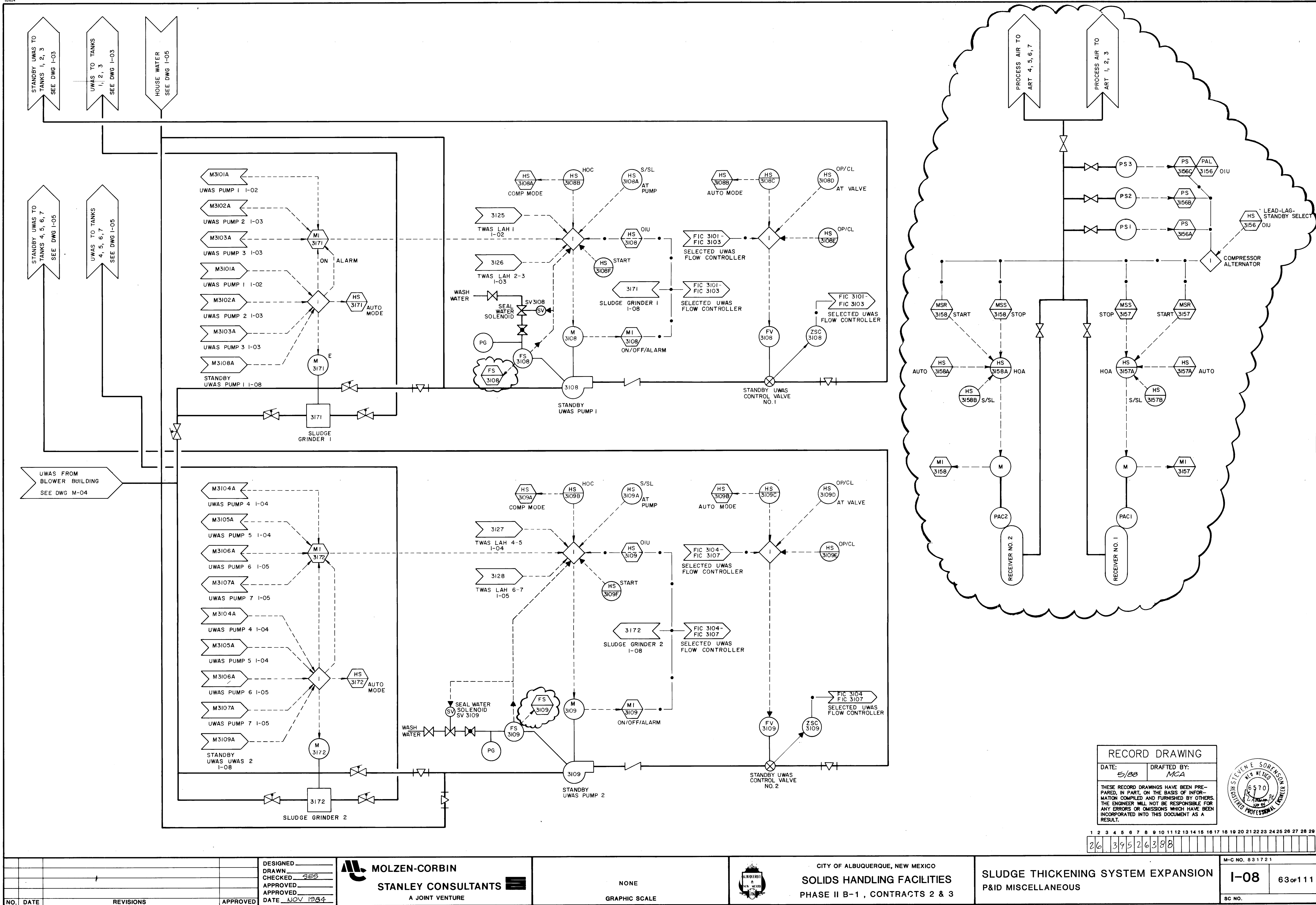


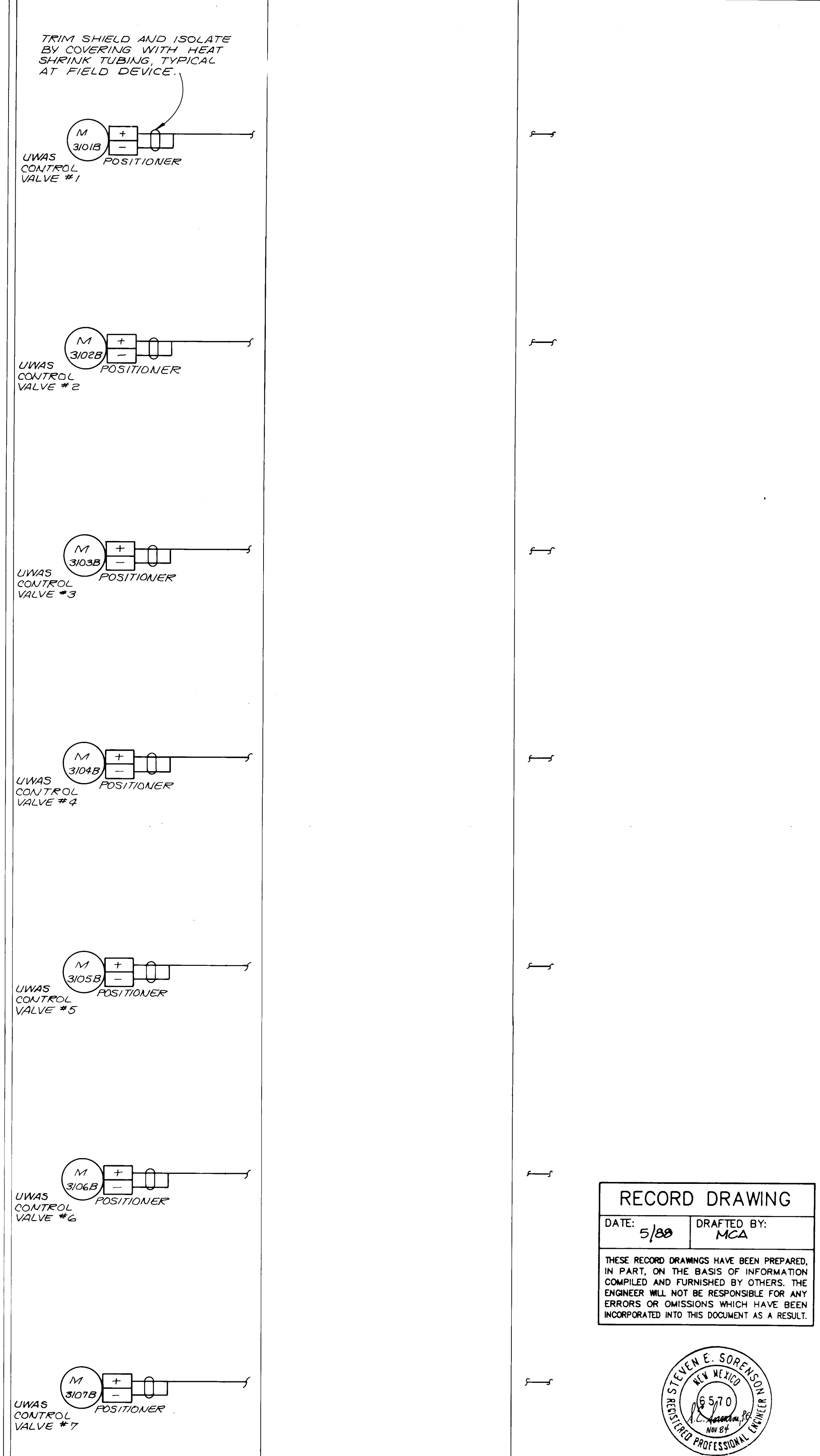
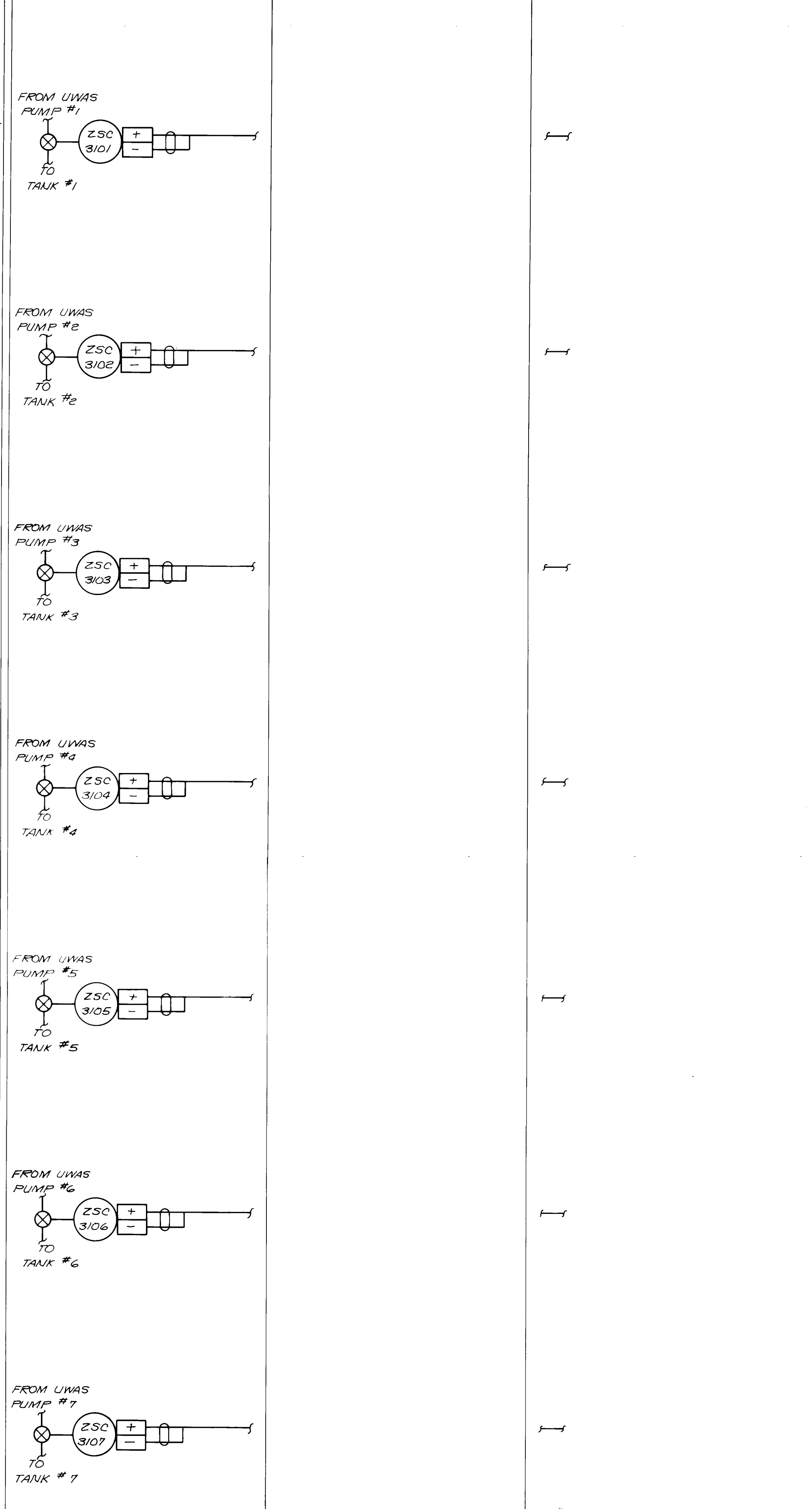
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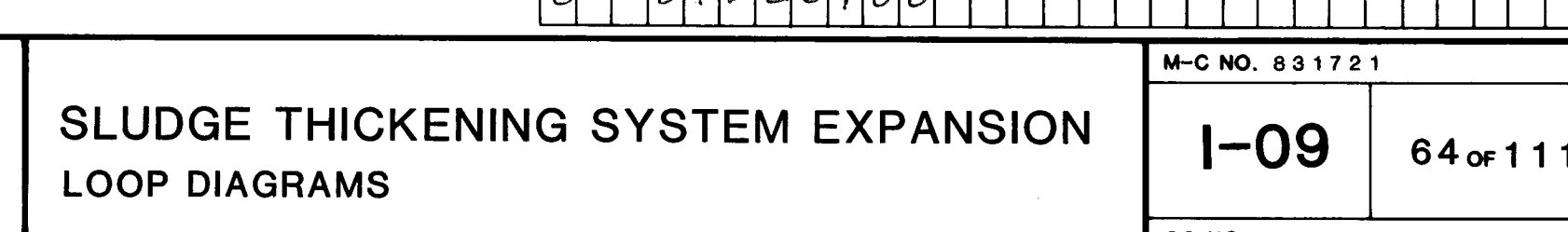
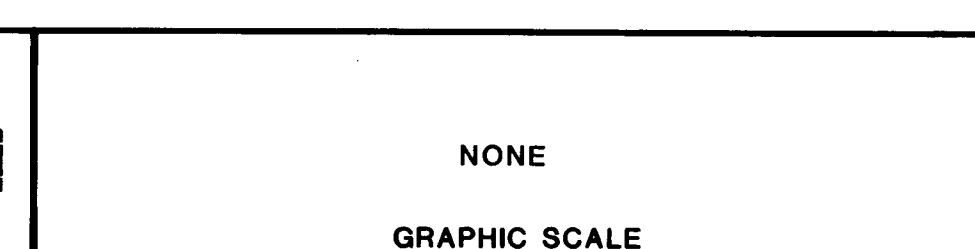
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SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

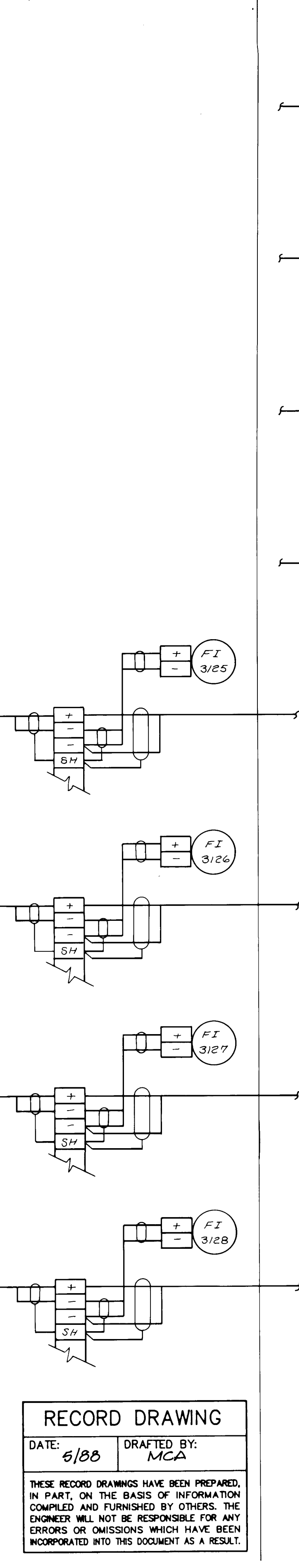
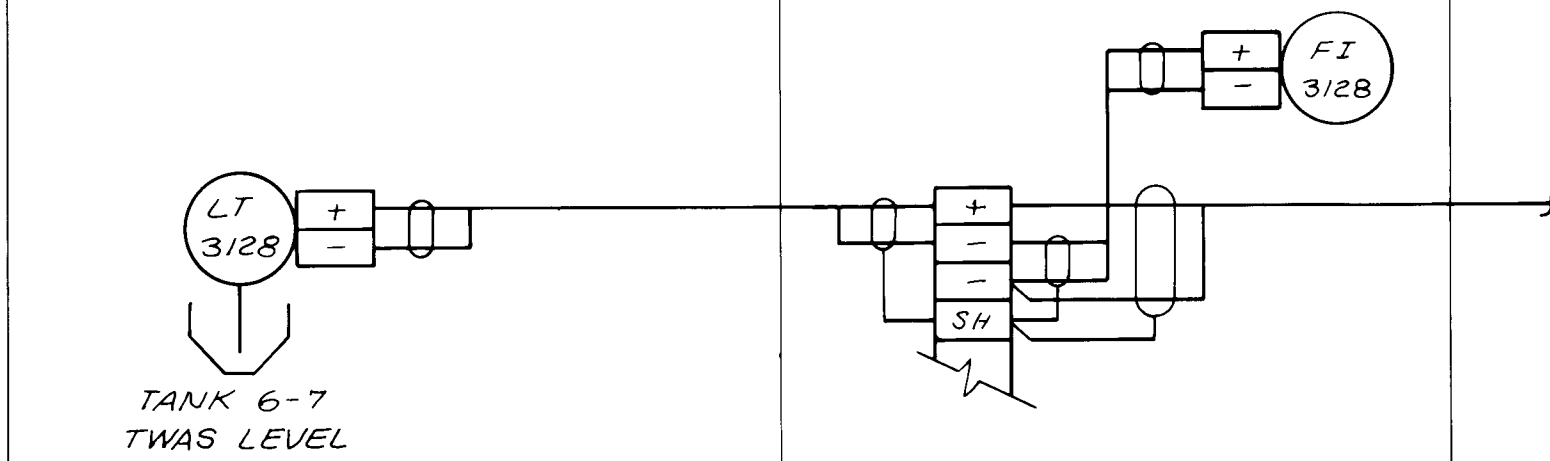
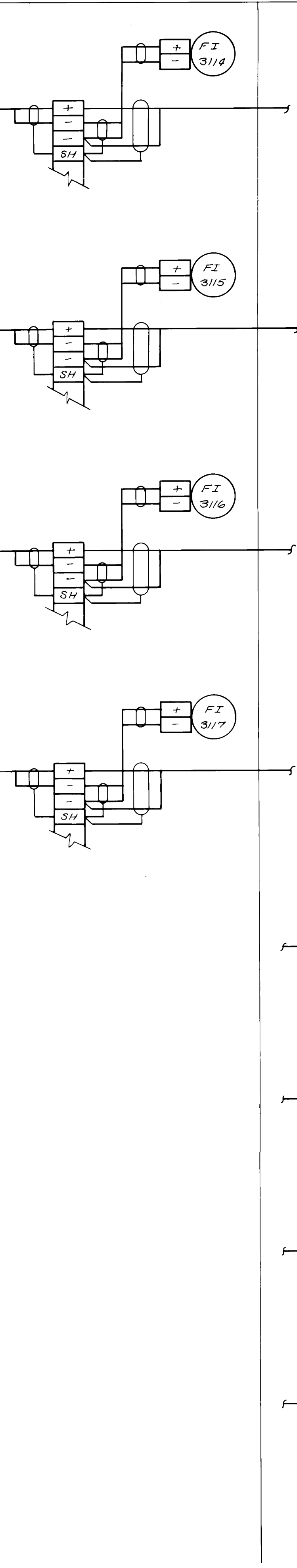
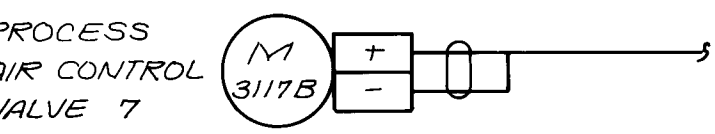
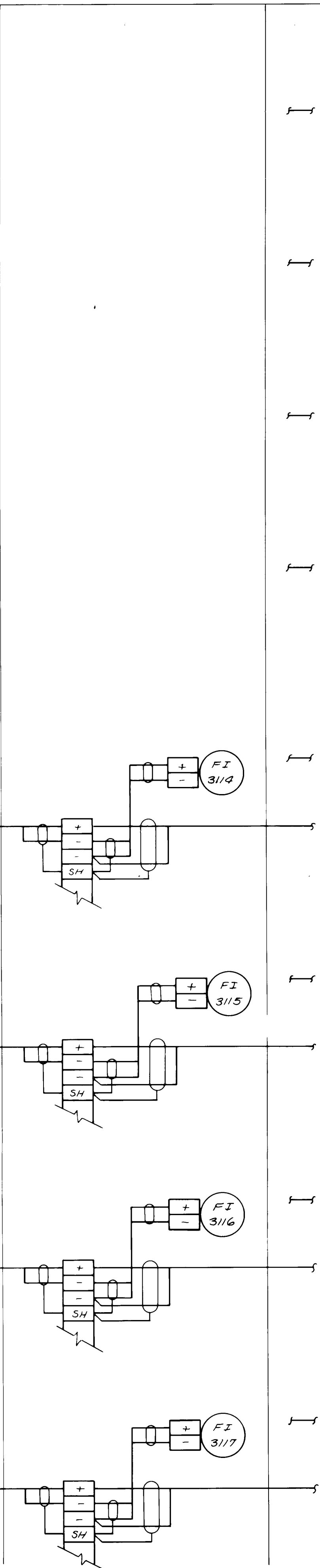
SLUDGE THICKENING SYSTEM EXPANSION
 P&ID POLYMER FEED
 M-C NO. 831721
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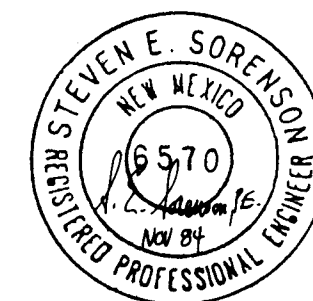
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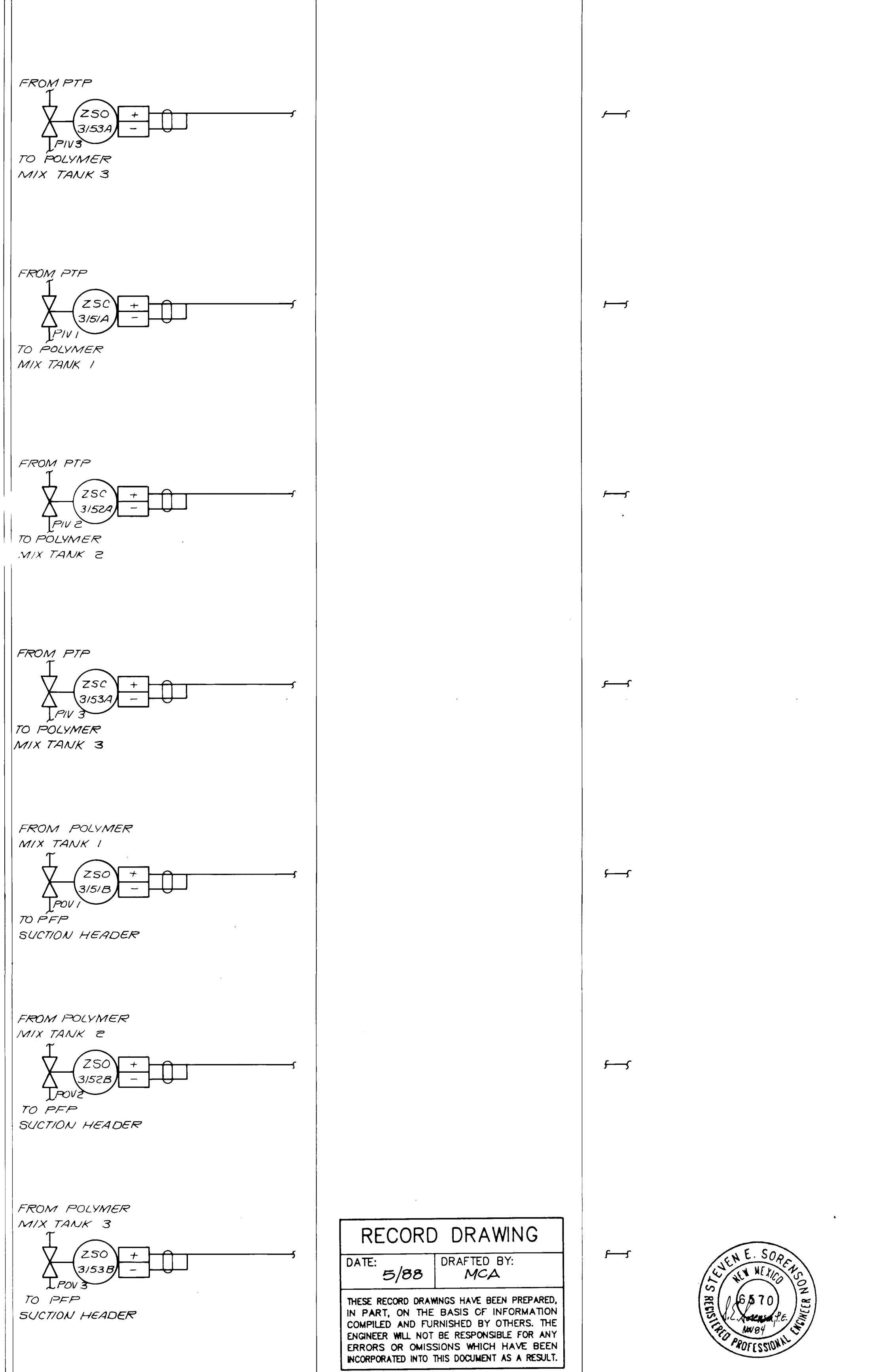
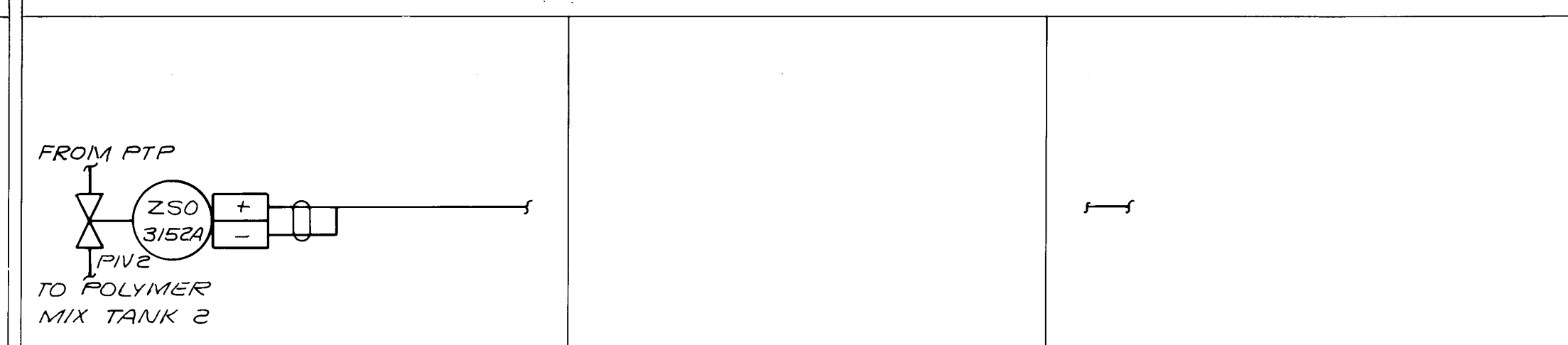




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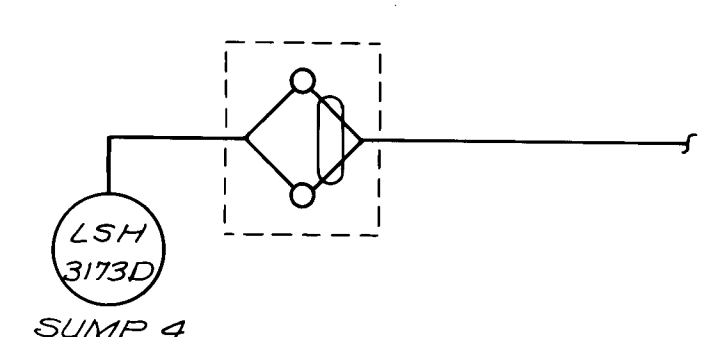
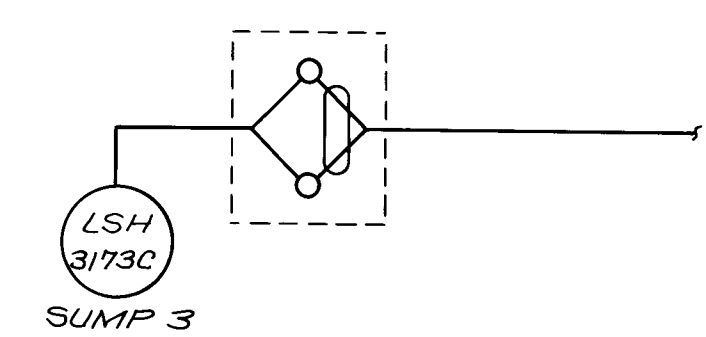
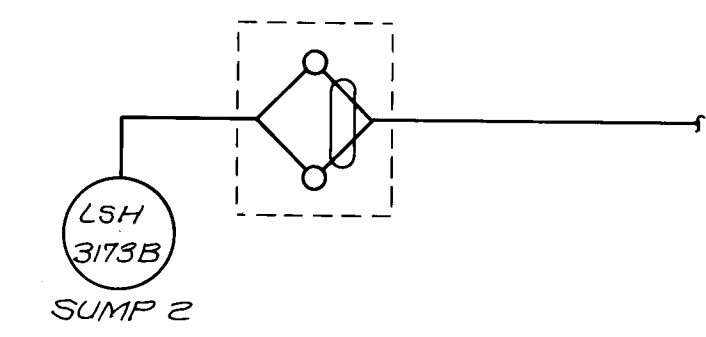
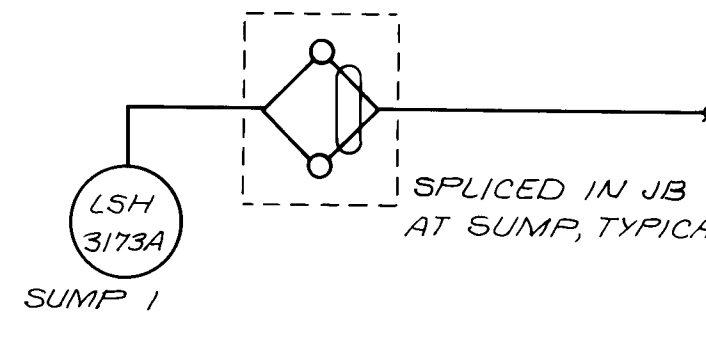
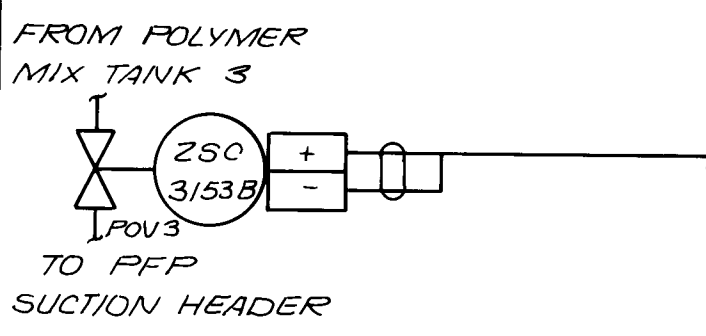
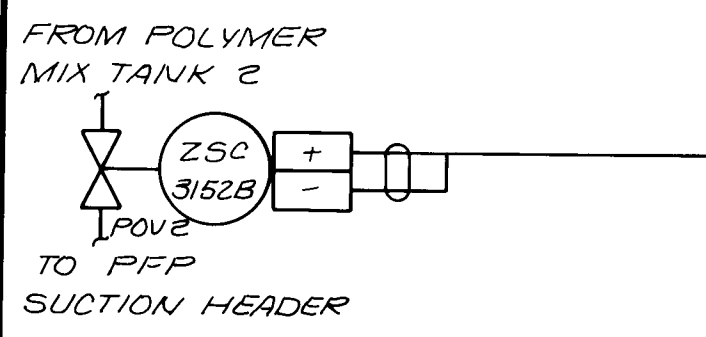
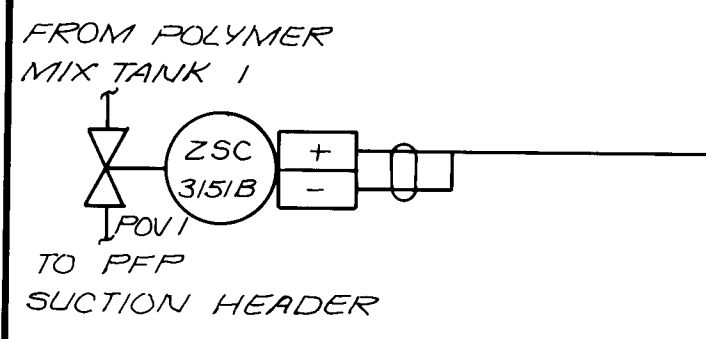


SLUDGE THICKENING SYSTEM EXPANSION LOOP DIAGRAMS	M-C NO. 831721	
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	SC NO.	

DAF BLDG - PROCESS AREA

DAF ICP

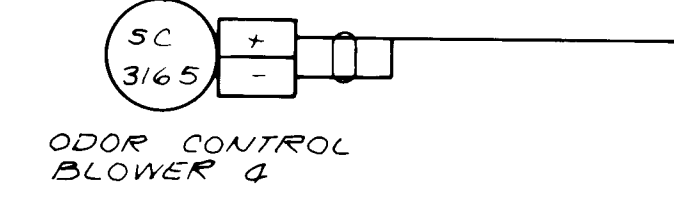
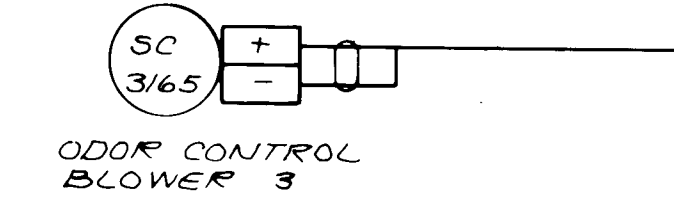
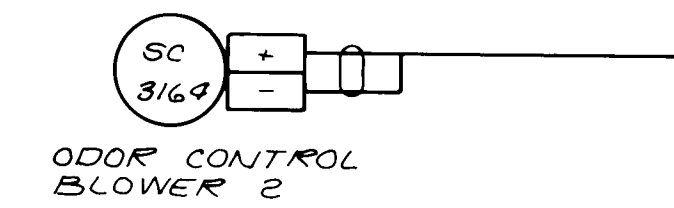
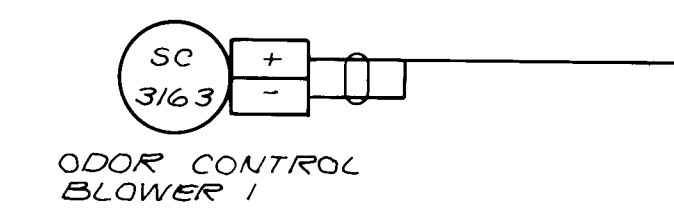
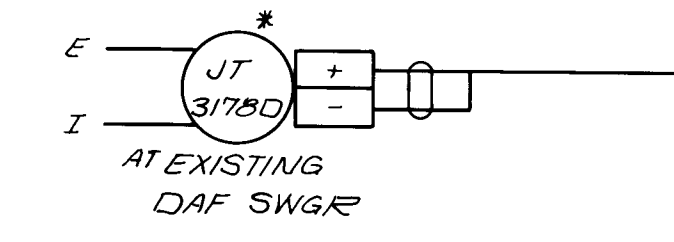
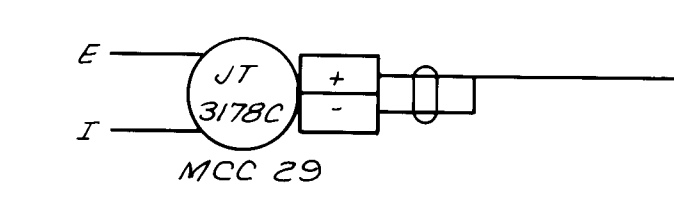
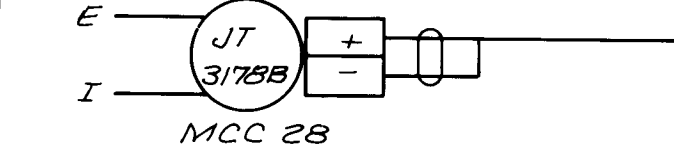
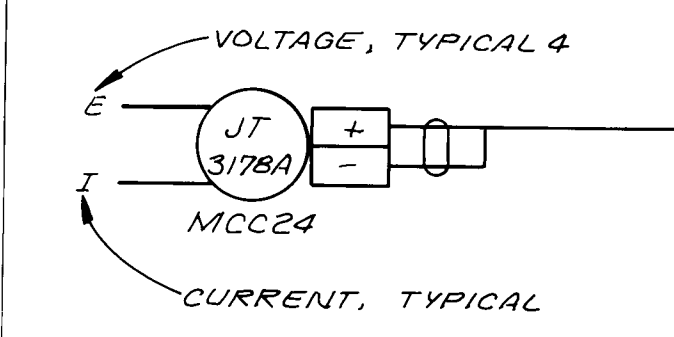
PCU I/O



DAF BLDG - PROCESS AREA

DAF ICP

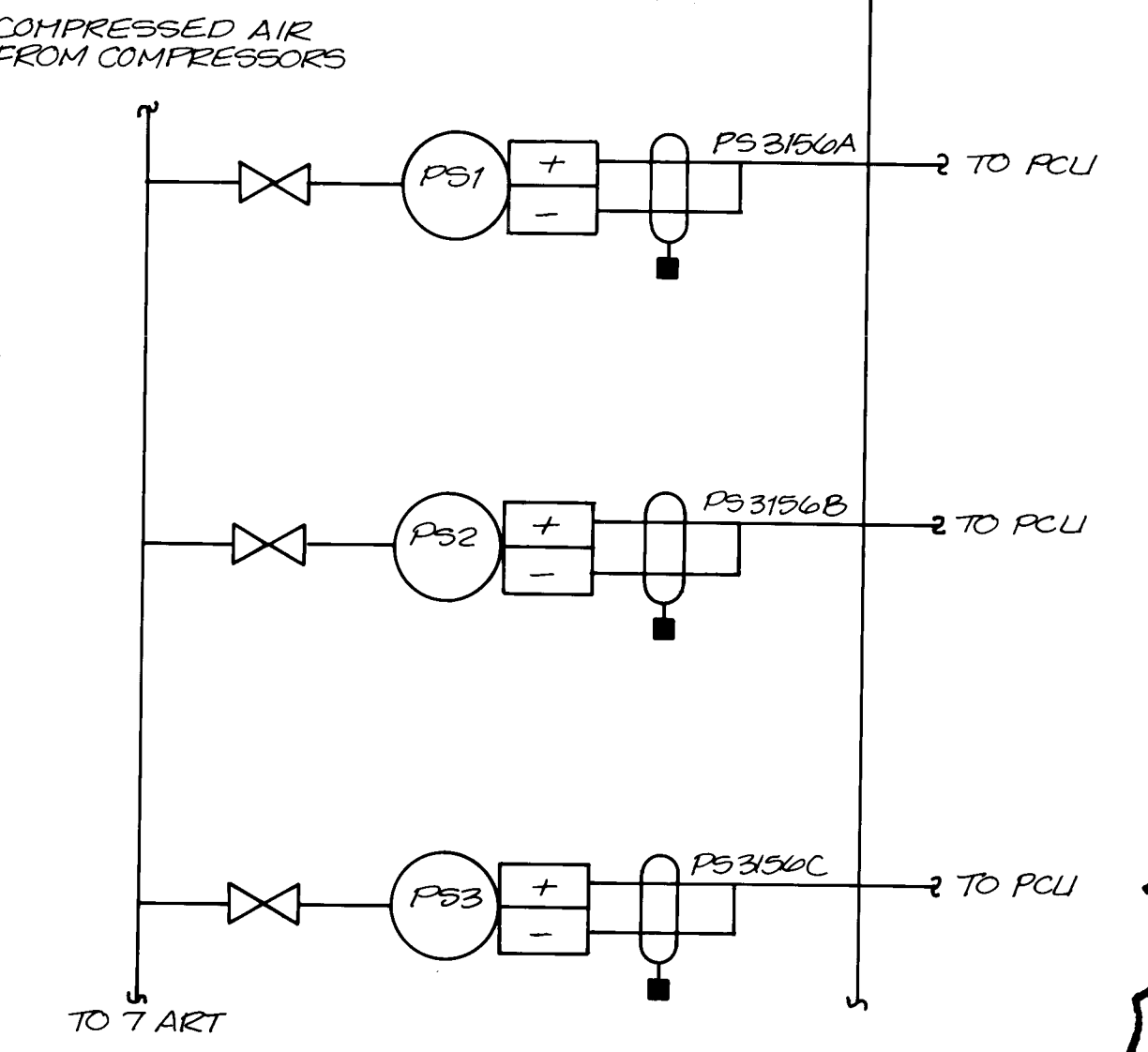
PCU I/O



* TO BE INSTALLED UNDER CONTRACT II-B-1.

DAF BLDG. - PROCESS AREA

PCU



RECORD DRAWING	
DATE: 5/88	DRAFTED BY: MCA
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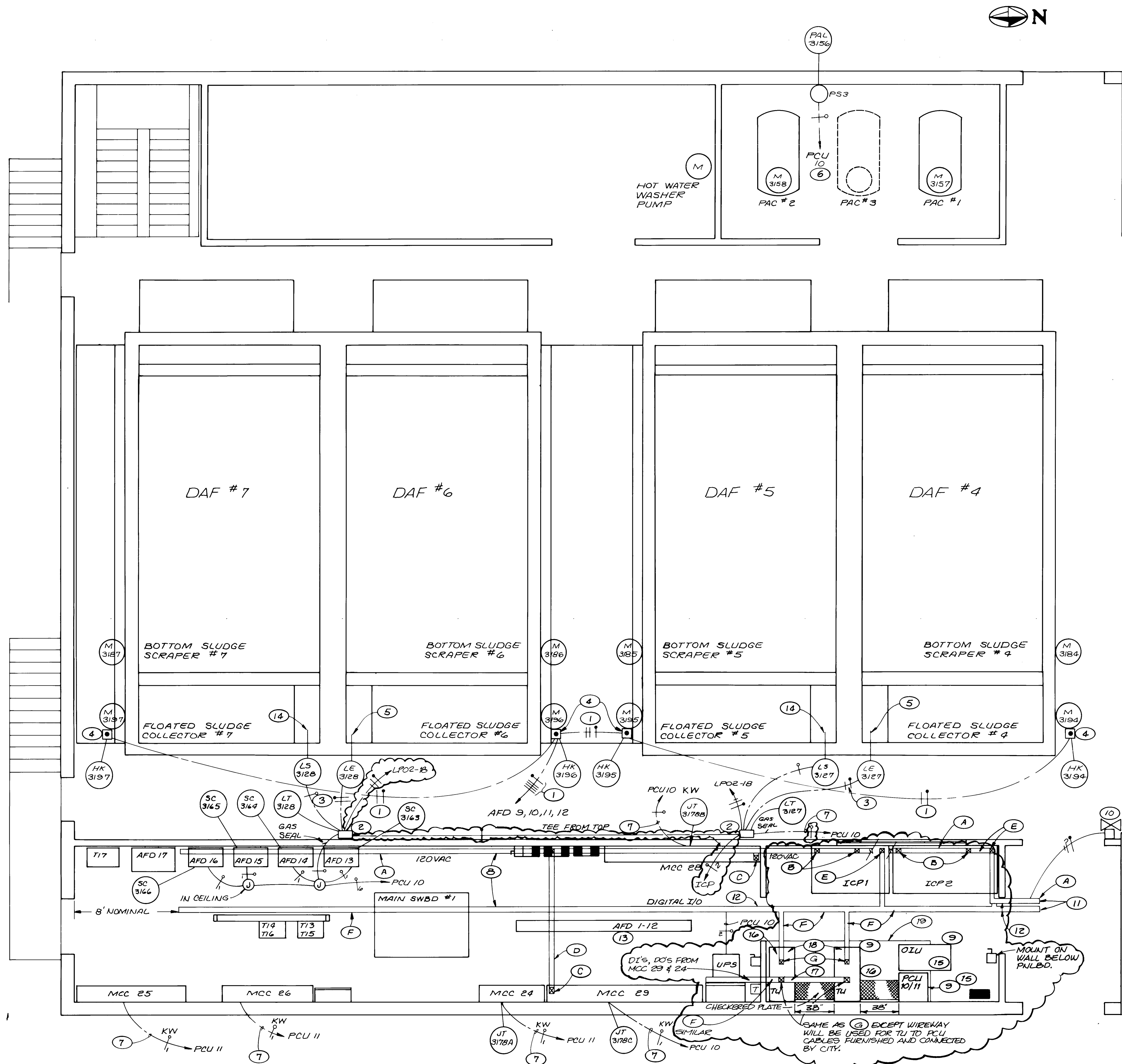
NO.	DATE	REVISIONS	APPROVED

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION	
LOOP DIAGRAMS	
M-C NO. 831721	I-12 67 of 111
SC NO.	



NOTES - WIREWAY

1. ALL WIREWAY OILTIGHT LAY-IN, HOFFMAN BULLETIN F10 OR ENGINEER APPROVED EQUIVALENT. PROVIDE ALL HANGERS, ELBOWS, FITTINGS, OFFSETS, TEES, AND PLATES.
2. NOTE (A) THROUGH (D) WIREWAY FOR 120VAC. NOTE (E) THROUGH (H) WIREWAY FOR DISCRETE INPUTS AND DISCRETE OUTPUTS.
3. CLOSE COORDINATION REQUIRED WITH VERTICAL AND HORIZONTAL HVAC DUCTS. WIREWAY SHOULD TAKE PRECEDENCE OVER DUCT.

- (A) 12" X 6" AT 24" CENTERLINE ABOVE SUSPENDED CEILING.
- (B) 6" X 6" VERTICAL TO TOP OF ICP.
- (C) 6" X 6" TO TOP OF MCC.
- (D) 6" X 6" ABOVE SUSPENDED CEILING.
- (E) 120VAC WIREWAY ABOVE I/O WIREWAY. VERTICAL 6" X 6" FROM I/O WIREWAY TO TOP OF ICP.
- (F) 6" X 6" AT 12" CENTERLINE ABOVE SUSPENDED CEILING.
- (G) 6" X 6" VERTICAL TO PCU.
- (H) 6" X 6" ON TOP OF PCU. CUT WIREWAY TO MATCH CABLE ENTRY IN TOP OF PCU.

NOTES

1. CABLE BY AFD MANUFACTURER.
2. RF LEVEL TRANSMITTER, 15981 PARAGRAPH 1.15. MOUNT AT 5'4" ± CENTERLINE AFF.
3. CABLE BY LEVEL TRANSMITTER MANUFACTURER.
4. NEMA 4X SPEED CONTROL POTENTIOMETER BY AFD MANUFACTURER.
5. 0.84" DIAMETER KYNAR COATED PROBE. SET PROBE BOTTOM AT EL. 4922.00.
6. RUN IN FLOOR DIRECTLY TO PCU.
7. RUN IN FLOOR, OR COMBINE WITH RUN FOR SC3146, ETC.
8. CONDUITS REQUIRED FROM ALL CONTROL EQUIPMENT TO WIREWAYS FOR CONNECTION TO ICP AND PCU. SHOW IN DETAIL ON RECORD DRAWINGS.
9. BOLT PCU TO FLOOR. BOLT WIREWAY TO PCU.
10. 120VAC, 90 DB, DOUBLE PROJECTOR HORN. MOUNT AS HIGH AS PRACTICAL.
11. PROJECTION OF WIREWAY INTO VESTIBULE IS FOR CONNECTION OF CONDUITS FROM EXISTING BUILDING SEAL BETWEEN CONDUCTORS AND CONDUIT (ALL CONDUITS) ENTERING WIREWAY TO PREVENT PASSAGE OF GAS.
12. RUN SHORT SECTION OF WIREWAY WITH NO DOOR THROUGH WALL. SEAL BETWEEN WALL AND WIREWAY WITH SILICONE CAULK.
13. FOR SC 3131 THROUGH SC 3138, SEE (A) E-15.
14. 16962 FLOAT SWITCH. SET TO ACTUATE AT ELEV. 31.50 RISING.
15. SEE DATA HIGHWAY DETAIL ON DWG. E-15.
16. EXCEPT FOR DATA HIGHWAY CABLES, WHICH CONNECT TO OIU AND PCU, ALL SIGNAL AND CONTROL WIRING NOW DENOTED AS BEING CONNECTED TO PCU10 OR PCU11. SHALL BE CONNECTED TO ONE OF THE TWO TERMINAL UNITS (TU). CITY WILL FURNISH ELECTRICAL AND PHYSICAL DETAILS OF EACH TU TO CONTRACTOR.
17. 6" X 6" ON TOP OF TCU.
18. LOCATE 3 WIREWAY CONNECTIONS TO EACH TU AS RECOMMENDED BY MANUFACTURER OF TU.
19. 38" X 153" X 8" D CONCRETE PAD WITH #4 BARS ON 12" CENTERS EACH WAY.

RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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DATE	NOV 1984
NO.	7-22-85 ELLIPTICAL NOTE 9
DATE	
REVISIONS	
APPROVED	

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"

0 4' 8'

GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO

SOLIDS HANDLING FACILITIES

PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION

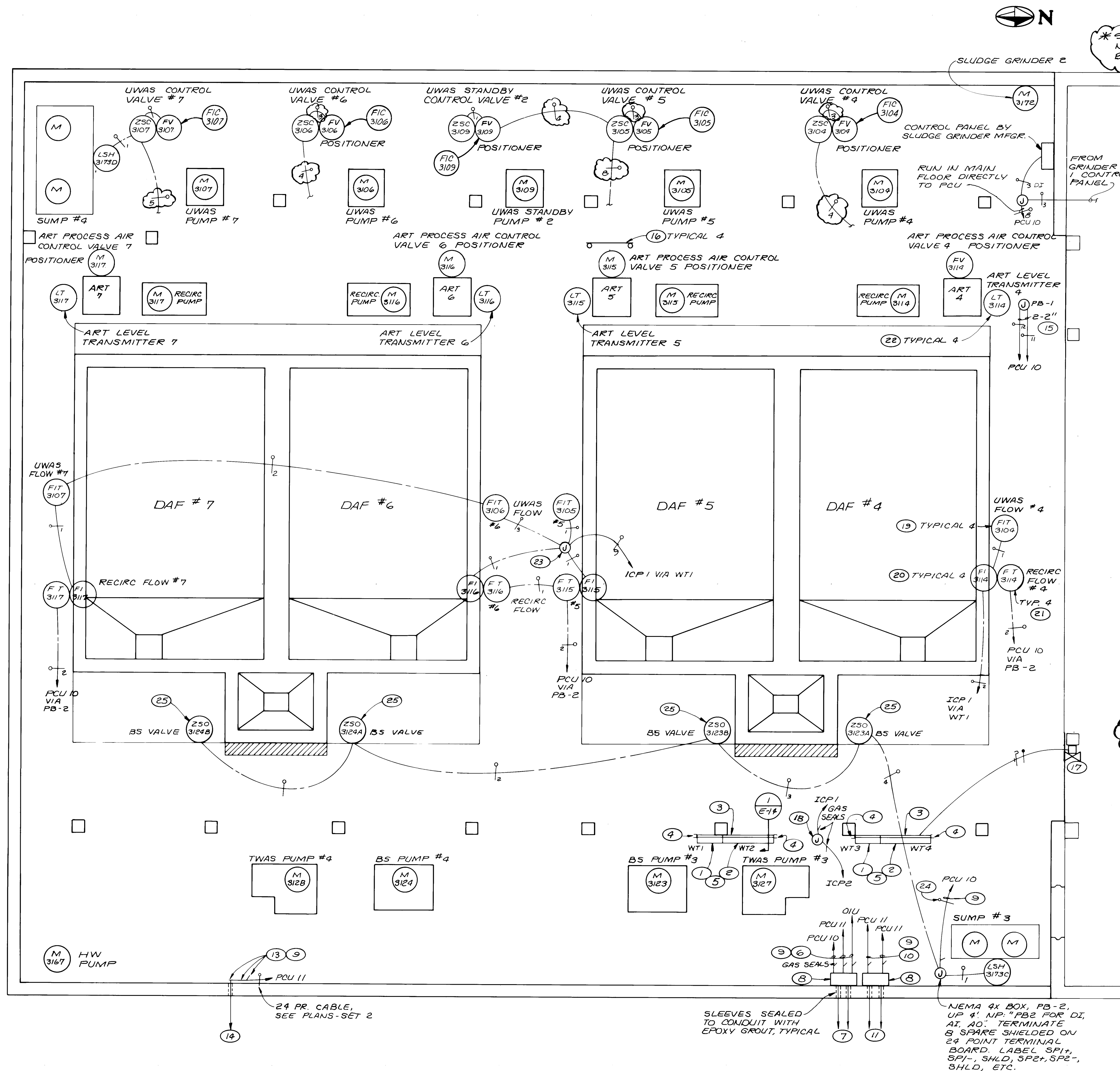
INSTRUMENTATION - NEW MAIN FLOOR

M-C NO. 831721

I-13

68 OF 111

SC NO.



NOTES

- 1 6" X 6" X 24" GASKETED FIBERGLASS WIRING TROUGH, HOFFMAN F-6624FG. MOUNT WITH COVER TO EAST. SET TOP OF TROUGH APPROXIMATELY FLUSH WITH BOTTOM OF BEAM. COORDINATE LOCATION WITH 4" BS PIPING AND 6" TWAS PIPING SHOWN ON DRAWING M-04. USE FOR ANALOG INPUT CABLES FROM FIELD DEVICES TO ICP. INSTALL 2 SPARE 1" CONDUITS UP TO ICP.
- 2 SAME AS 1 EXCEPT 6" X 6" X 48" AND USE FOR 120V TO/FROM ICP. INSTALL 4 SPARE 1" CONDUITS UP TO ICP.
- 3 2 UNISTRUT PICOIEA.
- 4 BOLT PICOIEA TO SIDE OF CONCRETE BEAM TWO PLACES, AND TO BOTH HORIZONTAL STRUTS.
- 5 CENTER THE WIRING TROUGHS NORTH-SOUTH UNDER EACH ICP RATHER THAN FOLLOWING EXACT DIMENSIONS SHOWN HERE.
- 6 1" PVC RMC UP, ROUTED AROUND MAKEUP AIR UNIT, INTO FLOOR AND TO EQUIPMENT.
- 7 2-4" DATA HIGHWAY CONDUITS FROM GENERATOR BUILDING, NORTH-SOUTH LOCATIONS AS SHOWN ON DWG. E-03. BURIAL DEPTH TO SUIT LOCATION OF BOX IN 8.
- 8 NEMA 4X BOX. CUT OUT BACK TO ACCOMMODATE CONDUITS. SEAL TO WALL WITH HEAVY BEAD OF SILICONE SEAL, TOOLED SMOOTH WHERE EXPOSED.
- 9 NO JB OR LB BETWEEN GAS SEAL AND CEILING PENETRATION.
- 10 2-2 1/2" WITH CONDUCTORS AS REQUIRED IN PLANS-SET 2.
- 11 2-4" CONTROL CONDUITS FROM SLUDGE BLENDING FACILITY. CONTINUED ON DWG. E-03, THEN ON PLANS-SET 2, DWG. E2.
- 12 NOT USED
- 13 LB, REDUCER, GAS SEAL.
- 14 PART OF DUCT BANK TO DIGESTERS. SEE DWG. E-04 AND E-05. SEE PLANS-SET 2, DWG. E2.
- 15 RUN ON CEILING. INSTALL GAS SEALS NEAR WHERE RUN ENTERS CONCRETE ON WAY TO PCU.
- 16 SEE A/E15 FOR PANEL DETAIL AND CONDUITS TO ALL EQUIPMENT IN THIS AREA.
- 17 120VAC 90 DB DOUBLE PROJECTOR ALARM HORN. MOUNT AS HIGH AS PRACTICAL.
- 18 12" X 18" NEMA 4X BOX. N.P. "PB-4 FOR PILOT LIGHT LEADS". RUN 2-1" SPARES W/GAS SEALS. SEAL CONDUIT WITH DUCT SEAL IN ICP. DO NOT FILL GAS SEAL.
- 19 ELECTROMAGNETIC FLOWMETER. SPECIFICATION SECTION 15981, PARAGRAPH 1.9.
- 20 FIELD MOUNTED INDICATOR. SPECIFICATION SECTION 15981, PARAGRAPH 1.16.
- 21 ELECTRONIC DIFFERENTIAL TRANSMITTER. SPECIFICATION SECTION 15981, PARAGRAPH 1.13. FOR MOUNTING DETAIL, SEE DWG. M-05.
- 22 SAME AS 21 EXCEPT SEE DWG. M-09.
- 23 12X8 NEMA 4X BOX. TERMINATE 3 SPARE SHIELDED PAIRS ON 9 POINT TB. LABEL SPA+, SPA-, SHLD, SPB+, SPB-, SHLD, ETC. N.P. "FIT 3105, FI 3106, FI 3107, FI 3115, FI 3116, FI 3117, SPARES".
- 24 QUANTITY AS SHOWN IN VARIOUS NOTES, PLUS 8 SPARES.
- 25 PROXIMITY LIMIT SWITCH 16960. MOUNT ON VALVE WITH ALUMINUM OR STAINLESS HARDWARE.

* NOTE: CONT. OF NOTE 1
RUN ALL REQUIRED ANALOG CABLES BETWEEN ICPs AND TUS FROM THESE WIREWAYS TO BOTTOM OF TUS. RUN 2-2" CONDUITS FROM EACH ICP TO EACH TU. INSTALL 2 SPARE CABLES IN EACH CONDUIT AS WELL AS REQUIRED.

RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 39 52 69 88

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DATE	NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

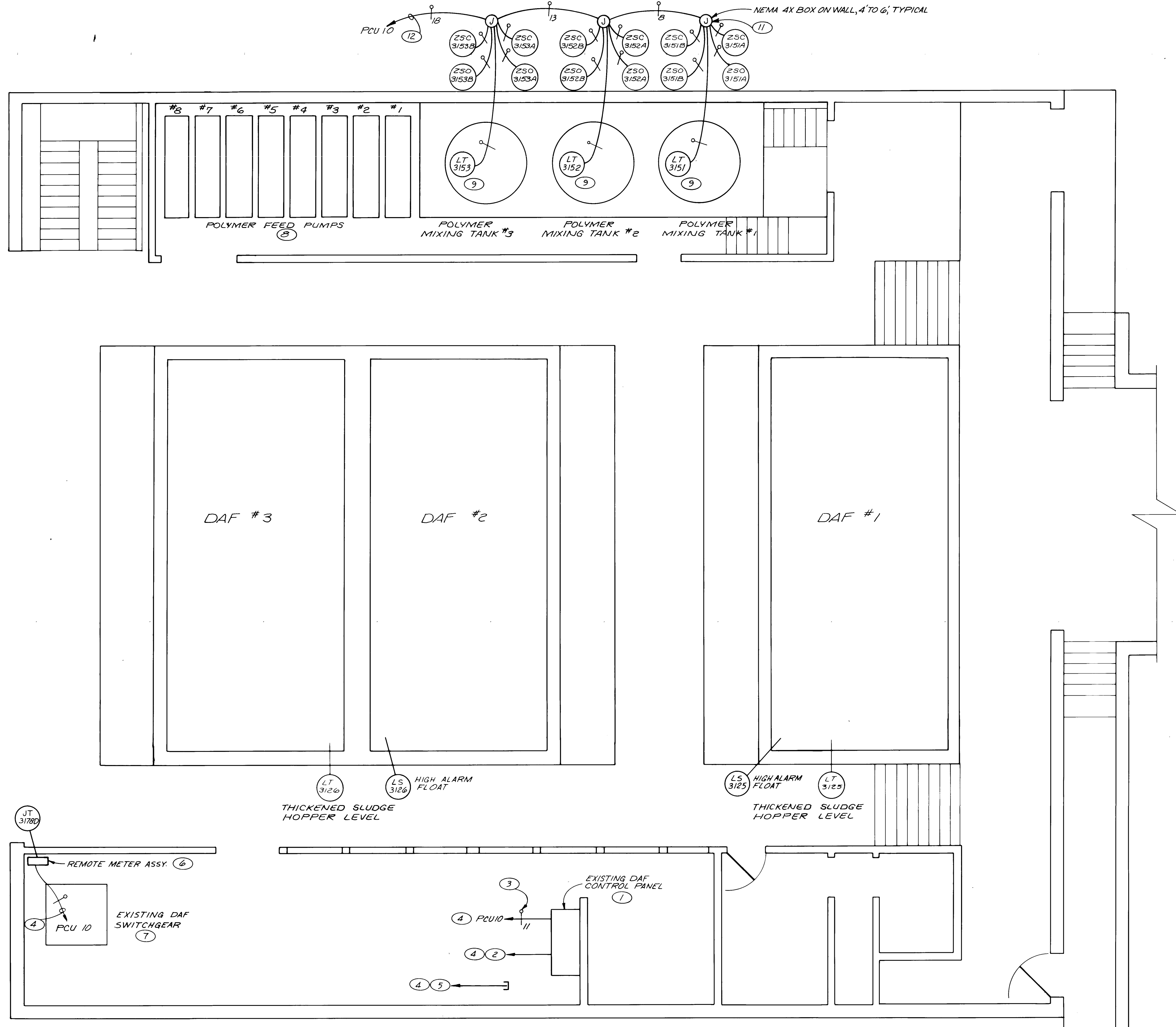
1/4" = 1'-0"
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
INSTRUMENTATION - NEW BASEMENT

M-C NO. 831721
I-14
69 of 111
SC NO.



NOTES

- ① PANEL TO REMAIN IN SERVICE ONLY AS A TERMINAL CABINET AND FOR INTERPOSING RELAYS.
- ② 1 SPARE 1 1/2" TO DIGITAL I/O WIREWAY, 1 SPARE 1 1/2" TO AC WIREWAY, 1 SPARE 1 1/2" TO ABOVE CEILING OF NEW CONTROL ROOM.
- ③ SIGNALS ARE AVAILABLE IN PANEL FOR LT-3125, LS-3125, LT-3126, LS-3126, FIT-3101, FIT-3102, FIT-3103, FIT-3129. LOCATE ON TERMINAL BOARDS, MARK TB POINTS, EXTEND WITH 2 SEPARATE CONDUITS, ONE FOR ANALOG CABLES TO ICP'S AND ONE FOR DIGITAL CABLES TO PCU. PROVIDE DETAILED RECORD DRAWINGS. TERMINATE 3 SPARE PAIRS ON NEW 9 POINT TERMINAL BOARD. MARK SPX+, SHLD, SPY+, SPY-, SHLD, SPZ+, SPZ-, SHLD. PROVIDE DETAILED RECORD DRAWINGS.
- ④ EXTEND ABOVE LAY-IN CEILING, CORE DRILL SOUTH WALL, THEN RUN TO LOCATION INDICATED. DO NOT RUN ANALOG INPUTS IN WIREWAYS.
- ⑤ 2-2" SPARES TO ABOVE CEILING OF NEW CONTROL ROOM. OAP BOTH ENDS.
- ⑥ TO BE INSTALLED UNDER CONTRACT IIB-1.
- ⑦ RE-FEED FROM NEW MAIN SWITCHBOARD.
- ⑧ SC-3131 THROUGH SC-3138 ARE CONNECTED TO AFD 1 THROUGH AFD 9.
- ⑨ FLANGE MOUNTED ELECTRONIC GAGE PRESSURE TRANSMITTER, SPECIFICATION SECTION 15981 PARAGRAPH 1.3, MOUNTED ON TEE UNDER TANK.
- ⑩ RUN CONDUIT UNDER PIPING OR IN OTHER ROUTING SO AS TO MINIMIZE CREATING ADDITIONAL TRIP HAZARD OR OBSTRUCTION OF ACCESS, TYPICAL THIS AREA.
- ⑪ TERMINATE 3 SPARE PAIRS ON 9 POINT TERMINAL BOARD. MARK SP31+, SP31-, SHLD, SP32+, ETC.
- ⑫ RUN ON CEILINGS TO DIGITAL I/O WIREWAY.

RECORD DRAWING

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26 39 52 70 88

NO.	DATE	REVISIONS	APPROVED

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 APPROVED _____
 DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" 1'-0"

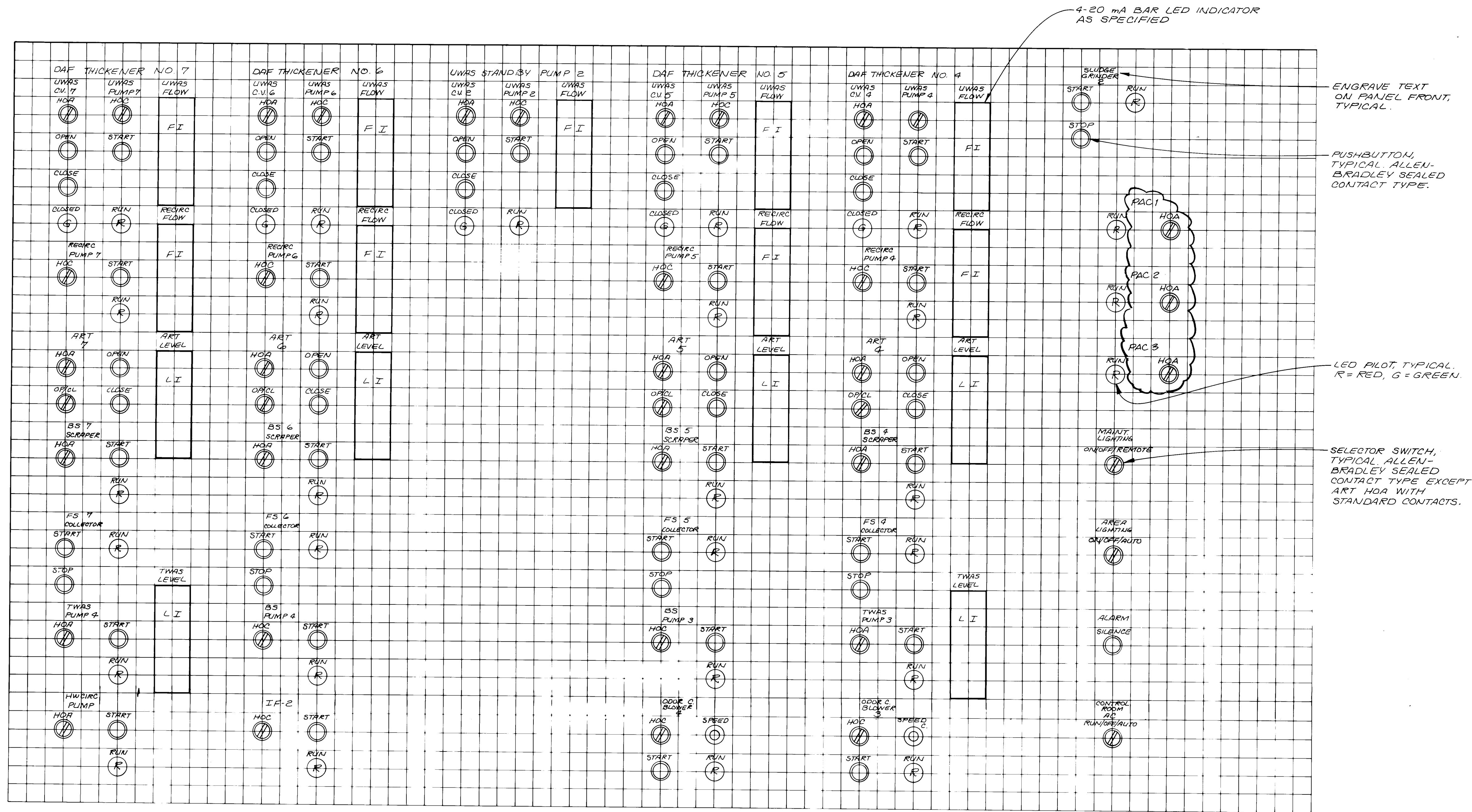
GRAPHIC SCALE
 0 4' 8'



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

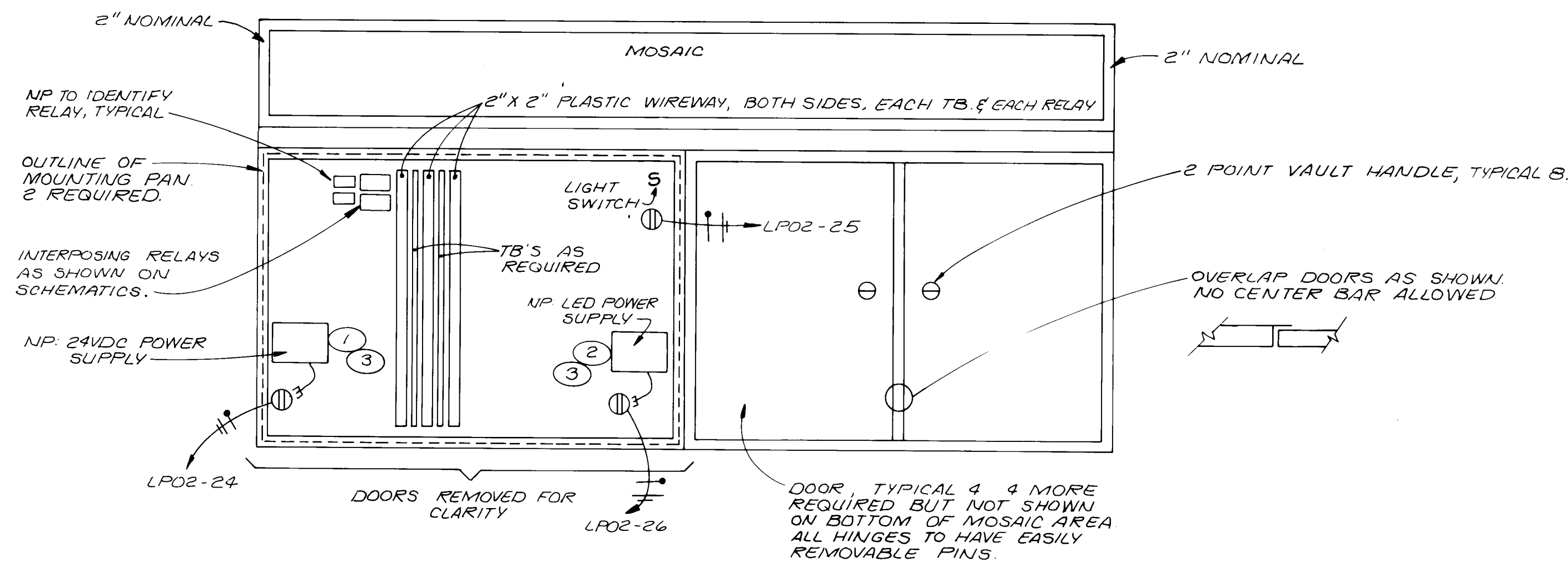
SLUDGE THICKENING SYSTEM EXPANSION
 INSTRUMENTATION - EXISTING MAIN FLOOR

M-C NO. 831721
I-15
 70 of 111
 SC NO.

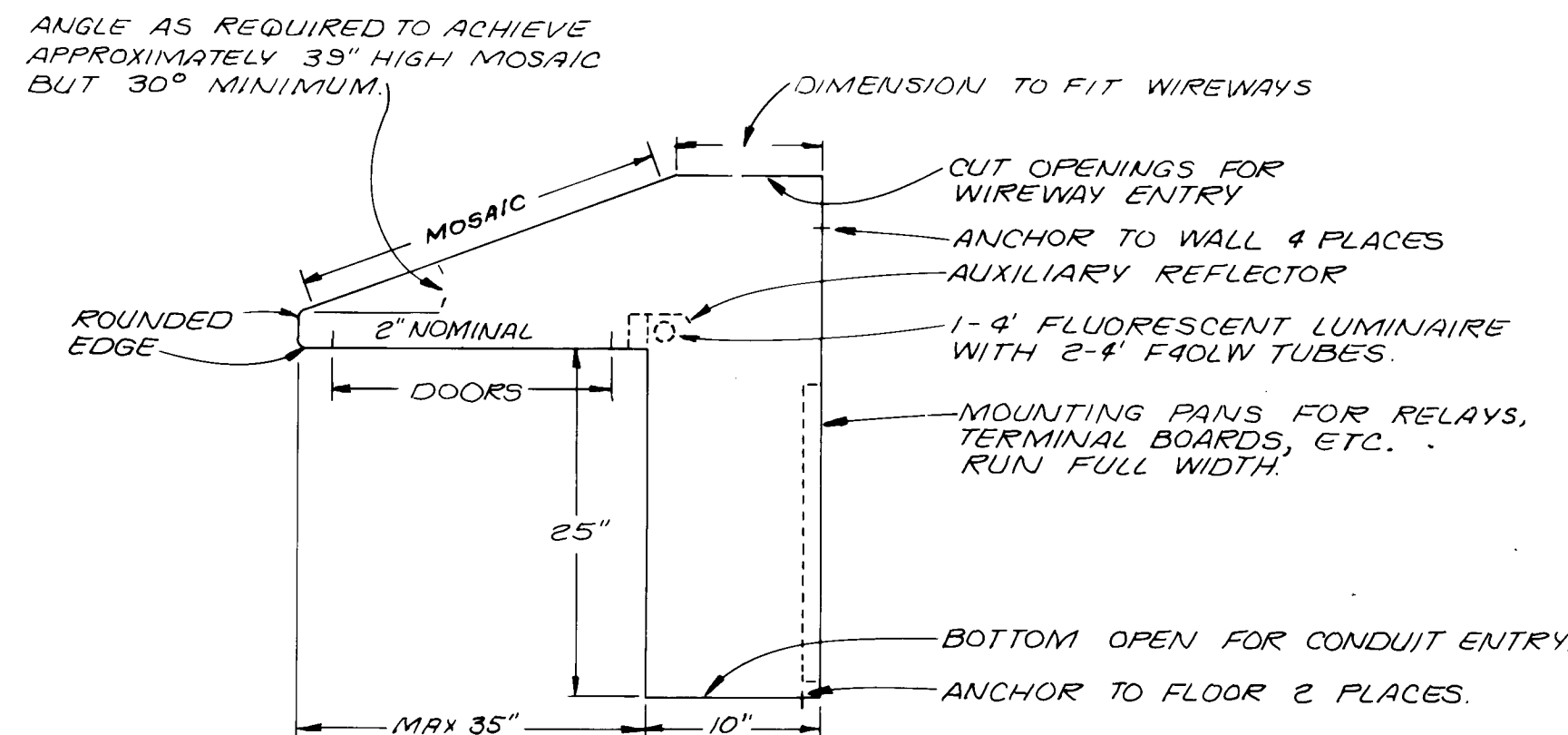


NOTES

- 120VAC TO 24VDC REGULATED ($\pm 1\%$) POWER SUPPLY. WATT CAPACITY AS REQUIRED TO DRIVE RELAYS LABELED "R3" ON SCHEMATICS PLUS 50% ONE REQUIRED.
- 120VAC TO REGULATED ($\pm 0.5\%$) DC POWER SUPPLY FOR LED SOURCE VOLTAGE (V_L AND V_L). WATT CAPACITY AS REQUIRED TO DRIVE ALL LED PILOT ASSEMBLIES ON BOTH ICP, PLUS CAPACITY FOR 30 FUTURE LED PILOT LIGHT ASSEMBLIES.
- EACH SUPPLY SHALL HAVE INTEGRAL LOAD AMMETER, AND ADJUSTABLE FOLDBACK CURRENT LIMITING. SHOW COMPLETE DC CONNECTIONS ON SUBMITTALS.



FRONT VIEW
NO SCALE
TYPICAL 2



END VIEW
NO SCALE
TYPICAL 2

RECORD DRAWING	
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DATE	NOV 1984

NO.	DATE	REVISIONS	APPROVED

MOLZEN-CORBIN
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NONE
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
INTEGRATED CONTROL PANEL

RECORD DRAWING	
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MOLZEN-CORBIN
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A JOINT VENTURE

NONE

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1 , CONTRACTS 2 & 3

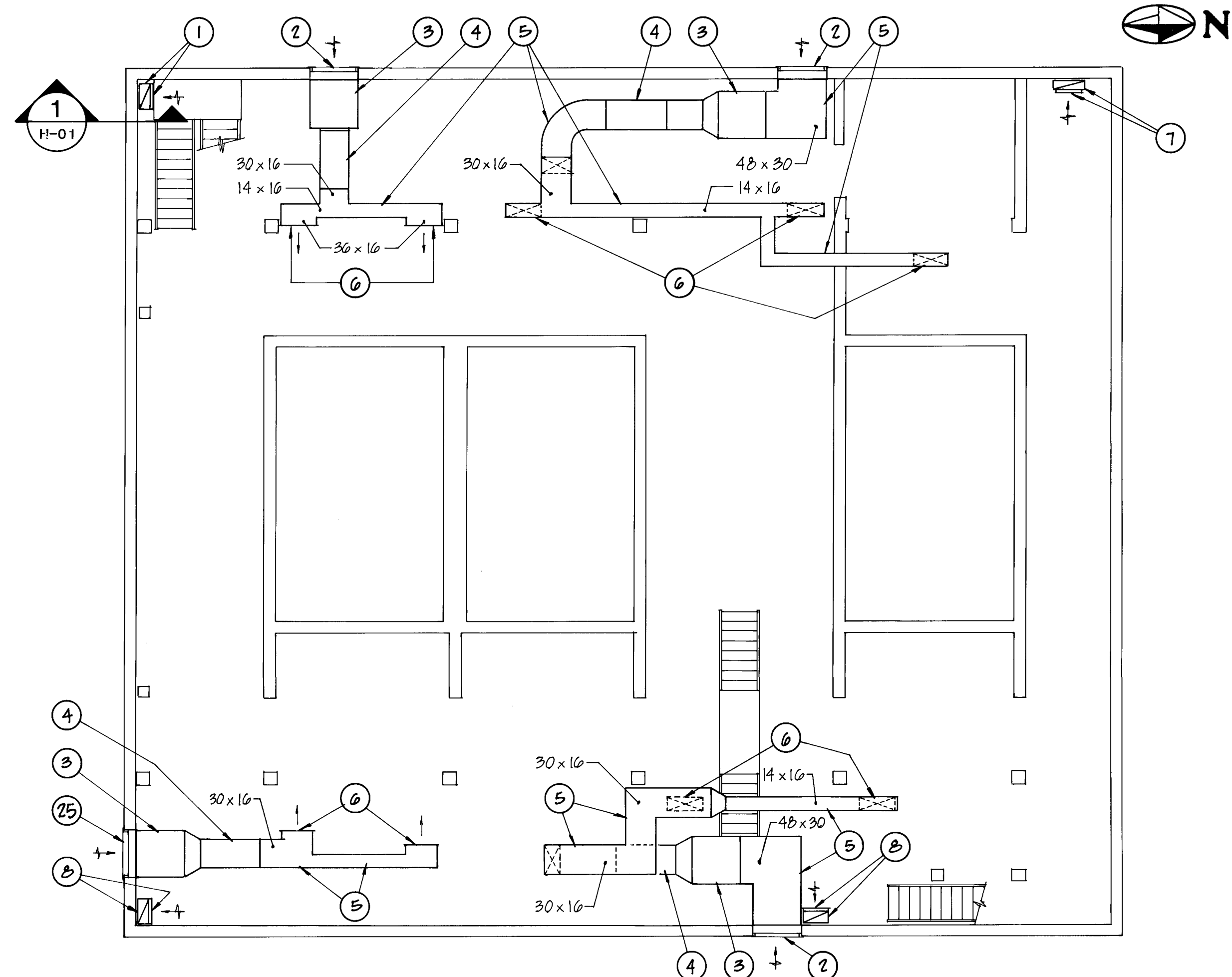
SLUDGE THICKENING SYSTEM EXPANSION INTEGRATED CONTROL PANEL

I-C NO. 831721

-18

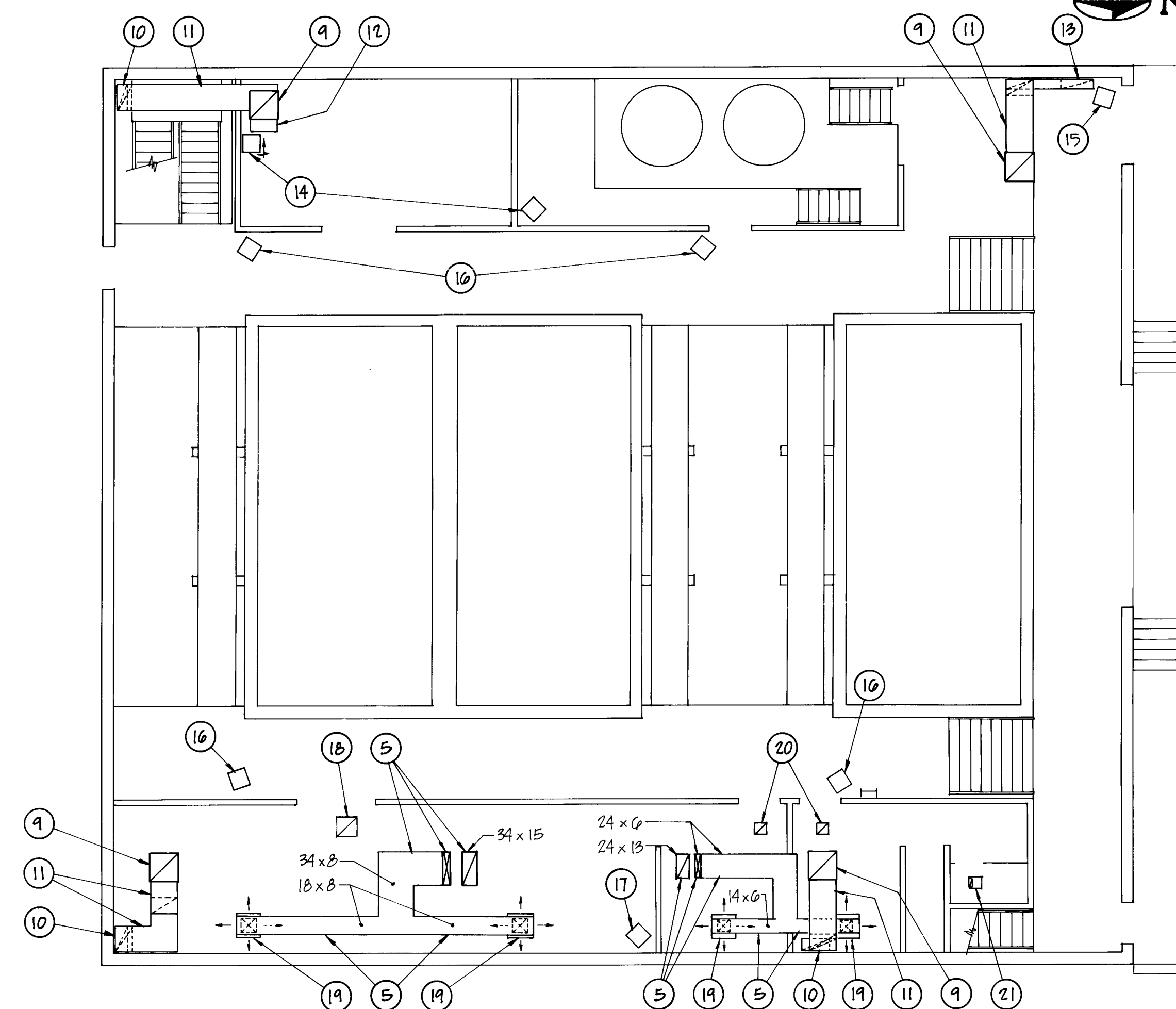
3 OF 111

BC NO.



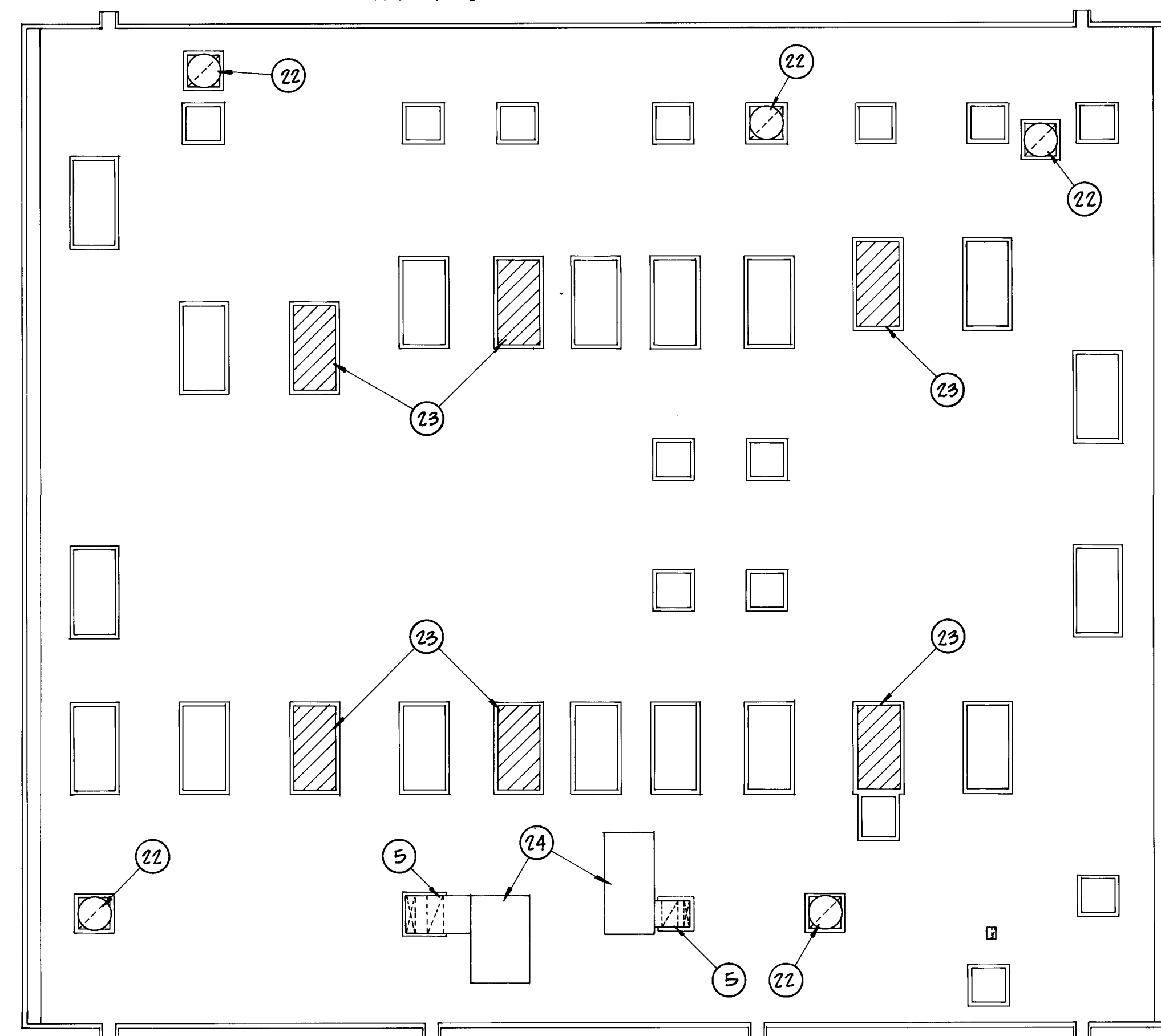
BASEMENT FLOOR PLAN

1/4" = 1'-0"



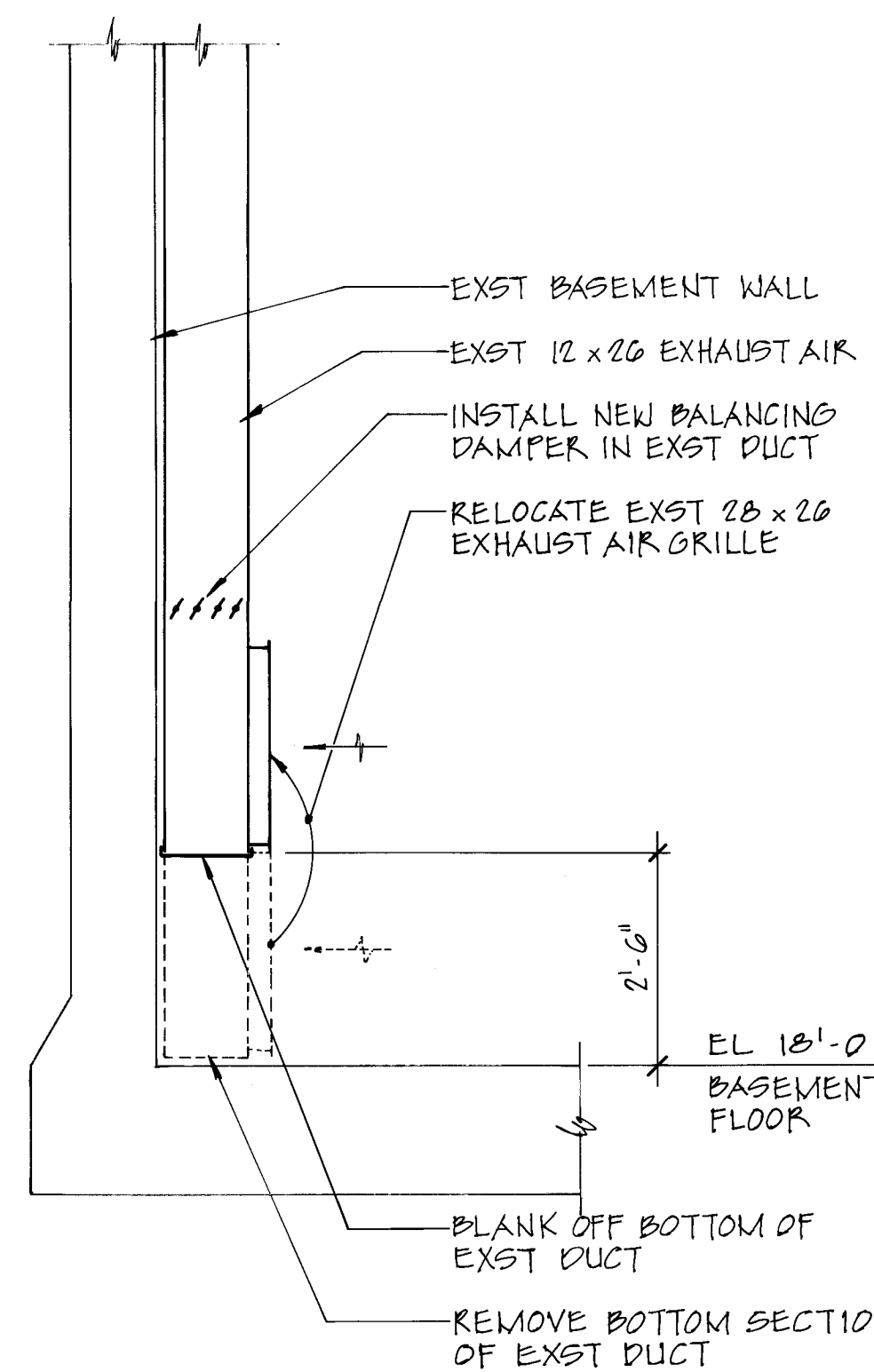
MAIN FLOOR PLAN

1/4" = 1'-0"



ROOF PLAN

1/4" = 1'-0"



SECTION 1

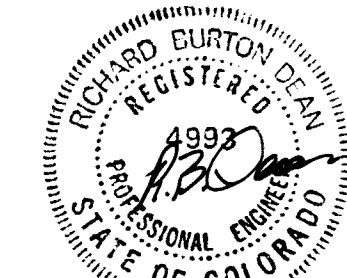
1" = 1'-0"

HVAC LEGEND

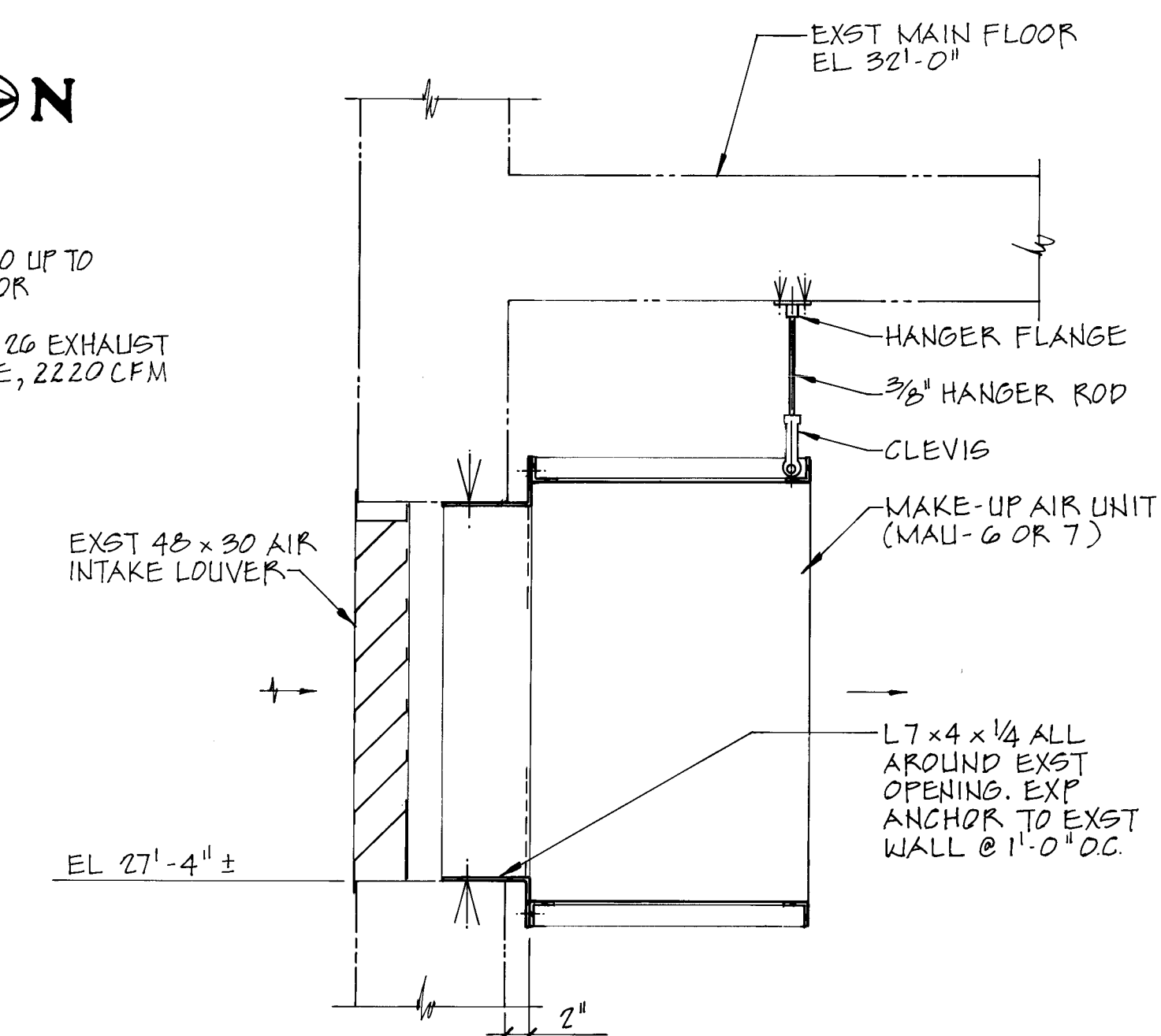
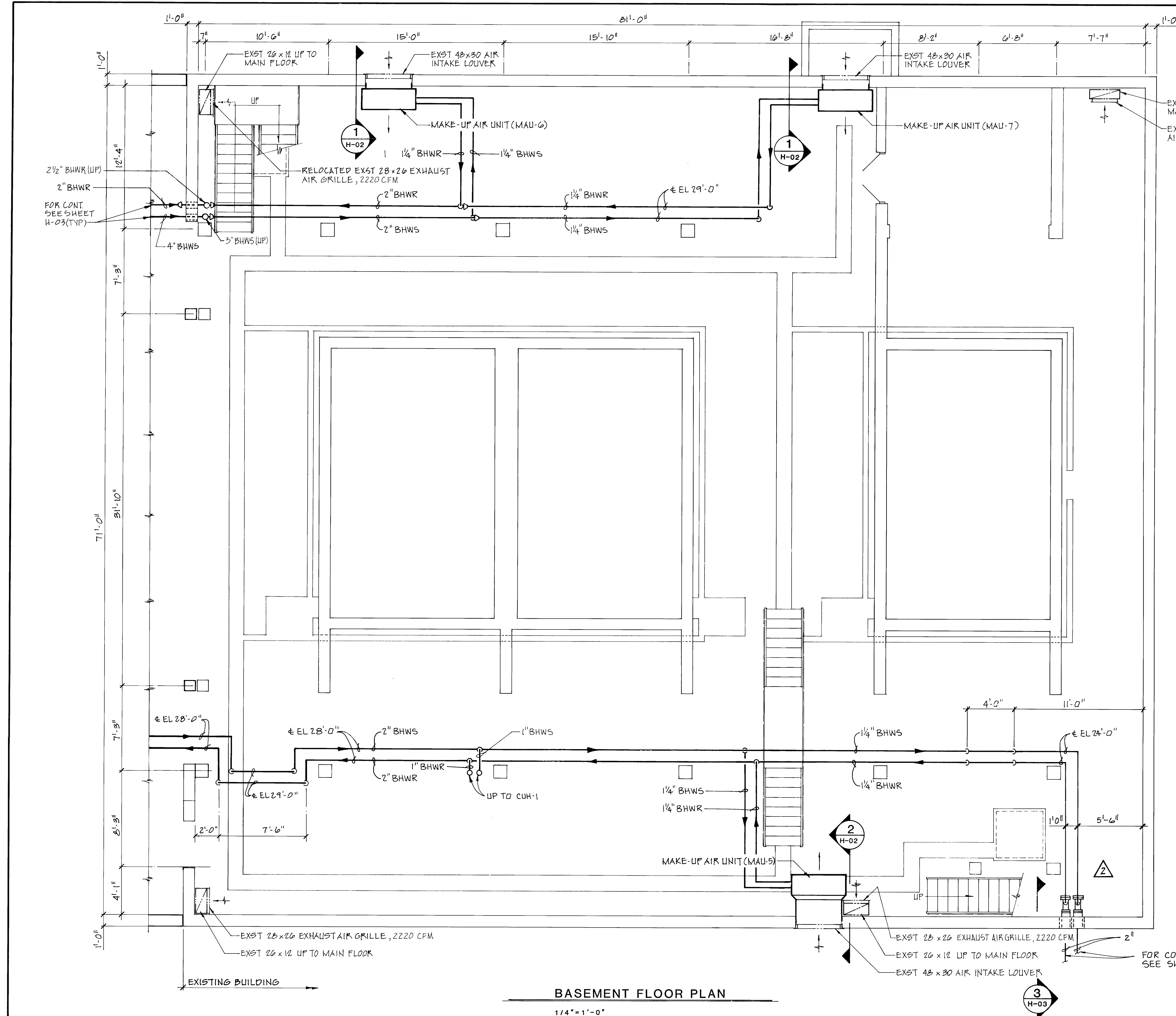
- CIRCULAR CEILING DIFFUSER, SIZE AS NOTED
- DIRECTION OF FLOW IN DUCT
- DUCT (1ST FIGURE, SIDE SHOWN; 2ND SIDE NOT SHOWN)
- DAMPER IN DUCT AS NOTED (SECTION)
- DAMPER IN DUCT AS NOTED (PLAN)
- FLEXIBLE CONNECTION (IN DUCT)
- RETURN OR EXHAUST DUCT TAP FROM BOTTOM OF DUCT
- RETURN, SUPPLY, OR EXHAUST AIR GRILLE IN SIDE OF DUCT AS NOTED
- SPLITTER DAMPER
- VOLUME EXTRACTOR
- VANED ELBOW
- HUMIDIFIER IN DUCTWORK
- INCLINED DROP IN RESPECT TO AIR FLOW
- INCLINED RISE IN RESPECT TO AIR FLOW
- RETURN OR EXHAUST DUCT IN SECTION
- SUPPLY DUCT IN SECTION
- SUPPLY DUCT TAP FROM BOTTOM OF DUCT
- ROOM THERMOSTAT
- ROOM HUMIDSTAT
- BUILDING HEATING WATER SUPPLY
- BUILDING HEATING WATER RETURN

DEMOLITION NOTES:

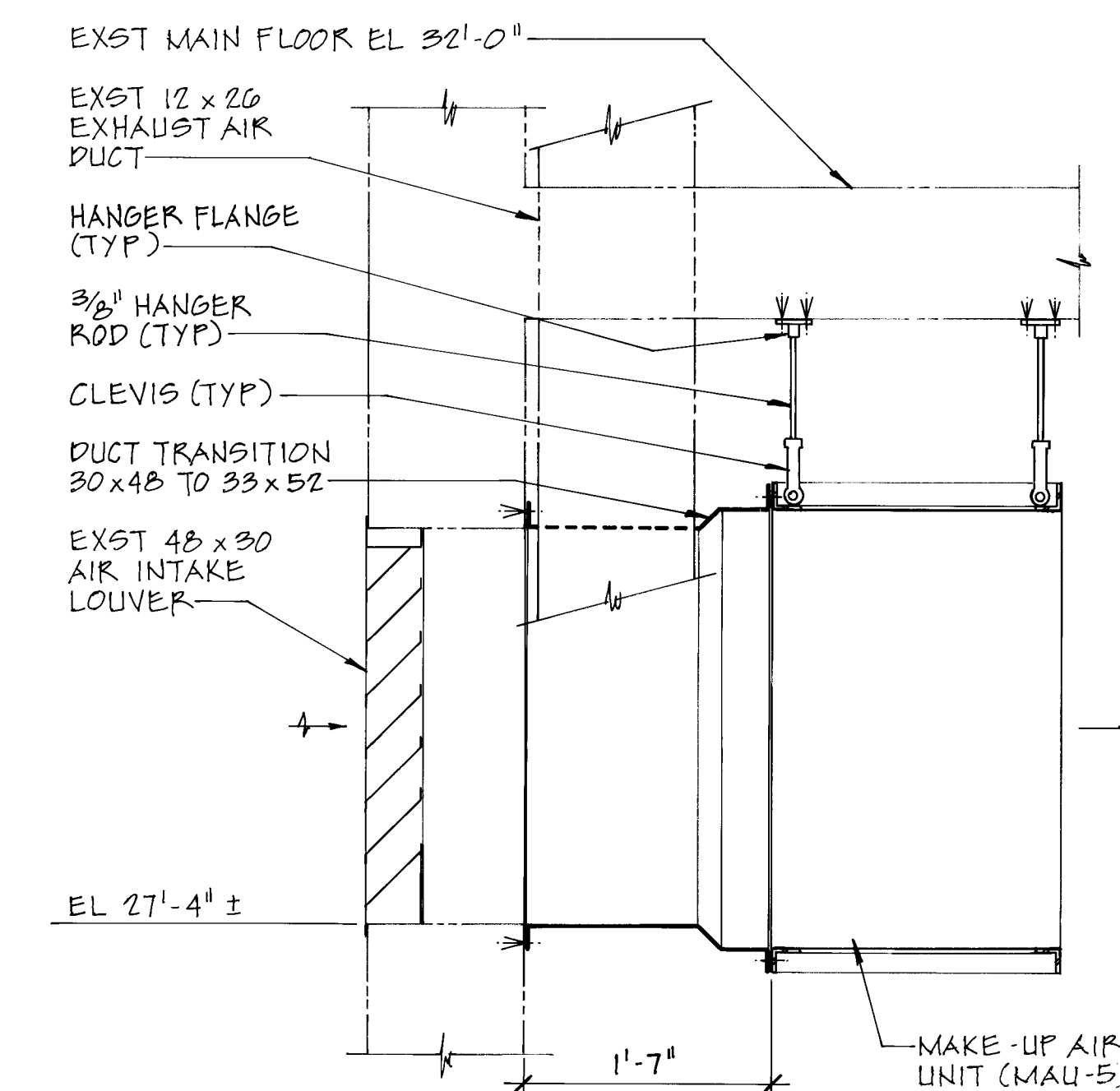
1. MODIFY 26X12 EXHAUST AIR DUCT AND 28X26 EXHAUST AIR GRILLE AS SHOWN IN SECTION.
2. 48X30 AIR INTAKE LOUVER TO REMAIN.
3. INTAKE FAN TO BE REMOVED.
4. ELECTRIC DUCT HEATER TO BE REMOVED.
5. DUCT TO BE REMOVED.
6. SUPPLY AIR REGISTERS TO BE REMOVED.
7. 32X10 EXHAUST AIR DUCT AND 28X26 EXHAUST AIR GRILLE TO REMAIN.
8. 26X12 EXHAUST AIR DUCT AND 28X26 EXHAUST AIR GRILLE TO REMAIN.
9. 28X28 DUCT TO ROOF TO REMAIN.
10. 26X12 EXHAUST AIR DUCT FROM BASEMENT TO REMAIN.
11. 26X16 EXHAUST AIR DUCT TO REMAIN.
12. 26X16 OPEN END EXHAUST AIR DUCT TO REMAIN.
13. 32X12 EXHAUST AIR DUCT FROM BASEMENT TO REMAIN.
14. 7.5 KW UNIT HEATER TO BE REMOVED.
15. 10 KW UNIT HEATER TO BE REMOVED.
16. 20 KW UNIT HEATER TO BE REMOVED.
17. 5 KW UNIT HEATER TO BE REMOVED.
18. 20X20 RETURN AIR GRILLE TO BE REMOVED.
19. CEILING DIFFUSER TO BE REMOVED.
20. 12X12 RETURN AIR GRILLE TO BE REMOVED.
21. TOILET EXHAUST FAN AND 10X4 DUCT UP THRU ROOF TO REMAIN.
22. EXHAUST FAN TO BE REMOVED. FOR NEW WORK SEE DRAWING NO. H-06.
23. SKYLIGHT TO BE REMOVED. FOR NEW WORK SEE DRAWING NO. H-06.
24. ROOF MOUNTED HEAT PUMP TO BE REMOVED.
25. 48 X 30 AIR INTAKE LOUVER TO BE REMOVED



PENDING NEW MEXICO



1 SECTION
H-02 1" = 1' - 0"



2 SECTION
H-02 1" = 1'-0"

NOTE:
1. PROVIDE VENTS AND DRAINS AT HIGH AND LOW POINTS OF ALL PIPING.



PENDING NEW MEXICO

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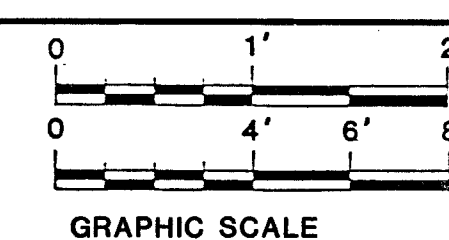
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	4/12/85	REV. FOUNDATION PENETRATION	<i>K. B. [Signature]</i>
	11/14/84	REVISED FOR BIDDING	<i>K. B. [Signature]</i>
NO.	DATE	REVISIONS	APPROVED

DESIGNED P.C. Youngling
DRAWN P. McCONNELL
CHECKED A.C. Youngling
APPROVED [Signature]
APPROVED _____
DATE OCT. 1, 1984



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STANLEY CONSULTANTS
A JOINT VENTURE

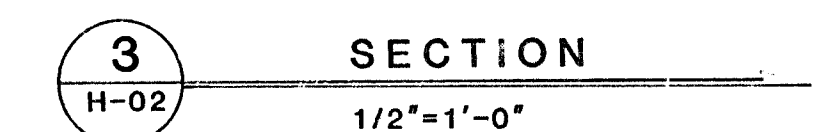
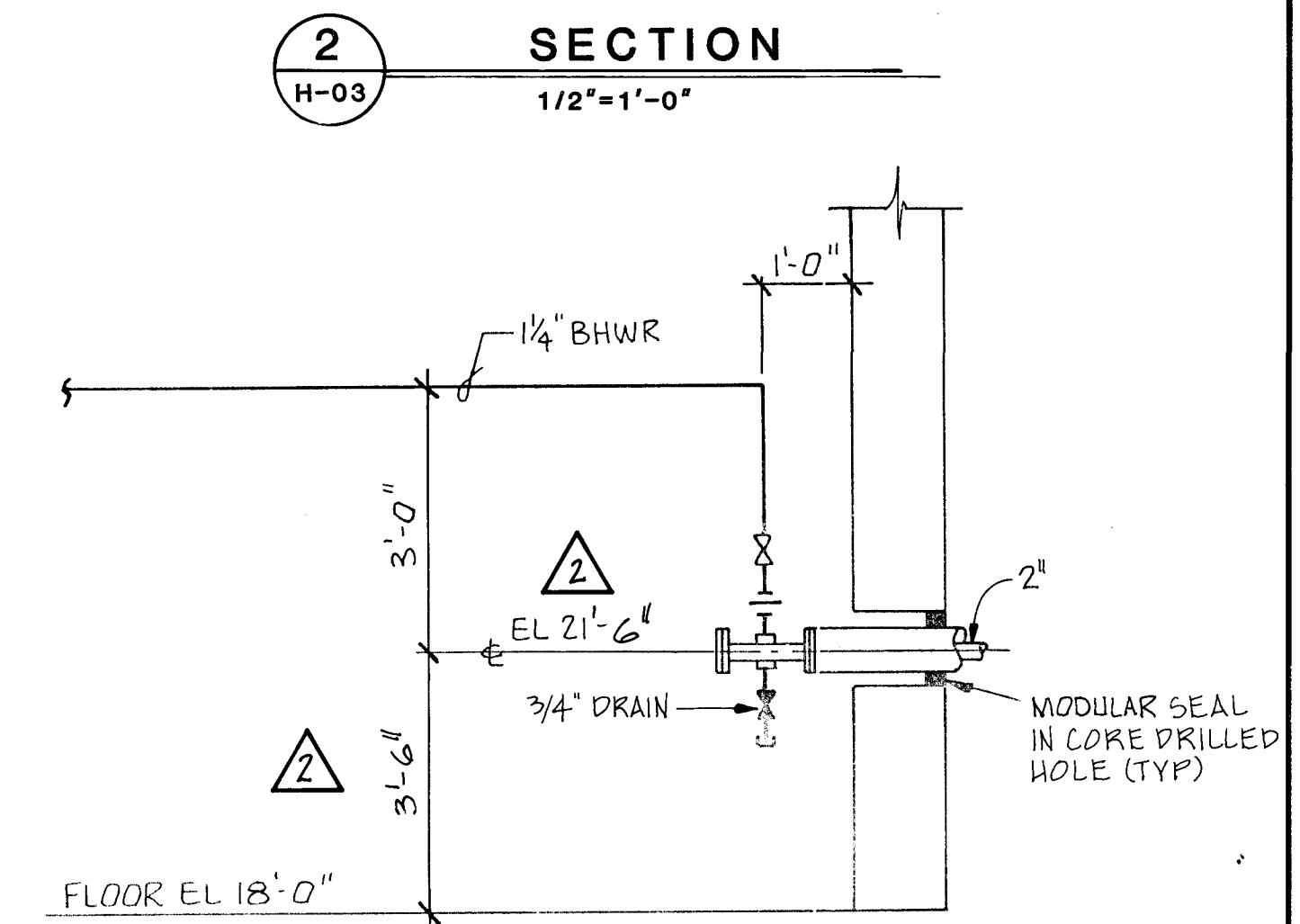
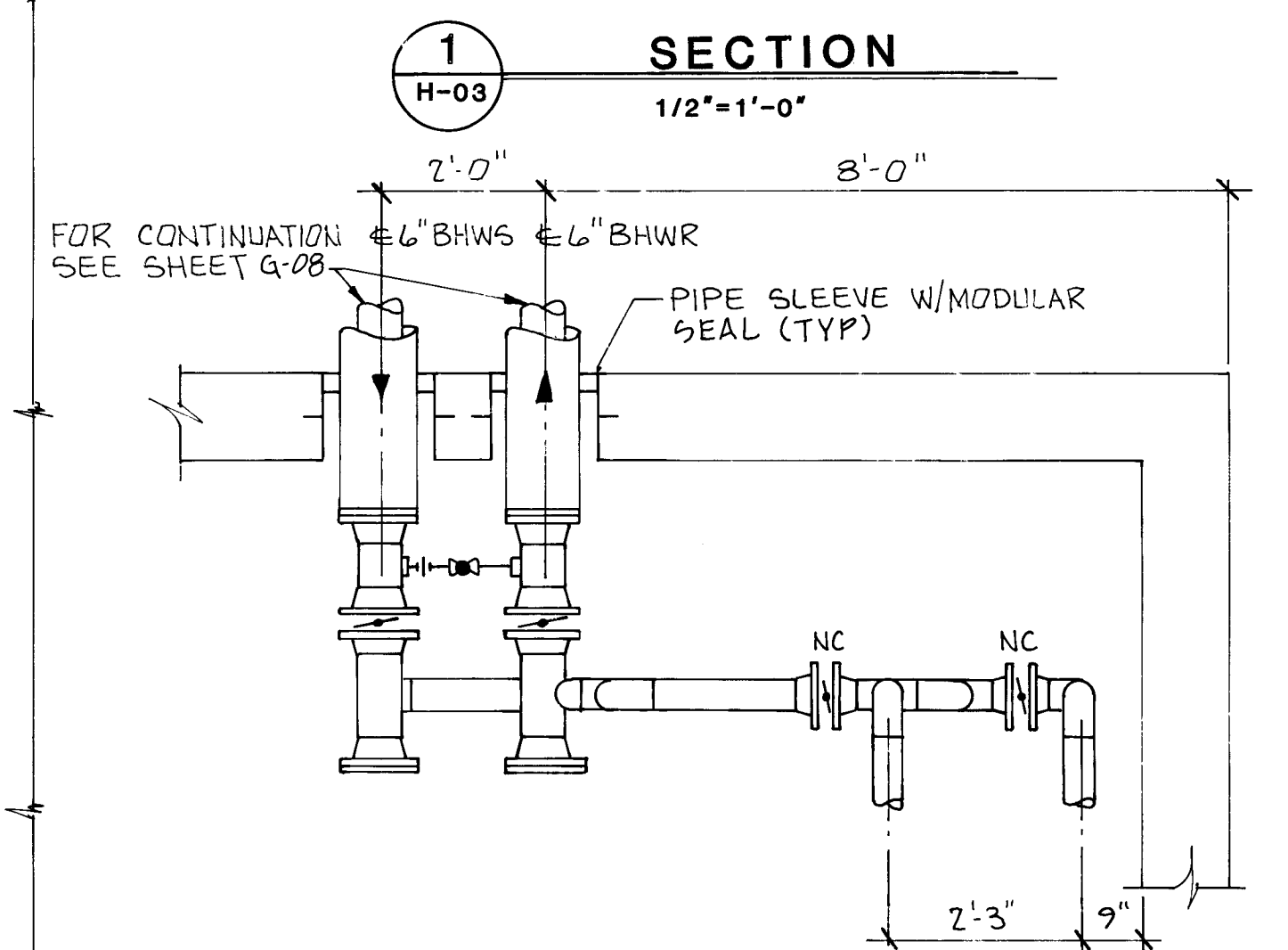
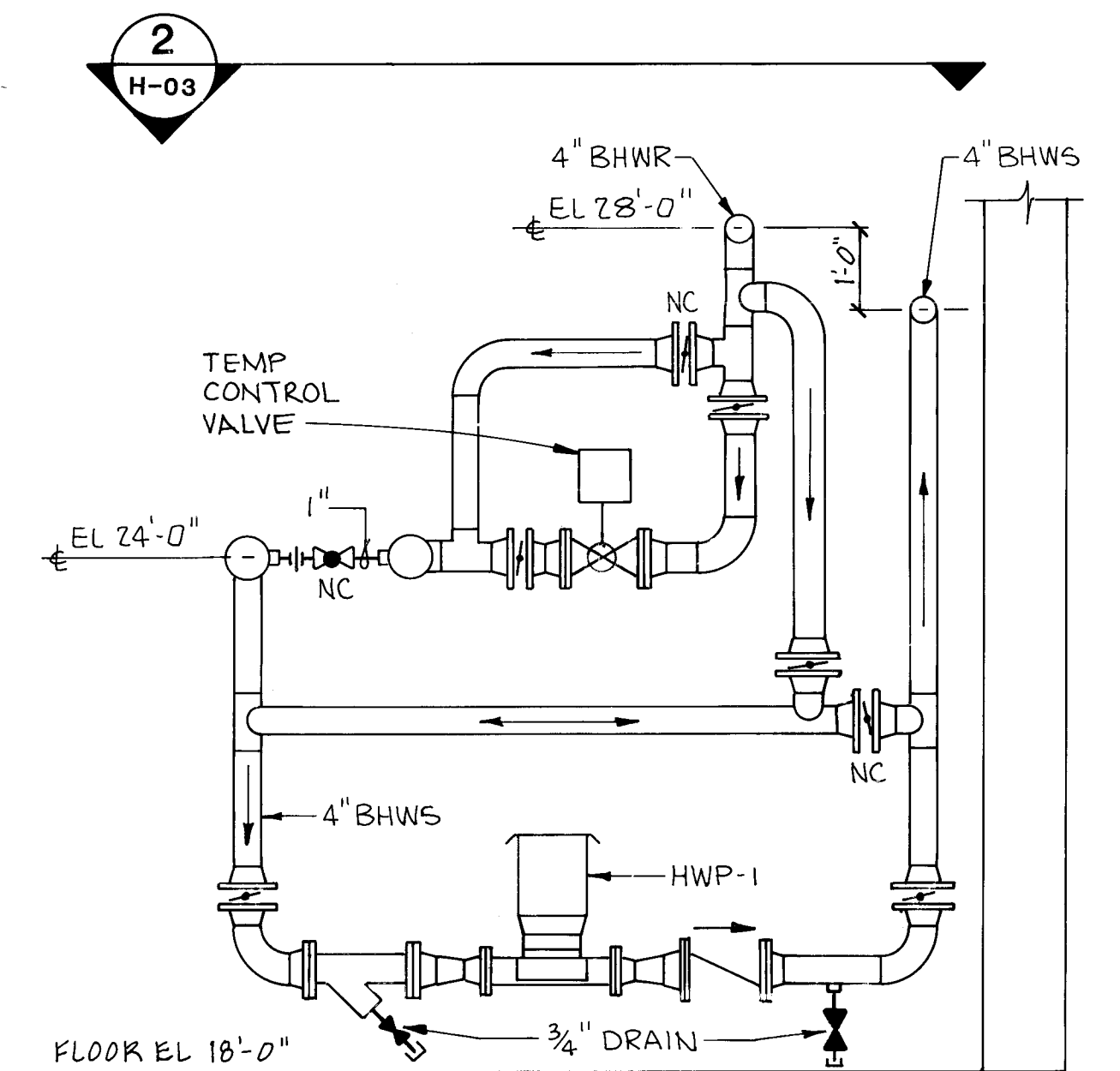
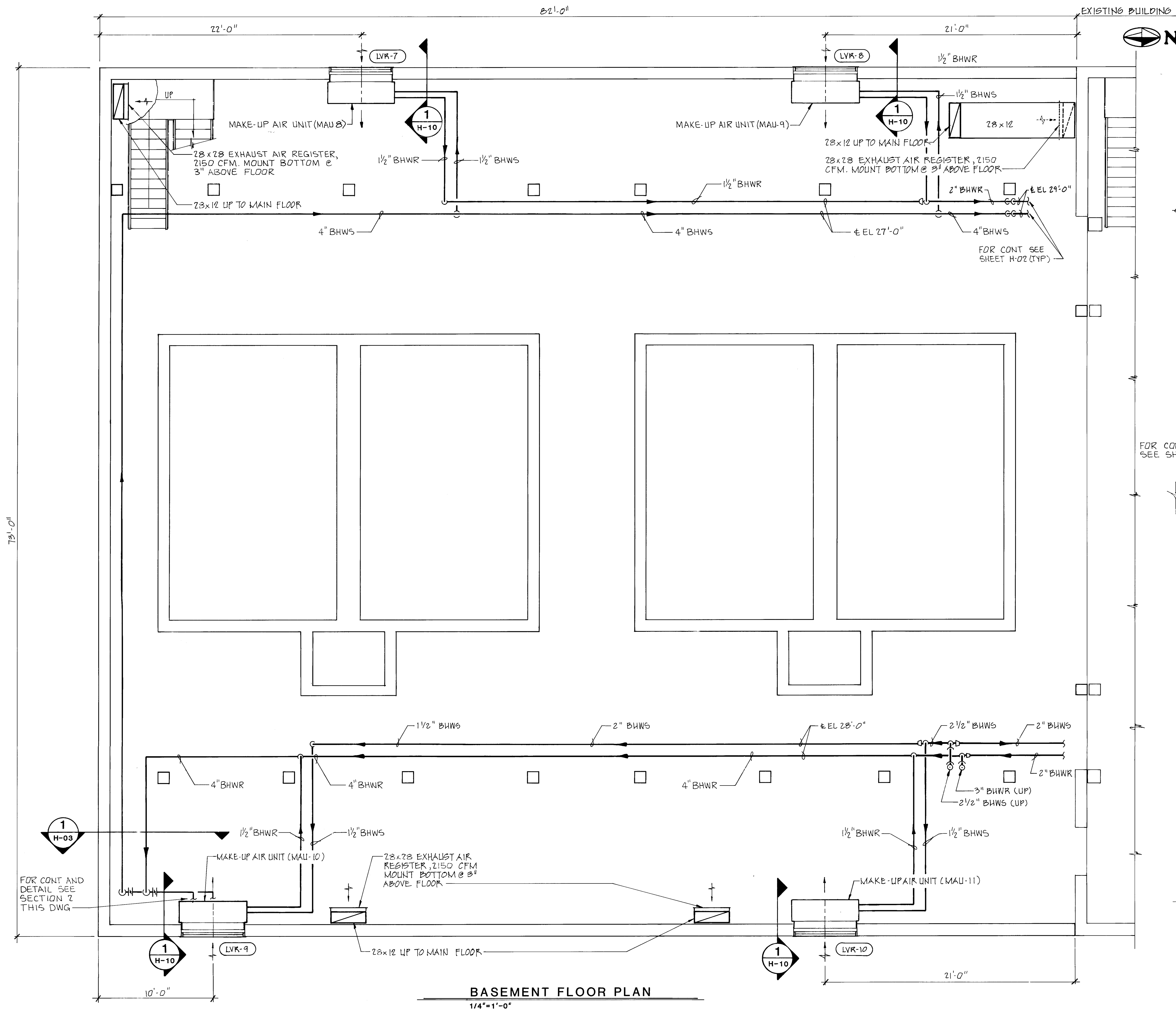
$$1'' = 1' - 0''$$

$$1/4'' = 1' - 0''$$


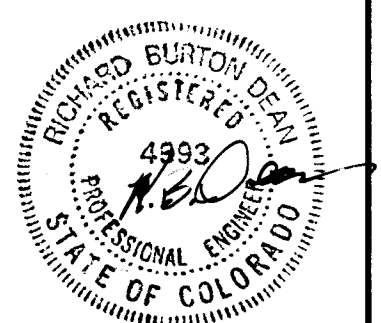
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
EXISTING SLUDGE THICKENER BUILDING
HVAC BASEMENT FLOOR PLAN

M-C NO.	
H-02	75 OF
SC NO. 8381-MZ	



NOTE:
SEE NOTE 1, SHEET H-02.



PENDING NEW MEXICO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	39	5	27	68	8																							

NO.	DATE	REVISIONS
1	11/14/84	REVISED FOR BIDDING
2	4/12/85	REV. DIMENSIONS 3-HOZ
3	6/17/85	RECORD DRAWING

DESIGNED	APPROVED
CHECKED	DATE
APPROVED	OCT. 1, 1984

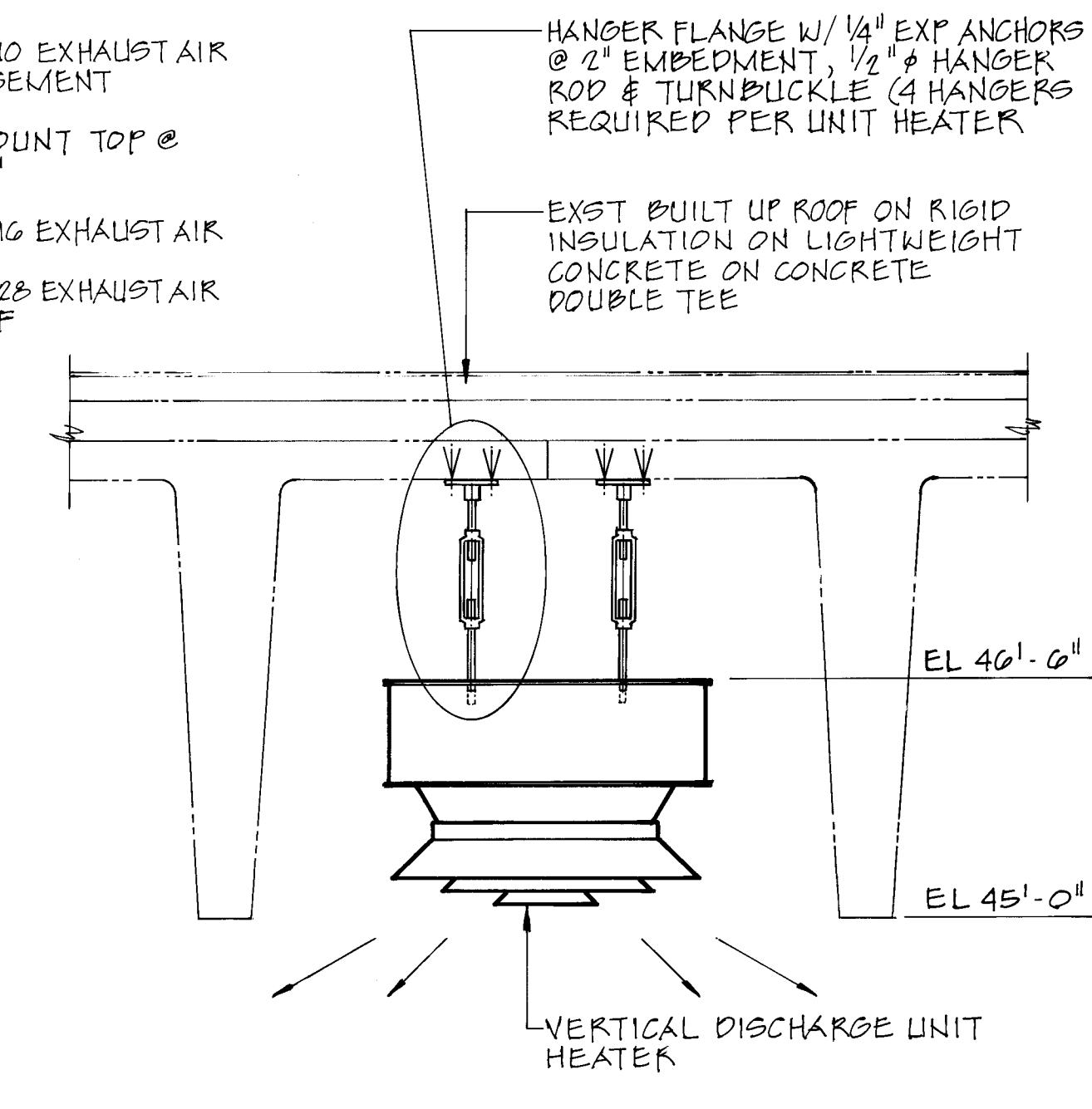
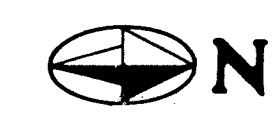
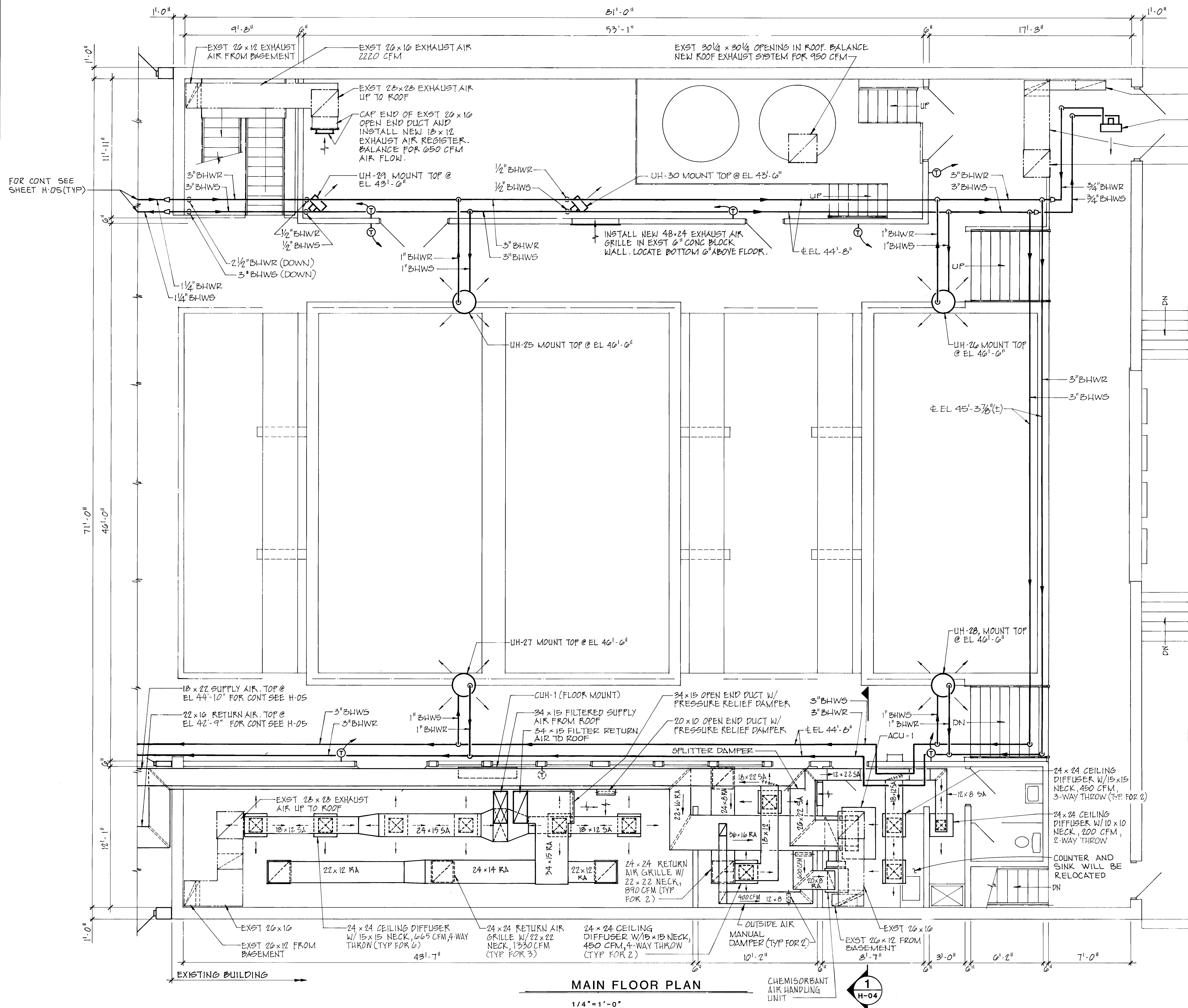
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/2" = 1'-0"
1/4" = 1'-0"
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

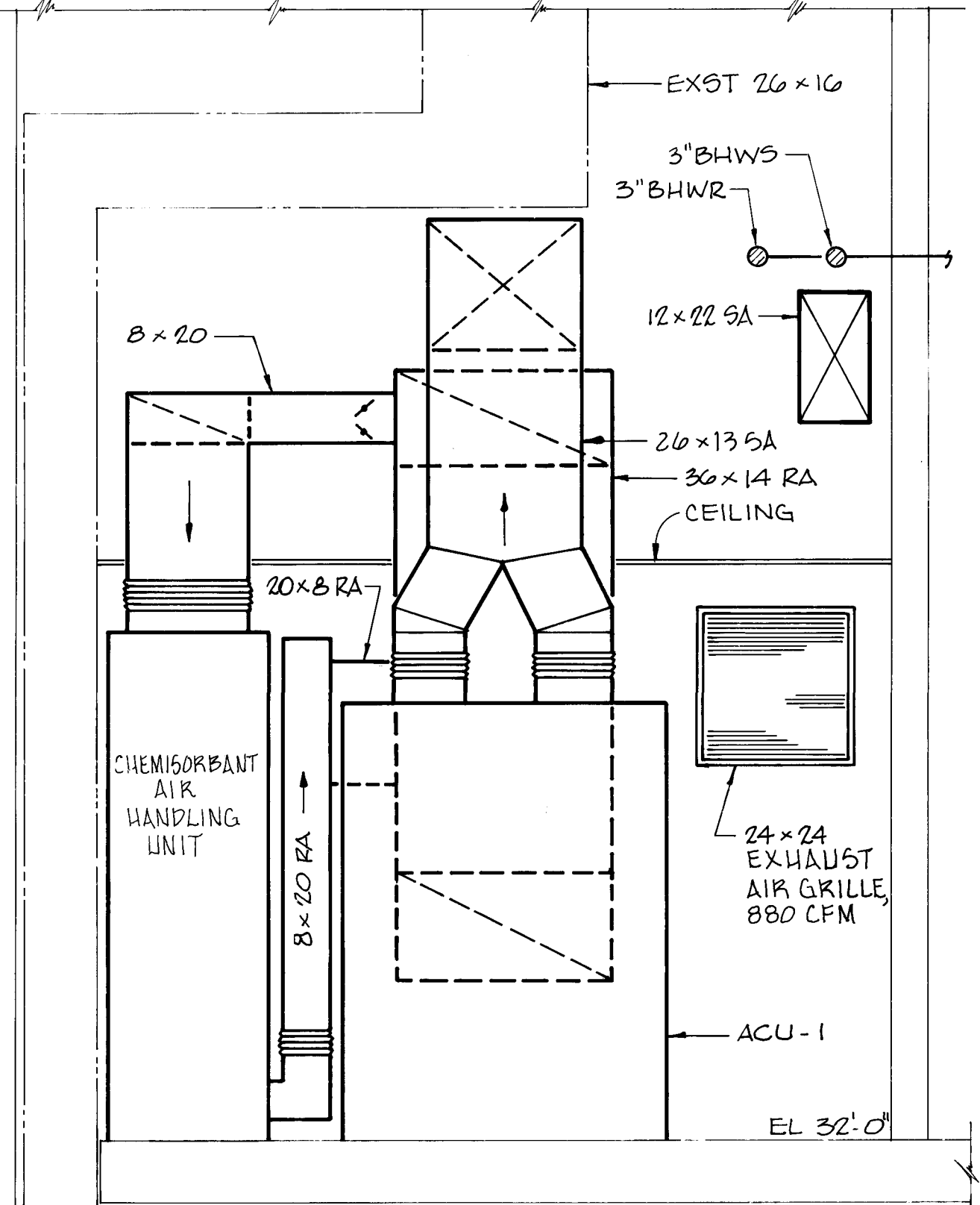
SLUDGE THICKENING SYSTEM EXPANSION
NEW SLUDGE THICKENER BUILDING
HVAC BASEMENT FLOOR PLAN

H-03 76 OF
SC NO. 8381-M3



TYPICAL VERTICAL UNIT HEATER MOUNTING DETAIL

1" = 1'-0"



1 SECTION H-04 NO SCALE

NOTE: SEE NOTE 1, SHEET H-02

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	39	5	2	7	7	8	8																					

DESIGNED	11/14/84	RECORD DRAWING
CHECKED		REVISED FOR BIDDING
APPROVED		REVISIONS
DATE	11/14/84	

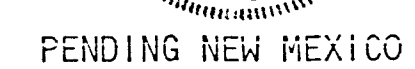
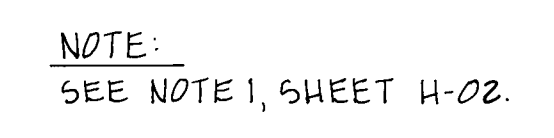
MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1" = 1'-0"
 1/4" = 1'-0"
 GRAPHIC SCALE

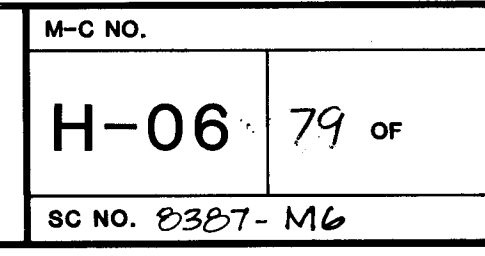
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

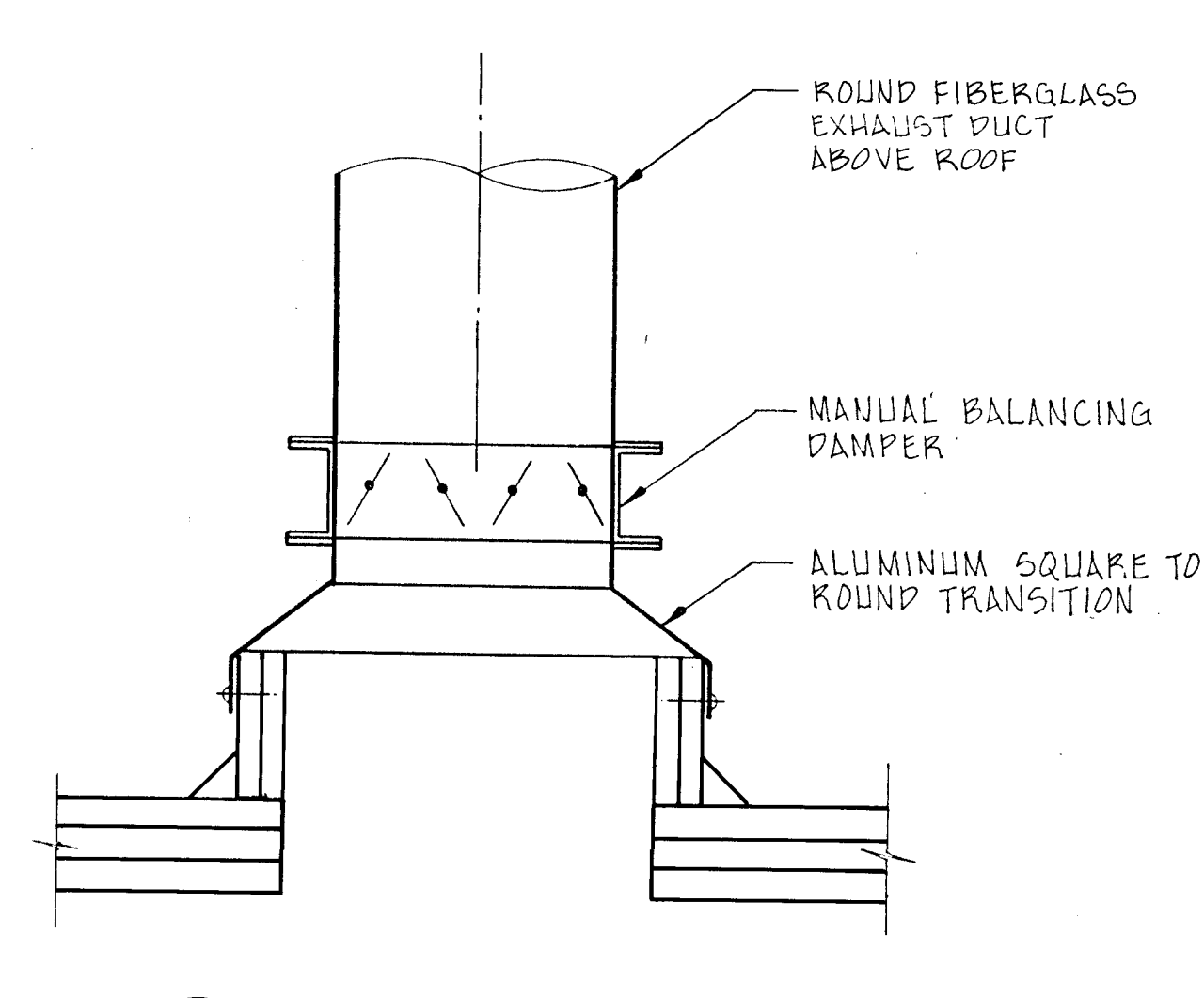
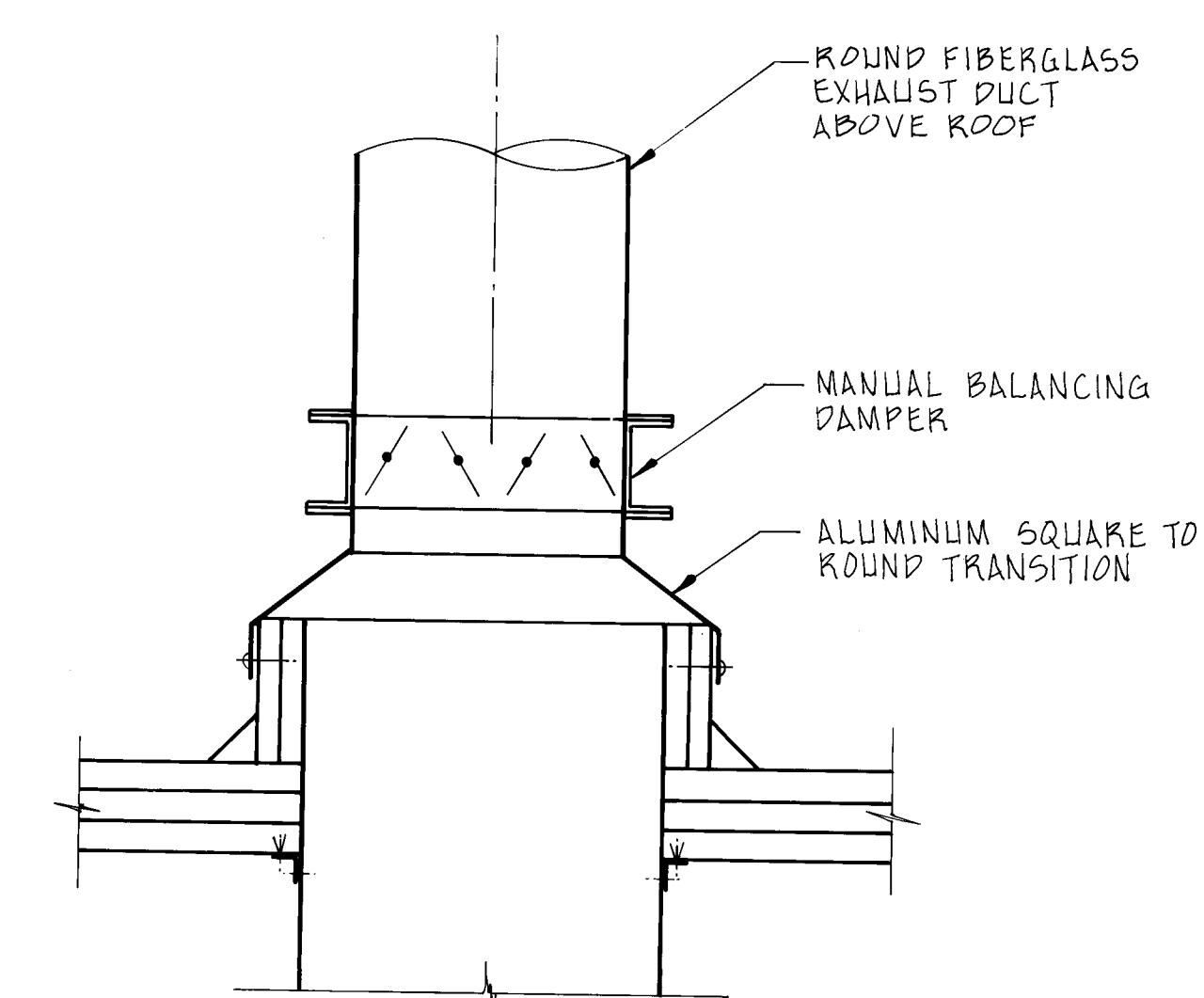
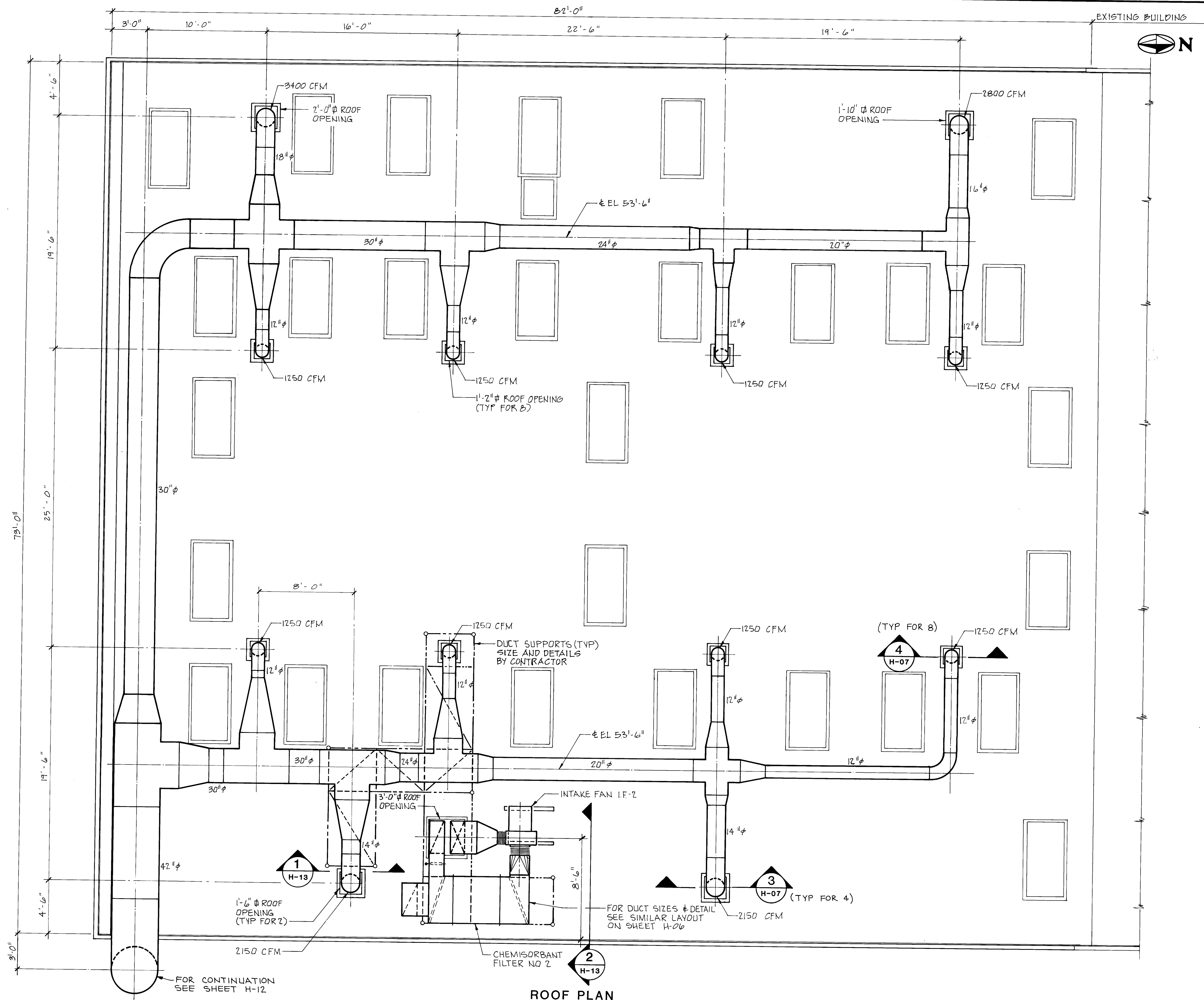
SLUDGE THICKENING SYSTEM EXPANSION
 EXISTING SLUDGE THICKENER BUILDING
 HVAC MAIN FLOOR PLAN

M-C NO. **H-04** 77 OF
 SC NO. 8387-M4



M-C NO.	
H-05	78 OF
SC NO. 8387- M5	





- NOTES:
- DESIGN DUCT SUPPORTS TO REQUIRE A MINIMUM NUMBER OF ROOF PENETRATIONS.
 - SUPPORT DUCTS FROM BELOW. SUPPORT STEEL SHALL NOT EXTEND ABOVE BOTTOM OF DUCT.
 - LOCATE SUPPORT COLUMNS ABOVE STEM OF TEES. ARRANGE TO AVOID INTERFERENCE WITH SKYLIGHT FLASHING.
 - SEE NOTE 2 ON SHEET H-06.



PENDING NEW MEXICO

ROOF PLAN

1/4" = 1'-0"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	39	52	80	88																								

DESIGNED	10-17-84	RECORD DRAWING
DRAWN	11/14/84	REVISED FOR BIDDING
CHECKED		
APPROVED		
DATE	06.1.1984	

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" = 1'-0"
 1" = 1'-0"
 GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
NEW SLUDGE THICKENER BUILDING
HVAC ROOF PLAN

M-C NO.
H-07 30 OF
 SC NO. 8367 - M7

NOTES FOR PIPE SUPPORTS

- ALL REFERENCES IN LISTING ON M-701 ARE TO PRODUCTS OF THE GRINNELL CORPORATION AND ARE USED TO INDICATE THE TYPE AND QUALITY OF PRODUCT DESIRED. PRODUCTS OF OTHER MANUFACTURERS WHICH ARE SIMILAR IN CONSTRUCTION AND EQUAL IN QUALITY MAY BE SUBSTITUTED.
- PIPING SUPPORTS SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE EXPECTED LOAD AND SERVICE AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- ALL PIPING SUPPORTS SHALL PROVIDE A MEANS OF ADJUSTMENT FOR LEVELING, GRADING OF PIPING AND COLD SPRING MOVEMENTS.
- ALL PIPING SUBJECT TO VERTICAL MOVEMENT SHALL BE SUPPORTED ON SPRING HANGERS. VARIABLE SPRING HANGERS PER TABULATION BELOW.

PIPE MOVEMENT	HANGER FIGURE NO.
1/8" AND LESS	82
1/8" TO 1/2"	B268
1/2" TO 1"	98

USE CONSTANT LOAD HANGERS FOR ALL PIPE MOVEMENTS 1" AND MORE. USE TOTAL TRAVEL IN EXCESS OF PIPE TRAVEL PER FOLLOWING TABULATION:

PIPE MOVEMENT	MINIMUM EXCESS TOTAL TRAVEL
UNDER 4"	1"
4" TO 6"	1-1/2"
6" TO 8"	1-3/4"
8" AND MORE	2"

PROVIDE ALL CONSTANT LOAD HANGERS WITH TRAVEL STOPS TO SECURE AGAINST ALL VERTICAL MOVEMENT DURING ERECTION AND HYDROSTATIC TEST.

- PROVIDE SPRING HANGERS WITH SUFFICIENT ROD LENGTH TO PREVENT HORIZONTAL PIPE MOVEMENTS FOR DISPLACING RODS OVER 4° FROM VERTICAL. BEAM ATTACHMENT MAY BE OFFSET FROM PIPE ATTACHMENT IF REQUIRED.
- DETERMINE HANGER SPANS SO THAT SUM OF LONGITUDINAL STRESS IN PIPE CAUSED BY PIPE WEIGHT AND INTERNAL PRESSURE DOES NOT EXCEED ALLOWABLE WORKING STRESS OF PIPE MATERIAL AT OPERATING TEMPERATURE. IN NO CASE EXCEED SPAN SHOWN ON M-701.

DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	PIPE SUPPORT NOTES	SCALE: NONE NO: M-700 SHEET 1 OF 2
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- MAXIMUM SUPPORT ROD LOADING WITH ROD TEMPERATURE BELOW 650 F PER FOLLOWING TABLE:

ROD SIZE, IN.	MAX. LOAD, LB.	ROD SIZE, IN.	MAX. LOAD, LB.	ROD SIZE, IN.	MAX. LOAD, LB.
3/8	610	1-1/8	6230	2-1/4	27200
1/2	1130	1-1/4	8000	2-1/2	33500
5/8	1810	1-1/2	11630	2-3/4	41600
3/4	2710	1-3/4	15690	3	50600
7/8	3770	1-7/8	18430	3-1/4	60500
1	4960	2	20690	3-1/2	71260

- CHECK ALL SUPPORTS UNDER OPERATING CONDITIONS DURING INITIAL PERIODS OF OPERATION. MAKE ALL CHANGES AND ADJUSTMENTS AND ADD SUCH ADDITIONAL SUPPORTS, GUIDES AND BRACES REQUIRED TO PROVIDE INSTALLATION SATISFACTORY TO THE OWNER.
- PROVIDE LOCK NUT AT ALL POINTS HANGER RODS ARE THREADED INTO TOP ATTACHMENTS. TURN BUCKLES, HANGERS, ETC.

DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	PIPE SUPPORT NOTES	SCALE: NONE NO: M-700 SHEET 2 OF 2
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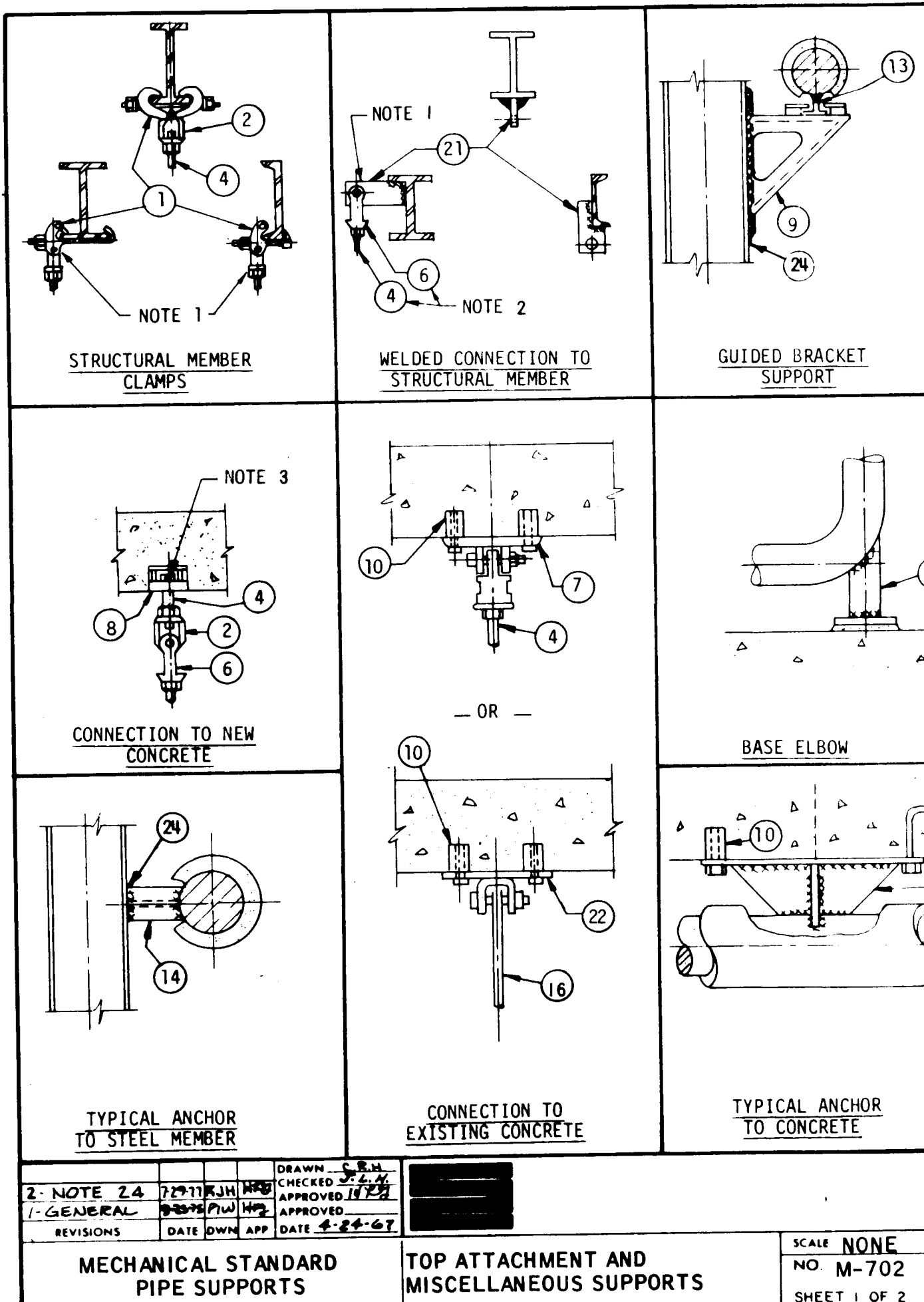
LIST OF MATERIALS FOR PIPE SUPPORTS

- STRUCTURAL MEMBER CLAMPS - NO. 292, NO. 225 OR NO. 226.
- WELDLESS EYE NUT - NO. 290.
- TURNBUCKLE - NO. 230.
- HANGER ROD - NO. 140.
- PIPE CLAMP: FOR BARE PIPE - NO. 212 OR 216.
FOR INSULATED PIPE BELOW 750 F - NO. 295.
FOR INSULATED PIPE ABOVE 750 F - NO. 224, 246 OR 295A.
- CLEVIS - NO. 299.
- ADJUSTABLE SWINGING FLANGE - NO. 156 NOT FOR POWER PIPING.
- CONCRETE INSERT - NO. 282.
- STEEL BRACKET NO. 195 OR 199.
- PHILLIPS CONCRETE FASTENER - TO BE USED WITHIN LOAD LIMITS SPECIFIED BY MANUFACTURER; 2" MAX. PIPE SIZE, COLD NONFLAMMABLE SERVICE ONLY.
- SPRING HANGER - NO. 82, B268 OR 98.
- INSULATION PROTECTION SADDLE - SIMILAR TO NO. 160 FOR PIPE BELOW 750 F OR TO NO. 165A FOR PIPE ABOVE 750 F - TO SUIT INSULATION THICKNESS.
- PIPE SLIDE ASSEMBLY - NO. 257 FOR PIPING BELOW 750 F.
- STRUCTURAL STEEL MEMBER (1 SECTION OR EQUAL) OF SUFFICIENT STRENGTH TO ABSORB FORCES INVOLVED.
- PLATE LUG, SAME MATERIAL AS PIPE. PREHEAT, WELD AND STRESS RELIEVE SAME AS PIPE. LUG AND WELD SIZE TO SUIT SUPPORT LOAD AND ALLOWABLE WORKING STRESS OF PIPE MATERIAL.
- WELDED EYE ROD - NO. 278 OR 278L.
- RISER CLAMP - CARBON STEEL TO 750 F. ALLOY STEEL ABOVE 750 F.
- PIPE AND COMPANION FLANGE SAME SIZE AS SUPPORTED PIPE UP TO 3"; 3" FOR SUPPORTED PIPE 3" TO 12" FOR LARGER SIZES CONSULT OWNER. SUPPORTING PIPE MATERIAL SAME AS SUPPORTED PIPE; FLANGE CARBON STEEL.
- U-BOLT - NO. 137 CARBON STEEL TO 750 F. ALLOY STEEL ABOVE 750 F.
- CONSTANT SUPPORT HANGER - MODEL R.

DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	PIPE SUPPORT MATERIAL LIST	SCALE: NONE NO: M-701 SHEET 1 OF 2
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- WELDED ATTACHMENT FABRICATED OF SAME MATERIAL AS PIPE. USE 1/4" PLATE FOR PIPE SIZES THROUGH 4"; 3/8" PLATE FOR PIPE SIZES 5" THROUGH 12"; 1/2" PLATE FOR PIPE SIZES OVER 12".
 - PLATE WITH NO. 66 WELDED BEAM ATTACHMENT. PLATE THICKNESS SAME AS BEAM ATTACHMENT STOCK.
 - TRAPEZE ASSEMBLY - TYPE G.
 - UTILIZE SPECIAL WELDING TECHNIQUE REQUIRED BY LATEST EDITION OF AWS D1.1.
- NOTE: ALL REFERENCES IN LISTING ARE TO PRODUCTS OF THE GRINNELL CORPORATION AND ARE USED TO INDICATE THE TYPE AND QUALITY OF PRODUCT DESIRED. PRODUCTS OF OTHER MANUFACTURERS WHICH ARE SIMILAR IN CONSTRUCTION AND EQUAL IN QUALITY MAY BE SUBSTITUTED.
- SEE DRAWING M-700 FOR ADDITIONAL NOTES.

DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	PIPE SUPPORT MATERIAL LIST	SCALE: NONE NO: M-701 SHEET 2 OF 2
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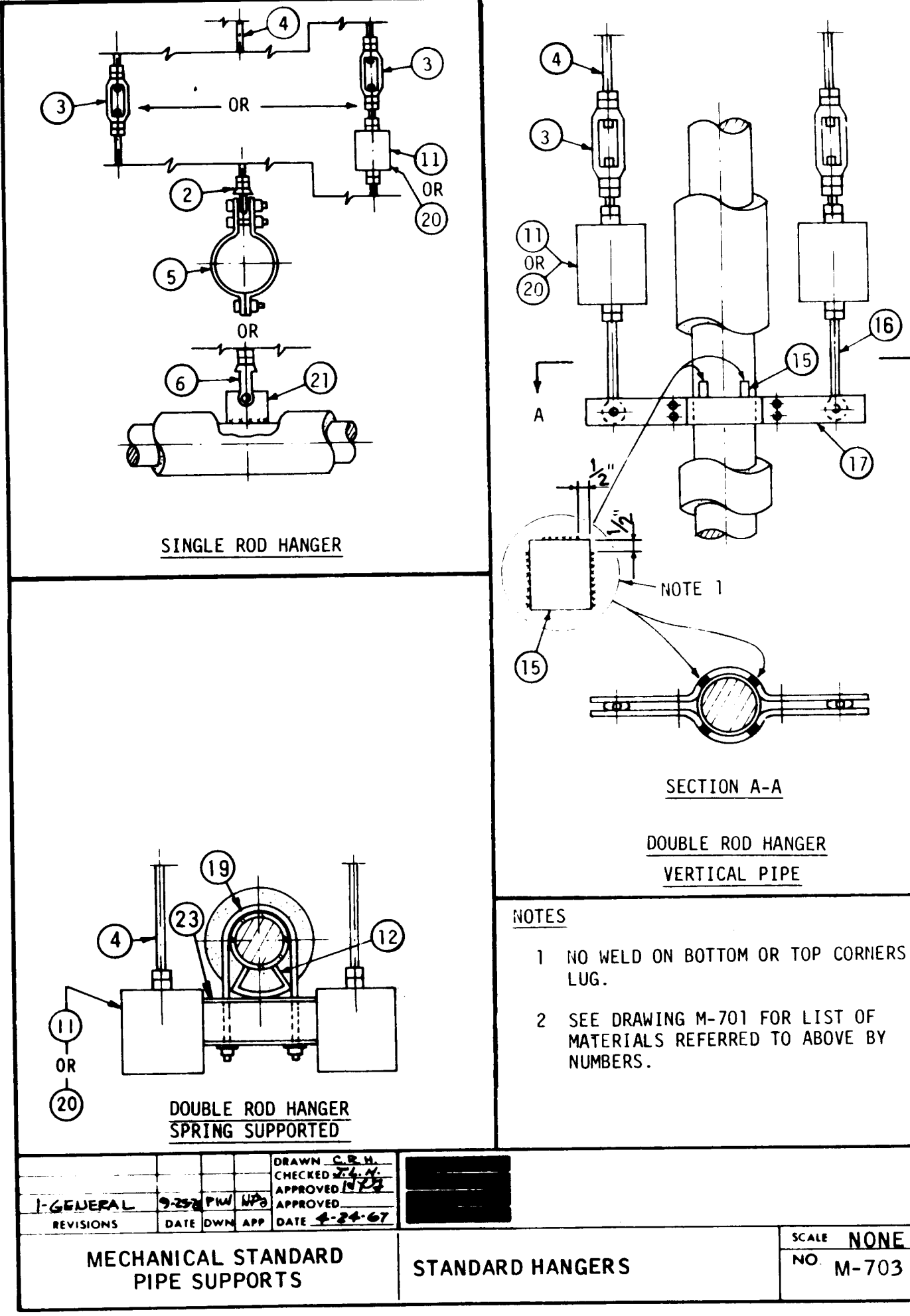


DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	TOP ATTACHMENT AND MISCELLANEOUS SUPPORTS	SCALE: NONE NO: M-702 SHEET 1 OF 2
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NOTES

- TO BE USED ONLY WITH SPECIFIC APPROVAL OF OWNER.
- TYPICAL.
- REINFORCING STEEL THREADED THROUGH INSERT.
- SEE DRAWING M-701 FOR LIST OF MATERIALS REFERRED TO BY NUMBERS.

DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	TOP ATTACHMENT AND MISCELLANEOUS SUPPORTS	SCALE: NONE NO: M-702 SHEET 2 OF 2
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DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	STANDARD HANGERS	SCALE: NONE NO: M-703 SHEET 1 OF 1
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TABLE OF HORIZONTAL PIPE SUPPORT SPACING FOR FIELD FABRICATION FROM RANDOM MATERIAL

PIPE SIZE INCHES	STD. & X.H. STEEL AT MAXIMUM OF 750F	COPPER TUBING	FIBER-GLASS (NOTE 3)	PLASTIC (NOTE 3)	CAST IRON WATER	CAST IRON SOIL	MINIMUM ROD SIZE
3/4	7	5					3/8" φ
1	7	6					3/8" φ
1 1/4	7	7					3/8" φ
1 1/2	9	8					3/8" φ
2	10	8					1/2" φ
2 1/2	11	9					1/2" φ
3	12	10					5/8" φ
4	14	12					5/8" φ
5	16	13					3/4" φ
6	17	14					7/8" φ
8	19	16					7/8" φ
10	22						1" φ
12	23						1" φ
14	25						1 1/8" φ
16	27						1 1/4" φ
18	28						1 1/2" φ
20	30						1 1/2" φ
24	32						1 1/2" φ

- NOTES:
- SPACINGS SHOWN IN TABLE ARE IN FEET.
 - ADDITIONAL SUPPORTS SHALL BE LOCATED NEAR VALVES OR OTHER LARGE CONCENTRATED LOADS.
 - SUBMIT SUPPORT DETAILS TO ENGINEER FOR APPROVAL.

DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. REVISIONS:	MECHANICAL STANDARD PIPE SUPPORTS	PIPE SUPPORT SPACING TABLE	SCALE: NONE NO: M-710 SHEET 1 OF 1
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DESIGNED: J.C.C. DRAWN: J.C.C. CHECKED: J.C.C. APPROVED: J.C.C. DATE: OCT. 1, 1984	RECORD DRAWING REVISED FOR BIDDING DATE: 11/14/84
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MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

NO SCALE
 GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 SLUDGE THICKNER BUILDING
 MECHANICAL STANDARDS AND
 EQUIPMENT SCHEDULES-SHEET 1

M-C NO.
H-08 81 OF
 SC NO. 8387-MB

NOMINAL INSULATION THICKNESS (INCHES)						
NOMINAL PIPE SIZE (INCHES)	100° 300°F CLASS A	300° 500°F CLASS B	500° 700°F CLASS C	700° 875°F CLASS D	875° 1200°F CLASS E	
1/2	1	1	1 1/2	2	2 1/2	
3/4	1	1 1/2	2	2	2 1/2	
1	1	1 1/2	2	2 1/2	3	
1 1/4	1	1 1/2	2 1/2	3	3	
1 1/2	1	2	2 1/2	3	3 1/2	
2	1 1/2	2	2 1/2	3 1/2	3 1/2	
2 1/2	1 1/2	2	3	3 1/2	4	
3	1 1/2	2 1/2	3	4	4 1/2	
4	1 1/2	2 1/2	3 1/2	4	4 1/2	
5	2	3	4	4 1/2	5	
6	2	3	4	5	5 1/2	
8	2	3 1/2	4 1/2	5	6	
10	2 1/2	3 1/2	4 1/2	5 1/2	6	
12 & OVER	2 1/2	3 1/2	4 1/2	5 1/2	6	
EQUIPMENT	2 1/2	4	5 1/2	6	7	
NOTES						
1. INSULATION THICKNESSES SHOWN ABOVE ARE MINIMUM BLOCK THICKNESSES AND DO NOT INCLUDE FINISHING OR SEALING COATS. FOR FINISH COAT OR JACKET, SEE SPECIFICATIONS.						
2. ON OUTDOOR EQUIPMENT & PIPING, INSULATION THICKNESS SHOWN ABOVE SHALL BE INCREASED 1/2 INCH.						
3. ANTI-SWEAT (CLASS S):						
FOR PIPE						
30" AND LESS: SECTIONAL PIPE INSULATION, 1 INCH THICK.						
OVER 30": EMULSION INSULATION, 3/8 INCH FINAL THICKNESS.						
FOR IRREGULAR SURFACES (WATER BOXES, ETC.)						
EMULSION INSULATION, 3/8 INCH FINAL THICKNESS.						
FOR REGULAR SURFACES (TANKS, COOLER, ETC.)						
SECTIONAL OR BLOCK INSULATION, 1 INCH THICK.						
DRAWN BY J. V. J. CHECKED BY J. V. J. APPROVED BY J. V. J. DATE 9-26-74						
MECHANICAL STANDARD INSULATION PIPING AND EQUIPMENT INSULATION THICKNESS						
SCALE NONE						
NO M-1002 REV 0						

PIPE	MATERIAL, ASTM		A53 A OR B TYPE 1 OR 5 (1)		
	MINIMUM PIPE SIZE TO BE USED		1/4"		
	MINIMUM WALL THICKNESS	PIPE SIZES (INCLUSIVE)		WALL THICKNESS	
		1/4" - 2"		SCH. 80	
		2-1/2" - 6"		SCH. 40	
JOINTS	TYPE OF JOINT	SCREWED	SOCKET WELDED	BUTT WELDED	FLANGED
		USE FOR PIPE SIZE (INCL)	1/4" - 2"	NONE	2 1/2" & LARGER
	MATERIAL, ASTM				A105 OR A181 11
	PRESSURE CLASS, ANSI				150
	FACING				1/16" R.F. OR FLAT FACE (2)
FLANGES	GASKETS				GRANITE 1/16" THICK
	BOLT STUDS, ASTM				A307B
	NUTS, ASTM				A307B HEX.
	FITTINGS	MATERIAL ASTM	A338 MALLEABLE 150	A234 GRADE WPA OR WPB ---	A126 B OR C CAST IRON 125
		PRESSURE CLASS, ANSI			
MINIMUM WALL THICKNESS		---	SAME AS PIPE	---	
WELDING END		---	STD. BEVEL, (5) COM. FLAT RING	---	
UNIONS		SCREWED, GROUND JOINT	---	---	
VALVES-RISING STEM	BODY MATERIAL, ASTM	B62 BRONZE	NONE	A126 B OR C CAST IRON (4)	
	PRESSURE CLASS, ANSI	150		125 (4)	
	BONNET TYPE	UNION		BOLTED	
	INTERNALS AND TRIM	BRONZE OR COMP. (3)		RENEWABLE BRONZE	
	BYPASS REQUIRED ON VALVES LARGER THAN	---		---	
NOTES	(1) ALL THREADED PIPE SHALL BE SEAMLESS (TYPE S).				
	(2) USE FLAT FACE FLANGES FOR MATING WITH 125 POUND CAST IRON FLANGES OF VALVES OR EQUIPMENT.				
	(3) GLOBE VALVES - ASBESTOS COMPOSITION DISCS FOR COLD WATER, AIR OR GAS SERVICE. ALL OTHER SERVICES - BRONZE SEATS AND DISCS.				
	(4) 125 POUND CAST IRON VALVES LIMITED TO 12" MAXIMUM SIZE. FOR 14" AND LARGER SIZES USE ANSI 150 POUND CAST STEEL VALVES, ASTM A216-WCB.				
	(5) NO BACKING RING 3-1/2" AND SMALLER.				

UNIT HEATER SCHEDULE (U.H.) SEE NOTE 2														
DESIGNATION ON DRAWINGS	BUILDING LOCATION	TYPE DISCHARGE	AIR HANDLING		WATER DATA			MOTOR DATA					EQUIPMENT TAG NO	REMARKS
			ENTER AIR TEMP	CFM	GPM	ENTER TEMP	MBH	PD FT H ₂ O	HP	RPM	VOLT	PHASE	HERTZ	
UH-25	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-26	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-27	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-28	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-29	DAF	HORIZONTAL	55°F	540	1.2	180°F	12.0	0.5	1/20	1550	120	1	60	
UH-30	DAF	HORIZONTAL	55°F	590	1.5	180°F	15.0	0.5	1/20	1550	120	1	60	
UH-31	DAF	HORIZONTAL	55°F	1100	3.1	180°F	31.4	0.5	1/8	1550	120	1	60	
UH-32	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-33	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-34	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-35	DAF	VERTICAL	55°F	1790	6.2	180°F	62.0	1.0	1/6	1070	120	1	60	
UH-36	DAF	HORIZONTAL	55°F	815	1.2	180°F	22.5	0.5	1/20	1550	120	1	60	
UH-37	DAF	HORIZONTAL	55°F	540	1.2	180°F	12.0	0.5	1/20	1550	120	1	60	
UH-38	DAF	HORIZONTAL	55°F	540	1.2	180°F	12.0	0.5	1/20	1550	120	1	60	
UH-39	DAF	HORIZONTAL	55°F	280	0.75	180°F	4.2	0.01	1/25	1050	120	1	60	*

* UH-39 DOES NOT REQUIRE HERESITE COATING

CABINET UNIT HEATER SCHEDULE (C.U.H.) SEE NOTE 2														
DESIGNATION ON DRAWINGS	BUILDING LOCATION	AIR HANDLING DATA		WATER DATA				MOTOR DATA				EQUIPMENT TAG NO	REMAKRS	
		ENTER AIR TEMP	CFM	GPM	ENTER TEMP	MBH	PD FT H ₂ O	HP	RPM	VOLTS	PHASE			HERTZ
CUH-1	DAF	68°F	1000	5.5	180°F	54.9	3.3	1/8	775	120	1	60		

NOTES :

- STATIC PRESSURE AND HORSEPOWERS LISTED HAVE BEEN ADJUSTED FOR A PLANT ELEVATION OF 5000 FT.
- HEATING CAPACITY IS BASED ON 180°F ENTERING WATER TEMPERATURE AND 160°F LEAVING.
- FACE & BYPASS DAMPERS SHALL BE 120V, 1Ø, 60 HERTZ.

LOUVER SCHEDULE				
DESIGNATION ON DRAWINGS	BUILDING LOCATION	LOUVER SIZE (W X H)	DEPTH	DESCRIPTION AND TYPE
LVR-7	DAF	64 X 40	4"	FIXED-TYPE 2
LVR-8	DAF	64 X 40	4"	FIXED-TYPE 2
LVR-9	DAF	64 X 40	4"	FIXED-TYPE 2
LVR-10	DAF	64 X 40	4"	FIXED-TYPE 2

PIPE AND INSULATION SCHEDULE						
SERVICE	MATERIAL	PIPE			INSULATION	
		MECHANICAL STANDARD	PRESSURE PSIG	TEMP °F	MATERIAL	MECHANICAL STANDARD
BUILDING HEATING WATER ABOVE GRADE	CARBON STEEL	M-1800	75	180	FIBERGLASS	M-1002
BUILDING HEATING WATER BELOW GRADE	REINFORCED FIBERGLASS	-	75	180	POLYURETHANE FOAM	-

PUMP SCHEDULE									
DESIGNATION ON DRAWINGS	BUILDING LOCATION	TYPE	FLOW RATE GPM	HEAD FEET WATER	MOTOR DATA				
					HP	RPM	VOLTS	PHASE	HERTZ
HWP-1	DAF	IN-LINE CENTRIFUGAL	253	45	5	1750	460	3	60

MAKE-UP AIR SCHEDULE (M.A.U.) SEE NOTE 2 & 3											
DESIGNATION ON DRAWINGS	BUILDING LOCATION	TYPE DISCHARGE	AIR HANDLING				WATER DATA				REMARKS
			CFM	ENTER AIR TEMP	LEAVE AIR TEMP	PD-IN H ₂ O	GPM	ENTER TEMP	MBH	PD-FT H ₂ O	
MAU-5	DAF	HORIZONTAL	4310	16°F	55°F	0.13	18.2	180°F	182.0	1.2	
MAU-6	DAF	HORIZONTAL	4310	16°F	55°F	0.13	18.2	180°F	182.0	1.2	
MAU-7	DAF	HORIZONTAL	4310	16°F	55°F	0.13	18.2	180°F	182.0	1.2	
MAU-8	DAF	HORIZONTAL	6890	16°F	55°F	0.13	29.2	180°F	292.0	1.7	
MAU-9	DAF	HORIZONTAL	6890	16°F	55°F	0.13	29.2	180°F	292.0	1.7	
MAU-10	DAF	HORIZONTAL	6890	16°F	55°F	0.13	29.2	180°F	292.0	1.7	
MAU-11	DAF	HORIZONTAL	6890	16°F	55°F	0.13	29.2	180°F	292.0	1.7	

FAN SCHEDULE SEE NOTE 1											
DESIGNATION ON DRAWINGS	BUILDING LOCATION	TYPE	DRIVE	AIR HANDLING DATA		MOTOR DATA					REMARKS
				CFM	T.S.P. IN H ₂ O	HP	RPM	VOLTS	PHASE	HERTZ	
IF-1	DAF	CENTRIFUGAL	BELT	4,000	2.6	3	1750	460	3	60	OPERATING TEMPERATURE 95°F
IF-2	DAF	CENTRIFUGAL	BELT	4,000	2.6	3	1750	460	3	60	OPERATING TEMPERATURE 95°F
PBF-1	DAF	PROPELLER	DIRECT	2,100	0.25	1/3	1050	120/208	1	60	OPERATING TEMPERATURE 95°F

DESIGNED BY	CHECKED BY	APPROVED BY	DATE
11/14/84	REVISOR	REVISIONS	
NO.	DATE		

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NO SCALE
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
SLUDGE THICKNER BUILDING
MECHANICAL STANDARDS AND
EQUIPMENT SCHEDULES-SHEET 2



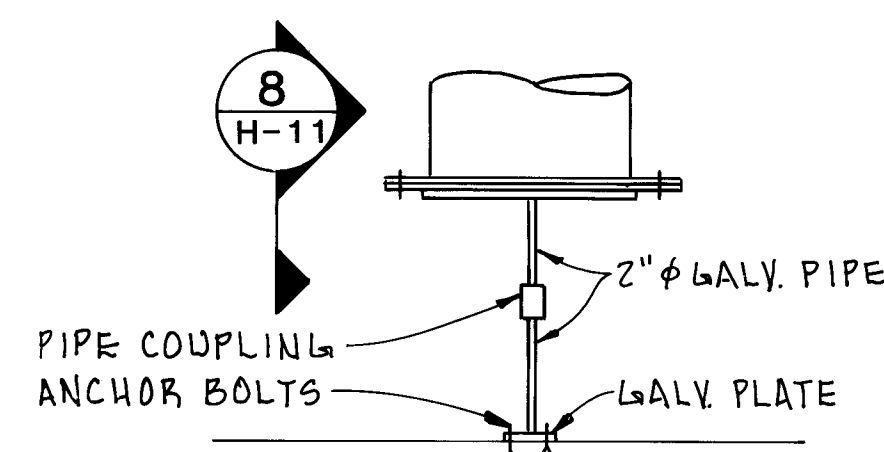
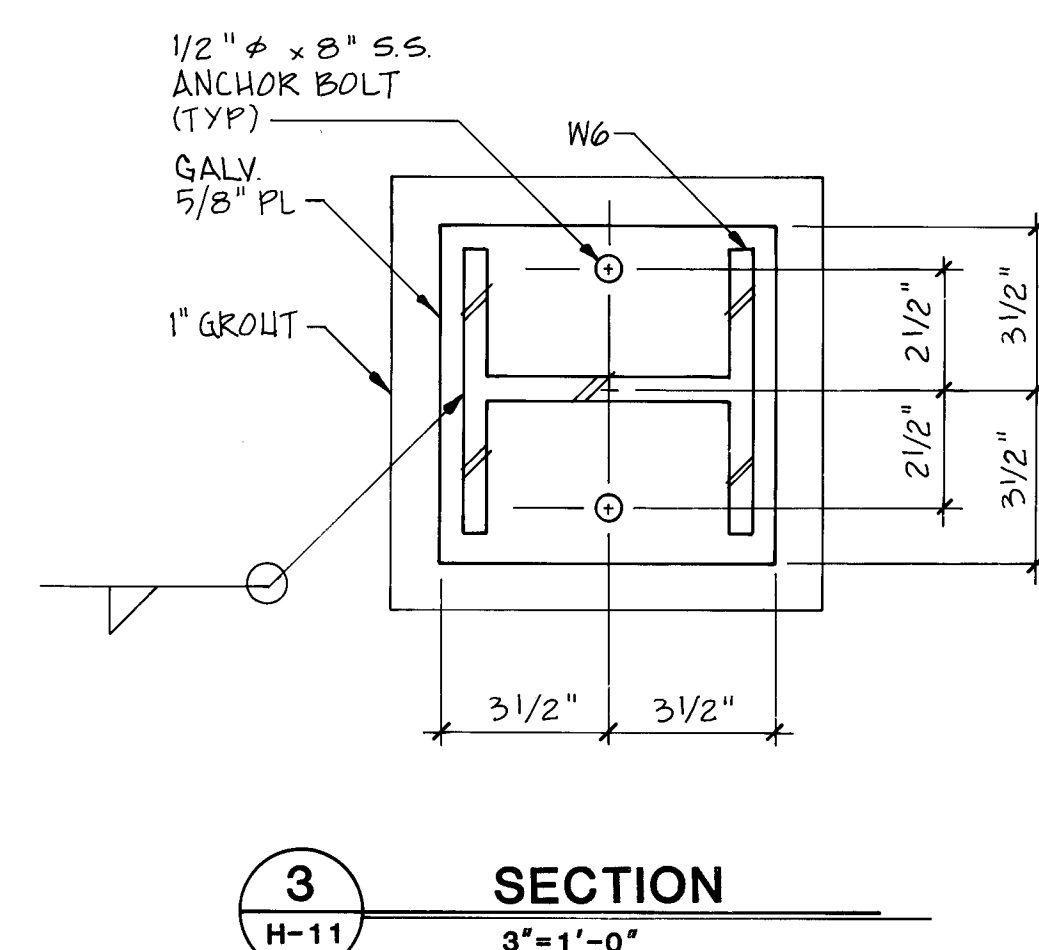
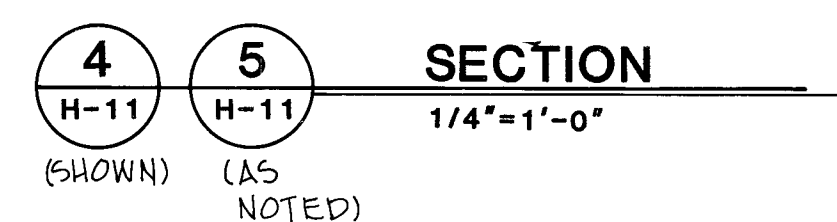
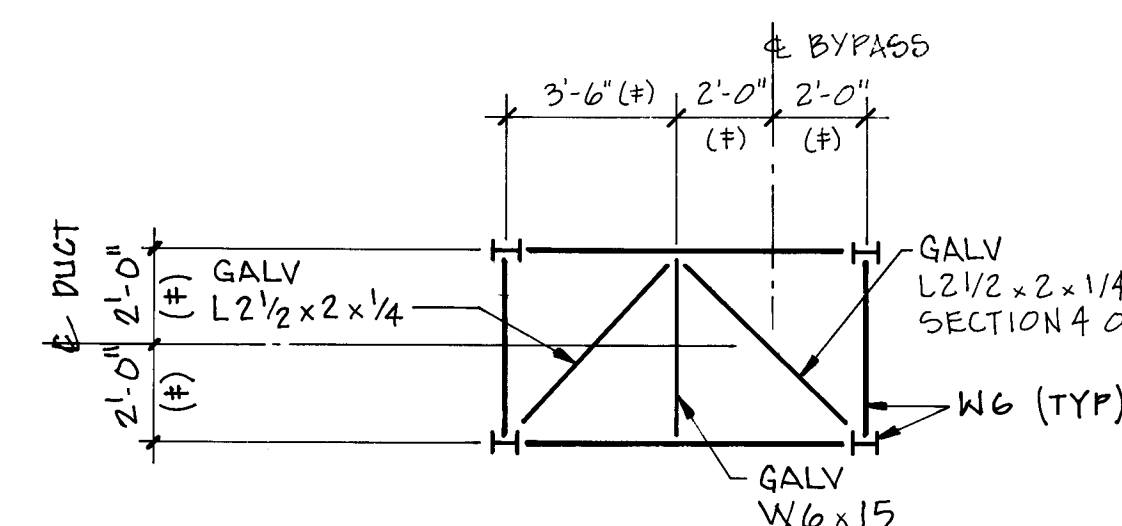
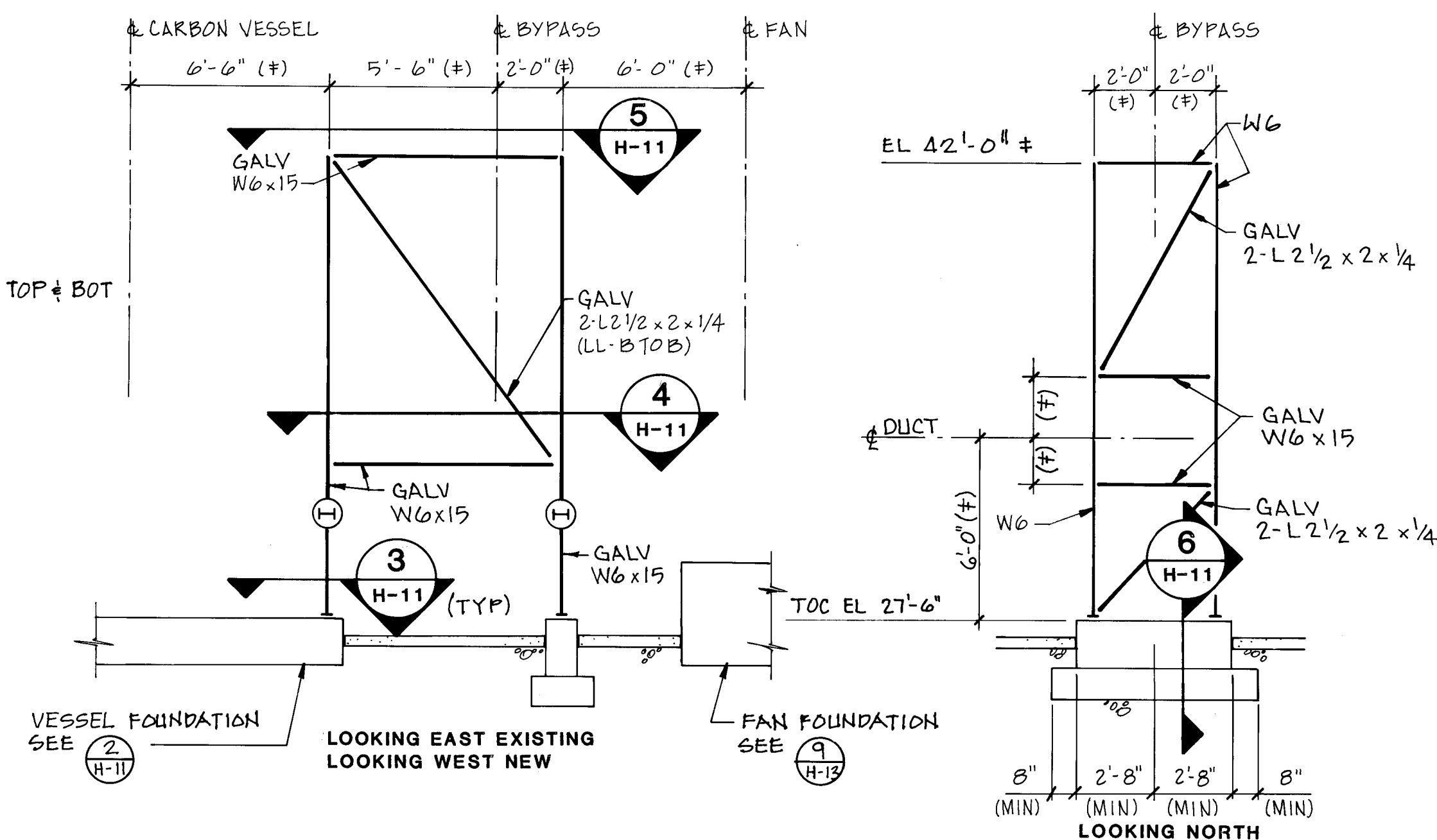
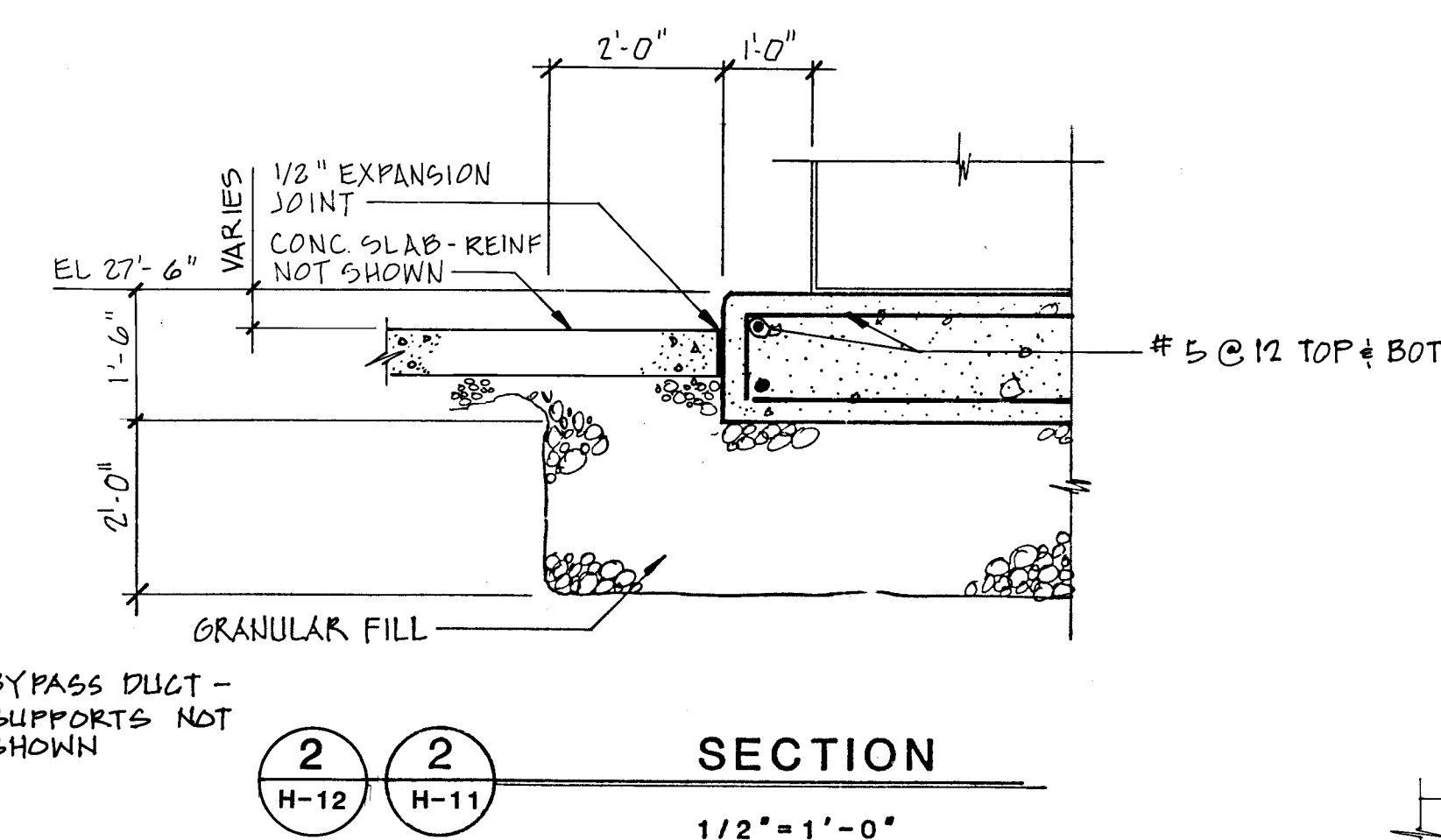
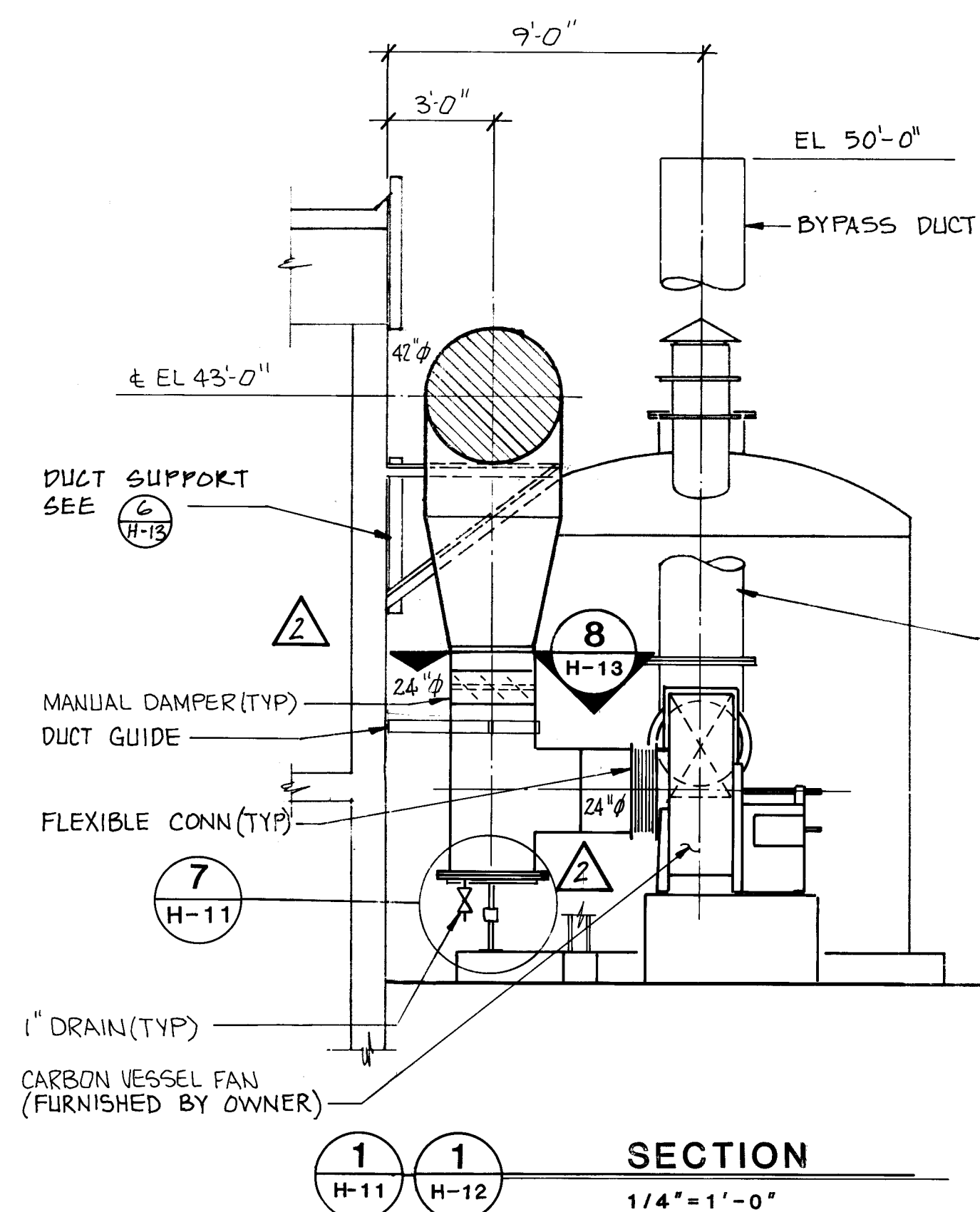
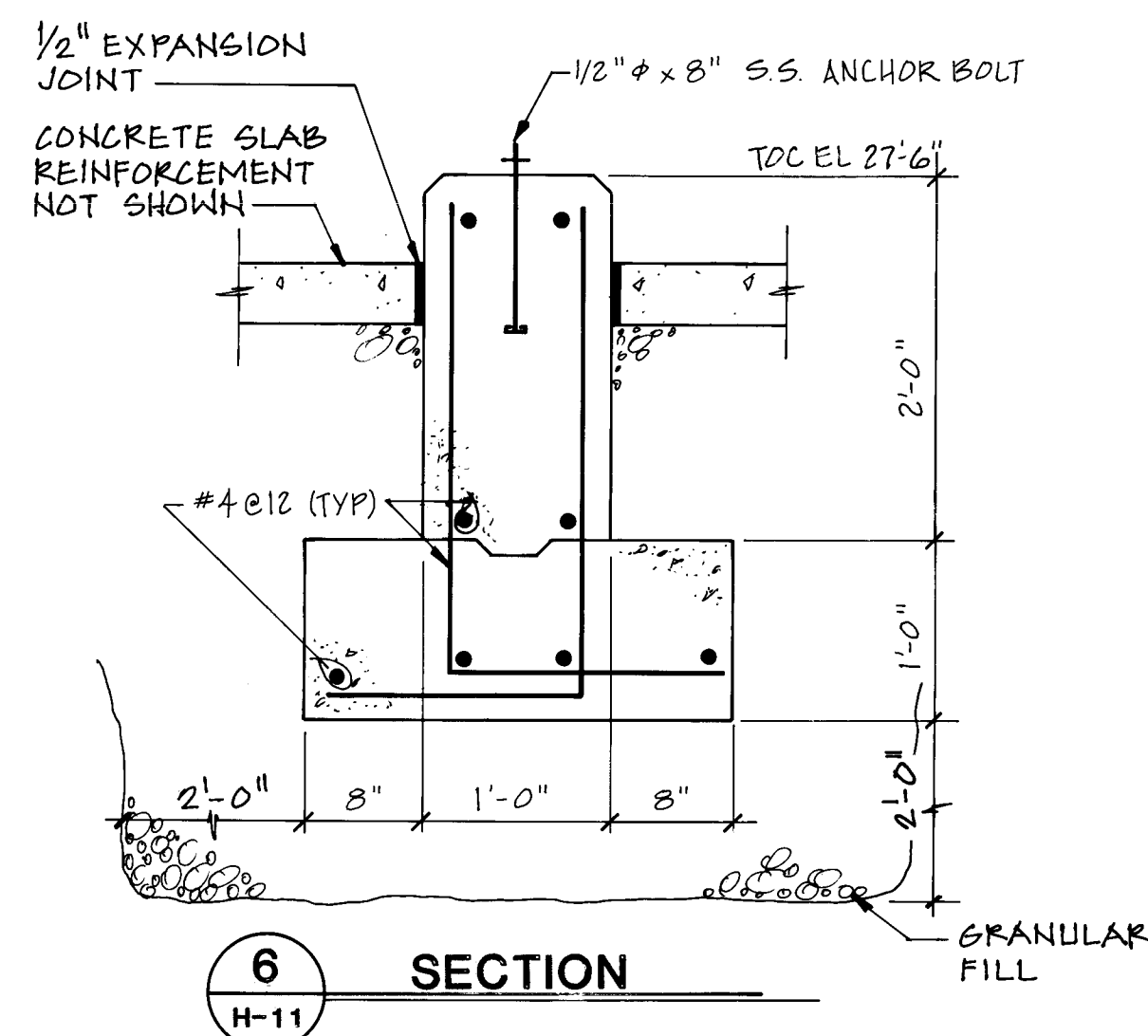
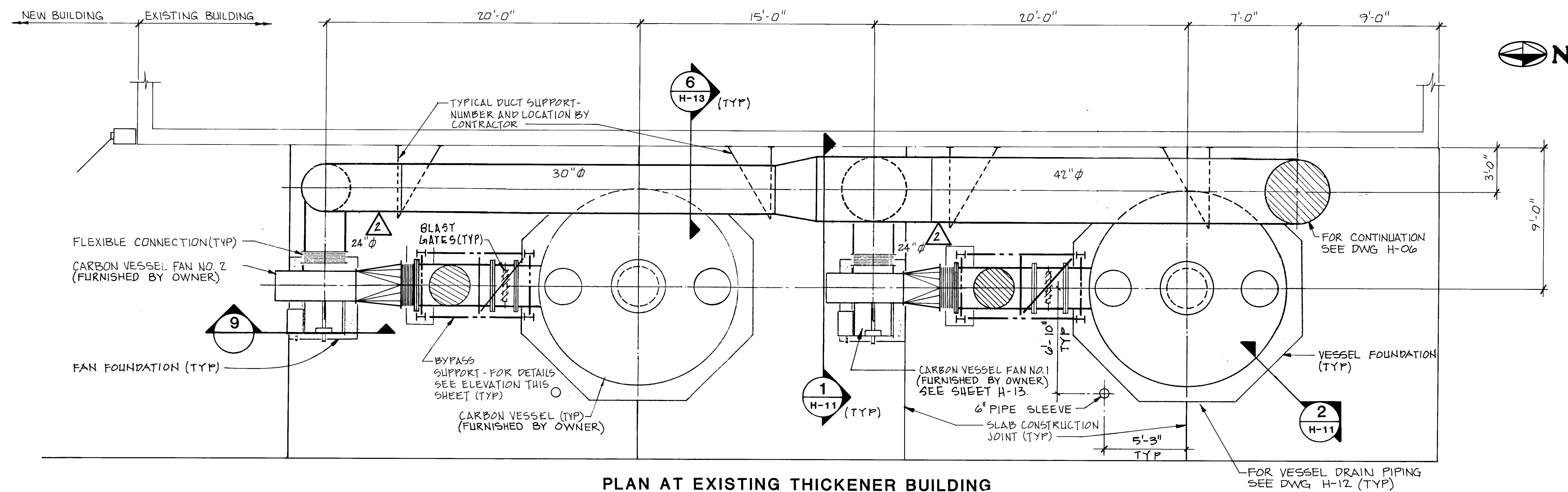
PENDING NEW MEXICO

M-C NO.
H-09 82 OF
SC NO. 2387-M4



PENDING NEW MEXICO

M-C NO.	
H-10	83 OF
SC NO. 8387-M10	



				DESIGNED <u>9/21/18</u>
<u>3</u>	<u>0-17-86</u>	RECORD DRAWING	<u>Bob Walker</u>	DRAWN <u>RJ HANSON</u>
<u>2</u>	<u>4/12/85</u>	REV DUCT SIZE	<u>C L Meyer</u>	CHECKED <u>9/21/18</u>
<u>1</u>	<u>11/4/84</u>	REVISED FOR BIDDING	<u>C L Meyer</u>	APPROVED <u>C L Meyer</u>
NO.	DATE	REVISIONS		APPROVED <u>OCT. 1, 1984</u>



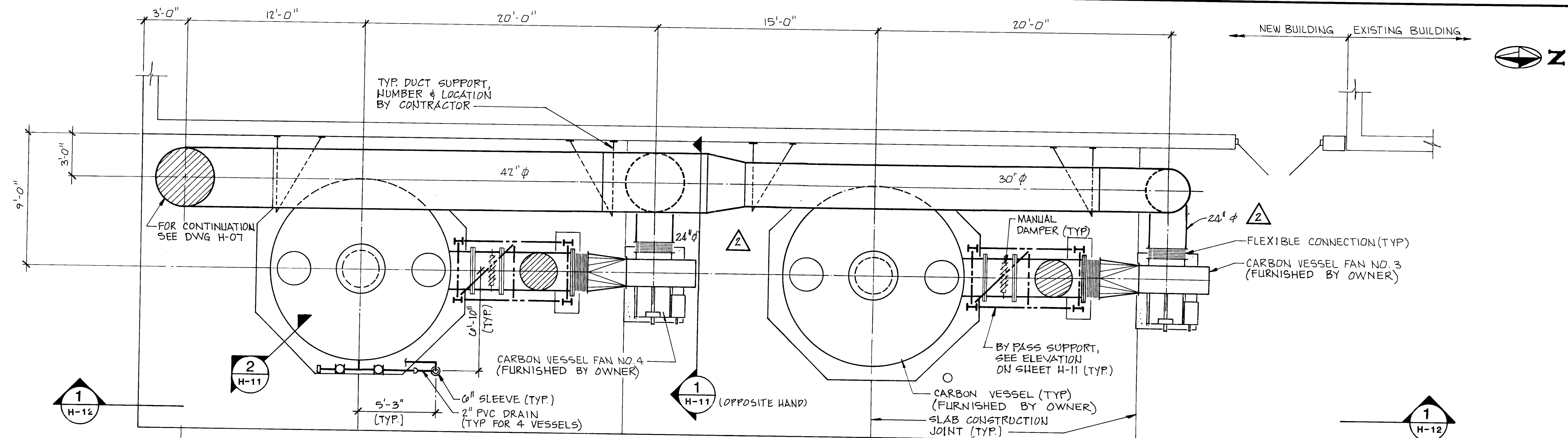
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

$$1/2'' = 1' - 0''$$
$$1/4'' = 1' - 0''$$

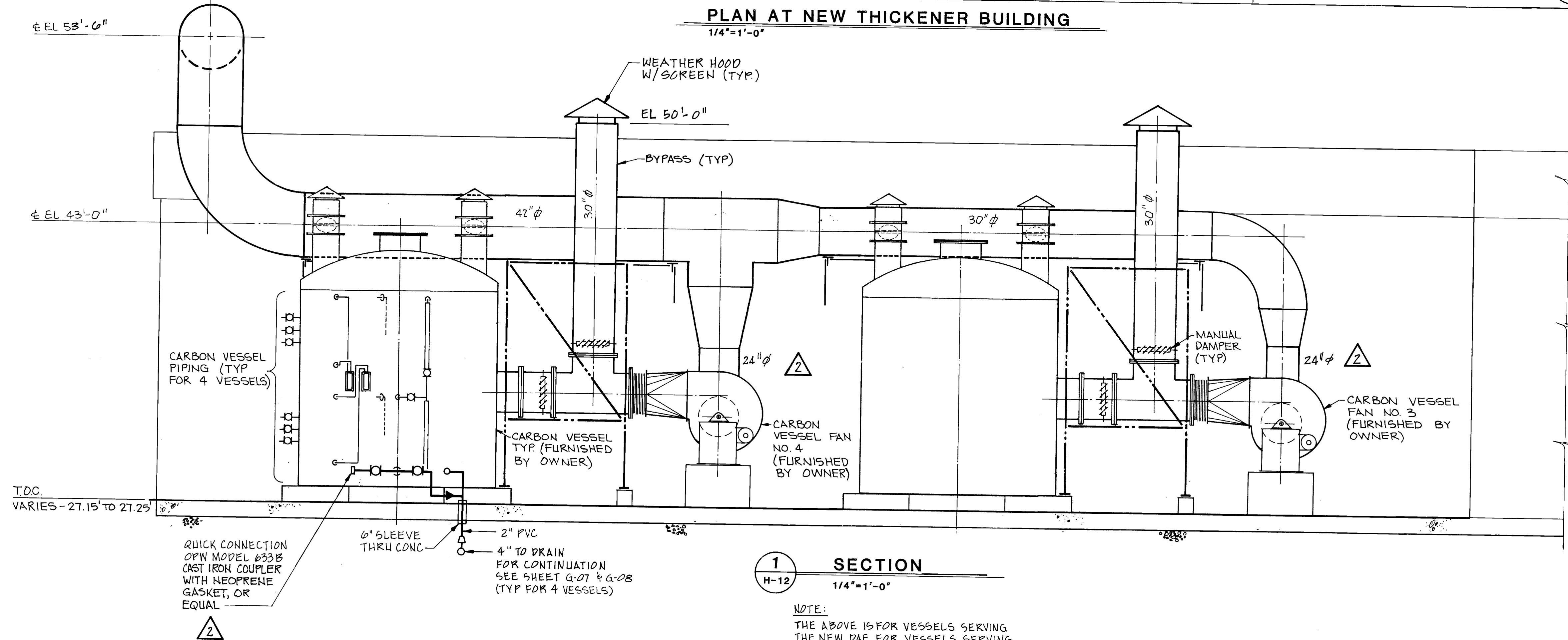
 CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1.CONTRACTS 2 & 3

**SLUDGE THICKENING SYSTEM EXPANSION
ODOR CONTROL SYSTEM
PLAN AND DETAILS-SHEET 1**

M-C NO.	
H-11	84 OF
SC NO. 8327 - MII	



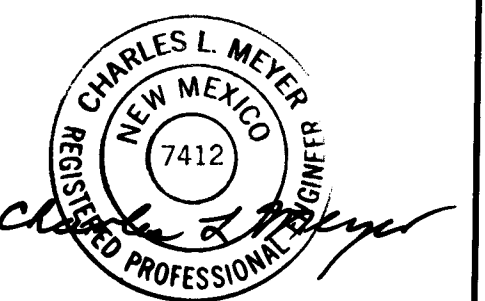
PLAN AT NEW THICKENER BUILDING
1/4"=1'-0"



SECTION
1/4"=1'-0"

NOTE:
THE ABOVE IS FOR VESSELS SERVING
THE NEW DAF. FOR VESSELS SERVING
THE EXISTING DAF USE MIRROR IMAGE

NOTE:
FOR DUCT SUPPORT DETAILS SEE SHEET H-11.



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	37	52	85	88																								

NO.	DATE	REVISIONS
1	10-17-88	RECORD DRAWING
2	11/12/85	REV DUCT SIZE
3	11/14/84	REVISED FOR BIDDING

DESIGNED	Bob Hanson
DRAWN	B. Hanson
CHECKED	B. Hanson
APPROVED	C.L. Meyer
DATE	OCT. 1, 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4"=1'-0"

0 4' 6' 8'

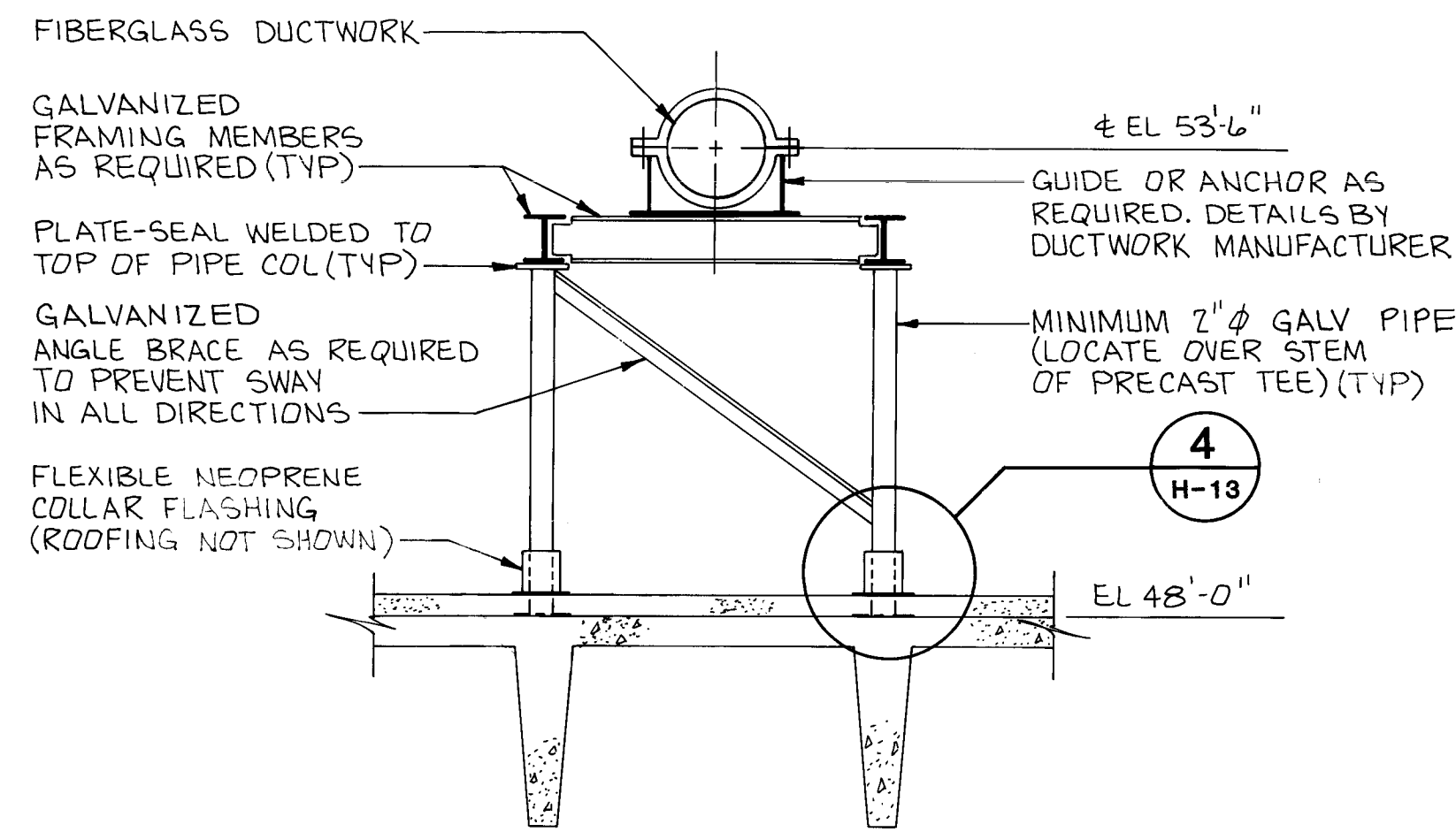
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

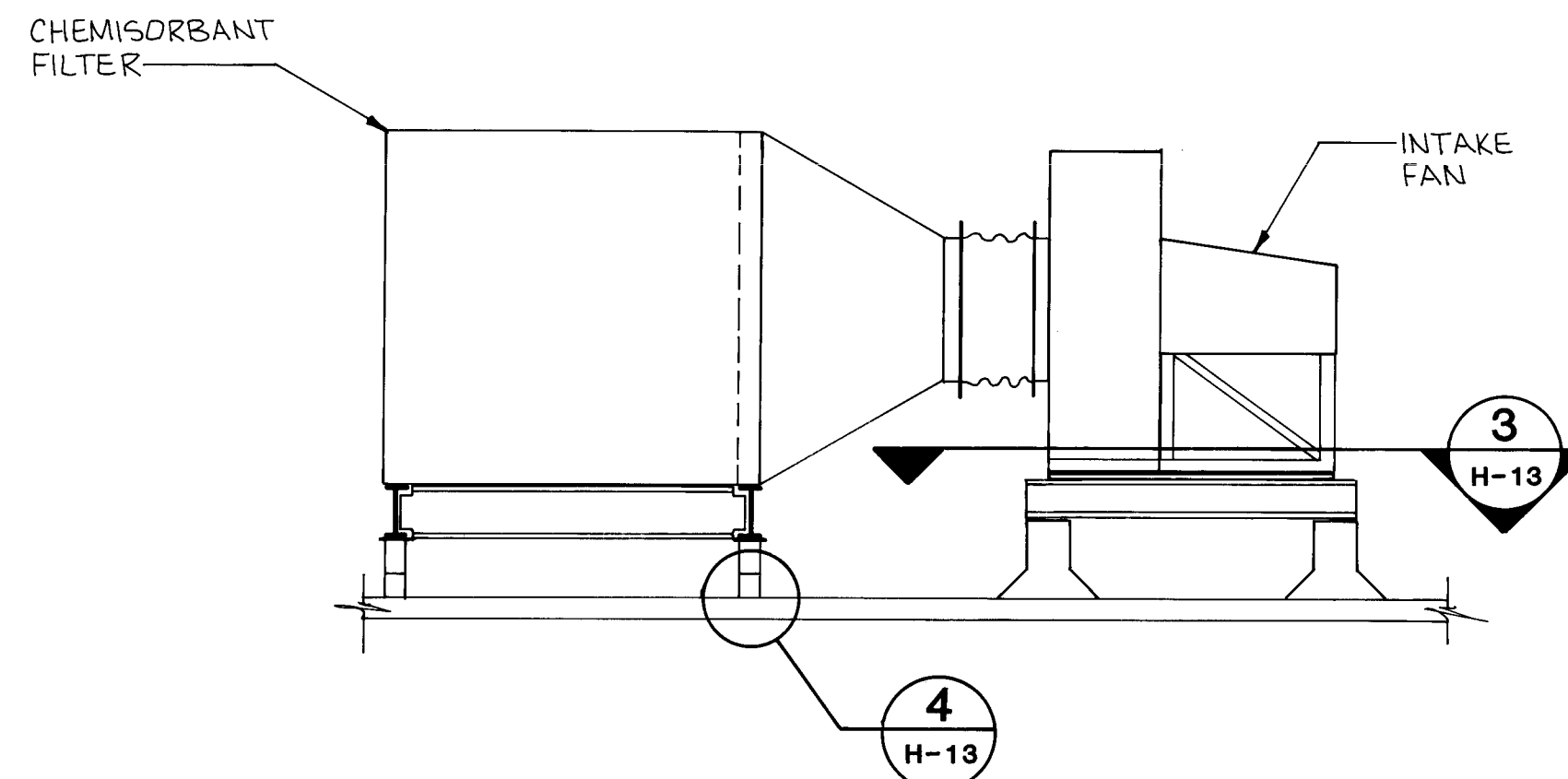
SLUDGE THICKENING SYSTEM EXPANSION
ODOR CONTROL SYSTEM
PLAN AND DETAILS-SHEET 2

H-12 85 OF

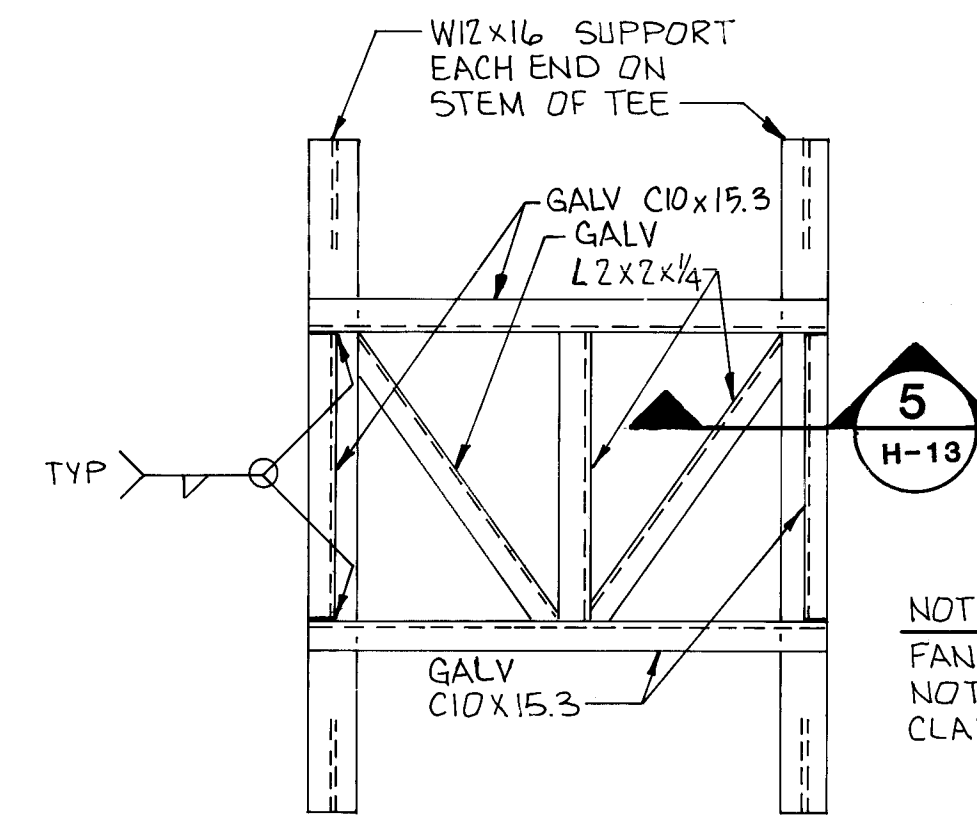
SC NO. 8387-M12



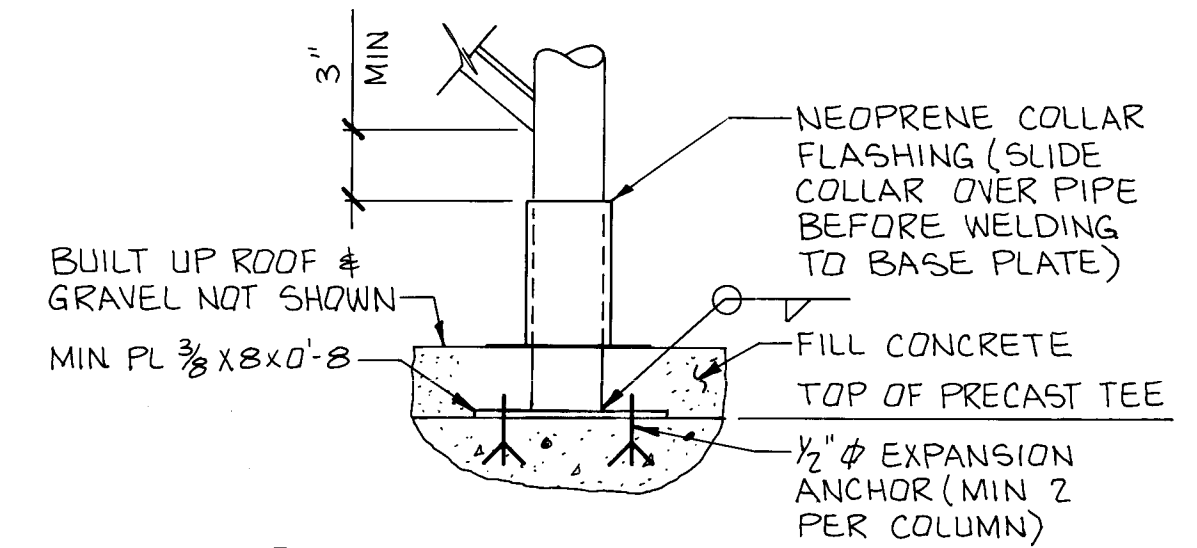
1 SECTION
H-07 1/2"=1'-0"



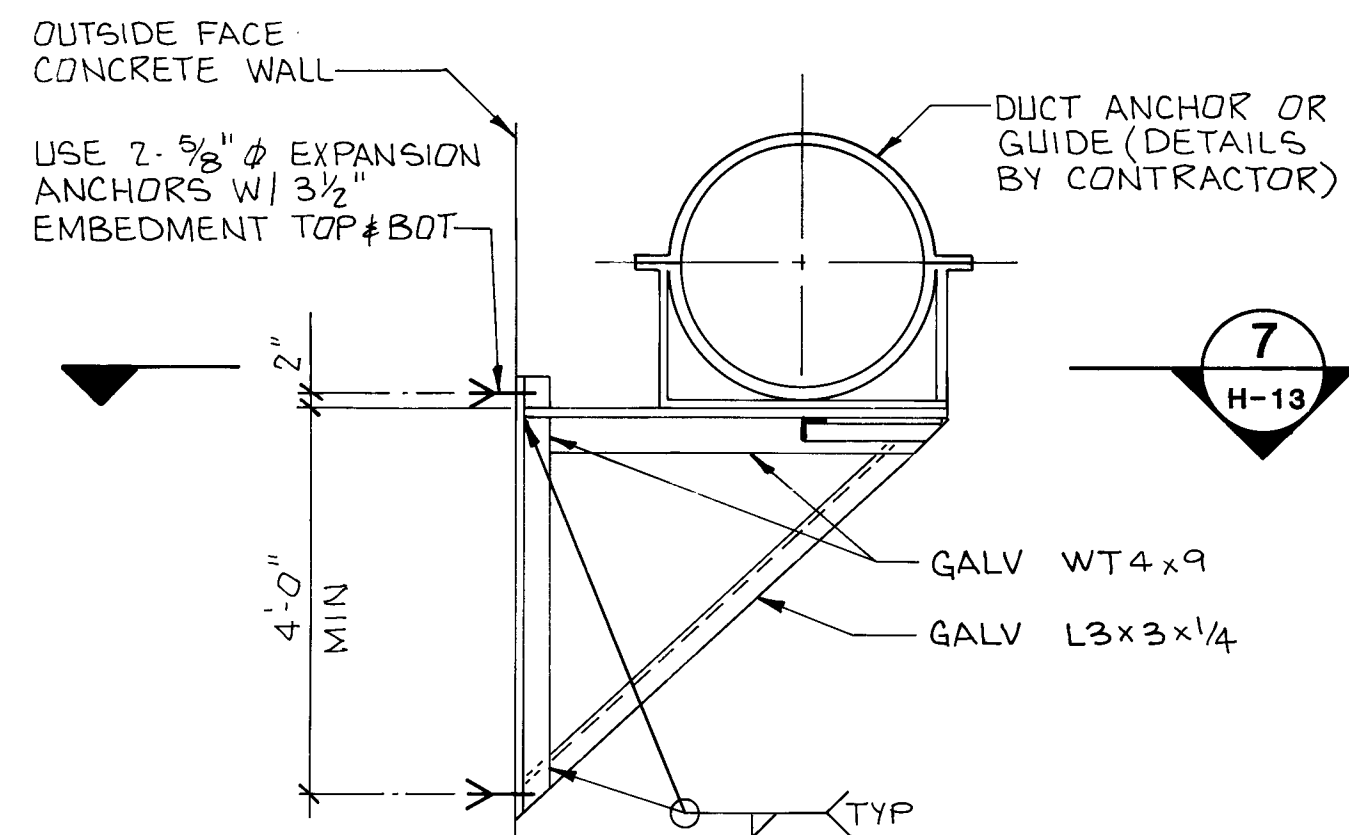
2 SECTION
H-07 1/2"=1'-0"



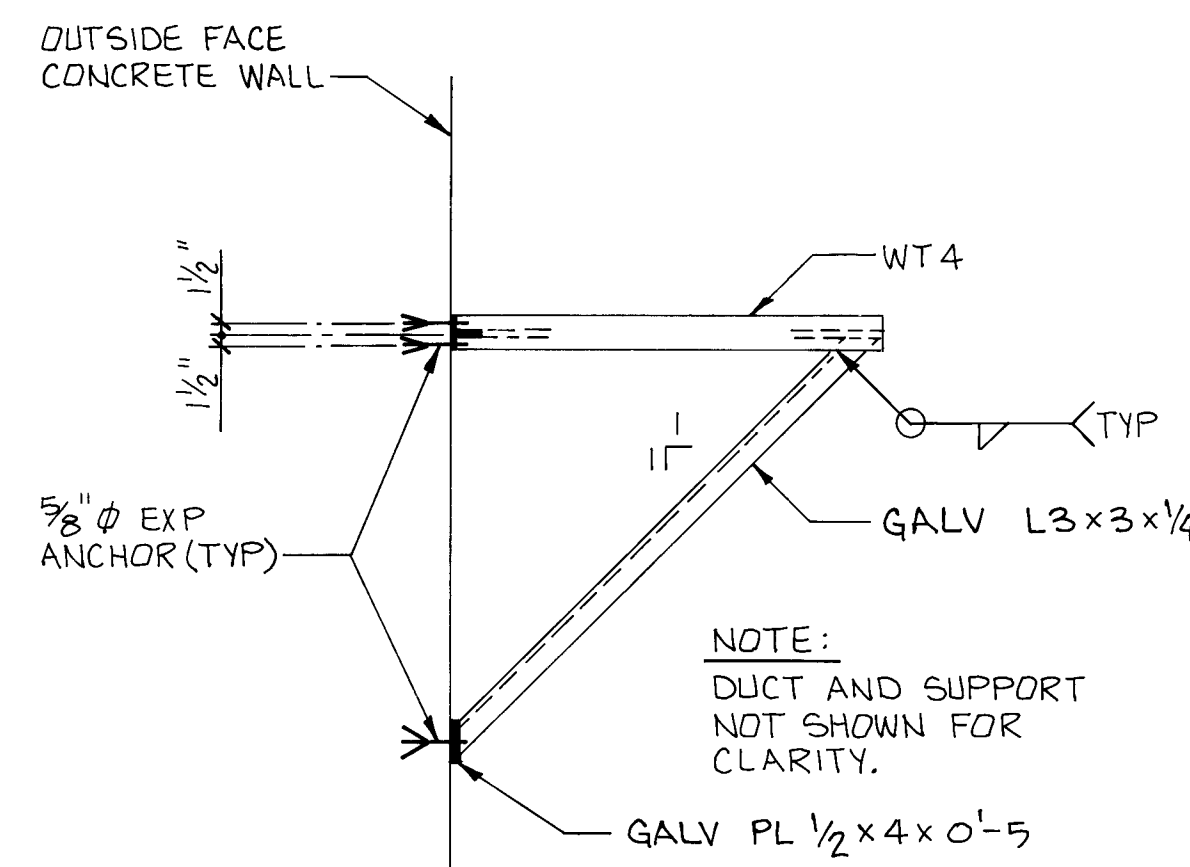
3 SECTION
H-13 3/4"=1'-0"



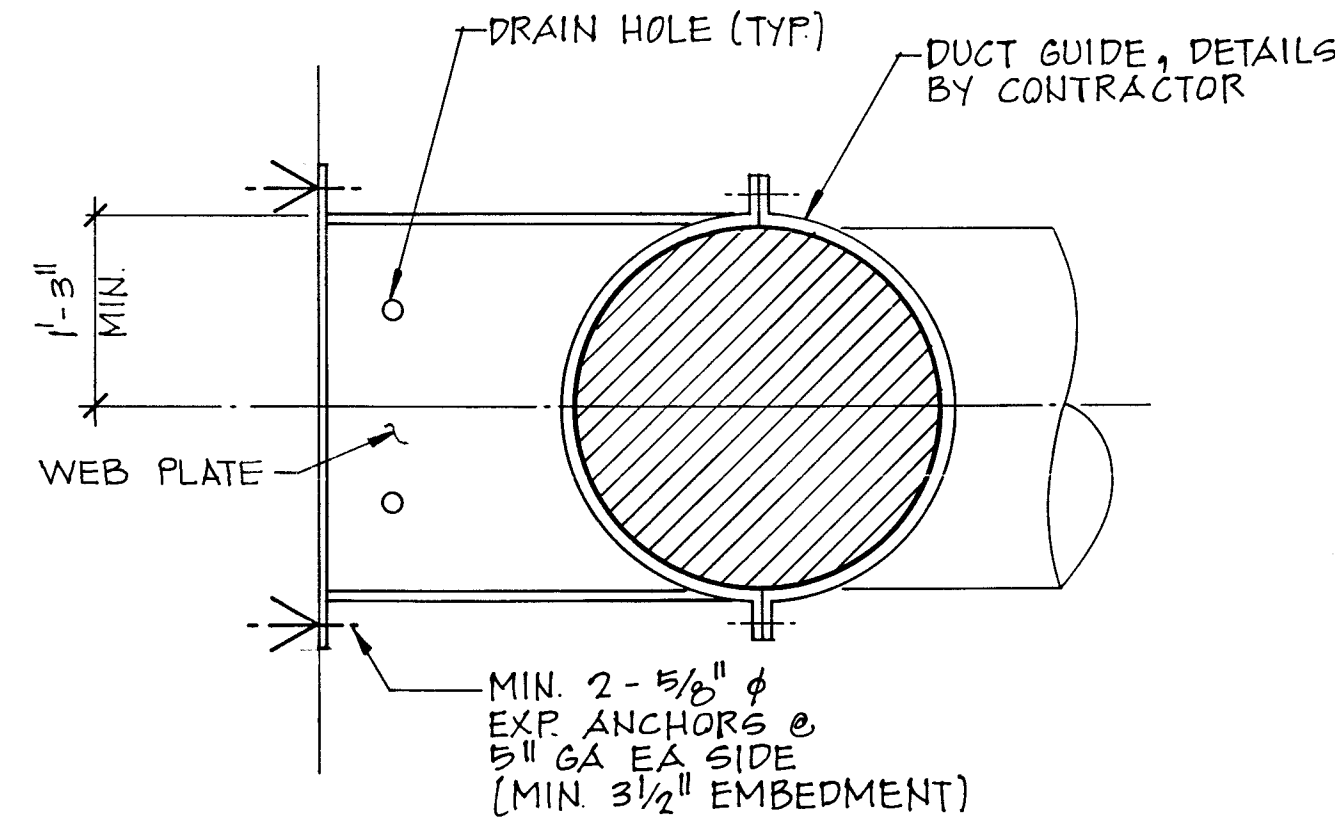
4 DETAIL
H-13 1 1/2"=1'-0"



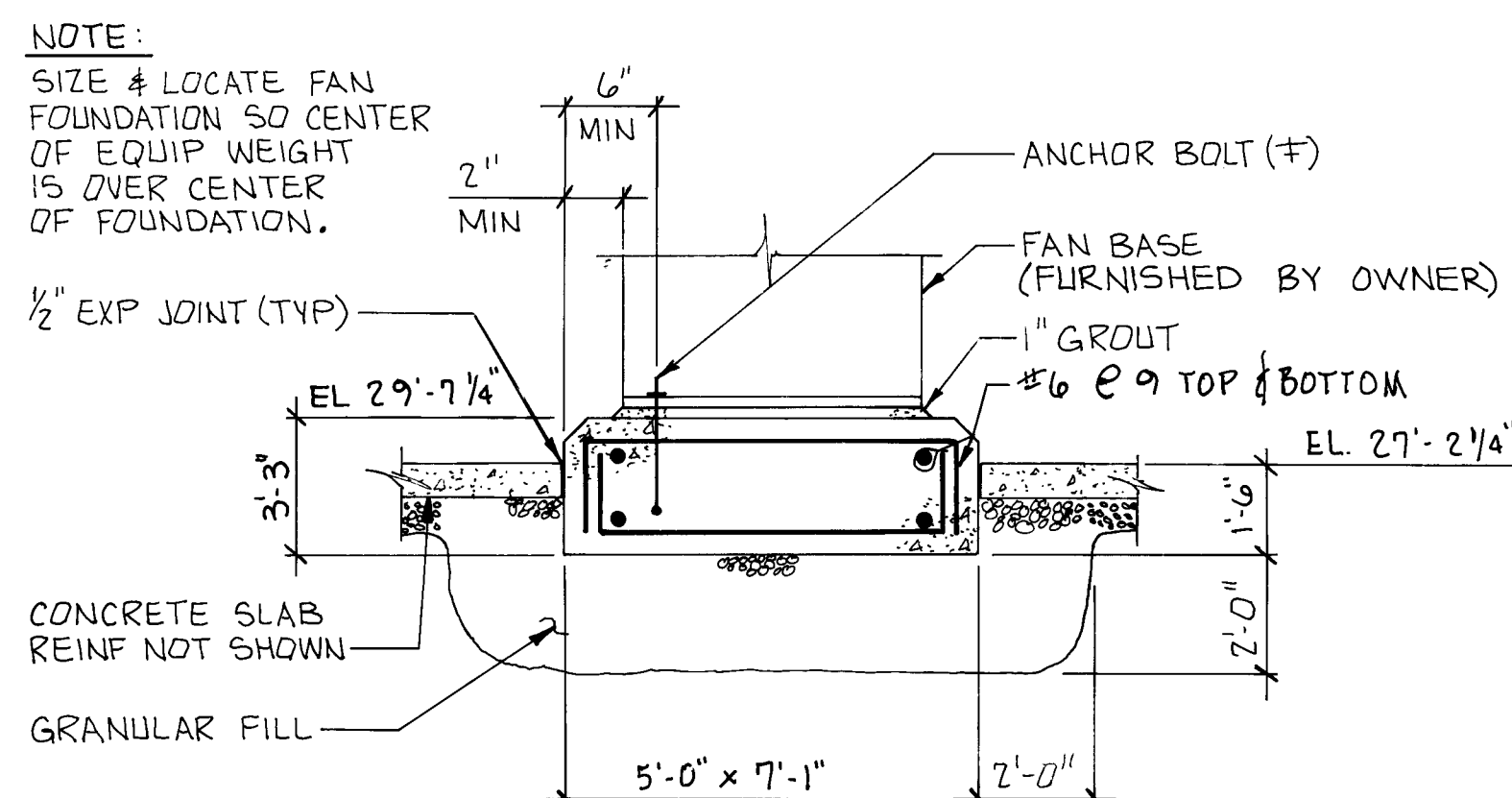
6 SECTION
H-11 1/2"=1'-0"



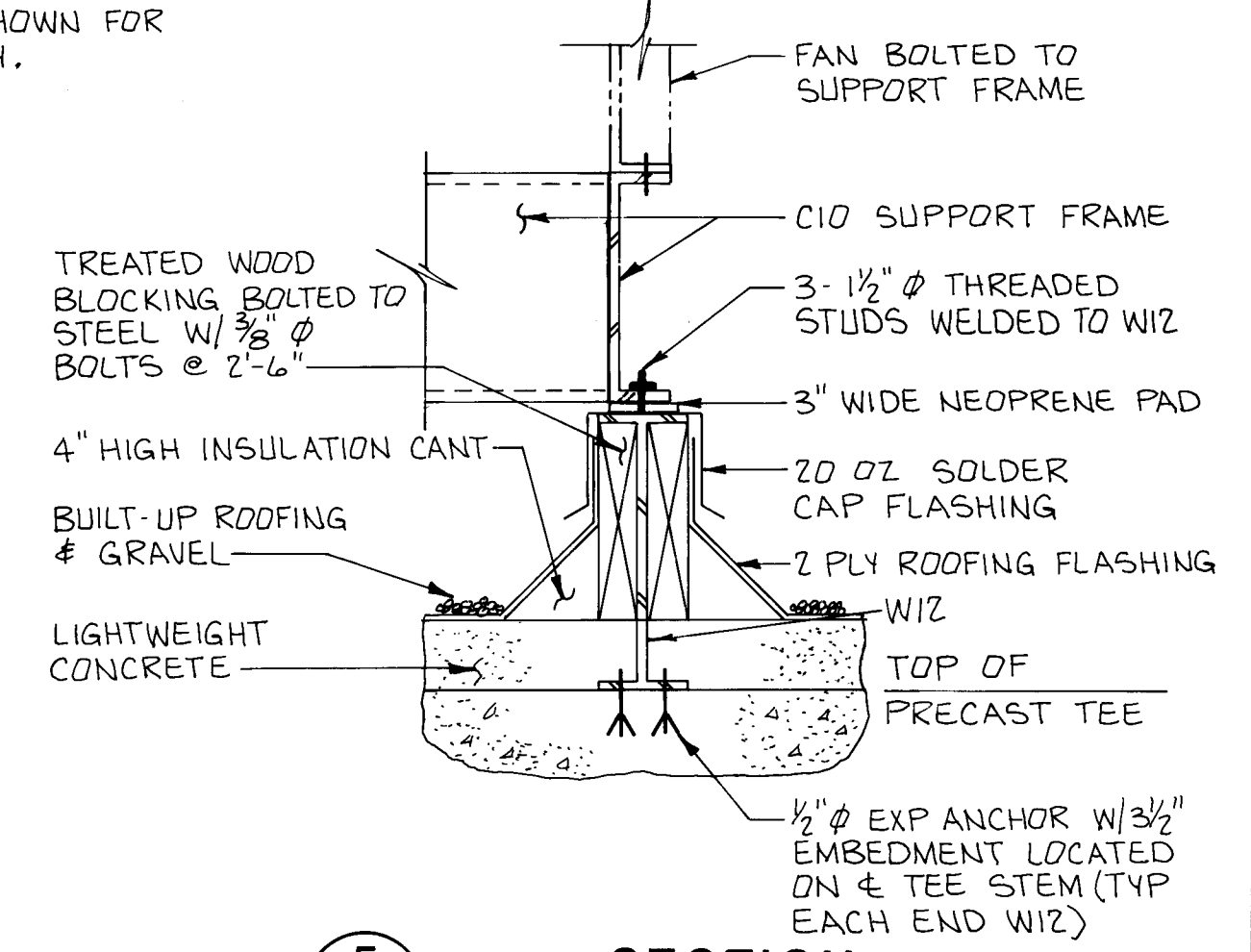
7 SECTION
H-13 1/2"=1'-0"



8 SECTION
H-11 3/4"=1'-0"



9 SECTION
H-11 NO SCALE

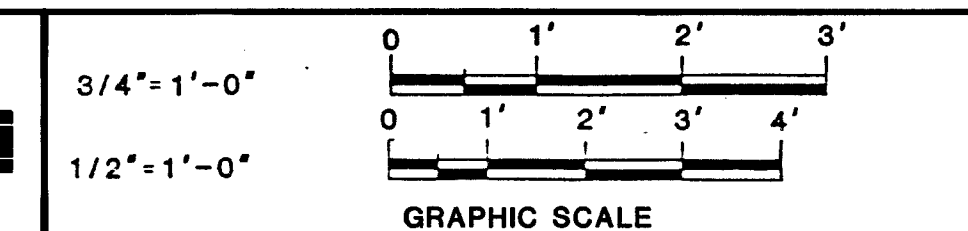


5 SECTION
H-13 1 1/2"=1'-0"

NO.	DATE	REVISIONS
1	11/14/84	REVISED FOR BIDDING
2		
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DESIGNED *R. Hanson*
DRAWN *R. Hanson*
CHECKED *R. Hanson*
APPROVED *R. Hanson*
DATE OCT. 1, 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
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CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
ODOR CONTROL SYSTEM AND
SLUDGE THICKENER BUILDING
DUCT SUPPORT SECTIONS AND DETAILS
M-C NO. **H-13** 86 OF
SC NO. 8327-M13



PLANS	
SYMBOL	DESCRIPTION
	CONDUIT-UNDERGROUND
	CONDUIT-CONCEALED
	CONDUIT-EXPOSED
	CONDUIT-STUBBED AND CAPPED
	TELEPHONE CONDUIT-PLOT PLAN
	INSTRUMENTATION CONDUIT-PLOT PLAN
	PRIMARY DUCT BANK-PLOT PLAN
	CONDUIT THROUGH PITCH POCKET IN ROOF
	CONDUIT SEAL (CLASS DIVISION I)
	CONDUIT (UP)
	CONDUIT (DOWN)
	UNDERGROUND CABLE
	SERVICE ENTRANCE (OVERHEAD)
	CONDUCTOR NEUTRAL, HOT, SWITCH, GROUND, RESPECTIVELY
	HOMERUNS TO PANELBOARD
	CONDUCTOR 1,2,3, ETC. #4 THWN CONTROL
	PAIRED SHIELDED JACKETED CABLE
	PAIRED JACKETED CABLE
	SAFETY SWITCH (SERVICE DISCONNECT (S.D.))
	MANUAL STARTER
	SS WITH ASSOCIATED CONTROL STATION
	CONTROL STATION LETTER DENOTES TYPE, THIS IS I.D. # SUCH AS HS 2410
	TRANSFORMER
	PANELBOARD
	PANELBOARD WITH DRY TRANSFORMER ABOVE
	LOCALLY MOUNTED STARTER
	115/200V/230V MOTOR
	460V 3Φ MOTOR 15 HP
	REFERENCE TO SPECIFICATION SECTION
	ELECTRICAL NOTE
	SMOKE DETECTOR
	THERMOSTAT
	JUNCTION BOX IN CONDUIT SYSTEM NOT NECESSARILY A CONDUCTOR SPICE POINT
	TERMINAL CABINET
	GROUNDING ROD
	PLANT INTERCOM
	TELEPHONE
	CAPACITOR
	RESISTANCE HEATER
	UNIT HEATER
	REMOTE DEVICE SEE DESIGNATION FOR TYPE
	PHOTOELECTRIC RELAY
	FLUORESCENT LUMINAIRE X INDICATES TYPE

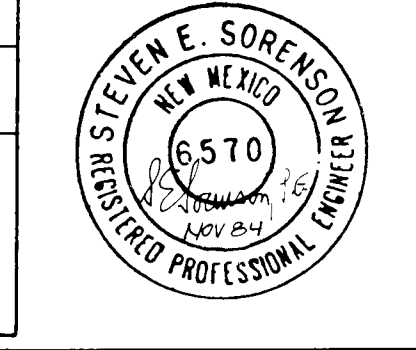
ONE LINE DIAGRAMS	
SYMBOL	DESCRIPTION
	PRIMARY CIRCUIT
	SECONDARY CIRCUIT
	OPERATION
	KEY INTERLOCK
	TRANSFORMER
	AUTOTRANSFORMER
	CURRENT TRANSFORMER (X= QUANTITY)
	THERMAL OVERLOAD ELEMENT
	POTENTIAL TRANSFORMER (S. WITH FUSES)
	FUEL SOLENOID
	GROUND
	SURGE ARRESTER
	BUS (X INDICATES RATING)
	DRAWOUT TYPE (X INDICATES AMPS)
	SINGLE THROW SWITCH (X INDICATES AMPS)
	DOUBLE THROW SWITCH
	MOLDED CASE CIRCUIT BREAKER (X= FRAME RATING, XT=TRIP RATING)
	LOW VOLTAGE DRAWOUT TYPE (X= CIRCUIT BREAKER, XF= FRAME RATING, XT=TRIP RATING)
	LOW VOLTAGE AIR CIRCUIT BREAKER (XF= FRAME RATING, XS= SOLID STATE SENSOR RATING)
	MEDIUM AND HIGH VOLTAGE CIRCUIT BREAKER-DRAWOUT TYPE
	FULL WAVE RECTIFIER
	BATTERY
	CAPACITOR
	DIODE
	RESISTOR
	RESISTOR OR RHEOSTAT-VARIABLE
	RHEOSTAT-MOTOR OPERATED
	3 PHASE WYE (UNGROUND)
	3 PHASE WYE (GROUNDED)
	3 PHASE WYE (RESISTANCE GROUNDED)
	3 PHASE DELTA (UNGROUND)
	3 PHASE DELTA (GROUNDED) 3 WIRE, 4 WIRE

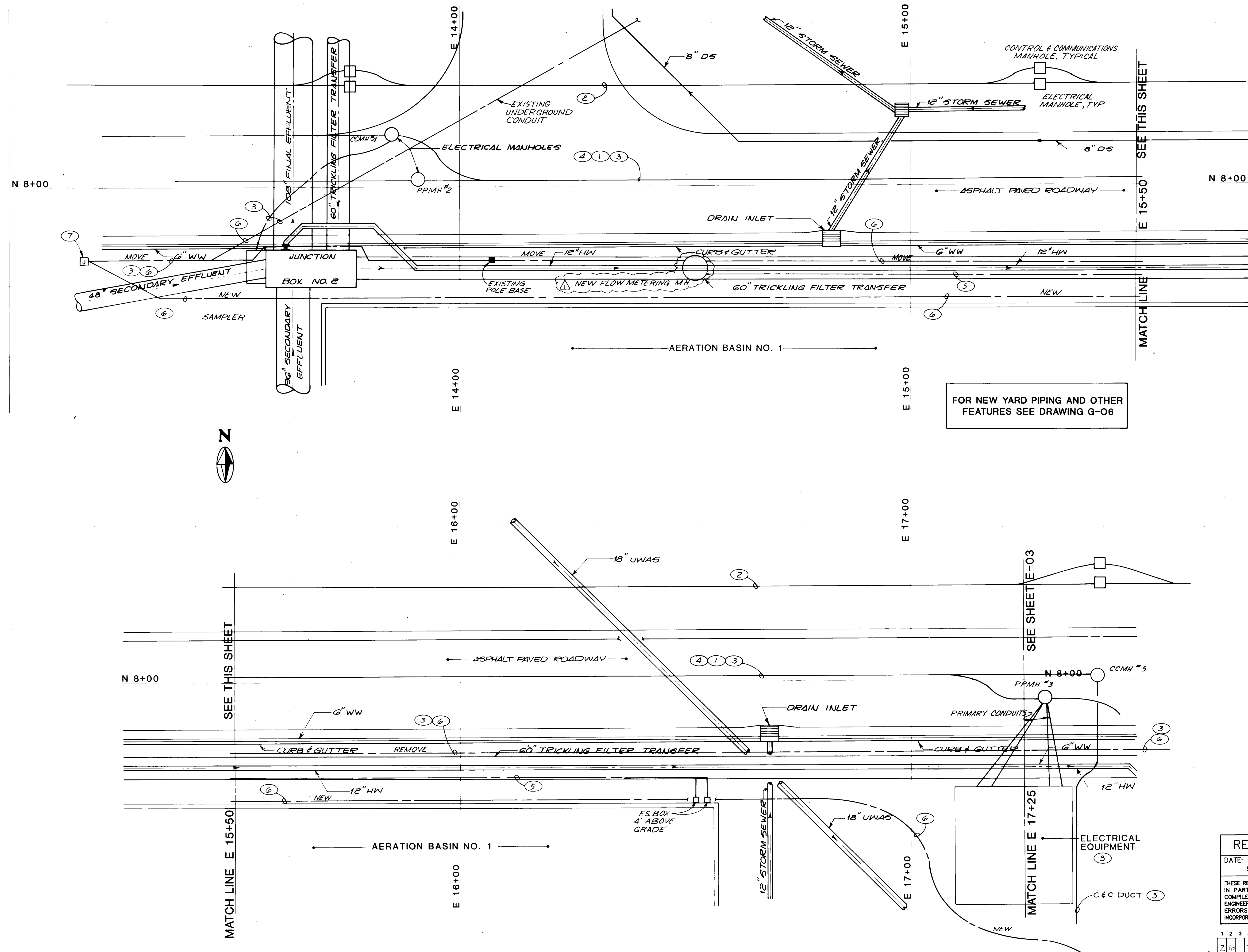
SCHEMATICS	
SYMBOL	DESCRIPTION
	AUXILIARY CONTACT OF DISCONNECT DEVICE IN STARTER, OPENS WHEN MAIN CONTACTS OPEN
	CONTACT OF 3 POLE OVERLOAD RELAY
	AUXILIARY CONTACT OF FIELD SAFETY SWITCH, EARLY BREAK UPON OPENING OF MAIN CONTACTS
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	FUSE
	PLOT LIGHT LETTER INDICATES COLOR
	MOTOR STARTER (M)
	LOCKOUT STOP BUTTON
	TOGGLE KNIFE OR SAFETY DISCONNECT SWITCH
	TRANSFER 3-WAY SWITCH
	THREE POSITION SELECTOR CONTACTS (LETTER IN PART INDICATED BY LETTER)
	NO PUSH BUTTON SWITCH, SPRING OPEN
	NO PUSH BUTTON SWITCH, SPRING CLOSED
	OPEN LIMIT SWITCH
	CLOSED LIMIT SWITCH
	NO PRESSURE OR VACUUM OPERATED SWITCH, CLOSING ON RISING PRESSURE
	NO PRESSURE OR VACUUM OPERATED SWITCH, OPENING ON RISING PRESSURE
	NO LEVEL OPERATED SWITCH, CLOSING ON RISING LEVEL
	NO LEVEL OPERATED SWITCH, OPENING ON RISING LEVEL
	NO TEMPERATURE SWITCH, CLOSING ON RISING TEMPERATURE
	NO TEMPERATURE SWITCH, OPENING ON RISING TEMPERATURE
	NO CONTACT CLOSING ON TIME DELAY AFTER COIL ENERGIZES, RECLOSES INSTANTANEOUSLY WHEN COIL DE-ENERGIZES
	NO CONTACT OPENING ON TIME DELAY AFTER COIL ENERGIZES, RECLOSES INSTANTANEOUSLY WHEN COIL DE-ENERGIZES
	NO CONTACT CLOSING INSTANTANEOUSLY WHEN COIL ENERGIZES, RECLOSES ON TIME DELAY AFTER COIL DE-ENERGIZES
	NO CONTACT OPENING INSTANTANEOUSLY WHEN COIL ENERGIZES, RECLOSES ON TIME DELAY AFTER COIL DE-ENERGIZES
	TORQUE SWITCH-OPENS ON RISING TORQUE
	POTENTIOMETER
	MANUAL STARTER
	ELECTRICAL NOTE
	REFERENCE TO SPECIFICATION SECTION

ABBREVIATIONS	
SYMBOL	DESCRIPTION
PPMH	PRIMARY POWER MANHOLE
CCMH	CONTROL & COMMUNICATION MANHOLE
AFD	ADJUSTABLE FREQUENCY DRIVE
MCC	MOTOR CONTROL CENTER
SPM	SECONDARY POWER MANHOLE
RMC	RIGID METALLIC CONDUIT
PCU	PROCESS CONTROL UNIT
AFF	ABOVE FINISHED FLOOR
HS	HAND SWITCH
PAC	PROCESS AIR COMPRESSOR
ICP	INTEGRATED CONTROL PANEL
PVC IMC	POLYVINYL CHLORIDE COATED INTERMEDIATE METALLIC CONDUIT
PMF	POLYMER FEED PUMP
JB	JUNCTION BOX
EF	EXHAUST FAN
FVNR	FULL VOLTAGE NON-REVERSING LIGHTING
LTG	LEVEL SWITCH LOW
LTPU	LONG TIME PICKUP
STPU	SHORT TIME PICKUP
INST. PU	INSTANTANEOUS PICKUP
PTF	POLYMER TRANSFER PUMP
PDWP	POLYMER DILUTION WATER PUMP
TB	TERMINAL BOARD
CPT	CONTROL POWER TRANSFORMER
NP	NAMEPLATE
ART	AIR RETENTION TANK

GENERAL NOTES	
1	MINIMUM WIRE SIZE FOR 480V CIRCUITS: #10
2	FOR ALL CONDUIT, SEPARATE THE ENVELOPE OF THE CONDUIT FROM THE CONDUIT (EXCEPT THOSE WITH GAS SEALS), SEAL BETWEEN CONDUIT AND CONDUIT TO IMPEDE THE FLOW OF GAS.

RECORD DRAWING	
DATE: 5/88	DRAFTED BY: MCA
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.	





NOTES

- ① EIGHT WAY DUCT BANK BETWEEN PPMH #2 AND PPMH #3.
- ② 2-1/2" DIRECT BURIED RIGID PVC COATED CONDUIT. TO BE INSTALLED UNDER PHASE II B-1 CONTRACT 1.
- ③ INSTALLED UNDER PROJECT WPC-NM-182, DIVISION 1, 1973.
- ④ 12.47 KV
- ⑤ 2-3/4" RIGID PVC COATED CONDUIT. DO NOT ENCASE IN CONCRETE.
- ⑥ EXISTING UNDERGROUND CONDUIT FOR YARD LIGHTING TO BE RELOCATED ADJACENT TO EXISTING WALL OF AERATION BASIN NO. 1, 18" UNDER GRADE. DO NOT CONCRETE ENCASE. RECONNECT ALL CIRCUITS. USE ALL NEW MATERIALS FROM NEW WP J-BOX TO EAST.
- ⑦ NEW WP J-BOX. USE SUBMERSIBLE SPLICE KITS FOR ALL SPLICES.

RECORD DRAWING

DATE: 5/80 DRAFTED BY: MCA

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.

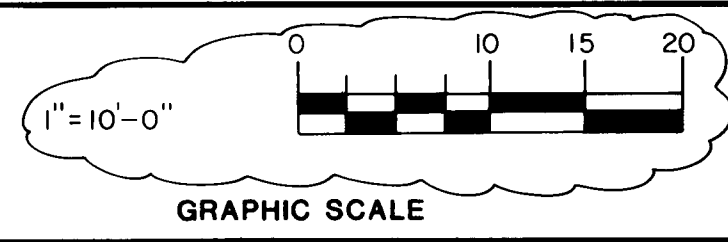


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2	4	3	9	5	1	8	8	8																					

DESIGNED	
DRAWN	SES
CHECKED	
APPROVED	
DATE	NOV 1984

NO.	DATE	REVISIONS
7-22-85		NEW FLOW METER M.H., ELLIPTICAL NOTES 6 & 7

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

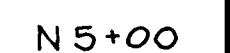


GITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

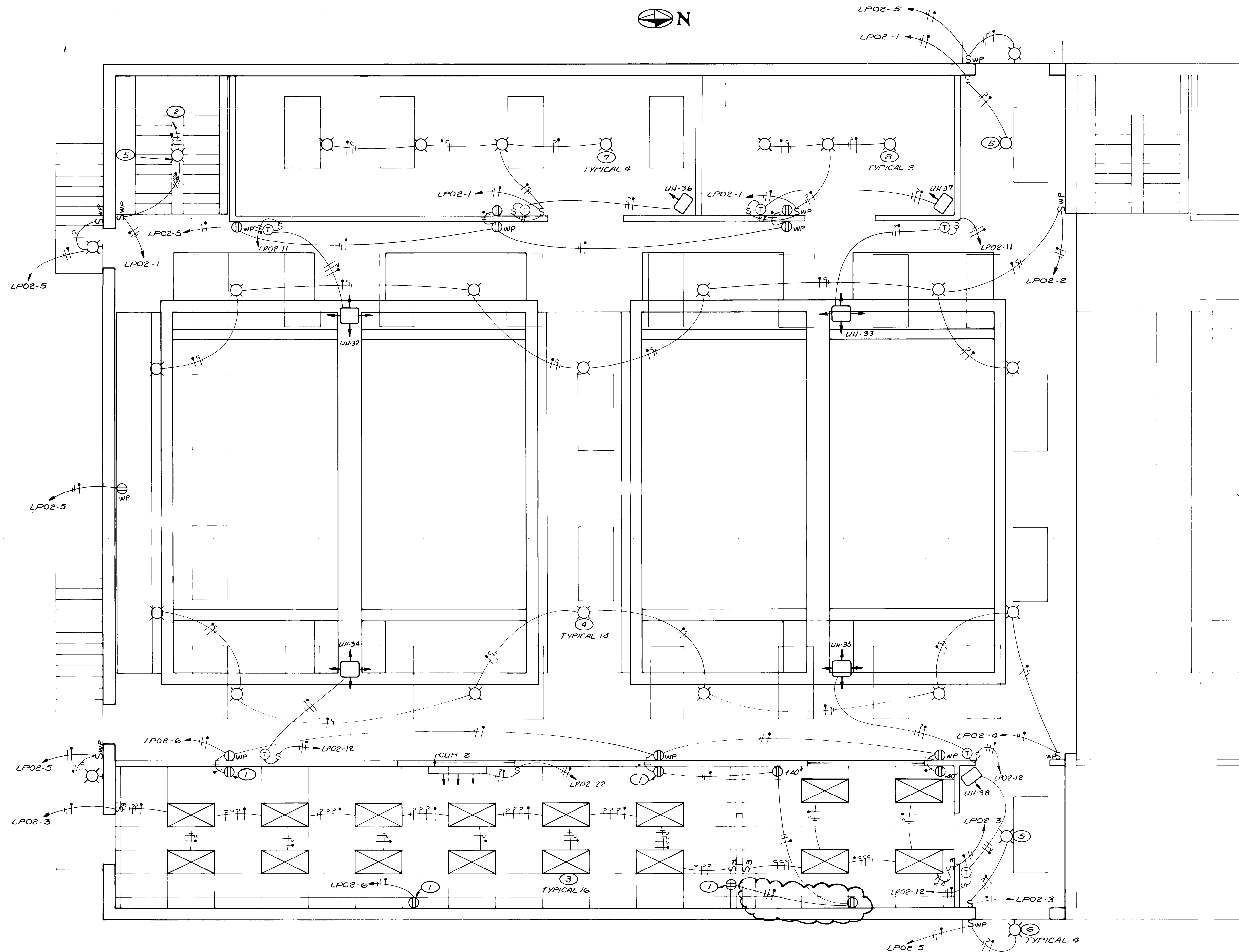
SLUDGE THICKENING SYSTEM EXPANSION
 ELECTRICAL SITE PLAN 1

M-C NO. 831721	E-02	88 OF 111
SC NO.		





SLUDGE THICKENING SYSTEM EXPANSION ELECTRICAL SITE PLAN 3		M-C NO. 881721 E-04 90 of 111
--	--	---



GENERAL NOTES

1. INSTALL ALL RECEPTACLES IN PROCESS AREAS AT 42" ABOVE FINISHED FLOOR.
2. ELECTRICAL MUST NOT INTERFERE WITH OPERATION OF BRIDGE CRANE.

NOTES

1. COORDINATE RECEPTACLE LOCATIONS WITH LOCATIONS OF OTHER EQUIPMENT IN ROOM.
2. CONTINUE TO BASEMENT AT BOTTOM OF STAIRS. SEE SHEET E-06 FOR CONTINUATION.
3. 16500-1
4. 16500-4 MOUNT ON CENTER BETWEEN TEES, SO THAT BOTTOM OF FIXTURES IS EVEN WITH BOTTOM OF TEES.
5. 16500-5
6. 16500-3 MOUNT 12" ± ABOVE DOOR.
7. 16500-2 MOUNT BETWEEN TEES SO BOTTOM OF FIXTURE IS 2" BELOW BOTTOM OF TEES.
8. 16500-7 MOUNT BETWEEN TEES SO BOTTOM OF FIXTURE IS 2" BELOW BOTTOM OF TEES.

RECORD DRAWING

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NO.	DATE	REVISIONS	APPROVED

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 APPROVED
 DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" = 1'-0"



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 LIGHTING PLAN - NEW MAIN FLOOR

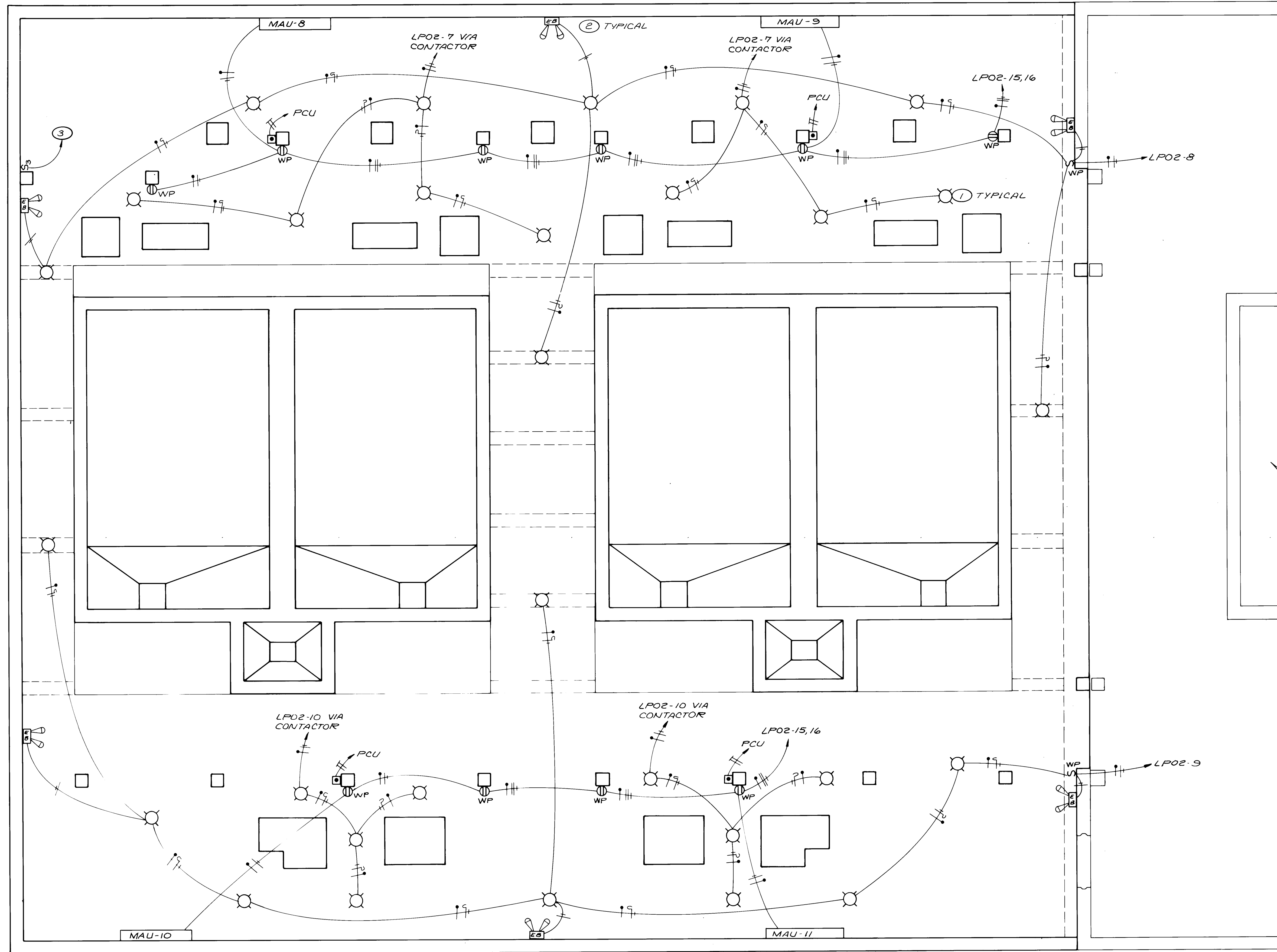
M-C NO. 831721
E-05 91 of 111
 SC NO.

GENERAL NOTES

1. ELECTRICAL MUST NOT INTERFERE WITH OPERATION OF BRIDGE CRANE.
2. MOUNT RECEPTACLES 36" AFF.

NOTES

- ① 16500-4
- ② 16500-6 MOUNT 9' ± AFF.
- ③ CONTINUE TO TOP OF STAIRS. SEE SHEET E-05 FOR CONTINUATION.

**RECORD DRAWING**

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26 39 52 92 88

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 APPROVED _____
 DATE Nov 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" = 1'-0"



GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
LIGHTING PLAN - NEW BASEMENT

M-C NO. 831721

E-06

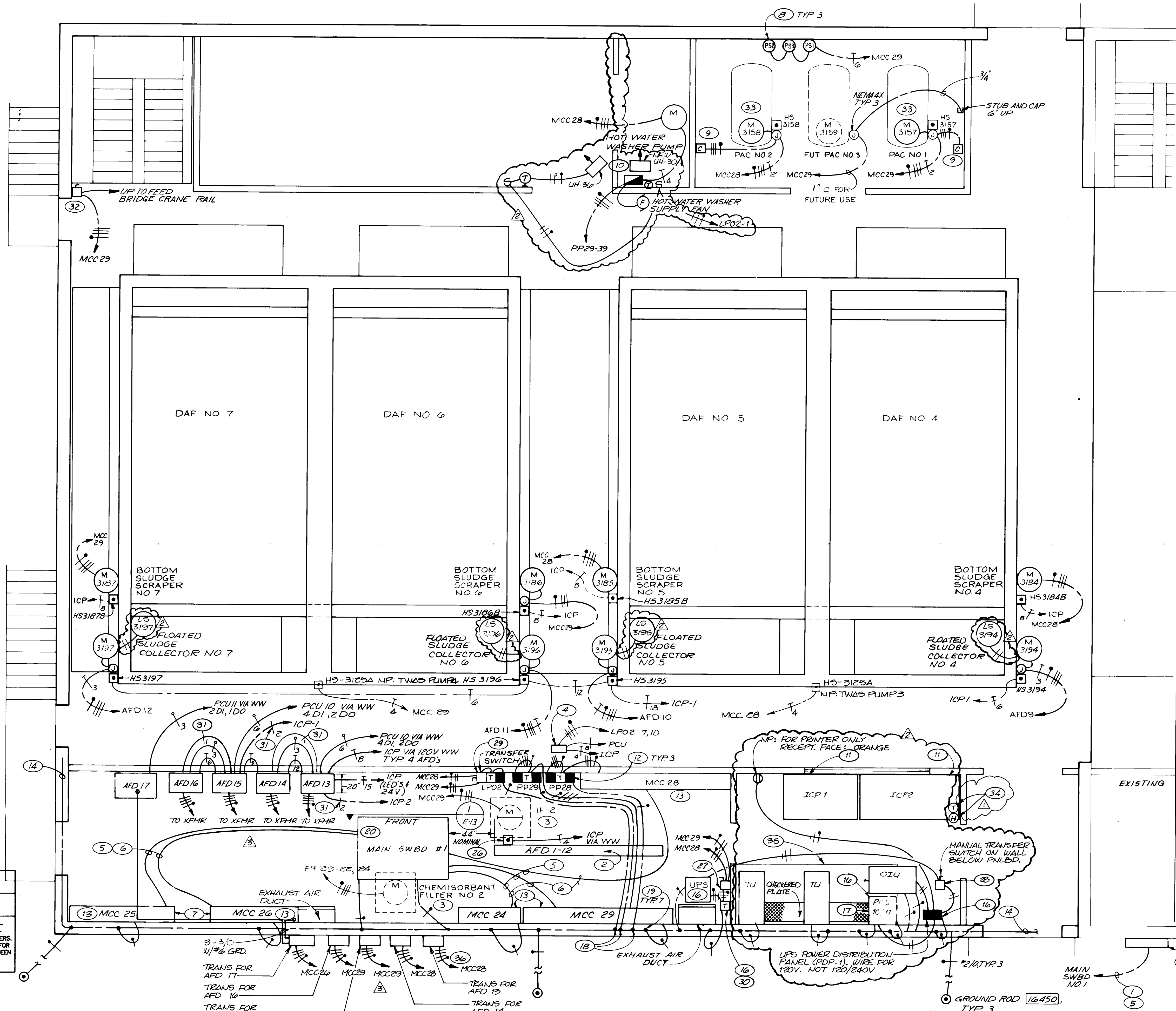
92 OF 111

SC NO.



NOTES:

1. INSTALL NEW FEEDER FROM NEW SWBD #1 TO EXIST SWBD IN EXIST BUILDING'S MCC ROOM. RUN THROUGH EXIST J-BOX ON SIDE OF THE BUILDING.
2. SEE DETAIL ON SHEET E-14
3. EQUIPMENT ON ROOF
4. LIGHTING CONTACTORS IN NEMA 12 ENCLOSURE. MOUNT ABOVE LPO2.
5. FOR FEEDER SIZES SEE ONE LINE DIAGRAM.
6. RUN CONDUIT ABOVE SUSPENDED CEILING.
7. REFER TO PLANS - SET C FOR ADDITIONAL INFORMATION.
8. PRESSURE SWITCH, 2 POLE MERCURY SWITCH TYPE, OPEN ON RISE, NEMA 4X ENCLOSURE, EXTERNAL ADJUSTMENT KNOBS FOR HIGH AND LOW SETTINGS. CONTACTS RATED 10A AT 120V AC. SENSING ELEMENT 3/16" STAINLESS STEEL BOLDED TUBE, RANGE 10-150 PSIG. MINIMUM DIFFERENTIAL 6 PSIG. MERCURY DAW-43-127-RANGE 24E (NEMA 4X).
9. POWER FACTOR CORRECTION CAPACITOR [642] MOUNT 8 FT UP. CONNECT IN ACCORDANCE WITH NEC 460.12. "PAC 1" OR "PAC 2"
10. COMBINATION STARTER [615] 120V COIL, NEMA 4X ENCLOSURE. CONTROL DEVICES AND CONNECTIONS AS SHOWN ON SCHEMATIC.
11. PANEL BOARD CIRCUITS TO ICP IF REQUIRED BUT NOT SHOWN. PROVIDE AS REQUIRED ON SCHEMATIC AND SCHEDULES.
12. 120V WIRE WAY SHOWN ON DWG. I-13 MAY BE USED FOR RUN SEPARATE CONDUITS TO APPROPRIATE WIRE WAY FOR D1, D2, 120V CONTROL. RUN CONDUIT IN FLOOR FOR LED PILOTS. QUANTITY OF CONDUCTORS AS REQUIRED BY SCHEMATICS PLUS 10% SPARES IN EACH RUN. MCC 24 TO FCU 11. 2-1" CONDUITS, CONDUCTORS FUTURE.
13. 2-0 BARE COPPER WEAR BOTTOM OF FOOTING CONTINUOUS BRACE TO REINFORCING BARS AT EACH END AND WEAR MIDDLE.
14. INSULATED #6 FROM 2/0 TO EQUIPMENT TYPICAL 9 (JFD, X FMR, DIST. PUL, FCU 11, 10U).
15. SEE FCU GROUNDING DETAIL, DWG. E-15.
16. EXCEPT FOR #6 GND'S, CABINETS MUST BE ELECTRICALLY ISOLATED FROM BUILDING.
17. BARE #2 FROM 2/0 FOR GROUNDING TRANSFORMER SECONDARY.
18. BARE 2/0 FROM FOOTING 2/0 TO MCC, MAIN SWBD.
19. FROM SWBD, OR FROM MCC'S, RUN BOND WIRES TO ALL INTERIOR METAL PIPING.
20. P100 GA UNISTRUT FROM FLOOR TO CEILING, ON ENDS OF HORIZONTAL UNISTRUT.
21. FOUR 8 FOOT LONG, HORIZONTAL P100 GA UNISTRUT, SPACED TO MOUNT TRANSFORMERS.
22. P100 GA UNISTRUT FROM FLOOR TO BOTTOM HORIZONTAL FROM MCC 28. FEEDS AFD 14.
23. TRANSFORMER 14 (NP: TRANSFORMER 14 FED FROM MCC 28 FEEDS AFD 14 FOR ODOOR CONTROL BLOWER 2) ABOVE TRANSFORMER 16 (UP: TRANSFORMER 16 FED FROM MCC 29. FEEDS AFD 16 FOR ODOOR CONTROL BLOWER 4) BELOW.
24. TRANSFORMER 13 (NP: TRANSFORMER 13 FED FROM MCC 28 FEEDS AFD 13 FOR ODOOR CONTROL BLOWER 1) ABOVE TRANSFORMER 15 (UP: TRANSFORMER 15 FED FROM MCC 29. FEEDS AFD 15 FOR ODOOR CONTROL BLOWER 5) BELOW. MOUNT ON BACK OF AFD FRAME AT 5' UP NP: IF-1.
25. [622] 30A UP: FED FROM MCC 28; UP: FED FROM MCC 29; UP: FEEDS ISOLATION TRANSFORMER.
26. [622] 60A UP: FED FROM UPS; UP: FED FROM ISOLATION TRANSFORMER; UP: FEEDS UP: POWER DISTRIBUTION PANEL.
27. [622] 30A UP: FED FROM MCC 28; UP: FED FROM MCC 29; UP: FEEDS TRANSFORMER FOR LPO2.
28. SHIELD ISOLATION TRANSFORMER 180V-120V SINGLE PHASE 5 VA. TRANSFORMER NOISE REJECTION = 60 DB. COMMON MODE NOISE REJECTION = 120 DB. UP: ISOLATION TRANSFORMER. FED FROM ADJACENT MANUAL TRANSFER SWITCH. UP: FEEDS UPS AND MANUAL TRANSFER SWITCH FOR UPS POWER DISTRIBUTION PANEL. MOUNT ABOVE MANUAL TRANSFER SWITCH.
29. CABLE RE: SPEED CONTROL POTENTIOMETER BY AFD MANUFACTURER.
30. [610] 30A UP: FED FROM MCC 29. FEEDS BRIDGE CRANE.
31. CONTROL CONNECTIONS FOR OIL PRESSURE SWITCH AND UNLOADER 2 REQUIRED BUT NOT SHOWN. SUFFICIENT REQUIRE BY COMPRESSOR MANUFACTURER'S INSTRUCTIONS. SHOW IN DETAIL ON RECORD DRAWINGS.
32. CONNECT THERMOSTAT AND HUMIDISTAT TO CONTROL ROOM AIR CONDITIONER (ACU-1) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
33. 28" x 153" x 8" D CONCRETE PAD WITH #4 BARS ON 12" CENTERS EACH WAY.
34. 3#6, 1#10, TYPICAL 8 FEEDERS.



RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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NO.	DATE	REVISIONS	APPROVED
3-88		RELOCATION OF DAF AND TRANSFORMERS	
5-88		AS-BUILT	
7-22-85		ADD ELLIPTICAL NOTE 34	

DESIGNED
DRAWN
CHECKED
APPROVED
APPROVED
DATE NOV 1984



MOLZEN-CORBIN

STANLEY CONSULTANTS

A JOINT VENTURE

1/4" = 1'-0"

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
POWER & CONTROL - NEW MAIN FLOOR

M-C NO. 831721

E-07

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SC NO.



NOTES:

1. INSTALL NEW FEEDER FROM NEW SWBD #1 TO EXIST. SWBD IN EXIST. DAF BUILDING'S MCC ROOM. RUN THROUGH EXIST. J-BOX OUTSIDE OF THE BUILDING.
2. SEE DETAIL ON SHEET E-14
3. EQUIPMENT ON ROOF.
4. LIGHTING CONTACTORS IN NEMA 12 ENCLOSURE. MOUNT ABOVE LPO2.
5. FOR FEEDER SIZES SEE ONE LINE DIAGRAM.
6. RUN CONDUIT ABOVE SUSPENDED CEILING.
7. REFER TO PLANS - SET 2 FOR ADDITIONAL INFORMATION.
8. PRESSURE SWITCH, 2 POLE MERCURY SWITCH TYPE, OPEN ON RISE, NEMA 4X ENCLOSURE, EXTERNAL ADJUSTMENT KNOBS FOR HIGH AND LOW SETTINGS. CONTACTS RATED 10A AT 120V AC. SENSING ELEMENT 316 STAINLESS STEEL. MOUNT ON TUBES. RANGE 10-150 PSI. MINIMUM DIFFERENTIAL 6 PSI. MERCOID DAW-43-127-RANGE 24-E (NEMA 4X).
9. POWER FACTOR CORRECTION CAPACITOR [6413] MOUNT 8 FT UP CONDUIT IN ACCORDANCE WITH NEC 460.12. "PAC 1" OR "PAC 2".
10. COMBINATION STARTER [6155] 120V COIL, NEMA 4X ENCLOSURE. CONTROL DEVICES AND CONNECTIONS AS SHOWN ON SCHEMATIC.
11. PANEL BOARD CIRCUITS TO ICP 1/2 REQUIRED BUT NOT SHOWN. PROVIDE AS REQUIRED ON SCHEMATIC AND SCHEDULES.
12. 120V WIREWAY SHOWN ON DWG 1-13 MAY BE USED FOR PULP CIRCUITS.
13. RUN SEPARATE CONDUITS TO APPROPRIATE WIRE WAY FOR DI, DO, 120V CONTROL. RUN CONDUIT IN FLOOR FOR LED PILOTS. QUANTITY OF CONDUCTORS AS REQUIRED BY SCHEMATICS PLUS 10% SPARES IN EACH RUN. MCC 24 TO FEU II; 2" CONDUITS, CONDUCTORS FUTURE.
14. 2" BARE COPPER NEAR BOTTOM OF FOOTING CONTINUOUS BRAZE TO REINFORCING ROD AT EACH END AND NEAR MIDDLE.
15. INSULATED #6 FROM C/O TO EQUIPMENT TYPICAL 9 (UPD, X-FMR, DIST. PUL, PCU10, PCU11, IOU).
16. SEE PCU GROUNDING DETAIL, DWG E-15.
17. EXCEPT FOR #6 GND'S, CABINETS MUST BE ELECTRICALLY ISOLATED FROM BUILDING.
18. BARE #2 FROM C/O FOR GROUNDING TRANSFORMER SECONDARY.
19. BARE 2/0 FROM FOOTING 2/0 TO MCC, MAIN SWBD.
20. FROM SWBD, OR FROM MCC'S, RUN BOND WIRES TO ALL INTERIOR METAL PIPING.
21. FLOOR GA UNISTRUT FROM FLOOR TO CEILING, ON ENDS OF HORIZONTAL UNISTRUT.
22. FOUR 8 FOOT LONG HORIZONTAL FLOOR GA UNISTRUT, SPACED TO MOUNT TRANSFORMERS.
23. FLOOR GA UNISTRUT FROM FLOOR TO BOTTOM HORIZONTAL FROM MCC 28. FEEDS AFD 14.
24. TRANSFORMER 14 (NP: TRANSFORMER 14 FED FROM MCC 28. FEEDS AFD 14. FOR ODOOR CONTROL BLOWER 1) ABOVE TRANSFORMER 12 (NP: TRANSFORMER 12 FED FROM MCC 29. FEEDS AFD 12 FOR ODOOR CONTROL BLOWER 4) BELOW.
25. TRANSFORMER 13 (NP: TRANSFORMER 13 FED FROM MCC 28. FEEDS AFD 13. FOR ODOOR CONTROL BLOWER 1) ABOVE TRANSFORMER 15 (NP: TRANSFORMER 15 FED FROM MCC 29. FEEDS AFD 15 FOR ODOOR CONTROL BLOWER 5) BELOW.
26. MOUNT ON BACK OF AFD FRAME AT 5' UP NP: IF-1.
27. [6225] 30A NP: FED FROM MCC 28; UP: FED FROM MCC 29; UP: FEEDS ISOLATION TRANSFORMER.
28. [6225] 60A NP: FED FROM UPS; UP: FED FROM ISOLATION TRANSFORMER; UP: FEEDS UPS POWER DISTRIBUTION PANEL.
29. [6225] 30A NP: FED FROM MCC 28; UP: FED FROM MCC 29; UP: FEEDS TRANSFORMER FOR LPO2.
30. SHIELD ISOLATION TRANSFORMER 180V-120V SINGLE PHASE 5 VA. TRANSFORMER NOISE REJECTION = 40 DB. COMMON MODE NOISE REJECTION = 120 DB. NP: ISOLATION TRANSFORMER. FED FROM ADJACENT MANUAL TRANSFER SWITCH. FEEDS UPS AND MANUAL TRANSFER SWITCH FOR UPS POWER DISTRIBUTION PANEL. MOUNT ABOVE MANUAL TRANSFER SWITCH.
31. CABLE FOR SPEED CONTROL POTENTIOMETER BY AFD MANUFACTURER.
32. [6120] 30A NP: FED FROM MCC 29. FEEDS BRIDGE CRANE.
33. CONTROL CONNECTIONS FOR OIL PRESSURE SWITCH AND UNLOADED 2 REQUIRED BUT NOT SHOWN. FURNISH AS REQUIRED BY COMPRESSOR MANUFACTURER'S INSTRUCTIONS SHOWN IN DETAIL ON RECORD DRAWINGS.
34. CONNECT THERMOSTAT AND HUMIDISTAT TO CONTROL ROOM AIR CONDITIONER (ACU-1) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
35. 28" x 153" x 8" D CONCRETE PAD WITH #4 BARS ON 12" CENTERS EACH WAY.

RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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7-22-85 ADD ELLIPTICAL NOTE 34

REVISIONS

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CHECKED
APPROVED
DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"

GRAPHIC SCALE



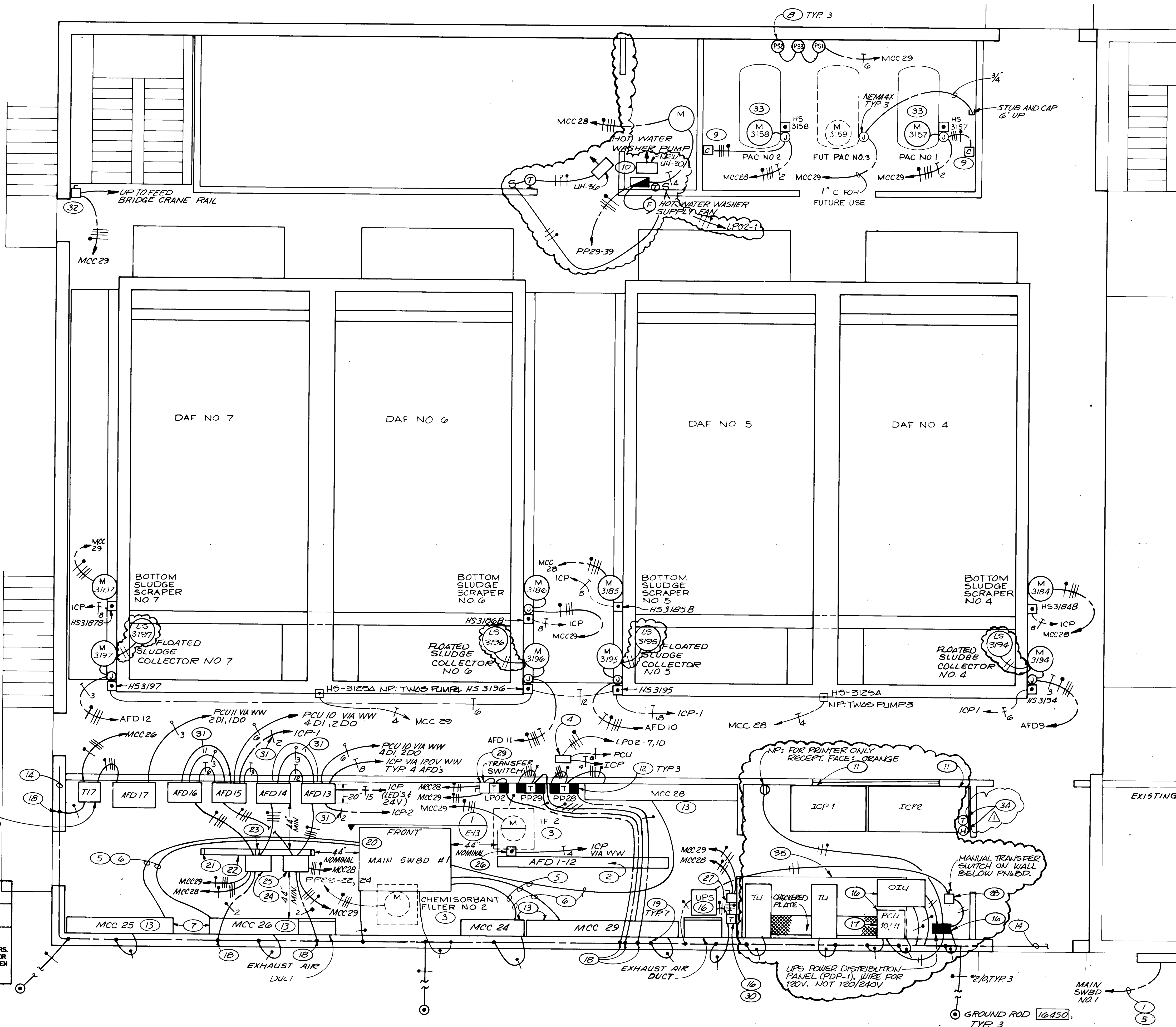
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

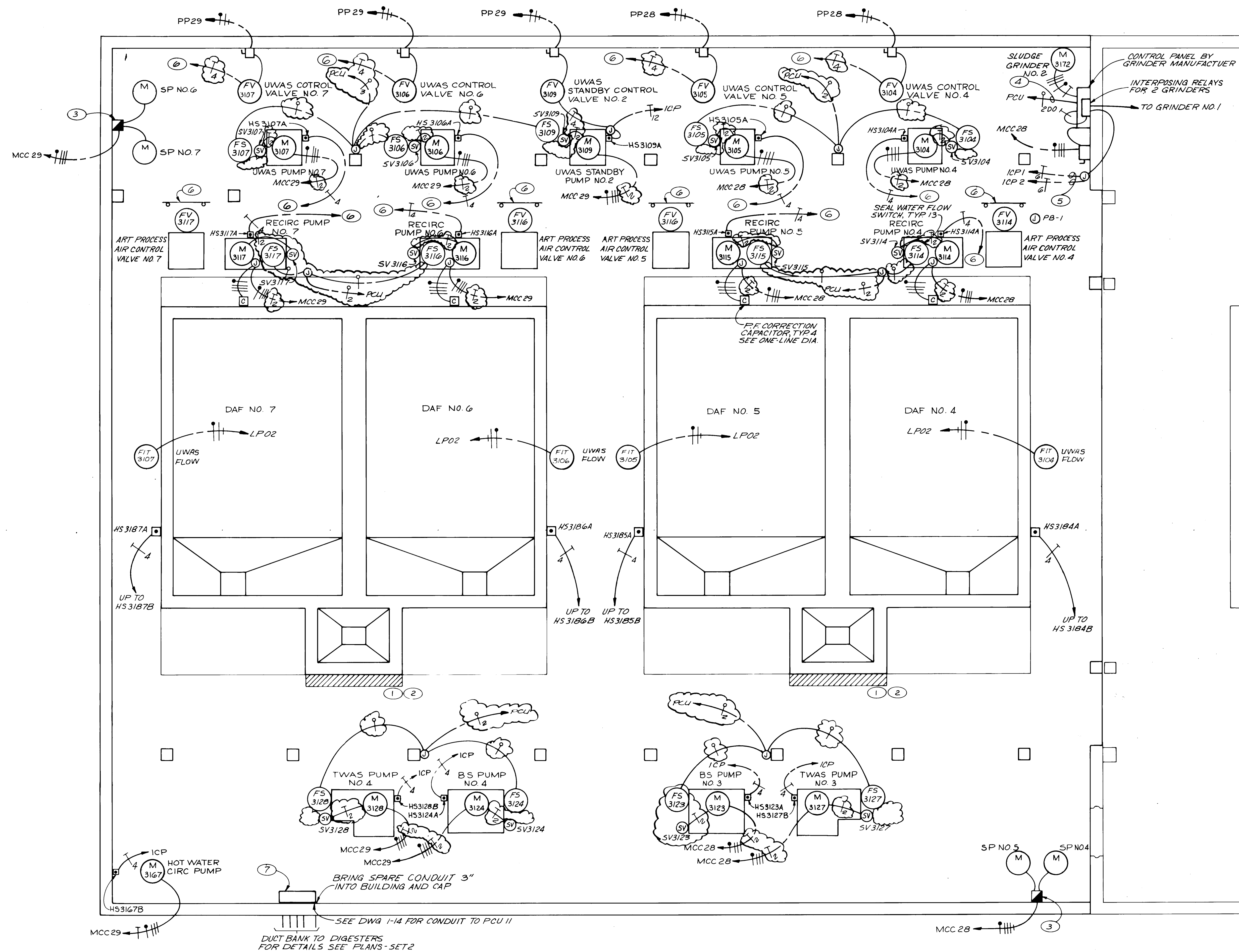
SLUDGE THICKENING SYSTEM EXPANSION
POWER & CONTROL - NEW MAIN FLOOR

M-C NO. 831721

E-07 93 of 111

SC NO.





NOTES

- ① RUN VERTICAL CONDUITS FROM MCC ROOM ONLY IN THOSE AREAS SHADED THUS AND/OR ON OUTSIDE SURFACES OF VERTICAL SUPPORT COLUMNS, OR ON EXTERIOR BUILDING WALLS.
- ② FASTEN DEVICES AND/OR CONDUIT HANGERS WITH MAXIMUM DEPTH 3" STAINLESS STEEL 'WEUT' TYPE FASTENERS.
- ③ CONTROL PANEL BY PUMP MFR.
- ④ RUN UP EXPOSED TO PB-1, THEN TO PCU.
- ⑤ RUN IN BASEMENT SLAB TO ① AREA, THEN TO WW1, THEN TO ICP.
- ⑥ SEE FOR PANEL DETAIL AND CONDUITS TO ALL EQUIPMENT IN THIS AREA.
- ⑦ INSTALL TWO 12"x12"x36" OIL TIGHT CLAMP COVER STAINLESS STEEL WIRING TROUGHS, SIMILAR TO HOFFMAN F-121236 EXCEPT STAINLESS STEEL. USE ONE FOR ⑤ AND ONE FOR ⑥ CONDUITS. SPREAD DUCT BANK AS IT APPROACHES BUILDING TO FIT TROUGH SPACING. EXTEND CONDUITS FROM EACH TO MCC25, MCC26, AFD 17 AS REQUIRED FOR CONDUCTOR ON PLANS-SET 2.

RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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DATE *NOV 1984*



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" = 1'-0"



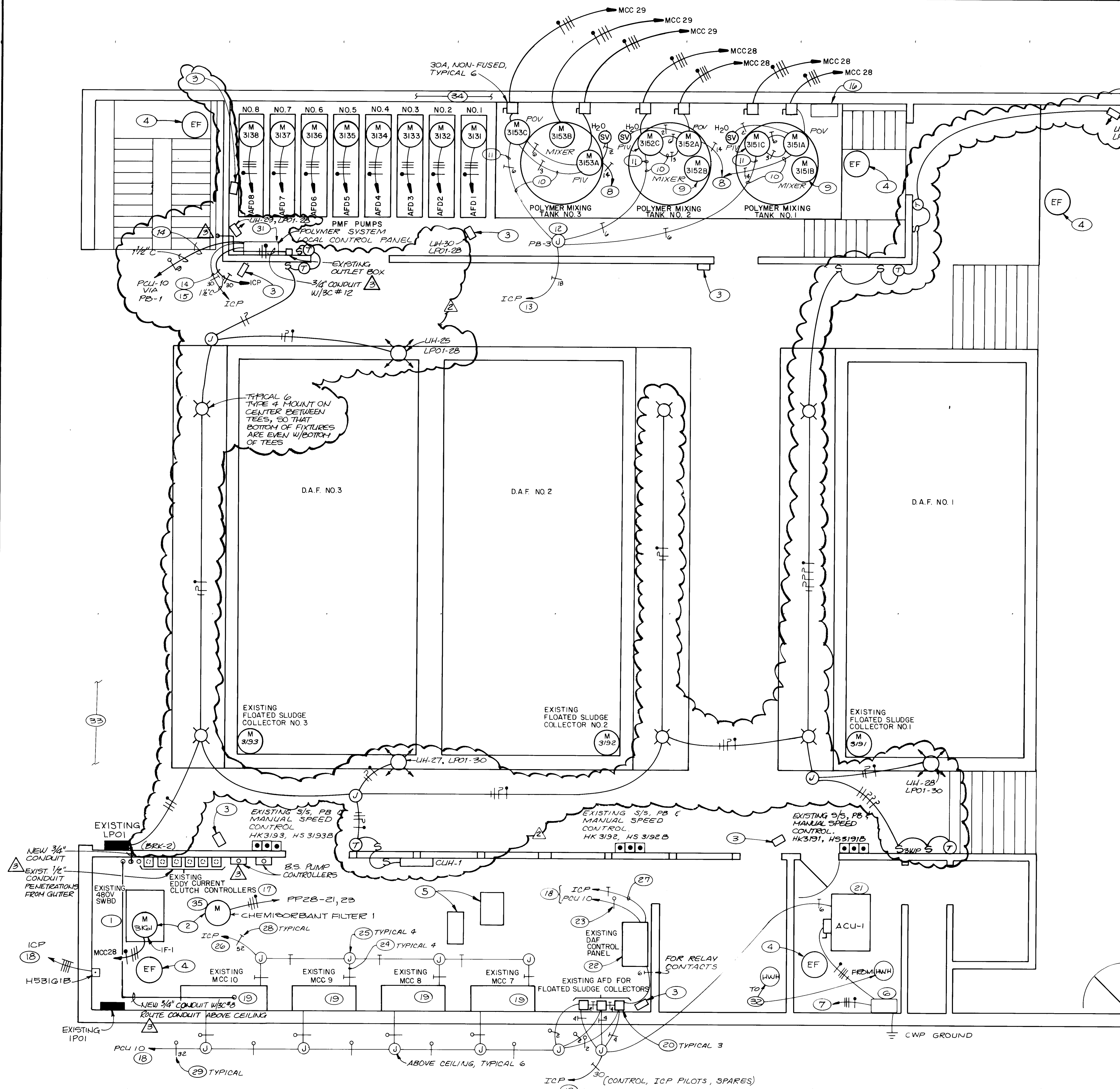
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
POWER & CONTROL - NEW BASEMENT

M-C NO. 831721
E-08 94 of 111
SC NO.



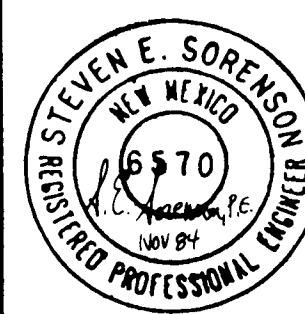
NOTES

- 1 RECONNECT TO SWITCHBOARD #1.
- 2 EQUIPMENT ON ROOF.
- 3 EXISTING UNIT HEATER. REMOVE WIRE TO MCC. REMOVE CONDUIT TO FIRST JB. INSTALL COVER ON BOX. PLUG UNUSED K.O.
- 4 SAME AS 3 EXCEPT EXHAUST FAN ON ROOF.
- 5 SAME AS 3 EXCEPT HEAT PUMP ON ROOF.
- 6 15KVA 480V 3Ø TO 208V 3Ø TRANSFORMER.
- 7 RUN 3 #10 AND 1 #10 GND IN 3/4" CONDUIT TO EXISTING MCC 10. CONNECT TO NEW 20A BREAKER INSTALLED IN MCC 10 USING EXISTING HANDLE.
- 8 RUN OVERHEAD TO POLYMER SYSTEM LOCAL CONTROL PANEL.
- 9 DISCONNECT AND RECONNECT EXISTING MIXER POWER AS NECESSARY TO PERFORM NEW WORK. RECONNECT CONTROLS AS SHOWN ON SCHEMATICS. EXTEND CONDUIT FROM EXISTING CONTROL STATIONS TO NEW PANEL. INSTALL BLANK COVERS IN PLACE OF EXISTING CONTROL DEVICES.
- 10 FOR CONNECTION OF POSITION INDICATING PILOTS AT ICP TO LIMIT SWITCHES.
- 11 CORE DRILL FLOOR NEAR WEST WALL. RUN CONDUIT DOWN, THEN ON CEILING TO PB-3. SEAL FLOOR AROUND CONDUITS WITH EPOXY.
- 12 8" X 6" X 4" NEMA 4X BOX. NP PB-3 FOR VALVE PILOT LIGHTS.
- 13 RUN ON CEILING TO PB-4, THEN TO ICP.
- 14 CORE DRILL FLOOR BELOW PANEL. INSTALL CONDUIT. SEAL WITH EPOXY. RUN ON BASEMENT CEILING.
- 15 RUN TO ICP VIA WT4.
- 16 EXISTING PANEL WITH CONTROLS FOR POLYMER TRANSFER PUMPS AND DILUTION WATER PUMPS. KEEP IN SERVICE. RECONNECT AS SHOWN ON SCHEMATICS.
- 17 REMOVE POWER AND CONTROL WIRING EXCEPT BS PUMPS 1 & 2. LEAVE CONTROLLERS IN PLACE.
- 18 RUN ABOVE CEILING. CORE DRILL EXISTING SOUTH WALL. CONTINUE CONDUITS TO APPROPRIATE WIREWAY ABOVE CEILING OF NEW CONTROL ROOM, THEN TO ICP OR PCU 10.
- 19 ADD AUXILIARY CONTACTS TO STARTERS AND RECONNECT CONTROLS WHERE SHOWN ON SCHEMATICS. PULL NEW CONDUCTORS TO EXISTING CONTROL PANEL AS REQUIRED. PROVIDE COMPLETE CONNECTION DIAGRAMS OF EACH AFFECTED STARTER, INCLUDING STARTERS, AUXILIARY CONTACTS, PILOTS, CONTROL DEVICES IN MCC AND FIELD, TERMINAL BOARDS IN MCC AND EXISTING CONTROL PANEL. WHERE STARTERS OR FEEDERS ARE TAKEN OUT OF SERVICE, INSTALL NEW NAMEPLATE ENGRAVED: "SPARE".
- 20 RECONNECT AS SHOWN ON SCHEMATICS. PROVIDE CONNECTION DIAGRAM SIMILAR TO 19.
- 21 PROVIDE WIRE AND CONDUIT AS REQUIRED TO CONNECT THERMOSTAT. CONNECT TO RUN-OFF-AUTO SWITCH IN ICP. RUN ALLOWS DIRECT OPERATION FROM THERMOSTAT. AUTO ALLOWS CONTROL BY PCU IN SERIES WITH THERMOSTAT.
- 22 INSTALL 42 INTERPOSING RELAYS, 24VDC, PLUG-IN TYPE, STRUTHERS-DUNN 219ABA152, TO MATCH EXISTING (NO SUBSTITUTION), PLUS SOCKET. USE FOR BS PUMPS 1, 2; BS PUMP 1, 2; DILUTION WATER PUMP 1, 2; POLYMER TRANSFER PUMP 1, 2; POLYMER MIXER 1, 2; BS CROSS COLLECTOR 1, 2; REAR PUMPS 1, 2 & 3. SPARES. INSTALL ENGRAVED NP TO IDENTIFY EACH SOCKET. CONNECT AS SHOWN ON SCHEMATICS. REMOVAL OF CERTAIN EXISTING EQUIPMENT MAY BE REQUIRED TO ACCOMMODATE NEW RELAYS. REUSE TERMINAL BOARDS WHERE PRACTICAL. INSTALL AND MARK NEW TERMINAL BOARDS (SECTION 16121) AS NEEDED. REMOVE ALL EXISTING EQUIPMENT FROM DOORS AND DELIVER TO OWNER. INSTALL FULL SIZE ALUMINUM PLATE OVER EACH DOOR FRONT. PAINT TO MATCH ENCLOSURE.
- 23 4-2" CONDUITS, EACH WITH 10 PAIRS FOR DO FROM PCU TO 24VDC RELAYS.
- 24 CORE DRILL FLOOR. INSTALL CONDUIT. SEAL WITH EPOXY.
- 25 NEMA 4X BOX ON BASEMENT CEILING.
- 26 RUN ON BASEMENT CEILING. RUN CONDUITS TO WT2 & ICP1, AND TO WT4 & ICP2 WITH CONDUCTOR COUNT SPLIT AS APPROPRIATE.
- 27 4-1" CONDUITS, EACH WITH 25 #14 THWN. RUN TO WIREWAY, THEN TO ICP1 AND ICP2 AS APPROPRIATE. USE FOR 120V CONTROLS.
- 28 USE FOR CONNECTION OF RUN PILOTS AT ICP.
- 29 USE FOR CONNECTION OF DI (MOSTLY FROM NEW STARTER AUXILIARY CONTACTS) TO PCU.
- 30 RUN CONDUCTORS TO MCC 7-10 AS SHOWN ON SCHEMATICS. LEAVE 15 FEET OF EACH SPARE IN JB AT MCC 7.
- 31 SEE DETAIL ON SHEET E-15.
- 32 RELOCATE FEEDER FOR HOT WATER HEATER.
- 33 REMOVE EXISTING LIGHTING AND RECEPTACLES FROM REMOVED PORTION OF SOUTHWALL. INSTALL NEW CONDUIT & WIRE TO CONTINUE SERVICE TO EQUIPMENT BEYOND.
- 34 REMOVE ELECTRICAL TO EXISTING POLYMER PUMPS. REMOVE WIRE TO MCC. REMOVE EXPOSED CONDUIT & CAP.
- 35 INSTALL INTERPOSING RELAY GE CR1020-40-22 IN UNIT. CONNECT SO UNIT RUNS WHEN ACU-1 RUNS ON HEAT OR ON COOL.
- 36 CHANGE CUBICLE IE CB FROM 125A TO 40A AND CONNECT TO SLUDGE GRINDER #1.

RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

26 29 5 2 9 5 2 8

				DESIGNED _____
	3/89	RECORD DRAWING : REPLACEMENT OF TEMPORARY ELECTRICAL CIRCUITS	S.E.S.	DRAWN _____
	5/88	AS-BUILTS	S.E.S.	CHECKED <u>SES</u>
	7/17/85	ADD NOTE 35		APPROVED _____
	NO. DATE	REVISIONS	APPROVED	APPROVED _____
				DATE <u>NOV 1984</u>

DESIGNED _____
 DRAWN _____
 CHECKED _____
 APPROVED _____
 DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" 1'-0"

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
ELECTRICAL - EXISTING MAIN FLOOR

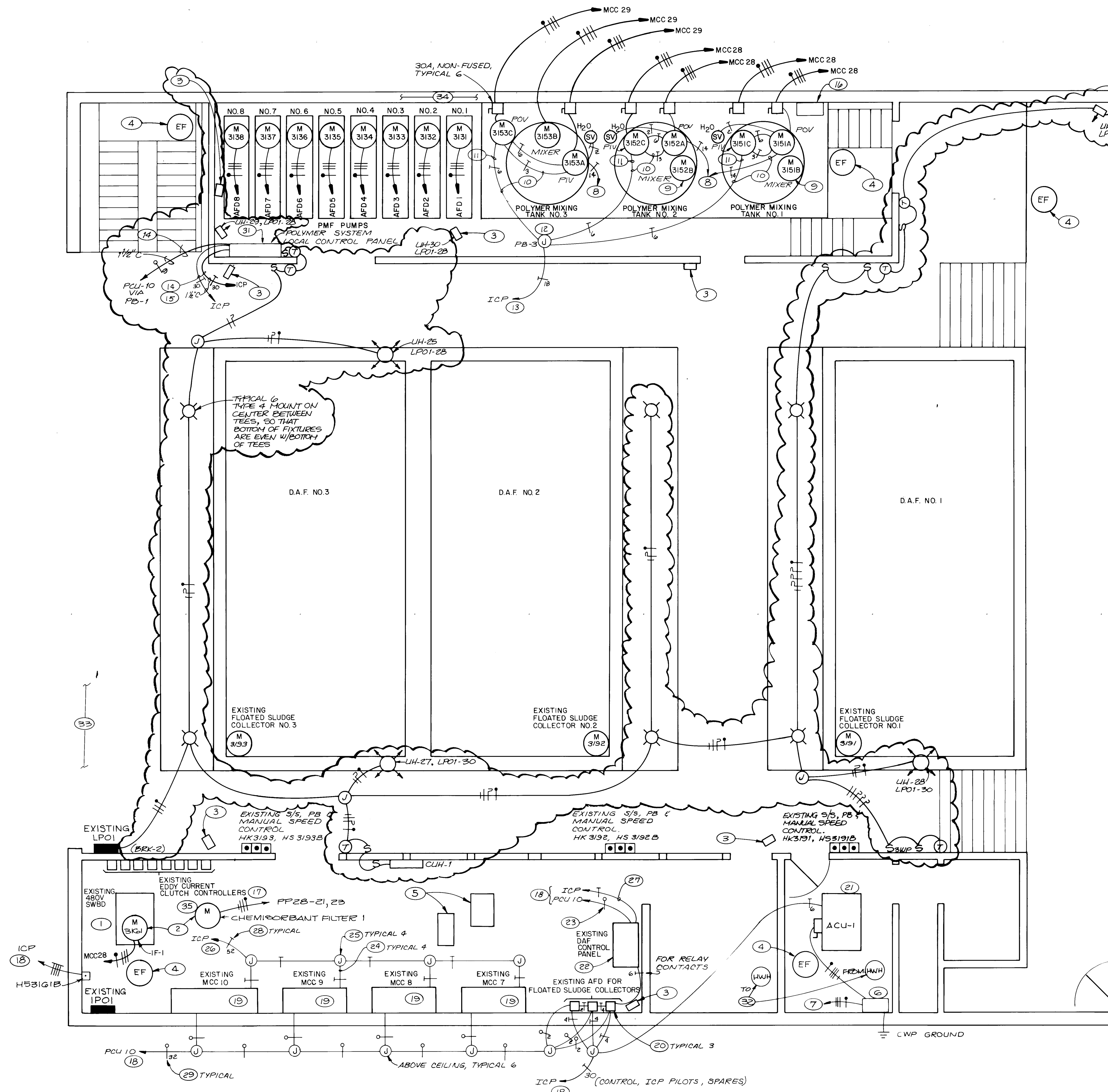
M-C NO. 831721

E-09 95 of 111

SC NO.

NOTES

- 1 RECONNECT TO SWITCHBOARD #1.
- 2 EQUIPMENT ON ROOF.
- 3 EXISTING UNIT HEATER. REMOVE WIRE TO MCC. REMOVE CONDUIT TO FIRST JB. INSTALL COVER ON BOX. PLUG UNUSED K.O.
- 4 SAME AS 3 EXCEPT EXHAUST FAN ON ROOF.
- 5 SAME AS 3 EXCEPT HEAT PUMP ON ROOF.
- 6 15KVA 480V 3Ø TO 208V 3Ø TRANSFORMER.
- 7 RUN 3"Ø AND 1"Ø GND IN 3/4" CONDUIT TO EXISTING MCC 10. CONNECT TO NEW 20A BREAKER INSTALLED IN MCC 10 USING EXISTING HANDLE.
- 8 RUN OVERHEAD TO POLYMER SYSTEM LOCAL CONTROL PANEL.
- 9 DISCONNECT AND RECONNECT EXISTING MIXER POWER AS NECESSARY TO PERFORM NEW WORK. RECONNECT CONTROLS AS SHOWN ON SCHEMATICS. EXTEND CONDUIT FROM EXISTING CONTROL STATIONS TO NEW PANEL. INSTALL BLANK COVERS IN PLACE OF EXISTING CONTROL DEVICES.
- 10 FOR CONNECTION OF POSITION INDICATING PILOTS AT ICP TO LIMIT SWITCHES.
- 11 CORE DRILL FLOOR NEAR WEST WALL. RUN CONDUIT DOWN, THEN ON CEILING TO PB-3. SEAL FLOOR AROUND CONDUITS WITH EPOXY.
- 12 8"X6"X4" NEMA 4X BOX. NP: PB-3 FOR VALVE PILOT LIGHTS.
- 13 RUN ON CEILING TO PB-4, THEN TO ICP.
- 14 CORE DRILL FLOOR BELOW PANEL. INSTALL CONDUIT. SEAL WITH EPOXY. RUN ON BASEMENT CEILING.
- 15 RUN TO ICP VIA WT4.
- 16 EXISTING PANEL WITH CONTROLS FOR POLYMER TRANSFER PUMPS AND DILUTION WATER PUMPS. KEEP IN SERVICE. RECONNECT AS SHOWN ON SCHEMATICS.
- 17 REMOVE POWER AND CONTROL WIRING EXCEPT B5 PUMPS 1 & 2. LEAVE CONTROLLERS IN PLACE.
- 18 RUN ABOVE CEILING. CORE DRILL EXISTING SOUTH WALL. CONTINUE CONDUITS TO APPROPRIATE WIREWAY ABOVE CEILING OF NEW CONTROL ROOM, THEN TO ICP OR PCU 10.
- 19 ADD AUXILIARY CONTACTS TO STARTERS AND RECONNECT CONTROLS WHERE SHOWN ON SCHEMATICS. PULL NEW CONDUCTORS TO EXISTING CONTROL PANEL AS REQUIRED. PROVIDE COMPLETE CONNECTION DIAGRAMS OF EACH AFFECTED STARTER, INCLUDING STARTERS, AUXILIARY CONTACTS, PILOTS, CONTROL DEVICES IN MCC AND FIELD, TERMINAL BOARDS IN MCC AND EXISTING CONTROL PANEL. WHERE STARTERS OR FEEDERS ARE TAKEN OUT OF SERVICE, INSTALL NEW NAMEPLATE ENGRAVED: "SPARE".
- 20 RECONNECT AS SHOWN ON SCHEMATICS. PROVIDE CONNECTION DIAGRAM SIMILAR TO 19.
- 21 PROVIDE WIRE AND CONDUIT AS REQUIRED TO CONNECT THERMOSTAT. CONNECT TO RUN-OFF-AUTO SWITCH IN ICP. RUN ALLOWS DIRECT OPERATION FROM THERMOSTAT. AUTO ALLOWS CONTROL BY PCU IN SERIES WITH THERMOSTAT.
- 22 INSTALL 42 INTERPOSING RELAYS, 24VDC, PLUG-IN TYPE, STRUTTERS-DUNN 219ABA156, TO MATCH EXISTING (NO SUBSTITUTION), PLUS SOCKET. USE FOR B5 SCRAPER 1-3; B5 PUMP 1, 2; TWA5 PUMP 1, 2; DILUTION WATER PUMP 1, 2; POLYMER TRANSFER PUMP 1, 2; POLYMER MIXER 1, 2; B5 CROSS COLLECTOR 1-3; RECIRC. PUMPS 1, 2 & 3, SPARES. INSTALL ENGRAVED NP TO IDENTIFY EACH SOCKET. CONNECT AS SHOWN ON SCHEMATICS. REMOVAL OF CERTAIN EXISTING INTERIOR EQUIPMENT MAY BE REQUIRED TO ACCOMMODATE NEW RELAYS. REUSE TERMINAL BOARDS WHERE PRACTICAL. INSTALL AND MARK NEW TERMINAL BOARDS (SECTION 16/21) AS NEEDED. REMOVE ALL EXISTING EQUIPMENT FROM DOORS AND DELIVER TO OWNER. INSTALL FULL SIZE ALUMINUM PLATE OVER EACH DOOR FRONT. PAINT TO MATCH ENCLOSURE.
- 23 4-2" CONDUITS, EACH WITH 10 PAIRS FOR DO FROM PCU TO 24VDC RELAYS.
- 24 CORE DRILL FLOOR. INSTALL CONDUIT. SEAL WITH EPOXY.
- 25 NEMA 4X BOX ON BASEMENT CEILING.
- 26 RUN ON BASEMENT CEILING, RUN CONDUITS TO WT4 & ICP1, AND TO WT4 & ICP2 WITH CONDUCTOR COUNT SPLIT AS APPROPRIATE.
- 27 4-1" CONDUITS, EACH WITH 25 #14 THWN. RUN TO WIREWAY, THEN TO ICP1 AND ICP2 AS APPROPRIATE. USE FOR 120V CONTROLS.
- 28 USE FOR CONNECTION OF RUN PILOTS AT ICP.
- 29 USE FOR CONNECTION OF DI (MOSTLY FROM NEW STARTER AUXILIARY CONTACTS) TO PCU.
- 30 RUN CONDUCTORS TO MCC 7-10 AS SHOWN ON SCHEMATICS. LEAVE 15 FEET OF EACH SPARE IN JB AT MCC 7.
- 31 SEE DETAIL ON SHEET E-15.
- 32 RELOCATE FEEDER FOR HOT WATER HEATER.
- 33 REMOVE EXISTING LIGHTING AND RECEPTACLES FROM REMOVED PORTION OF SOUTH WALL. INSTALL NEW CONDUIT & WIRE TO CONTINUE SERVICE TO EQUIPMENT BEYOND.
- 34 REMOVE ELECTRICAL TO EXISTING POLYMER PUMPS. REMOVE WIRE TO MCC. REMOVE EXPOSED CONDUIT & CAP.
- 35 INSTALL INTERPOSING RELAY, GE CR208040-22 IN UNIT. CONNECT SO UNIT RUNS WHEN ACU-1 RUNS ON HEAT OR ON COOL.



RECORD DRAWING

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26 39 52 95 88

NO.	DATE	REVISIONS	APPROVED
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MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

1/4" 1'-0"

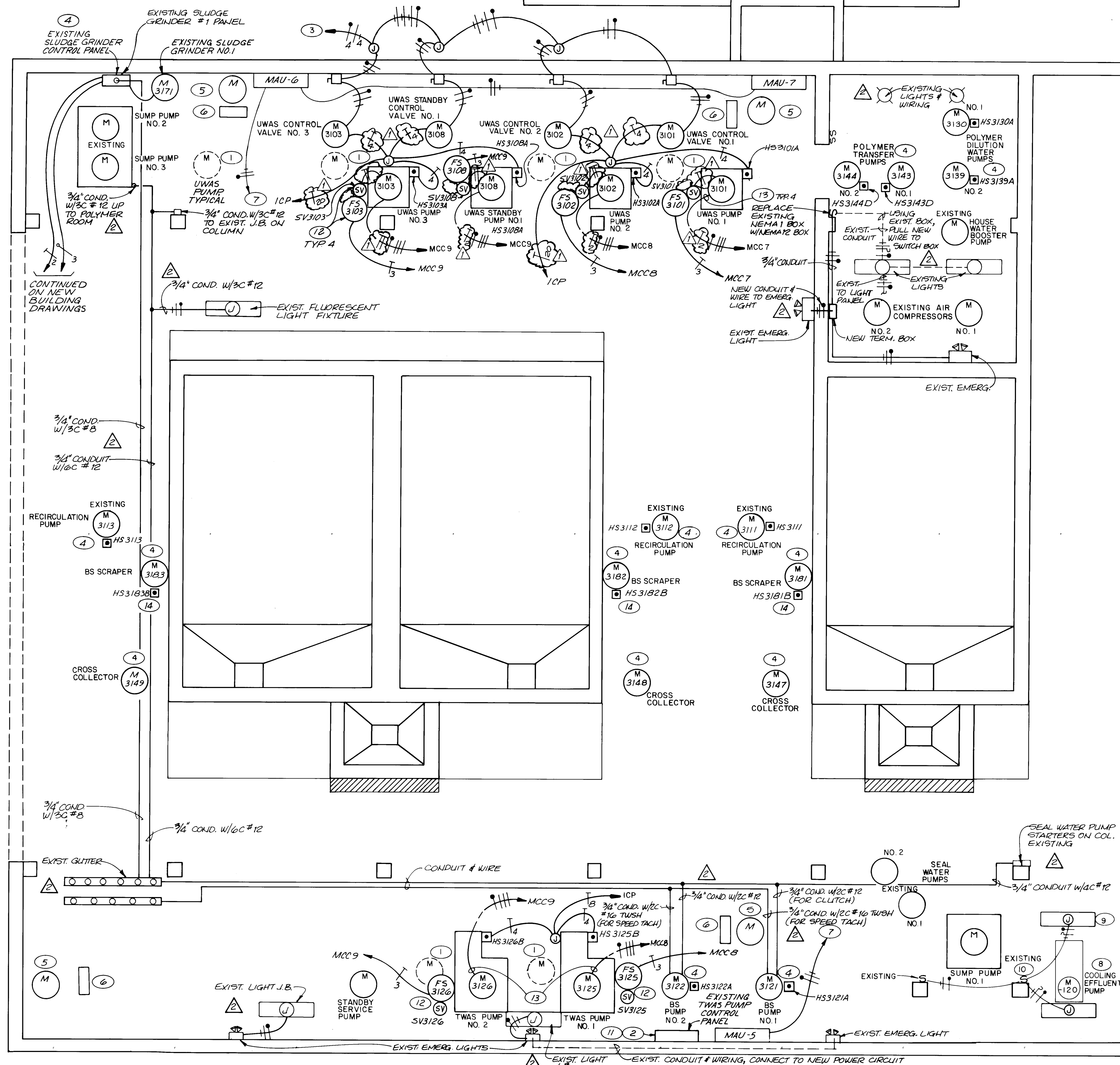
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

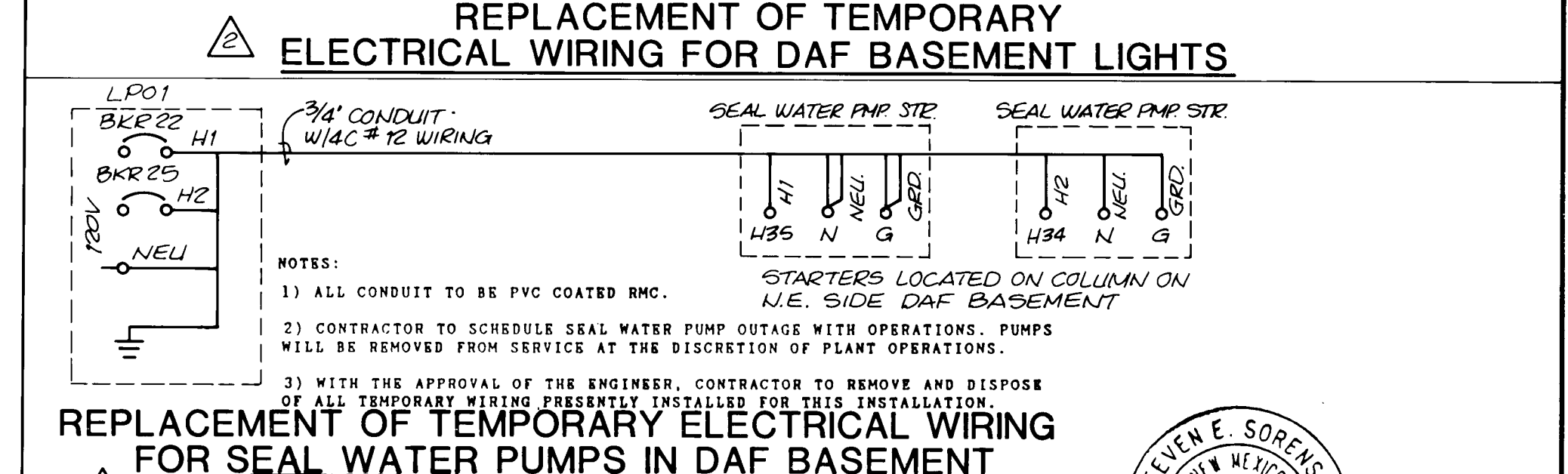
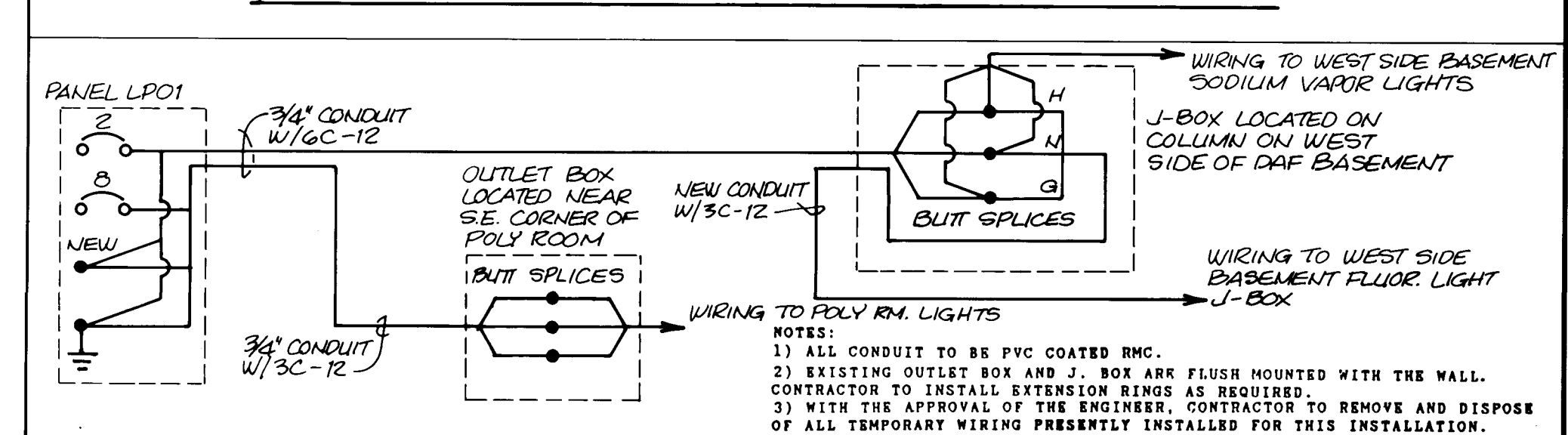
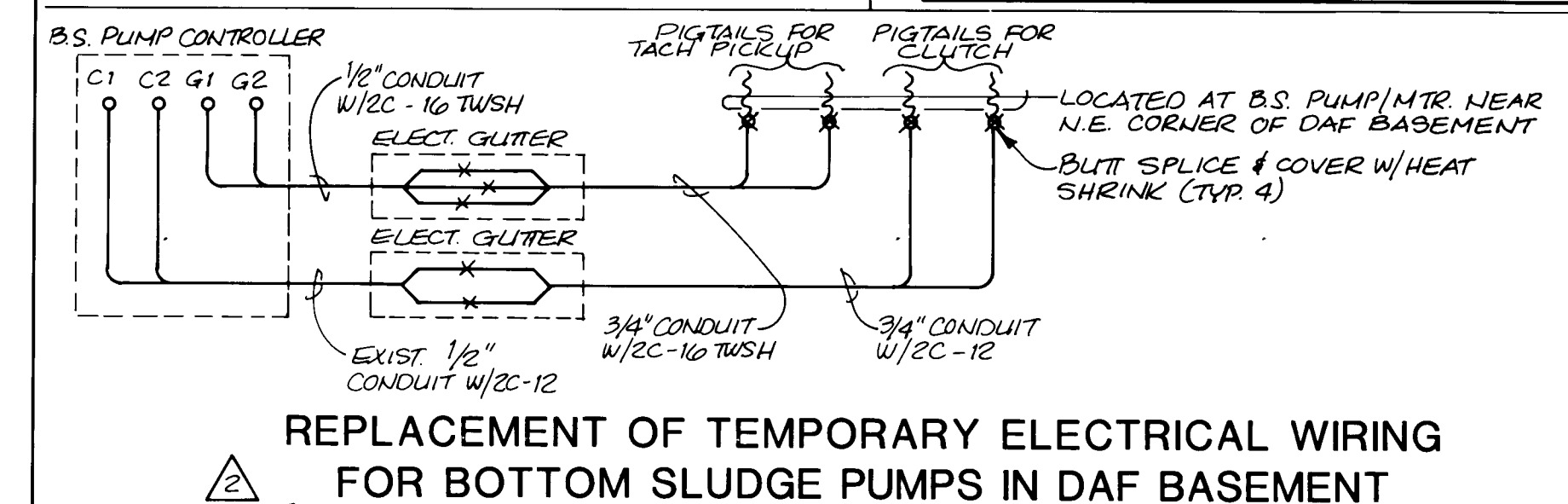
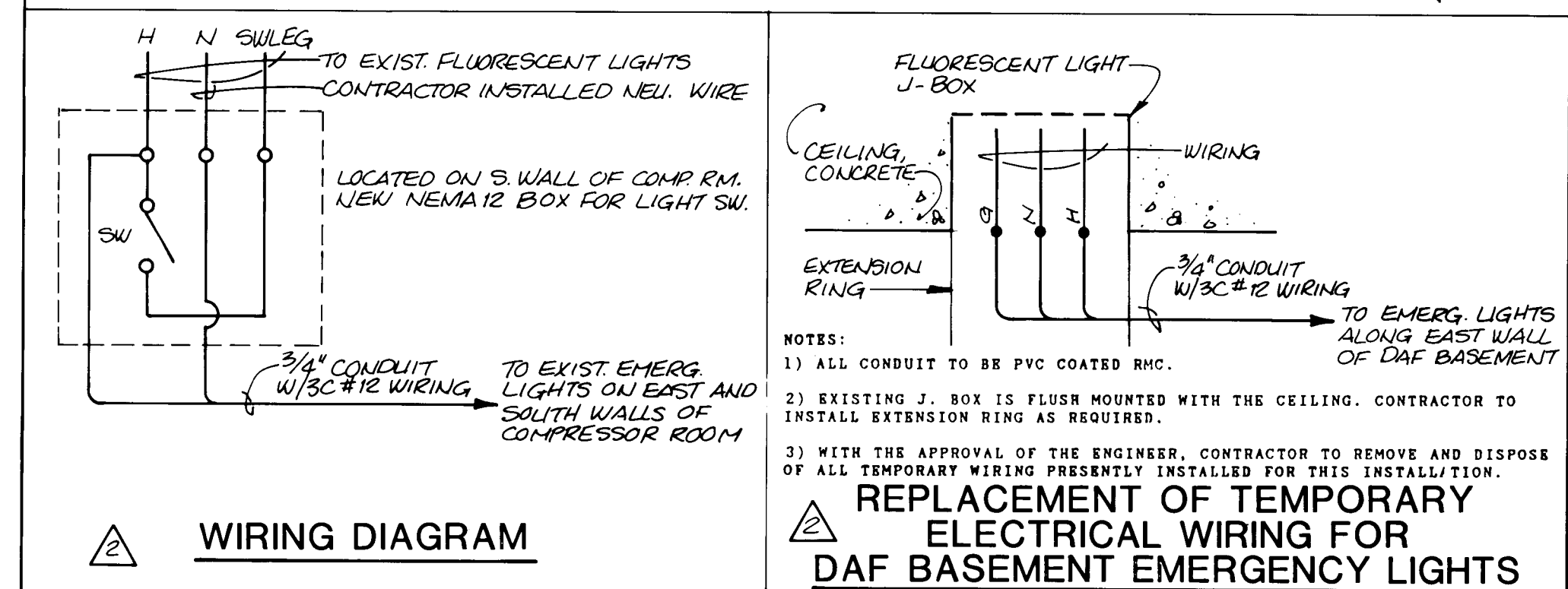
SLUDGE THICKENING SYSTEM EXPANSION
ELECTRICAL - EXISTING MAIN FLOOR

M-C NO. 831721
E-09 95 of 111
SC NO.



NOTES

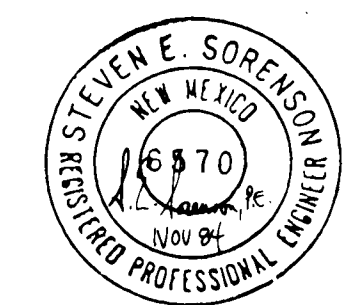
- 1 REMOVE ELECTRICAL FROM EXISTING PUMPS. INSTALL NEW WIRE, CONDUIT, AND CONTROL STATIONS FOR NEW PUMPS. RUN EXISTING CONDUITS TO CEILING AND DOWN TO AVOID RUNNING ON FLOOR. UNLESS CONDUITS CAN BE RUN DIRECTLY UNDER PROCESS PIPING THAT IS NEAR FLOOR. IF CONDUIT IS RUN ON FLOOR, SUPPORT JUST OFF FLOOR ON ALUMINUM UNISTRUT. MODIFY CONTROLS AS SHOWN ON SCHEMATICS AND ON SHEET E-09.
- 2 REMOVE WIRE. REMOVE EXPOSED CONDUIT AND CAP.
- 3 CONNECT TO 4 NEW 20AMP BREAKERS ON EXISTING PANEL LP-01.
- 4 EXISTING. MODIFY CONTROLS AS SHOWN ON SCHEMATICS, THIS SHEET, AND ON SHEET E-09.
- 5 EXISTING INTAKE FAN. REMOVE CONDUIT TO FIRST J-BOX. REMOVE WIRE TO MCC. INSTALL COVER ON BOX. PLUG UNUSED KNOCK-OUT TO MCC.
- 6 SAME AS 5 EXCEPT ELECTRIC DUCT HEATER.
- 7 RUN 1/2\" CONDUIT TO EXISTING PANEL LP-01. CONNECT TO NEW 20AMP CIRCUIT BREAKER.
- 8 INSTALLED UNDER CONTRACT II BI-1.
- 9 FLUORESCENT LUMINAIRES TO MATCH EXISTING. MOUNT AS HIGH AS POSSIBLE.
- 10 NEW SWITCH TO MATCH EXISTING. CONNECT TO EXISTING SWITCH AS SHOWN.
- 11 REMOVE AND DELIVER TO OWNER.
- 12 NEW SEAL WATER SOLENOID VALVE AND SEAL WATER FLOW SWITCH. SEE \"M\" DRAWINGS FOR MOUNTING DETAIL. SEE SPECIFICATION SECTION 15981.
- 13 REUSE CONDUIT WHERE PRACTICAL. EXTEND TO NEW MOTOR. INSTALL NEW CONDUCTORS FROM MCC TO NEW MOTOR.
- 14 REMOVE EXISTING SWITCH AND ENCLOSURE. INSTALL NEW. RECONNECT AS SHOWN ON SCHEMATIC.



RECORD DRAWING

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26	39	52	96	88																								

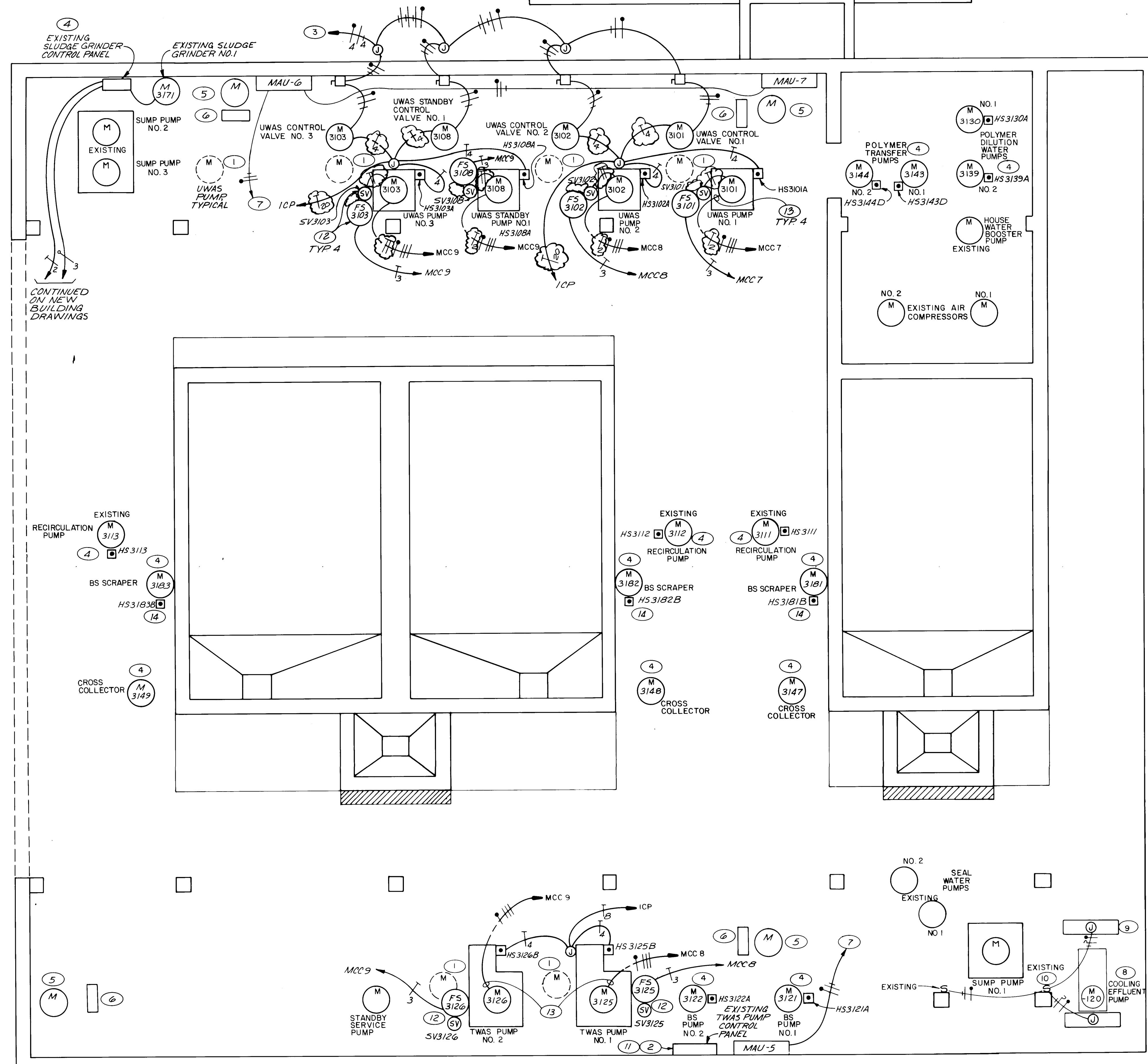
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DATE	NOV 1984

MOLZEN-CORBIN	STANLEY CONSULTANTS
A JOINT VENTURE	

CITY OF ALBUQUERQUE, NEW MEXICO	SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3	

SLUDGE THICKENING SYSTEM EXPANSION	ELECTRICAL - EXISTING BASEMENT
M-C NO. 831721	96 of 111



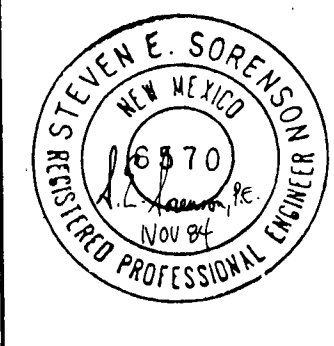
NOTES

- 1 REMOVE ELECTRICAL FROM EXISTING PUMPS. INSTALL NEW WIRE, CONDUIT AND CONTROL STATIONS FOR NEW PUMPS. RUN EXISTING CONDUITS TO CEILING AND DOWN TO AVOID RUNNING ON FLOOR, UNLESS CONDUITS CAN BE RUN DIRECTLY UNDER PROCESS PIPING THAT IS NEAR FLOOR. IF CONDUIT IS RUN ON FLOOR, SUPPORT JUST OFF FLOOR ON ALUMINUM UNISTRUT. MODIFY CONTROLS AS SHOWN ON SCHEMATICS AND ON SHEET E-09.
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- 3 CONNECT TO 4 NEW 20AMP BREAKERS ON EXISTING PANEL LP-01.
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- 5 EXISTING INTAKE FAN. REMOVE CONDUIT TO FIRST J-BOX. REMOVE WIRE TO MCC. INSTALL COVER ON BOX. PLUG UNUSED KNOCK-OUT TO MCC.
- 6 SAME AS (5) EXCEPT ELECTRIC DUCT HEATER.
- 7 RUN 1/2" CONDUIT TO EXISTING PANEL LP-01. CONNECT TO NEW 20AMP CIRCUIT BREAKER.
- 8 INSTALLED UNDER CONTRACT II B1-1.
- 9 FLUORESCENT LUMINAIRES TO MATCH EXISTING. MOUNT AS HIGH AS POSSIBLE.
- 10 NEW SWITCH TO MATCH EXISTING. CONNECT TO EXISTING SWITCH AS SHOWN.
- 11 REMOVE AND DELIVER TO OWNER.
- 12 NEW SEAL WATER SOLENOID VALVE AND SEAL WATER FLOW SWITCH. SEE "M" DRAWINGS FOR MOUNTING DETAIL. SEE SPECIFICATION SECTION 15981.
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RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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NO.	DATE	REVISIONS	APPROVED

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 DATE NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

1/4" 1'-0"

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
 ELECTRICAL - EXISTING BASEMENT

M-C NO. 831721

E-10

96 of 111

SC NO.

MOTOR CONTROL CENTER SCHEDULE 28

MCC & UNIT NUMBER	REF NUMBER	UNIT NAMEPLATE			HP OR KVA	FLA	STARTER		SWITCH AMPS		AUX MS CONTACTS		SCHEM NO.	NOTES
		FIRST LINE	SECOND LINE	THIRD LINE			SIZE	TYPE	CLIP	FUSE	N.O.	N.C.		
28 10		INCOMING SERVICE												
1J		MAIN METERING	COMPARTMENT											(E)
1ML		TRANSFORMER	FEEDER LPO2											
1MR	3163	ODOR CONTROL	BLOWER NO. 1	FEEDER									23	
2BL		TRANSFORMER	FEEDER PP2B											
2BR	3172	SLUDGE	GRINDER #2		3	4.8	-	-	30	5.6			25	
2D		HOT WATER	WASH UNIT											
2F	3161	IF -1			3	4.8	1	FVNR	30	5.6	6	-	22	
2J	3158	AIR COMP #2			25	34	2	FVNR	60	40	4	-	21	
2ML	3164	ODOR CONTROL	BLOWER NO. 2	FEEDER	30	40	-	-	60	45			23	
2MR		TRANSFORMER	FEEDER PDP1											
3BL		SPACE												
3BR		SPACE												
3D	3184	BS	SCRAPER NO. 4		3/4	1.4	1	FVNR	30	1.6	6	-	5	
3F	3104	UWAS	PUMP NO. 4		3	4.8	1	FVNR	30	5.6	6	-	1	
3H	3173	SUMP PUMP	NO. 4 & NO. 5	FEEDER	2-2	6.2	-	-	30	7.5				
3K		SPARE SIZE 1			-	-	1	FVNR	30	-	2	1		
3M	3159	PAC #3			25	34	2	FVNR	60	40	4	-	21	
4B	3123	BS	PUMP NO. 3		7 1/2	11	1	FVNR	30	12	6	-	6	
4D	3185	BS	SCRAPER NO. 5		3/4	1.4	1	FVNR	30	1.6	6	-	5	
4F	3105	UWAS	PUMP NO. 5		3	4.8	1	FVNR	30	5.6	6	-	1	
4H		SPARE SIZE 1					1		30		2	1		
4K		SPACE												
4M	3114	RECIRC	PUMP NO. 4		25	34	2	FVNR	60	40	6	-	2	
		HOT WATER	WASH UNIT				-	-	30	(1)	-	-		
5C		SPACE							60	-				
5EL	3151A	MIXING TANK #1	POLY INLET VALVE	FEEDER	1 MAX.	1.8	-	-	30	(1)			16	
5ER	3151C	MIXING TANK #1	POLY OUTLET VALVE	FEEDER	1 MAX.	1.8	-	-	30	(1)			17	
5H		SPACE												
5K	3127	UWAS	PUMP NO. 3		7 1/2	11	1		30	12	6	-	8	
5M	3115	RECIRC	PUMP NO. 5		25	34	2		60	40	6	-	2	

MCC & UNIT NUMBER	REF NUMBER	UNIT NAMEPLATE			HP OR KVA	FLA	STARTER		SWITCH AMPS		AUX MS CONTACTS		SCHEM NO.	NOTES
		FIRST LINE	SECOND LINE	THIRD LINE			SIZE	TYPE	CLIP	FUSE	N.O.	N.C.		
6A		SPACE												
6F	3152A	MIXING TANK #2	POLY INLET VALVE	FEEDER	1 MAX.	1.8	-	-	30	(1)	-	-	16	
6M	3152C	MIXING TANK #2	POLY OUTLET VALVE	FEEDER	1 MAX.	1.8	-	-	30	(1)	-	-	17	
7M		MASTER TERMINALS	AND	INTERLOCKING RELAYS										

GENERAL NOTES

- NAMEPLATE NOT REQUIRED FOR "SPACE". UNLESS NOTED OTHERWISE, "SPACE" SHALL BE A 12" SPACE SUITABLE FOR THE FUTURE INSTALLATION OF A SIZE 2 STARTER OR A 60A FEEDER.
- HORSEPOWERS, STARTER SIZES, SWITCH AMPACITY, AND FUSE SIZES ARE BASED ON PLANT EQUIPMENT AS DESIGNED. ADJUST TO MATCH EQUIPMENT ACTUALLY SUPPLIED.
- FUSE SIZES ARE BASED ON THE RECOMMENDATIONS OF THE BUSSMAN COMPANY FOR THEIR FRSR FUSE. SUBMITTALS OF MCC SCHEDULES SHALL SHOW THE RECOMMENDED FUSE SIZES FOR THE FUSES ACTUALLY SUPPLIED.
- FURNISH ACTUAL HP OF EACH MOTOR TO MCC MANUFACTURER BEFORE MCC SUBMITTALS ARE PREPARED. MCC MANUFACTURER FURNISH EQUIPMENT TO MATCH. SIZE 1 IS MINIMUM STARTER SIZE.

NOTES

- SUPPLY FUSES TO MATCH EQUIPMENT SUPPLIED.
- CTS, PTS, KWH METER, KW TRANSDUCER, VOLTMETER AND SWITCH (VS), VOLTMETER (VM), AMMETER SWITCH (AS), AMMETER (AM).

REFERENCE MCC DRAWING 2D31455 SHEET 4

RECORD DRAWING

DATE: 10/88 DRAFTED BY: MCA

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MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
MOTOR CONTROL CENTER 28

M-C NO. 831721
E-11 97 of 111
SC NO.

MOTOR CONTROL CENTER SCHEDULE 29

MCC & UNIT NUMBER	REF NUMBER	UNIT NAMEPLATE			HP OR KVA	FLA	STARTER		SWITCH AMPS		AUX MS CONTACTS		SCHEM NO.	NOTES
		FIRST LINE	SECOND LINE	THIRD LINE			SIZE	TYPE	CLIP	FUSE	N.O.	N.C.		
29	1C	INCOMING SERVICE												
	1J	MAIN METERING	COMPARTMENT											②
	1ML	TRANSFORMER	FEEDER LP02						60	40				
	1MR	3165	ODOR CONTROL	BLOWER NO. 3					60	45			23	
	2BL	TRANSFORMER	FEEDER PP29						30	25				
	2BR	TRANSFORMER	FEEDER PDP1						30	12				
	2D	3109A	UWAS STANDBY	PUMP NO. 2	1 1/2	2.6	1	FVNR	30	3.2	6		1	
	2F	3162	IF - 2		3	4.8	1	FVNR	30	5.6	6	-	22	
	2H	3166	ODOR CONTROL	BLOWER NO. 4	30	40	-	-	60	45			23	
	2M	SPACE												
	3B	SPACE												
	3D	3186	BS	SCRAPER NO. 6	3/4	1.4	1	FVNR	30	1.6	6	-	5	
	3F	3106A	UWAS	PUMP NO. 6	1 1/2	2.6	1	FVNR	30	3.2	6	-	1	
	3HL	3174 3176	SUMP PUMP	NO. 6 & 7	2-2	5.2	-	-	30	7.5				
	3HR	BRIDGE CRANE		FEEDER			1	FVNR	30					
	3K	SPARE SIZE 1					1	FVNR	30		6	-		
	3M	AIR	COMPRESSOR	NO. 2	25	34	2	FVNR	60	40	4	-	21	
	4B	SPACE												
	4D	3187	BS	SCRAPER NO. 7	3/4	1.4	1	FVNR	30	1.6	6	-	5	
	4F	3107A	UWAS	PUMP NO. 7	1 1/2	2.6	1	FVNR	30	3.2	6	-	1	
	4H	SPACE												
	4K	MIXING TANK NO. 3		POLY INLET	1 MAX	1.8	1	-	-	①			16	
	4M	3116A	RECIRC	PUMP NO. 6	25	34	2	FVNR	60	40	6	-	2	
	5BL	SPARE					-	-	30	①	-	-	-	
	5BR	3153A	MIXING TANK #3	POLY INLET VALVE	1 MAX	1.8	-	-	30	①			16	
	5D	3167	HOT WATER	CIRC PUMP	5	7.6	1	FVNR	30	9			24	
	5F	3128	TWAS	PUMP NO. 4	7 1/2	11	1	FVNR	30	12	6	-	8	
	5H	3117A	RECIRC	PUMP NO. 7	25	34	2	FVNR	60	40	6	-	2	
	5K	MIXING TANK		NO. 3	1/2	1	1	FVNR	30	1 1/4	6	-	18	
	5M	BS	PUMP NO. 4		7.5	11	1	FVNR	30	12	6	-	6	

MCC & UNIT NUMBER	REF NUMBER	UNIT NAMEPLATE			HP OR KVA	FLA	STARTER		SWITCH AMPS		AUX MS CONTACTS		SCHEM NO.	NOTES
		FIRST LINE	SECOND LINE	THIRD LINE			SIZE	TYPE	CLIP	FUSE	N.O.	N.C.		
	6F	SPACE												
	6M	SPACE												
	7M	MASTER TERMINALS		INTERPOSING RELAYS										

GENERAL NOTES

- NAMEPLATE NOT REQUIRED FOR "SPACE". UNLESS NOTED OTHERWISE, "SPACE" SHALL BE A 12" SPACE SUITABLE FOR THE FUTURE INSTALLATION OF A SIZE 2 STARTER OR A 80A FEEDER.
- HORSEPOWERS, STARTER SIZES, SWITCH AMPACITY, AND FUSE SIZES ARE BASED ON PLANT EQUIPMENT AS DESIGNED. ADJUST TO MATCH EQUIPMENT ACTUALLY SUPPLIED.
- FUSE SIZES ARE BASED ON THE RECOMMENDATIONS OF THE BUSSMAN COMPANY FOR THEIR FRSR FUSE. SUBMITTALS OF MCC SCHEDULES SHALL SHOW THE RECOMMENDED FUSE SIZES FOR THE FUSES ACTUALLY SUPPLIED.
- FURNISH ACTUAL HP OF EACH MOTOR TO MCC MANUFACTURER BEFORE MCC SUBMITTALS ARE PREPARED. MCC MANUFACTURER FURNISH EQUIPMENT TO MATCH. SIZE 1 IS MINIMUM STARTER SIZE.

NOTES

- ① SUPPLY FUSES TO MATCH EQUIPMENT SUPPLIED.
- ② CT'S, PT'S, KWH METER, KW TRANSDUCER, VOLTMETER SWITCH (VS), VOLTMETER (VM), AMMETER SWITCH (AS), AMMETER (AM).
- REFERENCE MCC DRAWING 2D31455 SHEET 5

RECORD DRAWING

DATE: 10/88 DRAFTED BY: MCA

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26	39	5	2	9	8	8	8																					

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DATE	NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE
GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

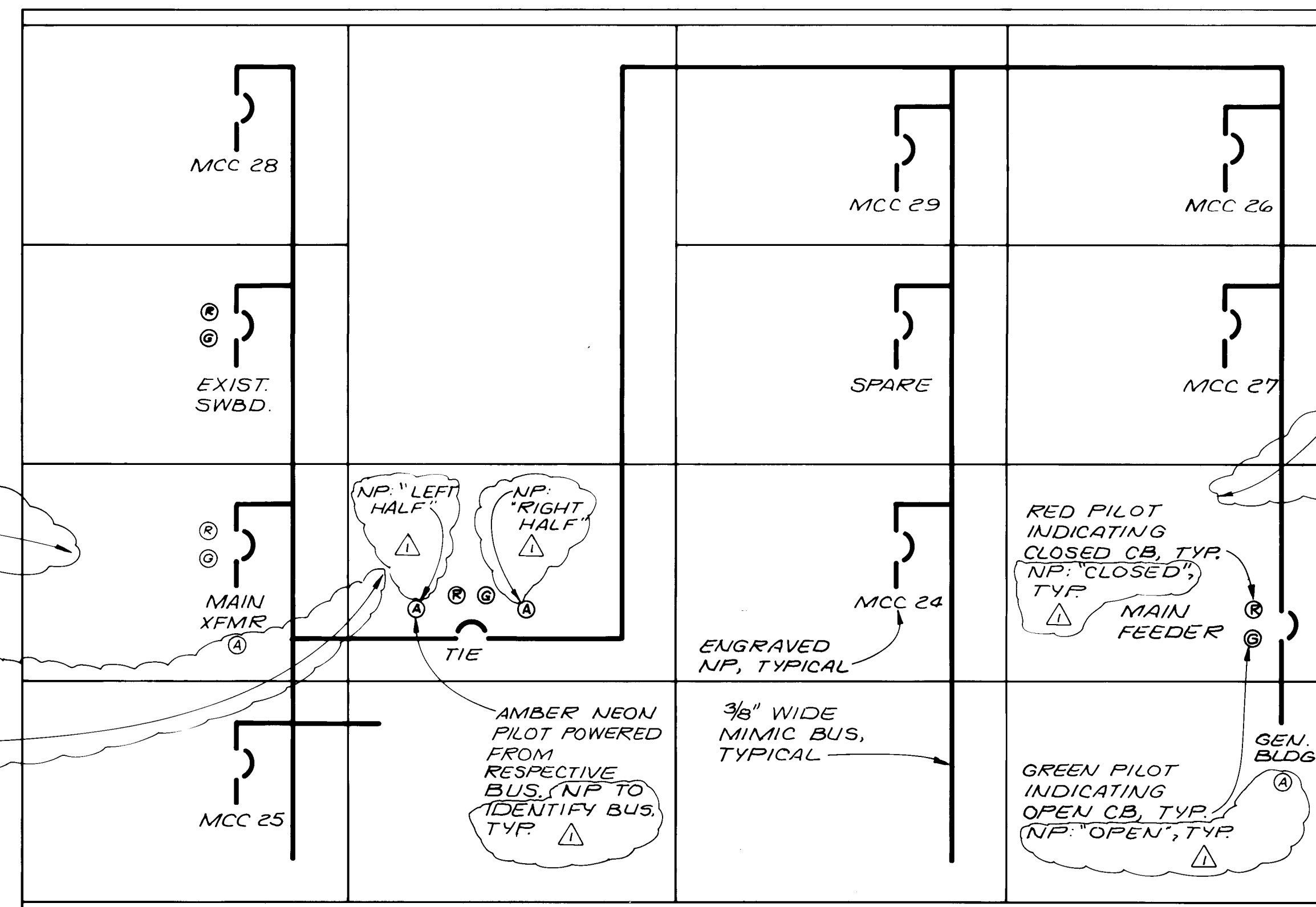
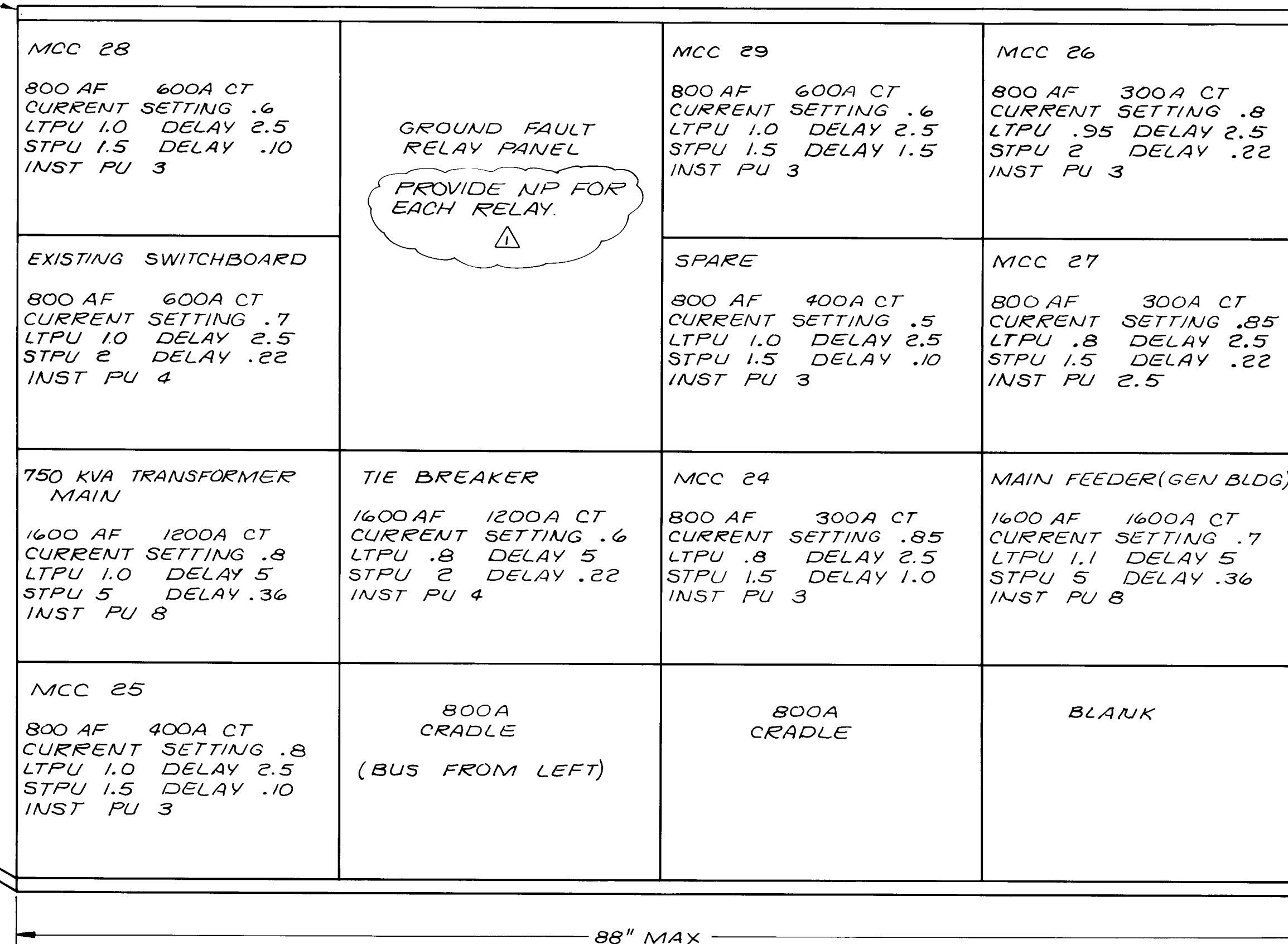
SLUDGE THICKENING SYSTEM EXPANSION
MOTOR CONTROL CENTER 29

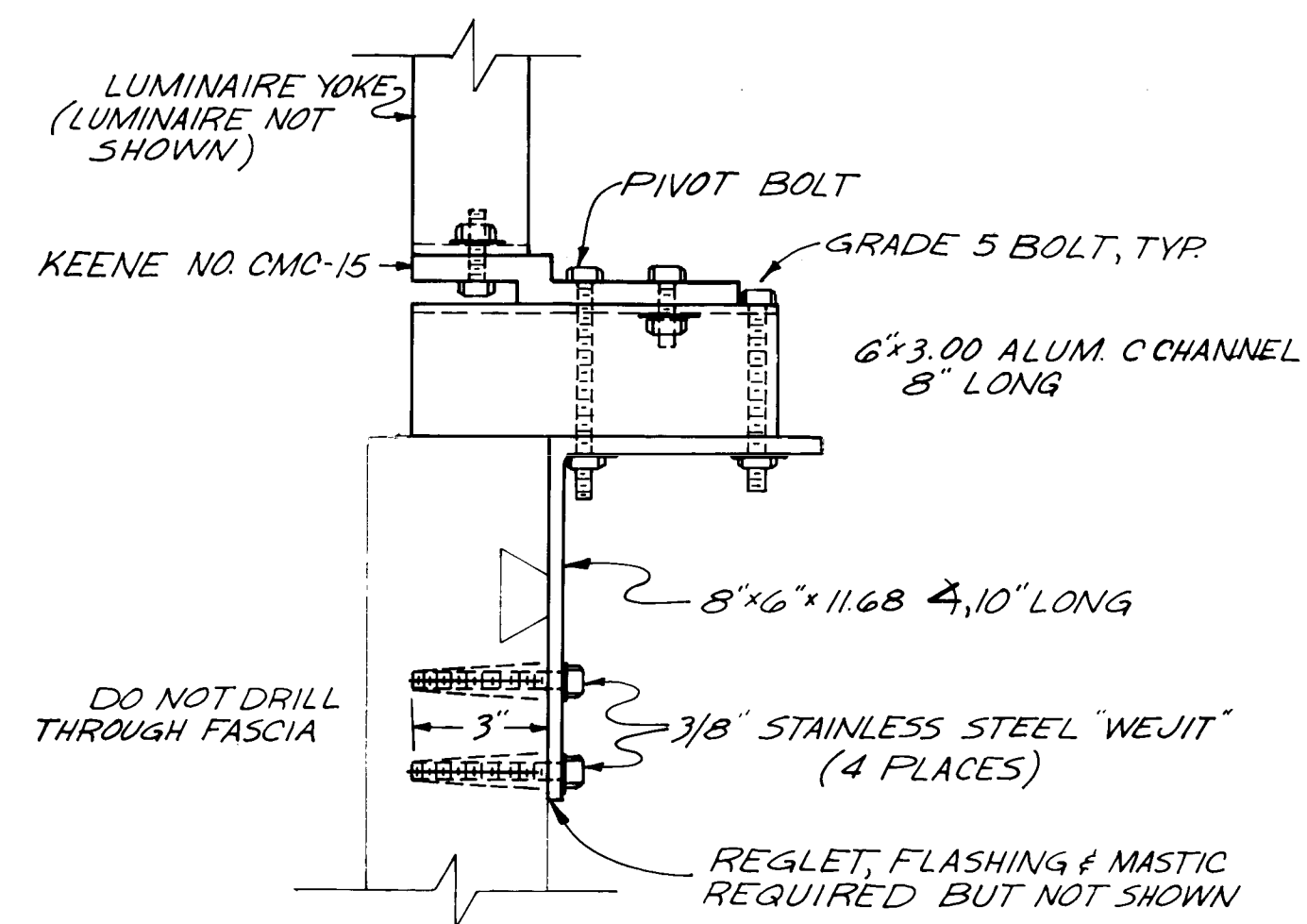
M-C NO. 831721
E-12 98 of 111
SC NO.

LIGHTING PANEL LPO2 120V/240V 1Ø					
DESCRIPTION	CB	NO	Ø	NO	CB
STORAGE & COMPRESSOR ROOMS, UNIT HEATERS & LIGHTING, WEST ENTRY & STAIR LTG.	20	1	1	2	20
MCC & CONTROL ROOM EAST ENTRY LTG	20	3	2	4	20
WEST RECEPTACLE'S & OUTDOOR LIGHTING	20	5	1	6	20
BASEMENT LTG - MAINT	20	7	2	8	20
BASEMENT LTG	20	9	1	10	20
WEST MAIN AREA LTG	20	11	2	12	20
EXTERIOR LIGHTING	20	13	1	14	20
BASEMENT RECPT & MAKE-UP AIR UNIT	20	15	2	16	20
MIXING TANK N°1 SOLENOID VALVE	20	17	1	18	20
MIXING TANK N°2 SOLENOID VALVE	20	19	2	20	20
MIXING TANK N°3 SOLENOID VALVE	20	21	1	22	20
POLY STORAGE TANK LEVEL METERS	15	23	2	24	20
ICP LIGHTS	15	25	1	26	20
SPARE	15	27	2	28	20
SPARE	15	29	1	30	15
SPARE	20	31	2	32	15
SPARE	20	33	1	34	15
SPARE	20	35	2	36	20
SPARE	15	37	1	38	20
SPARE	15	39	2	40	20
SPARE	15	41	1	42	20
MCB: 30A	N	G			

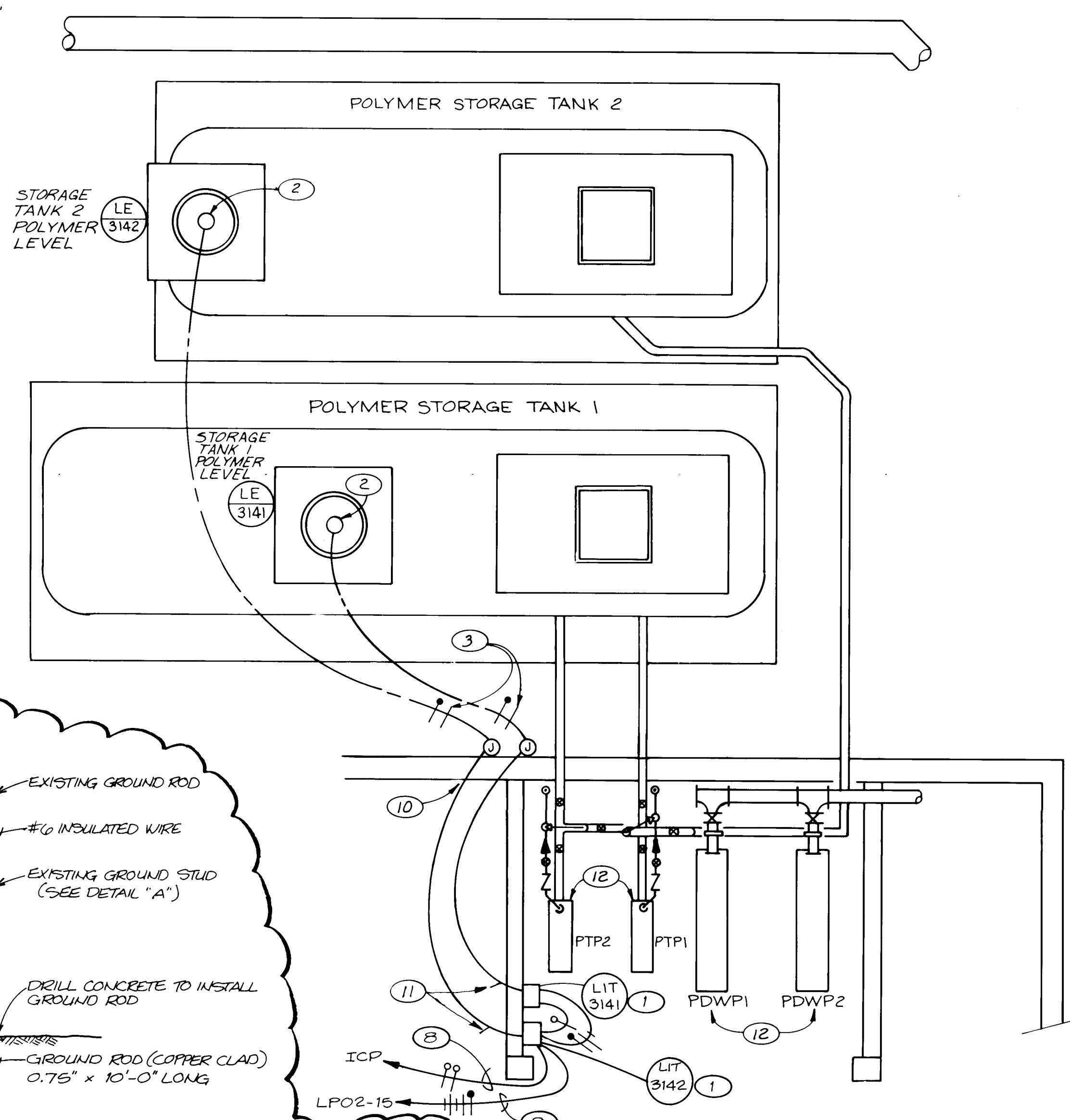
PNLBD PP2B 120V/208V 3Ø 4W						
DESCRIPTION	CB	NO	NC	DESCRIPTION		
AFD 1	{	20 1	A 2 20	}	AFD 2	
		2P 3	B 4 2P			
AFD 3	{	20 5	C 6 20	}	AFD 4	
		2P 7	A 8 2P			
AFD 9	{	20 9	B 10 20	}	AFD 10	
		2P 11	C 12 2P			
UWAS CONTROL VALVE 4		20 13	A 14 20		UWAS CONTROL VALVE 5	
ART PROCESS AIR CONTROL VALVE 4		20 15	B 16 20		ART PROCESS AIR CONTROL VALVE 5	
ART 4 RELIEF SOLENOID		20 17	C 18 20		POLYMER MIX TANK 1 LSL	
ART 5 RELIEF SOLENOID		20 19	A 20 20		POLYMER MIX TANK 2 LSL	
CHEMISORBANT	{	20 21	B 22 20	}	SPARE	
FILTER NO. 1		2P 23	C 24 20		SPARE	
SPARE		20 25	A 26 20		SPARE	
SPARE	{	20 27	B 28 20	}	SPARE	
		2P 29	C 30 20		SPARE	
SPACE		31	A 32 2P			
SPACE		33	B 34		SPACE	
SPACE		35	C 36		SPACE	
SPACE		37	A 38		SPACE	
SPACE		39	B 40		SPACE	
SPACE		41	C 42		SPACE	
MCB: 55A	N		G			

DESCRIPTION	CB	NO	Ø	NO	CB	DESCRIPTION
AFD 5	20	1	A	2	20	AFD 6
	2P	3	B	4	2P	
AFD 7	20	6	C	8	20	AFD 8
	2P	7	A	8	2P	
AFD 11	20	9	B	10	20	AFD 12
	2P	11	C	12	2P	
UWAS CONTROL VALVE 6	20	13	A	14	20	UWAS CONTROL VALVE 7
STANDBY UWAS CONTROL VALVE 2	20	15	B	16	20	SPARE
ART PROCESS AIR CONTROL VALVE 6	20	17	C	18	20	ART PROCESS AIR CONTROL VALVE 7
ART 6 RELIEF SOLENOID	20	19	A	20	20	POLYMER MIX TANK 3 LSL
ART 7 RELIEF SOLENOID	20	21	B	22	20	CHEMISORBANT
SPARE	20	23	C	24	2P	FILTER NO. 2
SPARE	20	25	A	26	20	SPARE
SPARE	20	27	B	28	20	SPARE
	2P	29	C	30	20	SPARE
CHEMISORBANT AIR HANDLING UNIT 	20	31	A	32	2P	
SPACE		33	B	34		SPACE
SPACE		35	C	36		SPACE
SPARE	20	37	A	38		SPACE
HOT WATER WASHER	15	39	B	40		SPACE
SUPPLY FAN	2P	41	C	42		SPACE
MCB: 53A						

[illegible]



FLOODLIGHT MOUNTING DETAIL
NO SCALE



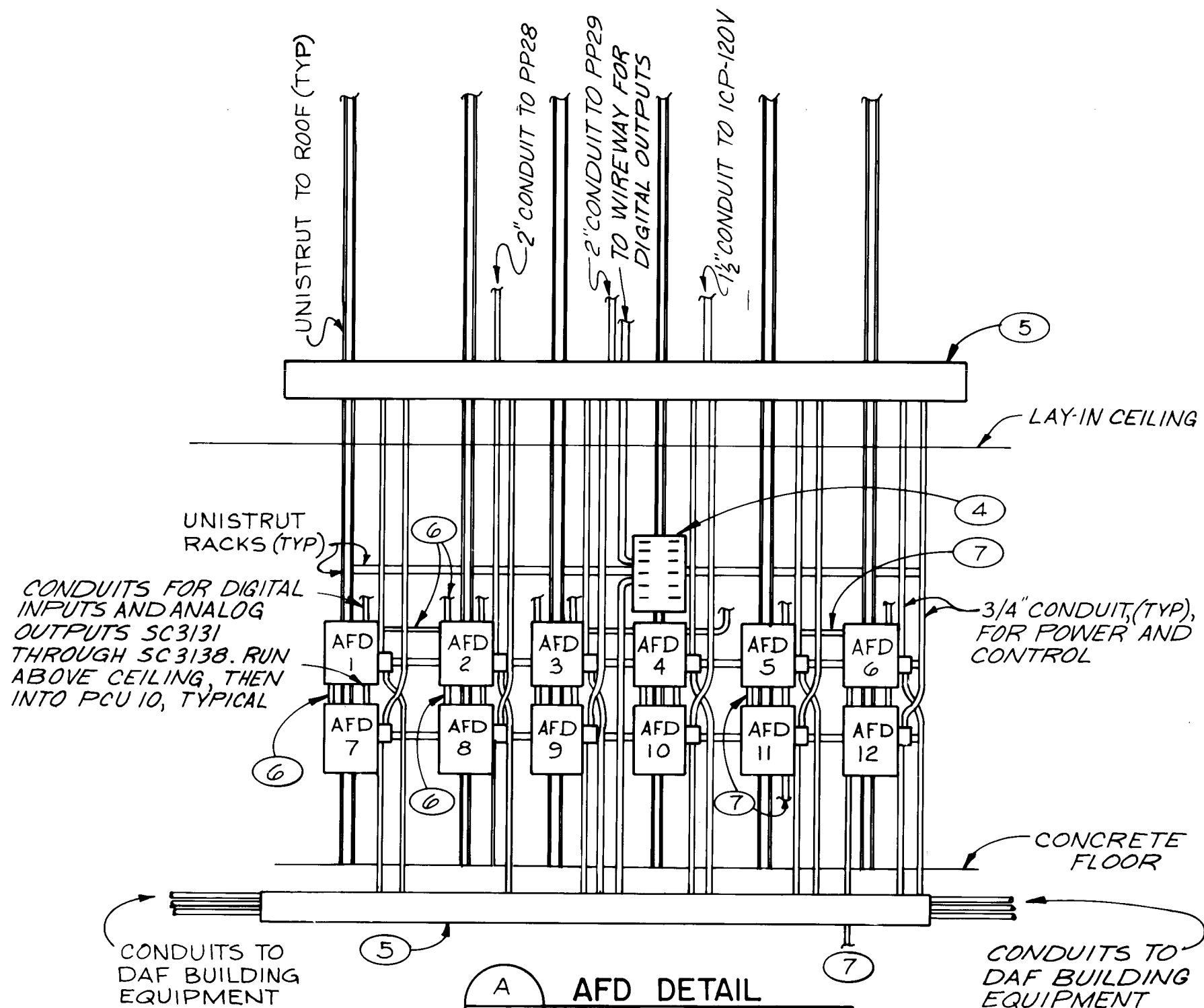
GROUNDING ODOR CONTROL TANKS
N.T.S.

DO NOT DRILL THROUGH FASCIA

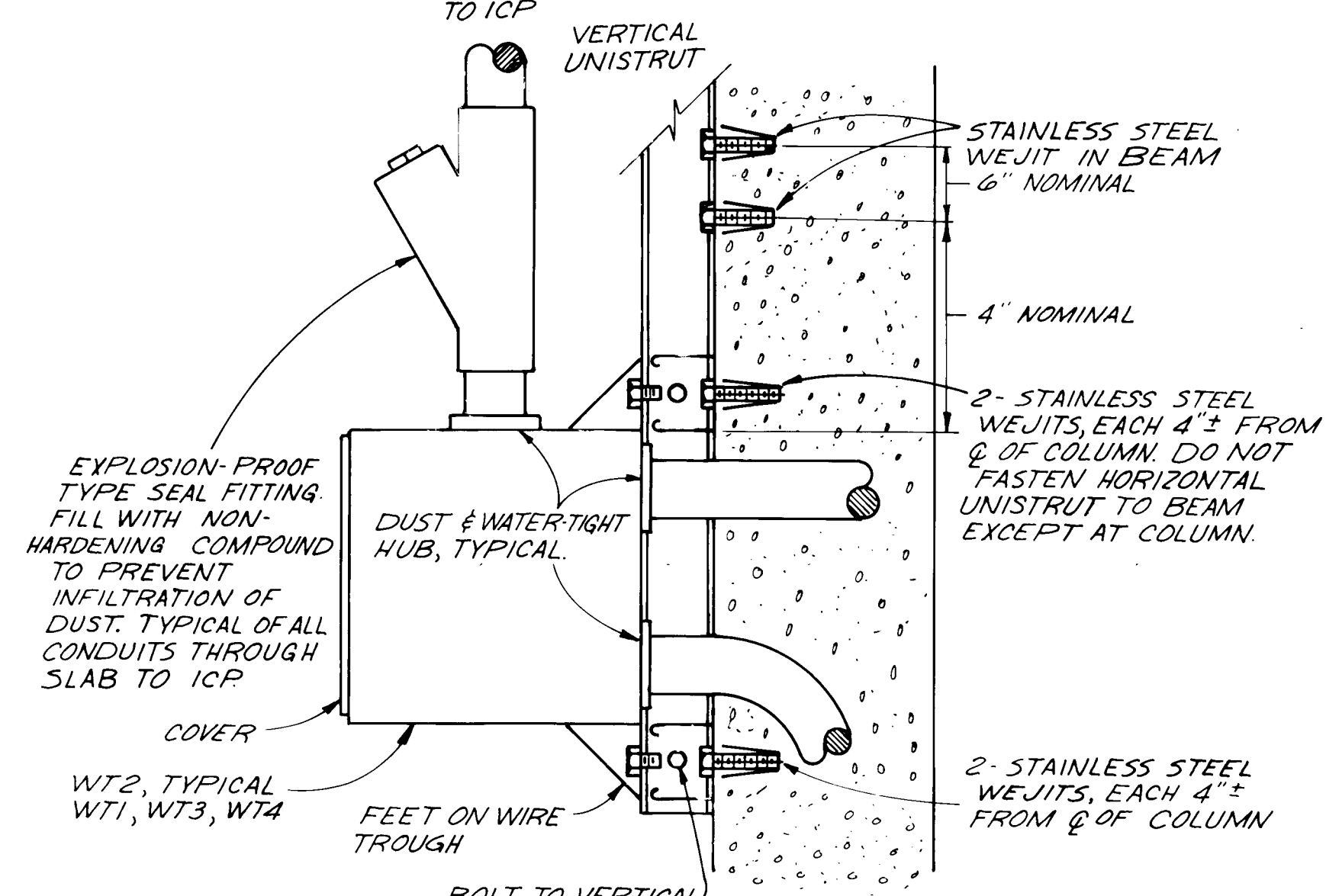
DETAIL "A"
N.T.S.

NOTES

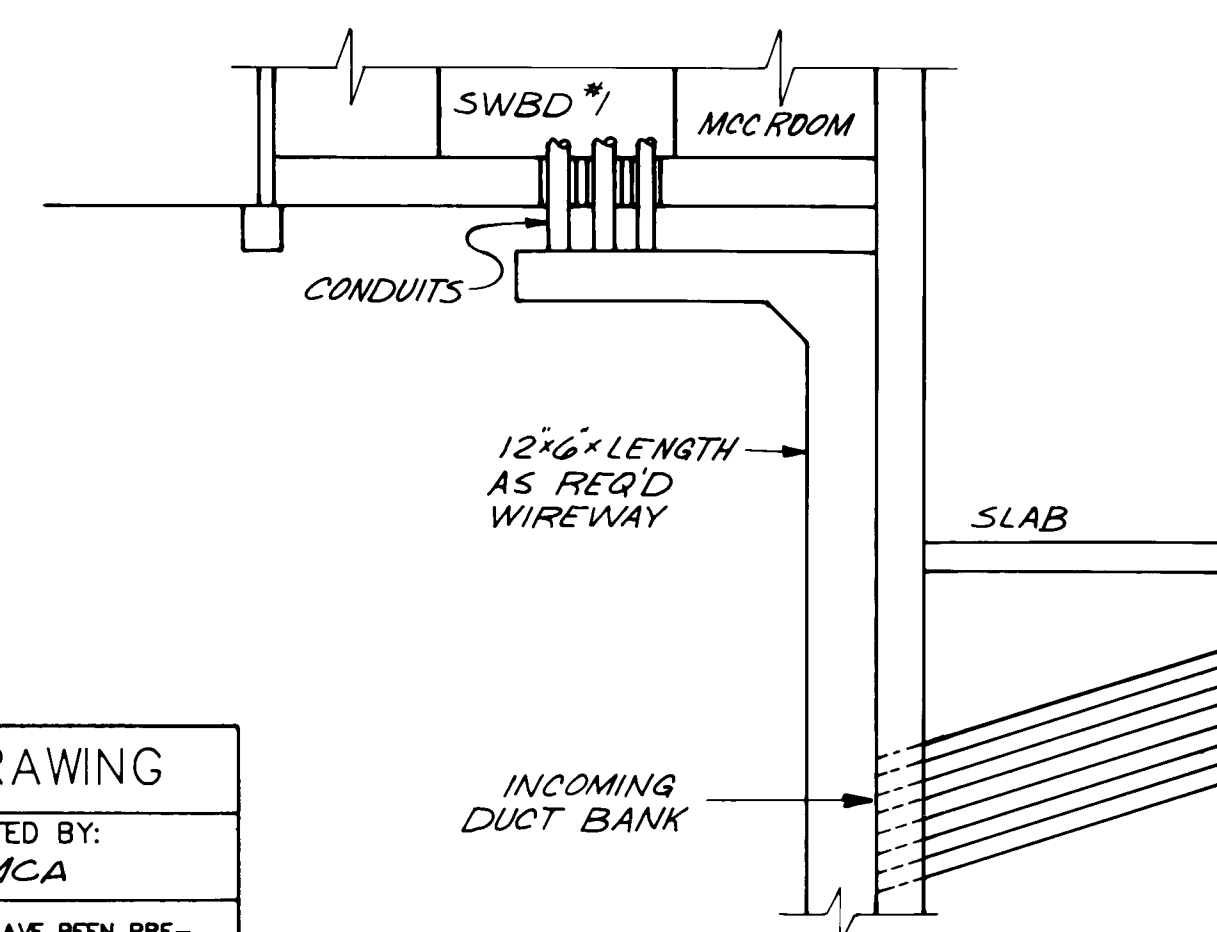
- 1 STAINLESS STEEL NUT
- 2 STAINLESS FLAT WASHER
- 3 GROUNDING WIRE EYE W/BRAIDED OR INSULATED NO. 6 WIRE
- 4 ALL BALLOONED ITEMS ARE TO BE SUPPLIED BY CONTRACTOR



AFD DETAIL
E-15



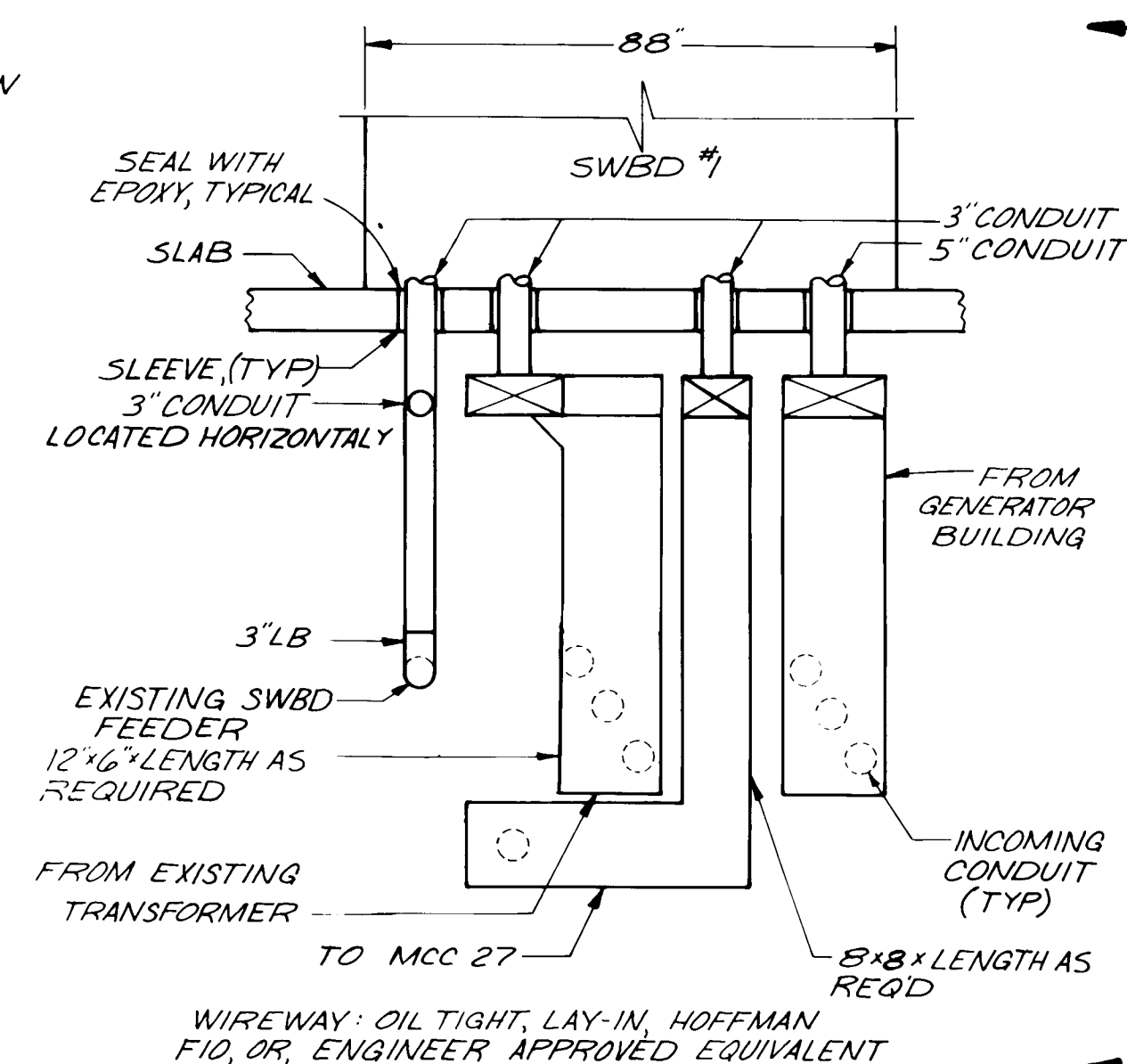
SECTION
1-14
NO SCALE



SECTION
2
E-14
NO SCALE

NOTES

- 1 R.F. LEVEL TRANSMITTER WITH NEMA 4 ENCLOSURE 15981.
- 2 LIQUID LEVEL PROBE. SEE DETAIL ON DWG. M-14.
- 3 SIGNAL CABLE BY LEVEL TRANSMITTER MANUFACTURER.
- 4 24" x 20" x 6" NEMA 12 ENCLOSURE. MOUNT AFD RELAYS INSIDE.
- 5 6" x 6" x LENGTH REQUIRED, NEMA 12 WIREWAY. USE THIS WIREWAY FOR POWER AND 120V CONTROL ONLY.
- 6 CONDUITS FOR REMOTE SPEED CONTROL POTENTIOMETERS AT ICP. DO NOT RUN IN WIREWAYS. DO NOT RUN ANY OTHER TYPE CONDUCTORS IN CONDUIT. CABLE BY AFD MANUFACTURER.
- 7 SAME AS 6 EXCEPT TO POTENTIOMETERS IN FIELD.
- 8 RUN ON CEILING OF EXISTING, THEN NEW DAF TO WT3, THEN ICP 2.
- 9 RUN ON CEILING OF EXISTING DAF, THEN IN SLAB TO LPO2.
- 10 CORE DRILL FOR NEW CONDUITS AND SEAL AROUND CONDUITS WITH EPOXY, TYPICAL 5.
- 11 GAS SEAL FITTINGS.
- 12 RECONNECT EXISTING LOCAL CONTROLS AS SHOWN ON SCHEMATICS.



SECTION
1
E-08
NO SCALE



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	39	52	100	88																								

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NO.	DATE	REVISIONS	APPROVED

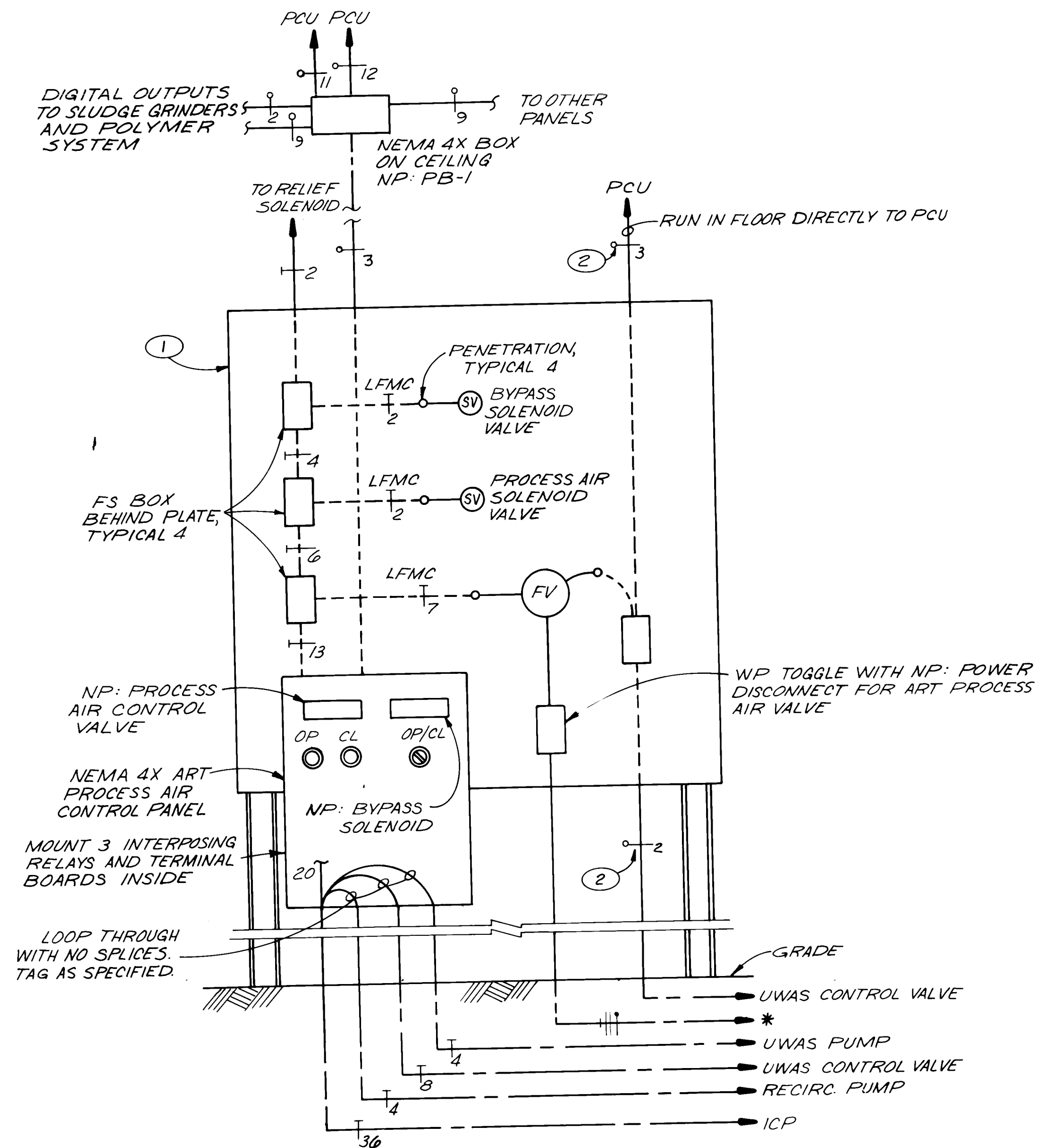
DESIGNED	
DRAWN	
CHECKED	
APPROVED	
DATE	NOV. 1984

MOLZEN-CORBIN	STANLEY CONSULTANTS
A JOINT VENTURE	

NONE	GRAPHIC SCALE
------	---------------

CITY OF ALBUQUERQUE, NEW MEXICO	SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3	

SLUDGE THICKENING SYSTEM EXPANSION	MISCELLANEOUS DETAILS
M-C NO. 831721	E-14 100 of 111
SC NO.	

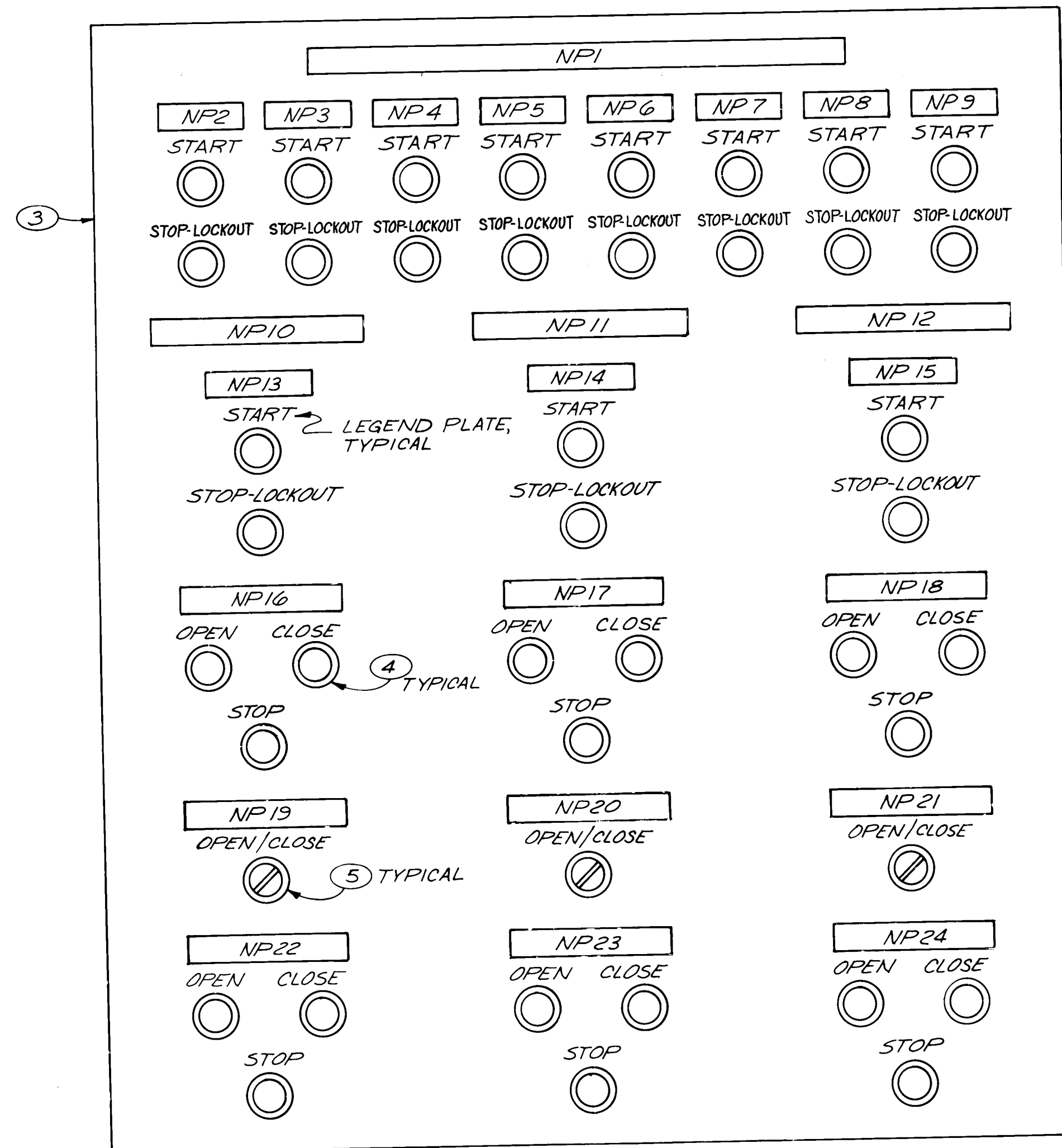


ART	PROCESS AIR CONTROL VALVE	RELIEF SOLENOID	PROCESS AIR SOLENOID VALVE	BYPASS SOLENOID	REPLACE * WITH
4	FV 3114	SV 3114A	SV 3114B	SV 3114C	PP28-15
5	FV 3115	SV 3115A	SV 3115B	SV 3115C	PP28-16
6	FV 3116	SV 3116A	SV 3116B	SV 3116C	PP28-17
7	FV 3117	SV 3117A	SV 3117B	SV 3117C	PP28-18

A
E-8

DETAIL
NO SCALE

TANK 4 SHOWN. TANKS 5, 6 & 7 SIMILAR APPLIES TO SHEETS I-14 & E-08

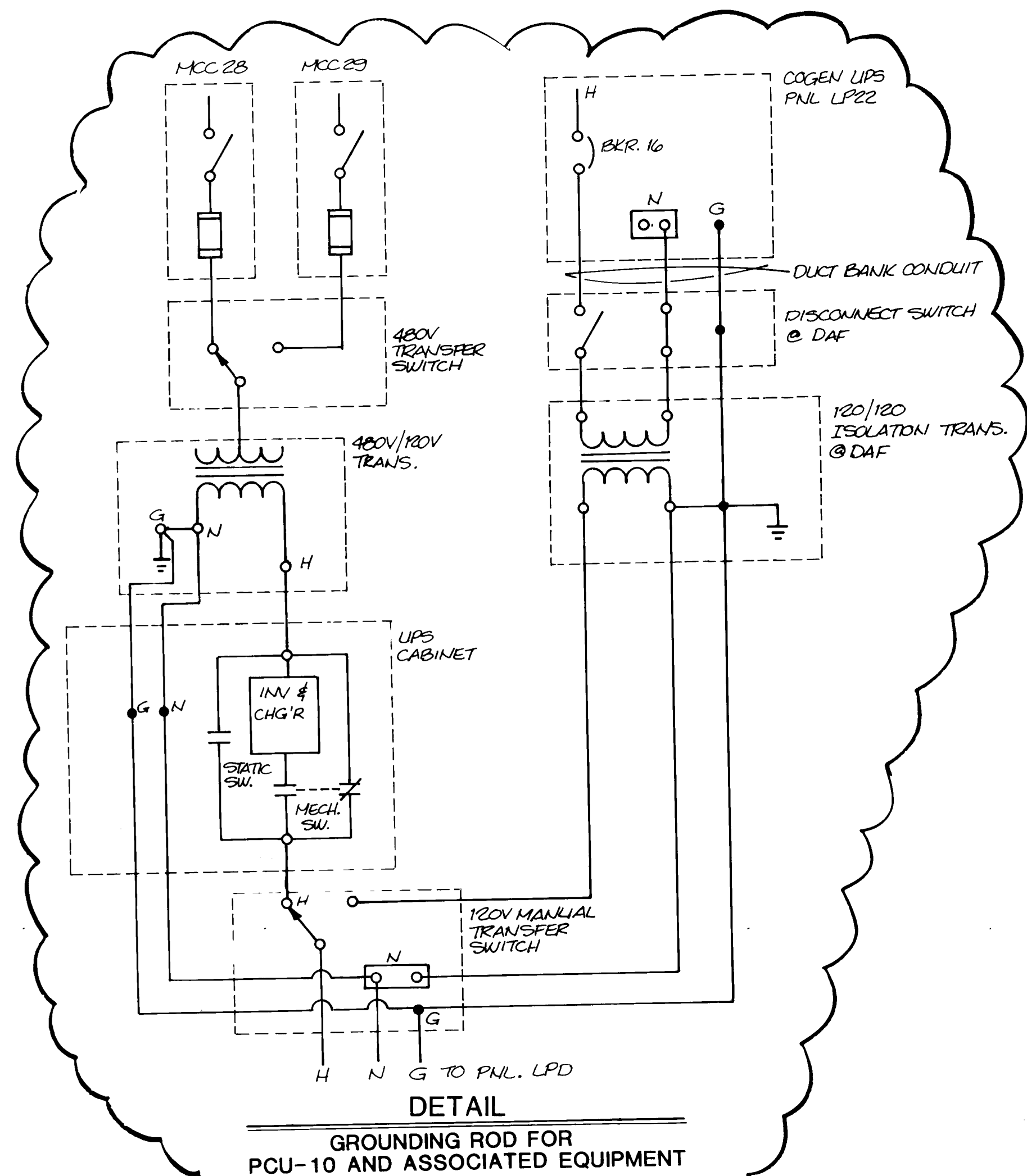


TAG NUMBER	ENGRAVED NAMEPLATE	ENGRAVING	LETTERING SIZE
	NP1	POLYMER SYSTEM LOCAL CONTROL PANEL	3/8"
HS-3131A	NP2	POLYMER FEED PUMP NO. 1	1/8"
HS-3132A	NP3	POLYMER FEED PUMP NO. 2	1/8"
HS-3133A	NP4	POLYMER FEED PUMP NO. 3	1/8"
HS-3134A	NP5	POLYMER FEED PUMP NO. 4	1/8"
HS-3135A	NP6	POLYMER FEED PUMP NO. 5	1/8"
HS-3136A	NP7	POLYMER FEED PUMP NO. 6	1/8"
HS-3137A	NP8	POLYMER FEED PUMP NO. 7	1/8"
HS-3138A	NP9	POLYMER FEED PUMP NO. 8	1/8"
	NP10	POLYMER MIXING TANK NO. 1	1/4"
	NP11	POLYMER MIXING TANK NO. 2	1/4"
	NP12	POLYMER MIXING TANK NO. 3	1/4"
HS-3151E	NP13	POLYMER MIXER NO. 1	1/8"
HS-3152E	NP14	POLYMER MIXER NO. 2	1/8"
HS-3153E	NP15	POLYMER MIXER NO. 3	1/8"
HS-3151A	NP16	POLYMER INLET VALVE NO. 1	1/8"
HS-3152A	NP17	POLYMER INLET VALVE NO. 2	1/8"
HS-3153A	NP18	POLYMER INLET VALVE NO. 3	1/8"
SV-3151	NP19	WATER SOLENOID VALVE - MIXING TANK NO. 1	1/8"
SV-3152	NP20	WATER SOLENOID VALVE - MIXING TANK NO. 2	1/8"
SV-3153	NP21	WATER SOLENOID VALVE - MIXING TANK NO. 3	1/8"
HS-3151G	NP22	POLYMER OUTLET VALVE NO. 1	1/8"
HS-3152G	NP23	POLYMER OUTLET VALVE NO. 2	1/8"
HS-3153G	NP24	POLYMER OUTLET VALVE NO. 3	1/8"
RV-3151A	NP25	POLYMER OUTLET VALVE NO. 1 RELAY *	1/8"
RV-3152A	NP26	POLYMER OUTLET VALVE NO. 2 RELAY *	1/8"
RV-3153A	NP27	POLYMER OUTLET VALVE NO. 3 RELAY *	1/8"
RV-3151B	NP28	POLYMER INLET VALVE NO. 1 RELAY *	1/8"
RV-3152B	NP29	POLYMER INLET VALVE NO. 2 RELAY *	1/8"
RV-3153B	NP30	POLYMER INLET VALVE NO. 3 RELAY *	1/8"
RV-3151	NP31	WATER INLET VALVE NO. 1 RELAY *	1/8"
RV-3152	NP32	WATER INLET VALVE NO. 2 RELAY *	1/8"
RV-3153	NP33	WATER INLET VALVE NO. 3 RELAY *	1/8"

* INSIDE PANEL, ADJACENT TO RELAY SOCKET

NOTES

- FOR PROCESS AIR CONTROL PANEL DETAIL, SEE SHEET M-09.
- 2 ADDITIONAL REQUIRED AT PANEL 5 FOR UWAS STANDBY CONTROL VALVE 2. 1 ADDITIONAL REQUIRED AT PANEL 7 FOR LSH 3173D.
- 48 3/8 x 3 1/2 x 14 SINGLE DOOR NEMA 4X CONTROL PANEL, ROBROY INDUSTRIES CAT. NO. N483612HWT AND BACK PANEL NO. BP 4836. PROVIDE TERMINAL BOARDS, GROUP BY FUNCTION, LABEL ALL WIRES & TB'S. PROVIDE SUBMITTALS.
- PUSHBUTTON. SPECIFICATION SECTION 16956.
- TWO POSITION SELECTOR SWITCH. SPECIFICATION SECTION 16956.

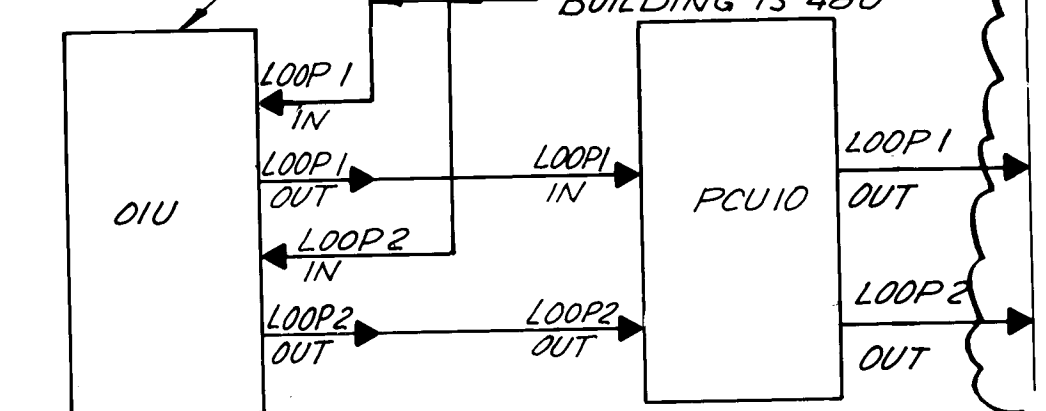


FURNISHED BY OWNER, INSTALLED BY CONTRACTOR TYP 3

FROM GENERATOR BLDG.

APPROXIMATE LENGTH OF EACH CABLE TO REACH GENERATOR BUILDING IS 480'

FOR OVERALL DATA HIGHWAY, SEE PLANS-SET 2, DWG. I-10



ALL CABLE AND CONNECTIONS, INCLUDING CABLE CONNECTORS, ARE PART OF THIS PROJECT, INCLUDING CONNECTIONS TO EQUIPMENT AT GENERATOR BLDG.

DATA HIGHWAY CABLE

PCU-10, DAF DIU



RECORD DRAWING

DATE: 5/03 DRAFTED BY: MCA

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

26 39 52 101 88

NO.	DATE	REVISIONS	APPROVED

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NO SCALE
GRAPHIC SCALE

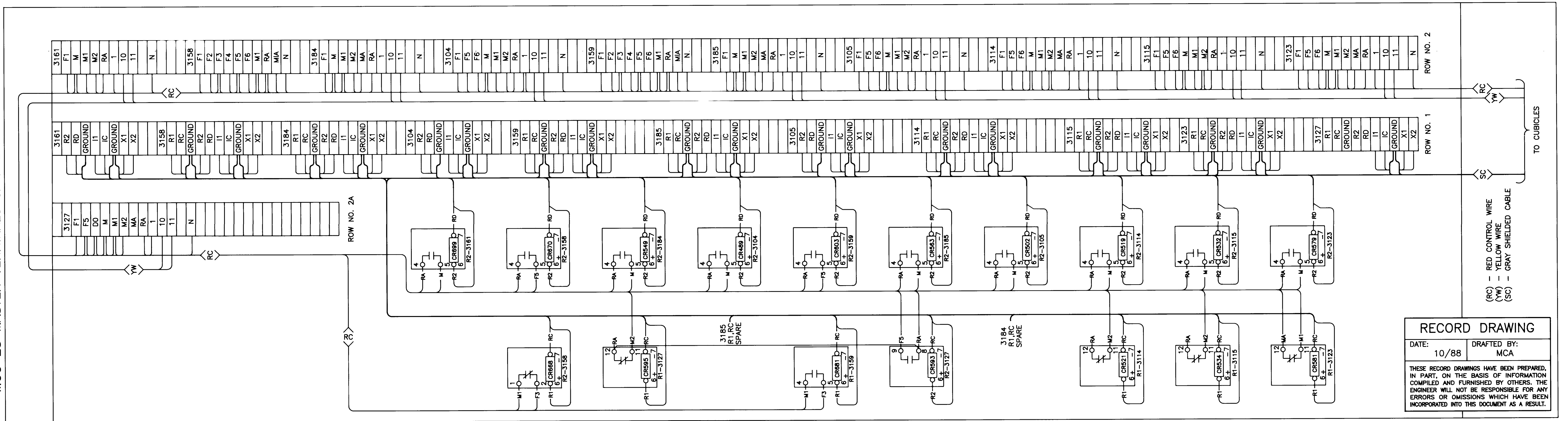


CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
ELECTRICAL DETAILS

M-C NO. 831721
E-15 101 OF 111
SC NO.

MCC 28 MASTER TERMINALS & INTERPOSING RELAYS



RECORD DRAWING	
DATE:	DRAFTED BY:
10/88	MCA
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REFERENCE MCC DRAWINGS 2D31455 SHEETS 33 AND 35

NO.	DATE	REVISIONS	DESIGNED	CHECKED	APPROVED	DATE
10/88		RECORD DRAWING	SES/SS	SS		

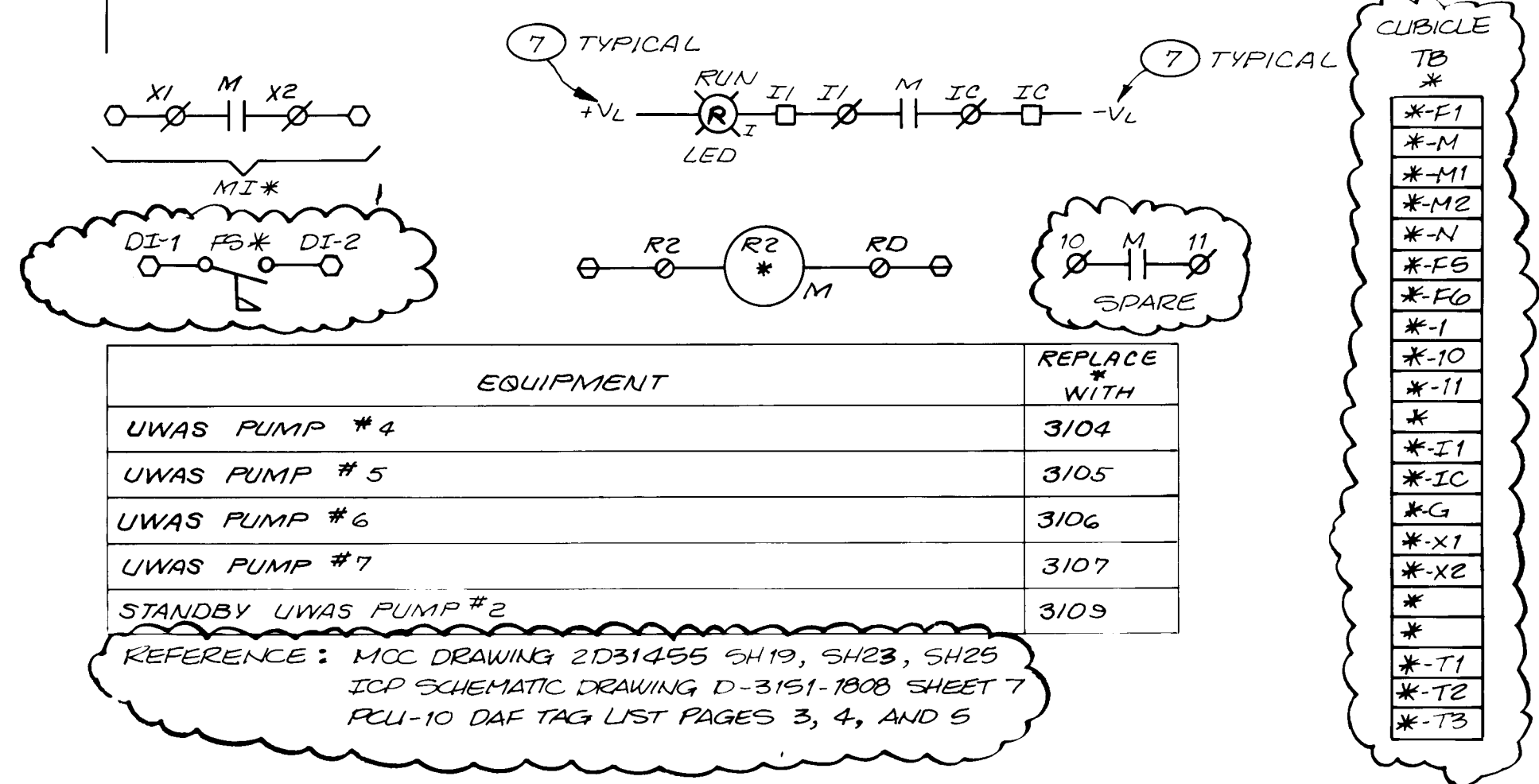
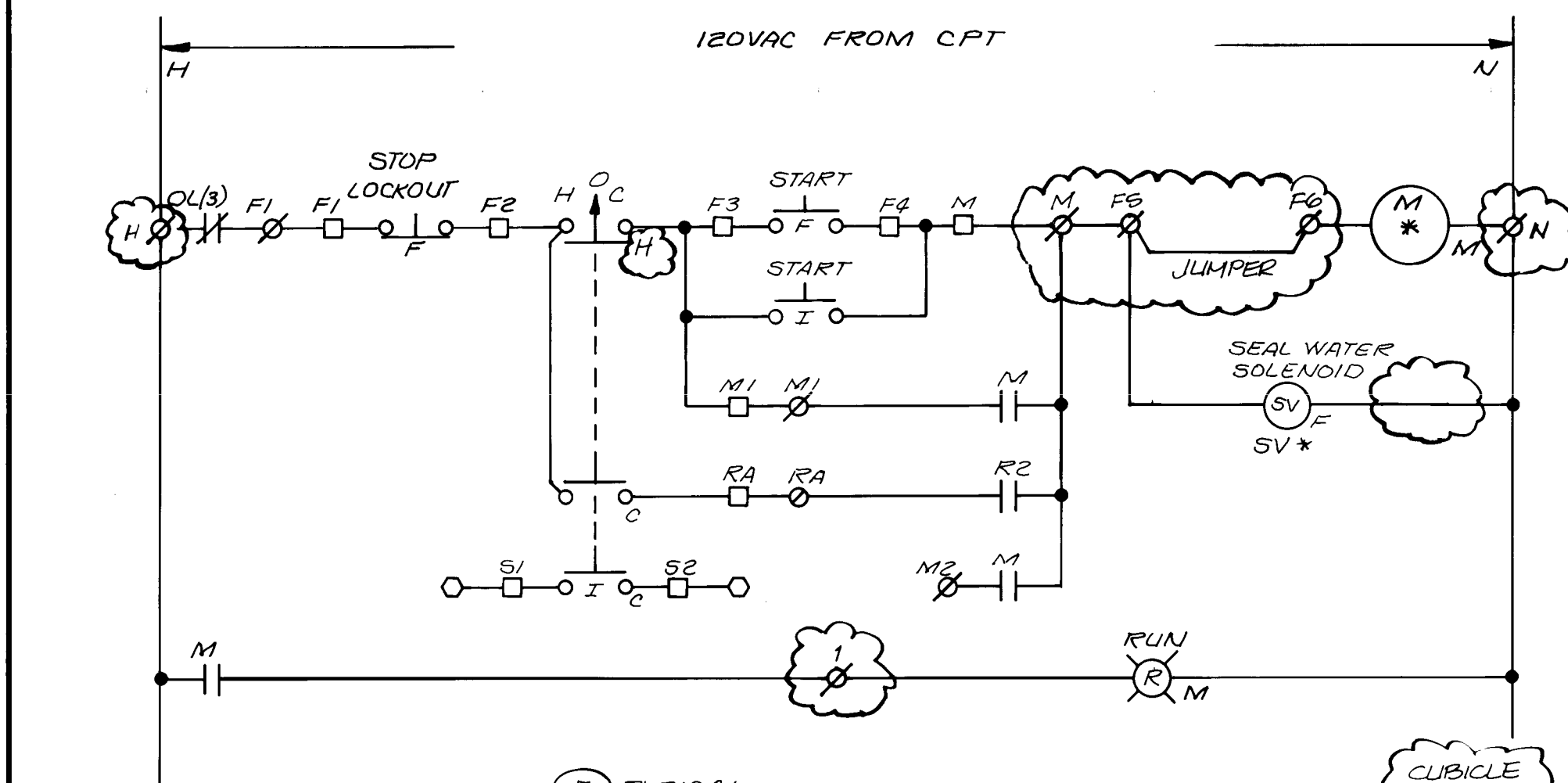
MOLZEN-CORBIN
STANLEY CONSULTANTS
 A JOINT VENTURE

NONE
 GRAPHIC SCALE

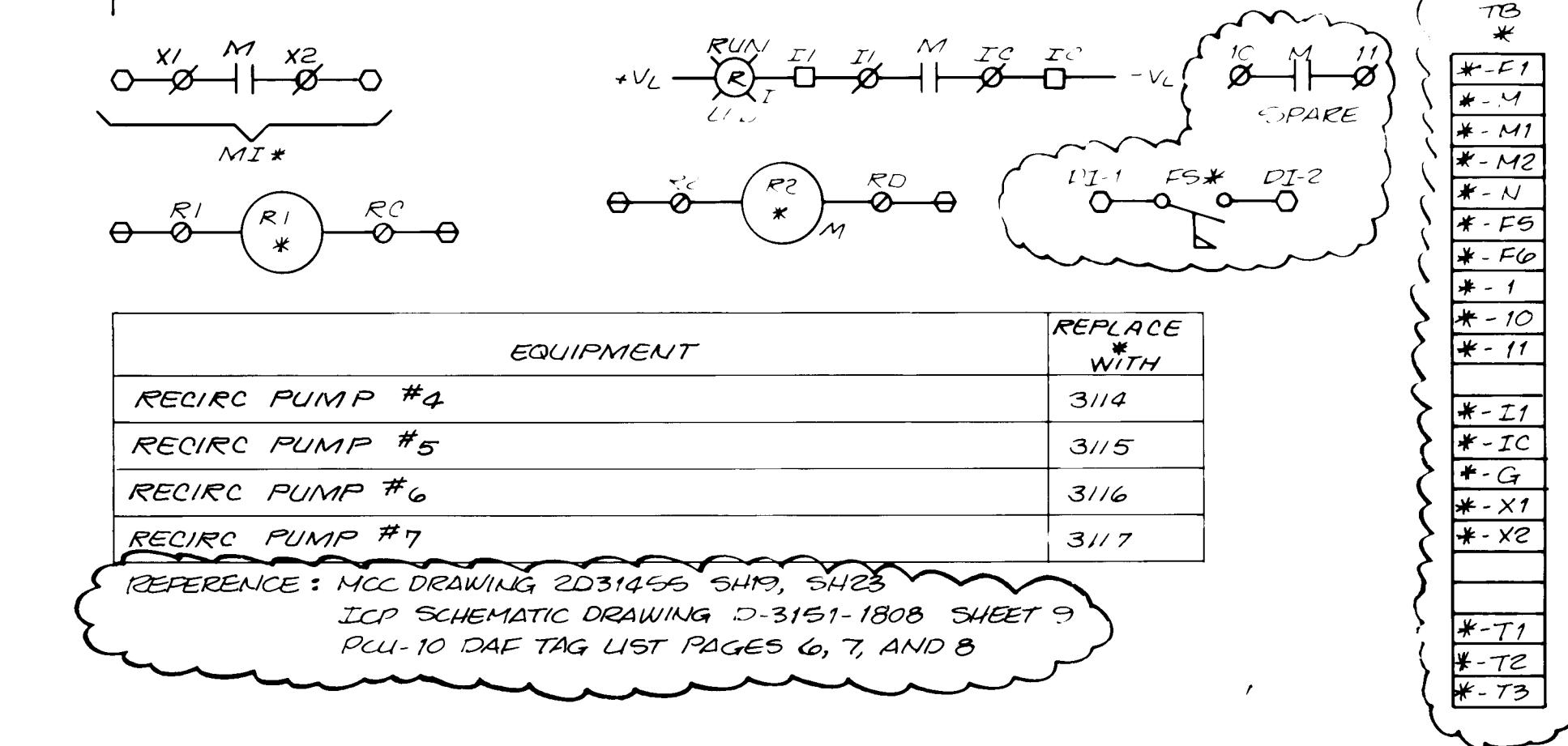
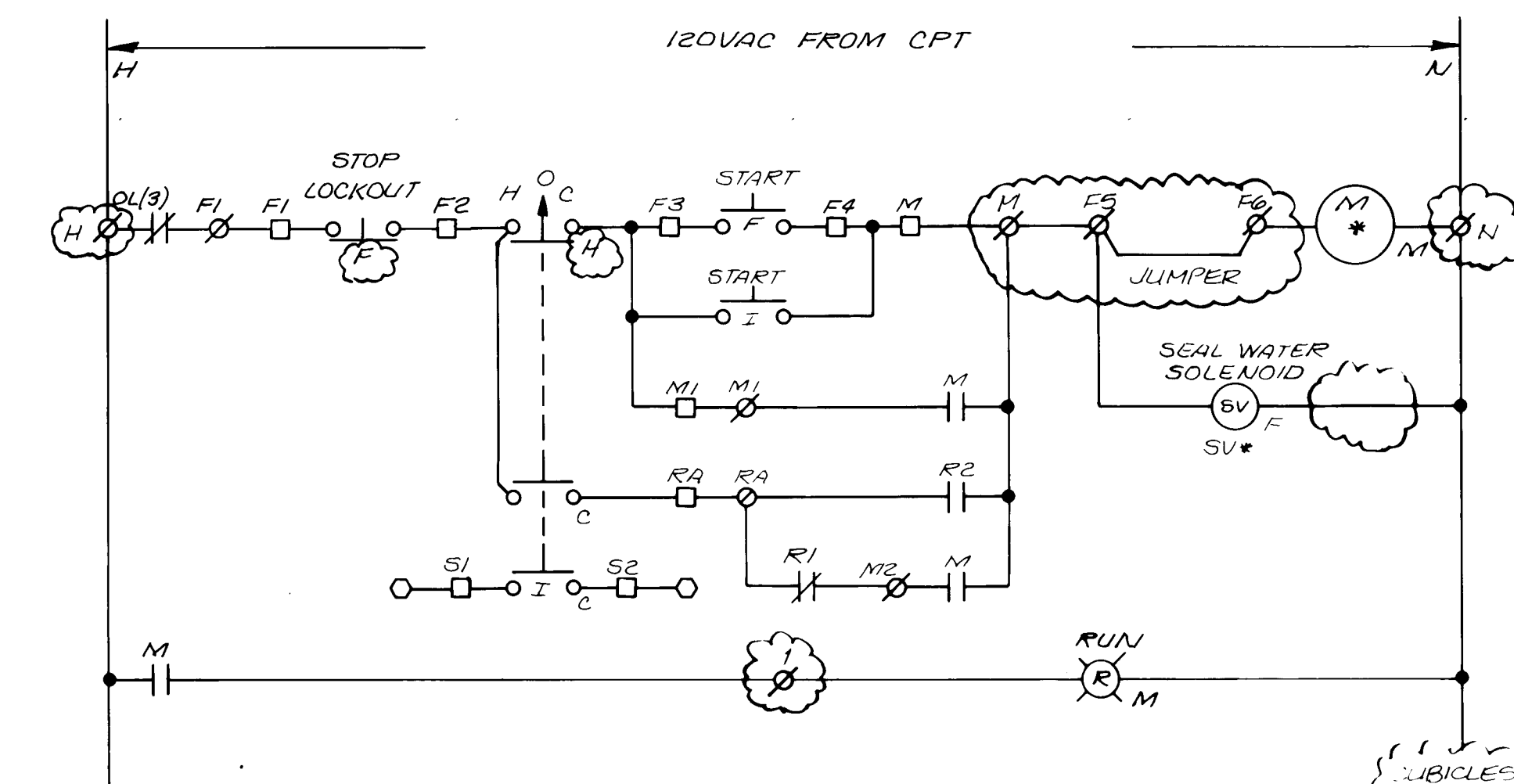
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
 PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
MCC TERMINATION PANEL

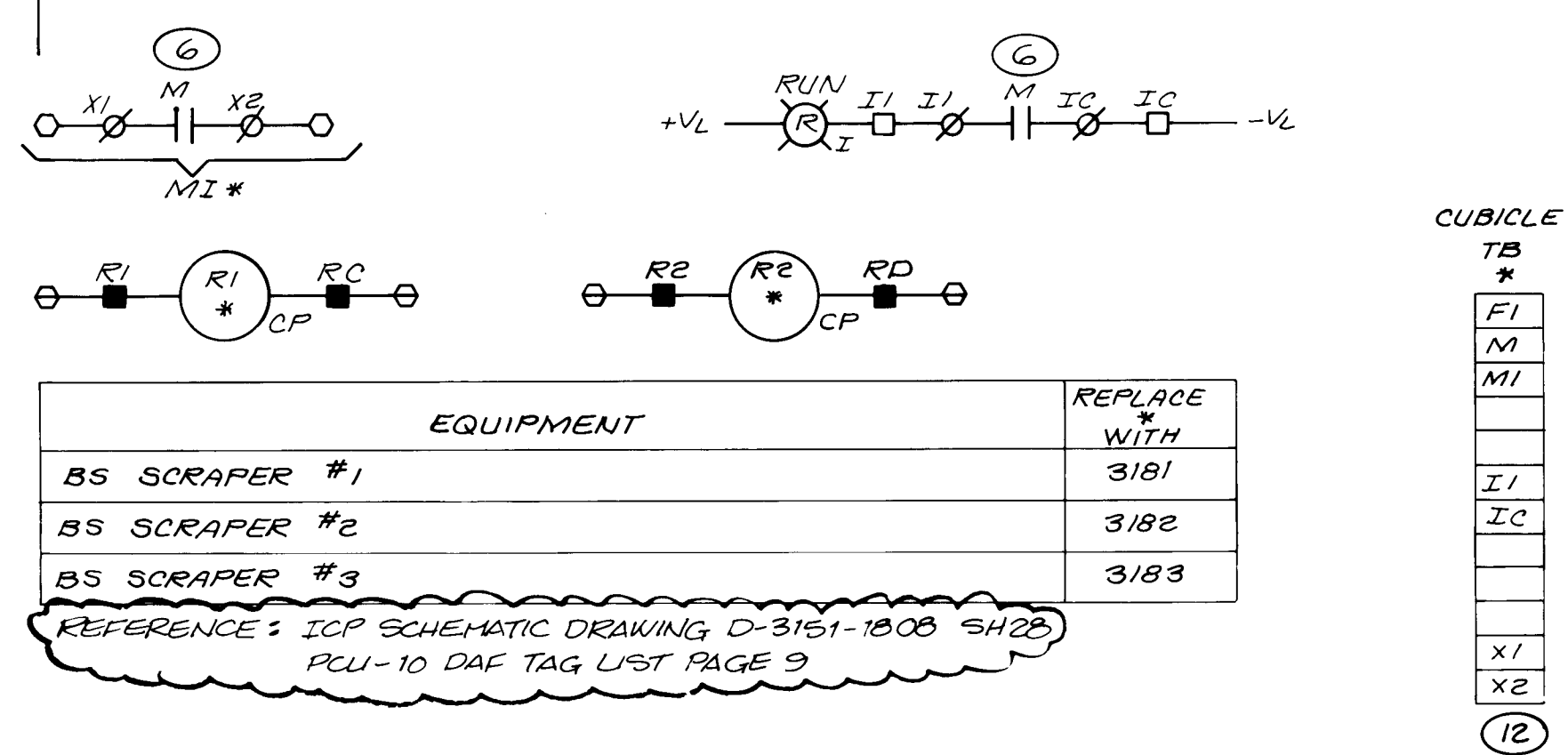
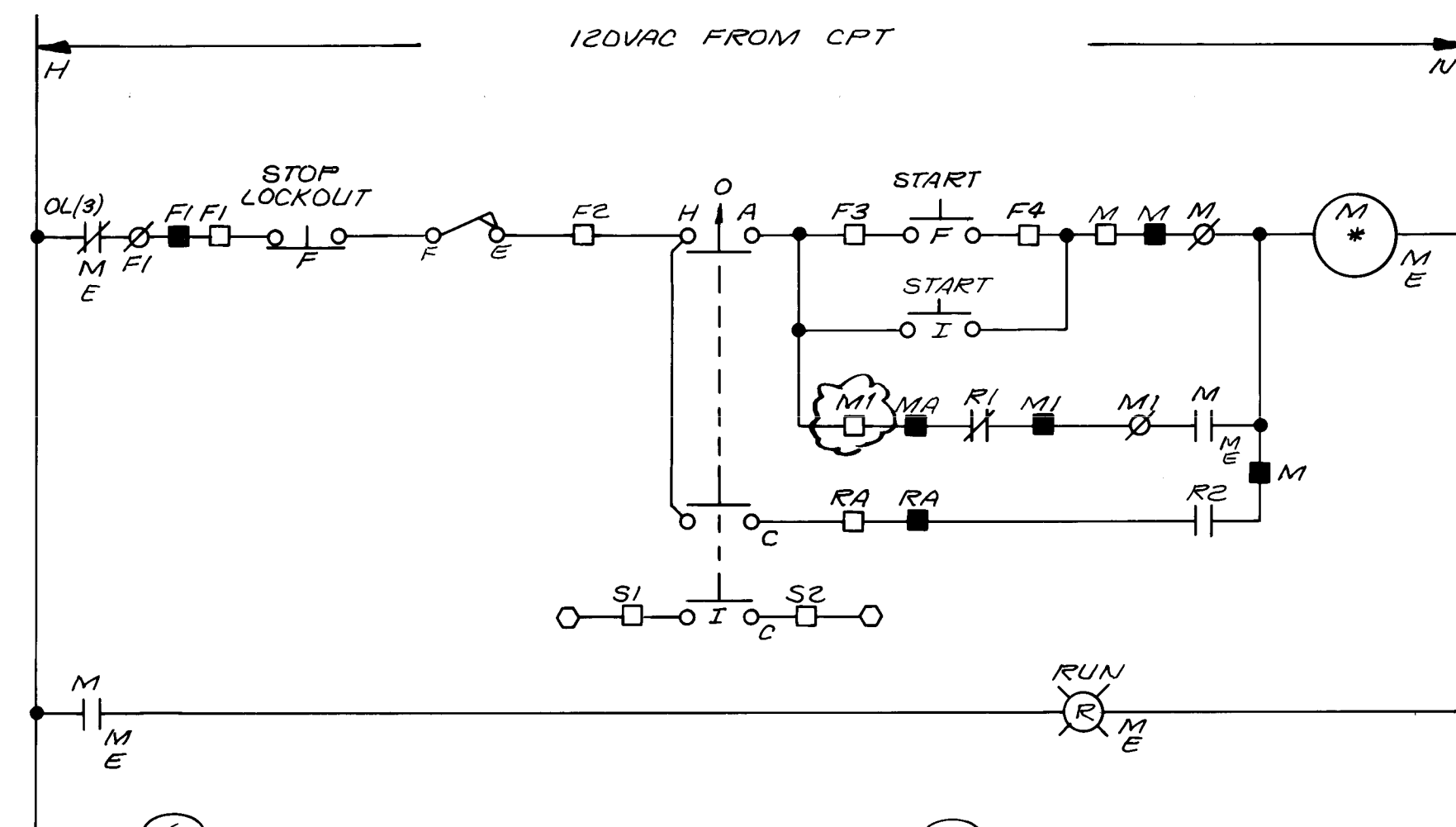
M-C NO. 831721
E-16 102 OF 111
 SC NO.



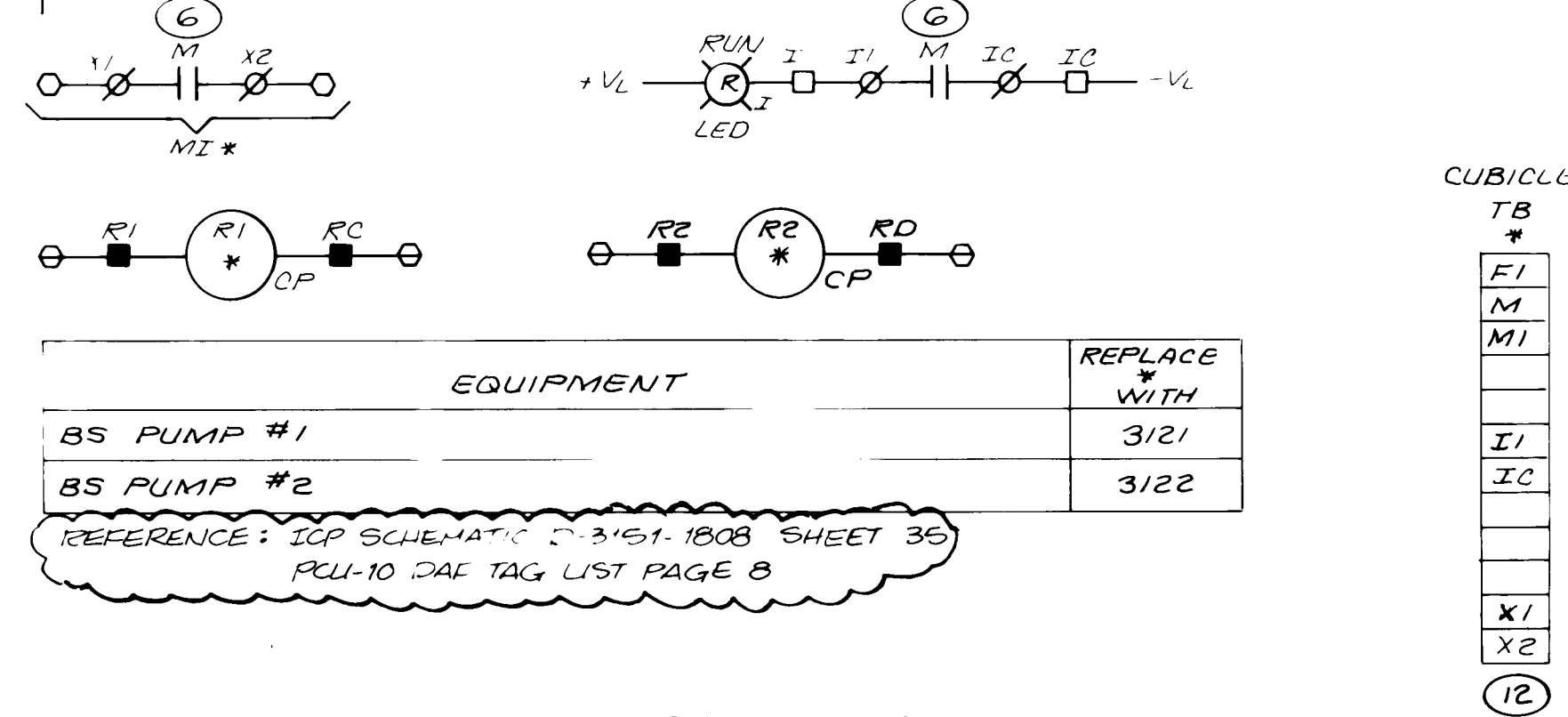
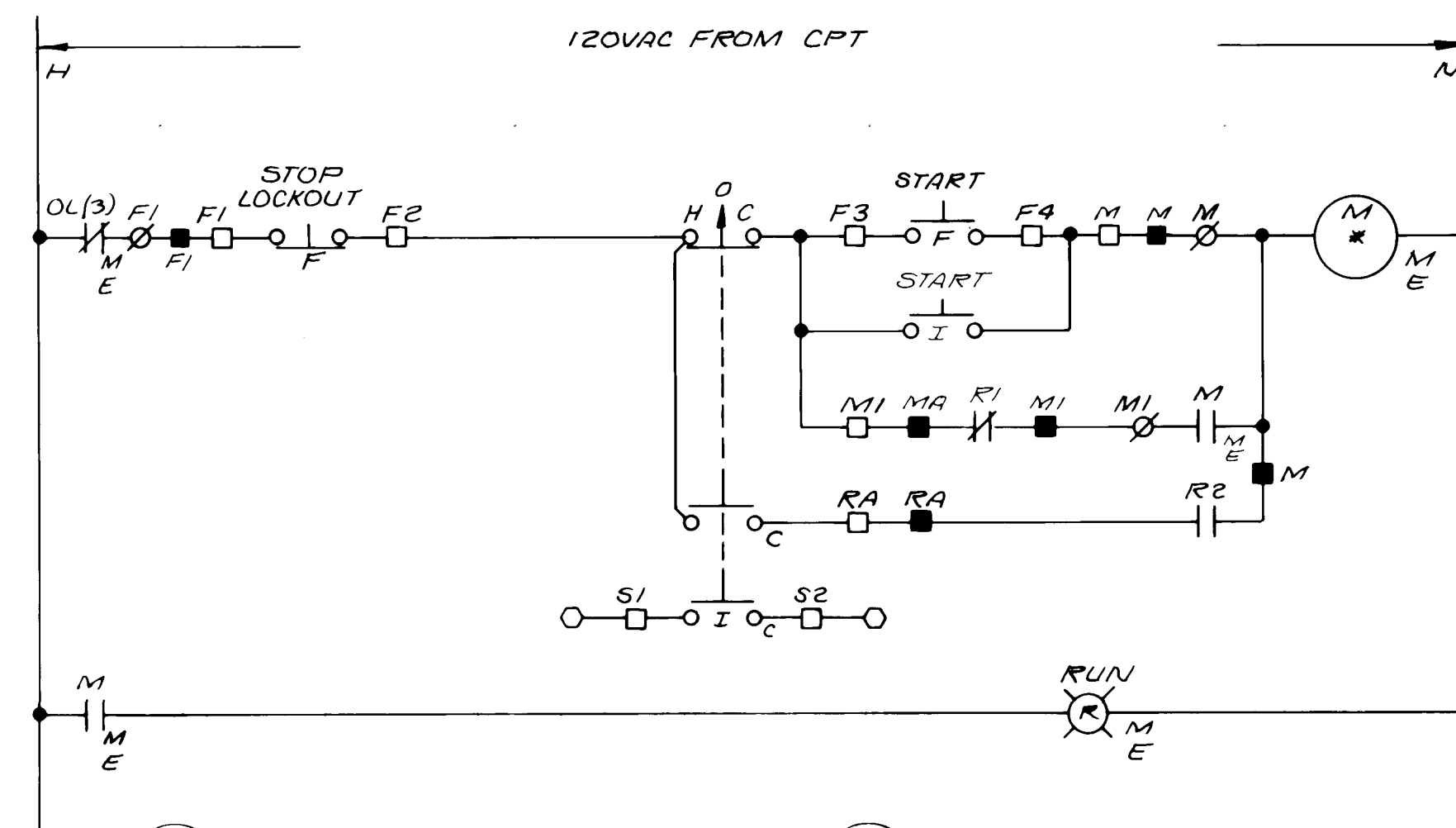
SCHEMATIC 1



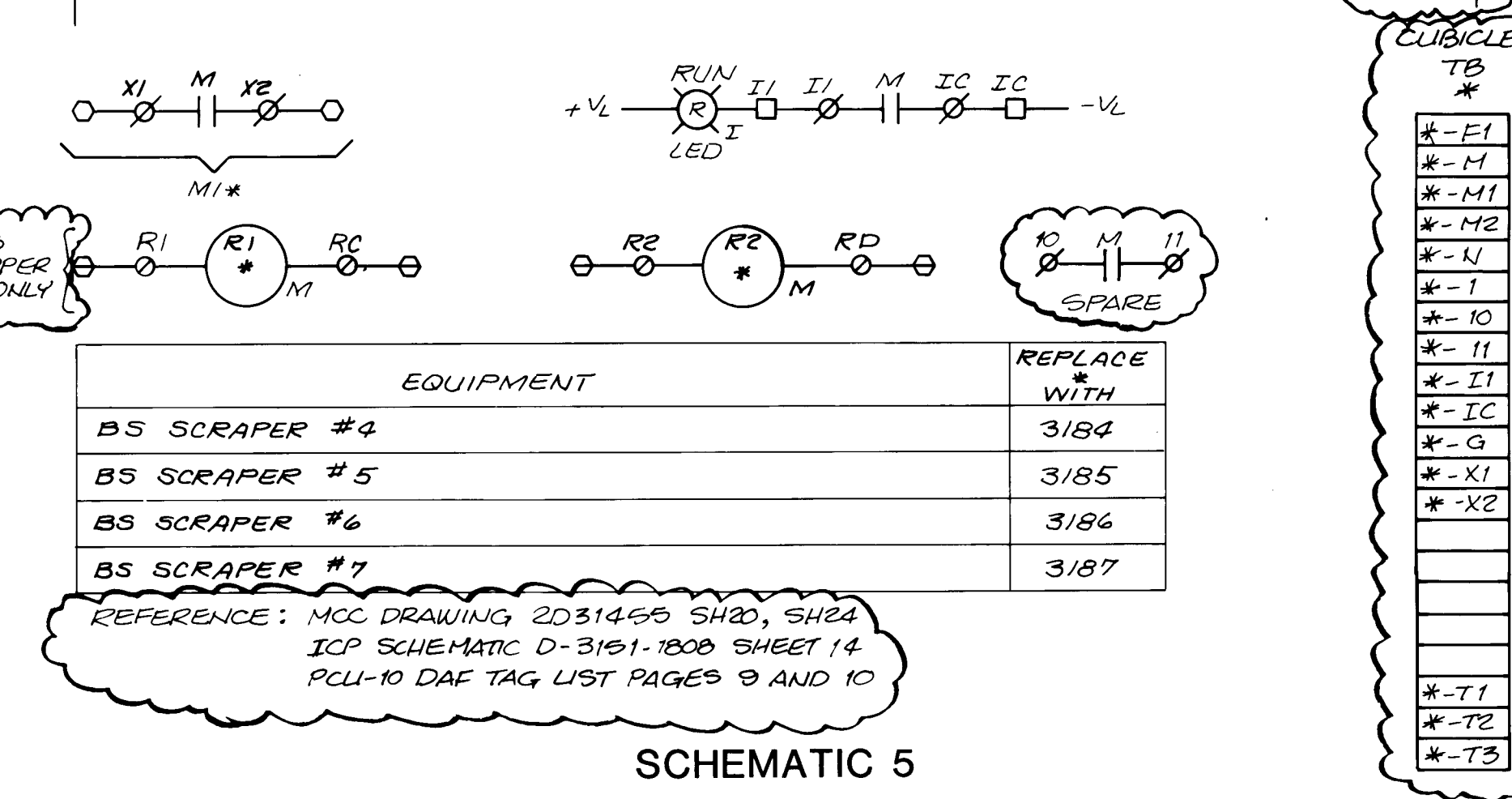
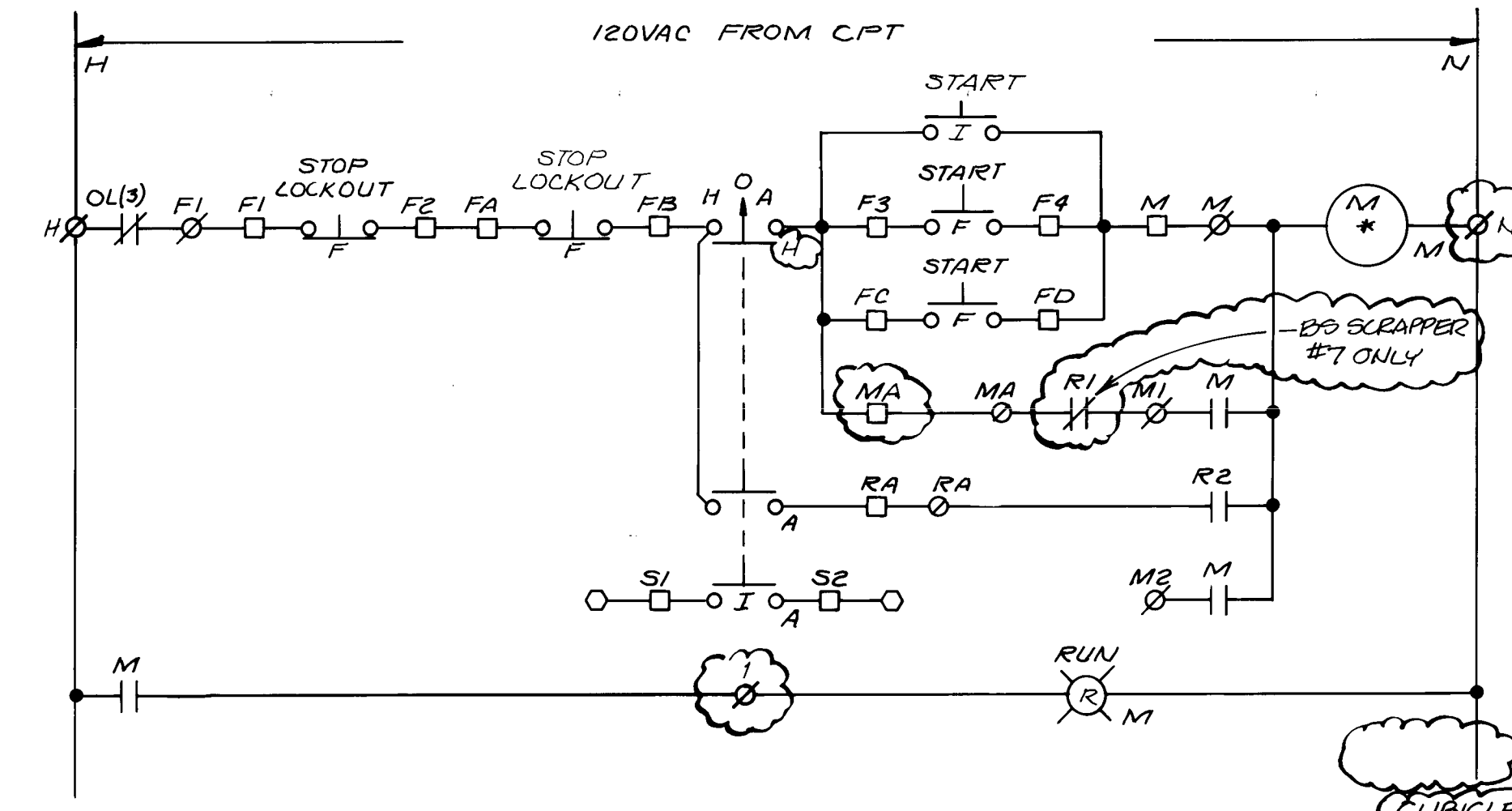
SCHEMATIC 2



SCHEMATIC 3



SCHEMATIC 4



SCHEMATIC 5

GENERAL NOTES

1. ALL RELAYS WITH DESIGNATION BEGINNING WITH "R", SUCH AS R2, RA, ETC. SHALL BE STRUTHERS-DUNN 219ABA156, 24VDC COILS TO MATCH EXISTING.
2. ALL NOTES  ARE ON SHEET E-23.
3. CONDUCTORS TO SI-S2, XI-X2, II-IC, RI-RC, R2-RD.: SHIELDED PAIR. RUN SEPARATE FROM ALL AC CONDUCTORS.

LEGEND

- ☒ TB POINT-MCC CUBICLE AND MASTER COMPARTMENT
- ☒ TB POINT-MCC MASTER COMPARTMENT ONLY
- ☐ TB POINT-INTEGRATED CONTROL PANEL
- ☐ TB POINT-PROGRAMMABLE CONTROLLER UNIT INPUT
- ☐ TB POINT-PROGRAMMABLE CONTROLLER UNIT OUTPUT
- ☒ TB POINT-POLYMER SYSTEM FIELD PANEL
- ☒ TB POINT-EXISTING CONTROL PANEL
- ☐ TB POINT-AFD INTERPOSING RELAY PANEL
- ☐ TB POINT-ART VALVE INTERPOSING RELAY PANEL
- ☒ TB POINT-VALVE OPERATOR
- ☒ TB POINT- LIGHTING CONTACTOR
- ☒ TB POINT- PACKAGED CONTROLS

NOTE: MOST TB POINTS IN EXISTING MCC
NOT SHOWN. SHOW ON RECORD DRAWINGS.

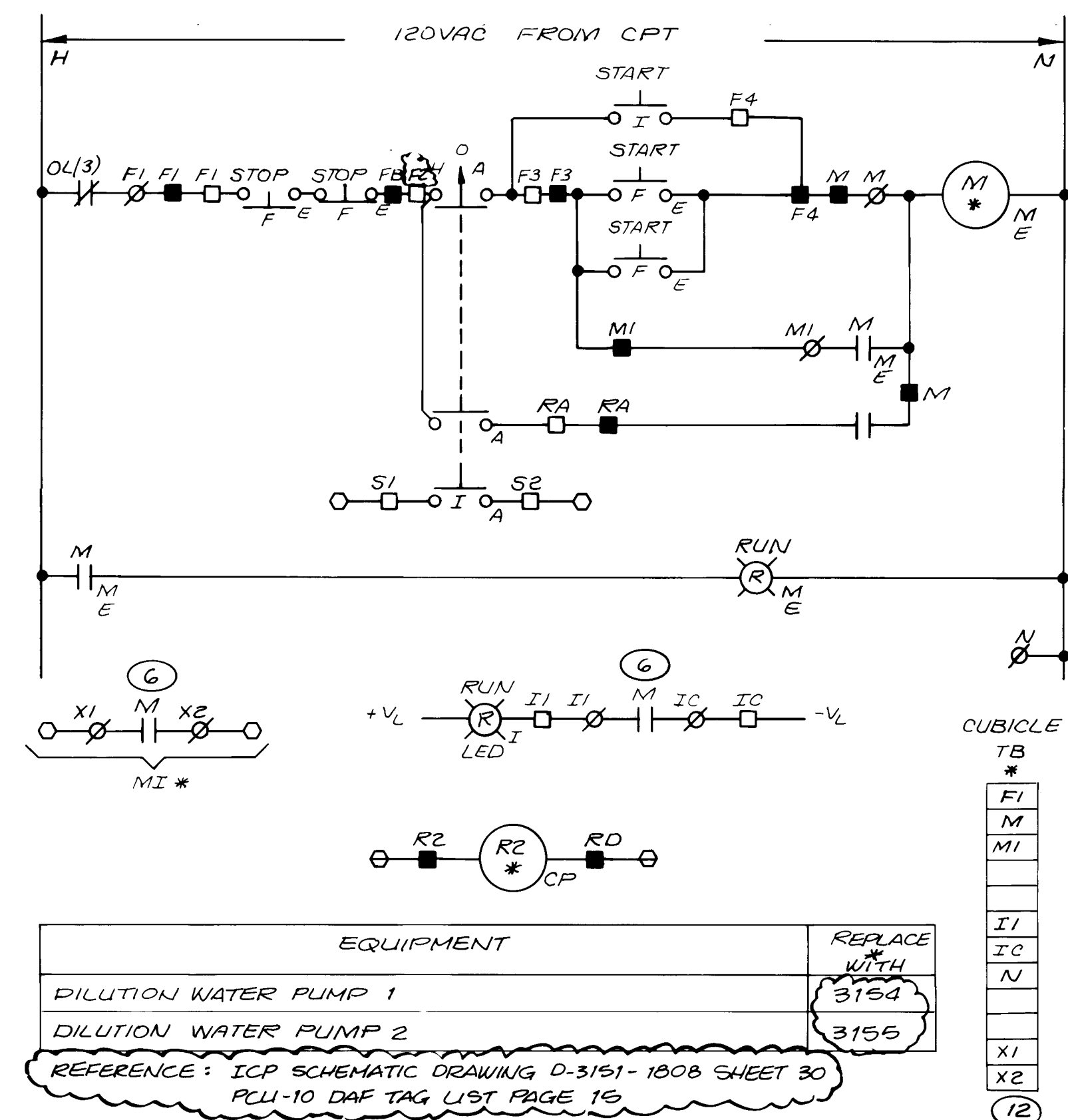
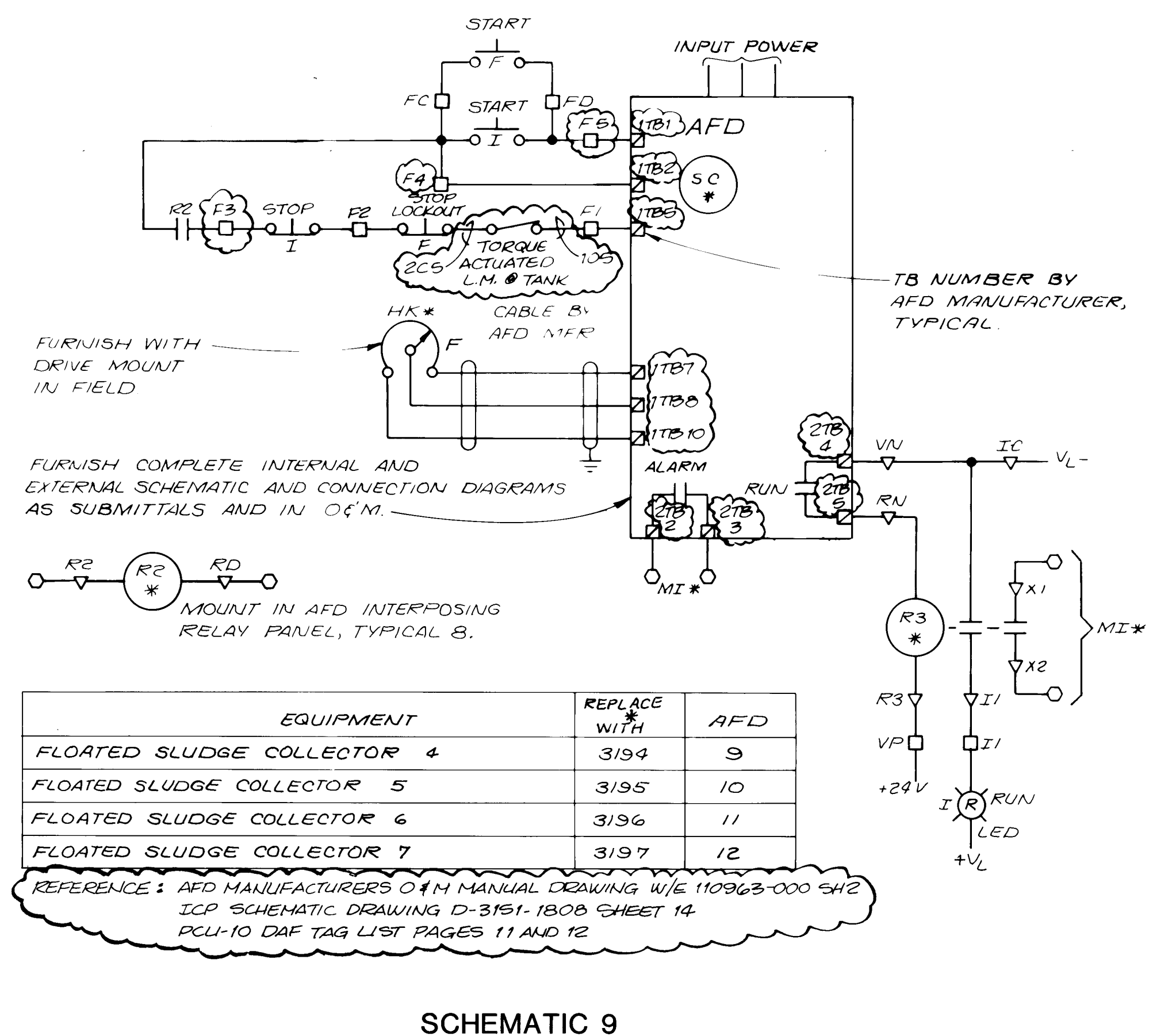
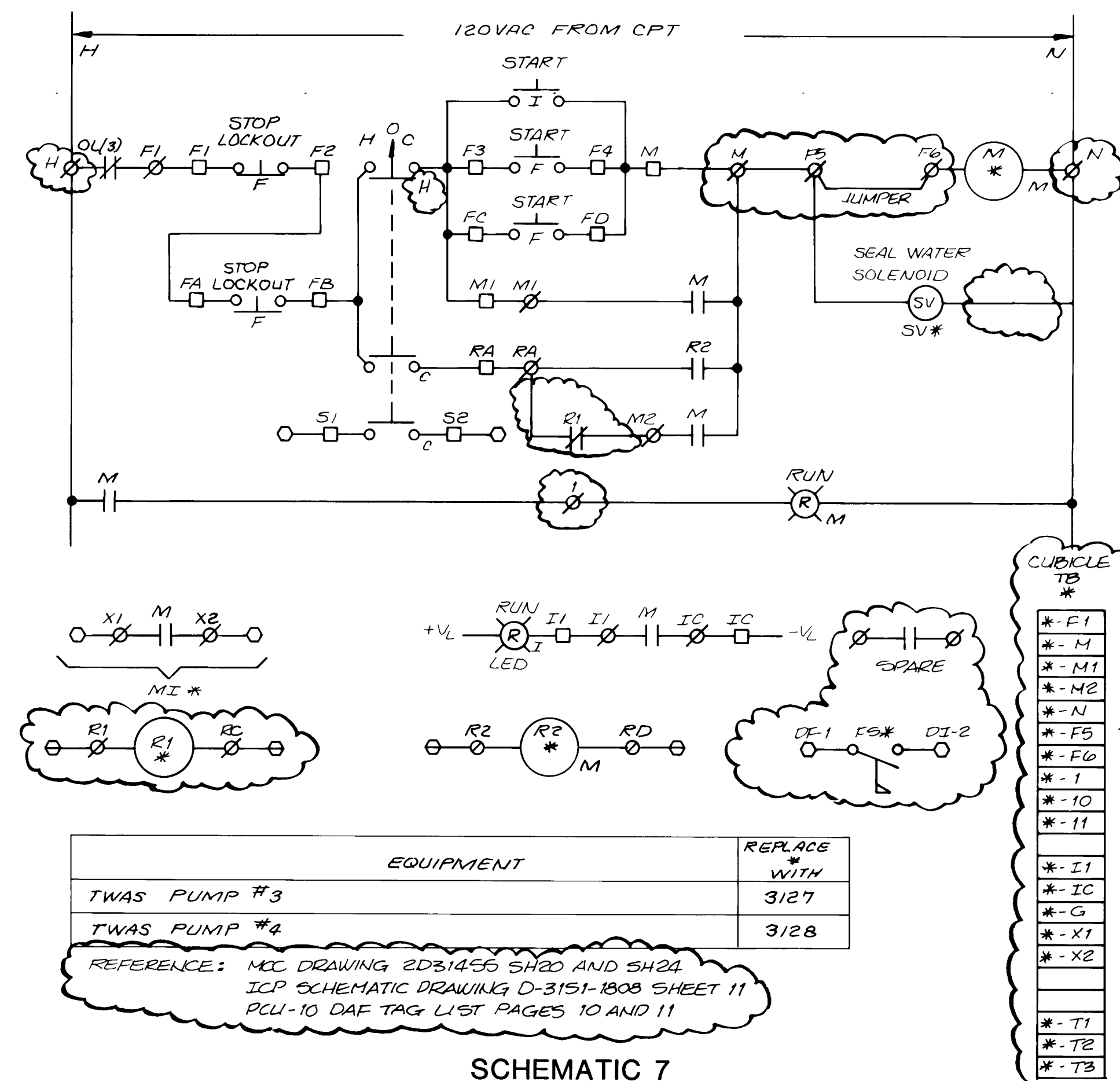
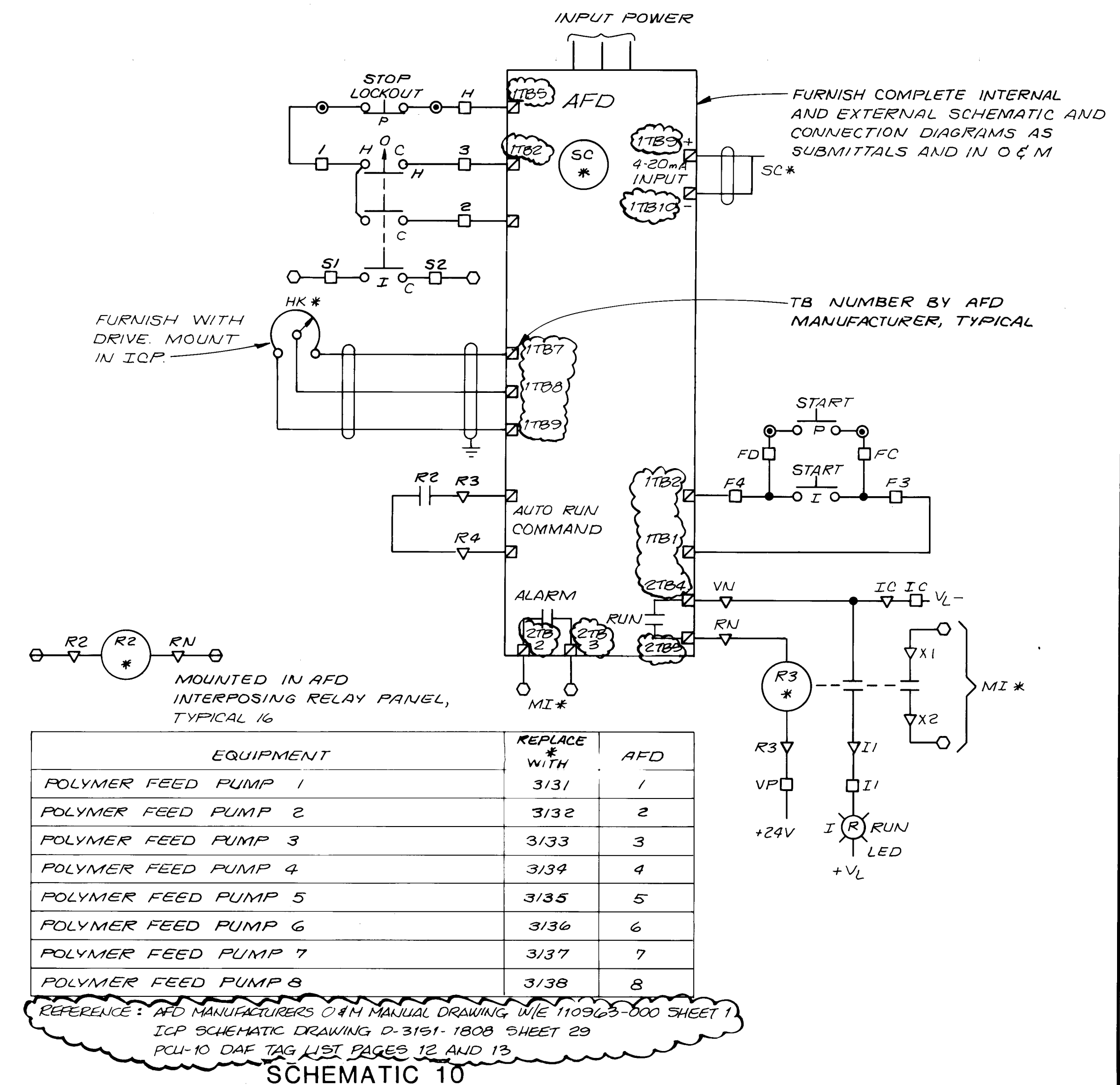
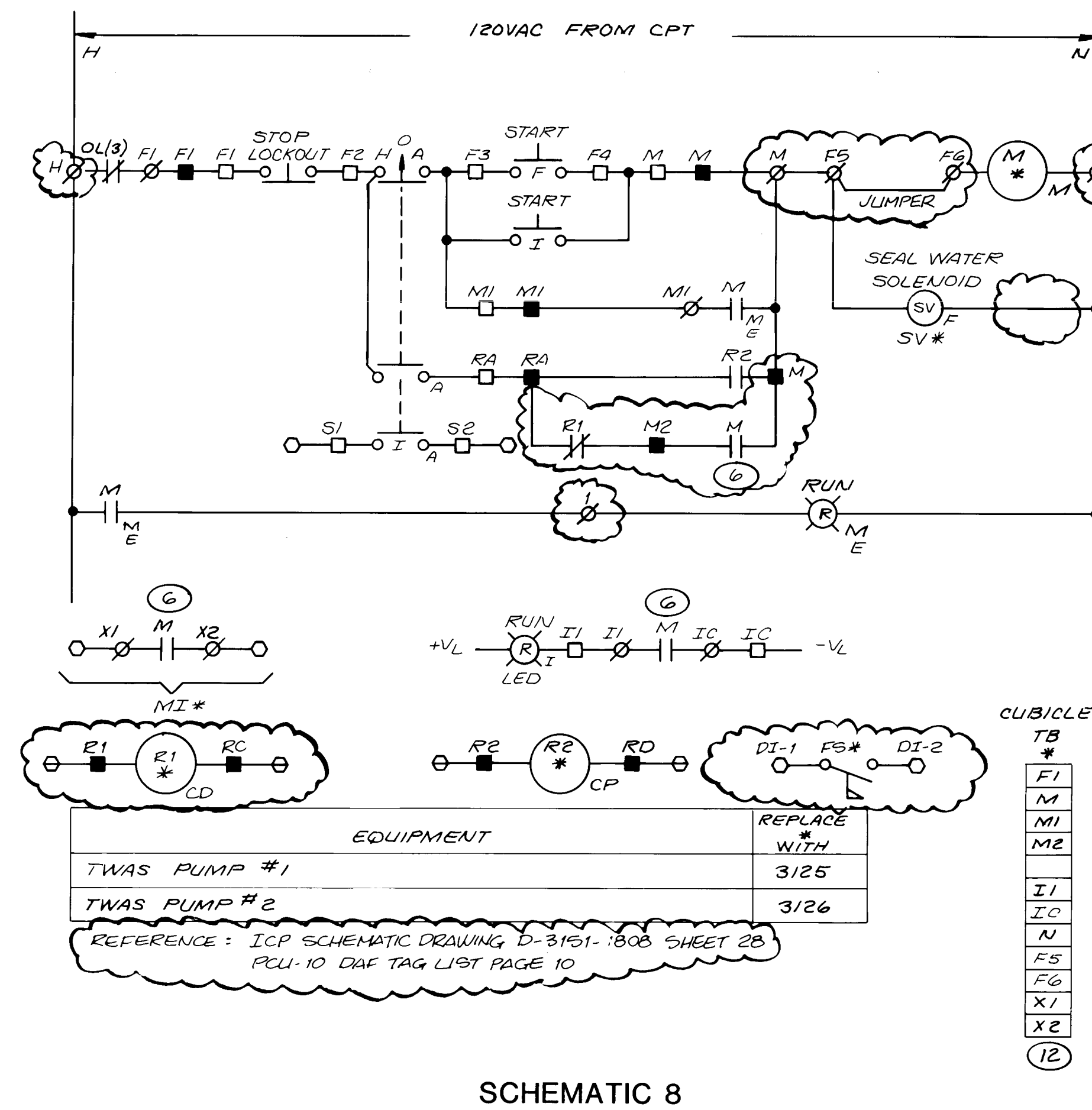
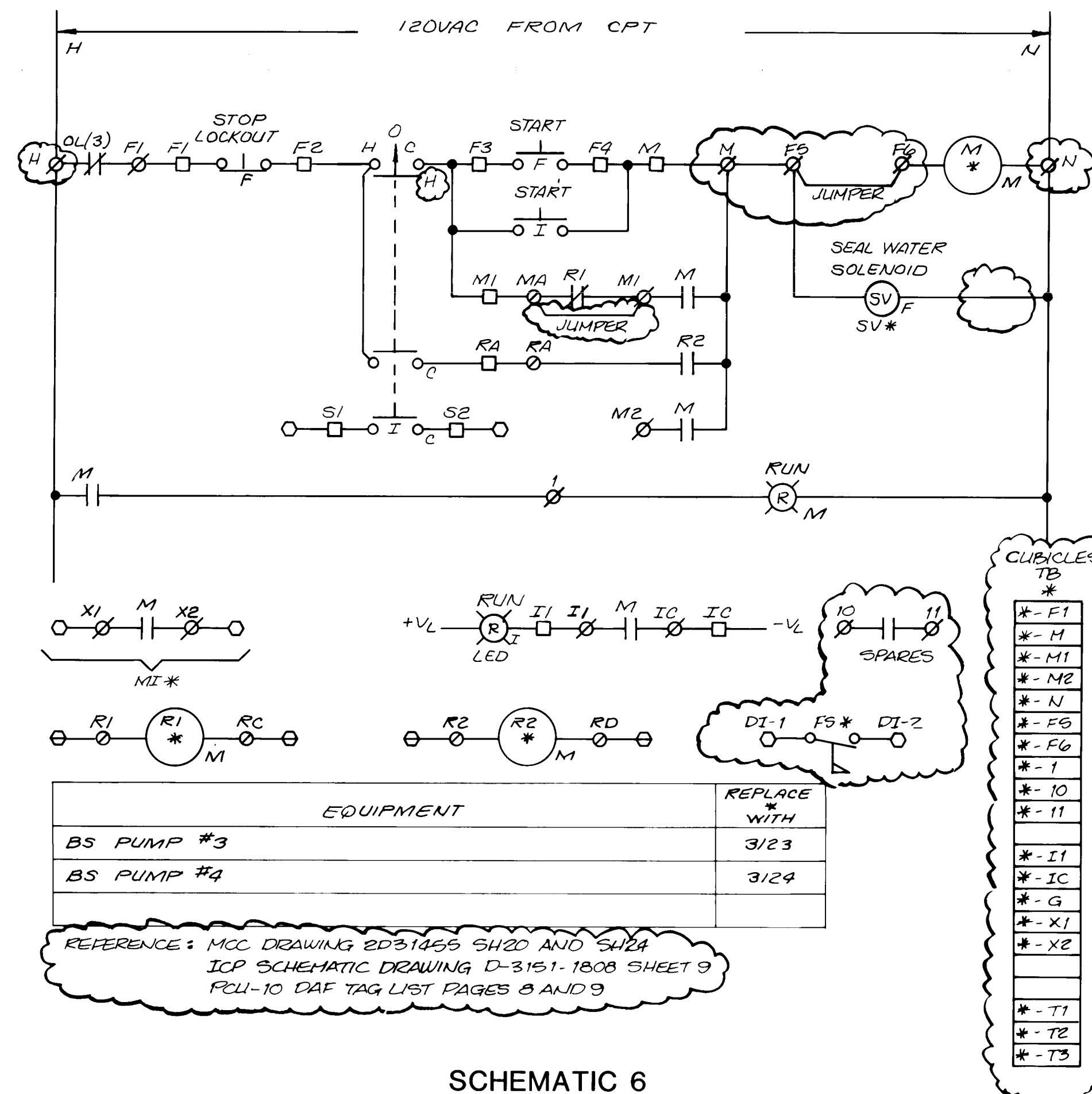
M	EQUIPMENT IN NEW MOTOR CONTROL CENTER
ME	EQUIPMENT IN EXISTING MOTOR CONTROL CENTER
F	EQUIPMENT IN FIELD
I	EQUIPMENT IN INTEGRATED CONTROL PANEL
V	EQUIPMENT IN VALVE OPERATOR
CP	EQUIPMENT IN EXISTING CONTROL PANEL
P	EQUIPMENT IN POLY SYSTEM LOCAL CONTROL PANEL

RECORD DRAWING

DATE: 10/88	DRAFTED BY: MCA
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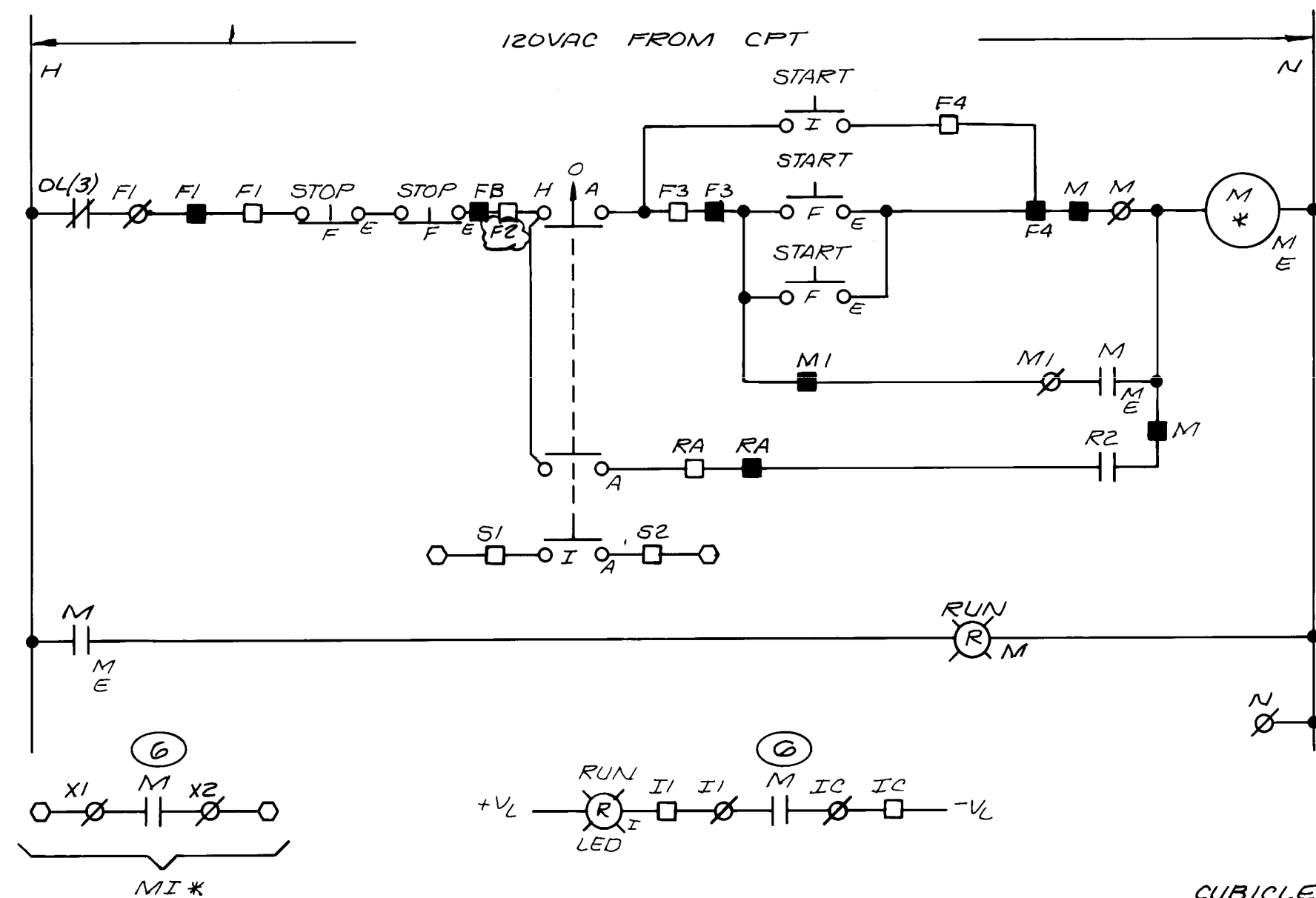
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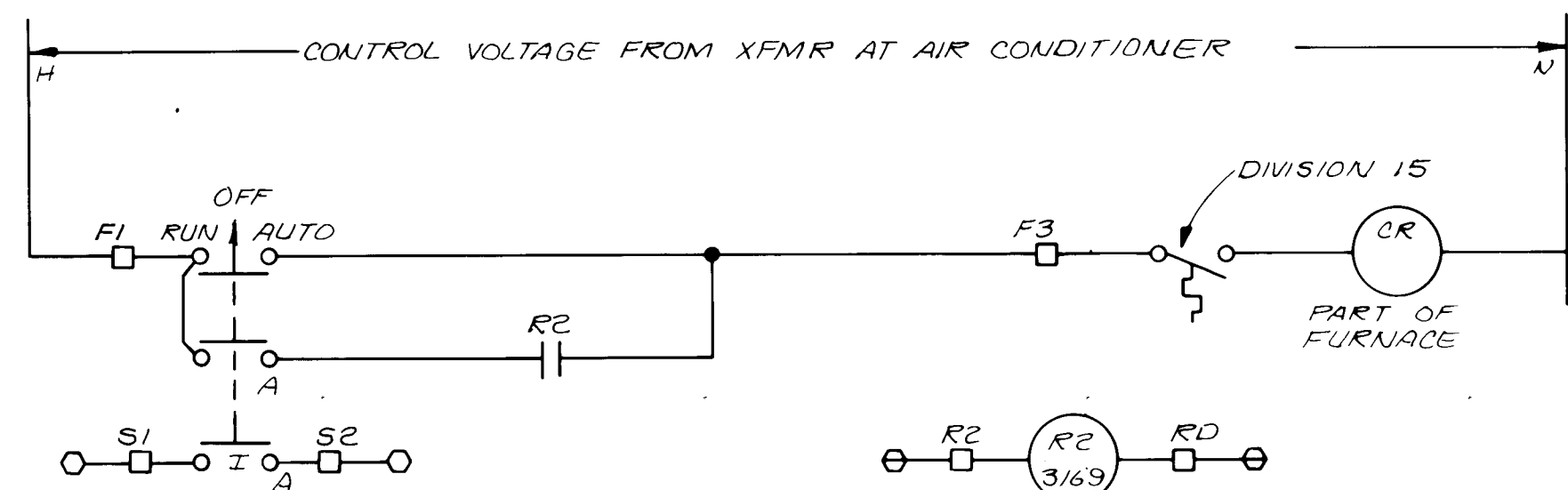




EQUIPMENT	REPLACE WITH
POLYMER TRANSFER PUMP 1	3/43
POLYMER TRANSFER PUMP 2	3/44

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 30
PCU-10 DAF TAG LIST PAGE 14

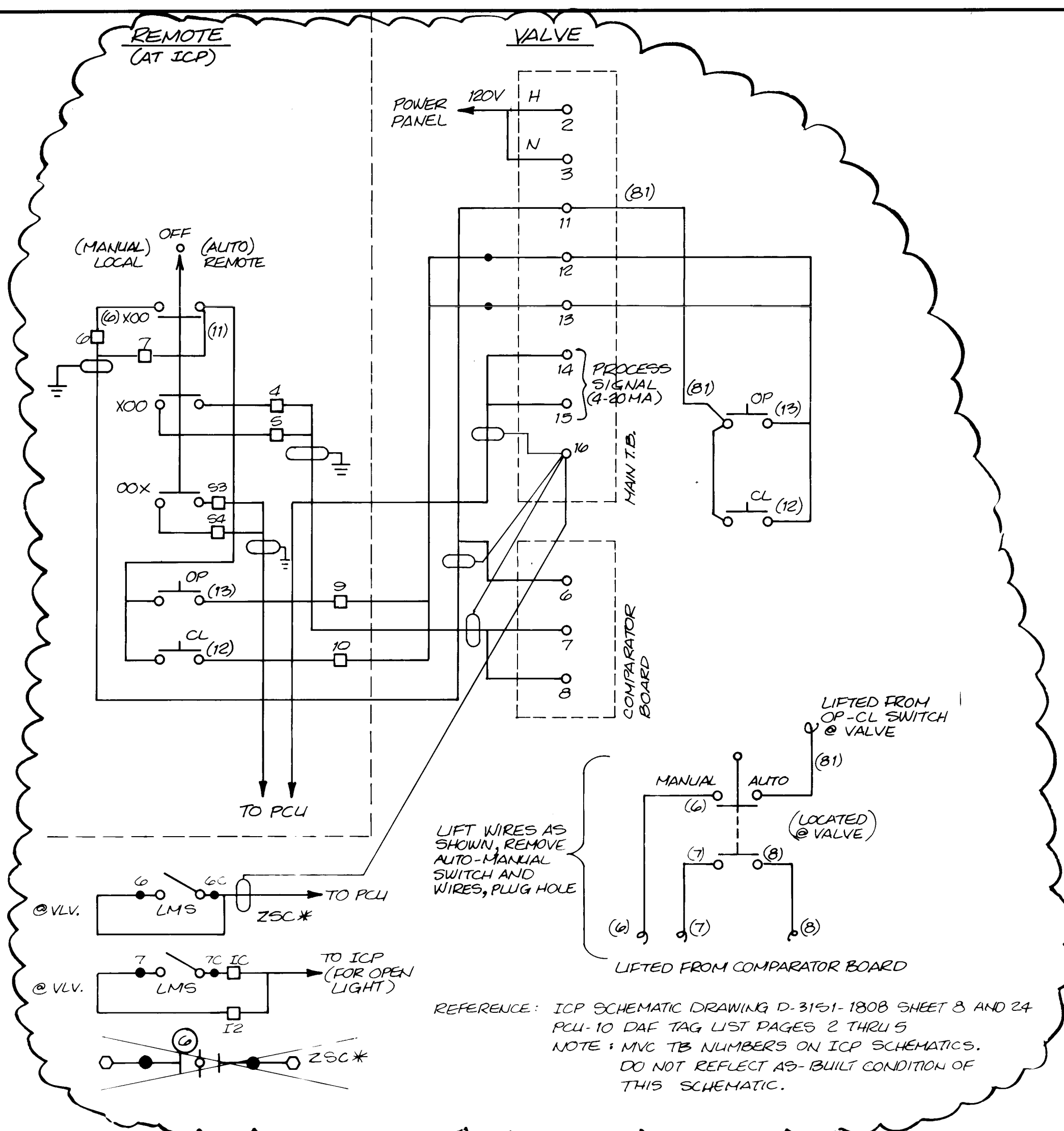
SCHEMATIC 12



EQUIPMENT	REPLACE WITH
CONTROL ROOM AIR CONDITIONER	TC 3/69

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 13
PCU-10 DAF TAG LIST PAGE 17

SCHEMATIC 12A



CONTACT	VALVE POSITION		FUNCTION
	OPEN	CLOSE	
1	■	---	BYPASS CIR
2	■	---	SPARE
3	■	---	IND LIGHT
4	■	---	OPEN LIMIT
5	---	■	BYPASS CIR
6	---	■	PCU
7	■	---	IND LIGHT
8	■	---	CLOSED LIMIT

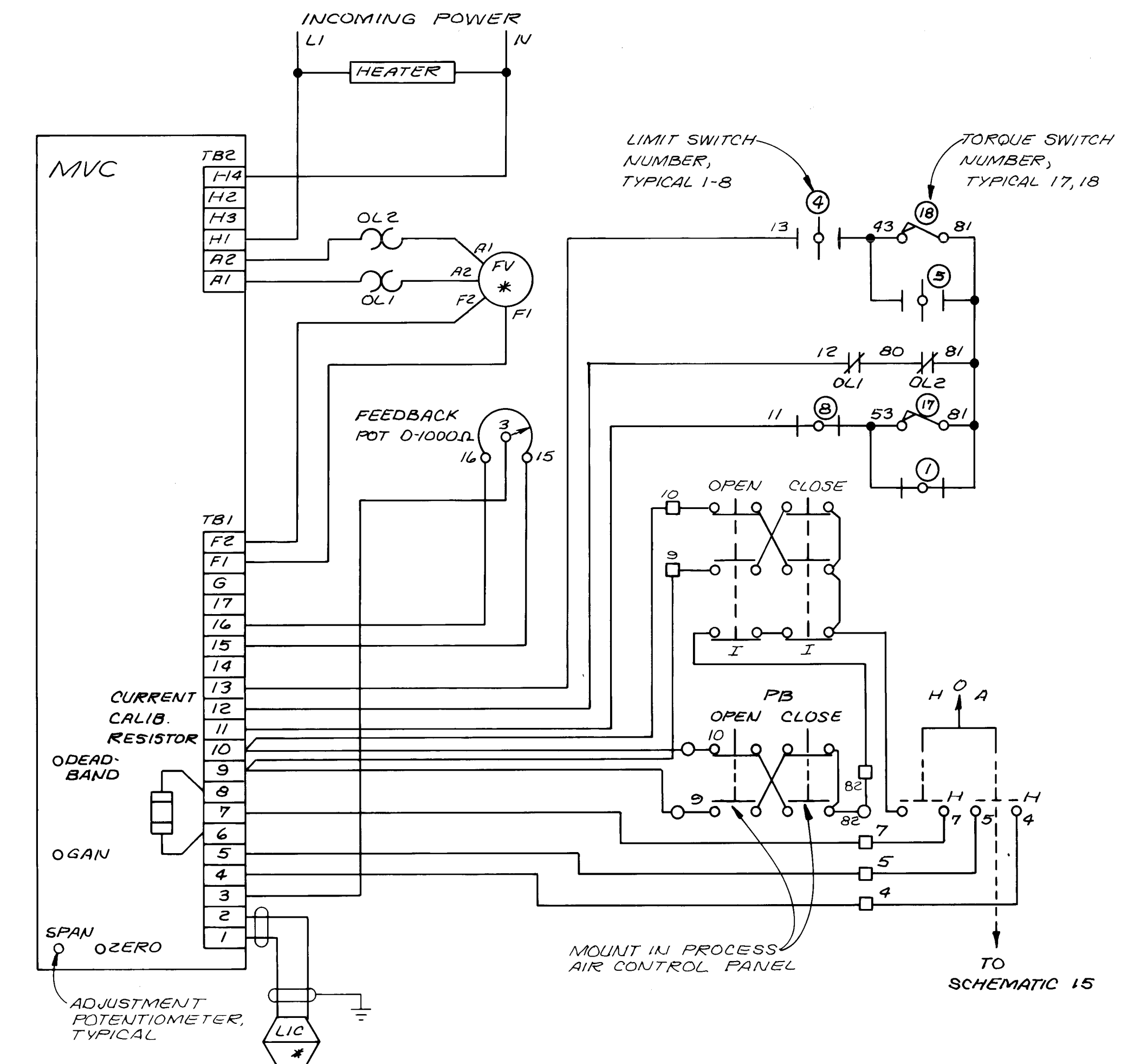
(7) CLOSING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE.

(8) OPENING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE.

--- SWITCH OPEN
■ SWITCH CLOSED

EQUIPMENT	REPLACE WITH	MVC
UWAS CONTROL VALVE 1	3/01	1
UWAS CONTROL VALVE 2	3/02	2
UWAS CONTROL VALVE 3	3/03	3
UWAS CONTROL VALVE 4	3/04	4
UWAS CONTROL VALVE 5	3/05	5
UWAS CONTROL VALVE 6	3/06	6
UWAS CONTROL VALVE 7	3/07	7
STANDBY UWAS CONTROL VALVE 1	3/08	8
STANDBY UWAS CONTROL VALVE 2	3/09	9

SCHEMATIC 13



CONTACT	VALVE POSITION		FUNCTION
	OPEN	CLOSE	
1	■	---	BYPASS CIR
2	■	---	SPARE
3	■	---	IND LIGHT
4	■	---	OPEN LIMIT
5	---	■	BYPASS CIR
6	---	■	SPARE
7	■	---	IND LIGHT
8	■	---	CLOSED LIMIT

(7) CLOSING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE.

(8) OPENING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE.

--- SWITCH OPEN
■ SWITCH CLOSED

EQUIPMENT	REPLACE WITH	MVC
ART PROCESS AIR CONTROL VALVE 4	3/14	13
ART PROCESS AIR CONTROL VALVE 5	3/15	14
ART PROCESS AIR CONTROL VALVE 6	3/16	15
ART PROCESS AIR CONTROL VALVE 7	3/17	16

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 10
PCU-10 DAF TAG LIST PAGES 6, 7, AND 8

SCHEMATIC 14

RECORD DRAWING

DATE: 10/88
DRAFTED BY: MCA

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 39 52 105 88

NO.	DATE	REVISIONS	APPROVED

DESIGNED SES
DRAWN mlr
CHECKED SES
APPROVED
DATE NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE

GRAPHIC SCALE



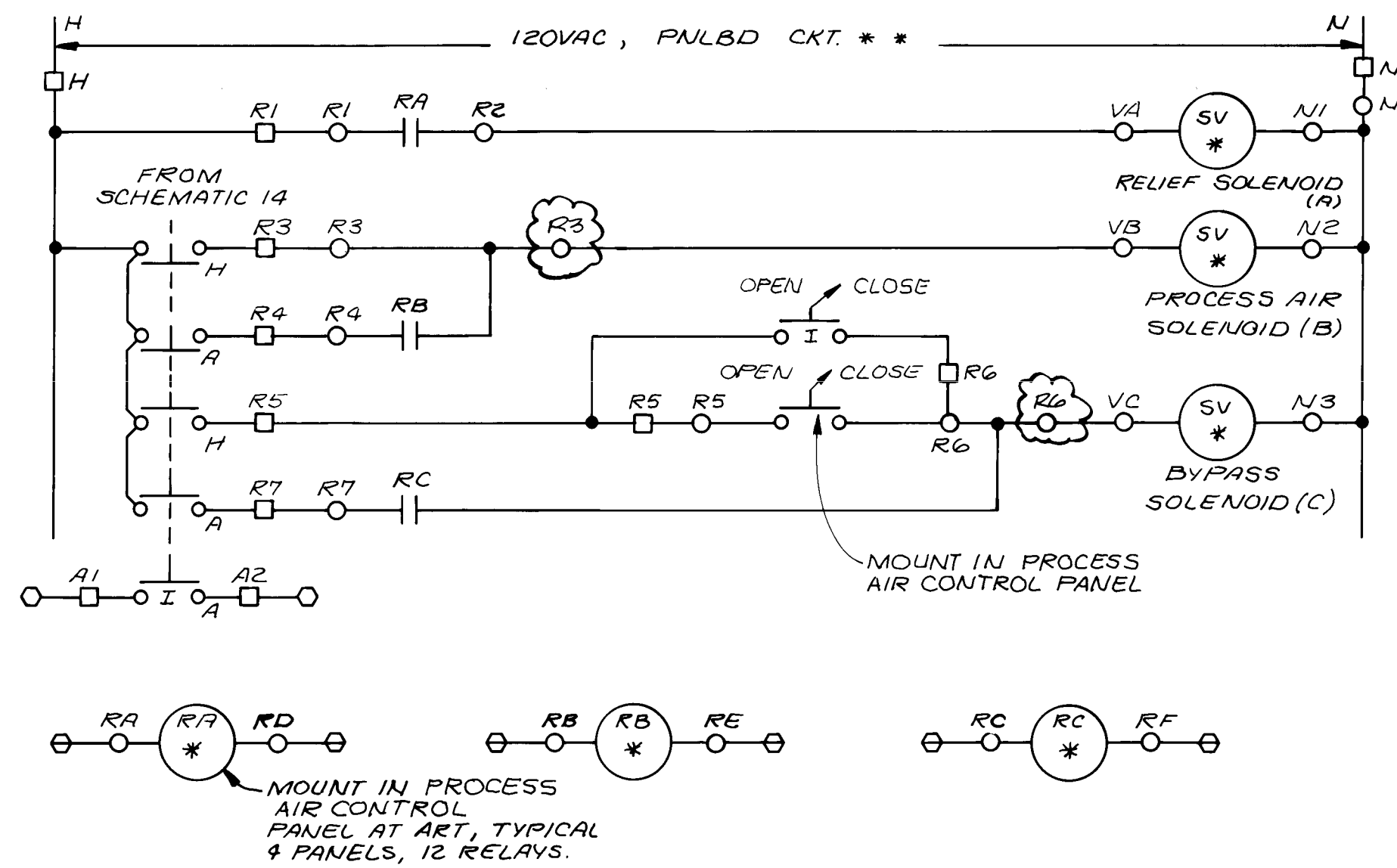
CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
SCHEMATICS 12 - 14

M-C NO. 831721

E-19 105 OF 111

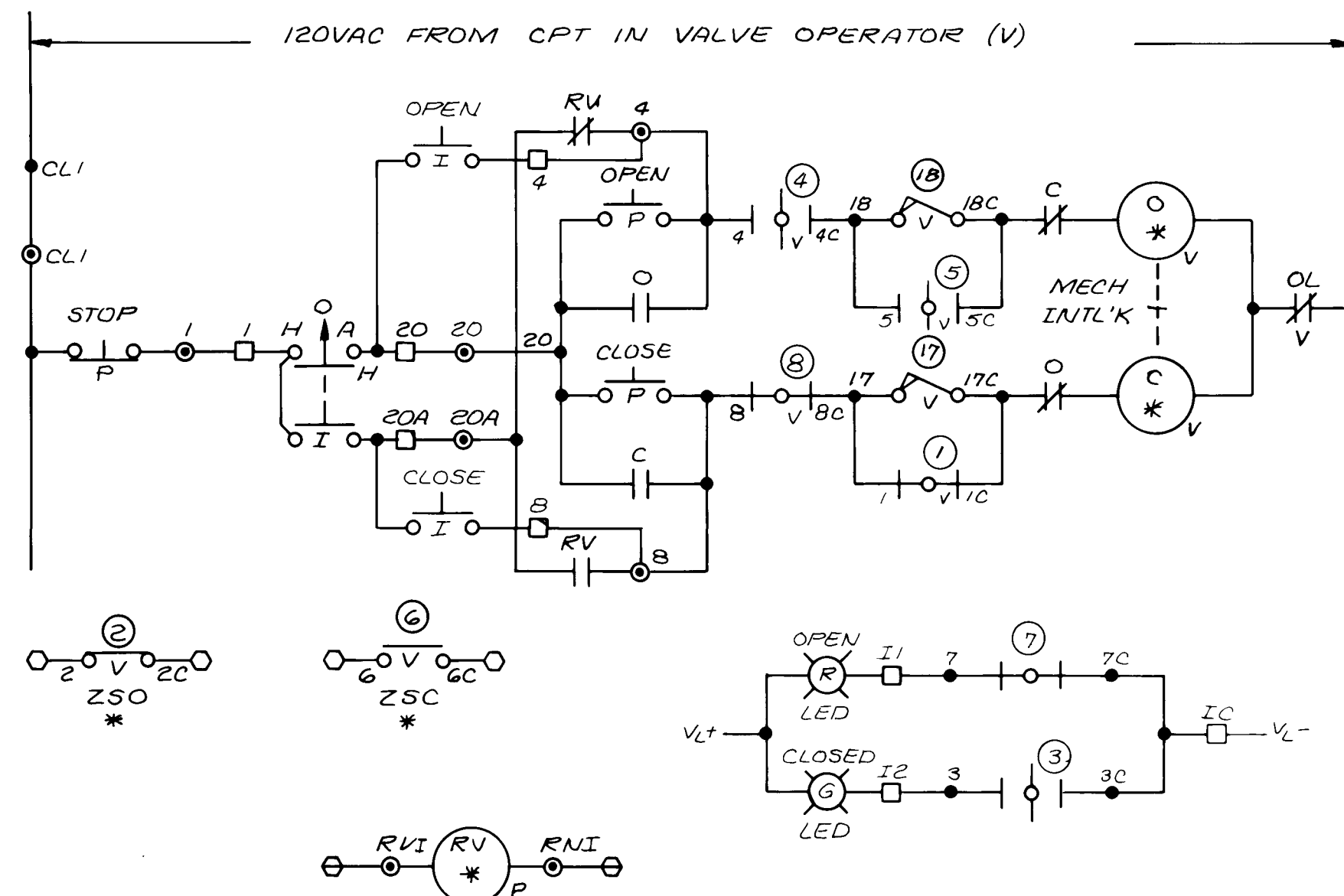
SC NO.



EQUIPMENT	REPLACE WITH	REPLACE WITH
ART 4 RELIEF SOLENOID	3114A	PP28-17
ART 4 PROCESS AIR SOLENOID	3114B	—
ART 4 BYPASS SOLENOID	3114C	—
ART 5 RELIEF SOLENOID	3115A	PP28-19
ART 5 PROCESS AIR SOLENOID	3115B	—
ART 5 BYPASS SOLENOID	3115C	—
ART 6 RELIEF SOLENOID	3116A	PP29-19
ART 6 PROCESS AIR SOLENOID	3116B	—
ART 6 BYPASS SOLENOID	3116C	—
ART 7 RELIEF SOLENOID	3117A	PP29-21
ART 7 PROCESS AIR SOLENOID	3117B	—
ART 7 BYPASS SOLENOID	3117C	—

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEETS, 10, 48, 49, 50, AND 51
PCU-10 DAF TAG LIST PAGES 6, 7, AND 8

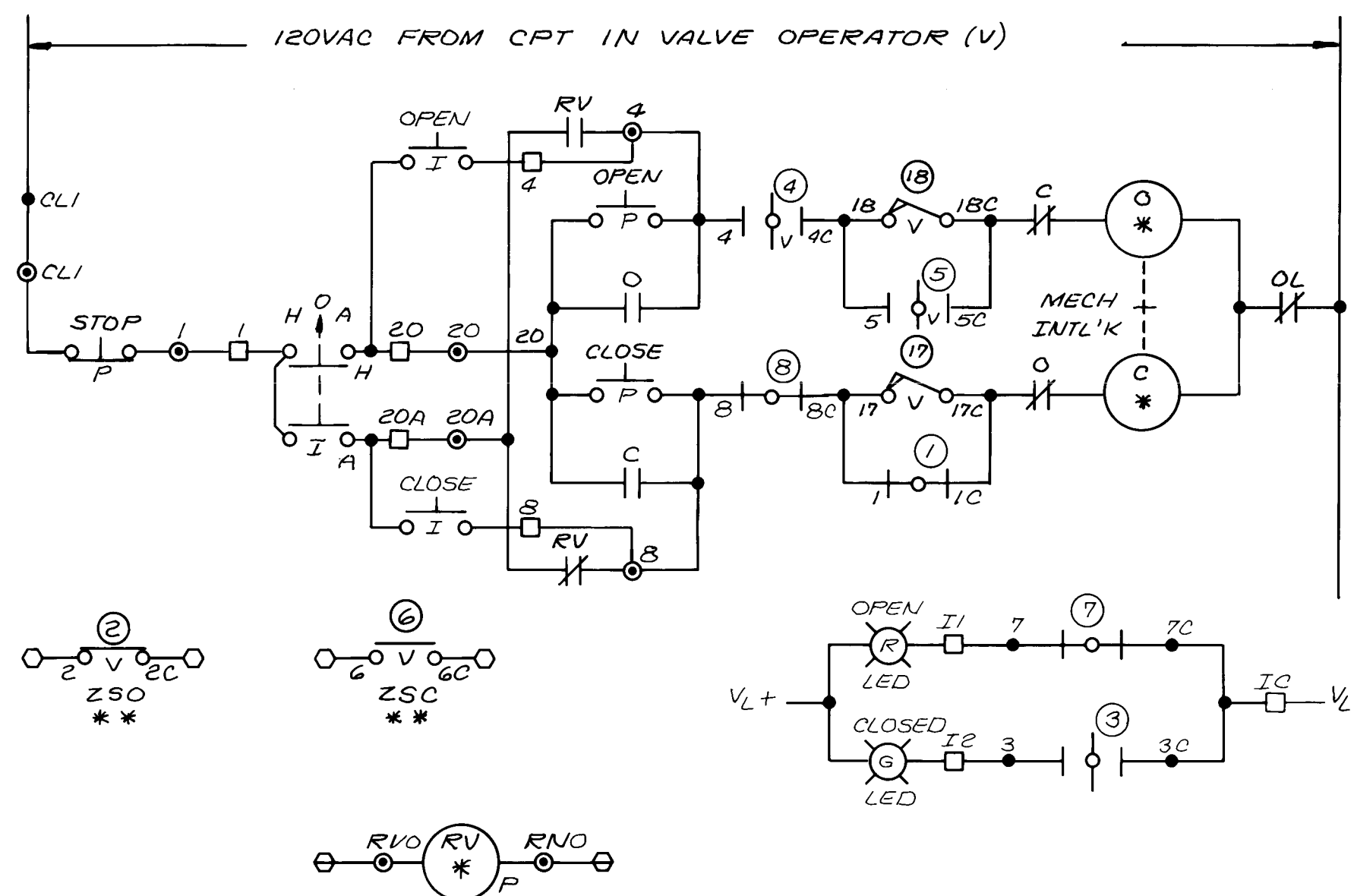
SCHEMATIC 15



EQUIPMENT	REPLACE WITH
POLYMER INLET VALVE 1	3151A
POLYMER INLET VALVE 2	3152A
POLYMER INLET VALVE 3	3153A

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 32
PCU-10 DAF TAG LIST PAGES 11 AND 15

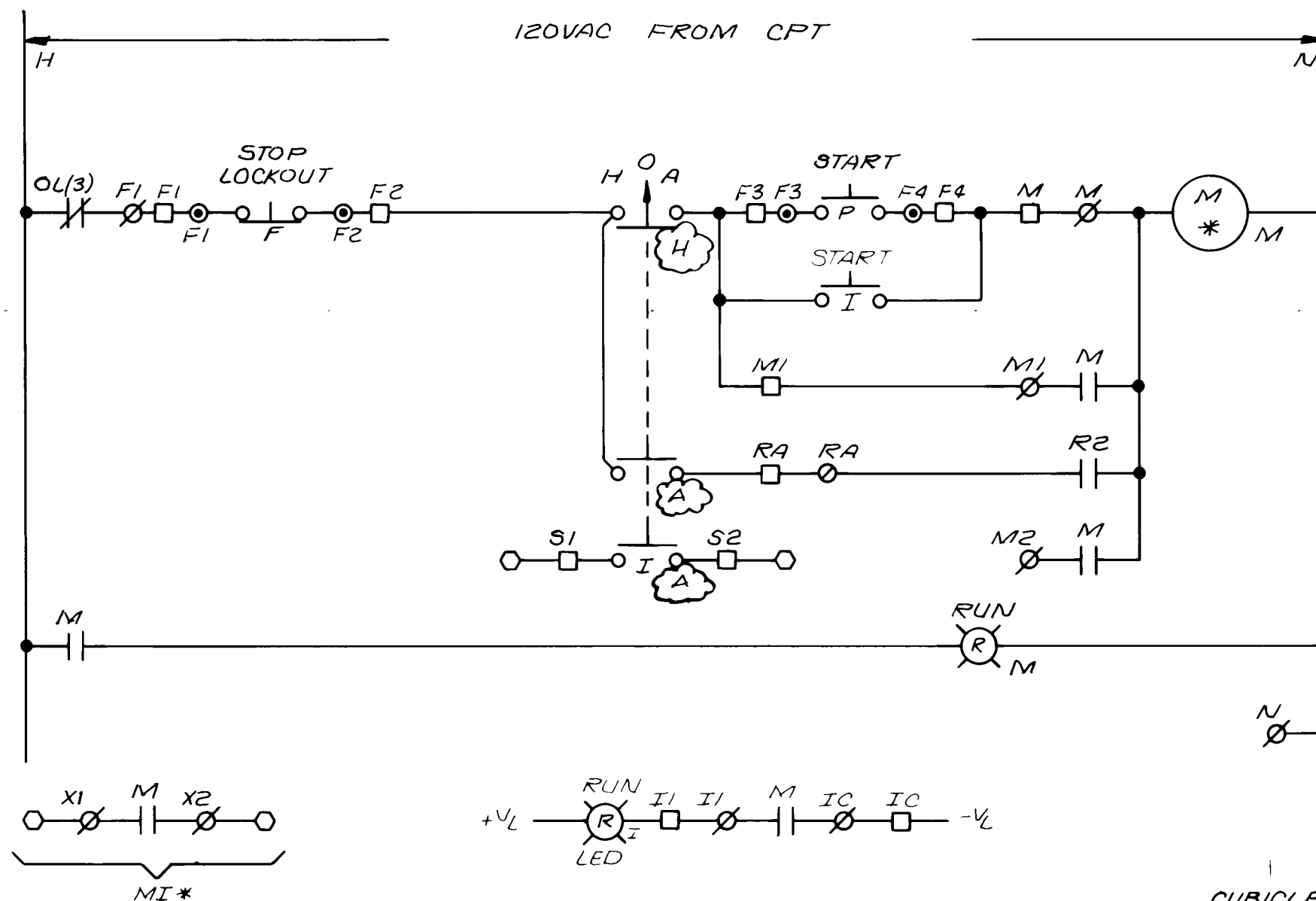
SCHEMATIC 16



EQUIPMENT	REPLACE WITH	REPLACE WITH
POLYMER OUTLET VALVE 1	3151B	3151C
POLYMER OUTLET VALVE 2	3152B	3152C
POLYMER OUTLET VALVE 3	3153B	3153C

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 32A
PCU-10 DAF TAG LIST PAGES 14 AND 15

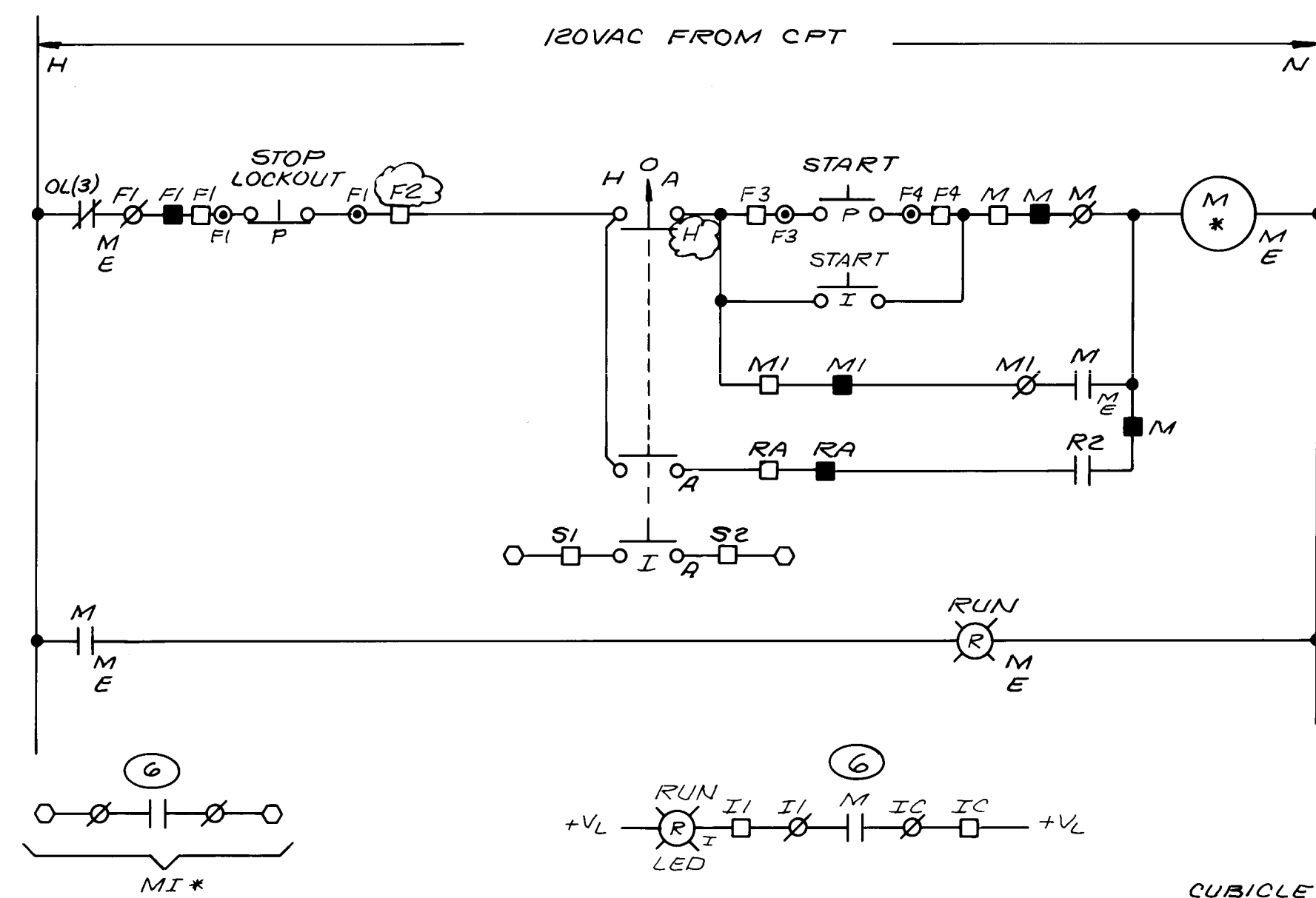
SCHEMATIC 17



EQUIPMENT	REPLACE WITH
POLYMER MIXER 3	3153B

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 33 AND 40
PCU-10 DAF TAG LIST PAGE 15

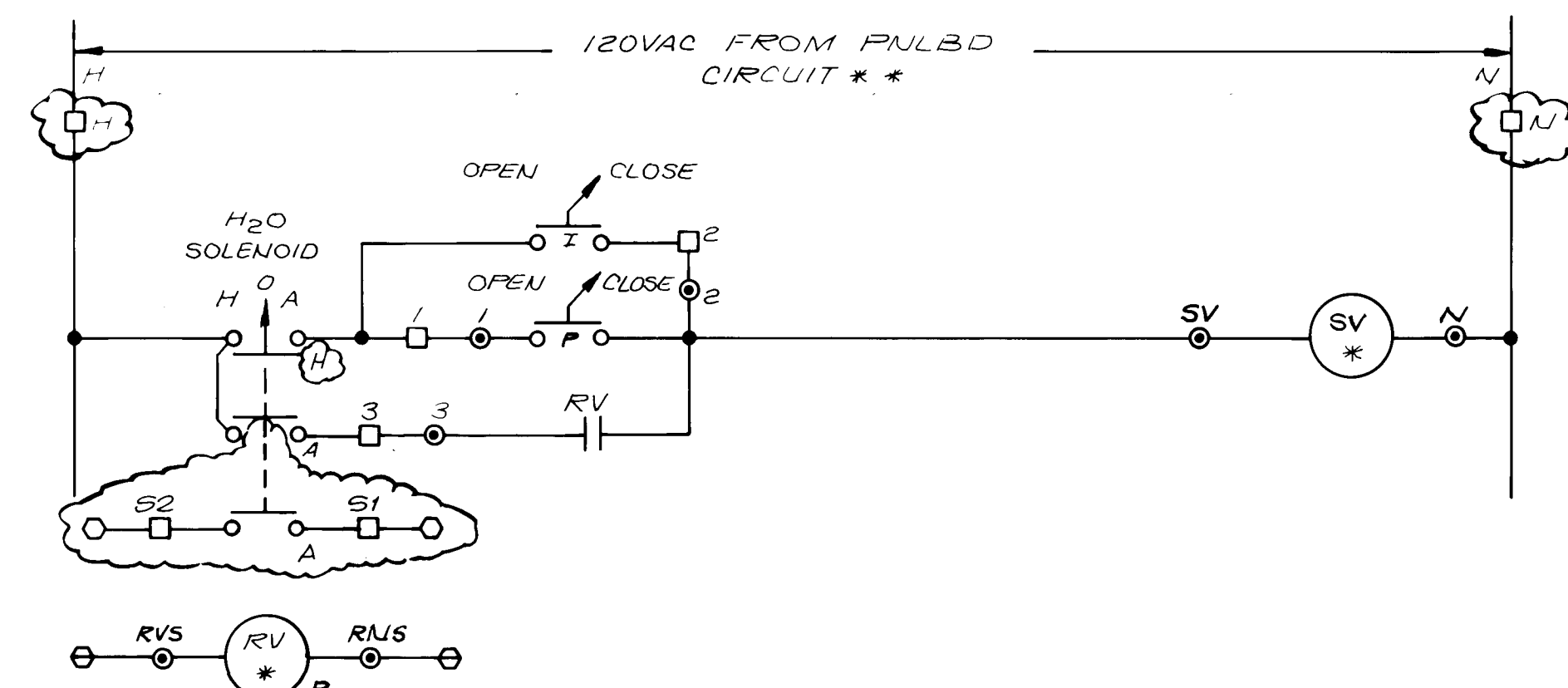
SCHEMATIC 18



EQUIPMENT	REPLACE WITH
POLYMER MIXER 1	3151B
POLYMER MIXER 2	3152B

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 33 AND 40
PCU-10 DAF TAG LIST PAGES 14 AND 15

SCHEMATIC 19



EQUIPMENT	REPLACE WITH	REPLACE WITH
POLYMER MIX TANK 1 H2O SOLENOID	3151	PP28-18
POLYMER MIX TANK 2 H2O SOLENOID	3152	PP28-20
POLYMER MIX TANK 3 H2O SOLENOID	3153	PP29-20

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 31 AND 41
PCU-10 DAF TAG LIST PAGES 14 AND 15

SCHEMATIC 20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
26	39	52	1	0	6	8	8																					

NO.	DATE	REVISIONS	APPROVED

DESIGNED	SES
DRAWN	SES
CHECKED	SES
APPROVED	
DATE	NOV 1984

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

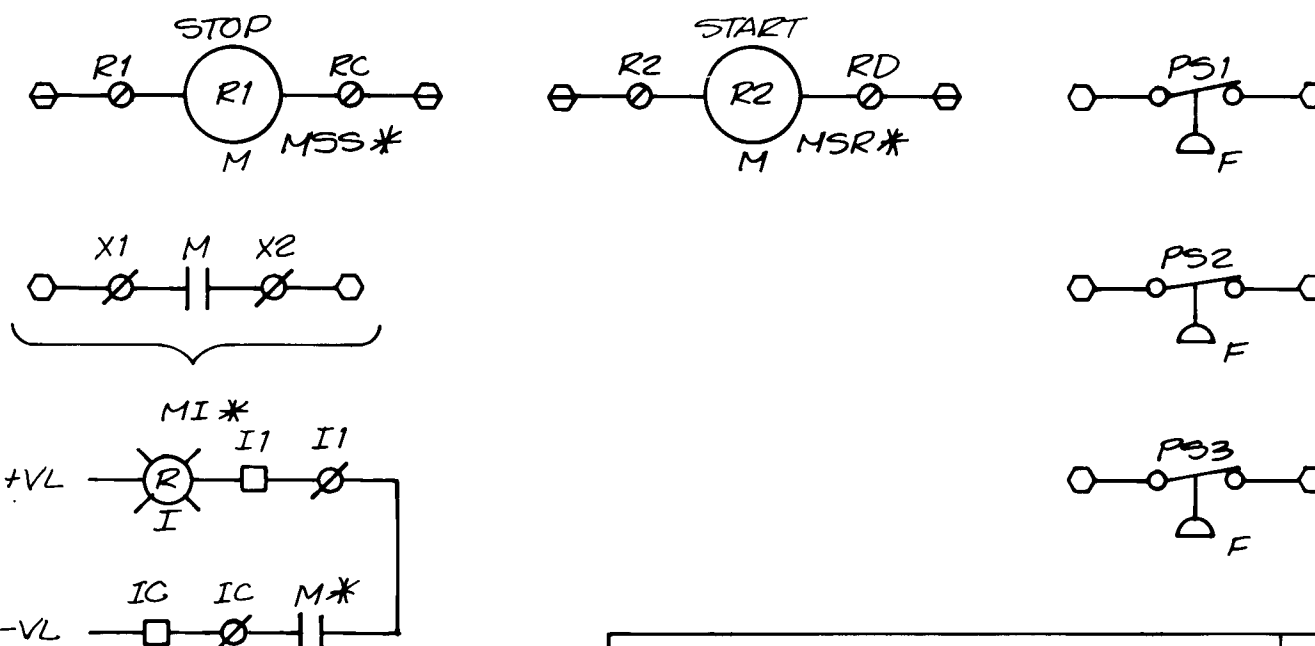
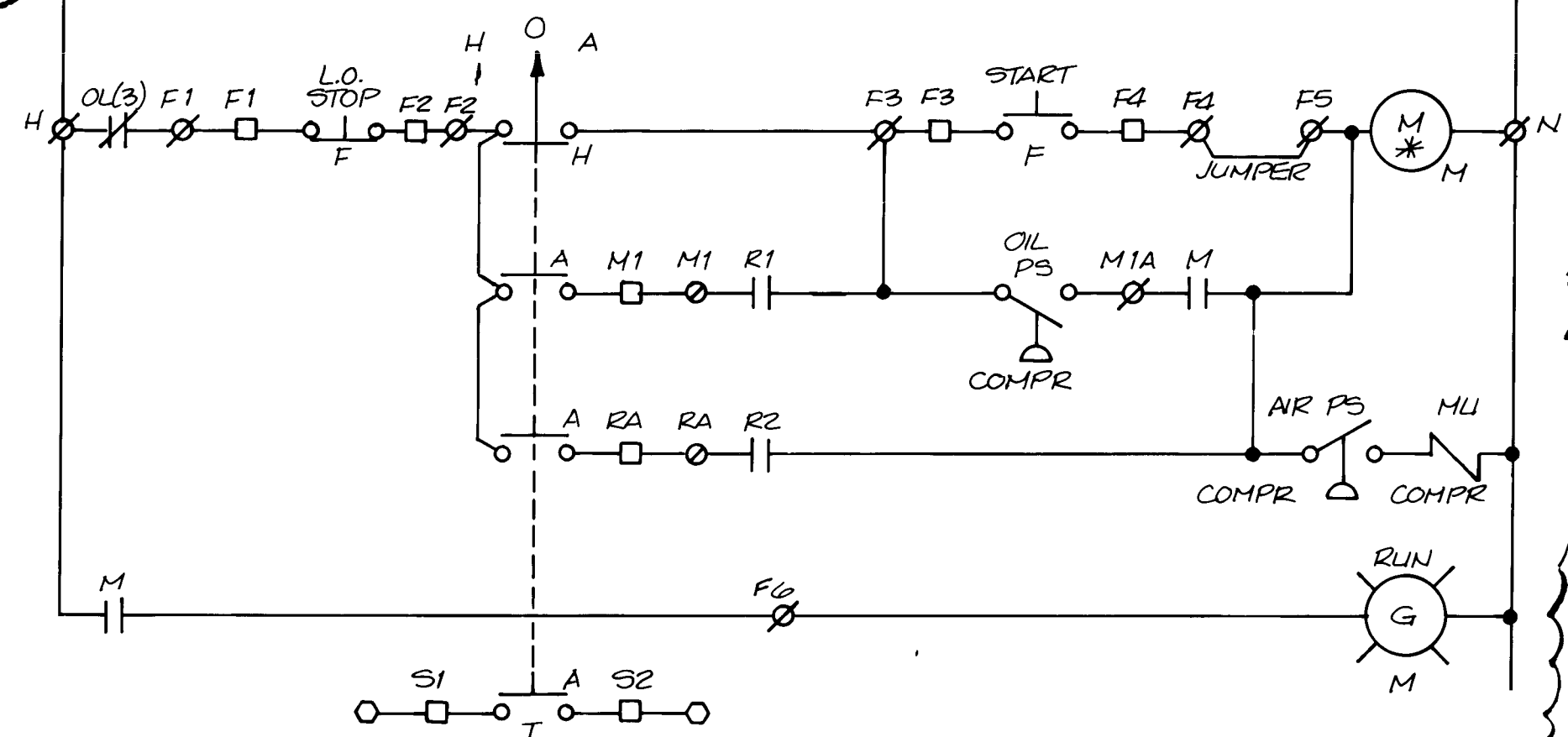
NONE
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
SCHEMATICS 15 - 20

M-C NO. 831721
E-20 106 of 111
SC NO.





EQUIPMENT	REPLACE * WITH
AIR COMPRESSOR NO. 1	3157
AIR COMPRESSOR NO. 2	3158
AIR COMPRESSOR NO. 3 FUTURE	3159

REFERENCE: MCC DRAWING 2D31455 SH22 AND SH26
ICP SCHEMATIC DRAWING D-3151-1808 SHEET 15
PCU-10 DAF TAG LIST PAGES 15 AND 16

SCHEMATIC 21

COMPRESSOR SELECTOR SWITCH - CONTACT ARRANGEMENT									
CONTACTS 1 & 2 - HANDLE END									
HANDLE POSITIONS - (BACK VIEW)									
	10	11	12	1	2	3	NOT USED		
1	X	X							
2	X	X							
3			X	X					
4			X		X				
5				X		X			
6				X	X				
7			X	X					
8			X	X					
9	X					X			
10	X					X			
11		X			X				
12	X			X					
13				X	X				
14					X	X			
15	X		X						
16	X		X						
17	X		X						
18	X		X						

POSITION ENGRAVING: 10=123, 11=132,
12=213, 1=231,
2=312, 3=321

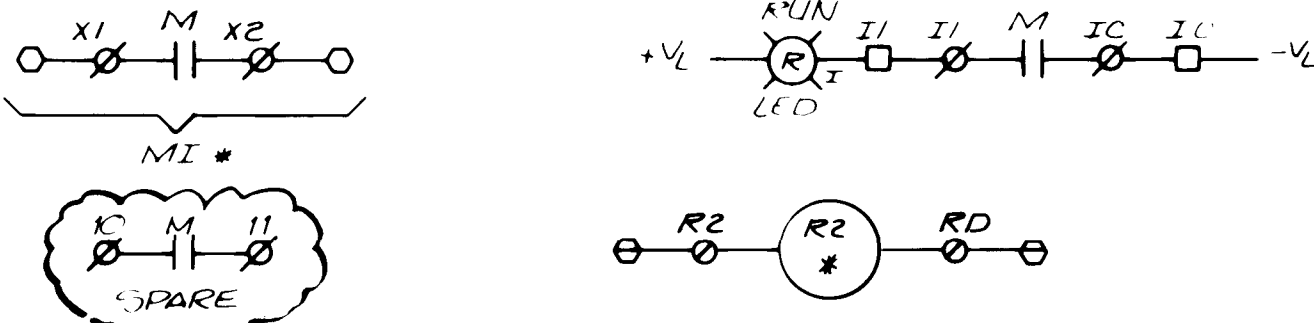
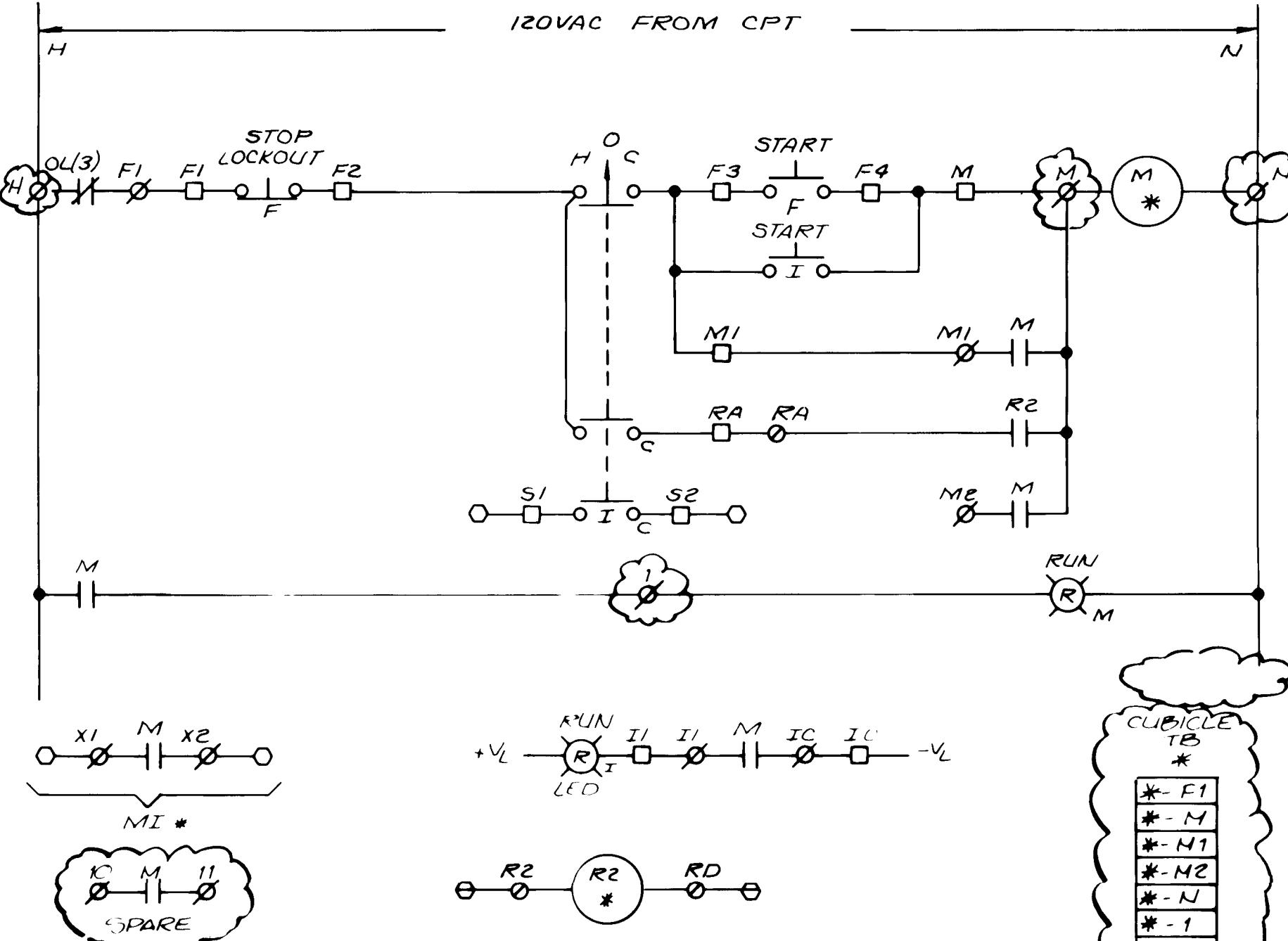
ESCUTCHEON: COMPRESSORS LEAD, LAG,
STANDBY

NP ABOVE SWITCH: TURN ALL COMPRESSORS
OFF BEFORE CHANGING
THE POSITION OF THIS
SWITCH.

20A CONTACTS, PISTOL GRIP HANDLE,
AVAILABLE POSITIONS: 12
POSITIONS USED: 6

GENERAL ELECTRIC SB, OR ENGINEER
APPROVED EQUIVALENT.

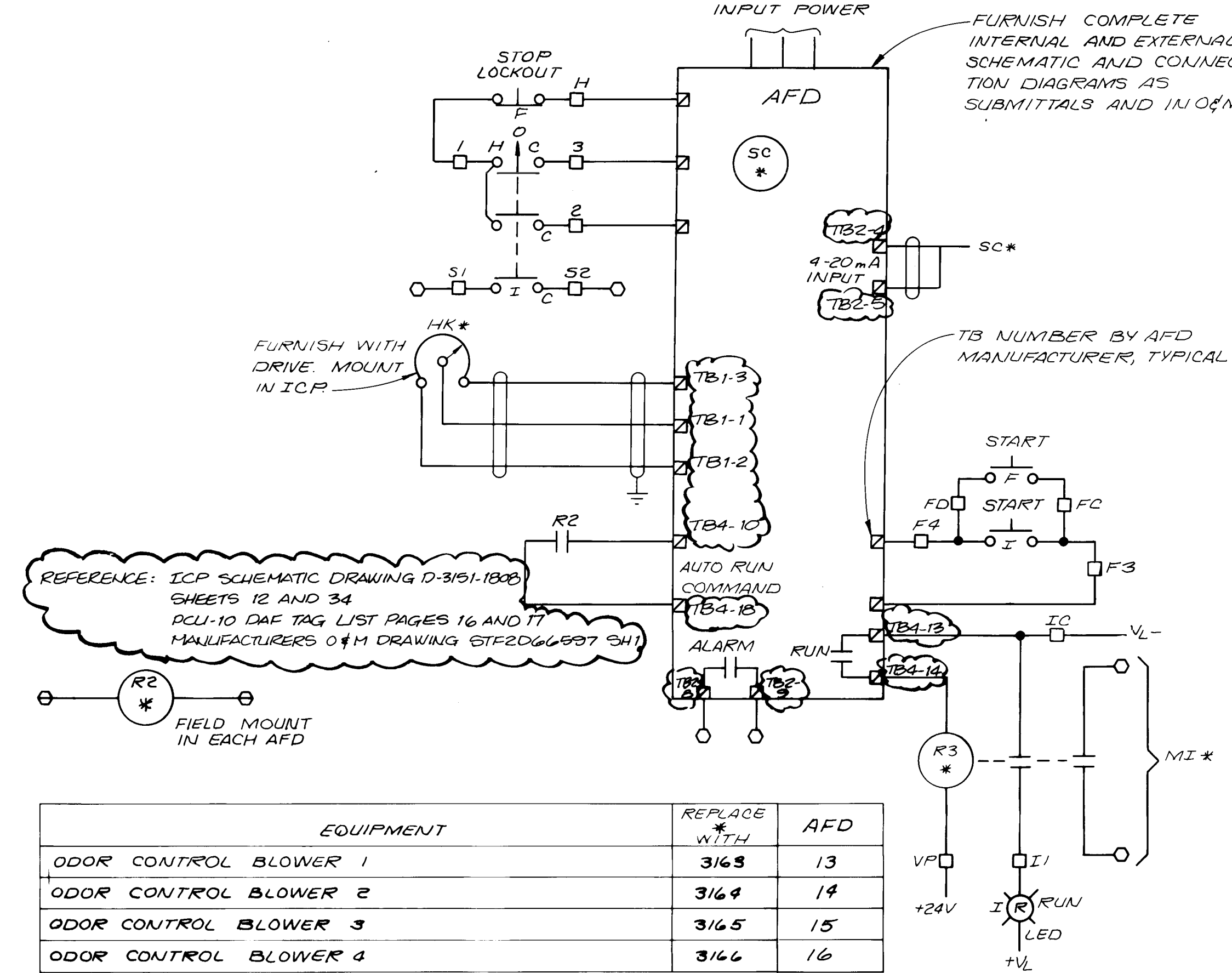
SCHEMATIC 21



EQUIPMENT	REPLACE * WITH
INTAKE FAN 1	3161
INTAKE FAN 2	3162

REFERENCE: MCC DRAWING 2D31455 SH22 AND SH26
ICP SCHEMATIC DRAWING D-3151-1808 SHEETS 11 AND 33A
PCU-10 DAF TAG LIST PAGE 16

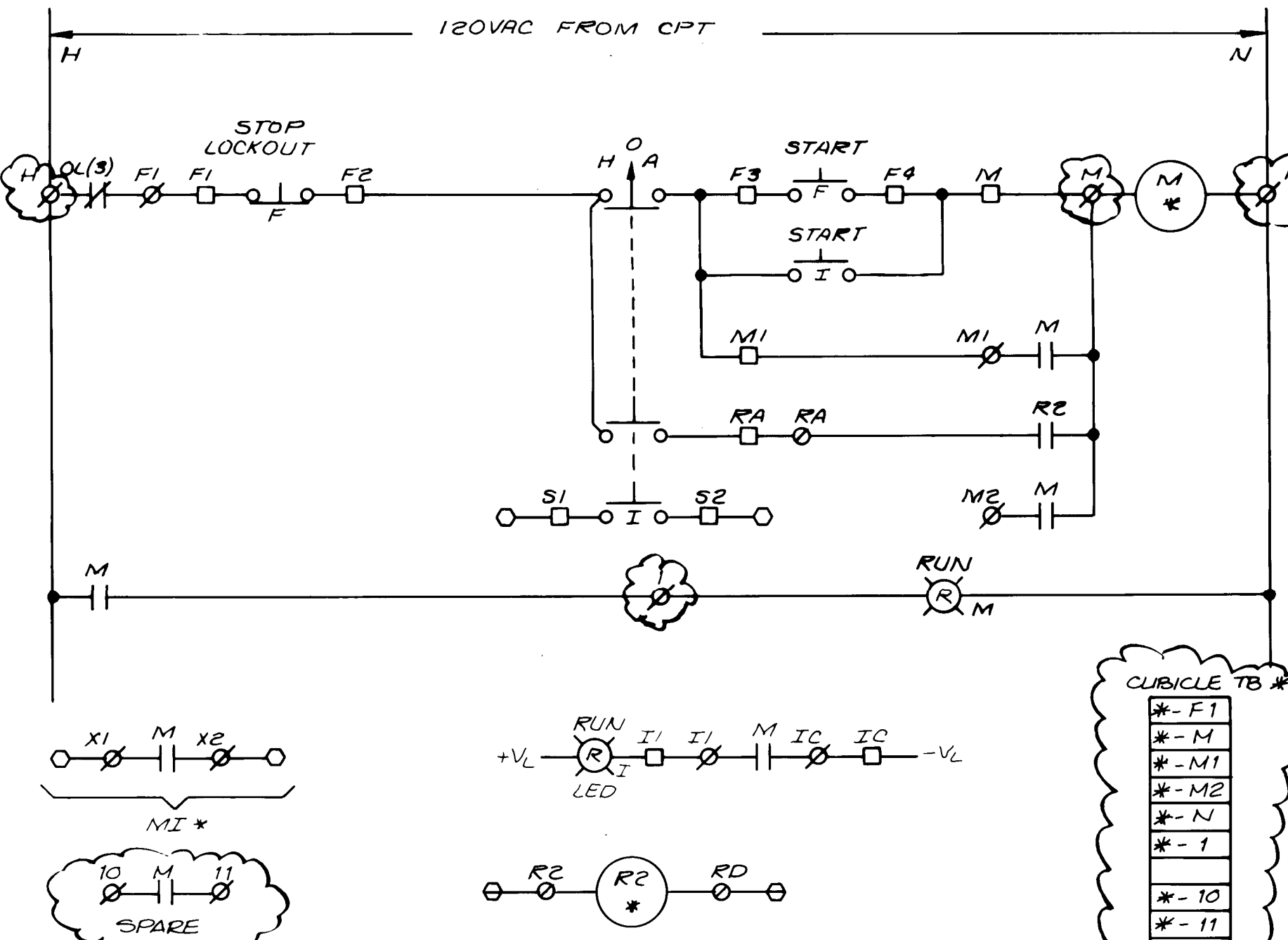
SCHEMATIC 22



EQUIPMENT	REPLACE * WITH	AFD
ODOR CONTROL BLOWER 1	3163	13
ODOR CONTROL BLOWER 2	3164	14
ODOR CONTROL BLOWER 3	3165	15
ODOR CONTROL BLOWER 4	3166	16

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808
SHEETS 12 AND 34
PCU-10 DAF TAG LIST PAGES 16 AND 17
MANUFACTURERS O&M DRAWING STFDG6507 SH1

SCHEMATIC 23



EQUIPMENT	REPLACE * WITH
CIRCULATION PUMP	3167

REFERENCE: MCC DRAWING 2D31455 SH27
ICP SCHEMATIC DRAWING D-3151-1808 SHEET 12
PCU-10 DAF TAG LIST PAGE 17

SCHEMATIC 24

RECORD DRAWING

DATE: 10/88 DRAFTED BY: MCA

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SCHEMATIC 24

NO.	DATE	REVISIONS	APPROVED

DESIGNED: SES
DRAWN: mlr
CHECKED: SES
APPROVED:
DATE: NOV 1984

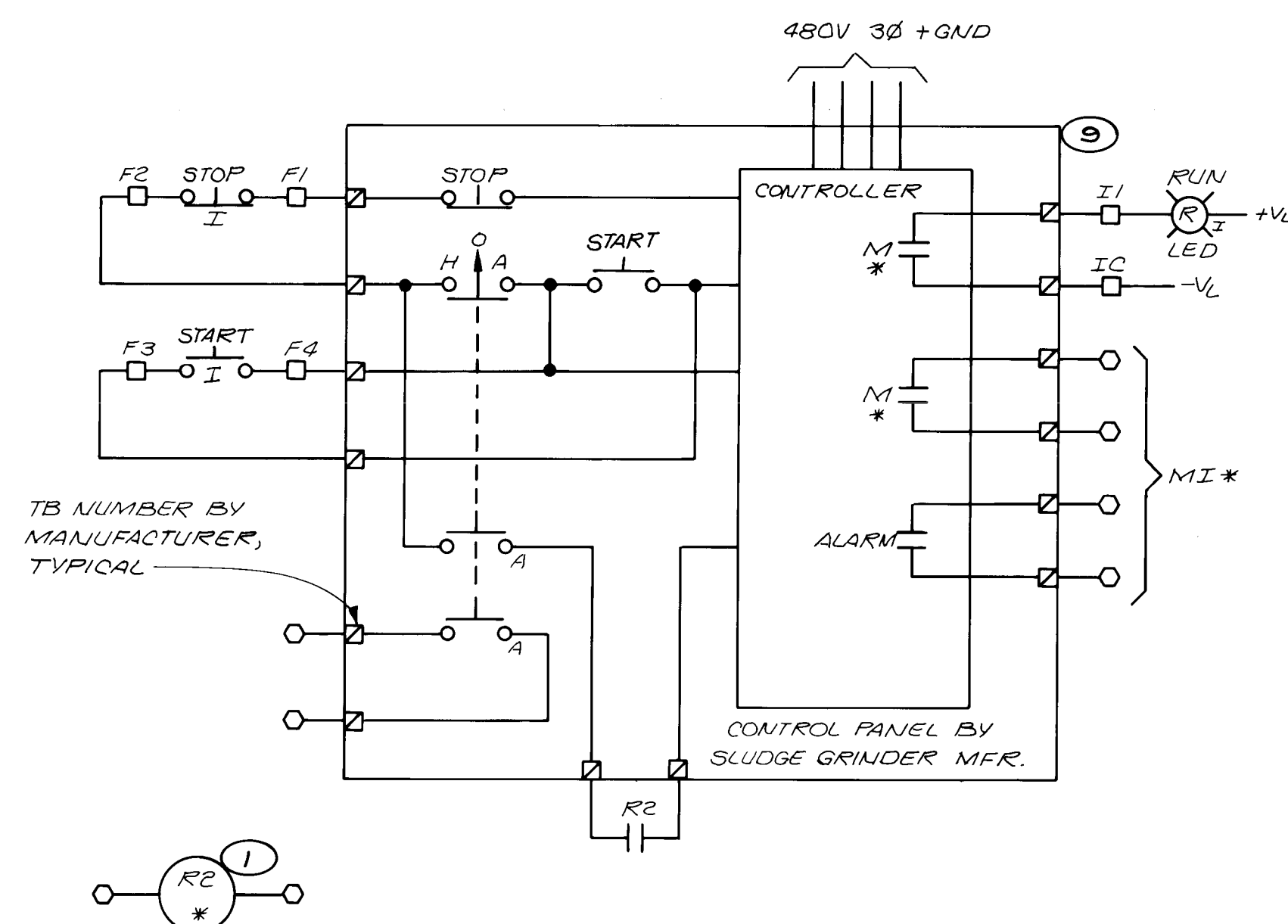
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
SCHEMATICS 21 - 24

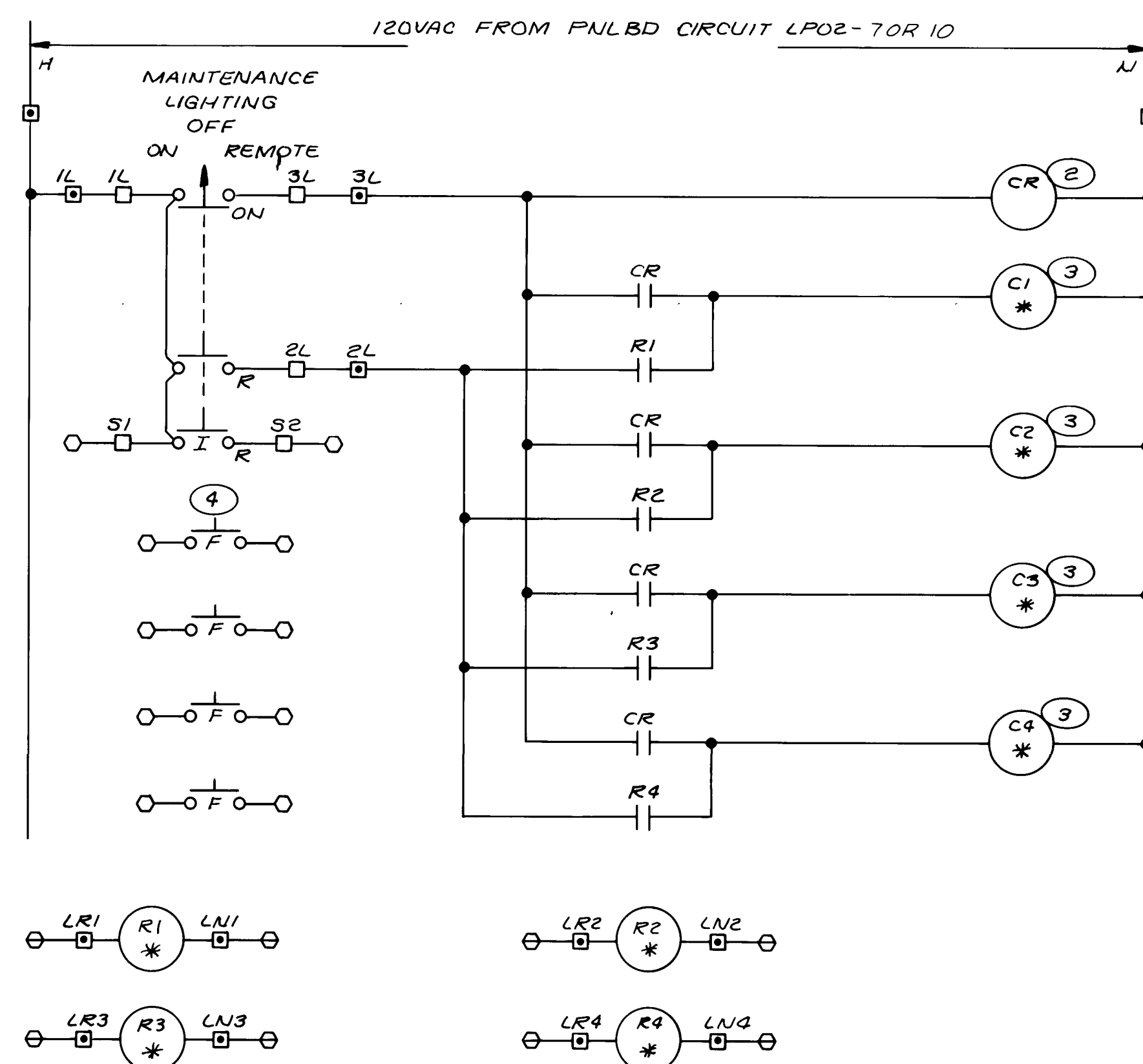
NO. 831721
E-21 107 of 111
SC NO.



EQUIPMENT	REPLACE * WITH
SLUDGE GRINDER 1	3171
SLUDGE GRINDER 2	3172

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEETS 13 & 34
PCU-10 DAF TAG LIST PAGE 5
MANUFACTURERS O & M

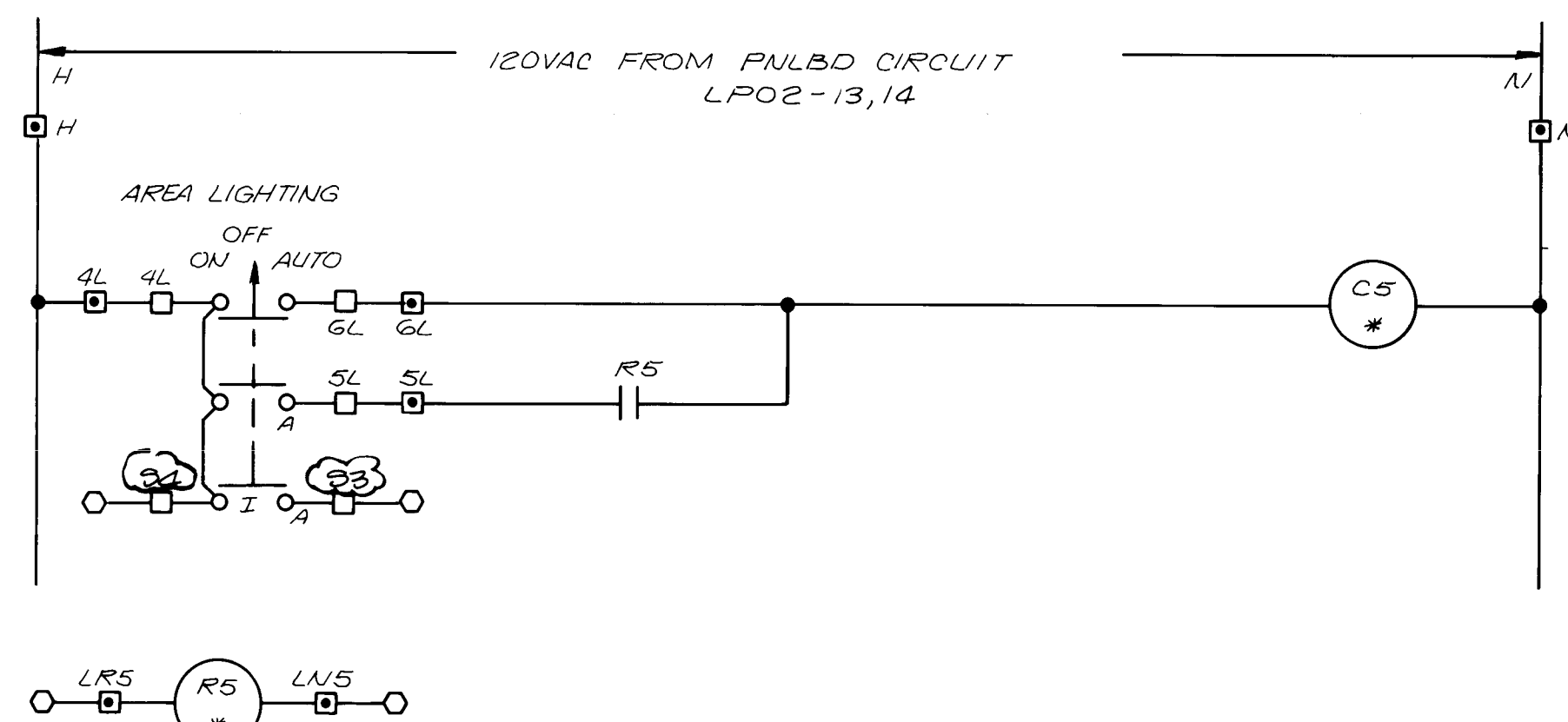
SCHEMATIC 25



EQUIPMENT	REPLACE * WITH
LIGHTING CONTACTOR 1	3177A
LIGHTING CONTACTOR 2	3177B
LIGHTING CONTACTOR 3	3177C
LIGHTING CONTACTOR 4	3177D

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 13A
PCU-10 DAF TAG LIST PAGE 17

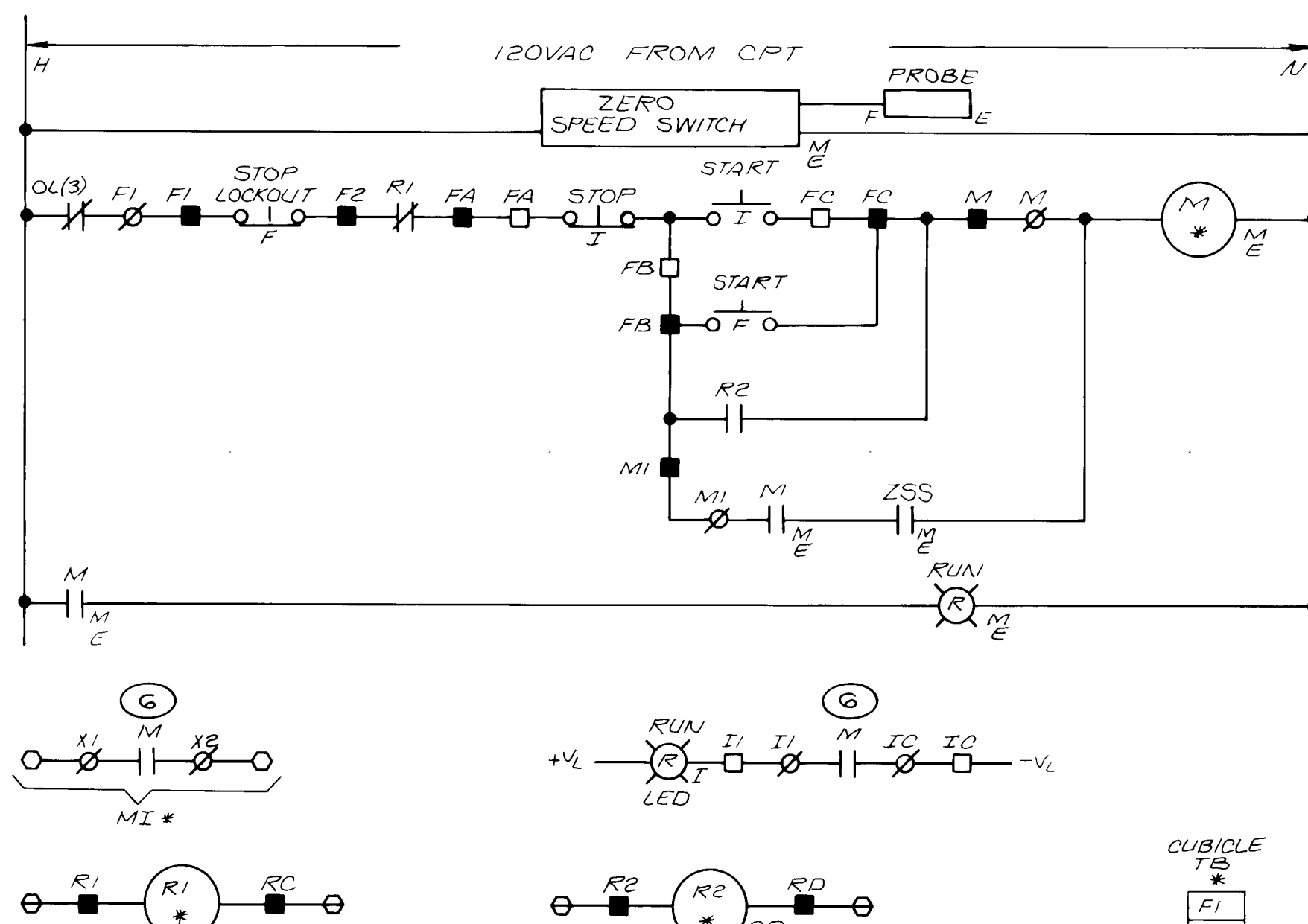
SCHEMATIC 26 (5)



EQUIPMENT	REPLACE * WITH
LIGHTING CONTACTOR 5	3177E

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 13A
PCU-10 DAF TAG LIST PAGE 17

SCHEMATIC 27 (5)



EQUIPMENT	REPLACE * WITH
BS CROSS COLLECTOR 1	3147
BS CROSS COLLECTOR 2	3148
BS CROSS COLLECTOR 3	3149

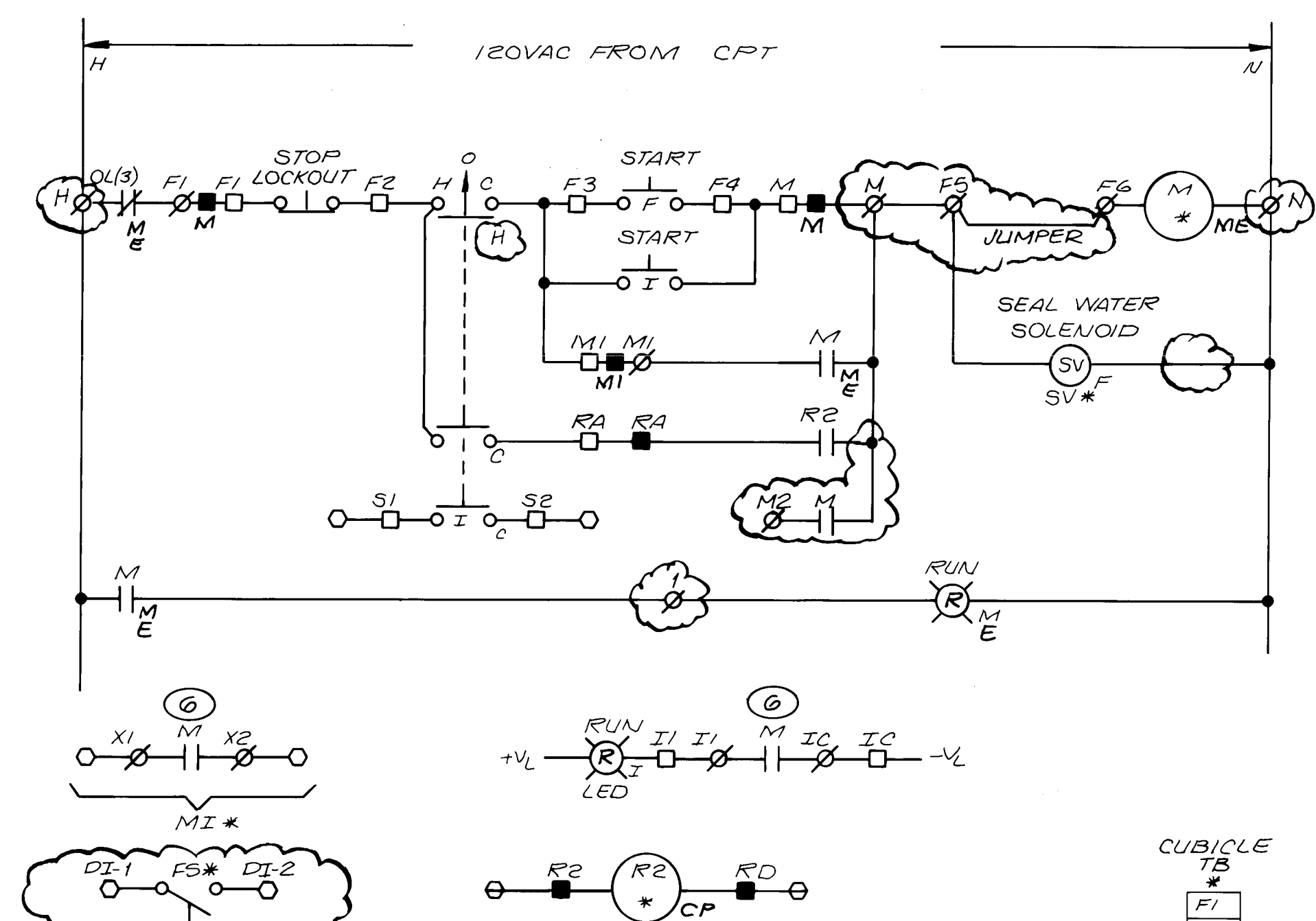
REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 31
PCU-10 DAF TAG LIST PAGE 9

SCHEMATIC 28

RECORD DRAWING

DATE: 10/88 DRAFTED BY: MCA

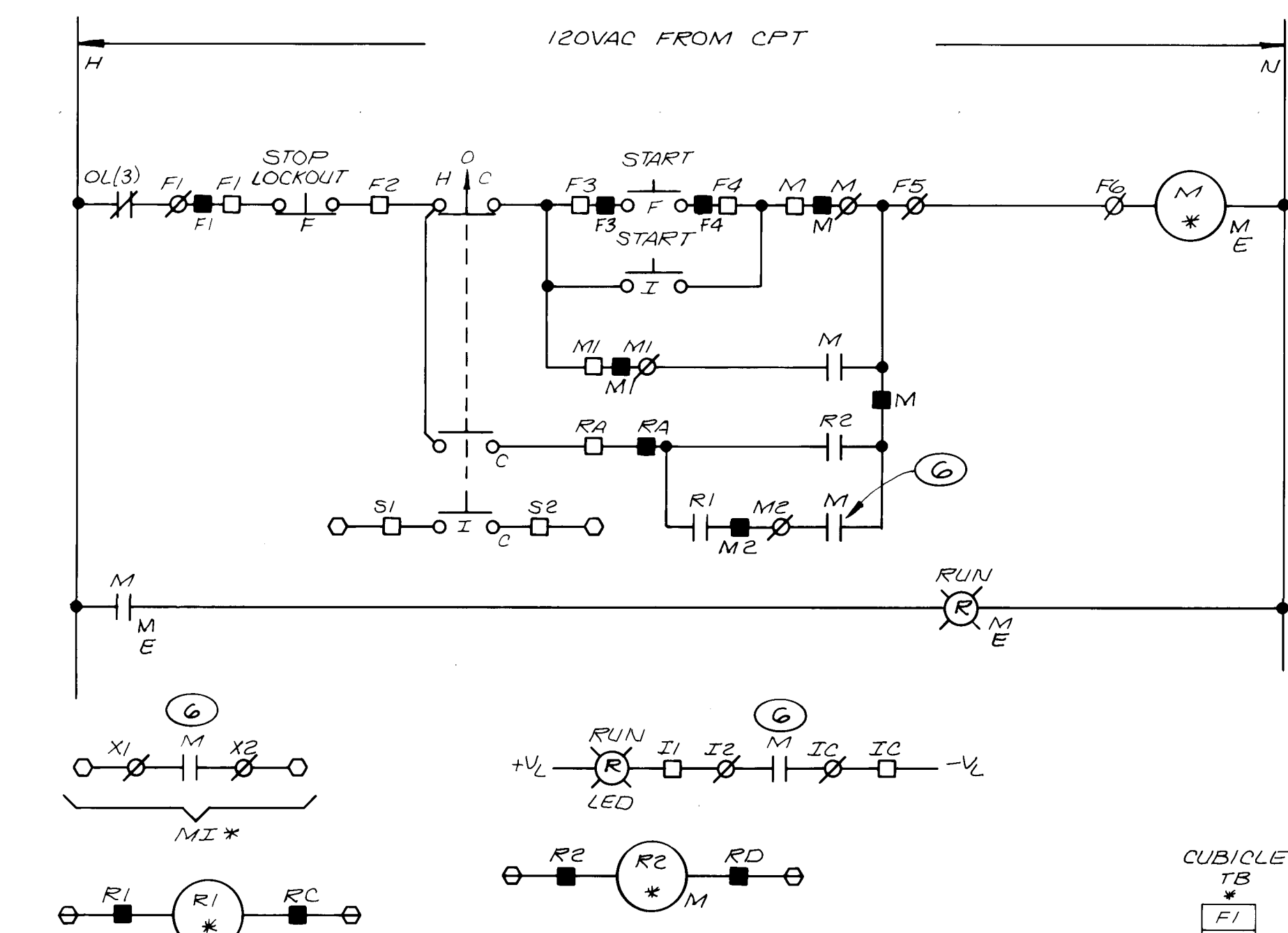
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EQUIPMENT	REPLACE * WITH
UWAS PUMP #1	3101
UWAS PUMP #2	3102
UWAS PUMP #3	3103
STANDBY UWAS PUMP #1	3108

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 27
PCU-10 DAF TAG LIST PAGES 2, 3, AND 4

SCHEMATIC 29



EQUIPMENT	REPLACE * WITH
RECIRC PUMP #1	3111
RECIRC PUMP #2	3112
RECIRC PUMP #3	3113

REFERENCE: ICP SCHEMATIC DRAWING D-3151-1808 SHEET 27
PCU-10 DAF TAG LIST PAGES 5 AND 6

SCHEMATIC 30

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 39 52 108 88

NO.	DATE	REVISIONS	APPROVED

DESIGNED: SES
DRAWN: m/r
CHECKED: SES
APPROVED: _____
DATE: NOV 1984



MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE

GRAPHIC SCALE



CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

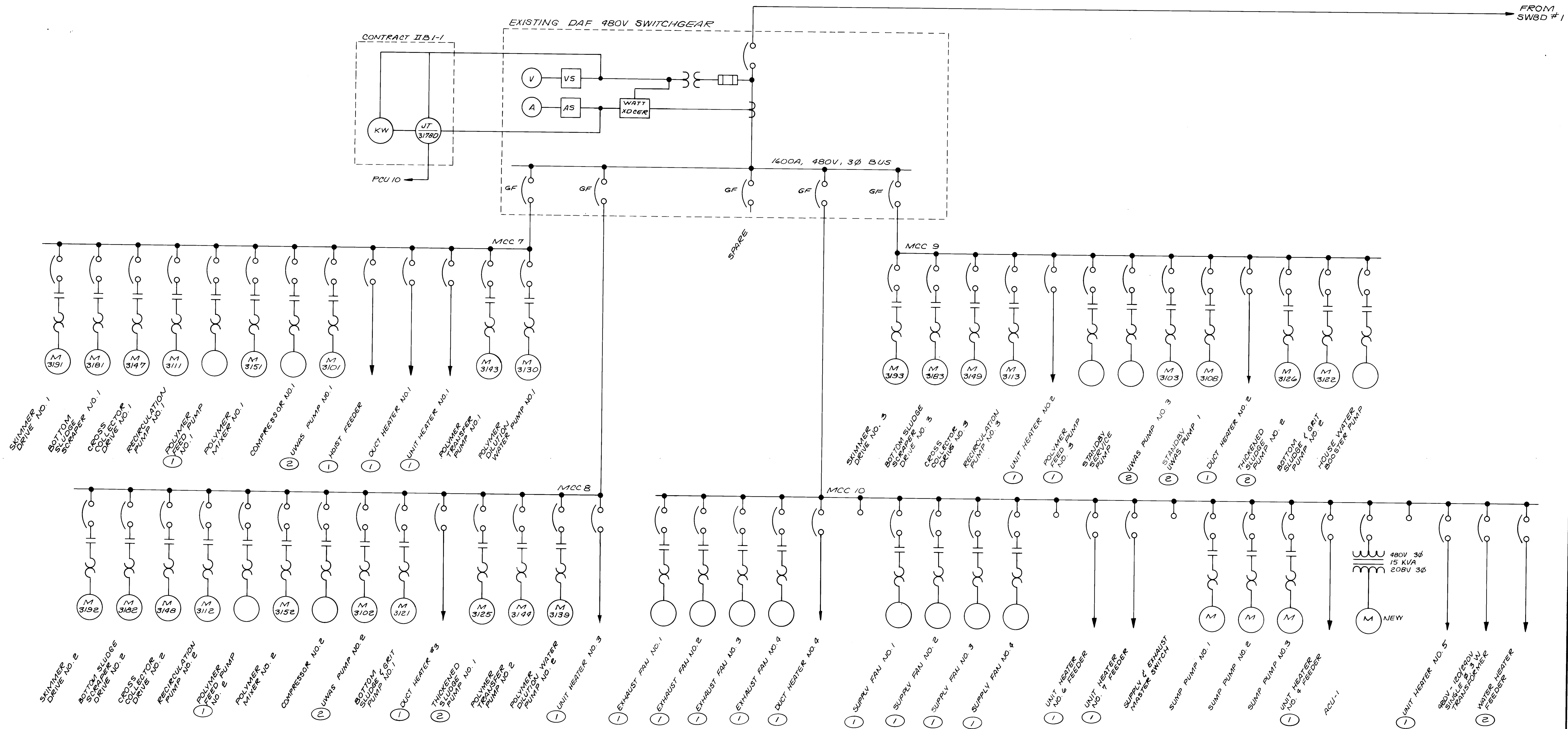
SLUDGE THICKENING SYSTEM EXPANSION
SCHEMATICS 25 - 30

M-C NO. 831721

E-22 108 of 111

SC NO.





NOTES

DISCONNECT AND REMOVE EXISTING FEEDER. LABEL MCC COMPARTMENT AS SPARE.

REMOVE EXISTING FEEDER. EXTEND CONDUIT TO NEW EQUIPMENT LOCATION. INSTALL NEW FEEDER.

RECORD DRAWING

DATE: 5/88 DRAFTED BY: MCA

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
24	39	52	11	0	8	8																						

DESIGNED	
DRAWN	
CHECKED	SEB
APPROVED	
APPROVED	
DATE	NOV 1984

NO.	DATE	REVISIONS	APPROVED

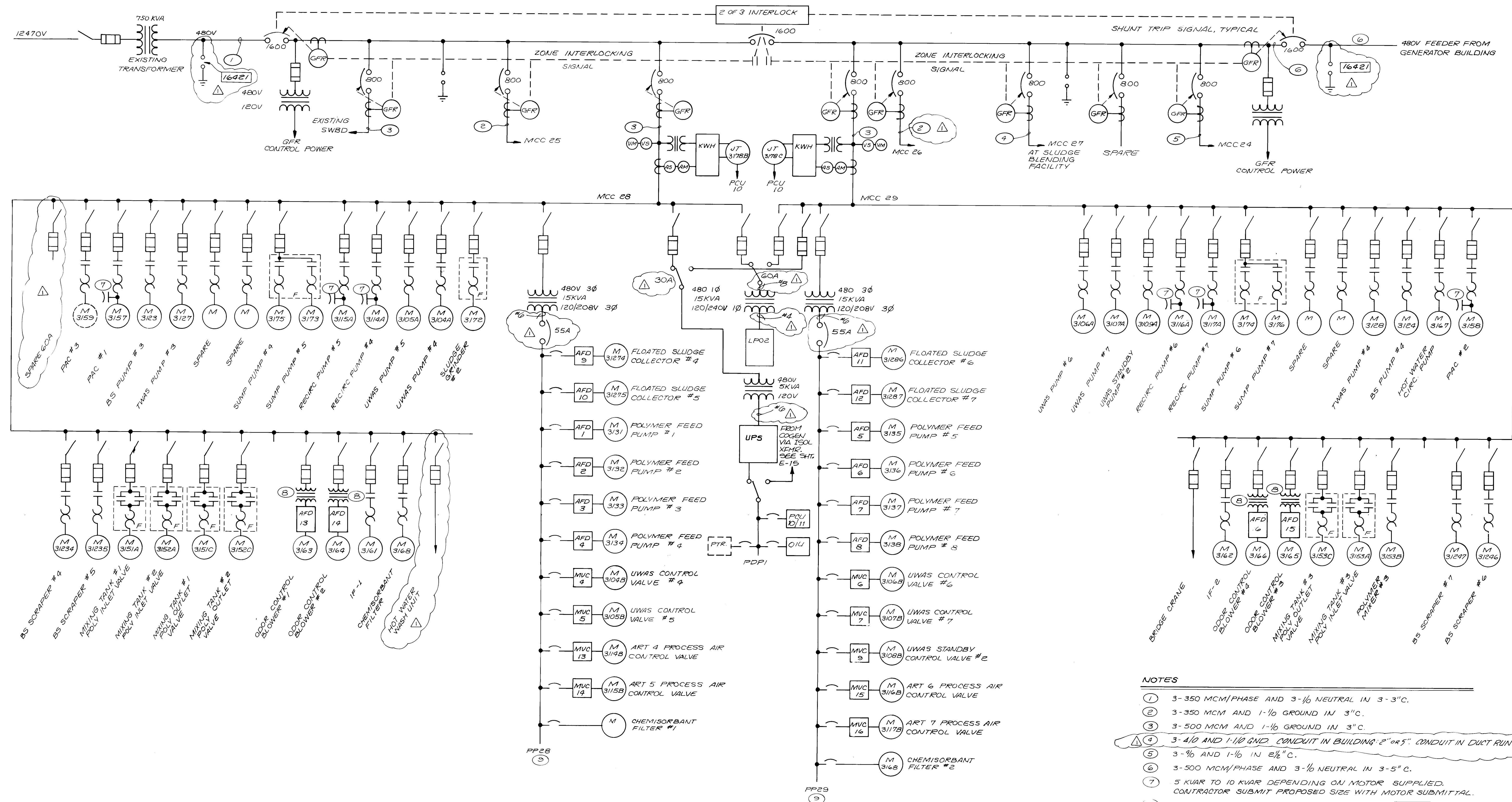
MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NO SCALE
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
ONE-LINE DIAGRAM - EXISTING

M-C NO. 831721
E-24 110 of 111
SC NO.



RECORD DRAWING

DATE: 5/20

DRAFTED BY: MCA

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
26 395211188

NO.	DATE	REVISIONS
7-23-85	PP28 MCB, PP29 MCB, MCC 26, MCC 28 MAIN SWBD, XFER SWITCHES, XFER SECONDARIES, ELLIPTICAL NOTE 4	

DESIGNED
DRAWN
CHECKED *SES*
APPROVED
DATE 11/01/2024

MOLZEN-CORBIN
STANLEY CONSULTANTS
A JOINT VENTURE

NONE
GRAPHIC SCALE

CITY OF ALBUQUERQUE, NEW MEXICO
SOLIDS HANDLING FACILITIES
PHASE II B-1, CONTRACTS 2 & 3

SLUDGE THICKENING SYSTEM EXPANSION
ONE-LINE DIAGRAM - NEW

M-C NO. 831721
E-25 111 of 111
SC NO.