



RECORD DRAWING ARLINGTON COUNTY, VIRGINIA WATER POLLUTION CONTROL PLANT ODOR CONTROL IMPROVEMENTS

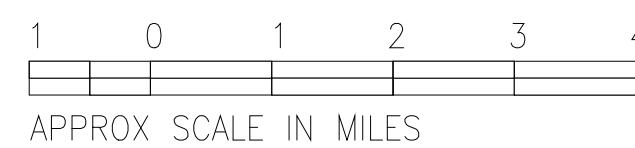
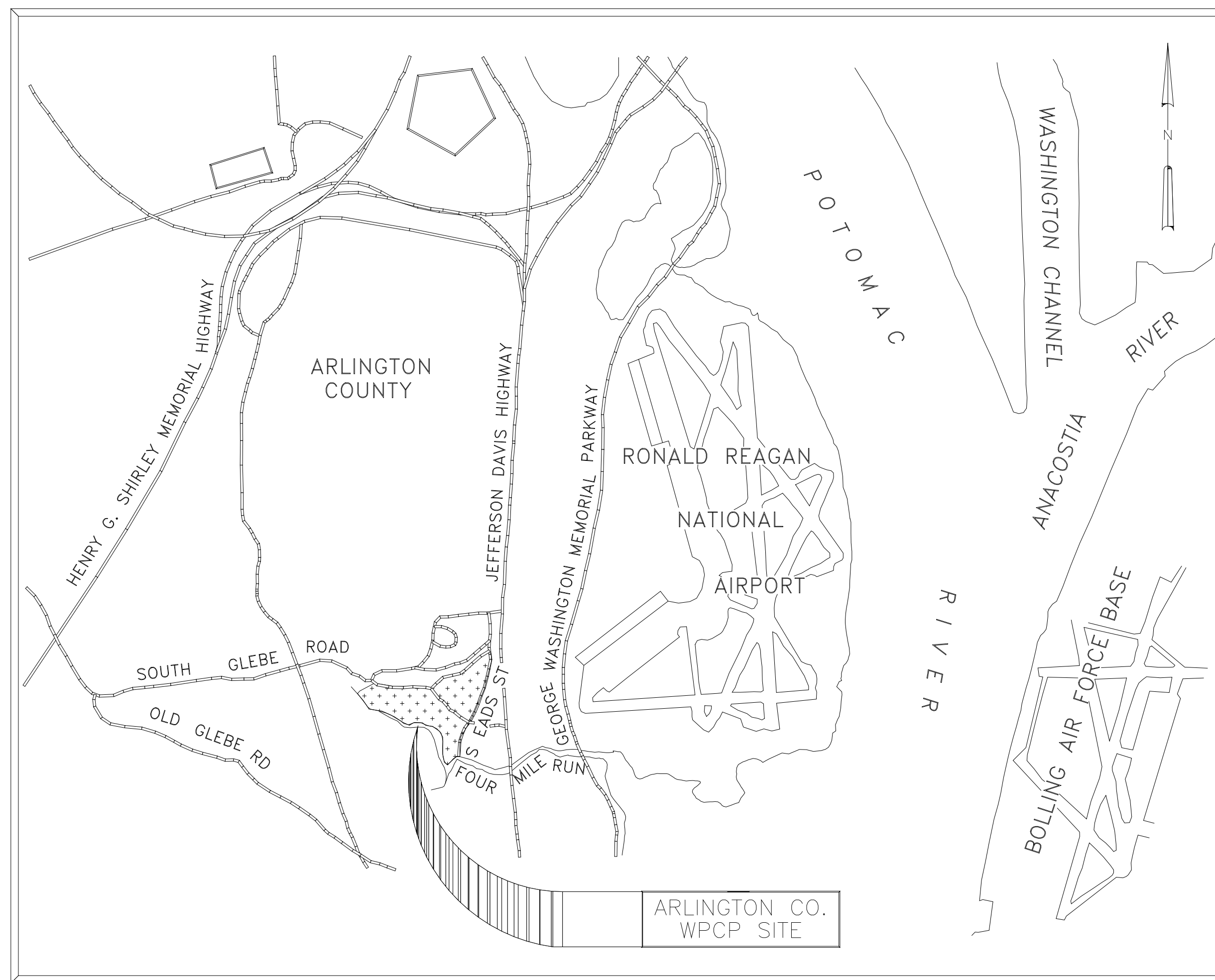


CONTRACT NUMBER
2000-01-WPC
SEPTEMBER 2000

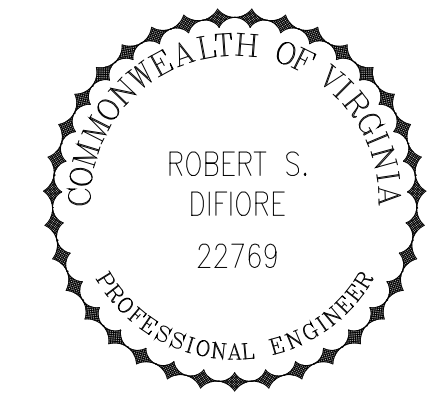
RECORD DRAWING

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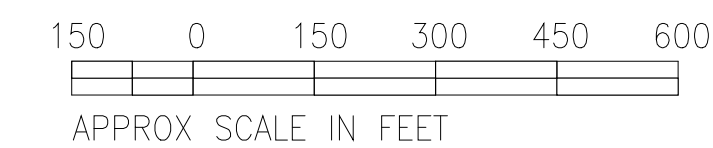
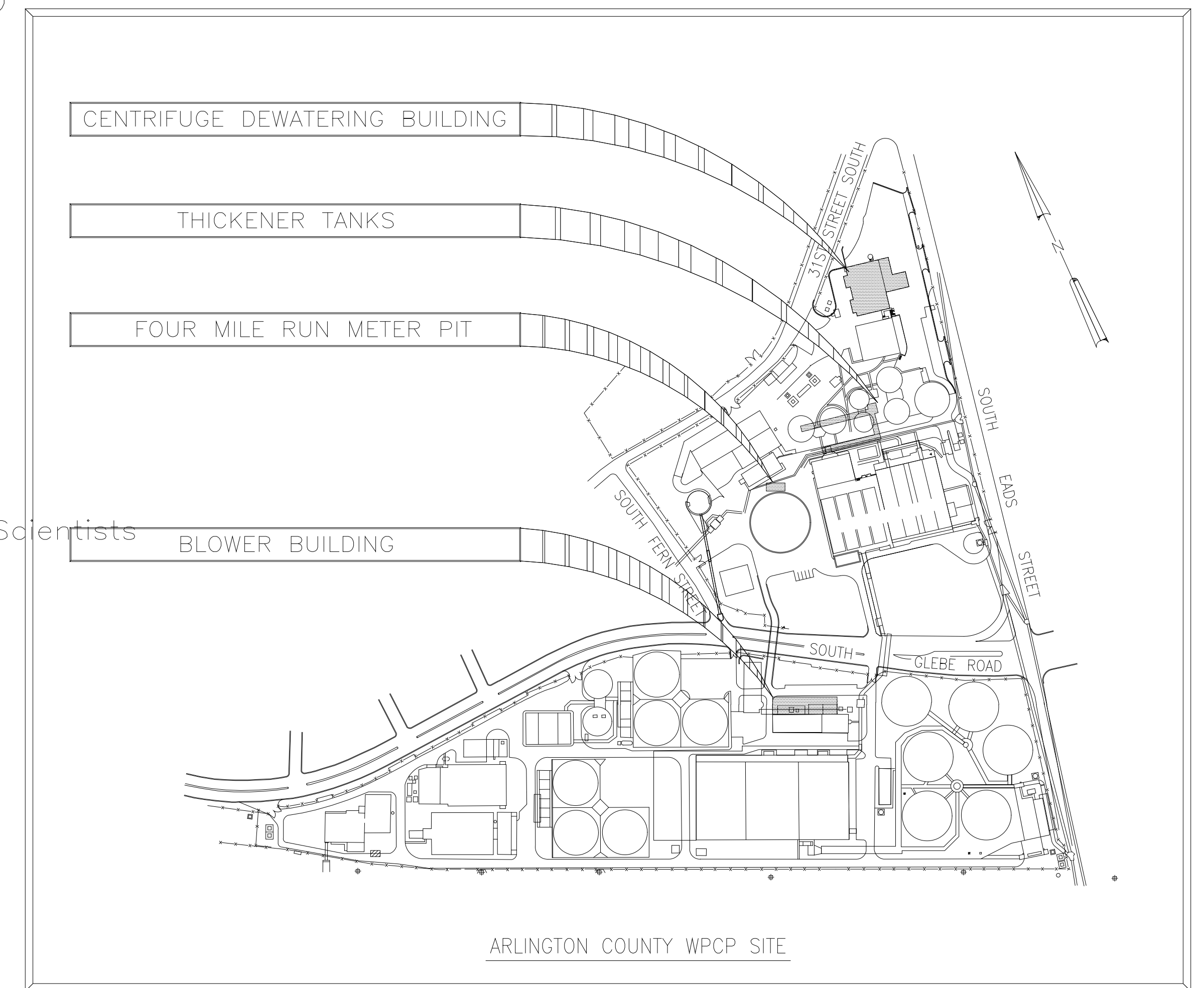
VICINITY MAP



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LOCATION MAP

NOTICE

THESE CONTRACT DOCUMENTS HAVE BEEN REVISED TO REFLECT CHANGES AND REVISIONS INCLUDED IN ADDENDUM 1, ADDENDUM 2, AND CONTRACTOR'S RECORD DRAWINGS. THESE REVISED DOCUMENTS ARE SOLELY FOR THE CONVENIENCE OF THE OWNER, ENGINEER AND CONTRACTOR AND ARE NOT WARRANTED TO BE COMPLETE AND ACCURATE IN ALL RESPECTS.

REFERENCE SHALL ALWAYS BE MADE TO THE ORIGINAL BID DOCUMENTS AND ADDENDA FOR RESOLUTION OF CONFLICTS AND CLARIFICATIONS.

RECORD DRAWING

INDEX OF DRAWINGS

SHEET NUMBER	DRAWING NUMBER	DESCRIPTION
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	COVER	COVER
1	X001	INDEX OF DRAWINGS
2	X002	GENERAL - ABBREVIATIONS AND LEGEND
CIVIL		
3	C001	SITE - CENTRIFUGE DEWATERING BUILDING - DEMOLITION
4	C002	SITE - CENTRIFUGE DEWATERING BUILDING - SITE WORK AND YARD PIPING
5	C003	SITE - FOUR FILE RUN METER PIT - YARD PIPING
6	C004	SITE - BLOWER BUILDING - CIVIL - DEMOLITION
7	C005	SITE - BLOWER BUILDING - CIVIL - SITEWORK AND YARD PIPING
8	C006	SITE - BLOWER BUILDING - CIVIL - SECTIONS AND DETAILS
9	C007	SITE - BLOWER BUILDING - CIVIL - PLAN, SECTIONS AND DETAILS
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12	A102	CDB - PLAN AT EL 43.00
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14	A104	CDB - ODOR CONTROL AREA - NORTH AND SOUTH ELEVATIONS
15	A105	CDB - ODOR CONTROL AREA - DETAILS AND SECTIONS
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58	M118	CDB - TRUCK BAY - PLAN AND SECTION
59	M131	THICKENER AND STORAGE TANKS - PIPING GALLERIES - PLANS AND SECTIONS
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61	M141	SPB - NoOCL STORAGE FACILITIES - DEMOLITION PLAN @ EL 18.00
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71	M208	BB - ODOR CONTROL AREA - SECTIONS
72	M209	BB - ODOR CONTROL AREA - PLAN AND SCHEDULES

SHEET NUMBER	DRAWING NUMBER	DESCRIPTION
HVAC		
73	H201	BB - ODOR CONTROL AREA - PLAN AND SCHEDULES
ELECTRICAL		
74	E101	GENERAL LEGEND
75A	E102	CDB - PARTIAL PLAN AT EL 25.00 - MCC31-A & B MODIFICATIONS
75B	E103	CDB - MCC ROOM 104 - MCC-31A & B MODIFICATIONS
75C	E104	CDB - MCC ROOM 104 - TERMINATION CABINET - SINGLE LINE DIAGRAM
75D	E105	CDB - ODOR CONTROL AREA - ELEMENTARY CONTROL SCHEMATICS
75E	E106	CDB - ACID AND CAUSTIC STORAGE ROOMS - MODIFICATIONS
75FA	E107	CDB - ODOR CONTROL AREA - POWER AND LIGHTING
75FB	E107	CDB - ODOR CONTROL
75G	E108	CDB - ODOR CONTROL AREA - ELECTRICAL - MODIFICATIONS
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77	E201	BB - ODOR CONTROL AREA - MCC-35 SINGLE LINE DIAGRAM
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79	E203	BB - ODOR CONTROL AREA - LIGHTING, HVAC AND FIRE ALARM
80	E204	BB - ODOR CONTROL AREA - CONTROL DIAGRAMS
81	E205	BB - ELEC. ROOM - TERMINATION CABINET - SINGLE LINE DIAGRAM
82	E206	BB - ODOR CONTROL AREA - LIGHTNING PROTECTION SYSTEM
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84	D002	MISCELLANEOUS STANDARD DETAILS
85	D003	MISCELLANEOUS STANDARD DETAILS
86	D004	MISCELLANEOUS STANDARD DETAILS
87	D005	MISCELLANEOUS STANDARD DETAILS
88	D006	MISCELLANEOUS STANDARD DETAILS
89	D007	MISCELLANEOUS STANDARD DETAILS
90	D008	MISCELLANEOUS STANDARD DETAILS
91	D009	MISCELLANEOUS STANDARD DETAILS
92	D010	MISCELLANEOUS STANDARD DETAILS
93	D011	MISCELLANEOUS STANDARD DETAILS
94	D012	MISCELLANEOUS STANDARD DETAILS
95	D013	MISCELLANEOUS STANDARD DETAILS
96	D014	MISCELLANEOUS STANDARD DETAILS
97	D015	MISCELLANEOUS STANDARD DETAILS
98	D016	MISCELLANEOUS STANDARD DETAILS
99	D017	MISCELLANEOUS STANDARD DETAILS

LEGEND:

BB	BLOWER BUILDING
CDB	CENTRIFUGE DEWATERING BUILDING
SPB	SLUDGE PROCESSING BUILDING

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	
PROJ.ENGR.	ASG
APPROVED	
NO.	ISSUED FOR
	DATE
	BY

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

INDEX OF DRAWINGS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER X001
	SHEET 1 OF 99

ABBREVIATIONS

AB ANCHOR BOLT	F FAST/FASEMENT	J JOIST	R RADIUS/RISER	VAC VACUUM
ABDN ABANDONED	EA EACH	JB JUNCTION BOX	RCP REINFORCED CONCRETE PIPE	VAT VINYL ASBESTOS TILE
AC ALTERNATING CURRENT/ASBESTOS CEMENT	ECC ECCENTRIC	JCT JUNCTION	RD ROAD/ROOF DRAIN	VCP VITRIFIED CLAY PIPE
ACT ACOUSTIC TILE	EF EACH FACE	JT JOINT	RECIR RECIRCULATION	VEL VELOCITY
AD AREA DRAIN	EFF EFFLUENT		RECP RECEPTACLE	VENT VENTILATING/VENTILATION
ADD ADDITIONAL	EIP EXIST IRON PIPE		RECT RECTANGULAR	VERT VERTICAL
ADJ ADJUSTABLE	EL OR ELV ELEVATION	L LENGTH/ANGLE	RED REDUCER	VEST VESTIBULE
ADPT ADAPTER	ELEC ELECTRIC/ELECTRICAL	LAB LABORATORY	REF REFERENCE	VFD VARIABLE FREQUENCY DRIVE
AE ANALYTICAL ELEMENT	ELI ELBOW	LAM LAMINATED	REFR REFRIGERATE	VOL VOLUME
AFF ABOVE FINISHED FLOOR	ENAM ENAMEL	LAT LATERAL	REG REGISTER	VP VENT PIPE
AGGR AGGREGATE	ENGR ENGINEER	LAV LAVATORY	REINF REINFORCING	VWC VINYL WALL COVERING
AIT ALALYTICAL INDICATING TRANSMITTER	ENT ENTRANCE	LB POUND/LINE BACK	REM REMOVE	
AL ALUMINUM	EDG EDGE OF GRAVEL	LE LEVEL ELEMENT	REQD REQUIRED	W WEST/WIDTH
ALLOW ALLOWANCE/ALLOWABLE		LF LINEAR FEET	REST RESTRAINED	W/ WITH
ALT ALTERNATE	EDP EDGE OF PAVEMENT	LG LONG	REV REVISE	WC WATER CLOSET
APPROX APPROXIMATE	EQ EQUAL	LIT LEVEL INDICATING TRANSMITTER	RF ROOF	WF WIDE FLANGE
ARCH ARCHITECTURAL	EQPT EQUIPMENT	LL LIVE LOAD	RFI REQUEST FOR INFORMATION	WH WALL HYDRANT
ASB ASBESTOS	EW EACH WAY	LLH LONG LEG HORIZONTAL	RFG ROOFING	WI WROUGHT IRON
ASPH ASPHALT	EWC ELECTRIC WATER COOLER	LLV LONG LEG VERTICAL		WL WATER LEVEL
ASSY ASSEMBLY	EX EXISTING	LP LIGHT POLE	RJ RESTRAINED JOINT	W/L WATER LINE
AT ASPHALT TILE	EXC EXCAVATE	LPT LOW POINT	RM ROOM	WO WINDOW OPENING
	EXH EXHAUST	LR LONG RADIUS	RND ROUND	W/O WITHOUT
B BORING	EXP EXPANSION	LSH LONG SLOTTED HOLE	ROP ROUGH OPENING	WP WATERPROOF
BD BOARD	EXP BT EXPANSION BOLT		RPM REVOLUTIONS PER MINUTE	WPCP WATER POLLUTION CONTROL PLANT
BEV BUTTERFLY VALVE	EXT EXTERIOR	LT LIGHT	RR RAILROAD	WPPG WATER PROOFING
BITUM BITUMINOUS	FAB FABRICATE	LTG LIGHTING	RT RIGHT	WPT WALL PENETRATING TYPE
B BASELINE	F&C FRAME AND COVER	LVR LOUVER	RTU REMOTE TERMINAL UNIT/ ROOF TOP UNIT	WS WATERSTOP
BL BUILDING LINE	F&G FRAME AND GRATE	LWL LOW WATER LEVEL	RVT REINFORCED VINYL TILE	WSE WATER SURFACE ELEVATION
BLDG BUILDING	FC FLUSHING CONNECTION		RW RAW WATER	WSP WEATHER-STRIP
BLK BLOCK	FD FLOOR DRAIN	MAINT MAINTENANCE	R/W RIGHT OF WAY	WT WEIGHT
BM BENCH MARK	FDN FOUNDATION	MATL MATERIAL		WV WATER VALVE
BNR BIOLOGICAL NUTRIENT REMOVAL	FF FIRE EXTINGUISHER / FLOW ELEMENT	MAX MAXIMUM	S SOUTH/SLOPE	WWF WELDED WIRE FABRIC
BDC BACK OF CURB	FECC FIRE EXTINGUISHER CABINET	MCC MOTOR CONTROL CENTER	SAN SANITARY	YD YARD
BOT BOTTOM	FF / FFL FINISH FLOOR	MECH MECHANICAL	SBL SURVEY BASELINE	YR YEAR
BRG BEARING	FH FIRE HYDRANT	MEMB MEMBRANE	SCH SCHEDULE	
BRK BRICK	FIN FINISH	MET METAL	SD STORM/SITE DRAIN	
BRZ BRONZE	EIT FLOW INDICATING TRANSMITTER	MFR MANUFACTURER	SEC SECOND/SECONDARY	
BSMT BASEMENT	FIX FIXTURE	MG MILLION GALLONS	SECT SECTION	
BT BOLT	FL FLASHING/FLOOR	MGD MILLION GALLONS PER DAY	SERV SERVICE	
BUR BUILT-UP ROOFING	FLX FLEXIBLE	MH MANHOLE	SEW SEWER	
BV BALL VALVE	FLG FLANGE	MIN MINIMUM	SF SQUARE FOOT	
BWFF BOTH WAYS EACH FACE	FLDR FLUORESCENT	MISC MISCELLANEOUS	SHT SHEET	
	FLXC FLEXIBLE CONNECTION	MJ MECHANICAL JOINT	SI SQUARE INCH	
C CLOSET/CARPET/CHANNEL	FM FORCE MAIN	M/DG MOLDING	SIM SIMILAR	
CAB CABINET	FRF FIREPROOF	MO MASONRY OPENING	SJ STEEL JOIST	
CB CATCH BASIN	FRP FIBERGLASS REINFORCED	MOD MODIFY/MODIFIED/MOTOR OPER DAMPER	SPEC SPECIFICATION	
C/C CENTER TO CENTER	PVL POLYESTER LAMINATE	MON MONUMENT	SQ SQUARE	
CE CONSTRUCTION EASEMENT	ESS FUSED SAFETY SWITCH	MOT MOTOR	SS SANITARY SEWER	
CEM CEMENT	FT FEET	MTD MOUNTED	SST STAINLESS STEEL	
CER CERAMIC	FTG FITTING/FITTING	MTG MOUNTING	ST STREET	
CF CUBIC FEET	FURR FURRING/FURRED	MULT MULTIPLE	STA STATION	
CFM CUBIC FEET PER MINUTE			STD STANDARD	
CI CAST IRON/CUBIC INCHES	G GAS LINE	N NORTH	STG STORAGE	
CIP CAST IRON PIPE	GA GAUGE	NA NOT APPLICABLE	STIR STIRRUP	
CL CENTER LINE	GAL GALLON	NE NEAR FACE	STL STEEL	
CL ₂ CHLORINE	GALV GALVANIZED	NESS NON-FUSED SAFETY SWITCH	STR / STRUC STRUCTURAL	
CLG CEILING	GC GENERAL CONTRACTOR	NIC NOT IN CONTRACT	SUB SUBSTITUTE	
CLKG CAULKING	GEN GENERATOR	NO NUMBER	SUP SUPPLY	
CLR CLEAR	GI GALVANIZED IRON	NOM NOMINAL	SUPT SUPERINTENDENT	
CM CORRUGATED METAL PIPE	GL GLASS	NPW NON POTABLE WATER	SUR SURFACE	
CMU CONCRETE MASONRY UNIT	GPM GALLONS PER MINUTE	NTS NOT TO SCALE	SUSP SUSPENDED	
CONT CONTAINMENT	GR GRADE		SW SWITCH	
CO CL FANOUT	GRAN GRANITE	OC ON CENTER	SWBD SWITCHBOARD	
COL COLUMN	GV GATE VALVE	OD OUTSIDE DIAMETER	SWD SIDE WATER DEPTH	
CONC CONCRETE	GW GUY WIRE	OF OUTSIDE FACE	SYM SYMMETRICAL	
CONST CONSTRUCTION	GWB GYPSUM WALL BOARD	OF OFFICE		
CONT CONTINUOUS	GWF GLAZED WALL FINISH	OPER OPERATOR/OPERATED	T TREAD	
CONTR CONTRACTOR	GYP GYPSUM	OPNG OPENING	T&B TOP AND BOTTOM	
CRP CORROSION		OPP OPPOSITE	T&G TONGUE AND GROOVE	
CP CONCRETE PLANK	H HEIGHT	ORIG ORIGINAL	TAN TANGENT	
CPVC CHLORINATED POLYVINYL CHLORIDE (PIPE)	HB HOSE BIBB	OT OPEN TRUSS	TBM TEMPORARY BENCH MARK	
CRS COURSE	HCP HANDICAP	OVHD OVERHEAD	TC TOP OF CURB	
CT CERAMIC TILE	HDPE HIGH DENSITY POLYETHYLENE		TDH TOTAL DYNAMIC HEAD	
CTG COATING	HDW HARDWARE	PAR PARALLEL	TECH TECHNICAL	
CTJ CONTROL JOINT	HEX HEXAGONAL	PC POINT OF CURVE/PIECE	TEL TELEPHONE	
CU COPPER	HK HOOK	PCC POINT OF COMPOUND CURVE	TEMP TEMPERATURE	
CV CHECK VALVE	HM HOLLOW METAL	PCC POUNDS PER CUBIC FOOT	TER TERRAZZO	
CW COLD WATER	HORIZ HORIZONTAL	PE LINING POLYETHYLENE LINING	THERM THERMOSTAT	
CY CUBIC YARD	HP HORSEPOWER	PERF PERFORATED	THK THICK	
	HPT HIGH POINT	PERP PERPENDICULAR	THRU THROUGH	
	HTR HEATER	PH SYMBOL DENOTING HYDROGEN CONCENTRATION	TOC TOP OF CONCRETE	
DC DIRECT CURRENT	HVAC HEATING, VENTILATION AND AIR CONDITIONING	PI POINT OF INTERSECTION	TOD TOP OF DECK	
DCS DISTRIBUTED CONTROL SYSTEM		? PROPERTY LINE/PLATE	TOD TOP OF FOOTING	
DCU DISTRIBUTED CONTROL UNIT		PL LAM PLASTIC LAMINATED	TOL TOLERANCE	
DET DETAIL	HV HOT WATER	PNI PANEL	TOM TOP OF MASONRY/MANHOLE	
DIA (?) DIAMETER	HW HOT WATER	PP POWER POLE	TOS TOP OF SLAB	
DIAG DIAGONAL	HWL HIGH WATER LEVEL	PREFAB PREFABRICATED	TOW TOP OF WALL	
DIM DIMENSION	HWY HIGHWAY	PROP PROPERTY / PROPOSED	TP TURNING POINT/TOILET PAPER	
DIP DUCTILE IRON PIPE	HYD HYDRAULIC	PRV PRESSURE RELIEF VALVE	TPS TWISTED PAIR SHIELDED	
DISCH DISCHARGE		PS PUMPING STATION	TRANS TRANSFORMER	
DIST DISTRIBUTION	I IRON		TYP TYPICAL	
DJ DOUBLE JOIST	ID INSIDE DIAMETER	PSF POUNDS PER SQUARE FOOT	UG UNDERGROUND	
DL DEAD LOAD	IF INSIDE FACE	PSI POUNDS PER SQUARE INCH	UH UNIT HEATER	
DN DOWN	IN INCH	PT POINT OF TANGENT/POINT	UNFIN UNFINISHED	
DOZ DOZEN	INCL INCLUDED	PTN PARTITION	UNL UNLESS OTHERWISE NOTED	
DR DOOR	INF INFLUENT	PV PLUG VALVE	UR URINAL	
DWG DRAWING	INS / INSUL INSULATION	PVC POLYVINYL CHLORIDE	UTH UTILITY	
DWL DOWEL	INT INTERIOR	PVMT PAVEMENT		
	INV INVERT	PW POTABLE WATER		
		QC QUICK CONNECT		
		QTY QUANTITY		

PIPE ABBREVIATIONS

ATF AERATION TANK EFFLUENT	
ATM ATMOSPHERE	
ASF ADVANCED SECONDARY EFFLUENT	
AWT-PEW ADVANCED WASTEWATER TREATMENT - PLANT EFFLUENT WATER	
BA BLOWER AIR	
CAS CAUSTIC	
CEN CENTRATE	
CLS CHLORINE SOLUTION	
CLW CAKE LUBRICATION WATER	
CDW COUNTY WATER (POTABLE)	
CWR COOLING WATER RETURN	
CWS COOLING WATER SUPPLY	
DPOL DRY POLYMER	
DR DRAIN (GENERAL)	
EA FOUL AIR	
EE FINAL EFFLUENT	
FIL FILTRATE	
FLRE FIRST STEP LIME REACTOR EFFLUENT	
FO FUEL OIL	
FPW FIRE PROTECTION WATER	
FSC FINAL SKIMMINGS	
H-2SO ₄ SULFURIC ACID	
HPEW-AWT HOT PLANT EFFLUENT WATER - ADVANCED WASTEWATER TREATMENT	
HO HYDRAULIC OIL	
HOD HYDRAULIC OIL DRAIN	
HWS HOT WATER SUPPLY	
HWR HOT WATER RETURN	
LO LUBE OIL	
LDD LUBE OIL DRAIN	
LPA LOW PRESSURE AIR	
LPEW LOW PRESSURE PLANT EFFLUENT WATER	
LPLD LIQUID POLYMER	
LT LIME TRANSFER	
LRT LIME REACTION TANK	
LSTD LIME SLUDGE THICKENER OVERFLOW	
ML MIXED LIQUOR - AERATION TANK EFFLUENT	
NaOCl SODIUM HYPOCHLORITE	
NaOH SODIUM HYDROXIDE	
NG NATURAL GAS	
OCA ODOOR CONTROL AIR	
OD OIL DRAIN	
OF OVERFLOW	
PA PROCESS AIR	
PAD POLYMER AIR DRYER INLET	
PDA POLYMER DRY AIR	
PE PRIMARY EFFLUENT	
PEW PLANT EFFLUENT WATER - ADVANCED WASTEWATER TREATMENT	
PI PLANT INFLUENT	
PID PROPORTIONAL-INTEGRAL-DERIVATIVE (LOOP STYLE CONTROLLER)	
POL.S POLYMER SOLUTION	
PS PRIMARY SLUDGE	
PSC PRIMARY SKIMMINGS	
RAS RETURN ACTIVATED SLUDGE	
RS RETURN SLUDGE	
S SAMPLE	
SA SERVICE AIR	
SCF SECONDARY CLARIFIER EFFLUENT	
SS SANITARY SEWER (SITE)	
SD STORM DRAIN	
SG SLUICE GATE	
SI SLUDGE (GENERAL)	
SLCK SLUDGE CAKE	
SLG SLIDE GATE	
SLGX SLIDE GATE EXISTING	
SLRF SECOND STEP LIME REACTOR EFFLUENT	
SLW SEAL WATER	
SPD SUMP PUMP DISCHARGE	
SPW SPRINKLER WATER	
SRD SCRUBBER RECIRCULATION DISCHARGE	
SRS SCRUBBER RECIRCULATION SUCTION	
STL SLUDGE TRANSFER LOOP	
SW SPRAY WATER	
TD TANK DRAIN	
TI THICKENER OVERFLOW	
TO THICKENER OVERFLOW	
TS THICKENER SLUDGE	
U UNDERDRAIN	
V VENT	
WAS WASTE ACTIVATED SLUDGE	

LEGEND

MATERIALS	
	GRADE OR EARTH
	ROCK
	STEEL
	SAND
	INSULATION
	GRAVEL
	WATER SURFACE
	CONCRETE
	GRATING
	CONC FILL OR GROUT
	CHECKERED PLATE
	CONC MASONRY UNIT
	GLASS
	BRICK
	WOOD BLOCKING

SYMBOLS

	GATE VALVE		WALL PENETRATION
	BUTTERFLY VALVE		MECHANICAL COUPLING
	PLUG VALVE		WELDED JOINT
	SWING CHECK VALVE		FLANGED JOINT
	GLOBE VALVE		MECHANICAL, PUSH ON OR RESTRAINED JOINT
	PINCH VALVE		SLUICE GATE
	DIAPHRAGM VALVE		SLIDE GATE/STOP GATE
	BALL VALVE		FLUSHING CONNECTION
	BALL CHECK VALVE		HOSE BIBB
	MOTOR OPERATED VALVE		QUICK DISCONNECT FITTING
	SOLLENOID VALVE		YARD HYDRANT
	PRESSURE/VACUUM RELIEF VALVE		FIRE HYDRANT
	HARNESSED FLANGED ADAPTER		UNION
	HARNESSED SLEEVE TYPE COUPLING		SOIL BORING
	SLEEVE TYPE COUPLING		
	HARNESSED FLEXIBLE COUPLING		

SECTION AND DETAIL KEYING

DRAWINGS ARE CROSS REFERENCED IN THE FOLLOWING METHOD:
 (A) A SECTION CUT ON DRAWING A3 IS IDENTIFIED AS FOLLOWS:

 SECTION LETTER
 DRAWING WHERE SECTION IS SHOWN
 (B) THE SECTION SHOWN ON DRAWING A6 IS IDENTIFIED AS FOLLOWS:

 SECTION LETTER
 DRAWING FROM WHERE SECTION WAS TAKEN
 DETAILS ARE CROSS REFERENCED IN A SIMILAR MANNER, EXCEPT DETAILS ARE IDENTIFIED BY A SQUARE WITH A NUMBER IN THE UPPER HALF.
 STANDARD DETAILS ARE REFERENCED BY A UNIQUE SEVEN DIGIT NUMBER AND ARE SHOWN ON THE CONTRACT DRAWINGS BY ONE OF TWO METHODS:

 REFERENCED ITEM
 OR:

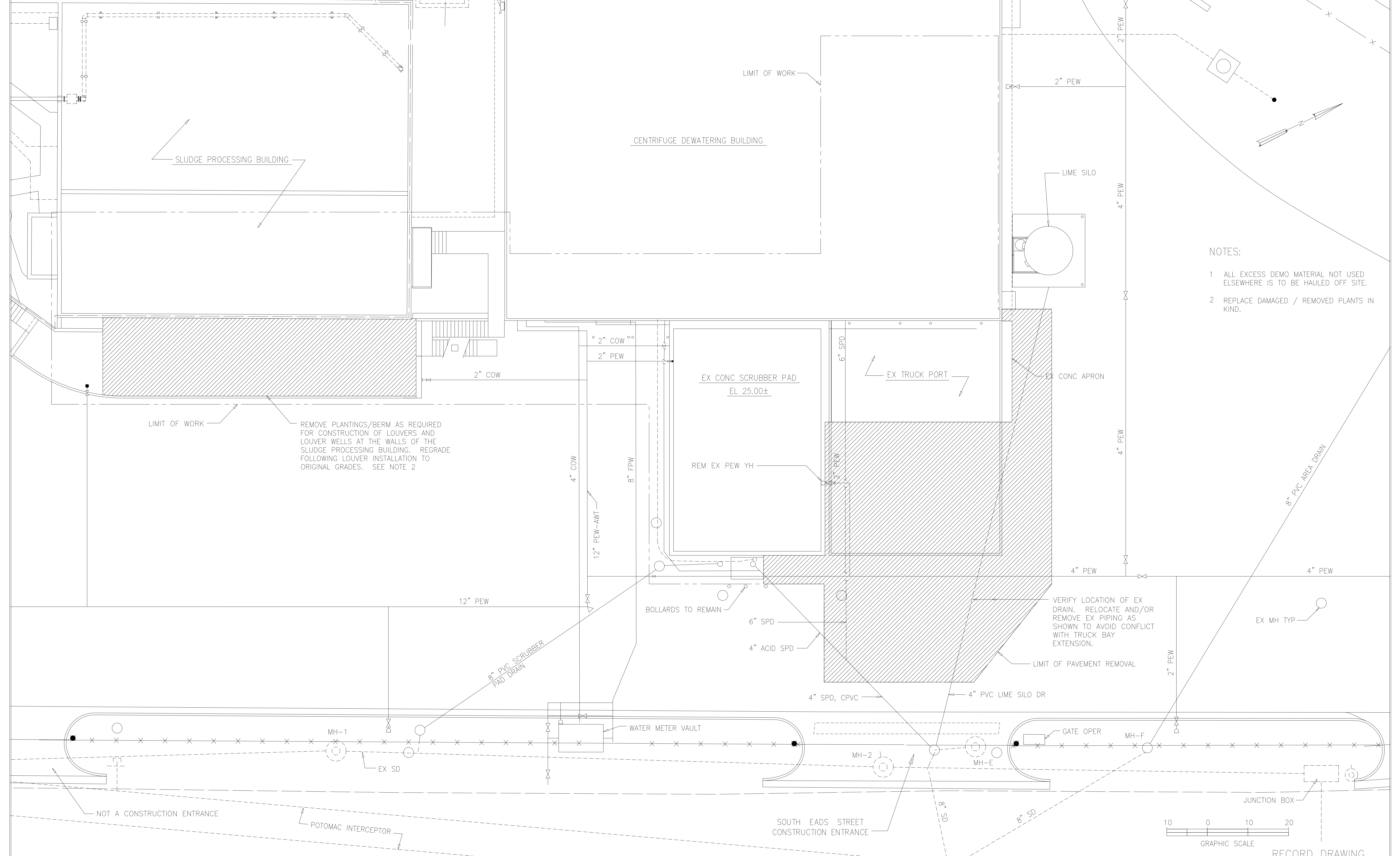
 REFERENCED ITEM
 STANDARD DETAILS ARE COMPILED IN APPROXIMATE NUMERICAL ORDER IN THE BACK OF THE CONTRACT DRAWINGS ON THE D* DRAWINGS.

LINETYPES

	PROPOSED ITEMS		DEMOLITION ITEMS
	EXISTING ITEMS		CENTER LINE
	HIDDEN ITEMS		MATCH LINE

RECORD DRAWING

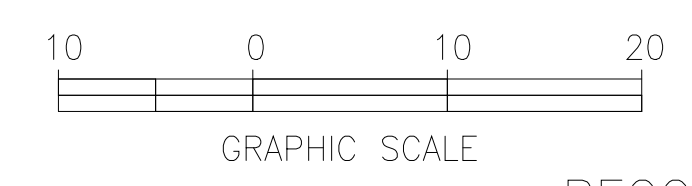
DESIGNED: FXP	 HAZEN AND SAWYER Environmental Engineers & Scientists 4011 WestChase Blvd, Raleigh, North Carolina 27607 12101 INDIAN CREEK COURT BELTSVILLE, MD 20705 TELEPHONE: (301) 210-6800 FAX: (301) 210-4156	ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT	DATE: SEPT 2000	
DRAWN: FXP		ODOR CONTROL IMPROVEMENTS	H & S JOB NUMBER: 30313	
CHECKED: CAS		GENERAL ABBREVIATIONS AND LEGEND	CONTRACT NUMBER: 2000-01-WPC	DRAWING NUMBER: X002
PROJ. ENGR: ASG			SHEET 2 OF 99	
NO.	ISSUED FOR	DATE	BY	APPROVED



- NOTES:
- 1 ALL EXCESS DEMO MATERIAL NOT USED ELSEWHERE IS TO BE HAULED OFF SITE.
 - 2 REPLACE DAMAGED / REMOVED PLANTS IN KIND.

REMOVE PLANTINGS/BERM AS REQUIRED FOR CONSTRUCTION OF LOUVERS AND LOUVER WELLS AT THE WALLS OF THE SLUDGE PROCESSING BUILDING. REGRADE FOLLOWING LOUVER INSTALLATION TO ORIGINAL GRADES. SEE NOTE 2

VERIFY LOCATION OF EX DRAIN. RELOCATE AND/OR REMOVE EX PIPING AS SHOWN TO AVOID CONFLICT WITH TRUCK BAY EXTENSION.



DESIGNED	ASG			
DRAWN	FXP			
CHECKED	CAS			
PROJ.ENGR.	ASG			
NO.	ISSUED FOR	DATE	BY	APPROVED

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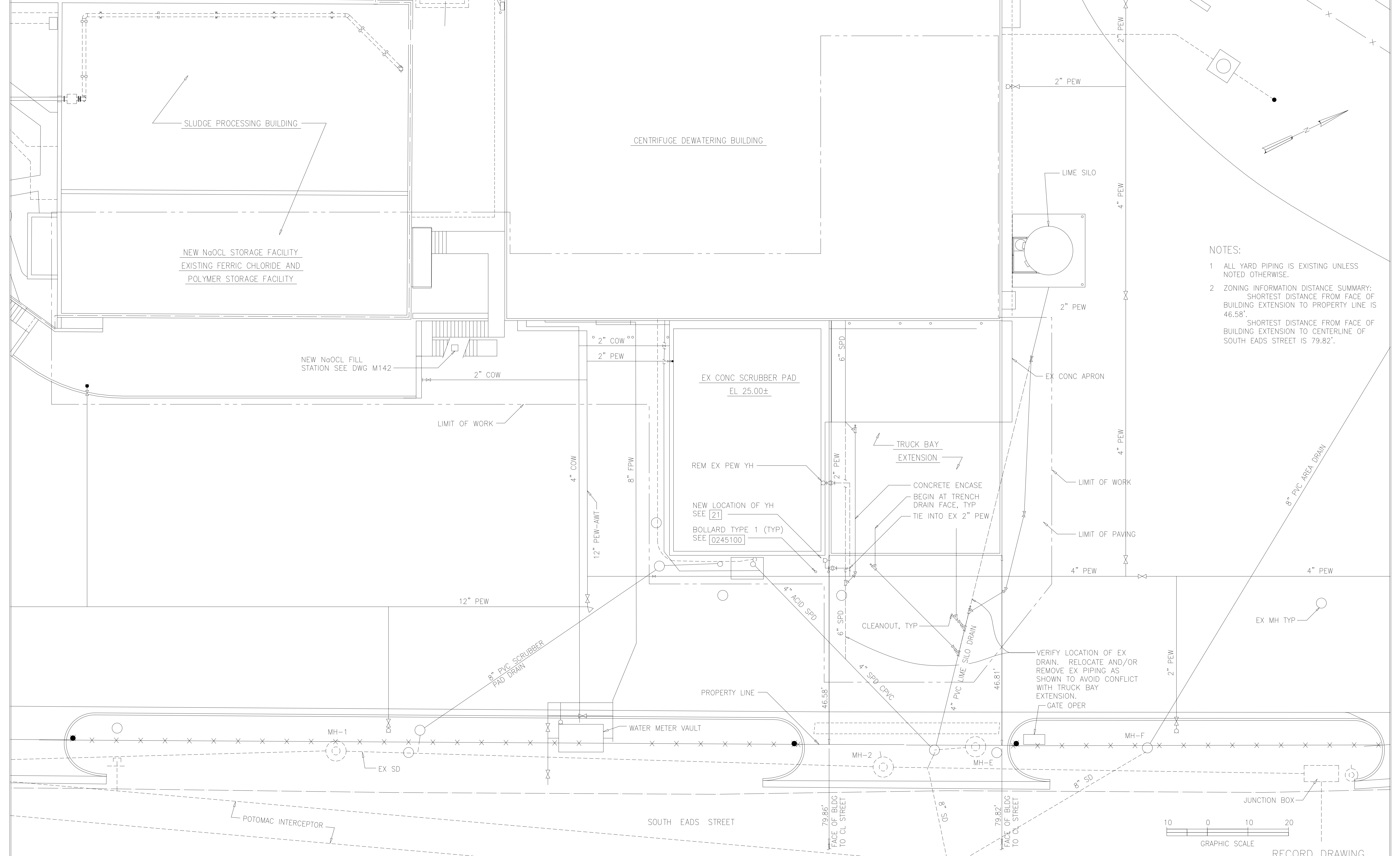
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

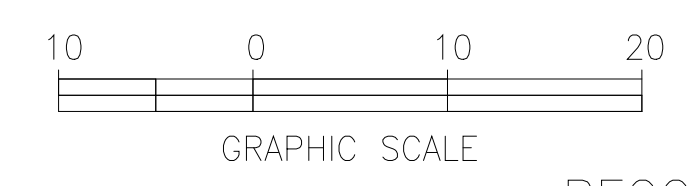
ODOR CONTROL IMPROVEMENTS

SITE
CENTRIFUGE DEWATERING BUILDING
CIVIL
DEMOLITION

RECORD DRAWING	
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER CO01
	SHEET 3 OF 99



- NOTES:
- 1 ALL YARD PIPING IS EXISTING UNLESS NOTED OTHERWISE.
 - 2 ZONING INFORMATION DISTANCE SUMMARY:
 SHORTEST DISTANCE FROM FACE OF BUILDING EXTENSION TO PROPERTY LINE IS 46.58'.
 SHORTEST DISTANCE FROM FACE OF BUILDING EXTENSION TO CENTERLINE OF SOUTH EADS STREET IS 79.82'.



RECORD DRAWING

DESIGNED	AMS		
DRAWN	EJR		
CHECKED	JSI		
PROJ.ENGR.	AMS		
NO.	ISSUED FOR	NOV 2000	FXP
		DATE	BY
			APPROVED

1	ZONING DISTANCE INFORMATION	NOV 2000	FXP
		DATE	BY
			APPROVED

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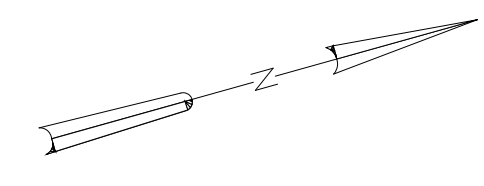
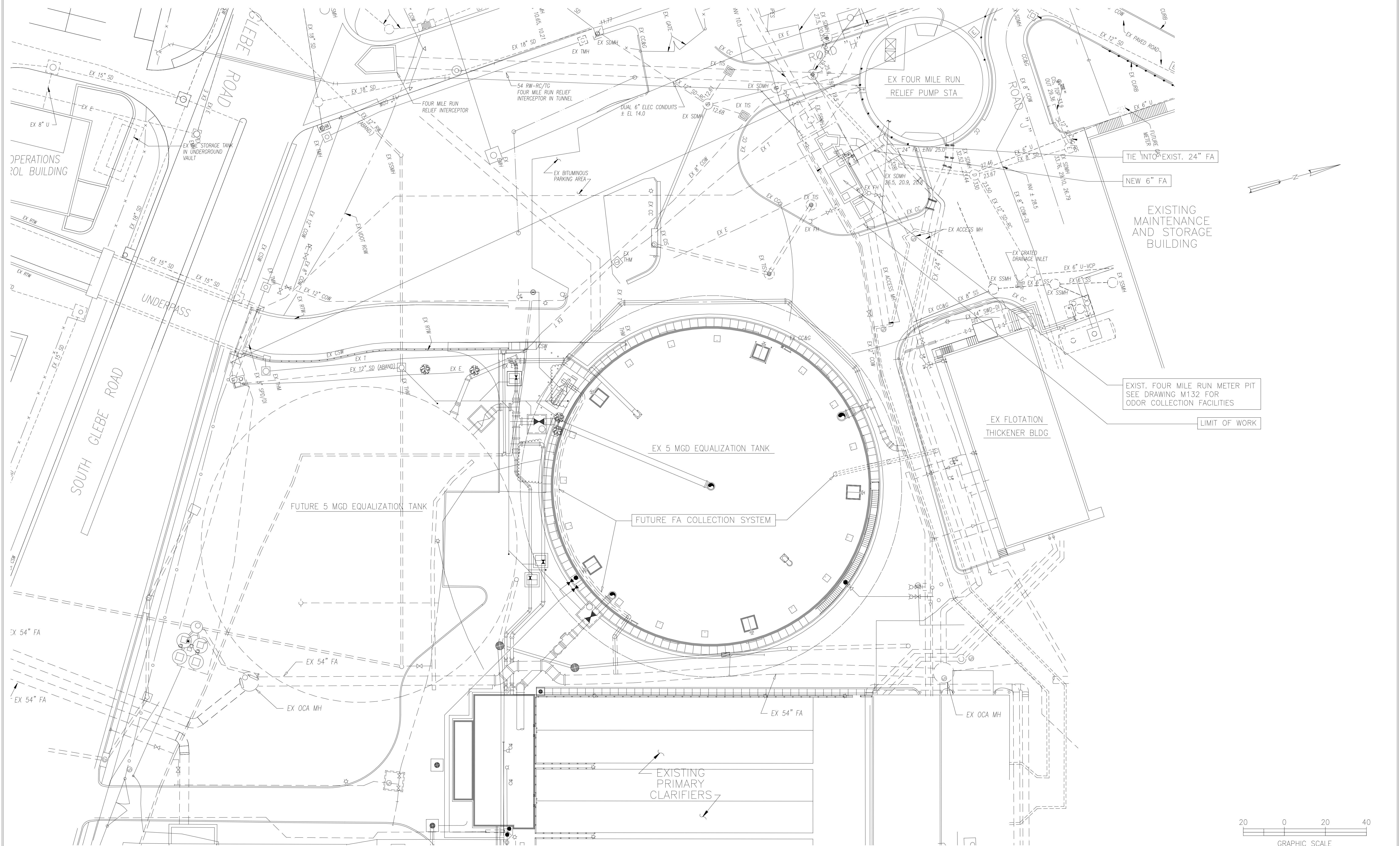
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

SITE
 CENTRIFUGE DEWATERING BUILDING
 CIVIL
 SITE WORK AND YARD PIPING

DATE: SEPT 2000
 H & S JOB NUMBER: 30313
 CONTRACT NUMBER: 2000-01-MPC
 DRAWING NUMBER: C002
 SHEET 4 OF 99

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.



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DESIGNED AMS
 DRAWN EJER
 CHECKED JSI
 PROJ.ENGR. AMS

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ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

SITE
 FOUR MILE RUN METER PIT
 CIVIL
 YARD PIPING

RECORD DRAWING

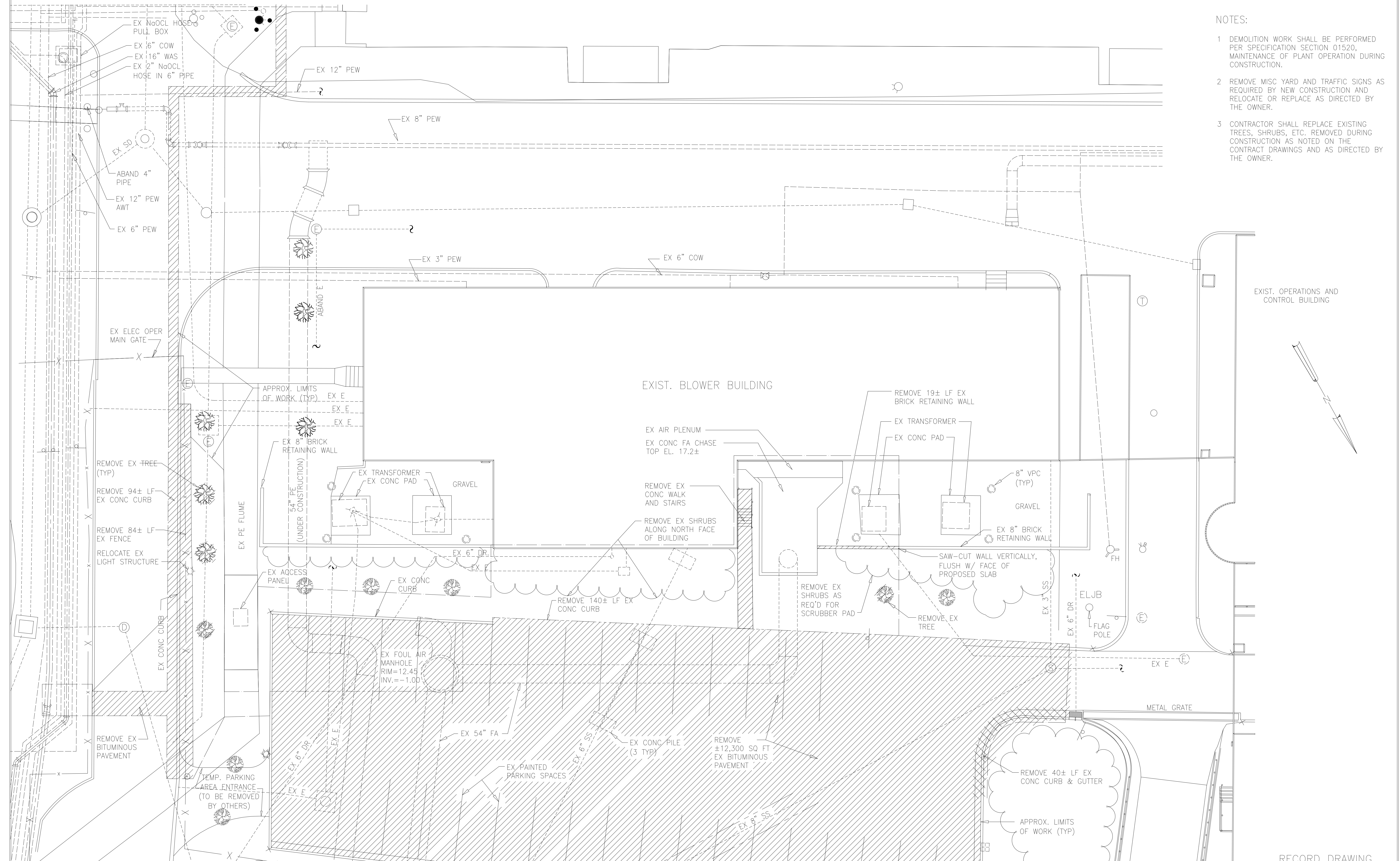
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 DATE: SEPT 2000
 H & S JOB NUMBER 30313
 CONTRACT NUMBER 2000-01-MPC
 DRAWING NUMBER C003
 SHEET 5 OF 99

NO. ISSUED FOR DATE BY APPROVED

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NOTES:

- 1 DEMOLITION WORK SHALL BE PERFORMED PER SPECIFICATION SECTION 01520. MAINTENANCE OF PLANT OPERATION DURING CONSTRUCTION.
- 2 REMOVE MISC YARD AND TRAFFIC SIGNS AS REQUIRED BY NEW CONSTRUCTION AND RELOCATE OR REPLACE AS DIRECTED BY THE OWNER.
- 3 CONTRACTOR SHALL REPLACE EXISTING TREES, SHRUBS, ETC. REMOVED DURING CONSTRUCTION AS NOTED ON THE CONTRACT DRAWINGS AND AS DIRECTED BY THE OWNER.



RECORD DRAWING

DESIGNED	AMS
DRAWN	KEG
CHECKED	JSI
PROJ.ENGR.	AMS
ISSUED FOR CONSTRUCTION	5/5/00
NO.	ISSUED FOR DATE
BY	APPROVED

NO.	ISSUED FOR	DATE	BY	APPROVED
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

SITE BLOWER BUILDING CIVIL DEMOLITION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER C004
	SHEET 6 OF 99

MATCHLINE "A-A" SEE ALSO DWG C007

LEGEND

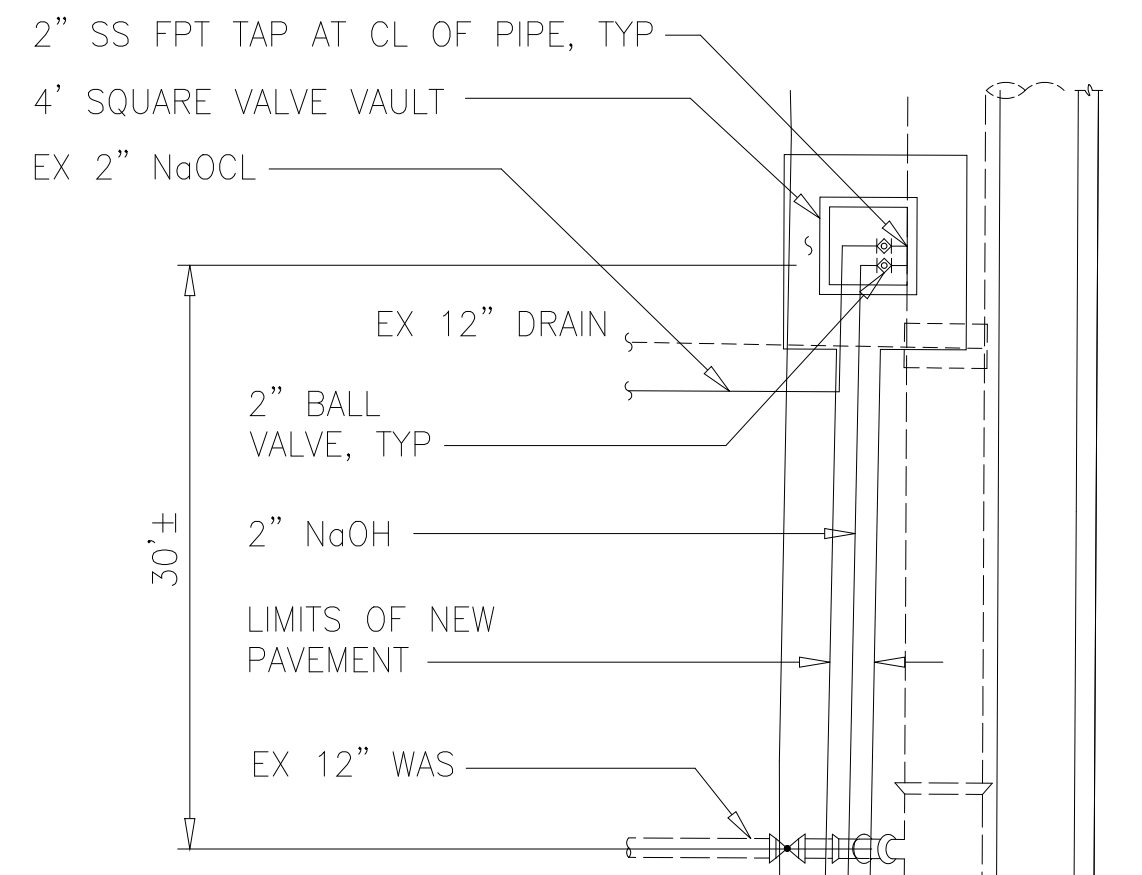
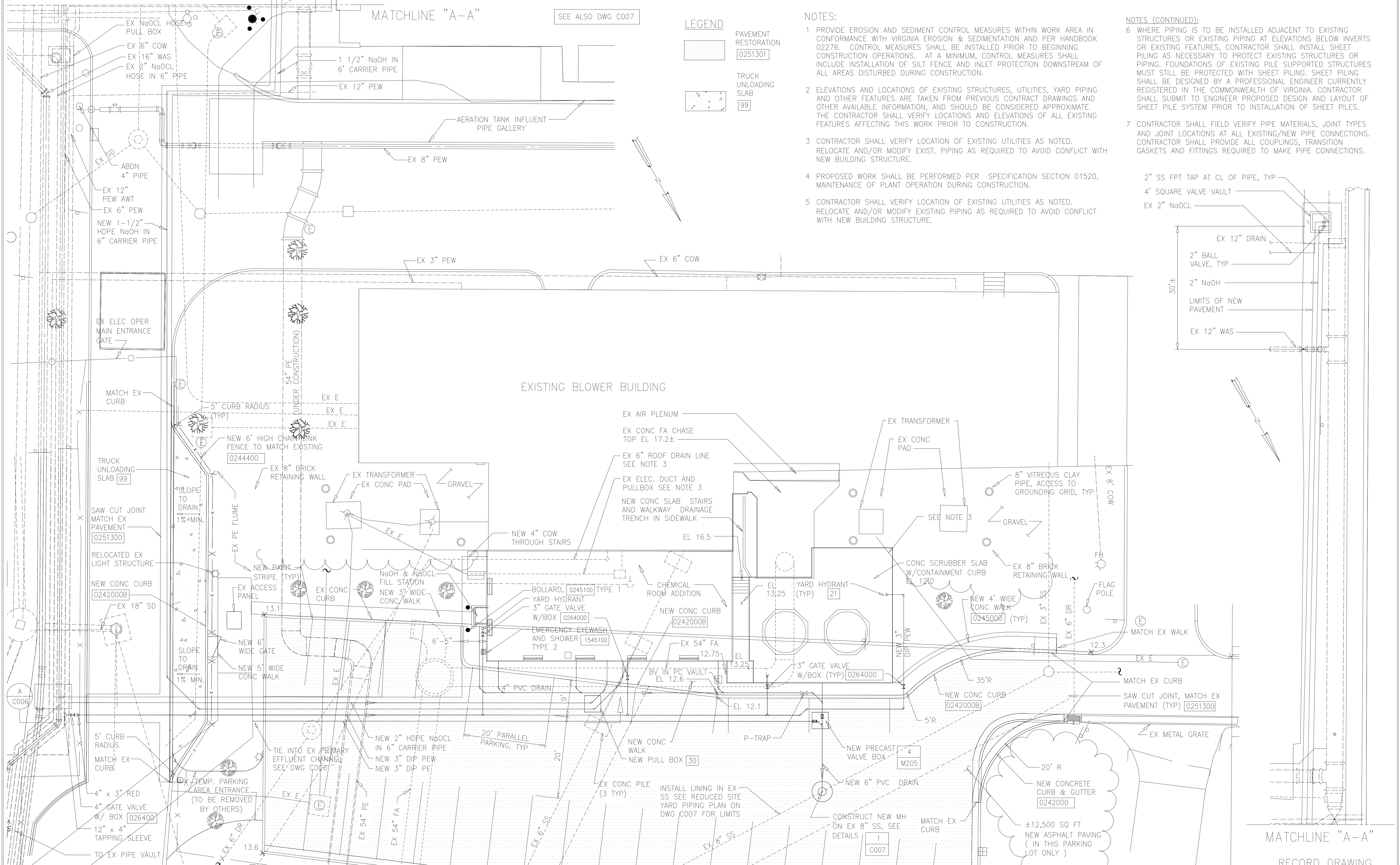
- PAVEMENT RESTORATION [0251301]
- TRUCK UNLOADING SLAB [99]

NOTES:

- 1 PROVIDE EROSION AND SEDIMENT CONTROL MEASURES WITHIN WORK AREA IN CONFORMANCE WITH VIRGINIA EROSION & SEDIMENTATION AND PER HANDBOOK 02276. CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION OPERATIONS. AT A MINIMUM, CONTROL MEASURES SHALL INCLUDE INSTALLATION OF SILT FENCE AND INLET PROTECTION DOWNSTREAM OF ALL AREAS DISTURBED DURING CONSTRUCTION.
- 2 ELEVATIONS AND LOCATIONS OF EXISTING STRUCTURES, UTILITIES, YARD PIPING AND OTHER FEATURES ARE TAKEN FROM PREVIOUS CONTRACT DRAWINGS AND OTHER AVAILABLE INFORMATION, AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
- 3 CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES AS NOTED. RELOCATE AND/OR MODIFY EXIST. PIPING AS REQUIRED TO AVOID CONFLICT WITH NEW BUILDING STRUCTURE.
- 4 PROPOSED WORK SHALL BE PERFORMED PER SPECIFICATION SECTION 01520, MAINTENANCE OF PLANT OPERATION DURING CONSTRUCTION.
- 5 CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES AS NOTED. RELOCATE AND/OR MODIFY EXISTING PIPING AS REQUIRED TO AVOID CONFLICT WITH NEW BUILDING STRUCTURE.

NOTES (CONTINUED):

- 6 WHERE PIPING IS TO BE INSTALLED ADJACENT TO EXISTING STRUCTURES OR EXISTING PIPING AT ELEVATIONS BELOW INVERTS OR EXISTING FEATURES, CONTRACTOR SHALL INSTALL SHEET PILING AS NECESSARY TO PROTECT EXISTING STRUCTURES OR PIPING. FOUNDATIONS OF EXISTING PILE SUPPORTED STRUCTURES MUST STILL BE PROTECTED WITH SHEET PILING. SHEET PILING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE COMMONWEALTH OF VIRGINIA. CONTRACTOR SHALL SUBMIT TO ENGINEER PROPOSED DESIGN AND LAYOUT OF SHEET PILE SYSTEM PRIOR TO INSTALLATION OF SHEET PILES.
- 7 CONTRACTOR SHALL FIELD VERIFY PIPE MATERIALS, JOINT TYPES AND JOINT LOCATIONS AT ALL EXISTING/NEW PIPE CONNECTIONS. CONTRACTOR SHALL PROVIDE ALL COUPLINGS, TRANSITION GASKETS AND FITTINGS REQUIRED TO MAKE PIPE CONNECTIONS.



MATCHLINE "A-A"

DESIGNED	AMS
DRAWN	KEG
CHECKED	JSI
PROJ. ENGR.	AMS

NO.	ISSUED FOR CONSTRUCTION	5/5/00
	ISSUED FOR	DATE

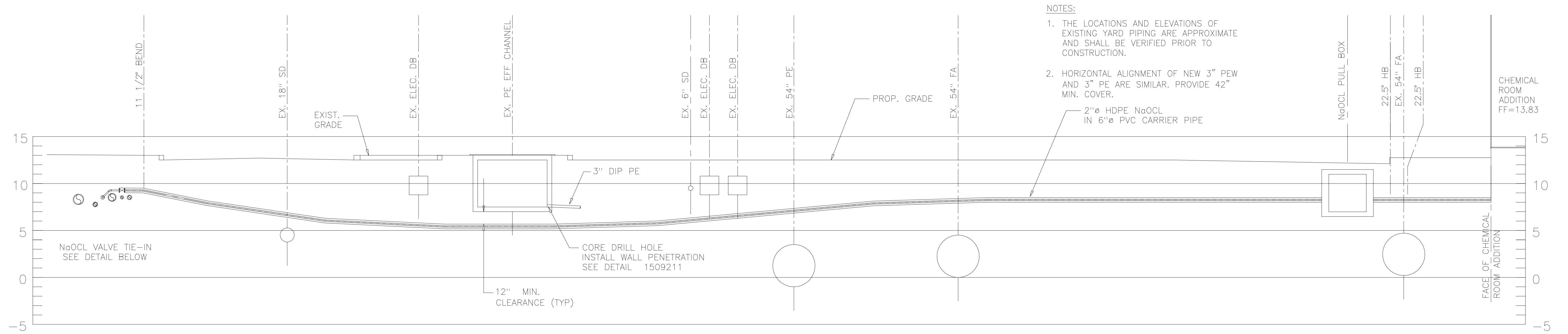
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

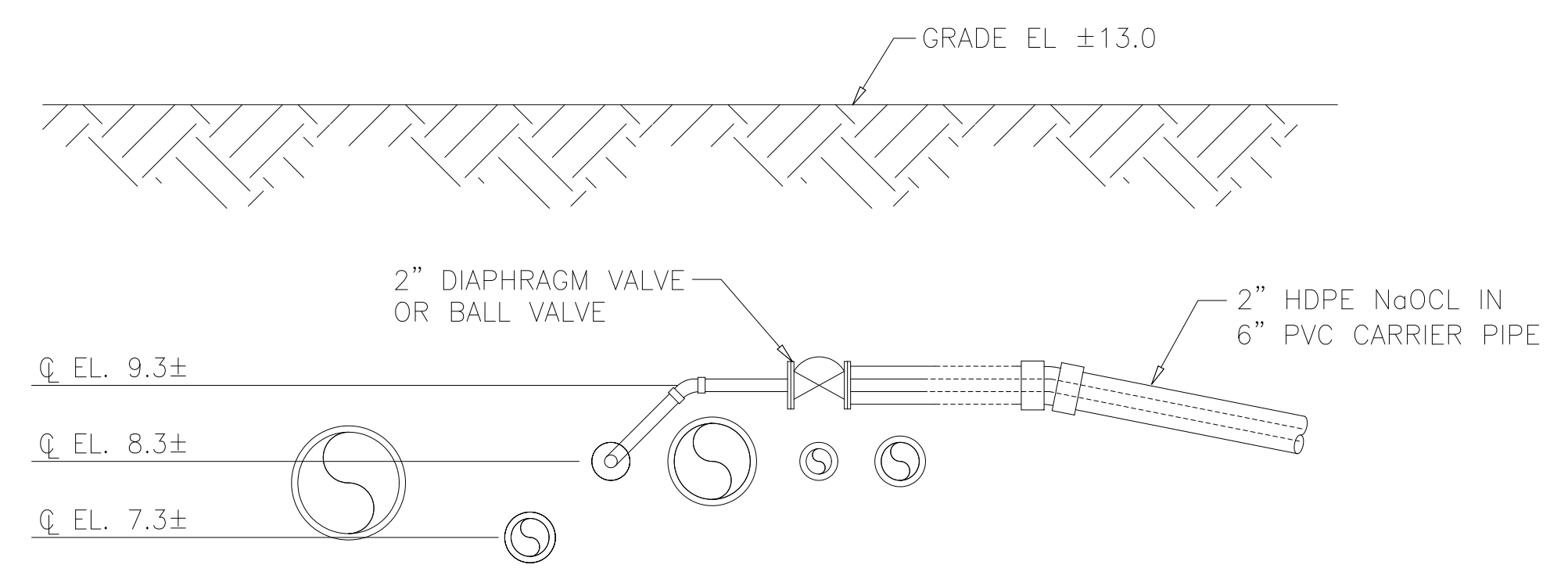
SITE BLOWER BUILDING
CIVIL
SITWORK AND YARD PIPING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER C005
	SHEET 7 OF 99

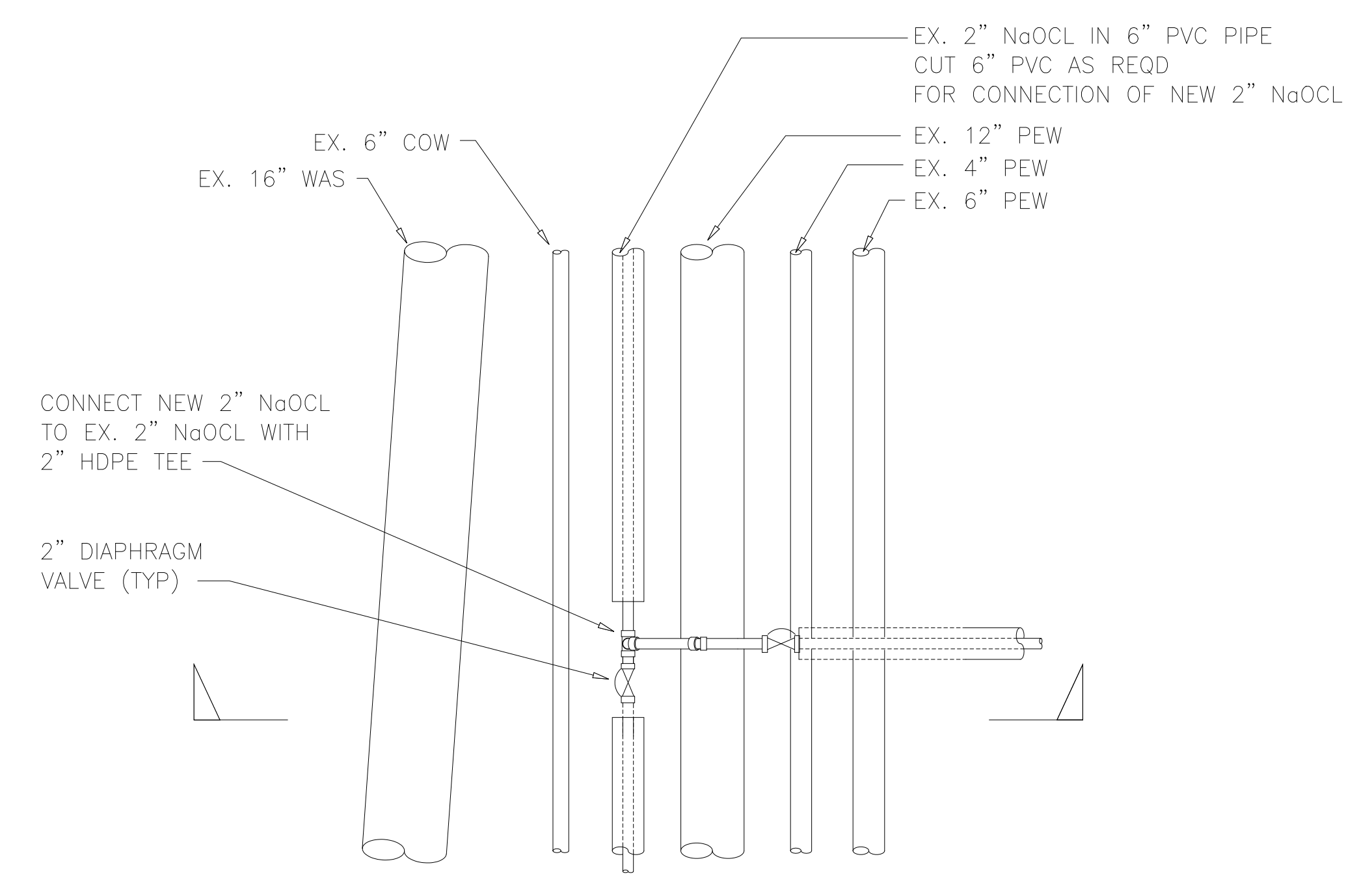


- NOTES:
1. THE LOCATIONS AND ELEVATIONS OF EXISTING YARD PIPING ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
 2. HORIZONTAL ALIGNMENT OF NEW 3" PEW AND 3" PE ARE SIMILAR. PROVIDE 42" MIN. COVER.

A SECTION
C005
1"=5' HORZ
1"=5' VERT

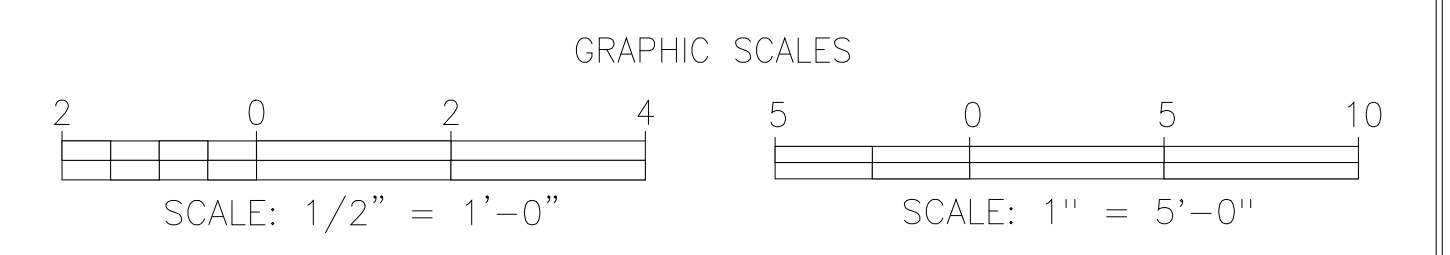


SECTION



PLAN

1 NaOCL VALVE TIE-IN DETAIL
C005 NTS



RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
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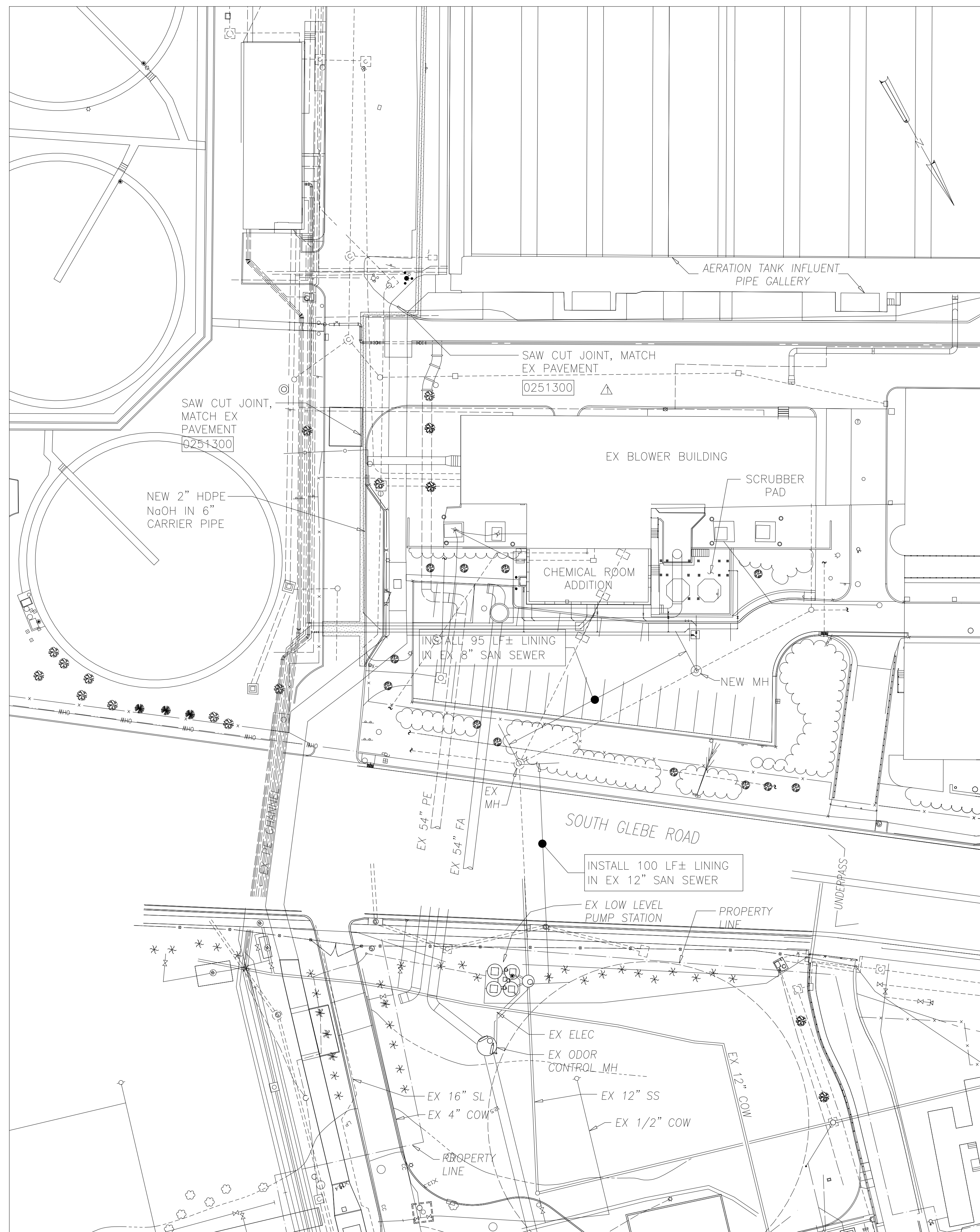
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

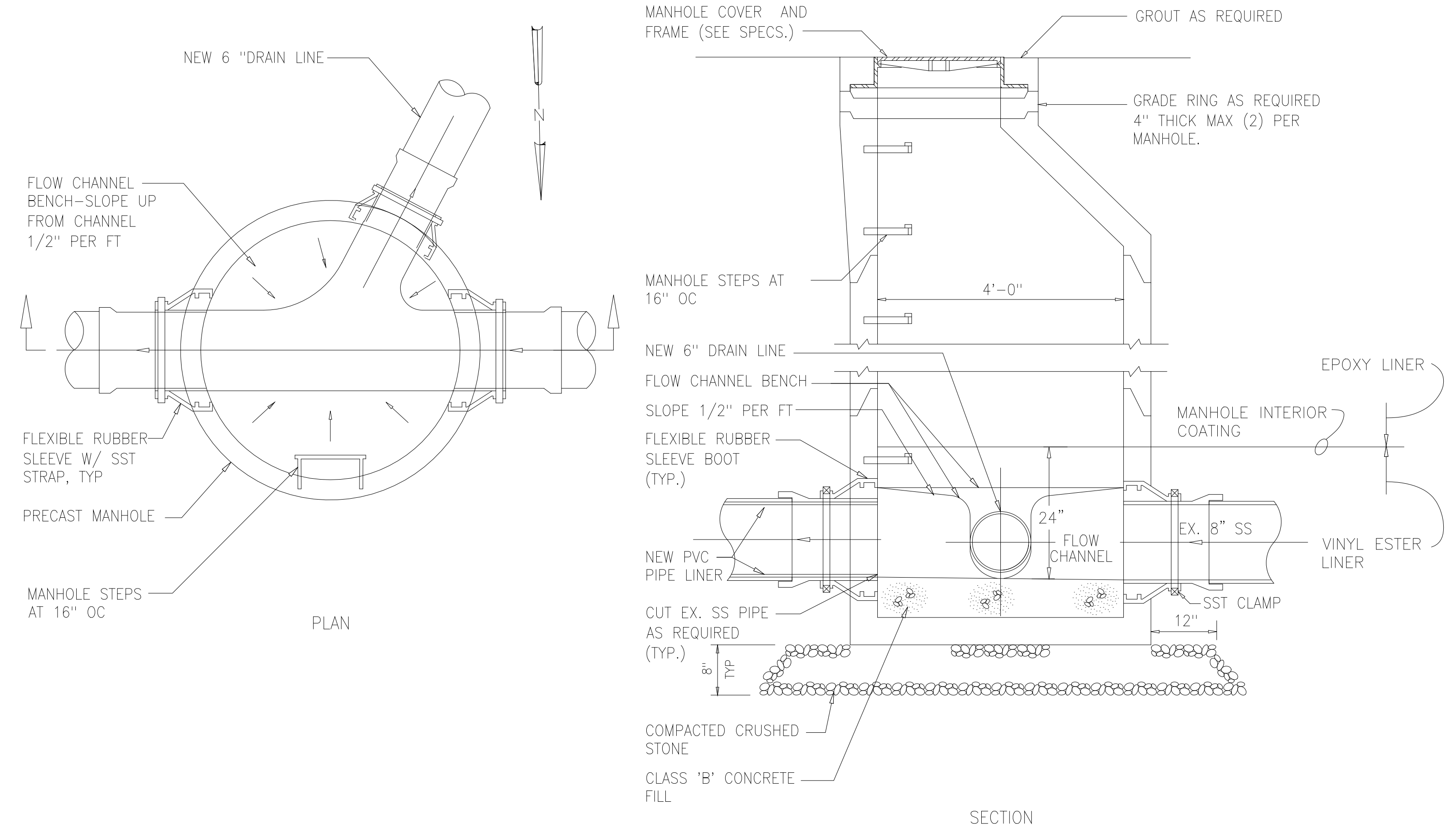
SITE
CIVIL
SECTIONS AND DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER C006
	SHEET 8 OF 99



PARTIAL PIPING PLAN

1"=30'



NEW MANHOLE DETAIL 1
NTS C007

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ. ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED
1	REVISED PER COUNTY COMMENTS	6/19/00		

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS

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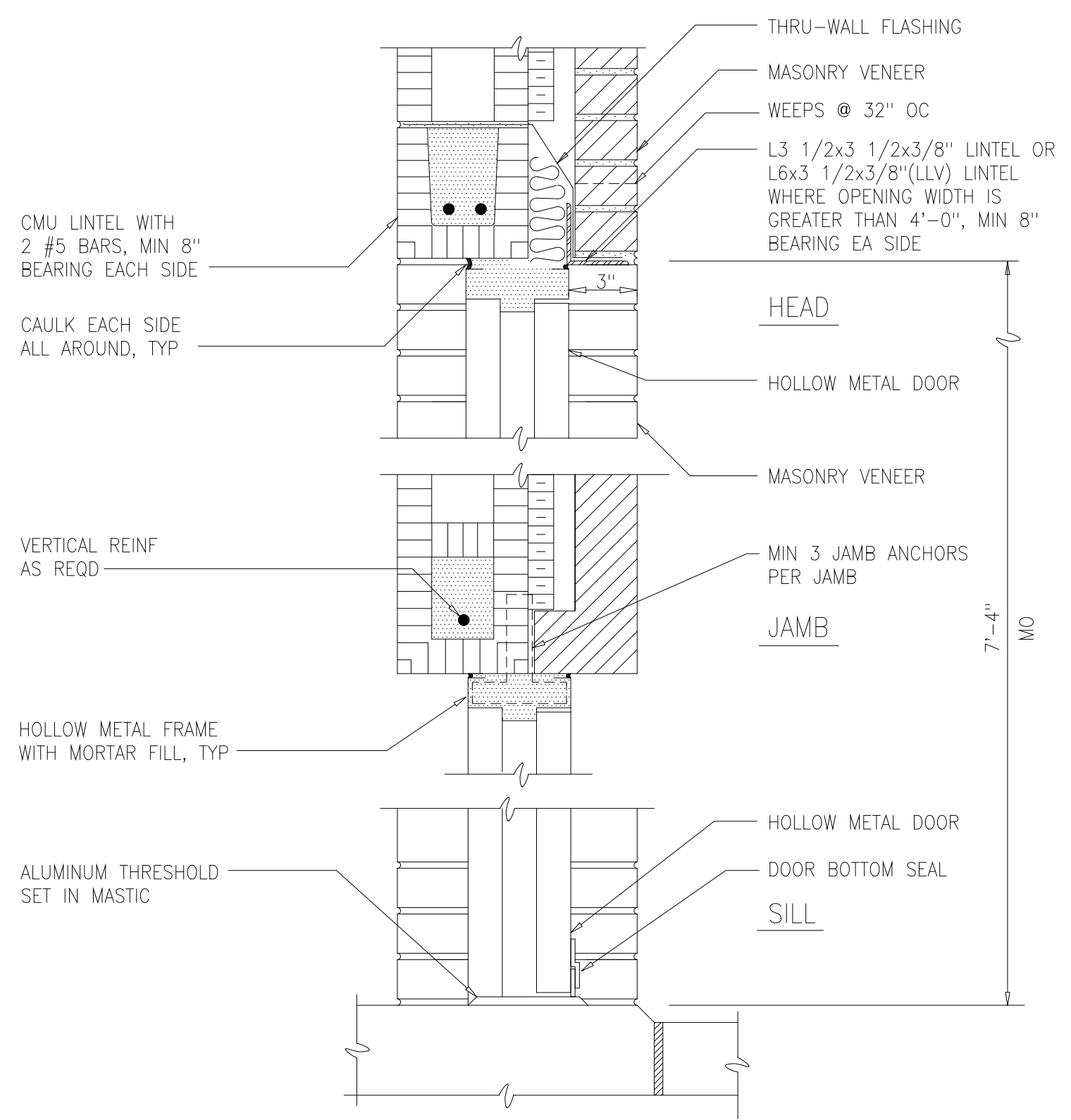
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

SITE BLOWER BUILDING
CIVIL
PLAN, SECTIONS AND DETAILS

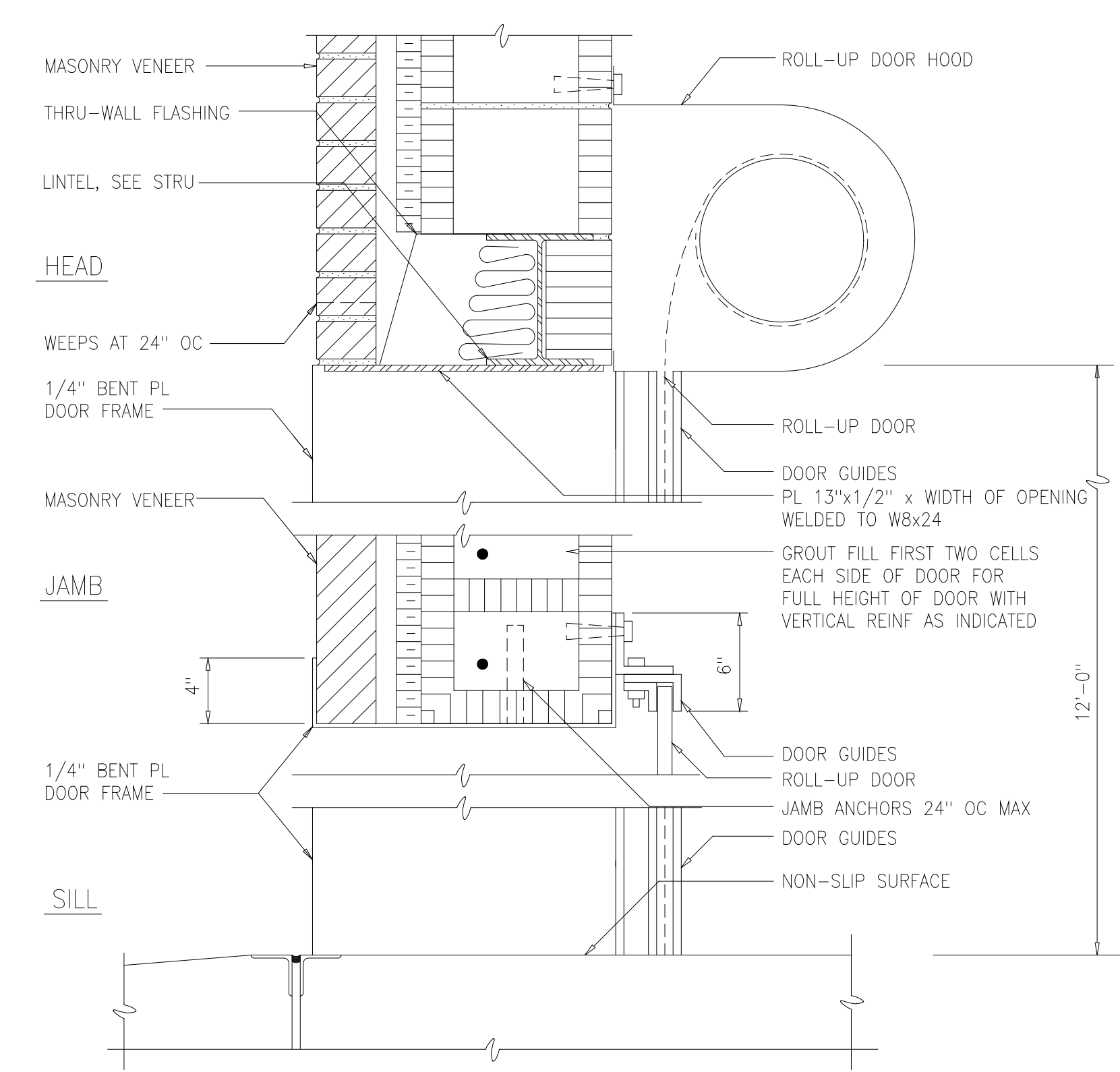
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THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER C007
	SHEET 9 of 99

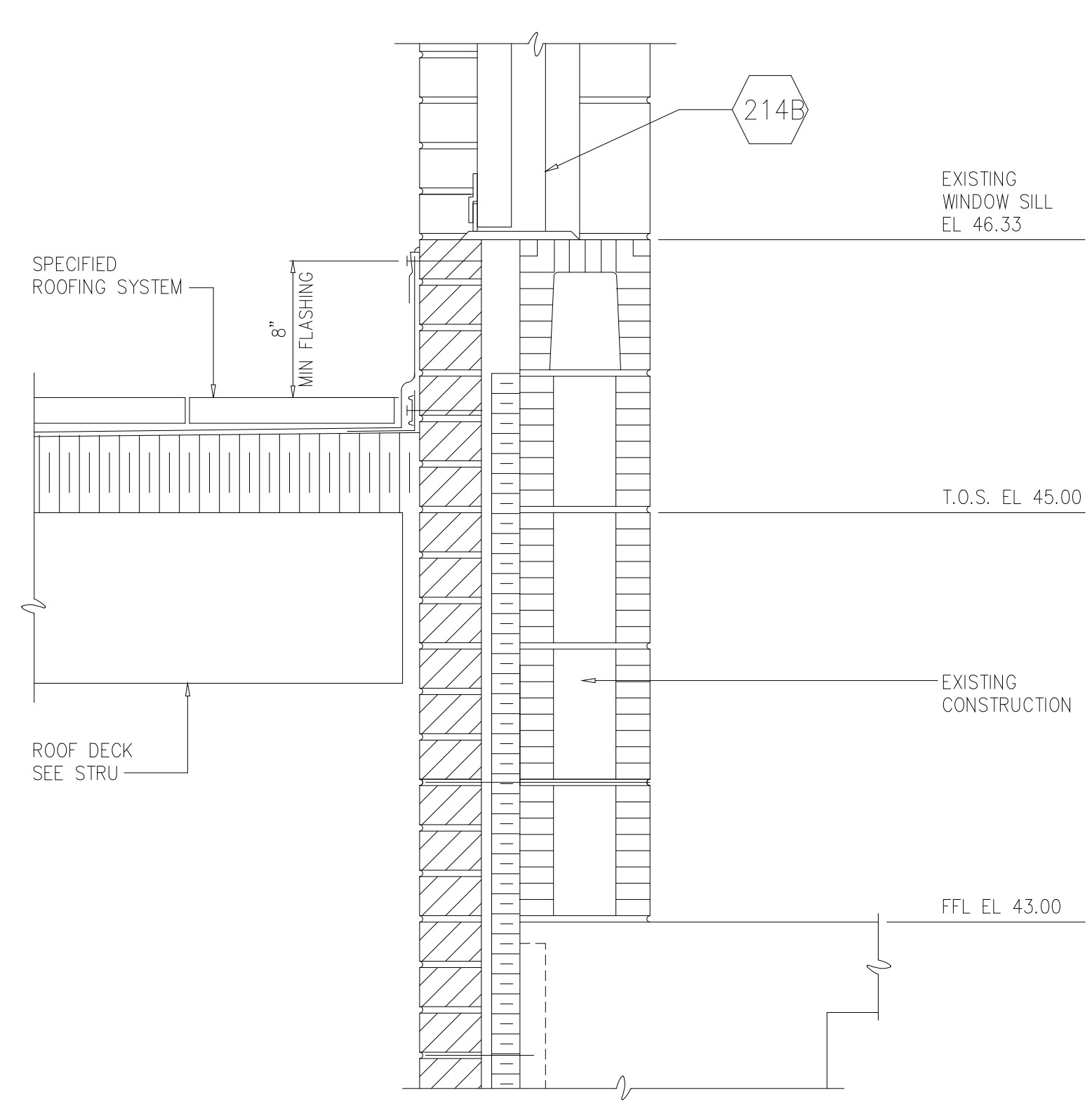
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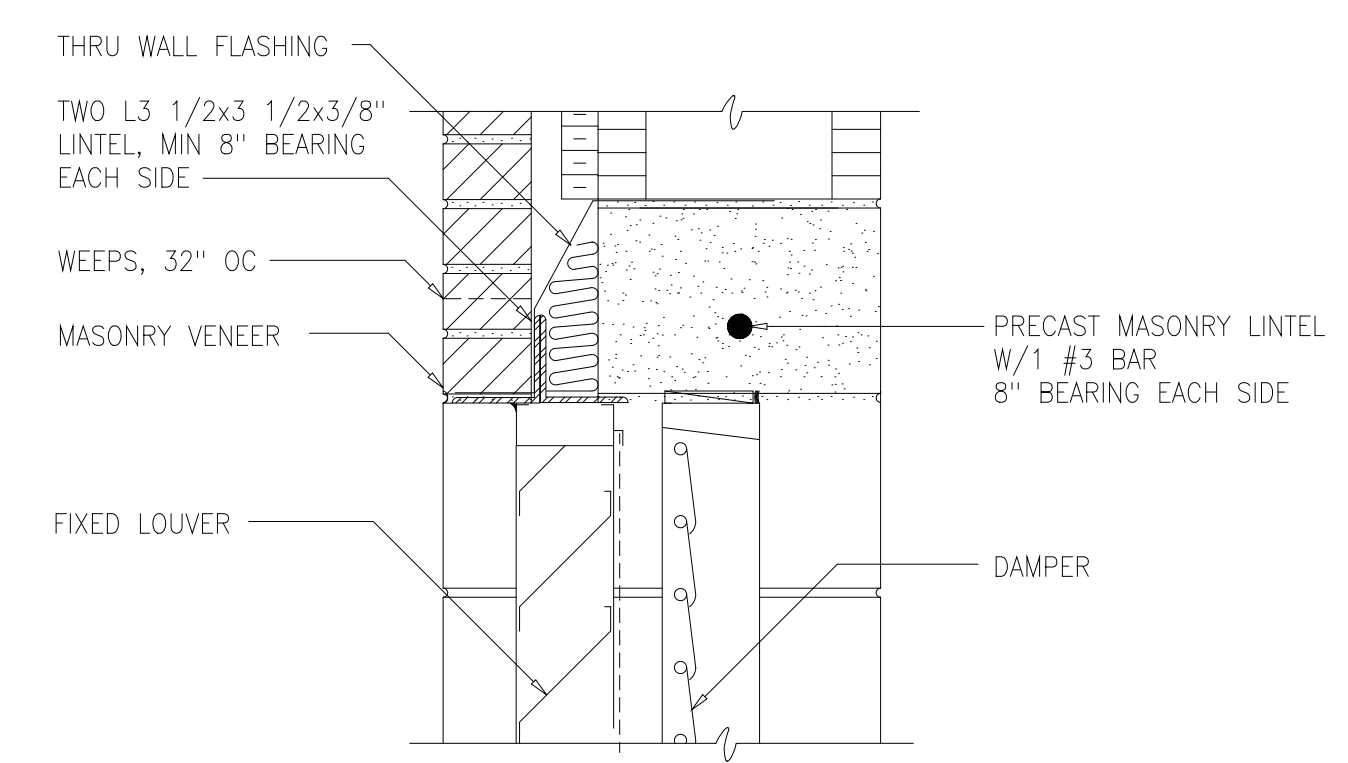
EXTERIOR DOOR
DETAIL 1
1 1/2"=1'-0" A001



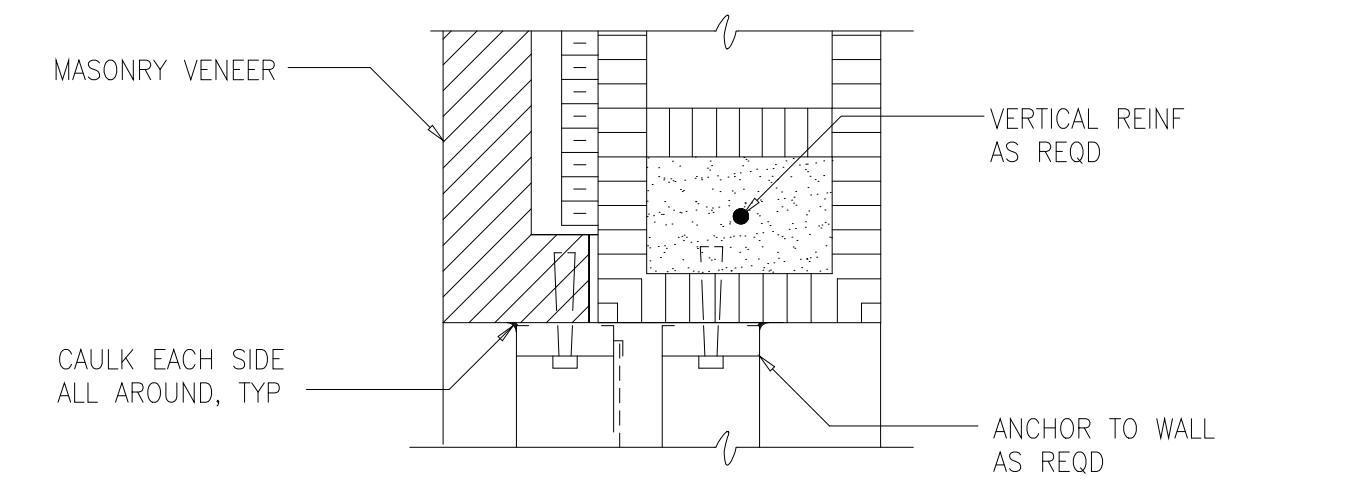
ROLL-UP DOOR
DETAIL 2
1 1/2"=1'-0" A001



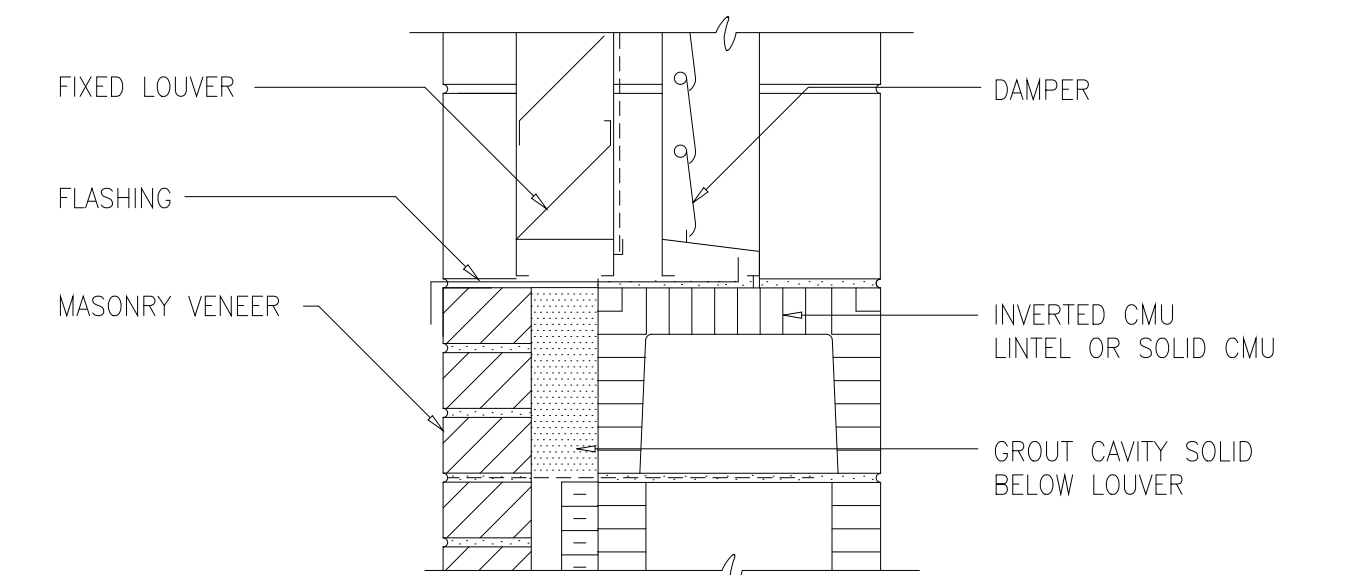
EXT DOOR AT ROOF
DETAIL 4
1 1/2"=1'-0" A001



LOUVER HEAD



LOUVER JAMB



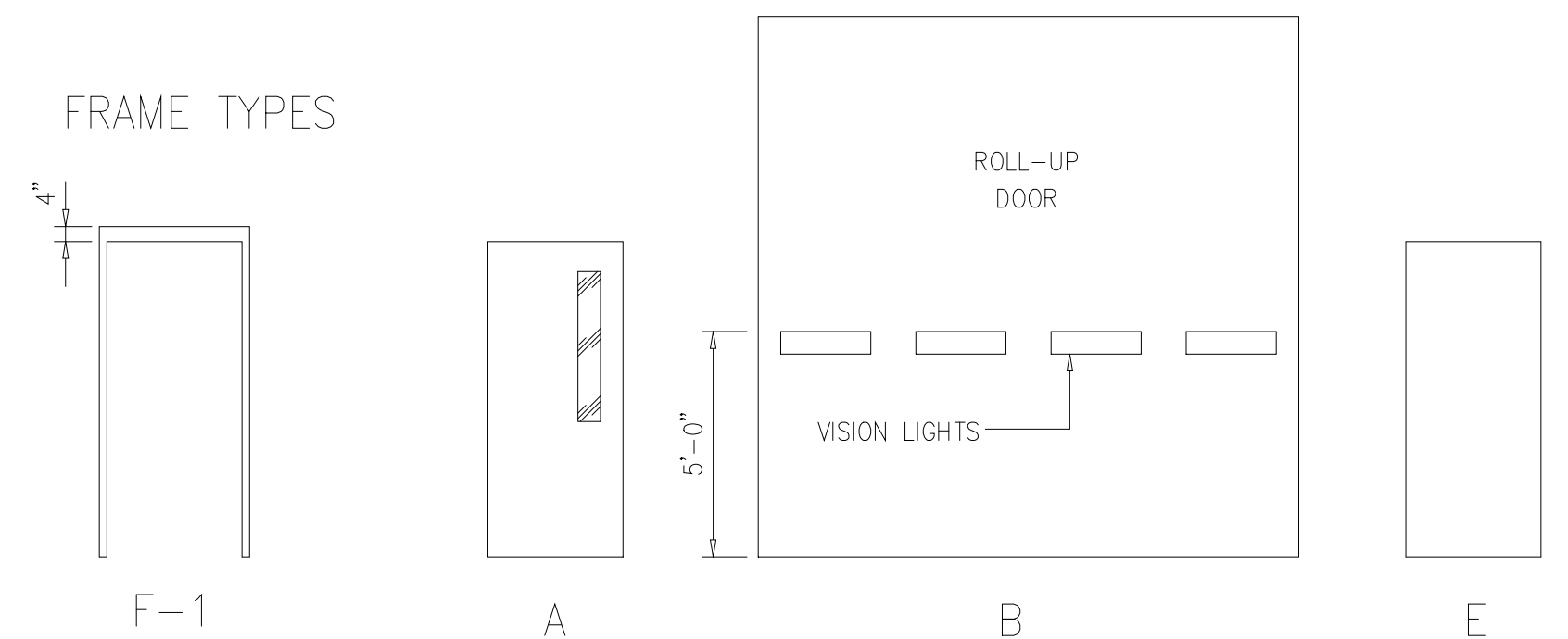
LOUVER SILL

DETAIL 3
1 1/2"=1'-0" A001

NOTES:

- SEE DETAIL 10/A105 FOR NON-FIRE-RATED WALL PENETRATIONS.
- PROVIDE SECONDARY CONTAINMENT LINING PER 09900.
- CLEAN EXISTING BRICK WALL; PREPARE AND PAINT.
- TRANSLUCENT GLASS SHALL BE LAMINATED GLAZING CONSISTING OF TWO LAYERS OF 1/4" PLATE GLASS. INNER SURFACE OF ONE PANE SHALL HAVE EVENLY SEMI-OPAQUE SANDBLAST FINISH.
- CONTAINMENT COATING SHALL BE APPLIED TO FLOOR AND WALLS OF CONTAINMENT AREA.
- SCOPE OF PAINTING FOR STORAGE AREA INCLUDES ALL WALLS, CEILING, AND TANKS.

DOOR TYPES



WINDOW SCHEDULE									
WINDOW NUMBER	WINDOW					WINDOW TREATMENT	REMARKS		
	MATERIAL	GLASS	WIDTH	HEIGHT	DETAILS				
BLOWER BUILDING									
W-1	ALUMINUM	INSULATED	4'-8"	4'-2"	3/A204	---	TRANSLUCENT GLASS - SEE NOTE 4		

DOOR SCHEDULE													
DOOR NUMBER	FRAME		DOOR					LOUVER	FIRE LABEL	FINISH	HDW No	THRESHOLD	REMARKS
	TYPE	MATL	TYPE	MATL	WIDTH	HEIGHT	THICKNESS						
DEWATERING BUILDING													
102G	STEEL	D	AL	12'-0"	14'-0"	3/4"	2/A001		PAINT	1			
102B	STEEL	D	AL	12'-0"	14'-0"	3/4"	2/A001		PAINT	1			
102E	F-1	HM	A	HM	3'-0"	7'-0"	1 3/4"	1/A001	--	PAINT	2	ALUMINUM	
214B	F-1	HM	A	HM	4'-0"	7'-0"	1 3/4"	1&4/A001	--	PAINT	2	ALUMINUM	SEE DETAIL 4/A001 FOR SILL AT ROOF
BLOWER BUILDING													
201	F-1	HM	E	HM	4'-0"	7'-0"	1 3/4"	1/A001	2	PAINT	---	ALUMINUM	CHEMICAL ROOM
202	F-1	HM	E	HM	3'-0"	7'-0"	1 3/4"	2/A001 SIM	2	90 MIN	---	---	CHEMICAL ROOM
203	F-1	HM	E	HM	3'-0"	7'-0"	1 3/4"	1/A001	2	PAINT	---	ALUMINUM	CHEMICAL ROOM

ROOM FINISH SCHEDULE											
No	DESCRIPTION	FLOOR		BASE		WALLS		CEILING		REMARKS	
		SUBSTRATE	FINISH	SUBSTRATE	FINISH	SUBSTRATE	FINISH	SUBSTRATE	FINISH		HEIGHT
DEWATERING BUILDING											
102	TRUCK BAY	CONCRETE	SEALER	--	--	CMU	PAINT	CONCRETE	--	17'-6"	EXISTING TO REMAIN
102A	TRUCK BAY EXT	CONCRETE	SEALER	--	--	CMU	PAINT	CONCRETE	--	19'-2"	EXISTING TO REMAIN
107	POLYMER SOLUTION	CONCRETE	CNT LINER	--	--	CMU	PAINT	CONCRETE	--	17'-6"	EXISTING TO REMAIN
111	ACID STOR	CONCRETE	CNT LINER	--	--	CMU	PAINT	CONCRETE	--	17'-6"	EXISTING TO REMAIN
214	LIME STOR	CONCRETE	SEALER	--	--	CMU	PAINT	CONCRETE	--	22'-6"	EXISTING TO REMAIN
BLOWER BUILDING											
201	CHEMICAL ROOM	CONCRETE	SEALER	--	--	CMU	PAINT	CONCRETE	PAINT	16'-0"	NOTE 2 & 3
BIOLOGICAL SLUDGE PROCESSING BUILDING											
140	FECL3 TANK STORAGE	CONCRETE	CNTNMT CTG	--	--	CONCRETE	PAINT	CONCRETE	PAINT	12'-8"	NOTE 5 & 6

VENTILATION SCHEDULE											
MARK	LOCATION	FAN TYPE	DRIVE TYPE	CFM	SP	HP	RPM	VOLTAGE	MANUFACTURER	MODEL NO	REMARKS
BIOLOGICAL SLUDGE PROCESSING BUILDING											
IF-500	EL 18.00 TANKS	AXIAL	BELT	5,000	0.5	1 1/2	759	480/3	GREENHECK	SFB-18-50	1,3,4,5,6

- EPOXY COATED ENTIRE UNIT
- PREFAB CURB
- DISCONNECT SWITCH
- SCREEN
- GRAVITY DAMPER
- PROVIDE TOTALLY ENCLOSED MOTOR

LOUVER SCHEDULE									
MARK	LOCATION	MAX PRESS DROP	WIDTH	HEIGHT	CFM	MIN FREE AREA (SQ FT)	MATERIAL	MFR/MODEL	REMARKS
DEWATERING BUILDING									
1	TRUCK BAY	0.1	2'-6"	7'-0"	5,800		ALUM	RUSKIN	
BIOLOGICAL SLUDGE PROCESSING BUILDING									
2	EL 18.00 TANKS		3'-0"	2'-6"	2,500		ALUM	RUSKIN	
3	EL 18.00 TANKS		1'-8"	1'-6"	2,500		ALUM	RUSKIN	

RECORD DRAWING

DESIGNED	NJE
DRAWN	DAW/MMM
CHECKED	FXP
PROJ.ENGR.	ASG
APPROVED	

NO. ISSUED FOR DATE BY

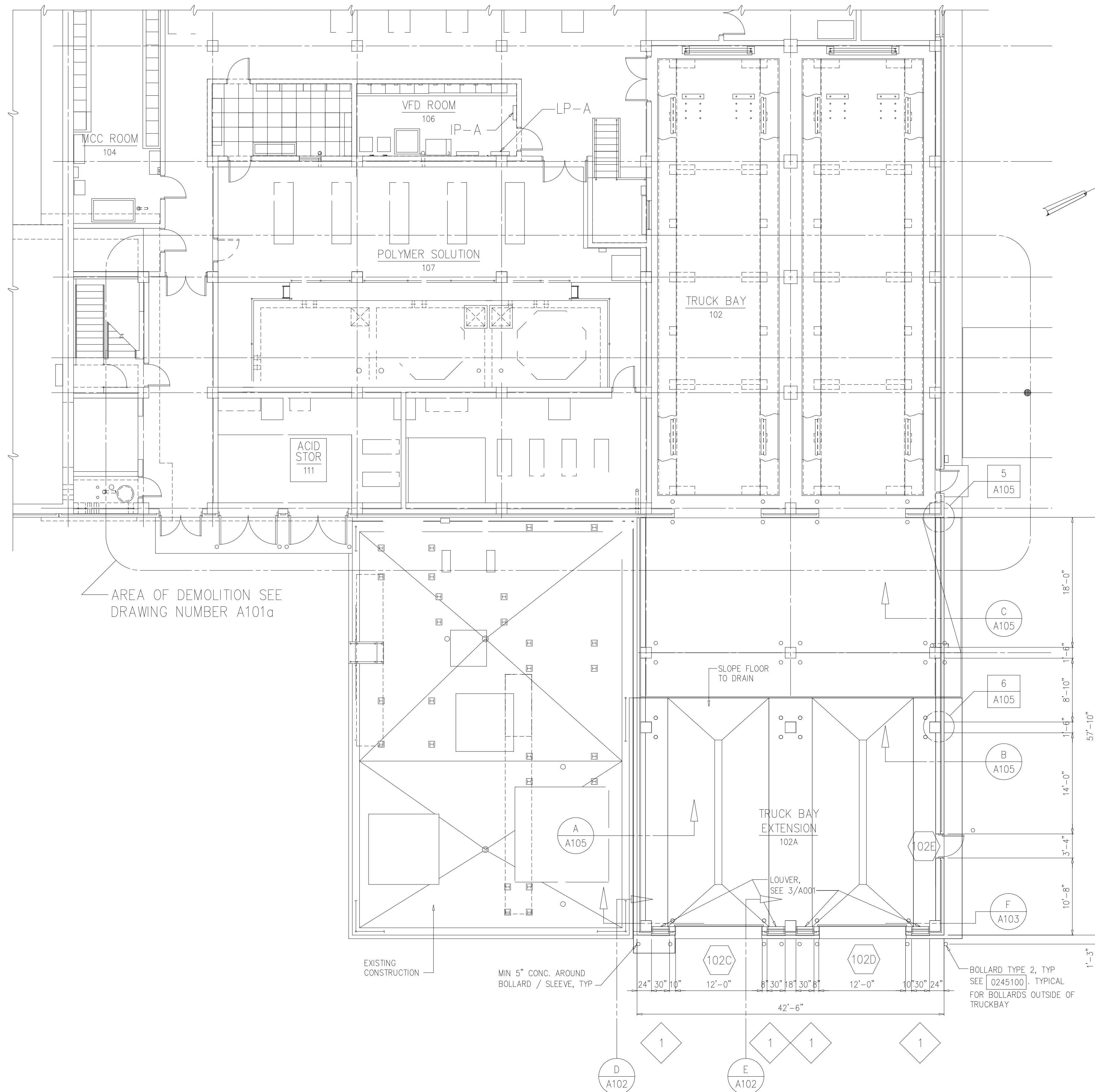
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

ARCHITECTURAL
DETAILS AND SCHEDULES

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER A001
	SHEET 10 OF 99



NOTES:

- 1 EXTEND EXISTING SPRINKLER SYSTEM FROM EXISTING TRUCK BAY INTO NEW TRUCK BAY EXTENSION.
- 2 SPRINKLER SYSTEM COMPONENTS SHALL BE SUPPLIED BY THE SAME MANUFACTURER AS THE EXISTING SYSTEM. ENTIRE SPRINKLER SYSTEM INSIDE THE FACILITY SHALL RECEIVE A CORROSION RESISTANT COATING FROM THE EQUIPMENT MANUFACTURER. SPRINKLER SYSTEM PIPING 4" AND LARGER SHALL BE DUCTILE IRON. SPRINKLER SYSTEM PIPING LESS THAN 4" SHALL BE CARBON STEEL. SPRINKLER SYSTEM PIPING SHALL RECEIVE A CORROSION RESISTANT EPOXY COATING PER SPECIFICATION 09900. PROVIDE ALL REQUIRED EQUIPMENT, PIPING, AND COMPONENTS REQUIRED TO OBTAIN A COMPLETE AND OPERATING SYSTEM.
- 3 SPRINKLER SYSTEM SHALL BE INSTALLED IN COMPLETE COMPLIANCE WITH THE LATEST EDITION OF NFPA 13. SPRINKLER SYSTEM SHALL ALSO BE INSTALLED IN COMPLETE COMPLIANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- 4 ALARM SYSTEM SHALL BE TIED INTO THE EXISTING SYSTEM. (SEE ELECTRICAL DRAWINGS)
- 5 MANUAL PULL STATION AND INTERNAL AUDIBLE/VISUAL ALARM SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 72. ACTIVATION OF THE AUTOMATIC SPRINKLER SYSTEM SHALL ALSO ACTIVATE THE INTERNAL EVACUATION ALARM. MOUNT PULL STATION AND ALARM HORN SAME HEIGHT ABOVE FINISHED FLOOR AS EXISTING.
- 6 THE CONTRACTOR SHALL HIRE A PROFESSIONAL ENGINEER TO DESIGN THE SUPPRESSION SYSTEM AS REQUIRED TO SATISFY ALL APPLICABLE CODE AND REQUIREMENTS INDICATED HEREIN. THE FIRE PROTECTION ENGINEER SHALL PROVIDE THE SYSTEM LAYOUT, SIZING OF PIPING AND EQUIPMENT, AND ADDITIONAL DETAILS AS REQUIRED TO SATISFY NFPA 13 AND LOCAL JURISDICTIONS. THE FIRE PROTECTION ENGINEER SHALL BE LICENSED TO PROVIDE THE FIRE SUPPRESSION SYSTEM. SHOP DRAWINGS AND CALCULATIONS, WHICH SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF JURISDICTION, SHALL BE PROVIDED AS NEEDED.

PLAN AT EL 25.00
1/8"=1'-0"

RECORD DRAWING

DESIGNED	NJE
DRAWN	DAW/MMM
CHECKED	FXP
PROJ. ENGR.	ASG
NO.	DATE
1	10-18-00
2	3-13-01

BY	DATE	ISSUED FOR
FXP	10-18-00	DETAIL BOLLARDS
FXP	3-13-01	GENERAL REVISION

APPROVED	DATE	ISSUED FOR
	10-18-00	DETAIL BOLLARDS
	3-13-01	GENERAL REVISION

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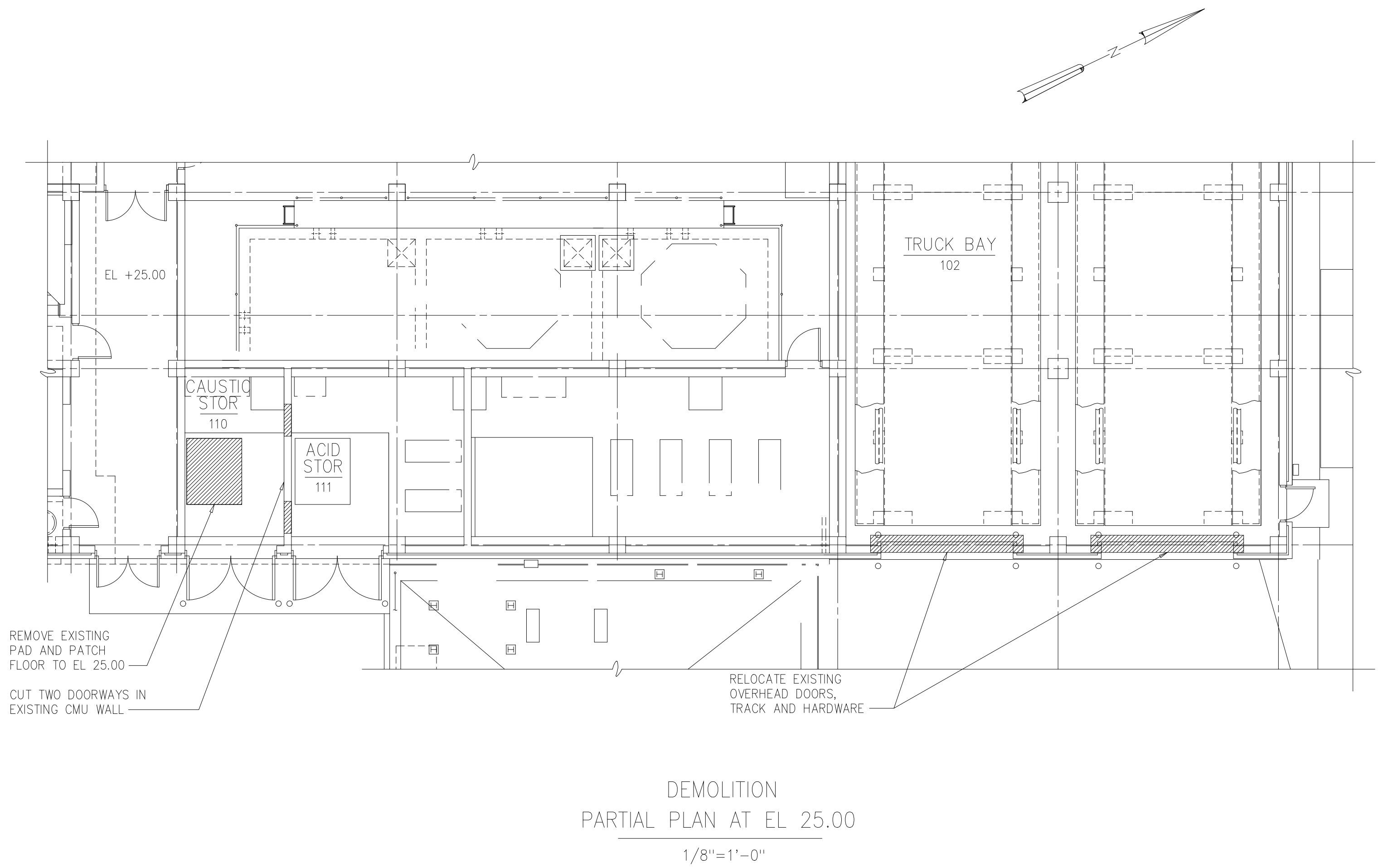
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Scientists
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BELTSVILLE, MD 20705
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FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
PLAN AT EL 25.00

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER A101
	SHEET 11A OF 99

REF.	FIRE AREA	EXISTING	ADDITION	TOTAL	ALLOWED
Chap. 3	Occupancy	F-2 PRIMARY S-2 ROOM 102 H-4 ROOM 112	S-2 ROOM 102A H-4 ROOM 111	F-2 PRIMARY S-2 RM 102, 102A H-4 RM 112, 111	F-2 S-2 H-4
Chap. 6	Construction Type	2B	2B	2B	2B
313	Mixed Use	Yes	Yes	Yes	Yes
T 503	Height/ Area:				
	No. of Stories	4	1	4	5
	Maximum Height	78.5'	22'	78.5'	65'
	First Floor	10,725	2,276	13,001	22,500
	Second Floor	8,800	N/A	8,800	22,500
	Third Floor	8,400	N/A	8,400	22,500
	Fourth Floor	8,400	N/A	8,400	22,500
	Height Increase	503.1.1	No	503.1.1	503.1.1
	Area Increase	No	No	No	No
904	Fire Suppression	Yes	Yes	Yes	Yes
919.4	Fire/ Smoke Detect	Yes	Yes	Yes	Yes
Chap. 10	Egress:				
T 1006.5	Maximum Travel Length	120'	61'	120'	200'
1010	Minimum Number of Exits	2	2	2	2
1011.2	Maximum Dead End Corridor Length	0'	0'	0'	20'
T 1011.4	Corridor Fire Rating	N/A	N/A	N/A	N/A
T 1008.1.2	Occupancy Load	42	8	50	100/sf
	800 sf office/lab in existing	800/100=8	2,276/300=8		
	remainder mechanical rooms or storage	9,925/300=34			
T 1009.2	Egress Width:				
1009	Stairs = 0.3 per occupant	12.6"	2.4"	15"	0.3 per occupant
	Doors, Ramps, Corr = 0.2 per occupant	8.4"	1.6"	10"	0.2 per occupant
1011.3	Minimum Passage Width	70"	N/A	70"	36"
1014.3	Minimum Stairway Width	44"	N/A	44"	36"
T 1017.2	Exits / Width Provided	2/36" each	2/36" each	2/36" each	2



DESIGNED	NJE			
DRAWN	FXP			
CHECKED	FXP			
PROJ.ENGR.	ASG			
NO.	ISSUED FOR	DATE	BY	APPROVED

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

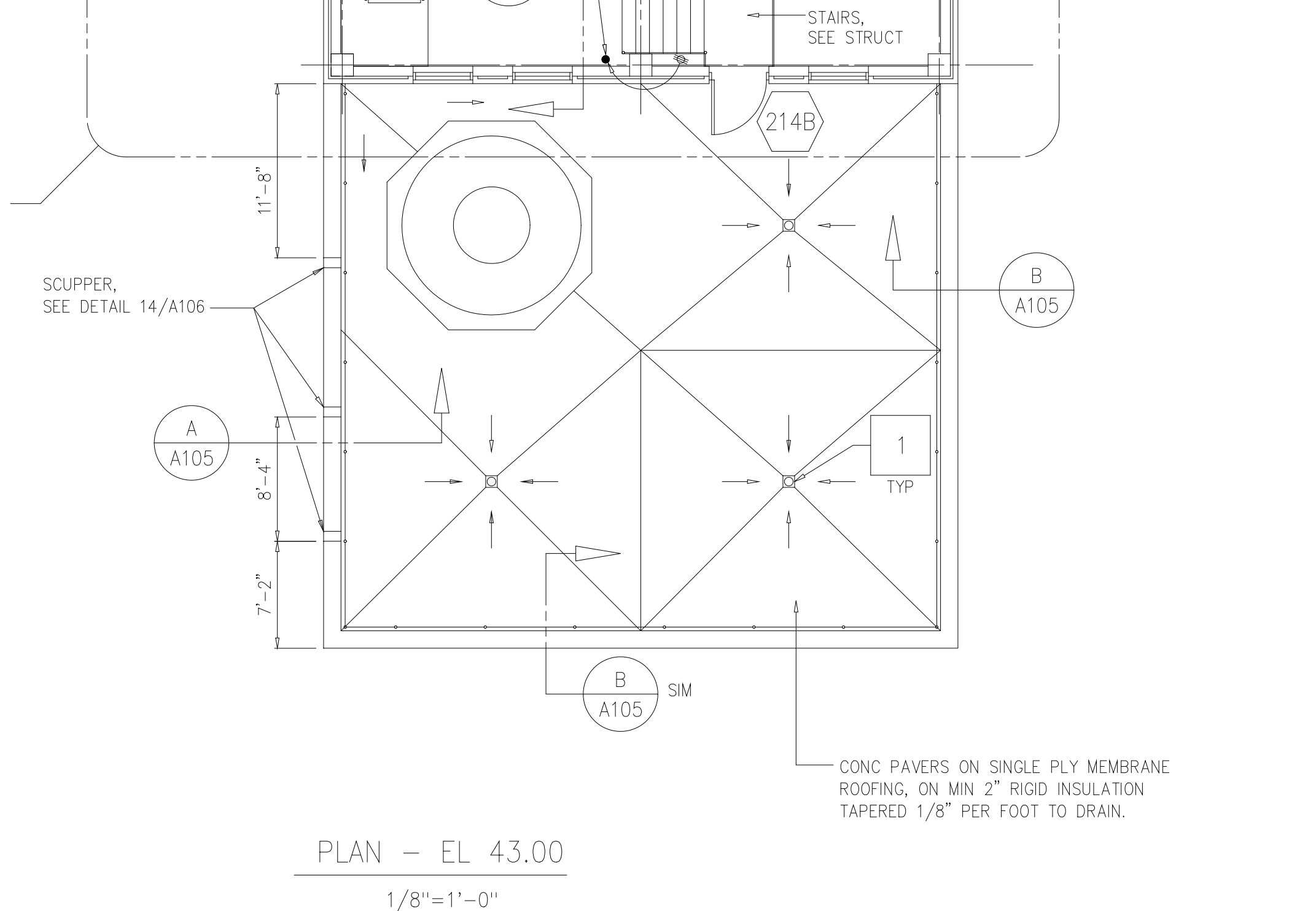
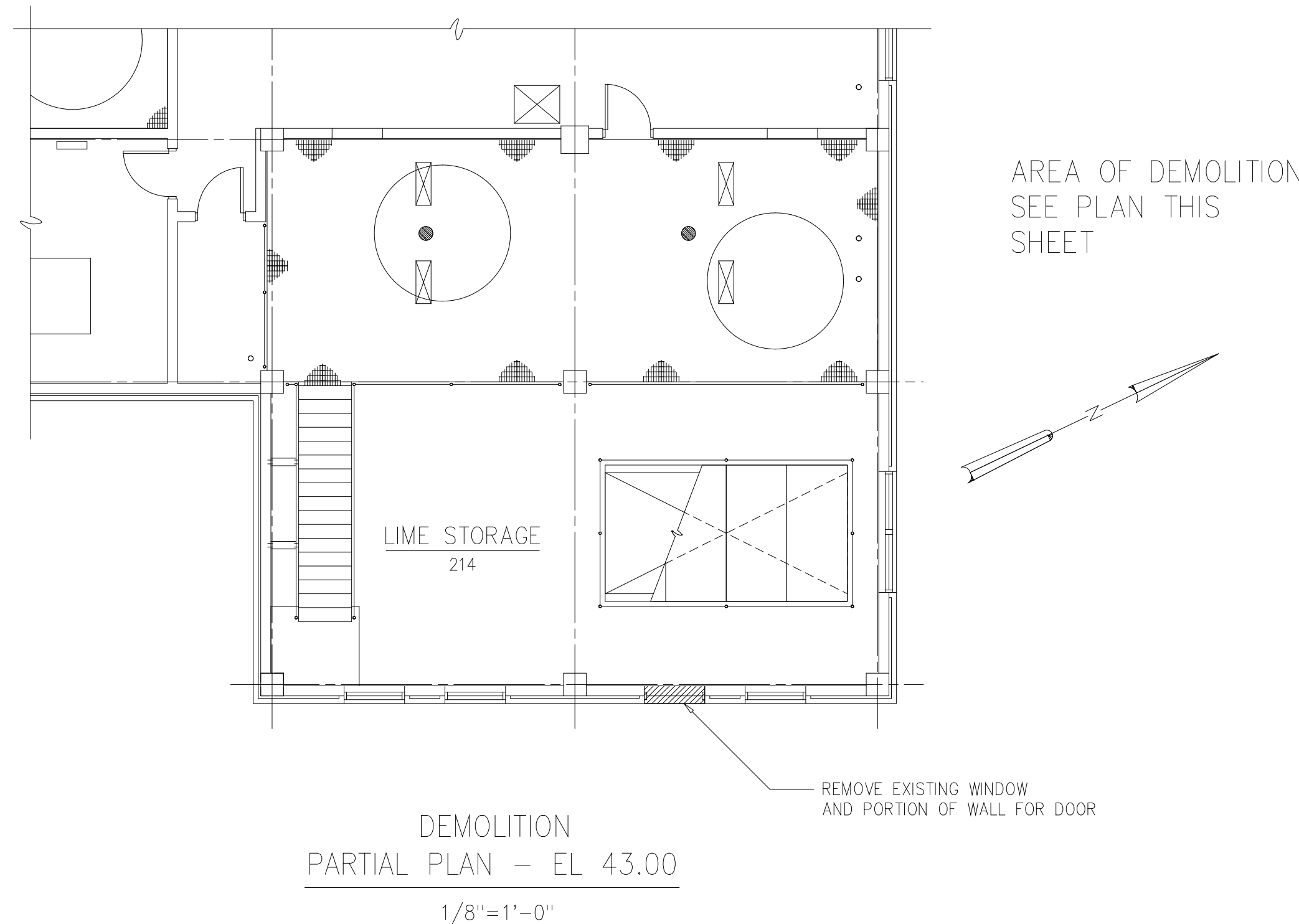
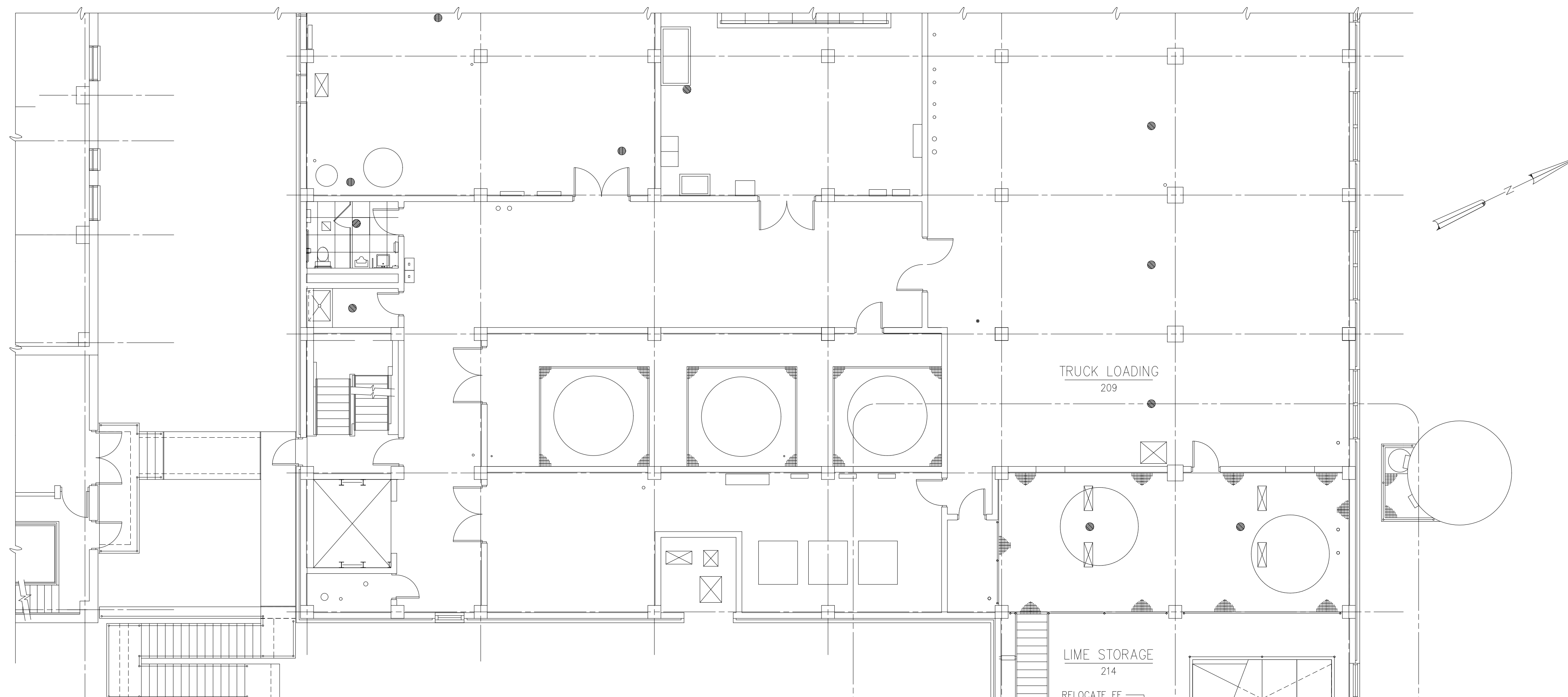
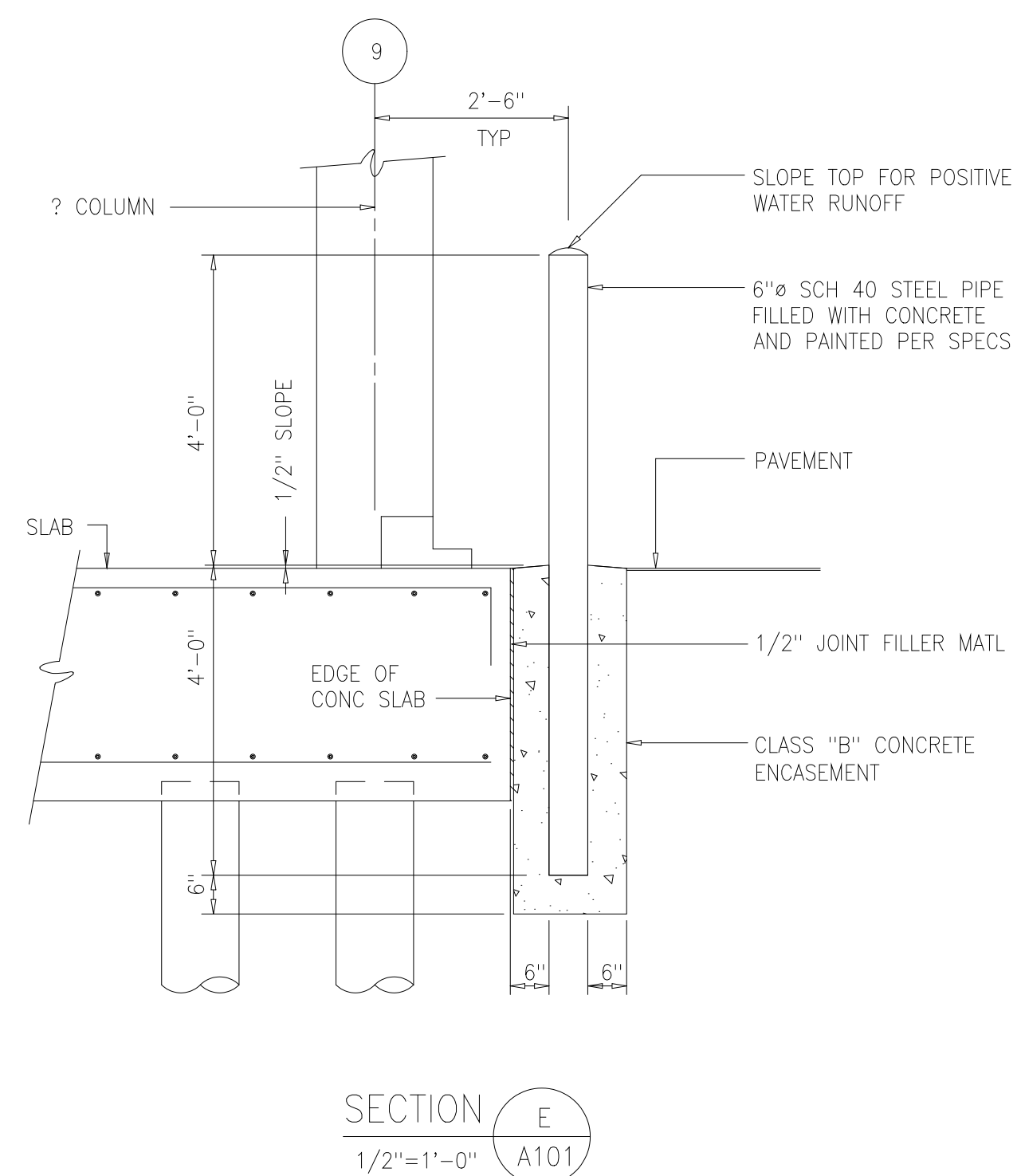
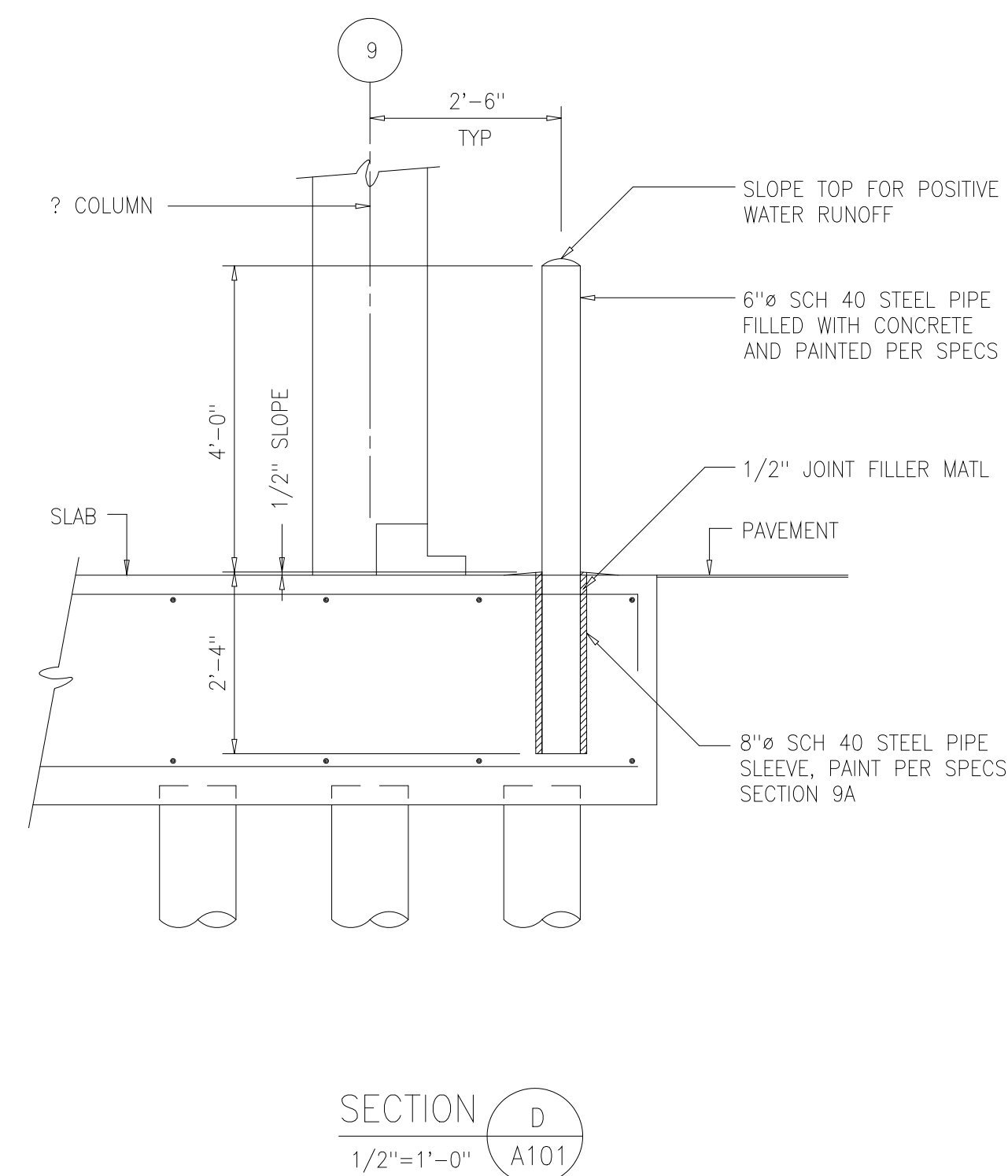
CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
DEMOLITION PLAN AT EL 25.00

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER A101a
	SHEET 11B OF 99

CODED NOTES:

1 TIE ROOF DRAIN INTO SCRUBBER DRAIN SUMP. SEE MECH DWGS.



DESIGNED	NJE
DRAWN	DAW/MMM
CHECKED	FXP
PROJ.ENGR.	ASG
1	DETAIL BOLLARDS
NO.	ISSUED FOR
10-18-00	DATE
FXP	BY
APPROVED	

DESIGNED	NJE
DRAWN	DAW/MMM
CHECKED	FXP
PROJ.ENGR.	ASG
1	DETAIL BOLLARDS
NO.	ISSUED FOR
10-18-00	DATE
FXP	BY
APPROVED	

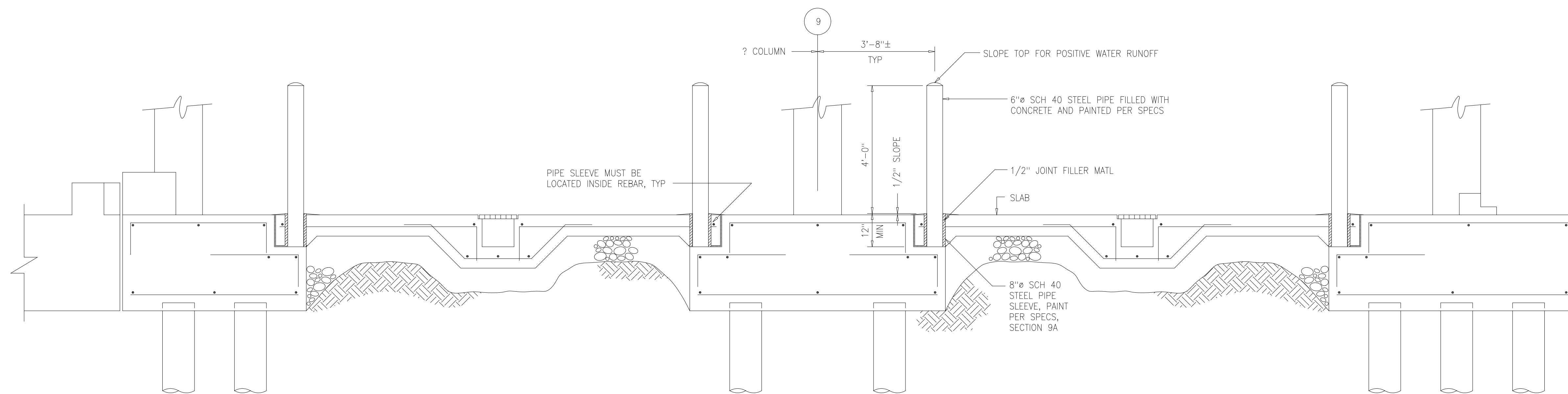
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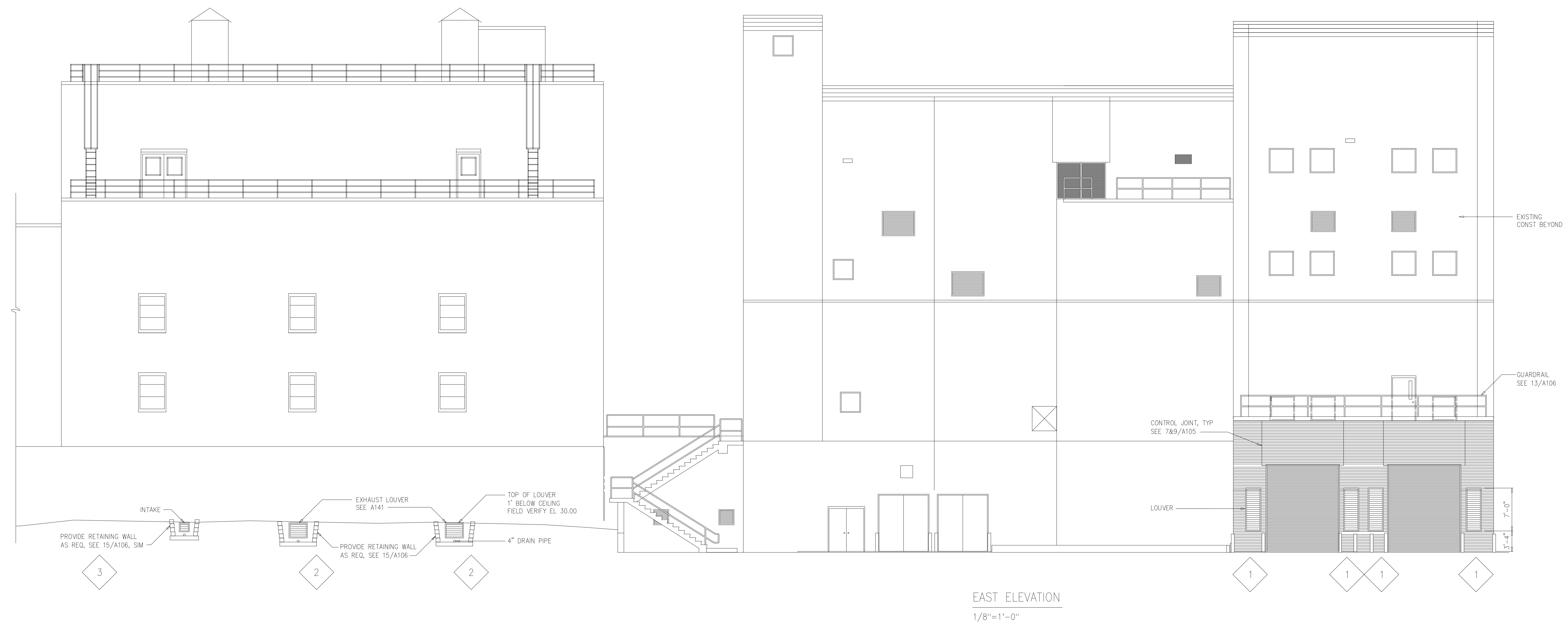
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
PLAN AT EL 43.00

RECORD DRAWING
DATE: SEPT 2000
H & S JOB NUMBER 30313
CONTRACT NUMBER 2000-01-WPC
DRAWING NUMBER A102
SHEET 12 OF 99



SECTION F
1/4"=1'-0" A101



EAST ELEVATION
1/8"=1'-0"

DESIGNED	NJE		
DRAWN	DAW/MMM		
CHECKED	FXP		
PROJ.ENGR.	ASG		
NO.	DATE	BY	APPROVED
1	10-18-00	FXP	
	ISSUED FOR		

NO.	DATE	BY	APPROVED
1	10-18-00	FXP	
	ISSUED FOR		

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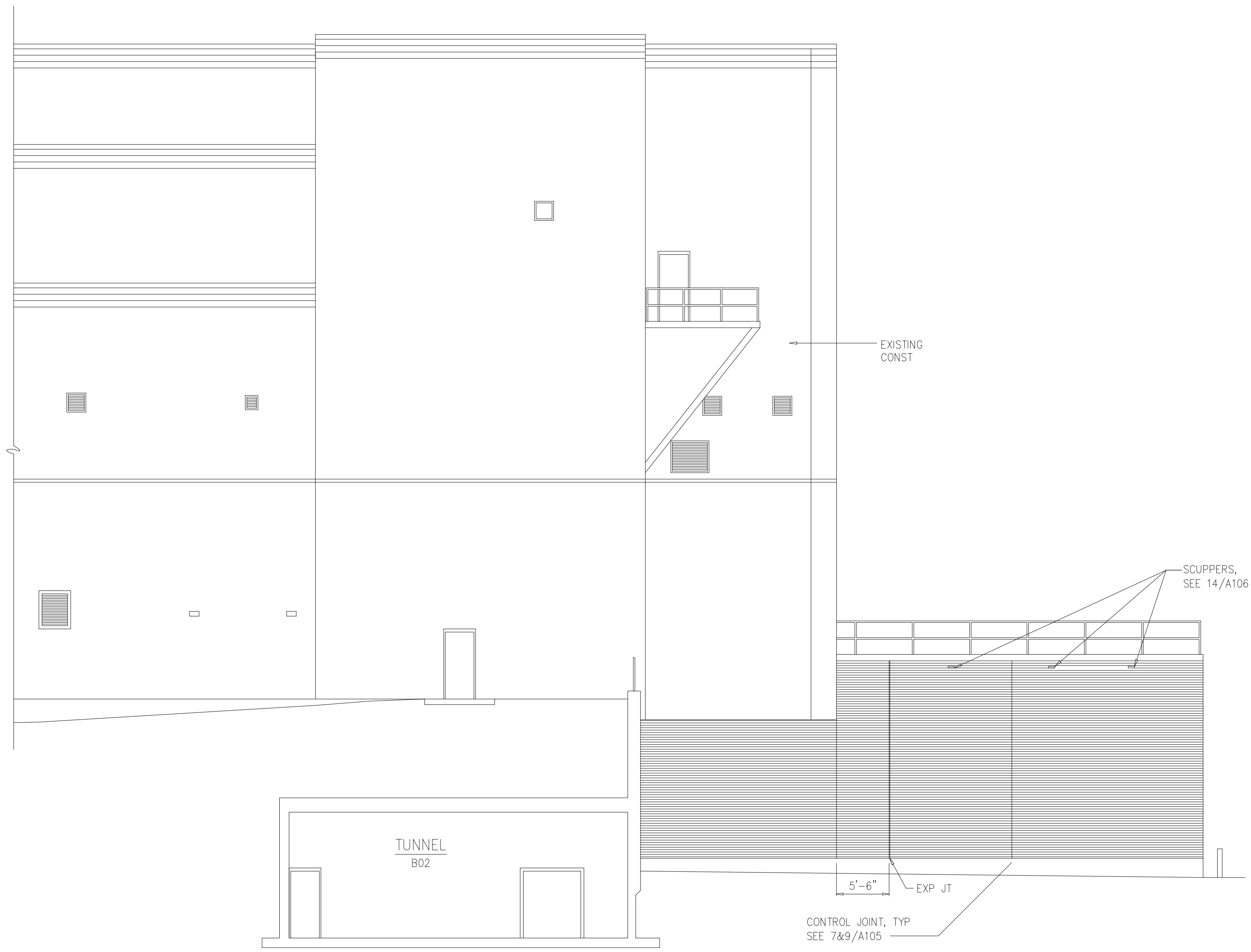
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
EAST ELEVATION

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER A103
	SHEET 13 OF 99



SOUTH ELEVATION
1/8"=1'-0"



NORTH ELEVATION
1/8"=1'-0"

RECORD DRAWING

NO.	ISSUED FOR	DATE	BY	APPROVED

DESIGNED NJE
 DRAWN DAW/MMM
 CHECKED FXP
 PROJ.ENGR. ASG

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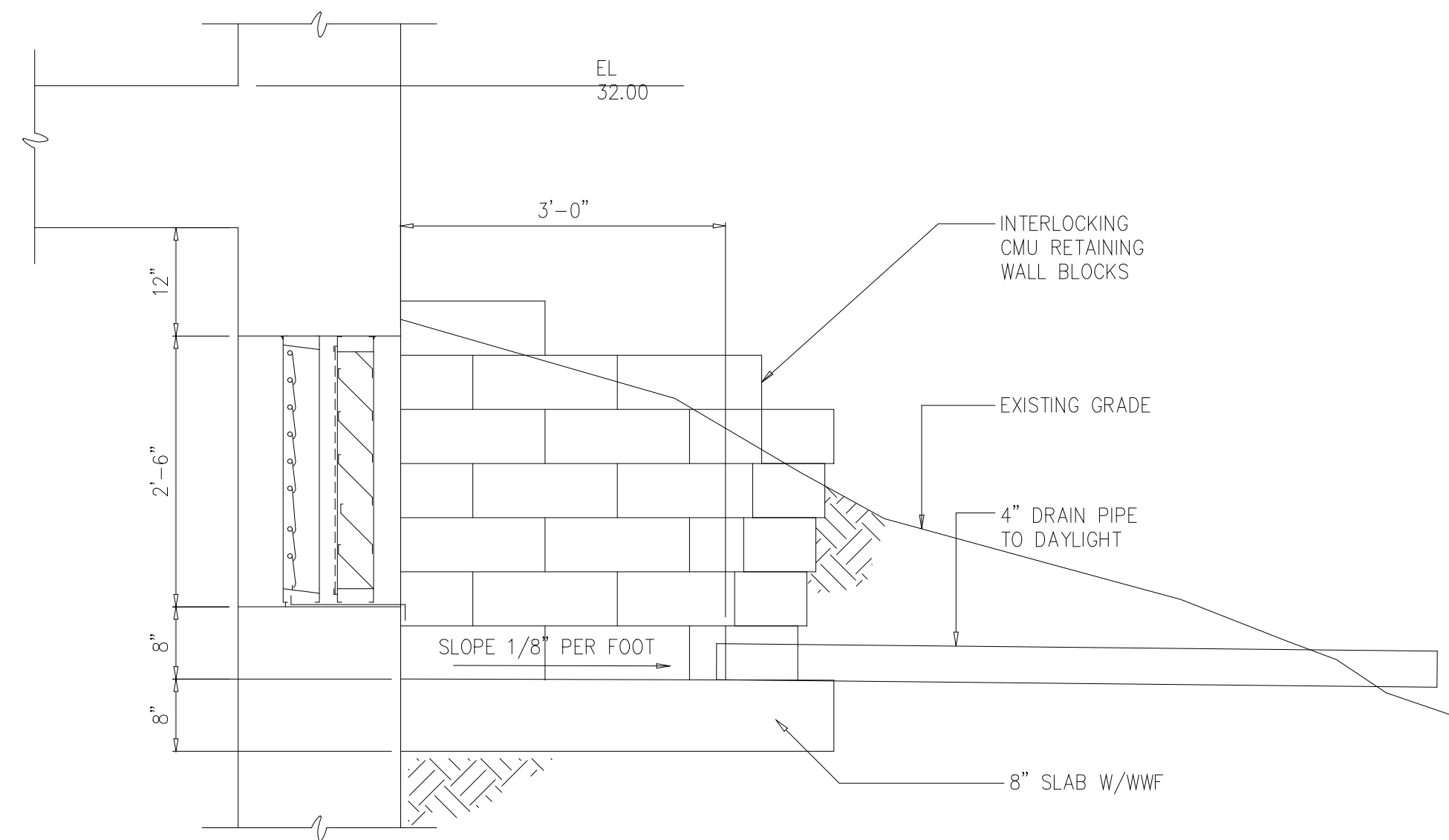
ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

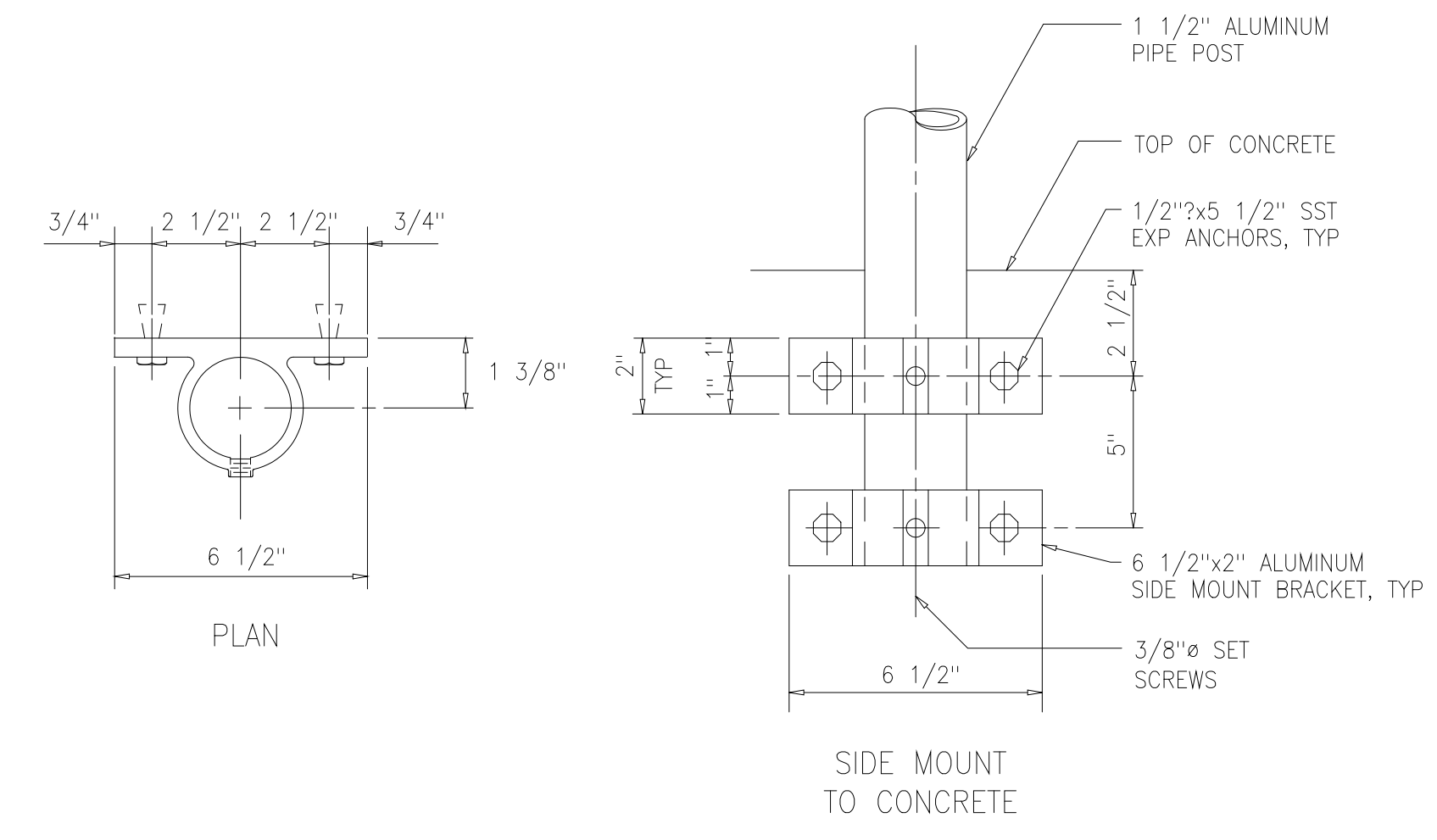
CENTRIFUGE DEWATERING BUILDING
 ODOR CONTROL AREA
 ARCHITECTURAL
 NORTH AND SOUTH ELEVATIONS

THE SCALE BAR
 SHOWN BELOW
 MEASURES ONE
 INCH LONG ON
 THE ORIGINAL
 DRAWING.

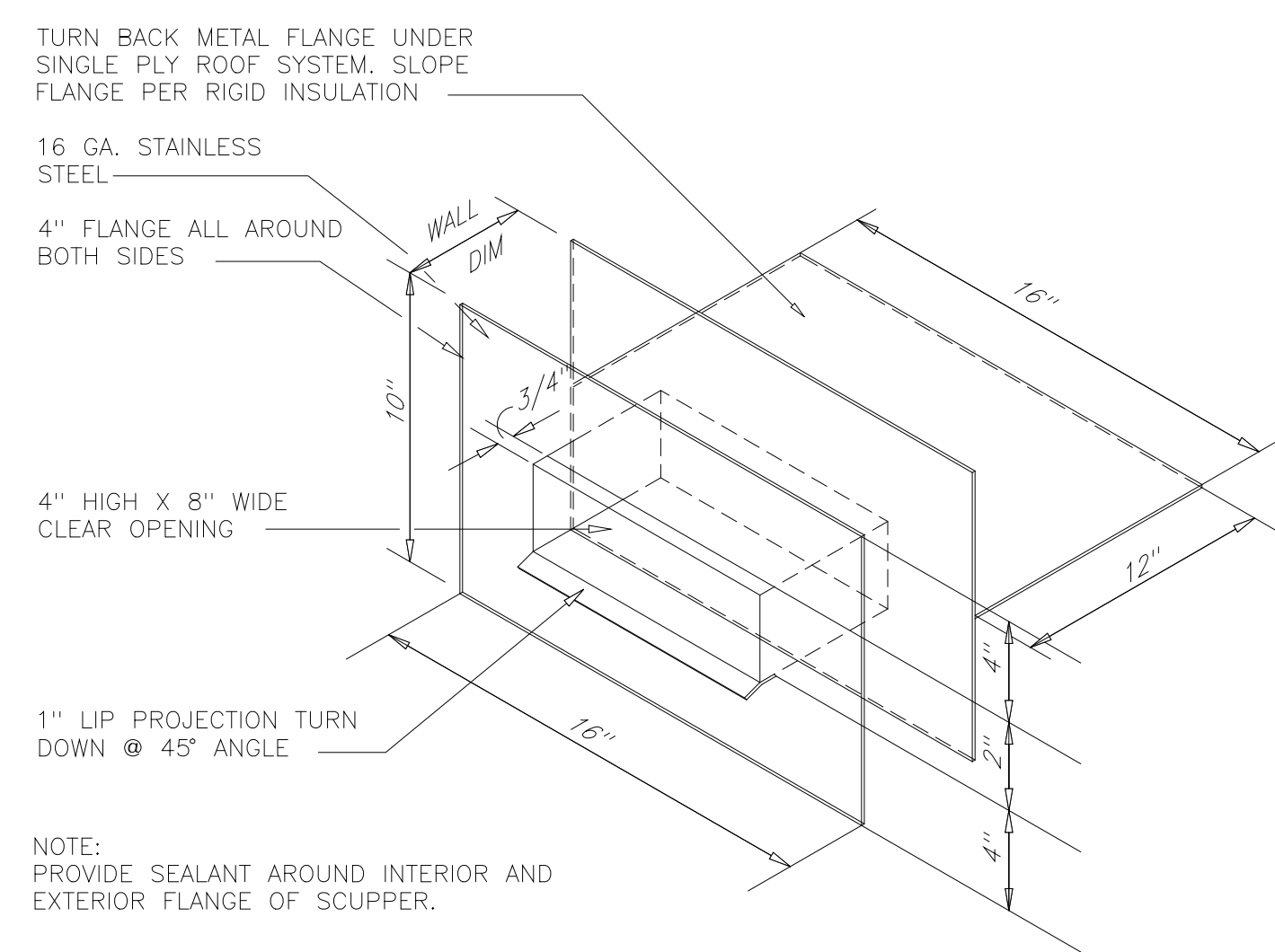
DATE: SEPT 2000
 H & S JOB NUMBER 30313
 CONTRACT NUMBER 2000-01-WPC
 DRAWING NUMBER A104
 SHEET 14 OF 99



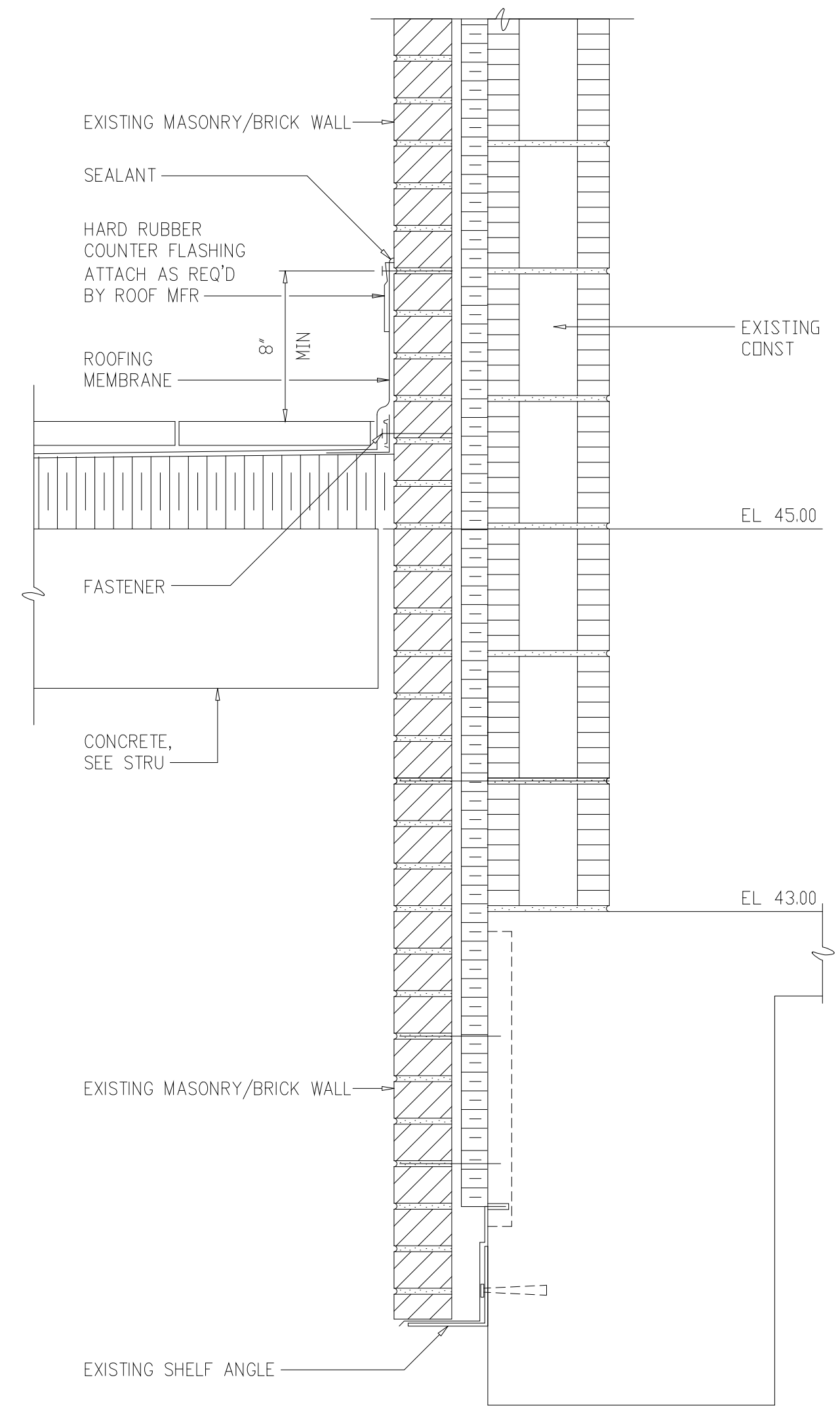
DETAIL 15
3/4"=1'-0" A103



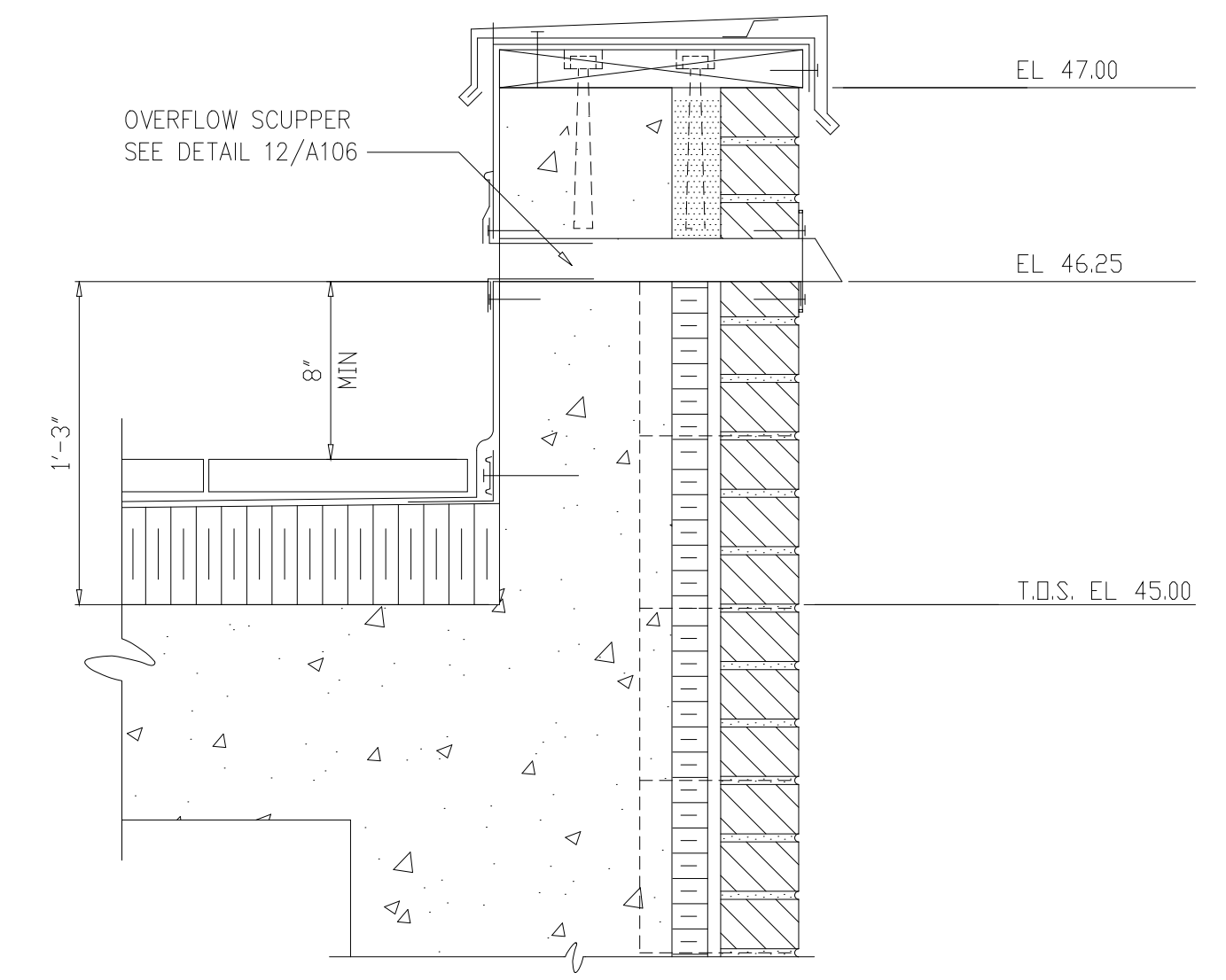
DETAIL 11
NTS A106



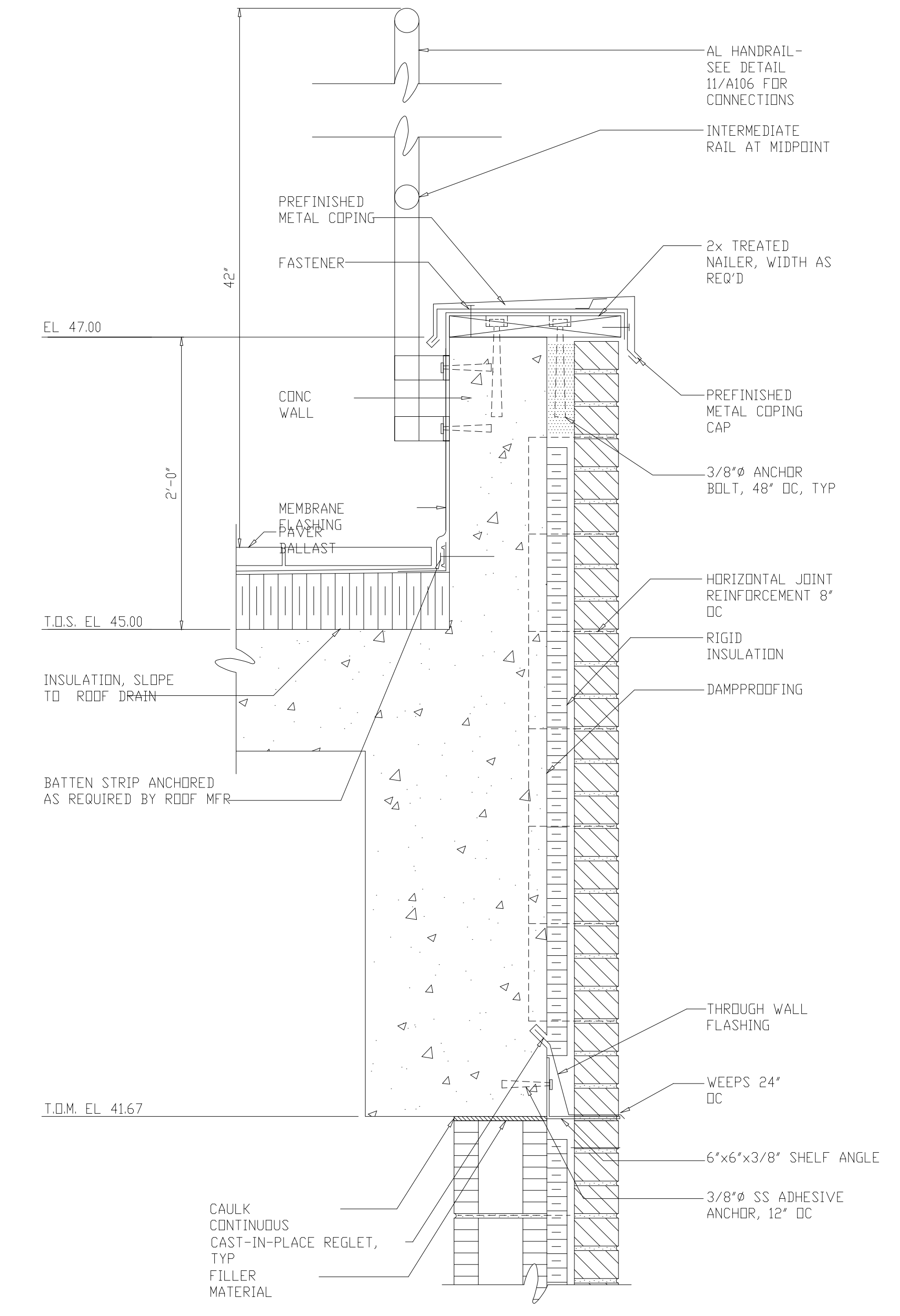
DETAIL 12
NTS A106



SECTION D
1 1/2"=1'-0" A102



DETAIL 14
1 1/2"=1'-0" A102



DETAIL 13
1 1/2"=1'-0" A105

DESIGNED	NJE			
DRAWN	DAW/MMM			
CHECKED	FXP			
PROJ.ENGR.	ASG			
NO.	ISSUED FOR	OCT 2000	FXP	APPROVED
1	RETAINING WALL	DATE	BY	

DATE	BY	APPROVED

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
DETAILS AND SECTIONS

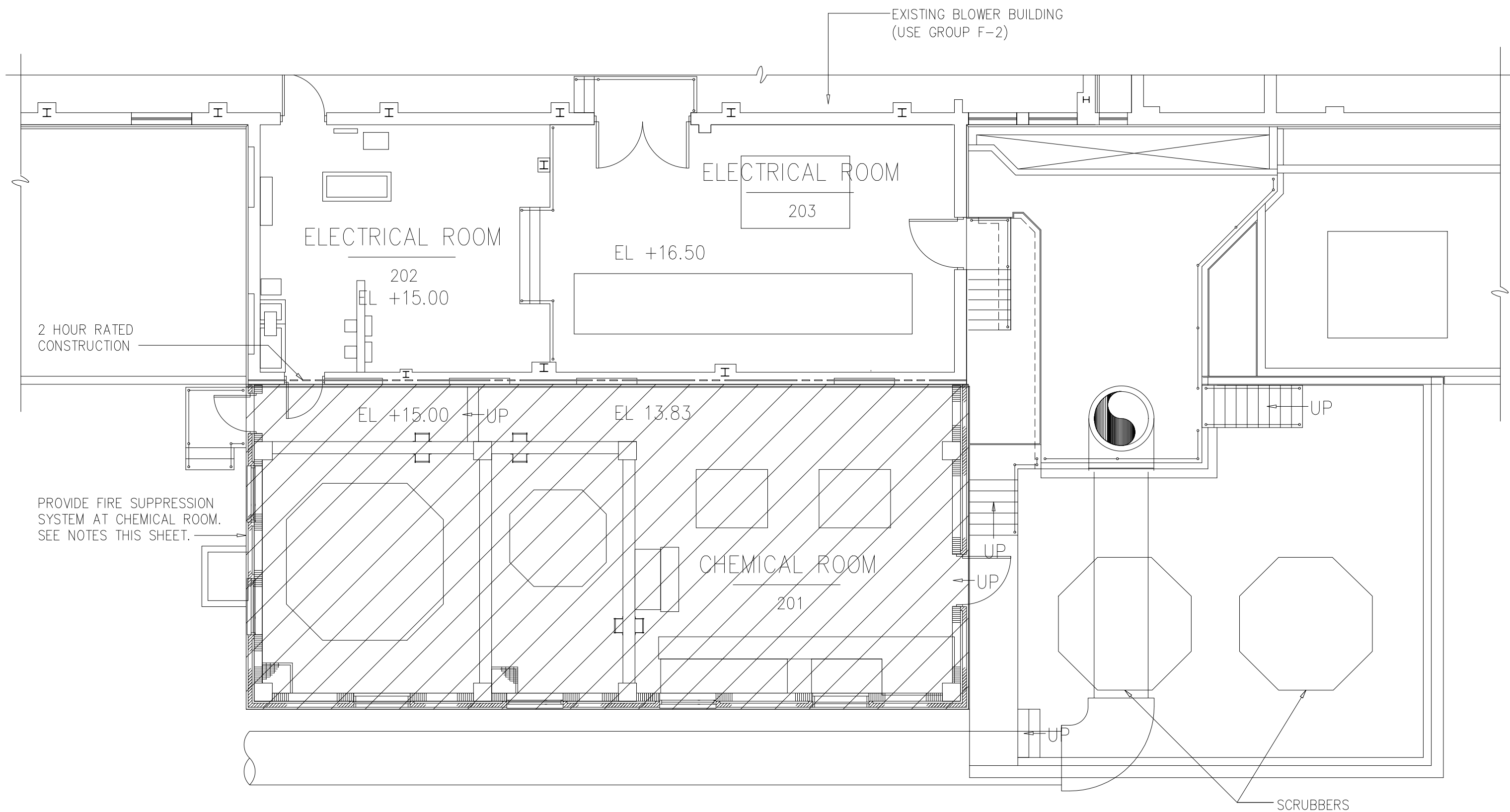
RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER A106
	SHEET 16 OF 99

FIRE SUPPRESSION NOTES

1. SPRINKLER SYSTEM COMPONENTS SHALL BE MANUFACTURED BY GRINNELL OR EQUAL. ENTIRE SPRINKLER SYSTEM INSIDE THE FACILITY SHALL RECEIVE A CORROSION RESISTANT COATING FROM THE EQUIPMENT MANUFACTURER. CORROSION RESISTANT COATING SHALL BE SUITABLE FOR ENVIRONMENTS CONTAINING SODIUM HYPOCHLORITE. SPRINKLER HEADS SHALL RECEIVE CORROSION COATING BY GRINNELL OR EQUAL. SPRINKLER SYSTEM PIPING 4" AND LARGER SHALL BE DUCTILE IRON. SPRINKLER SYSTEM PIPING LESS THAN 4" SHALL BE CARBON STEEL. SPRINKLER SYSTEM PIPING SHALL RECEIVE A CORROSION RESISTANT EPOXY COATING PER SPECIFICATION 09900. PROVIDE ALL REQUIRED EQUIPMENT, PIPING, AND COMPONENTS REQUIRED TO OBTAIN A COMPLETE AND OPERATING SYSTEM.
2. SPRINKLER SYSTEM SHALL BE INSTALLED IN COMPLETE COMPLIANCE WITH THE LATEST EDITION OF NFPA 13 FOR FACILITIES WITH A CLASSIFICATION OF ORDINARY HAZARD GROUP 2. SPRINKLER SYSTEM SHALL ALSO BE INSTALLED IN COMPLETE COMPLIANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
3. BACKFLOW PREVENTER SHALL BE 4" FBCCO MODEL 870 MOUNTED ABOVE GRADE WITH A HOT BOX, MODEL HB6FE ENCLOSURE. ENCLOSURE SHALL HAVE A HEATER SIZED BY THE ENCLOSURE MANUFACTURER. THE ENCLOSURE SHALL BE MOUNTED TO A 6" THICK CONCRETE PAD THAT EXTENDS A MINIMUM OF 4' BEYOND THE ENCLOSURE WALL.
4. ALARM GONG AND SYSTEM TEST CONNECTIONS SHALL BE 24" ABOVE FINISHED GRADE.
5. COORDINATE ALL WALL PENETRATIONS WITH MASONRY REINFORCING. REINFORCING SHALL NOT BE CUT.
6. MANUAL PULL STATION AND INTERNAL AUDIBLE/VISUAL ALARM SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 72. ACTIVATION OF THE AUTOMATIC SPRINKLER SYSTEM SHALL ALSO ACTIVATE THE INTERNAL EVACUATION ALARM. MOUNT PULL STATION 4'-6" AFF. MOUNT ALARM HORN 7'-6" AFF.
7. THE CONTRACTOR SHALL HIRE A PROFESSIONAL ENGINEER TO DESIGN THE SUPPRESSION SYSTEM AS REQUIRED TO SATISFY ALL APPLICABLE CODE AND REQUIREMENTS INDICATED HEREIN. THE FIRE PROTECTION ENGINEER SHALL PROVIDE THE SYSTEM LAYOUT, SIZING OF PIPING & EQUIPMENT AND ADDITIONAL DETAILS AS REQUIRED TO SATISFY NFPA 13 AND LOCAL JURISDICTIONS. THE FIRE PROTECTION ENGINEER SHALL BE LICENSED TO PROVIDE THE FIRE SUPPRESSION SYSTEM, SHOP DRAWINGS AND CALCULATIONS, WHICH SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF JURISDICTION, SHALL BE PROVIDED AS NEEDED.

REF.	FIRE AREA	EXISTING	ADDITION	TOTAL	ALLOWED
Chap. 3	Occupancy	F-2	H-4	F-2 PRIMARY H-4 ADDITION	F-2 H-4
Chap. 6	Construction Type	2C	2C	2C	2C
313	Mixed Use	Yes	Yes	Yes	Yes
T 503	Height/ Area:				
	No. of Stories	1	1	1	3
	Maximum Height	24'	18'-8"	24'	24'
	First Floor	6,850	1,450	9,300	14,400
	Height Increase	No	No	No	No
	Area Increase	No	No	No	No
904	Fire Suppression	No	Yes	Yes Addition	Yes Addition
919.4	Fire/ Smoke Detect	No	Yes	Yes Addition	Yes Addition
Chap. 10	Egress:				
T 1006.5	Maximum Travel Length	100'	50'	100'	200'
1010	Minimum Number of Exits	2	2	2	2
1011.2	Maximum Dead End Corridor Length	0'	0'	0'	20'
T 1011.4	Corridor Fire Rating	N/A	N/A	N/A	N/A
T 1008.1.2	Occupancy Load (mechanical and storage)	23	5	28	300/sf
T 1009.2	Egress Width:				
1009	Stairs = 0.3 per occupant	N/A	N/A	N/A	0.3 per occupant
	Doors, Ramps, Corr = 0.2 per occupant	N/A	N/A	N/A	0.2 per occupant
1011.3	Minimum Passage Width	70"	N/A	70"	36"
1014.3	Minimum Stairway Width	44"	N/A	44"	36"
T 1017.2	Exits / Width Provided	2/36" each	2/36" each	2/36" each	2



TOP PLAN
1/8"=1'-0"

DESIGNED	NJE		
DRAWN	WWW		
CHECKED	FXP		
PROJ.ENGR.	ASG		
1	REVISED TABLE	3-13-01	FXP
NO.	ISSUED FOR	DATE	BY
			APPROVED

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

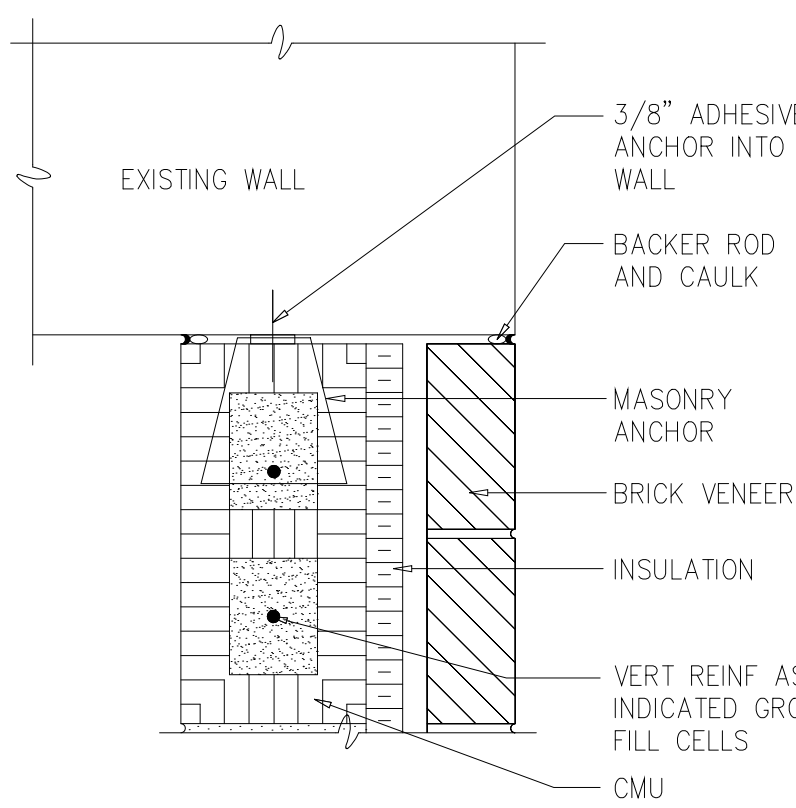
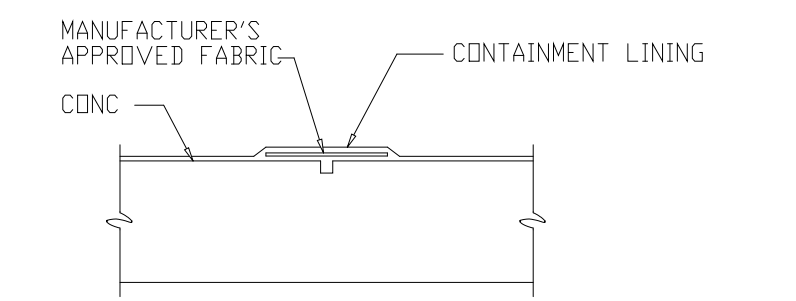
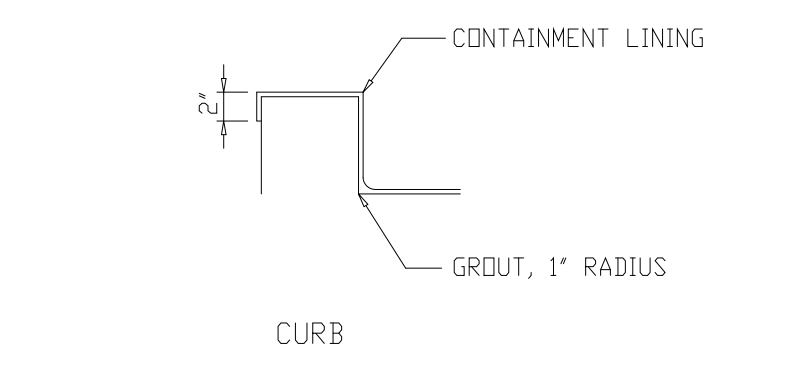
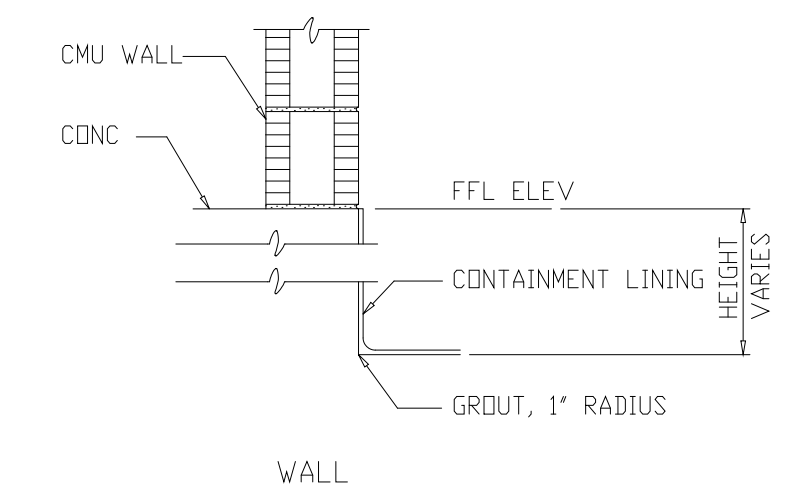
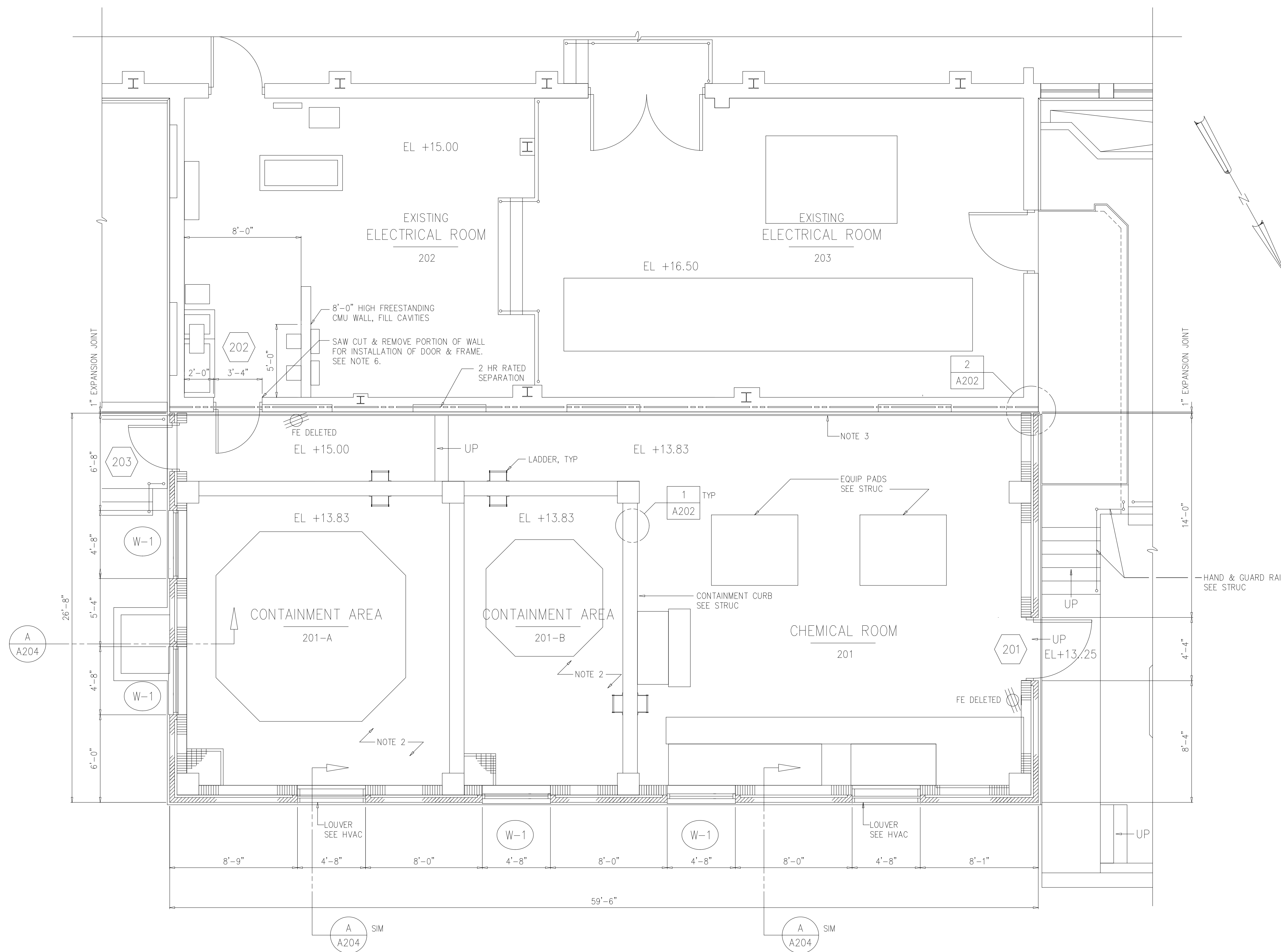
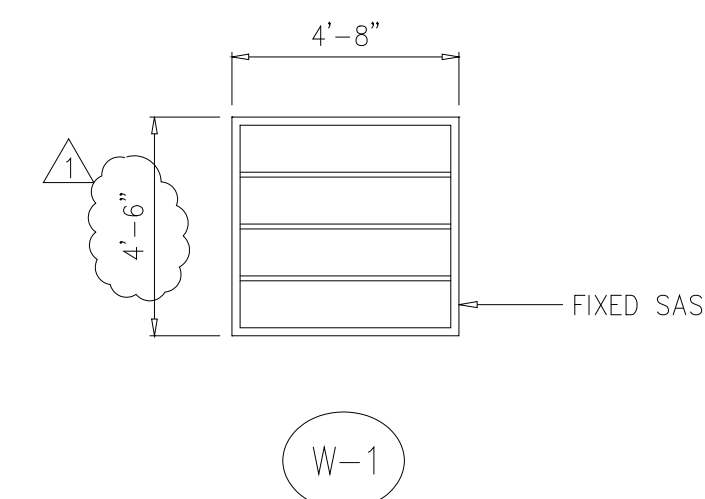
BLOWER BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
PLAN AND CODE SHEET

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER A201
	SHEET 18 OF 99

NOTES:

- SEE DRAWING A-2 FOR FIRE-STOP DETAILS.
- PROVIDE SECONDARY CONTAINMENT LINING PER 09900.
- CLEAN EXISTING BRICK WALL; PREPARE AND PAINT.
- TRANSLUCENT GLASS SHALL BE LAMINATED GLAZING CONSISTING OF TWO LAYERS OF 1/4" PLATE GLASS, INNER SURFACE OF ONE PANE SHALL HAVE EVENLY SEMI-OPAQUE SANDBLAST FINISH.
- FOR ROOM FINISH SCHEDULE, WINDOW SCHEDULE, AND DOOR SCHEDULE, SEE DRAWING A001.
- PRIOR TO REMOVAL OF MASONRY WALL FOR DOOR INSTALLATION, CONTRACTOR SHALL INSTALL 3/8" THICK x 11" WIDE PLATE LINTEL OVER PROPOSED OPENING. ALLOW 8" MINIMUM BEARING EACH SIDE OF OPENING.



TOP PLAN
1/4"=1'-0"

DETAIL 2
3/4"=1'-0"

RECORD DRAWING

DESIGNED	NJE			
DRAWN	MMM			
CHECKED	FXP			
PROJ. ENGR.	ASG			
NO.	ISSUED FOR	DATE	BY	APPROVED
1	GENERAL REVISION & LOUVER	10/17/00	FXP	

DATE	BY	APPROVED
10/17/00	FXP	

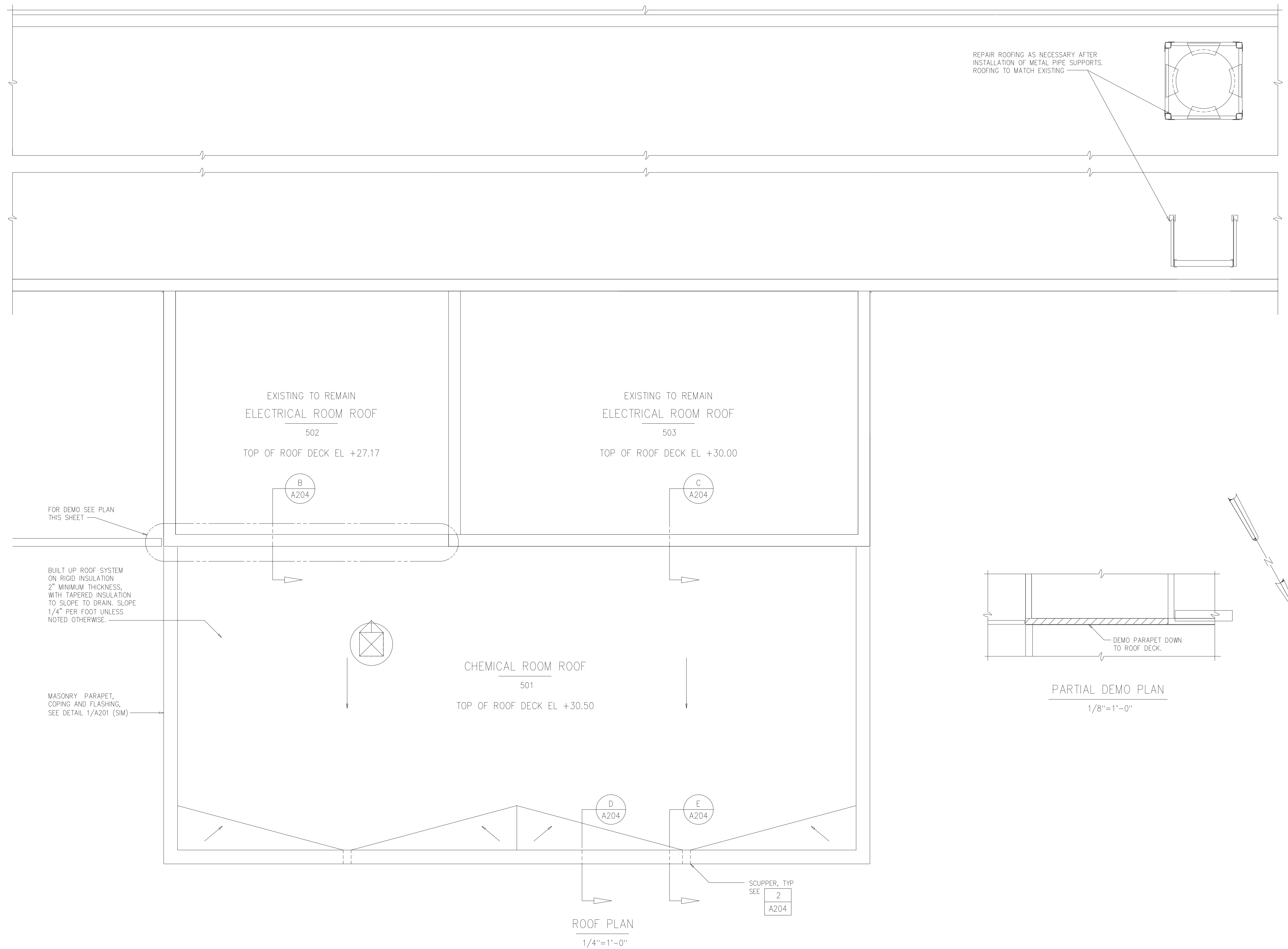
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER A202
	SHEET 19 OF 99



RECORD DRAWING

DESIGNED	NJE			
DRAWN	MMM			
CHECKED	FXP			
PROJ.ENGR.	ASG			
NO.	ISSUED FOR	DATE	BY	APPROVED
1	ADD SCUPPER DETAILS	6-4-01	FXP	

DATE	6-4-01
BY	FXP
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

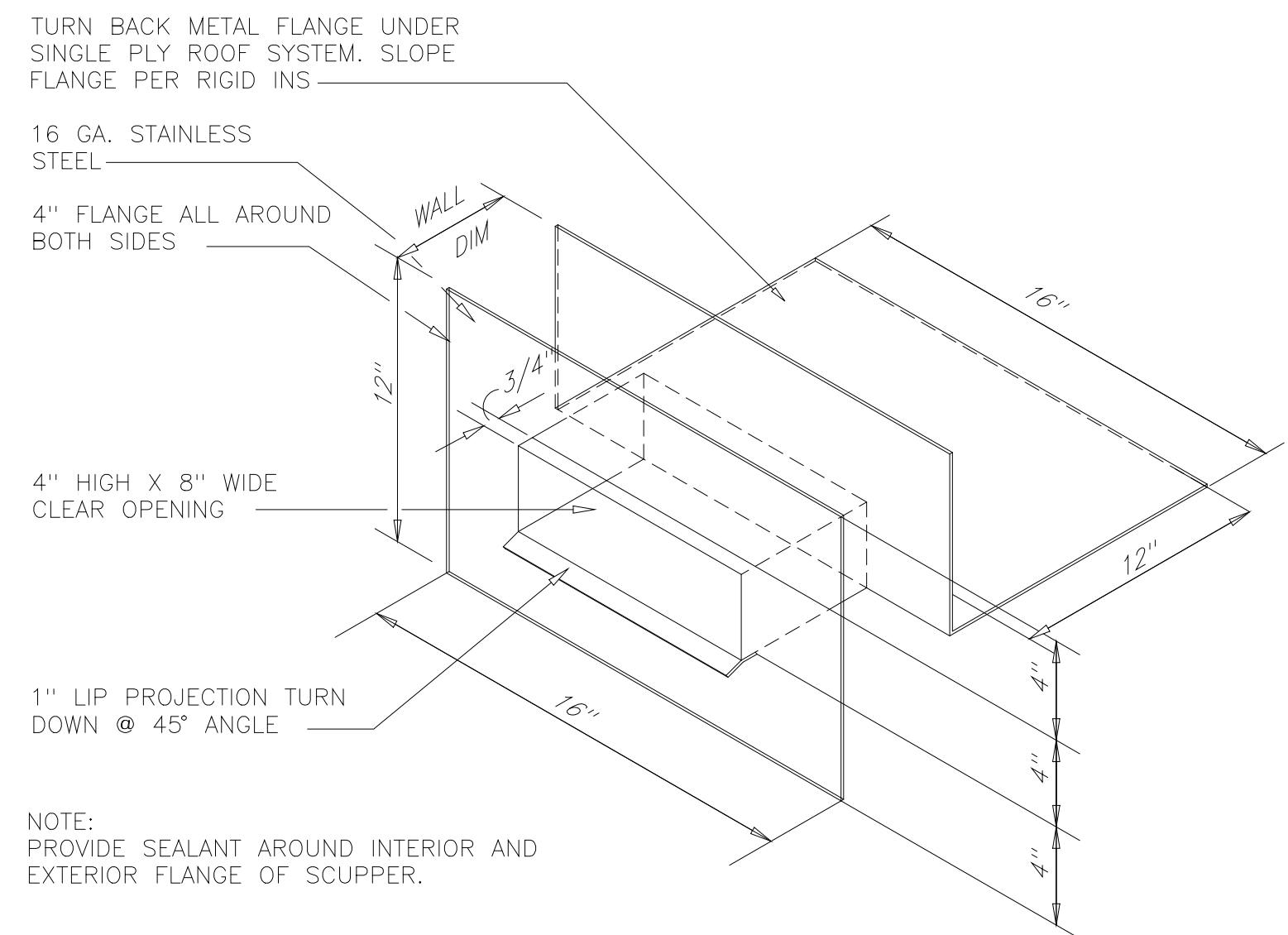
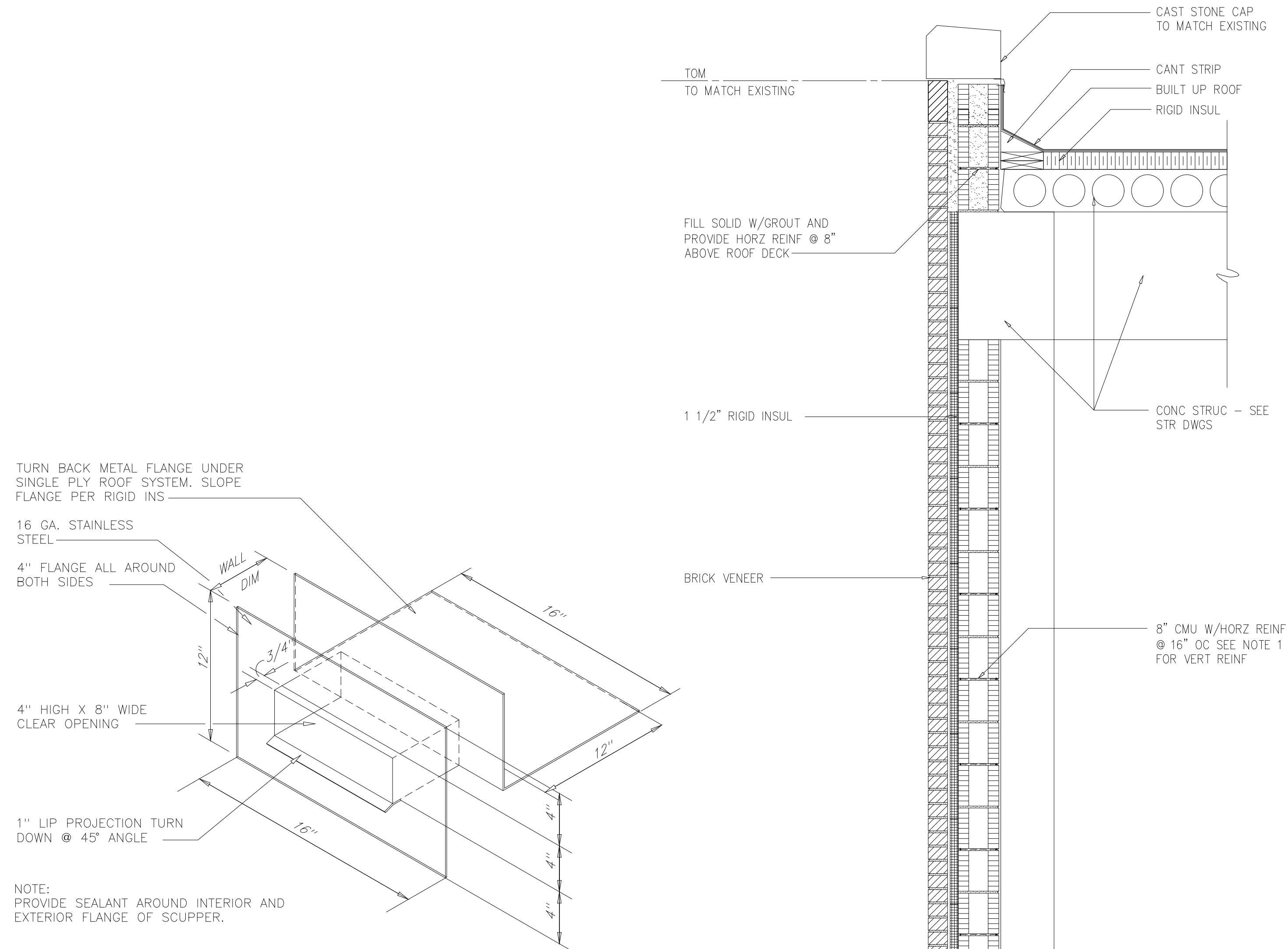
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
ROOF PLAN

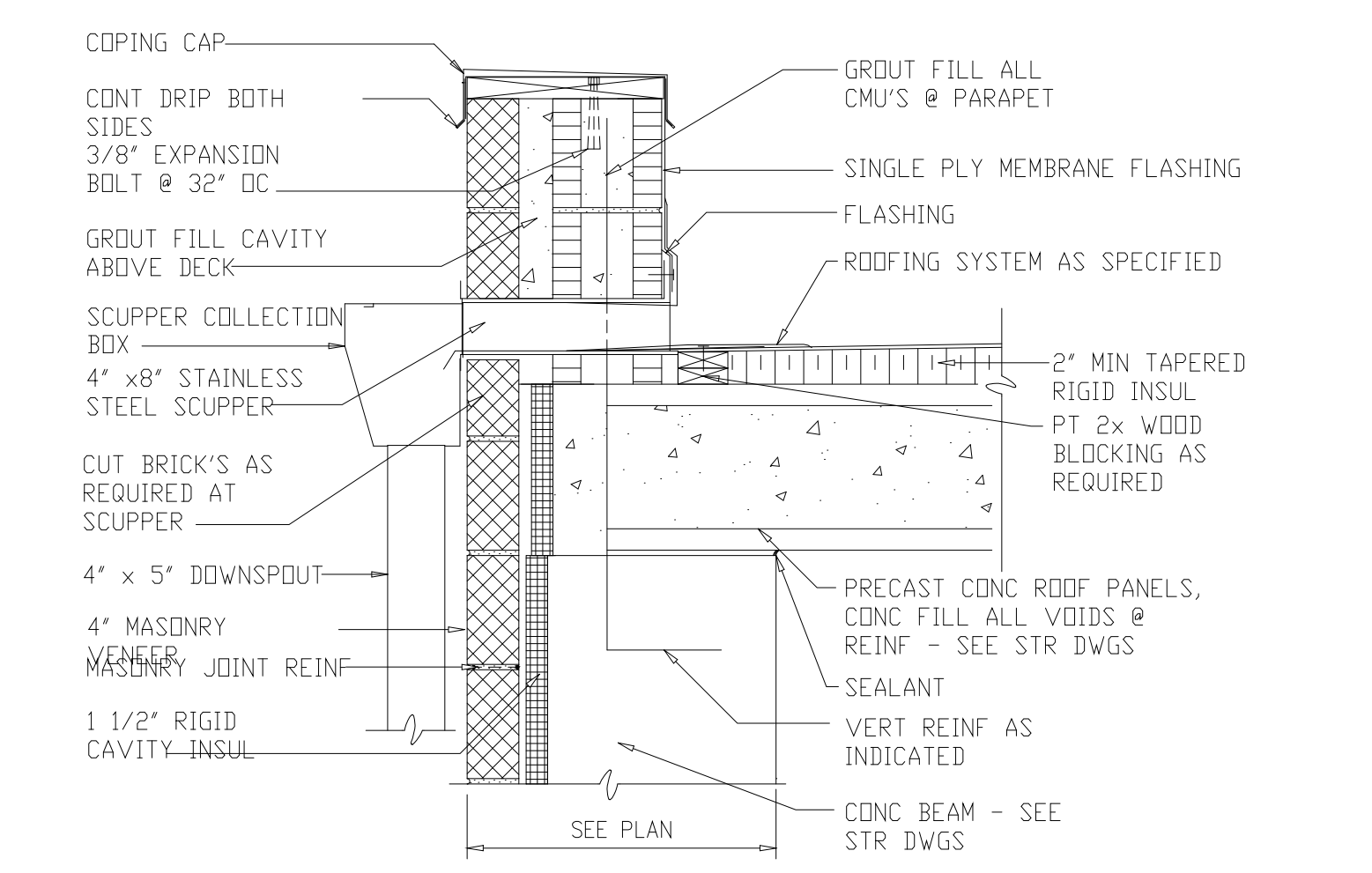
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER A203
	SHEET 20 OF 99

NOTES:

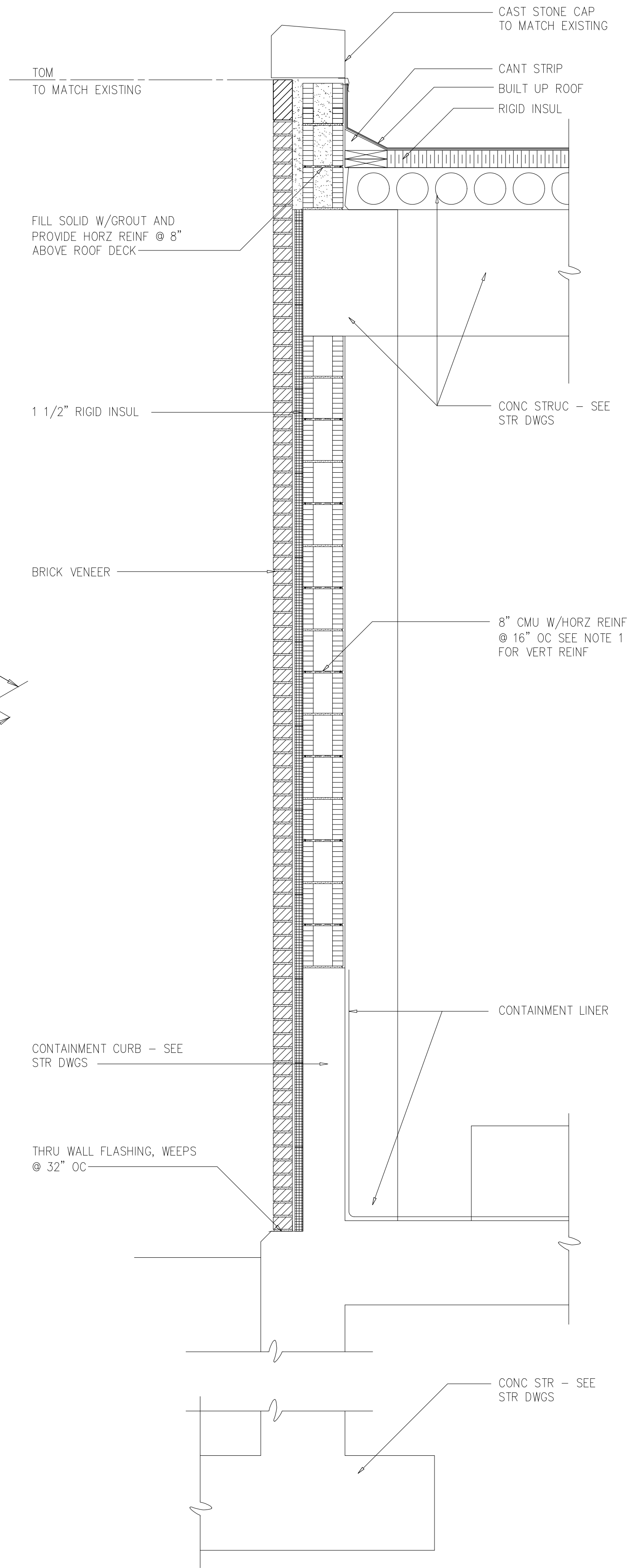
1. PROVIDE VERTICAL REINFORCING IN ALL MASONRY WALLS WITH #5 BARS @ 48" OC, AT CORNERS, AND EACH SIDE OF ALL OPENINGS, TYP. PROVIDE GROUT FILL IN ALL VOIDS WITH REINFORCEMENT.



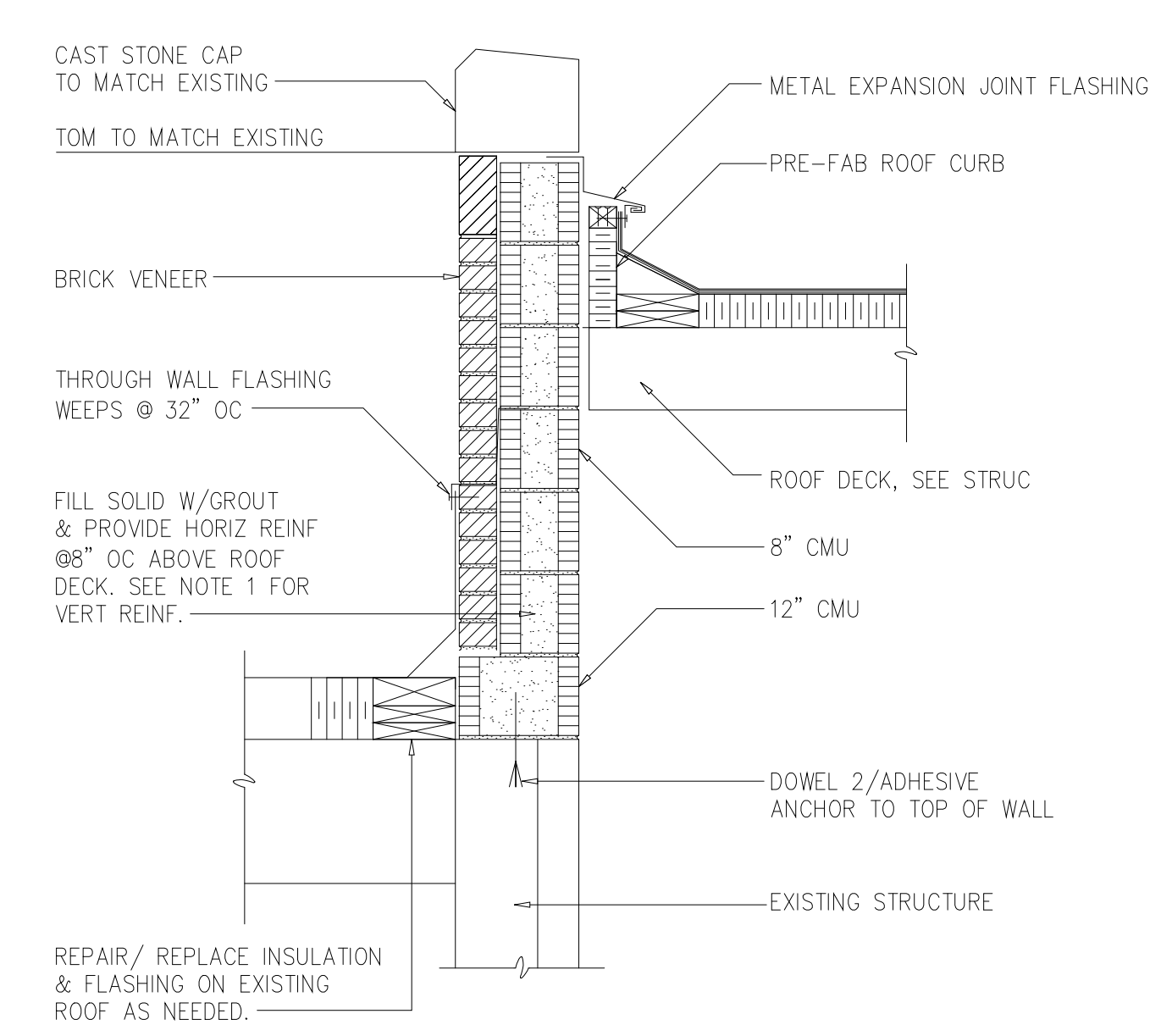
DETAIL 2
NTS A203



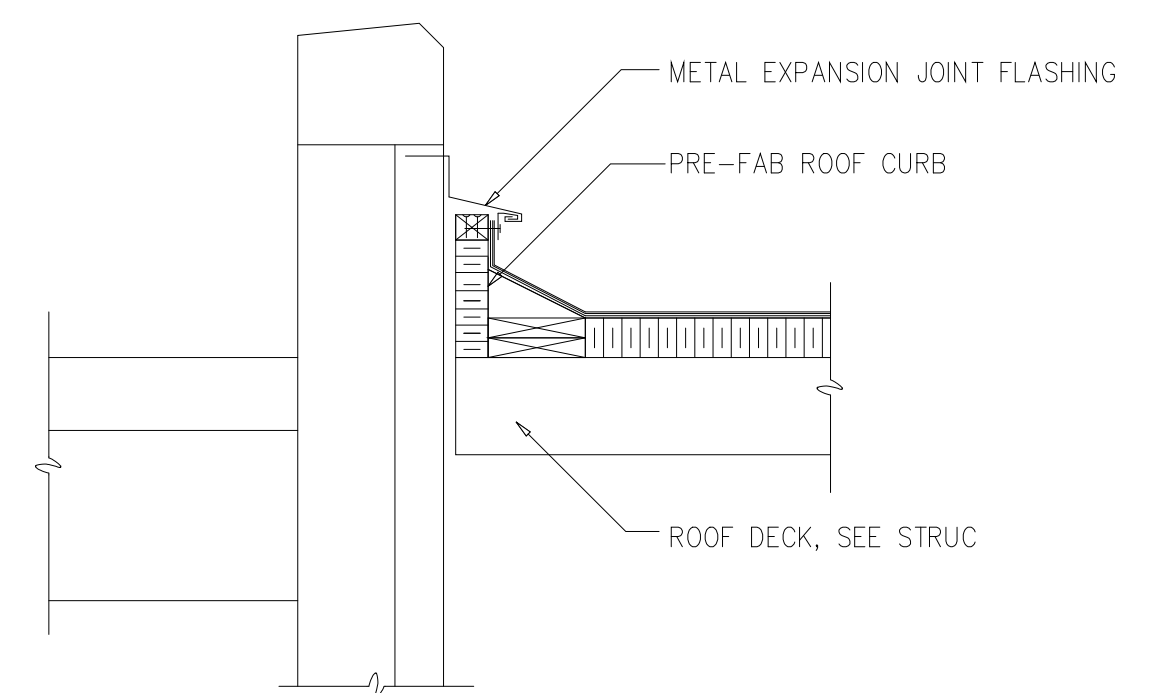
SECTION E
NTS A203



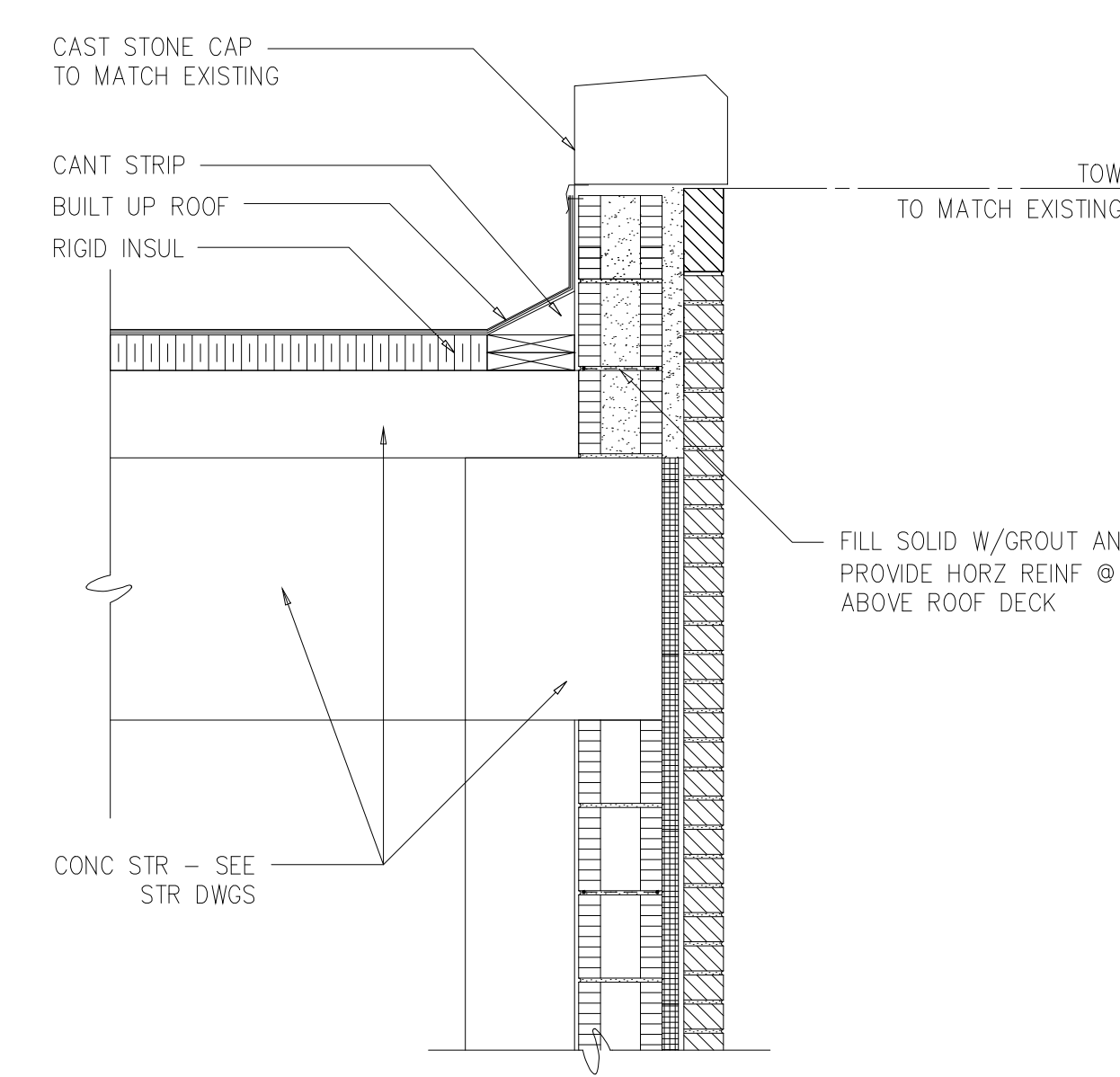
SECTION A
3/4"=1'-0" A202



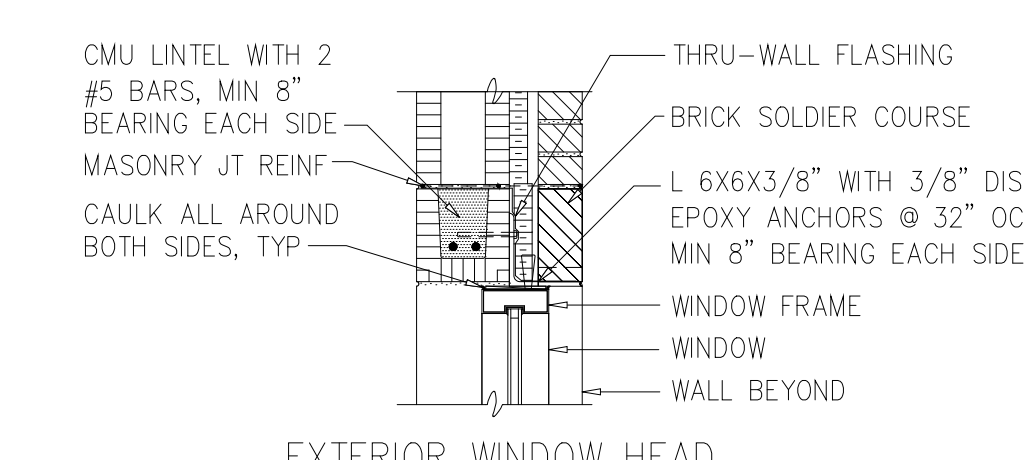
SECTION B
3/4"=1'-0" A203



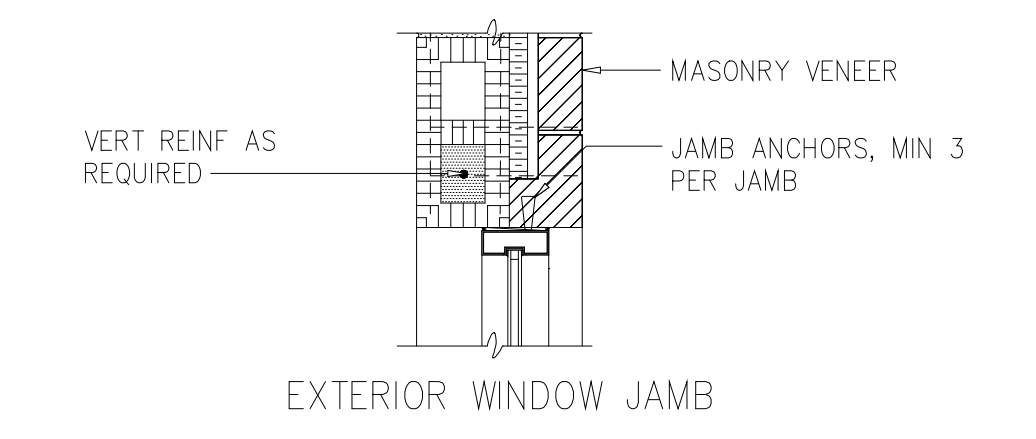
SECTION C
3/4"=1'-0" A203



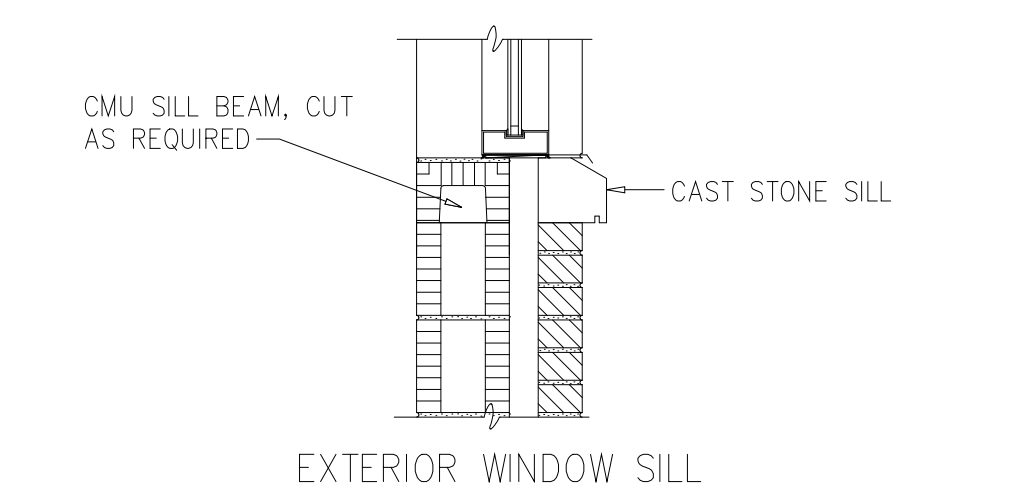
SECTION D
3/4"=1'-0" A203



EXTERIOR WINDOW HEAD



EXTERIOR WINDOW JAMB



EXTERIOR WINDOW SILL

DETAIL 3
3/4"=1'-0" A202

DESIGNED	NJE
DRAWN	MMM
CHECKED	FXP
PROJ. ENGR.	ASG
NO.	ISSUED FOR
DATE	BY
APPROVED	

1	ADD SCUPPER DETAILS	6-4-01	FXP
		DATE	BY

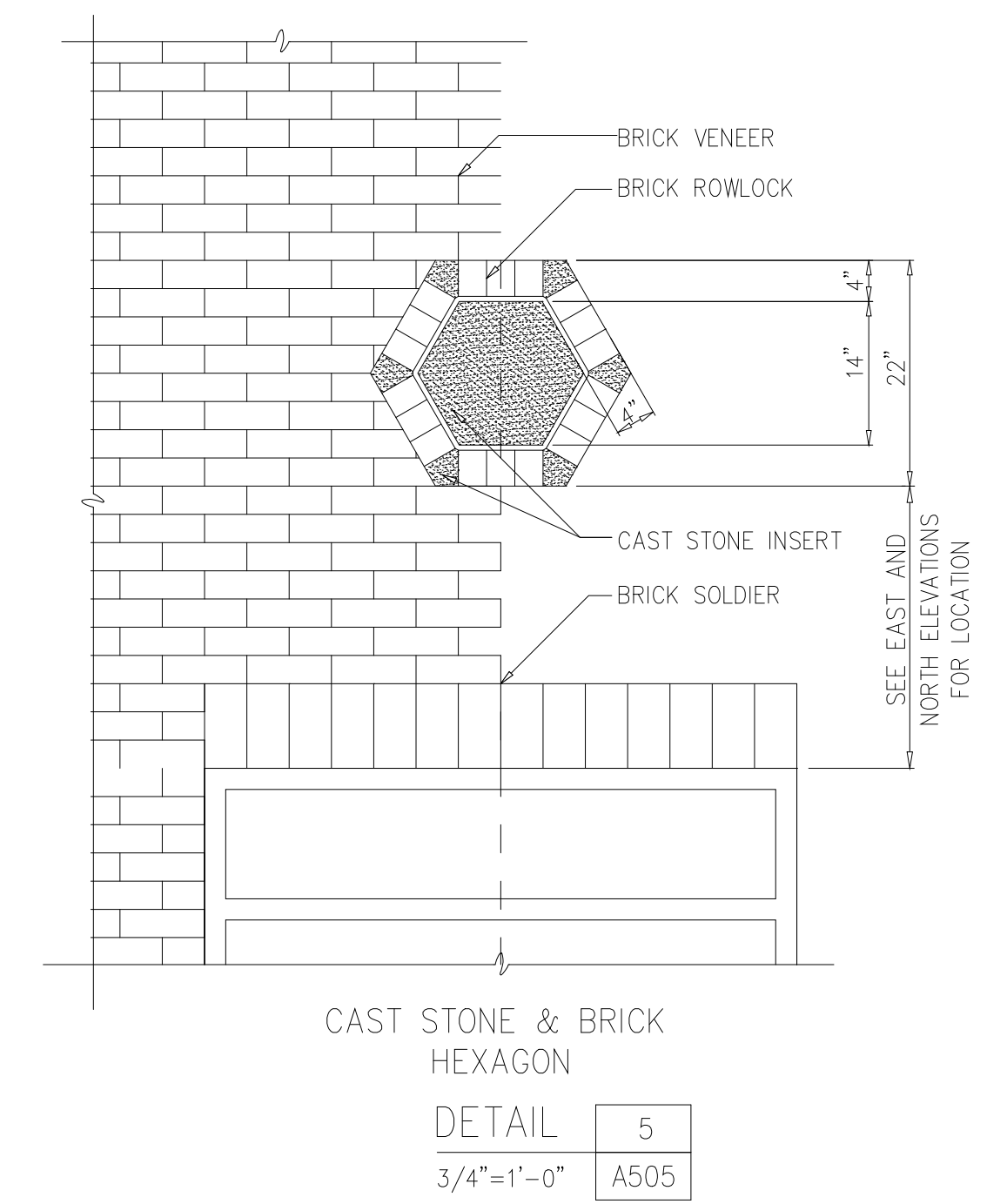
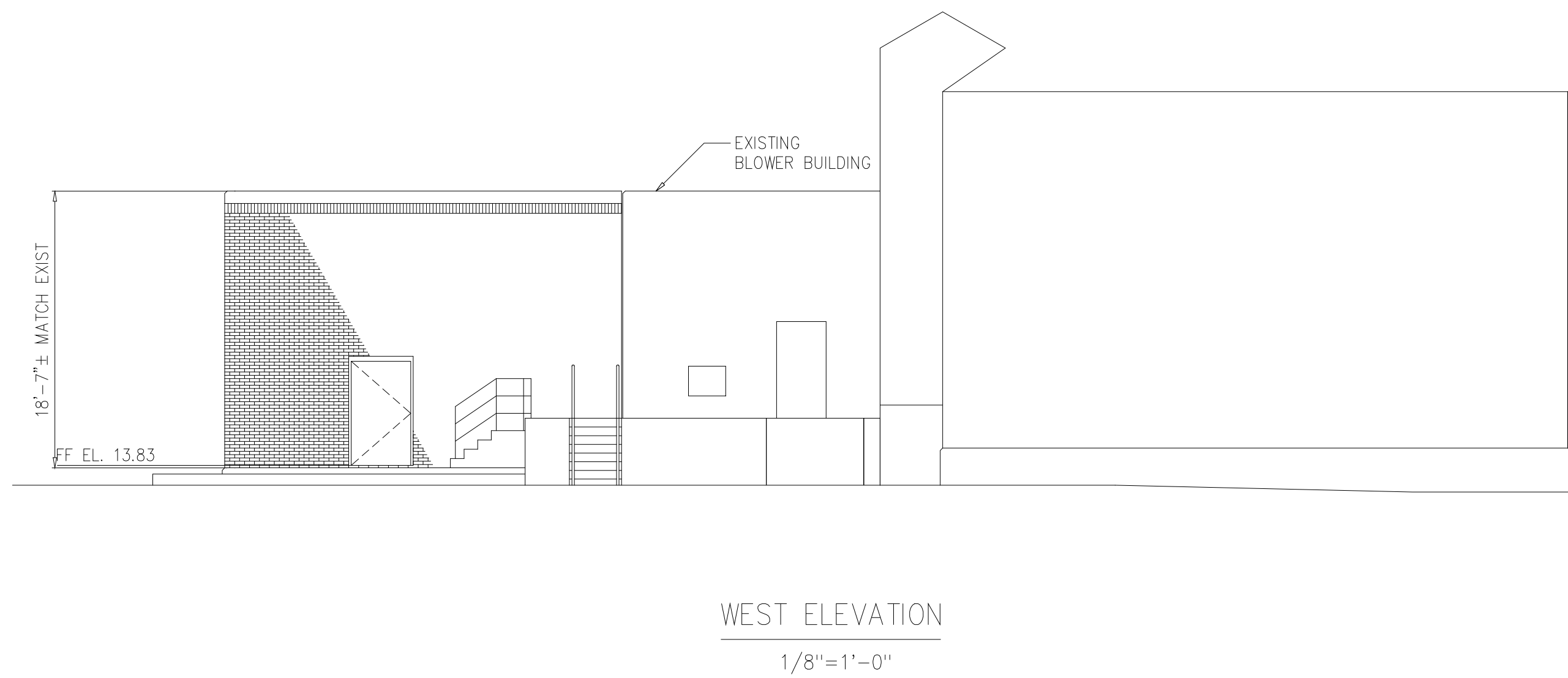
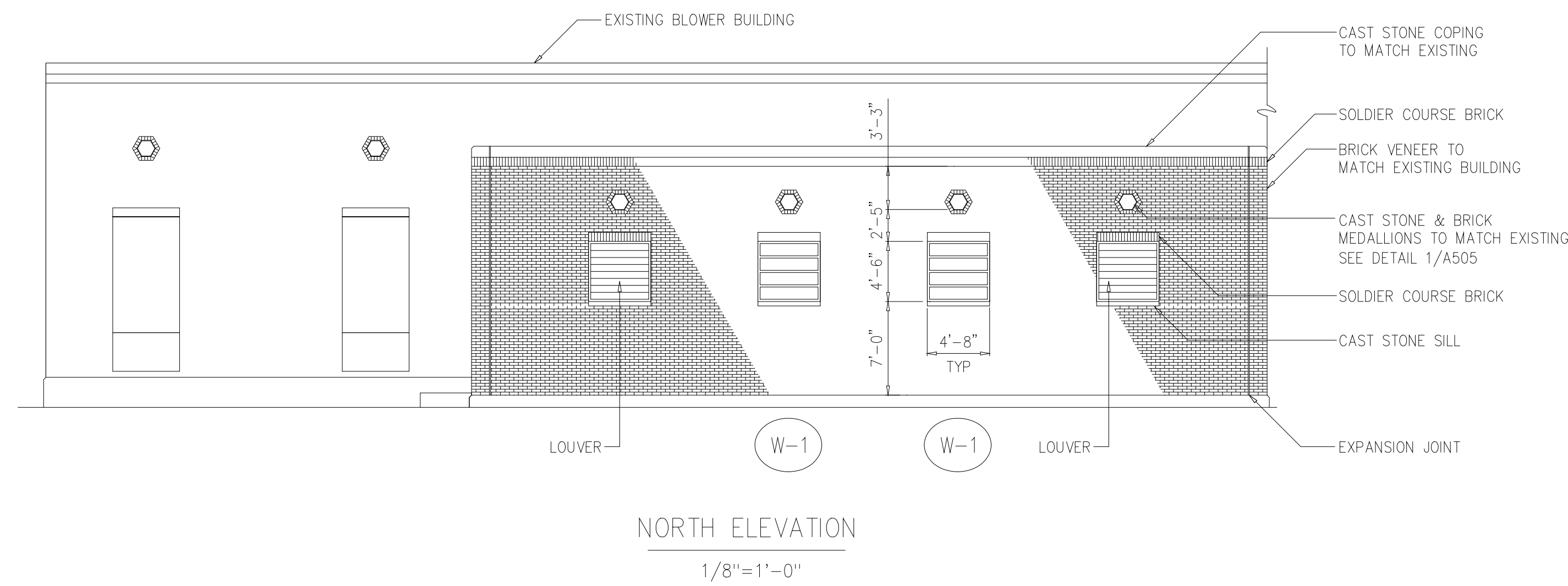
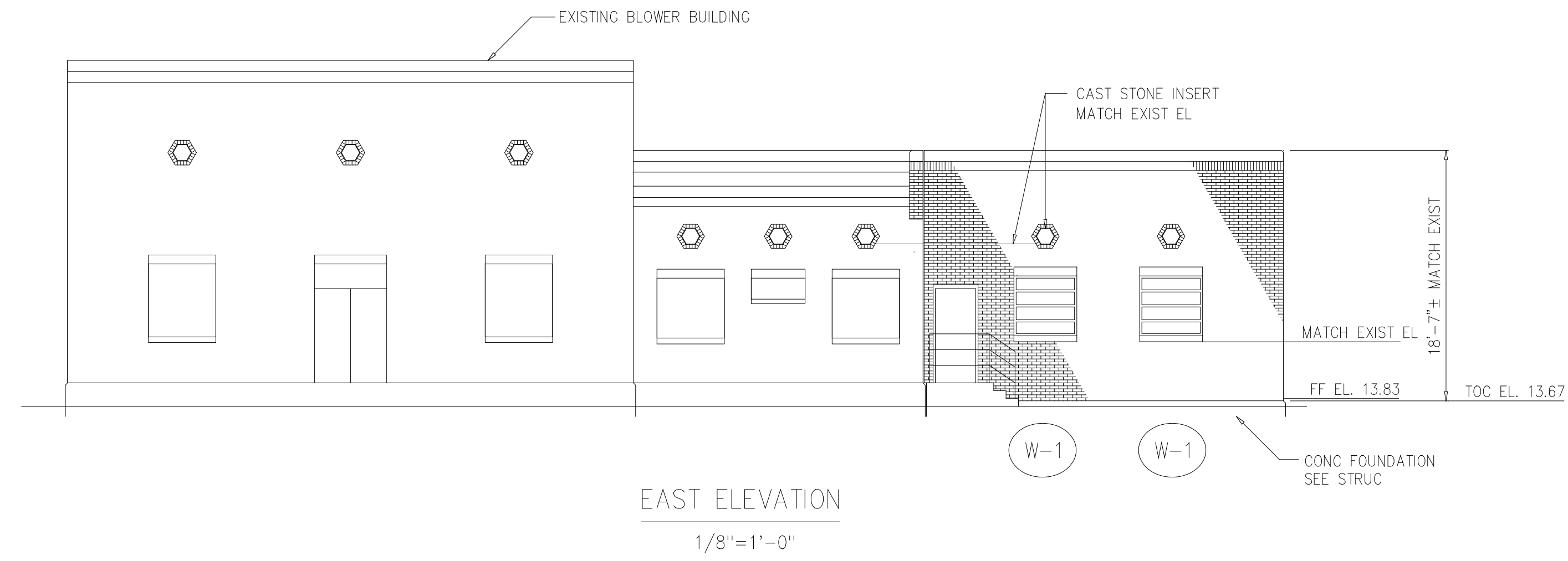
HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

PBS&J
Scientists
12101 INDIAN CREEK COURT
BELTSVILLE, MD 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
SECTIONS

RECORD DRAWING	
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
CONTRACT NUMBER 2000-01-MPC	DRAWING NUMBER A204
SHEET 21 OF 99	



RECORD DRAWING

DESIGNED	NJE		
DRAWN	MMM		
CHECKED	FXP		
PROJ.ENGR.	ASG		
1	GENERAL REVISION	OCT 2000	FXP
NO.	ISSUED FOR	DATE	BY
			APPROVED

APPROVED

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Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

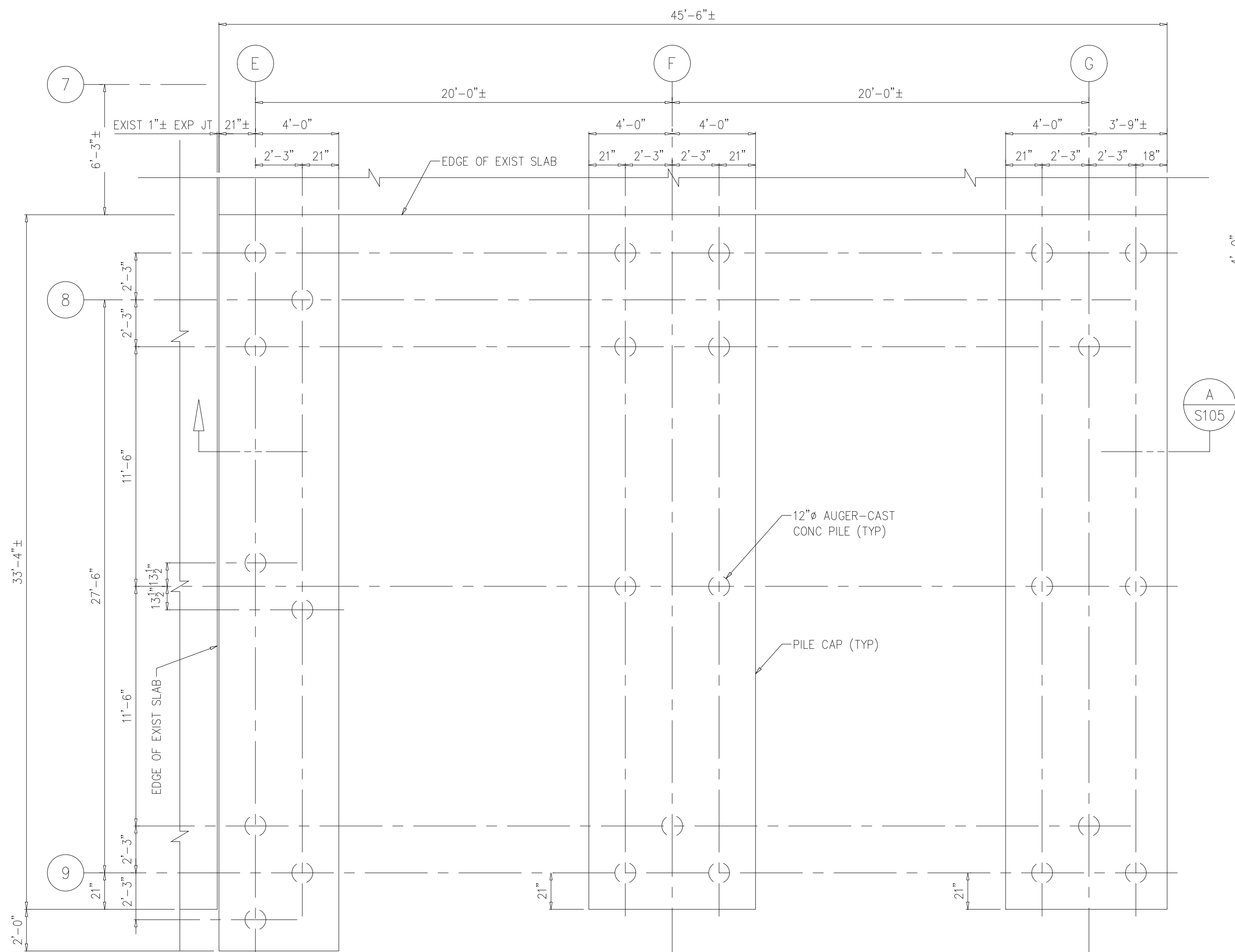
PBS&J
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BELTSVILLE, MD 20705
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FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

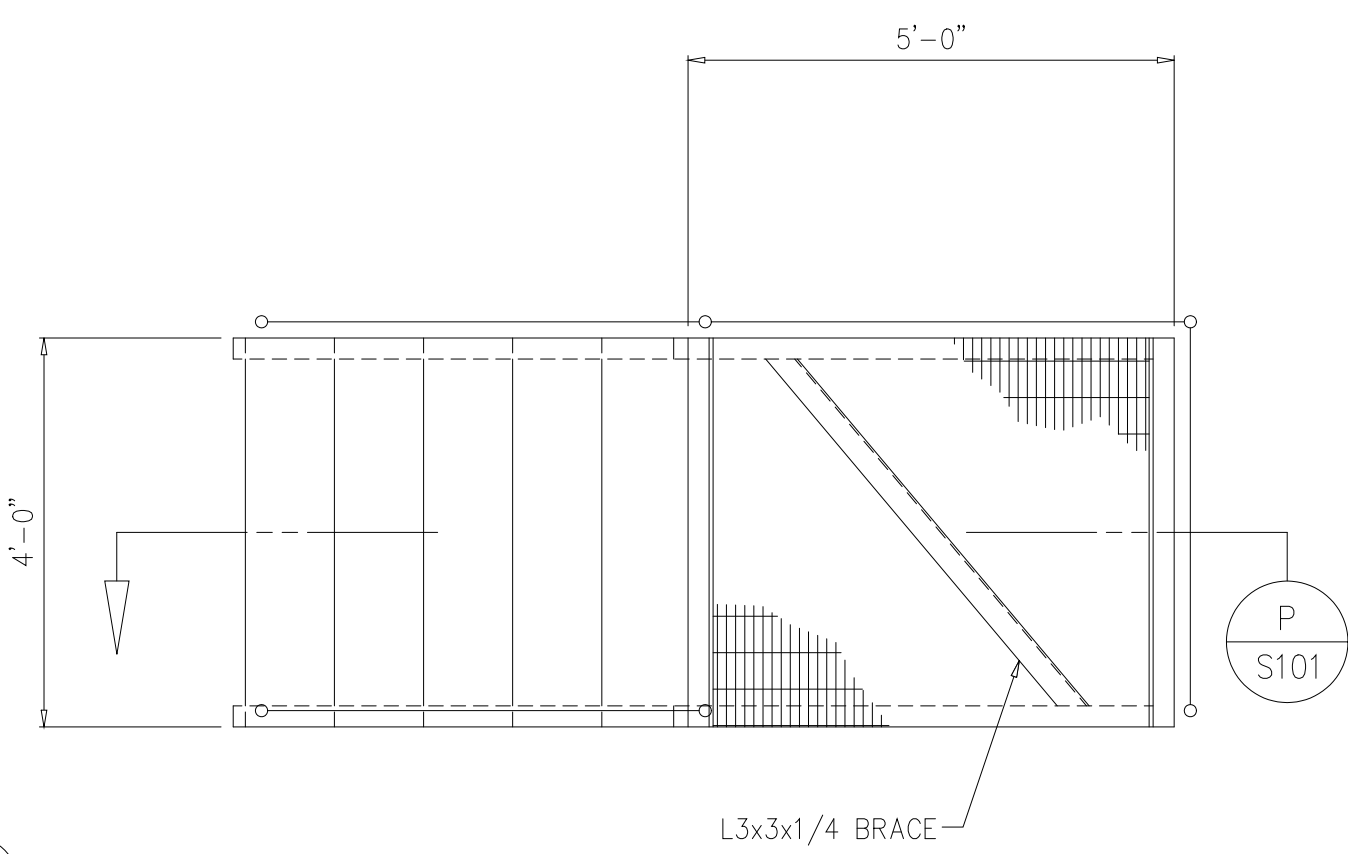
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ARCHITECTURAL
ELEVATIONS

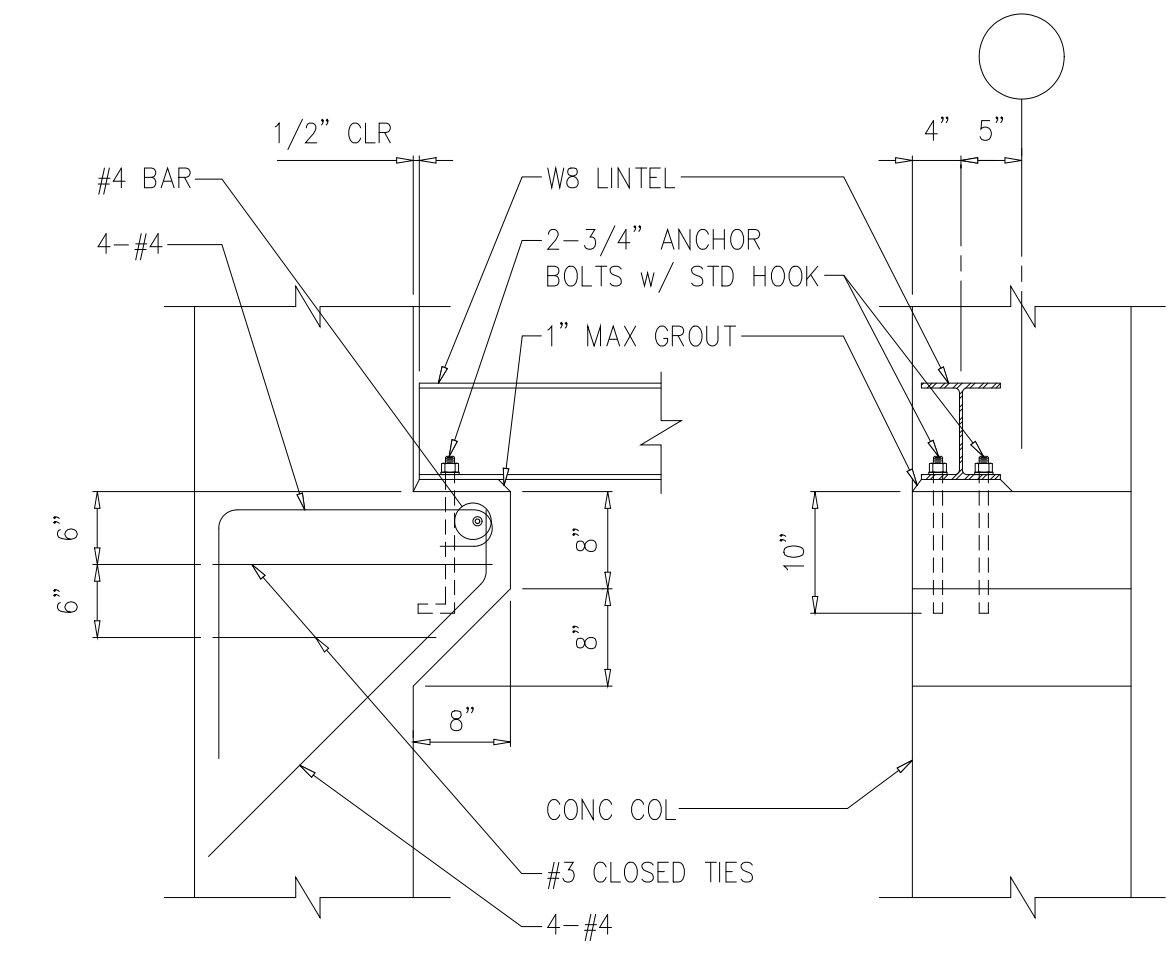
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER A205
	SHEET 22 OF 99



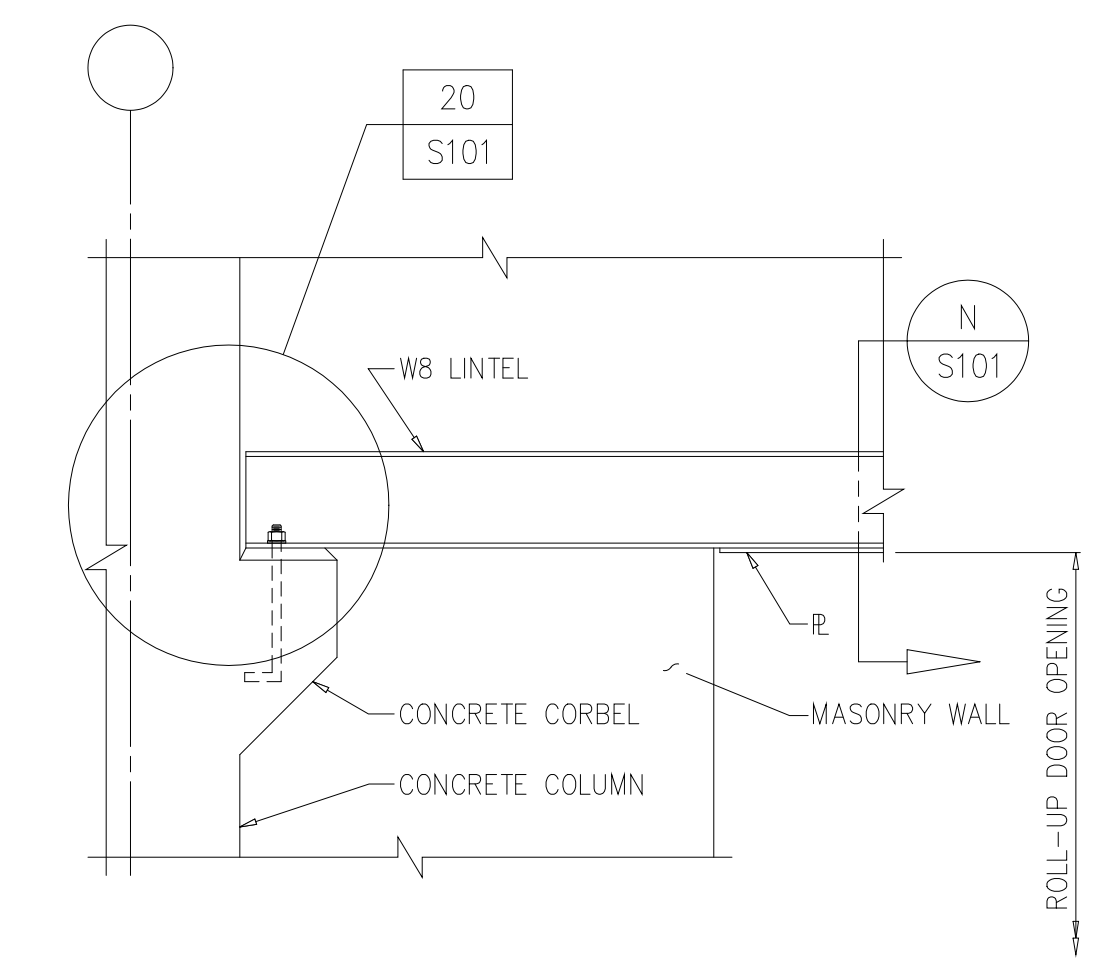
TRUCK BAY EXTENSION FOUNDATION PLAN
1/4"=1'-0"



DETAIL 21
1/2"±=1'-0"

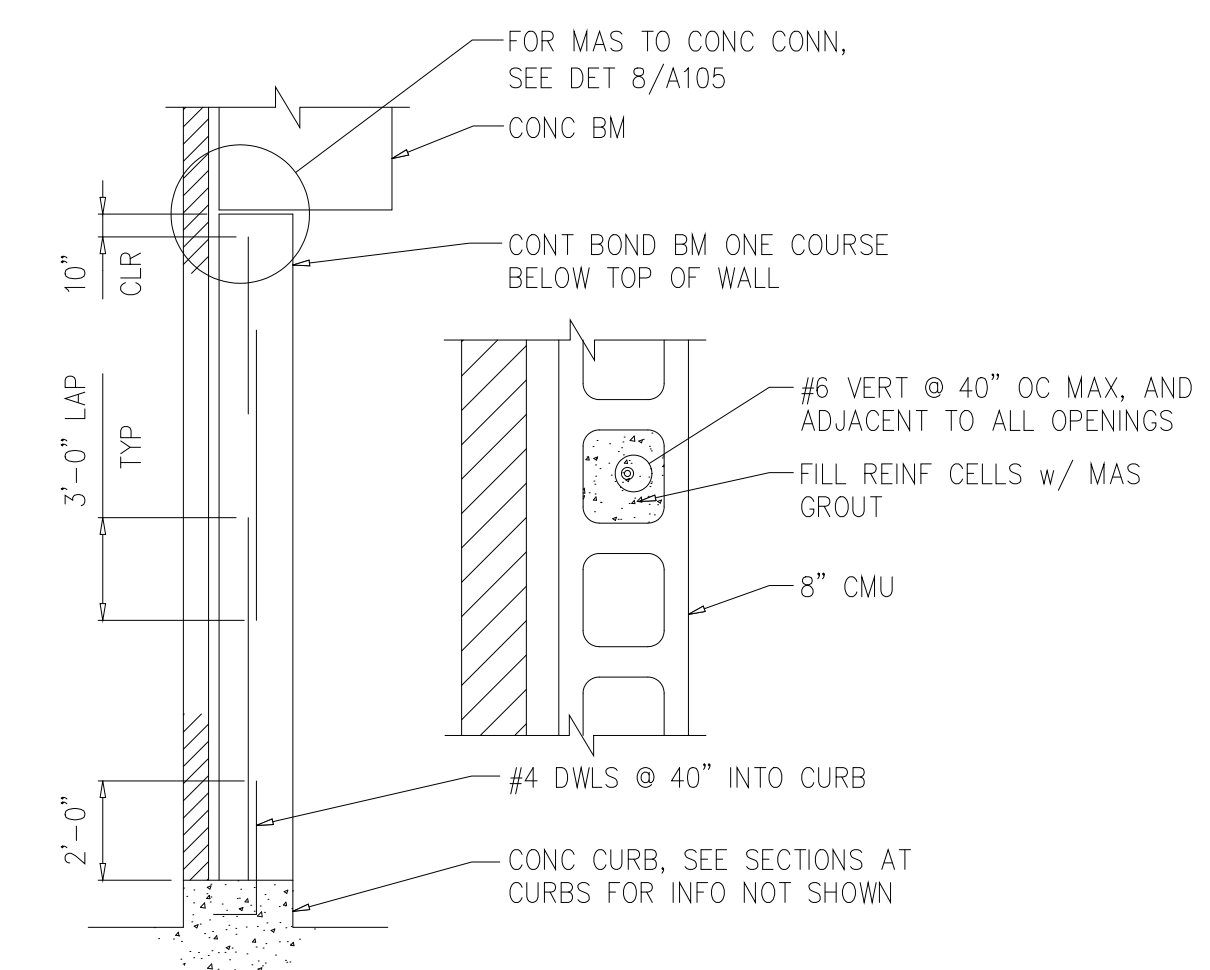


ROLL-UP DOOR LINTEL BEARING
DETAIL 20
3/4'=1'-0"



ROLL-UP DOOR LINTEL ELEVATION VIEW

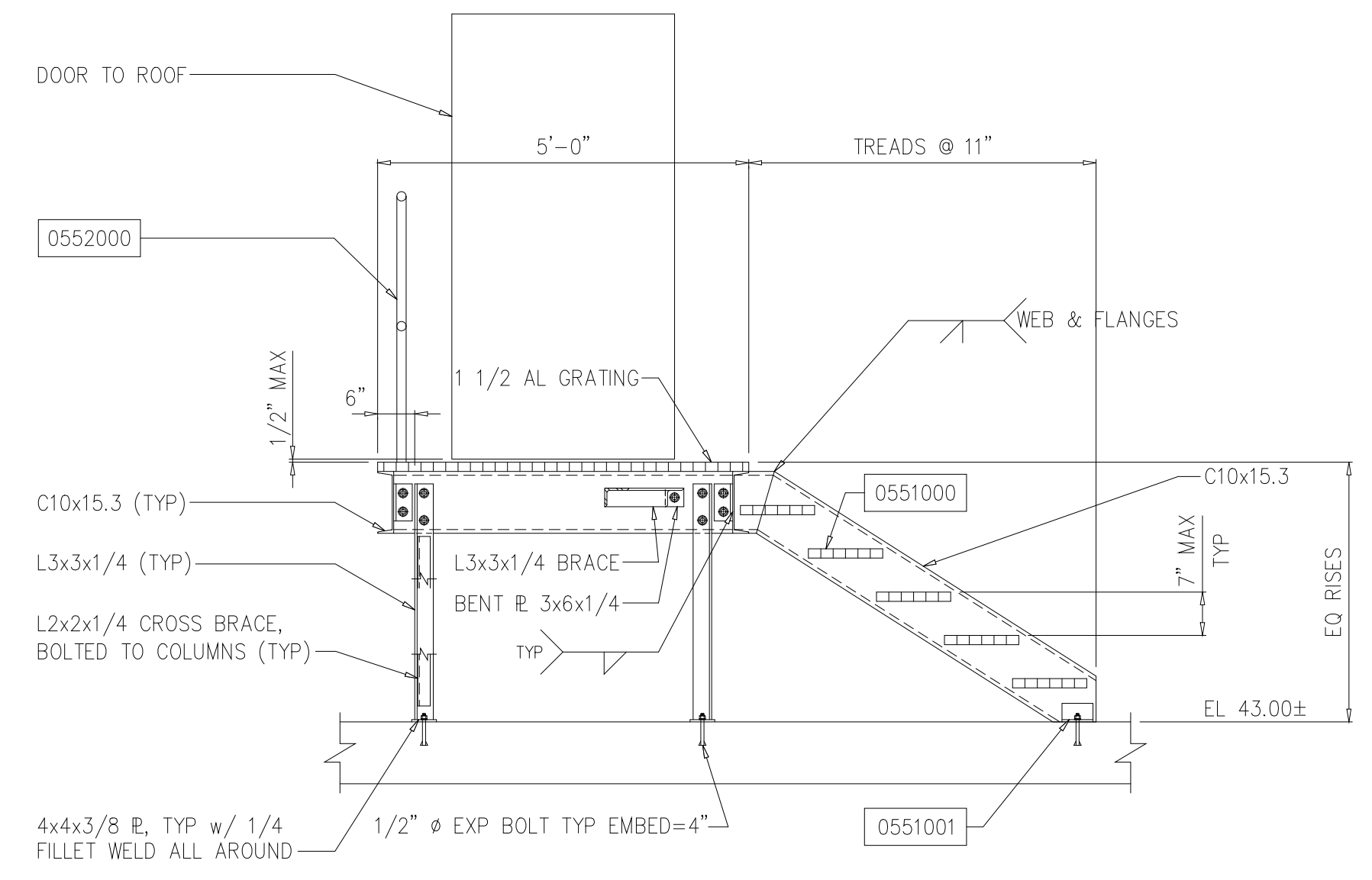
DETAIL 19
3/4'=1'-0"



MASONRY WALL REIN
DETAIL 18
NTS S105

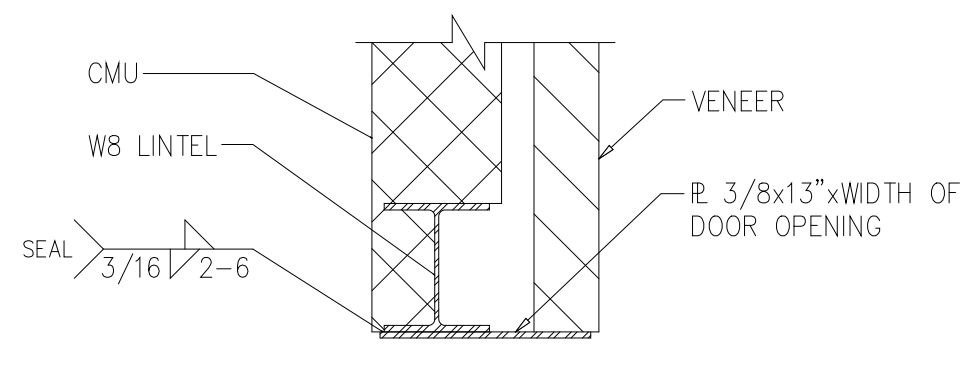
- GENERAL NOTES FOR ODOR CONTROL AREA:
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI IF FLYASH OR SLAG IS INCLUDED IN THE MIX. IF NO FLYASH OR SLAG IS INCLUDED, MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 4500 PSI. SEE SPECIFICATIONS.
 - FOR ADDITIONAL NOTES, SEE "GENERAL CONCRETE NOTES" ON DRAWING DXXX.
 - REINFORCING STEEL BARS SHALL BE ROLLED FROM NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
 - STRUCTURAL STEEL SHALL BE ASTM A36 OR ASTM A572 GRADE 50 UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL SHALL BE GALVANIZED.
 - BOLTS SHALL BE 3/4 INCH DIAMETER CONFORMING TO ASTM A325 TYPE X, UNLESS OTHERWISE NOTED, AND ARE REQUIRED TO BE TIGHTENED "SNUG-TIGHT" ONLY IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". ALL BOLTS SHALL BE GALVANIZED.
 - CONCRETE MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH $f'_m = 1500$ PSI.
 - ± INDICATES DIMENSION OR ELEVATION IS EXISTING. EXISTING DIMENSIONS AND ELEVATIONS ARE TAKEN FROM RECORD DRAWINGS TITLED "ARLINGTON COUNTY, VIRGINIA WATER POLLUTION CONTROL PLANT UPGRADE AND EXPANSION PHASE IIIA - SOLIDS PROCESSING FACILITIES" BY HAZEN AND SAWYER, DATED SEPTEMBER 1994. DIMENSIONS AND ELEVATIONS FOR EXISTING CONSTRUCTION ARE PLUS OR MINUS REGARDLESS OF WHETHER INDICATED AS SUCH ON THE DRAWINGS OR NOT. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS FOR EXISTING CONSTRUCTION PRIOR TO FABRICATION.

- PILE NOTES FOR ODOR CONTROL AREA:
- ALL PILES SHALL BE TWELVE (12) INCH DIAMETER AUGER CAST PRESSURE-INJECTED GROUT PILES. PILES SHALL BE INSTALLED AS REQUIRED TO DEVELOP A MINIMUM VERTICAL DOWNWARD WORKING LOAD OF 50 TONS (100 TONS ULTIMATE CAPACITY). PILES SHALL BE EMBEDDED A MINIMUM OF TWENTY-FIVE (25) FEET.
 - PILES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION SECTION 02363. A MINIMUM OF TWO PILES SHALL BE LOAD TESTED IN ACCORDANCE WITH SPECIFICATIONS. TEST PILES SHALL BE CHOSEN BY PROGRAM MANAGER.
 - SEE DRAWING C002 FOR EXISTING BURIED PIPING IN AREA OF NEW PILES. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING PIPING PRIOR TO BEGINNING INSTALLATION OF AUGER CAST PILES. PIPING SHALL BE RELOCATED AS NECESSARY TO INSURE THAT A MINIMUM OF 12" CLEARANCE IS PROVIDED BETWEEN PIPING AND NEW PILES.



- NOTE:
- ALL BOLTS SHALL BE 5/8"Ø UON.
 - ALL WELDS SHALL BE 1/4" FILLET WELD.

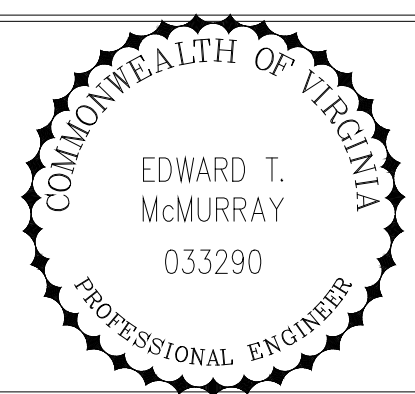
SECTION P
1/2"=1'-0"



ROLL-UP DOOR LINTEL SECTION N
1"=1'-0"

Structural Consultant:
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Raleigh, NC 27609
(919) 870-7005, 870-0575 fax
M0032

DESIGNED	ETM
DRAWN	SMH
CHECKED	
PROJ.ENGR.	ETM
APPROVED	



HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607



ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
STRUCTURAL

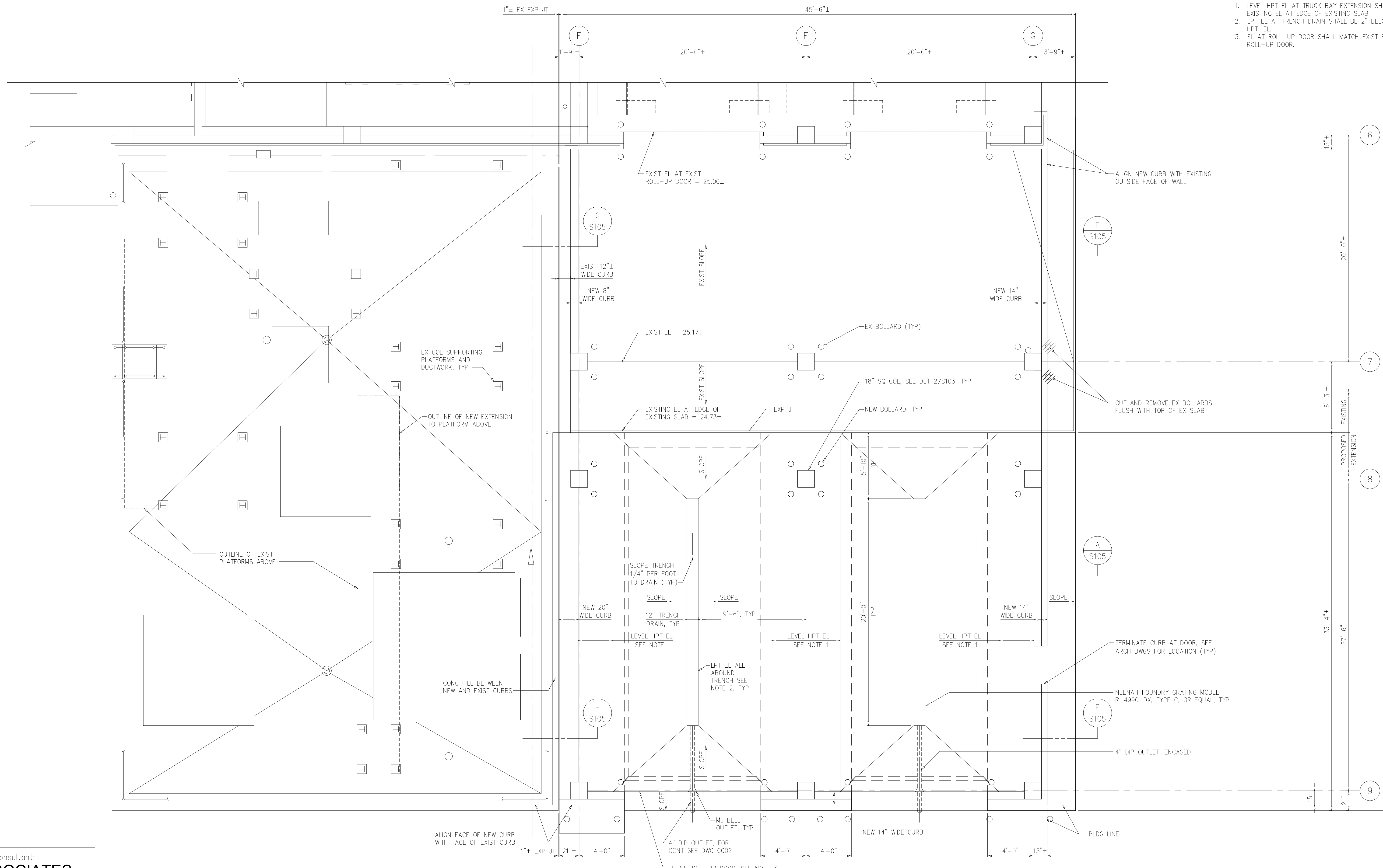
FOUNDATION PLAN AND GENERAL NOTES

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER: 30313
	CONTRACT NUMBER: 2000-01-MPC
	DRAWING NUMBER: S101
	SHEET 23 OF 99

NOTES:

1. LEVEL HPT EL AT TRUCK BAY EXTENSION SHALL MATCH EXISTING EL AT EDGE OF EXISTING SLAB
2. LPT EL AT TRENCH DRAIN SHALL BE 2" BELOW LEVEL HPT. EL.
3. EL AT ROLL-UP DOOR SHALL MATCH EXIST EL AT EXIST ROLL-UP DOOR.



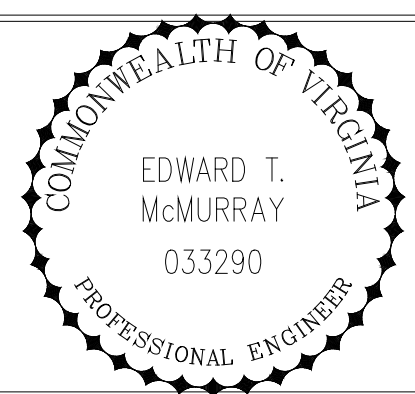
TRUCK BAY EXTENSION FLOOR SLAB PLAN

1/4"=1'-0"

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 CONSULTING ENGINEERS, INC.
 260 West Millbrook Road
 Raleigh, NC 27609
 (919) 870-7005, 870-0575 fax

M0032

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DRAWN	SMH
CHECKED	
PROJ. ENGR.	ETM
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 4011 WestChase Blvd, Raleigh, North Carolina 27607

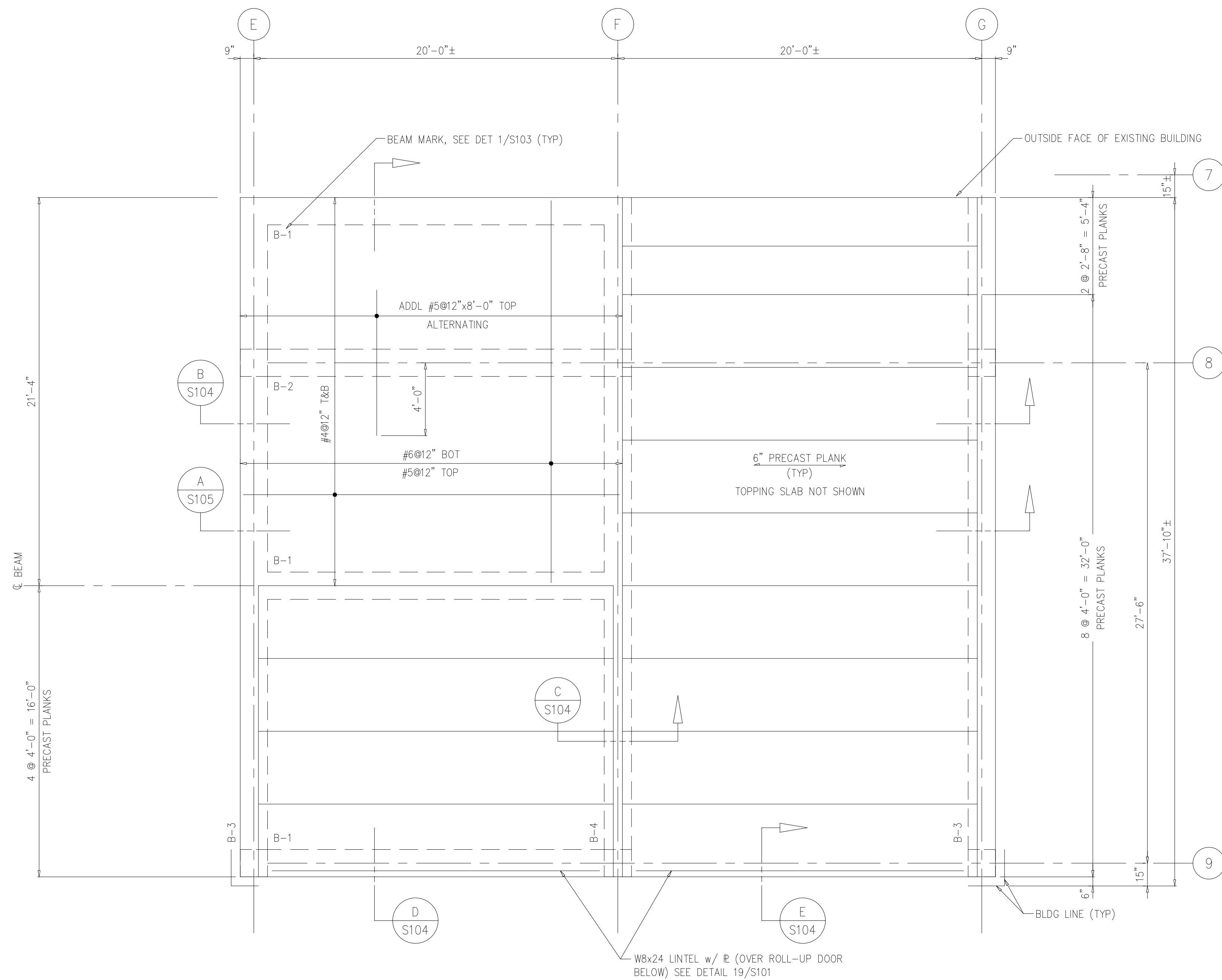


ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
 ODOR CONTROL AREA
 STRUCTURAL FLOOR PLAN

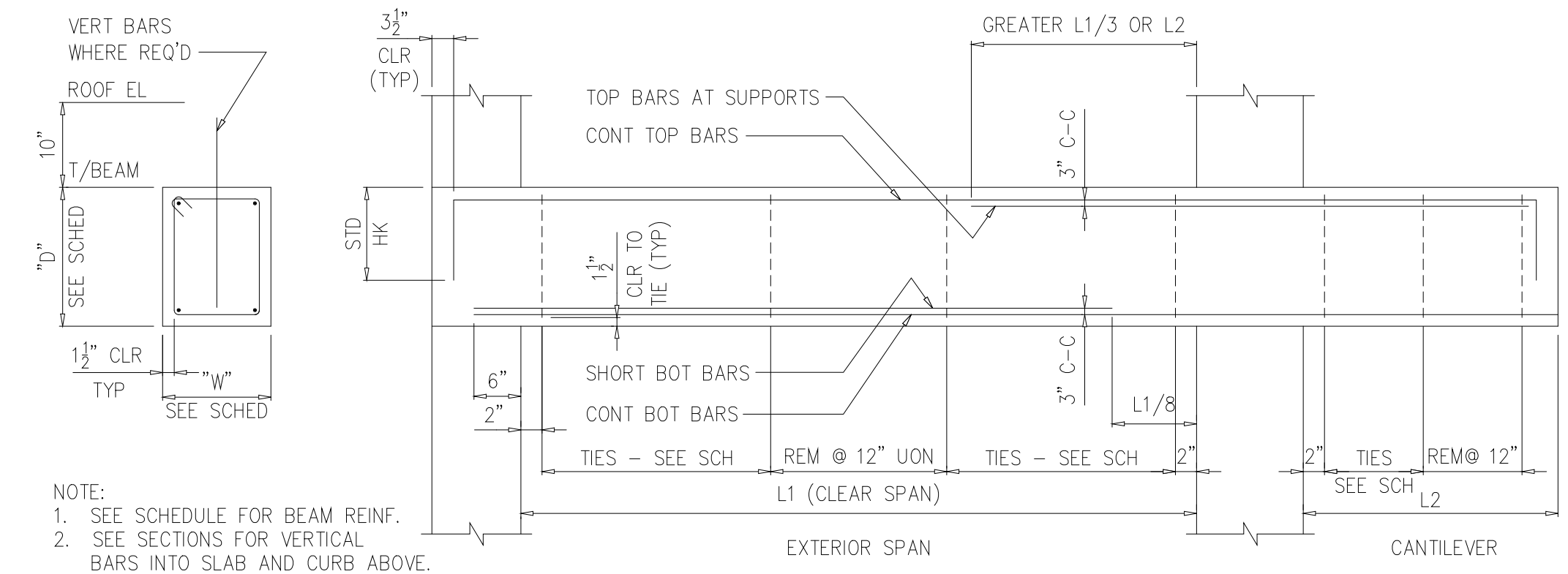
RECORD DRAWING	
DATE: SEPT 2000	H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC	DRAWING NUMBER: S102
SHEET 24 OF 99	

NOTES:



TRUCK BAY EXTENSION ROOF FRAMING PLAN
1/4"=1'-0"

ROOF DESIGN LOADS:
1. DEAD LOADS SHALL INCLUDE SELF-WEIGHT OF ROOF PANELS, CONCRETE, INSULATION, ROOF MEMBRANE AND BALLAST.
2. DESIGN LIVE LOAD SHALL BE 100 PSF.

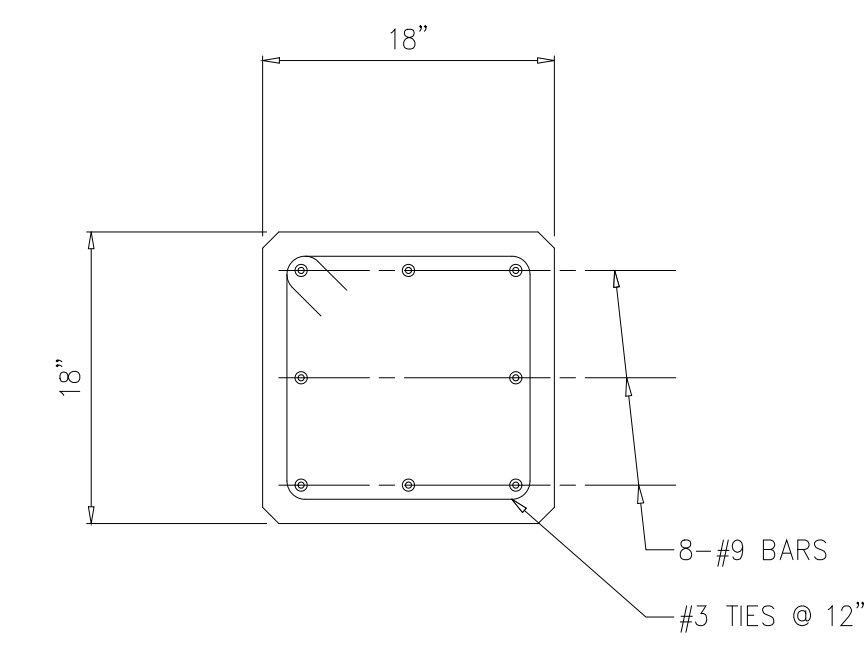


NOTE:
1. SEE SCHEDULE FOR BEAM REINF.
2. SEE SECTIONS FOR VERTICAL BARS INTO SLAB AND CURB ABOVE.

MARK	SIZE		CONT BOT BARS		SHORT BOT BARS		CONT TOP BARS		TOP BARS AT SUPPORTS		TIES		REMARKS
	W	D	NO	SIZE	NO	SIZE	NO	SIZE	NO	SIZE	NO & SPA	SIZE	
B-1	18"	22"	3	#9	-	-	2	#8	-	-	10"	#3	THROUGHOUT
B-2	18"	30"	4	#9	4	#9	3	#8	-	-	5@8"	#4	EACH END REM
B-3	18"	30"	4	#9	-	-	4	#8	-	-	12"	#4	THROUGHOUT
B-4	18"	30"	4	#9	2	#9	4	#8	2	#9	COL F8 5@8" 12"	#4	EXT SPAN @ COL F8 REM

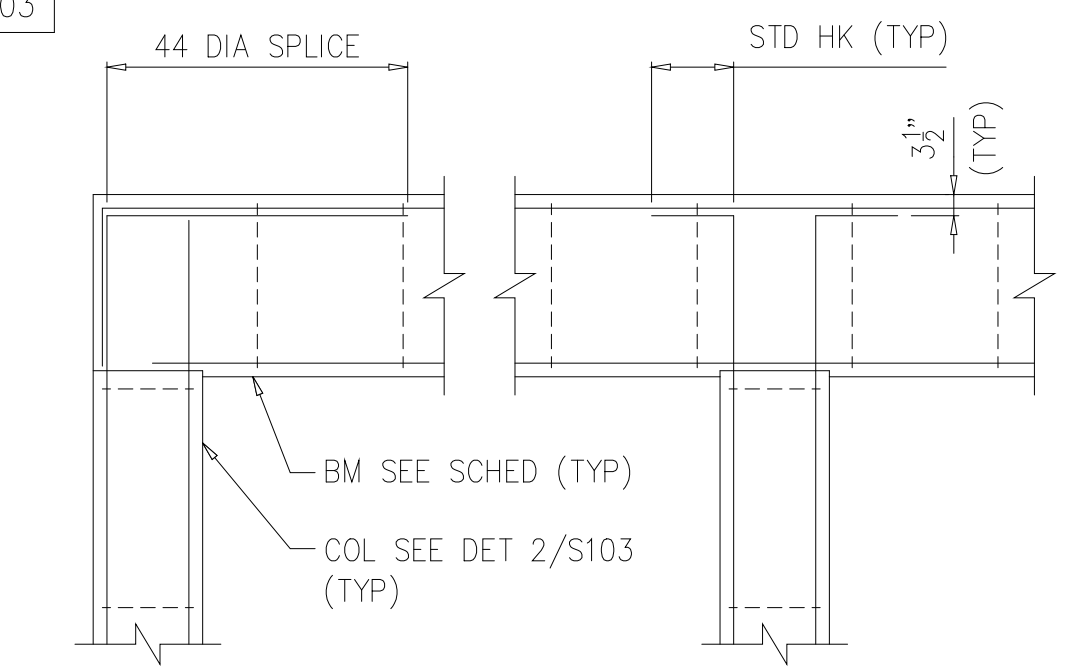
TYPICAL BEAM

DETAIL 1
NTS S103



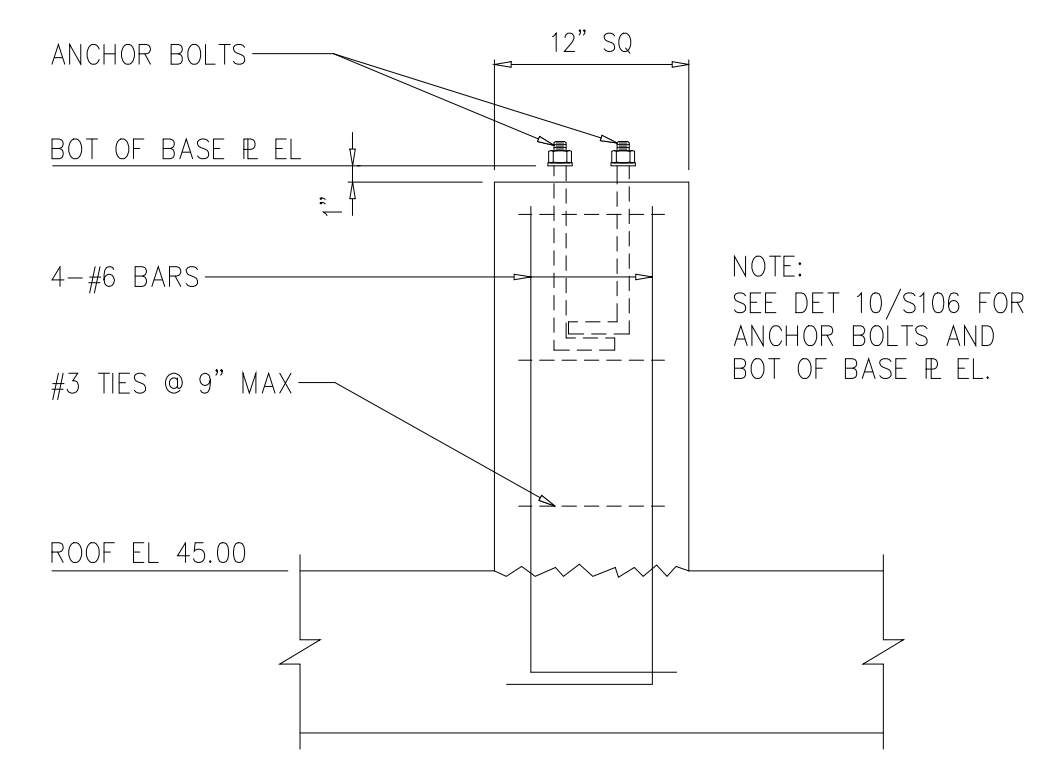
TYP COLUMN

DETAIL 2
1"=1'-0" S102



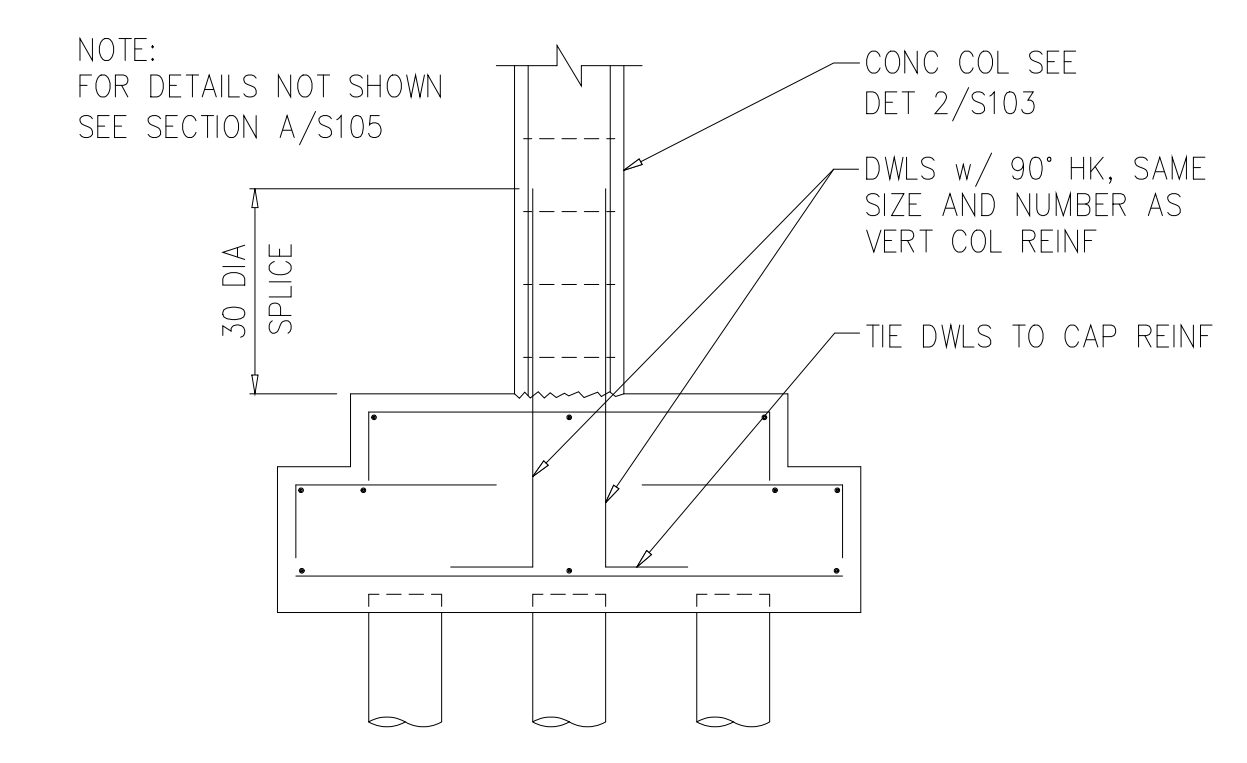
TYP COLUMN TERMINATION

DETAIL 3
NTS S103



TYP PEDESTAL

DETAIL 5
1"=1'-0" S104

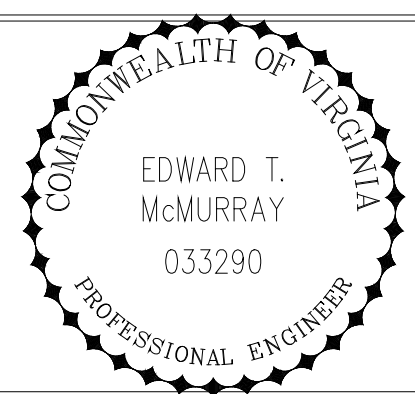


TYP COLUMN BASE

DETAIL 4
3/8"=1'-0" S103

Structural Consultant:
DIXON ASSOCIATES
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Raleigh, NC 27609
(919) 870-7005, 870-0575 fax
M0032

DESIGNED	ETM
DRAWN	SMH
CHECKED	
PROJ.ENGR.	ETM
NO.	ISSUED FOR
	DATE
	BY
	APPROVED



HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

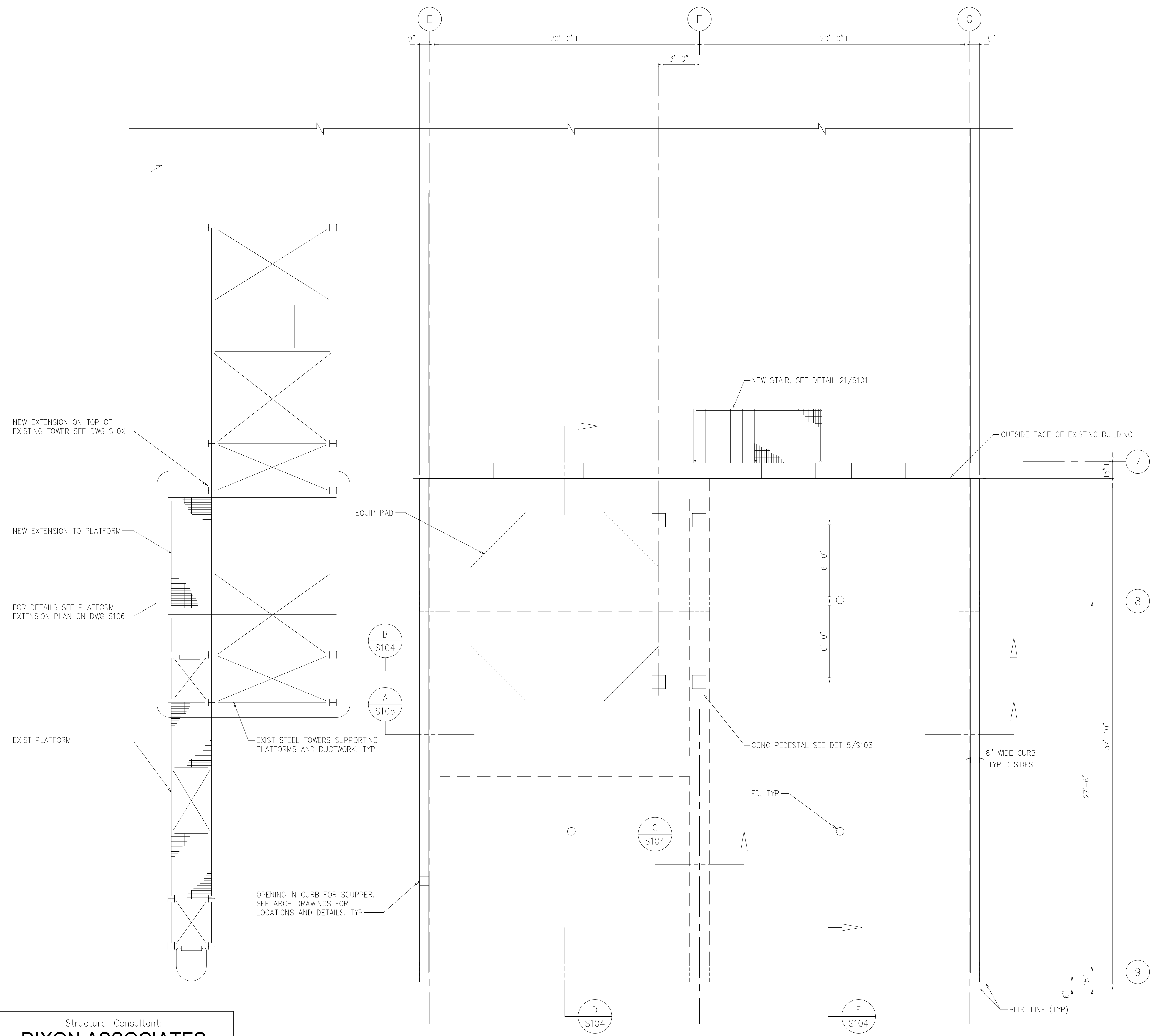


ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

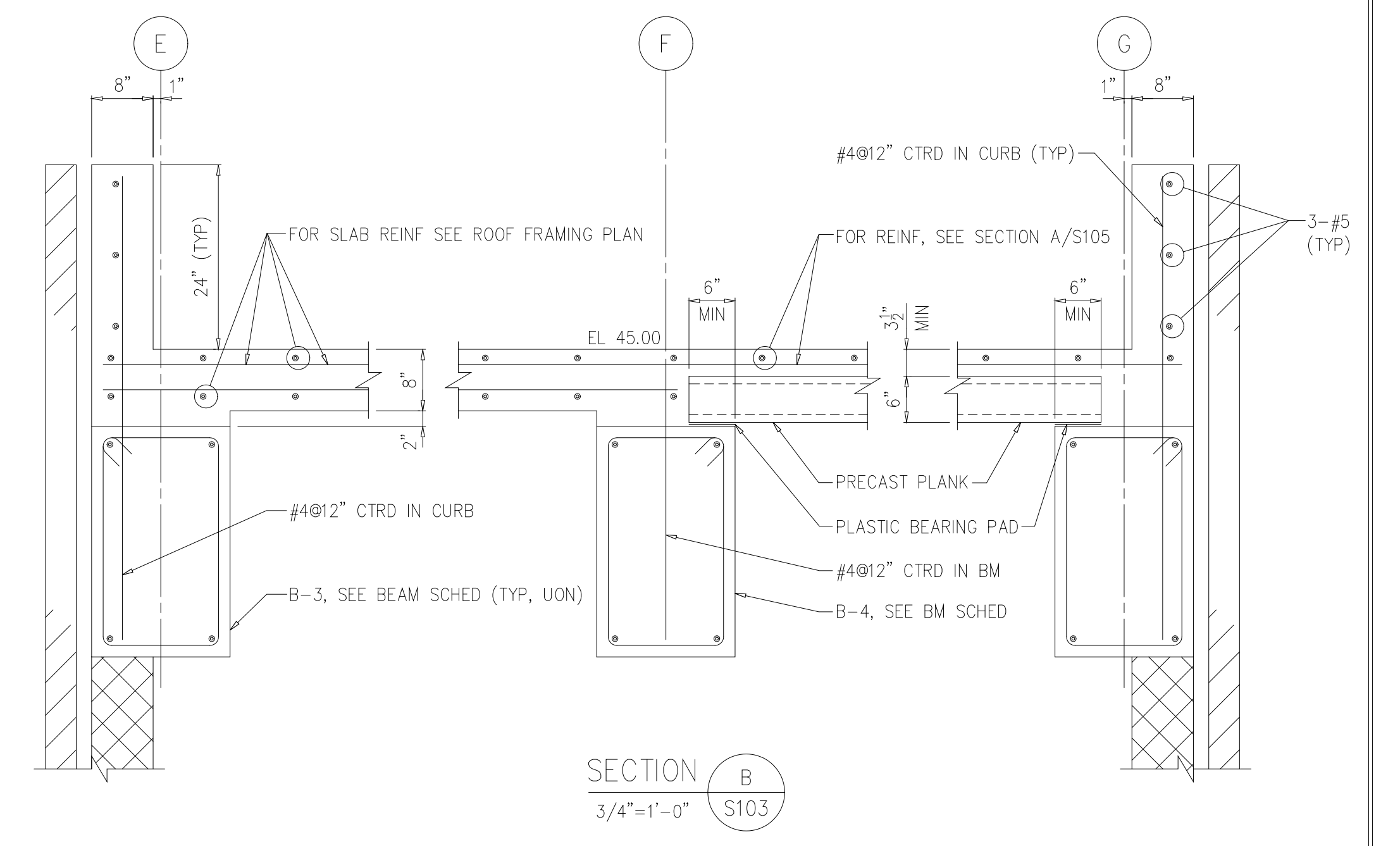
CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
STRUCTURAL
ROOF FRAMING PLAN AND DETAILS

RECORD DRAWING

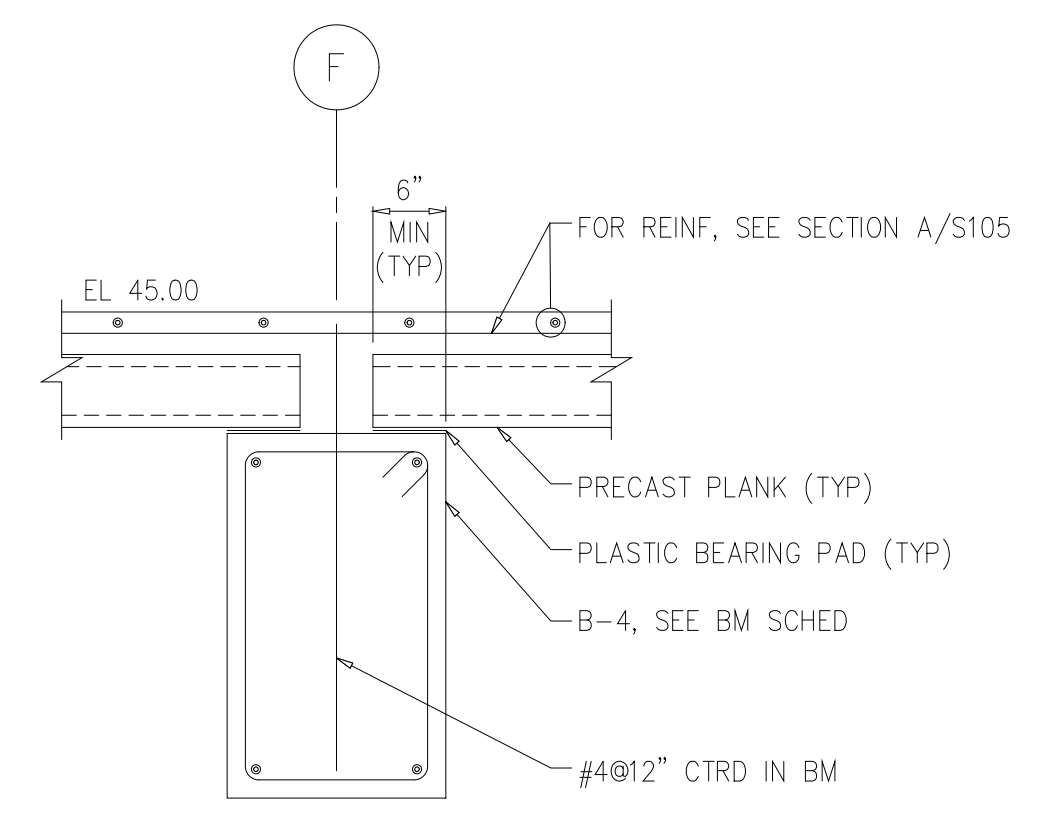
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S103
	SHEET 25 OF 99



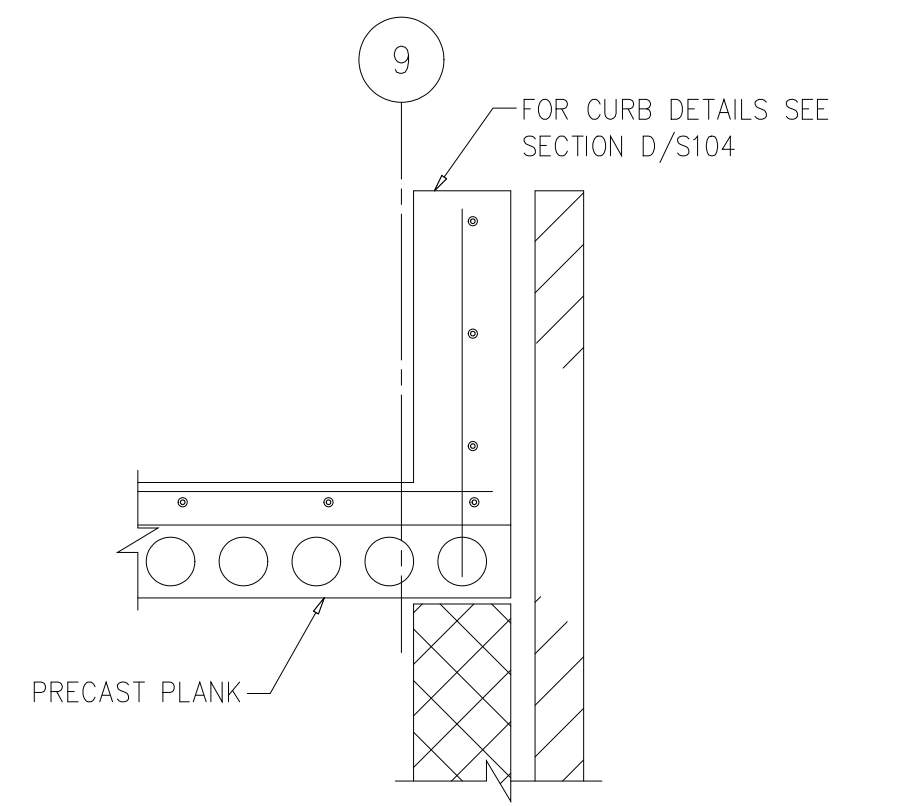
TRUCK BAY EXTENSION ROOF PLAN
1/4"=1'-0"



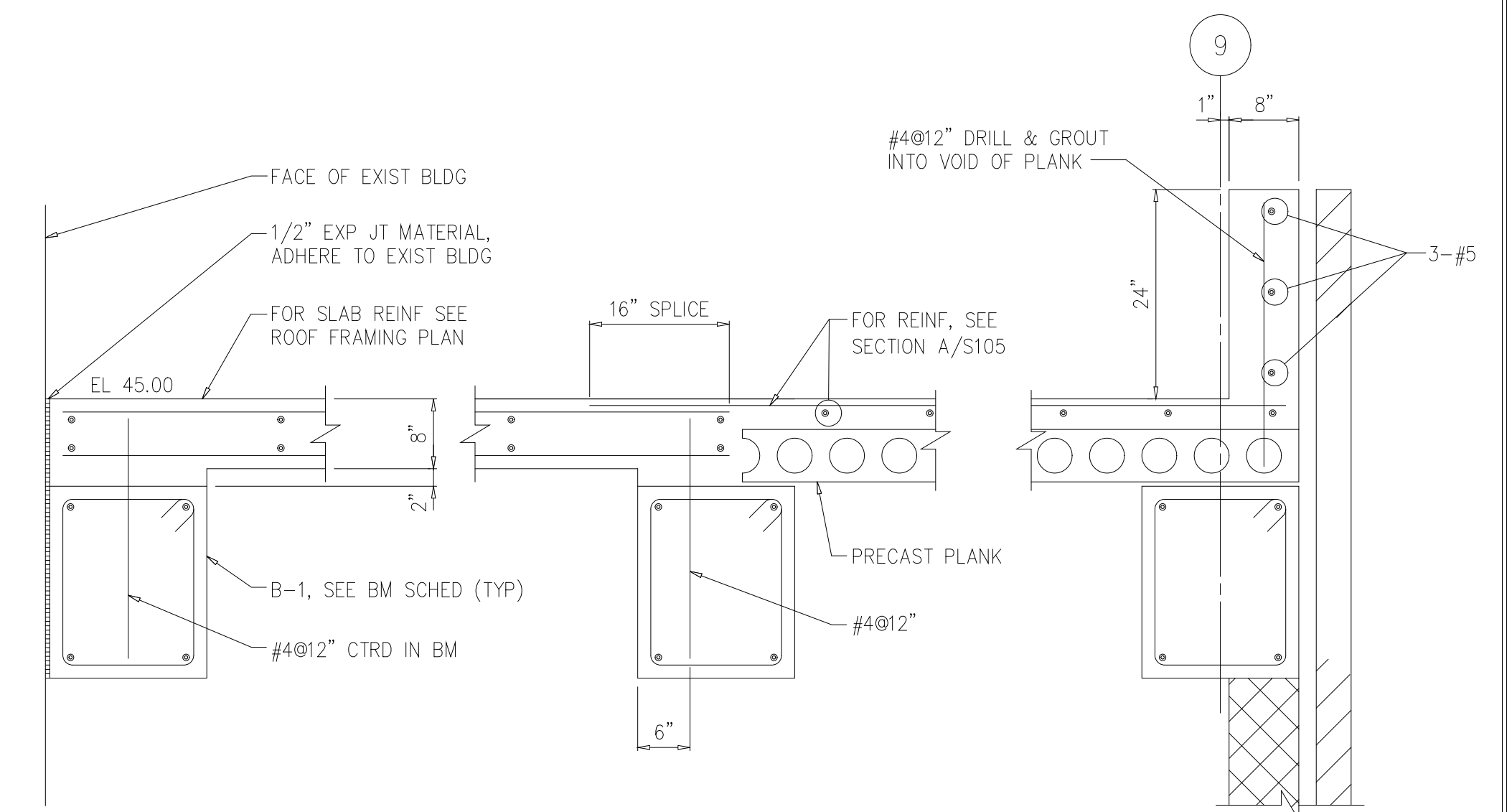
SECTION B
3/4"=1'-0" S103



SECTION C
3/4"=1'-0" S103



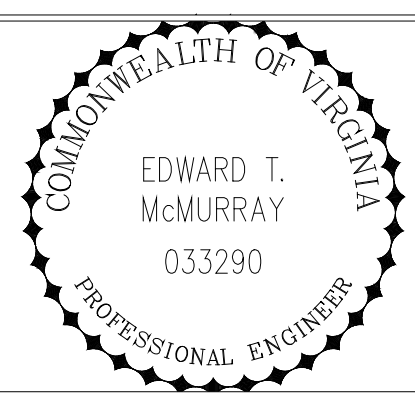
SECTION E
3/4"=1'-0" S103



SECTION D
3/4"=1'-0" S103

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DESIGNED	ETM
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

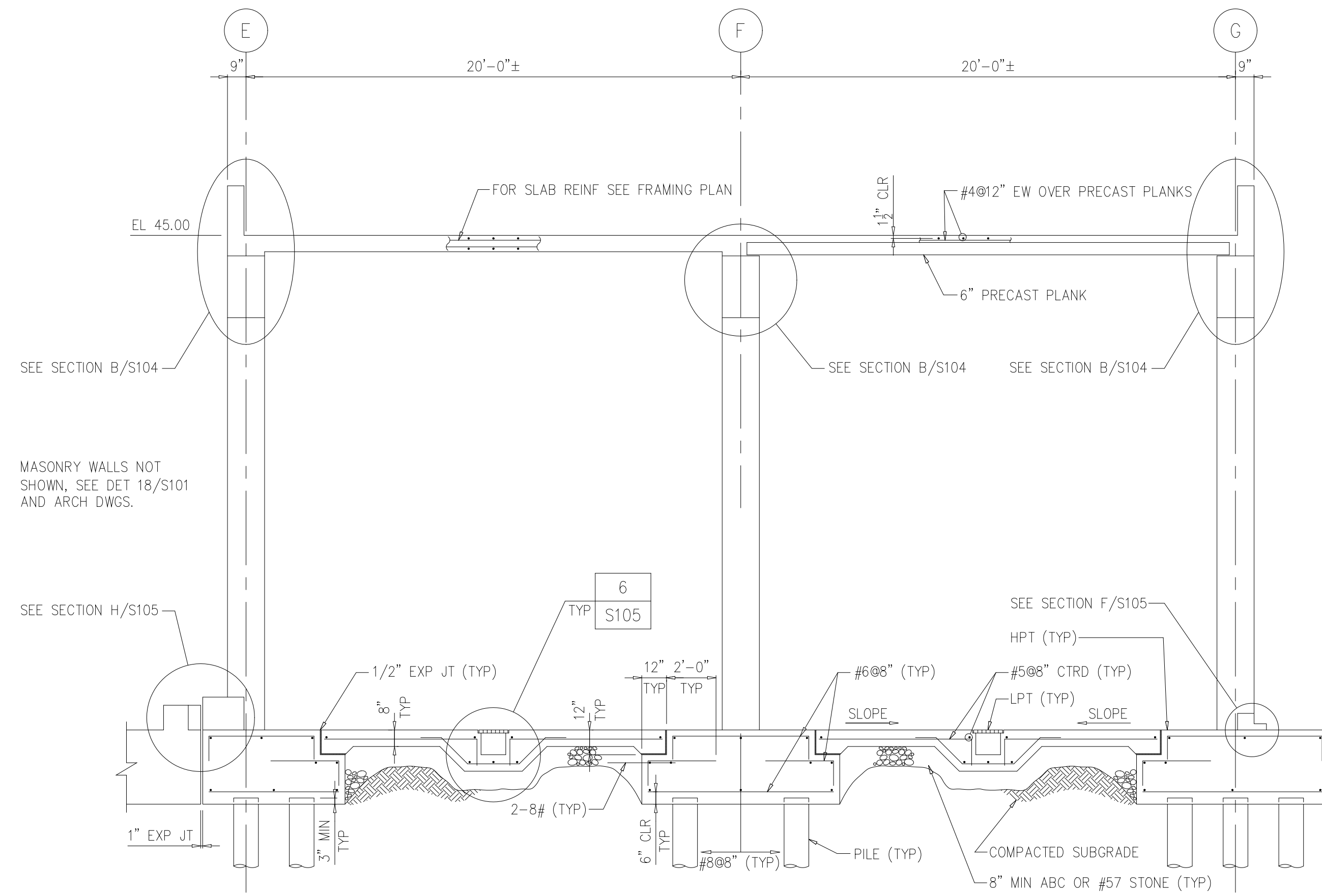
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA

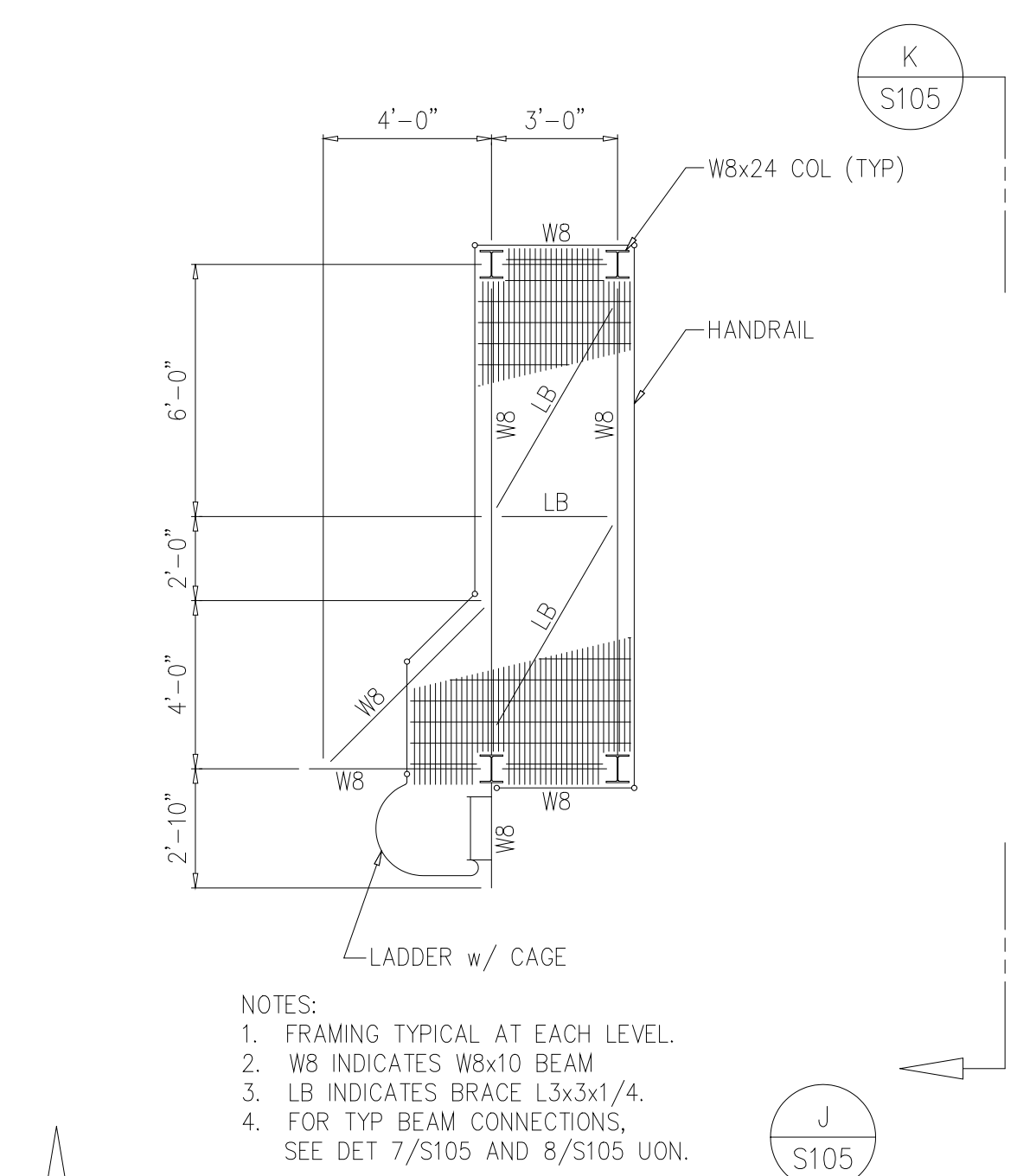
STRUCTURAL
ROOF PLAN AND SECTIONS

RECORD DRAWING

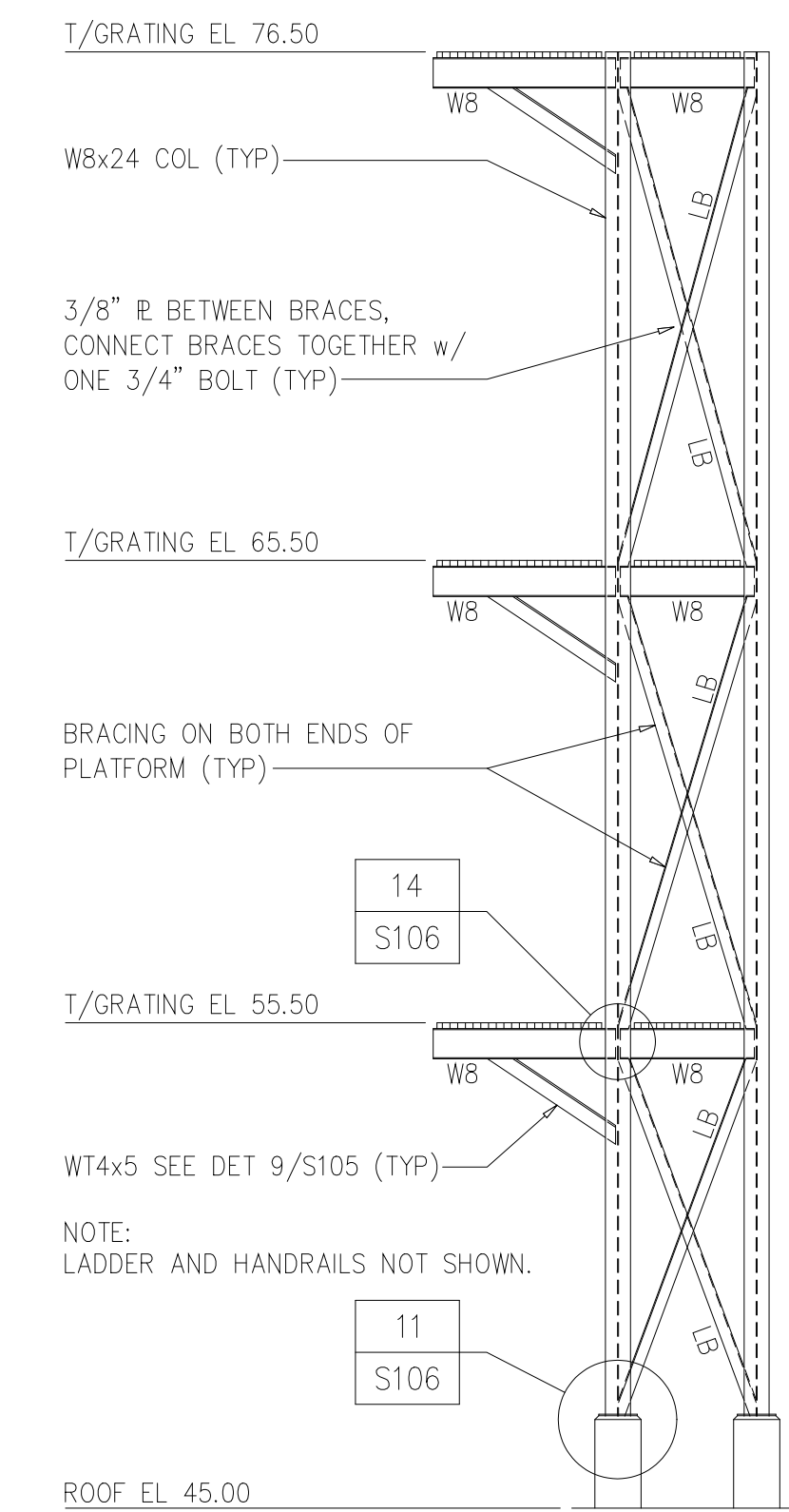
DATE	SEPT 2000
H & S JOB NUMBER	30313
CONTRACT NUMBER	2000-01-WPC
DRAWING NUMBER	S104
SHEET	26 OF 99



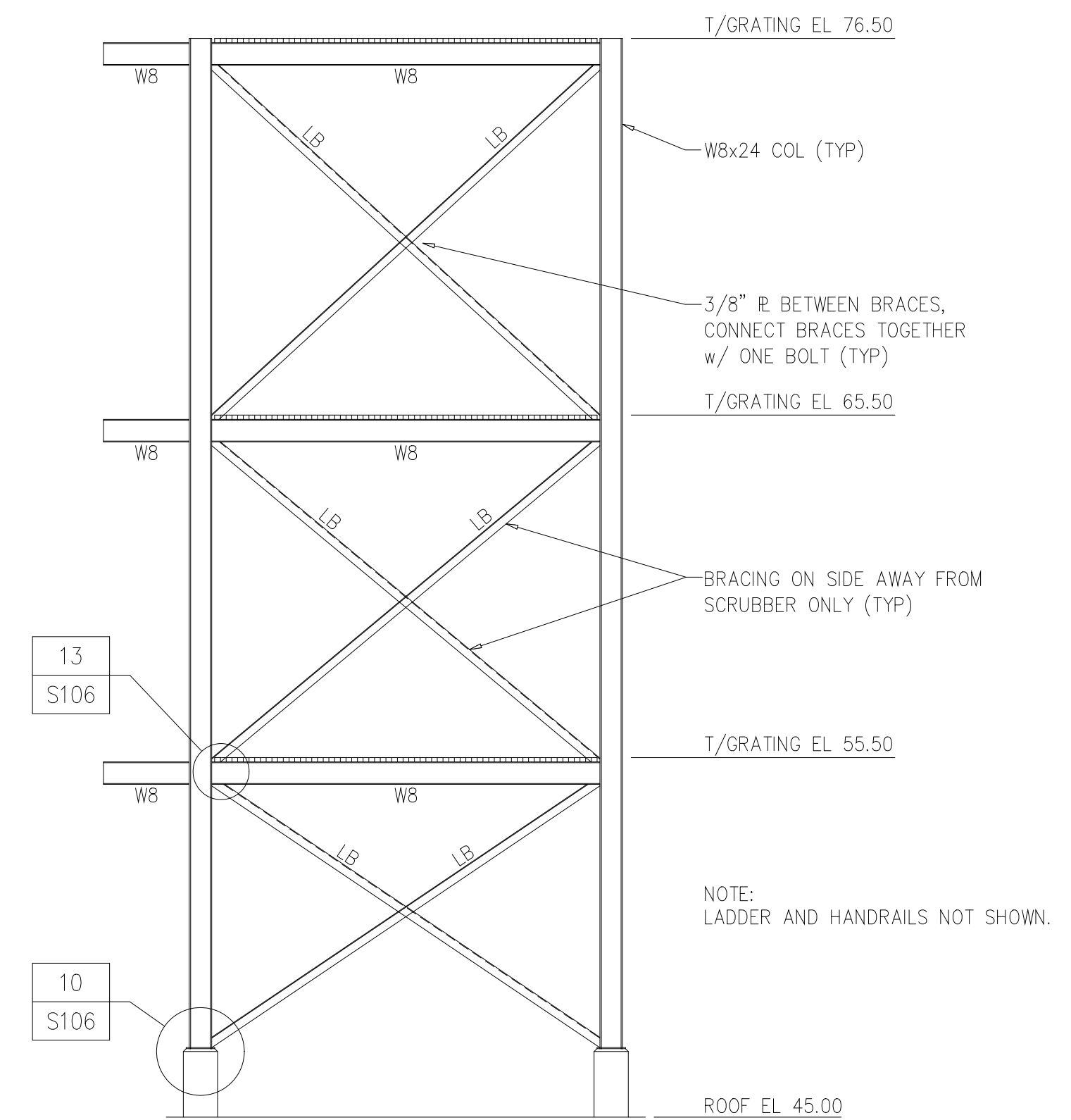
SECTION A
1/4"=1'-0" S101



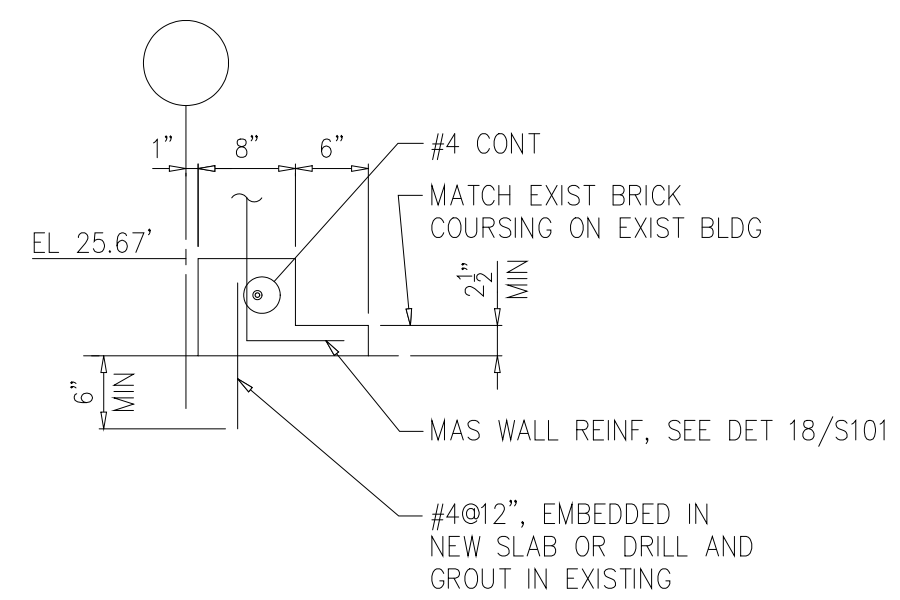
SECTION J
1/4"=1'-0" S105



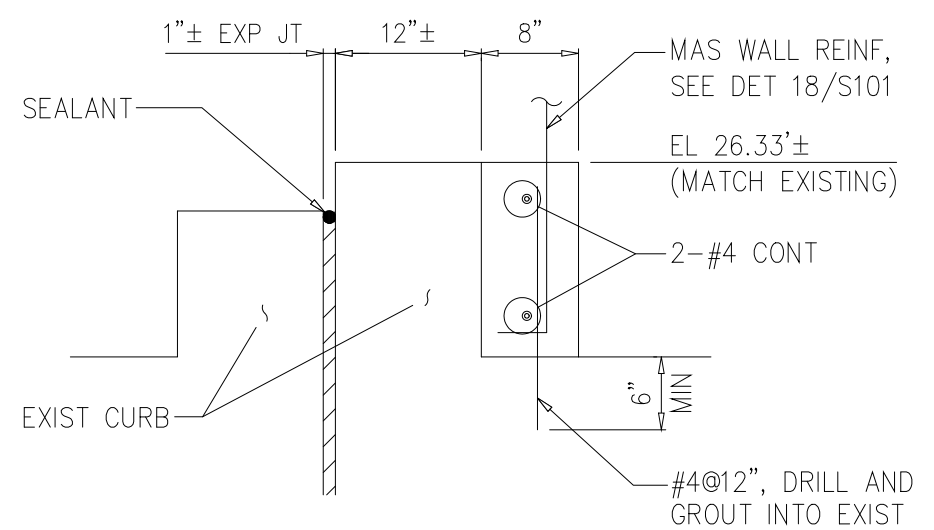
SECTION K
1/4"=1'-0" S105



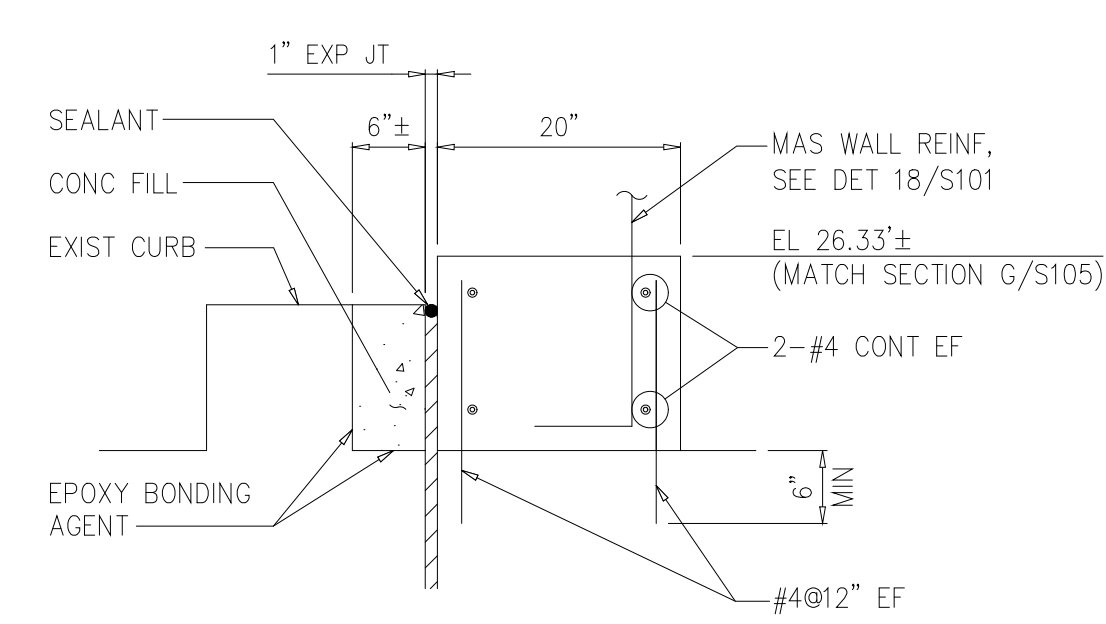
SECTION L
1/4"=1'-0" S105



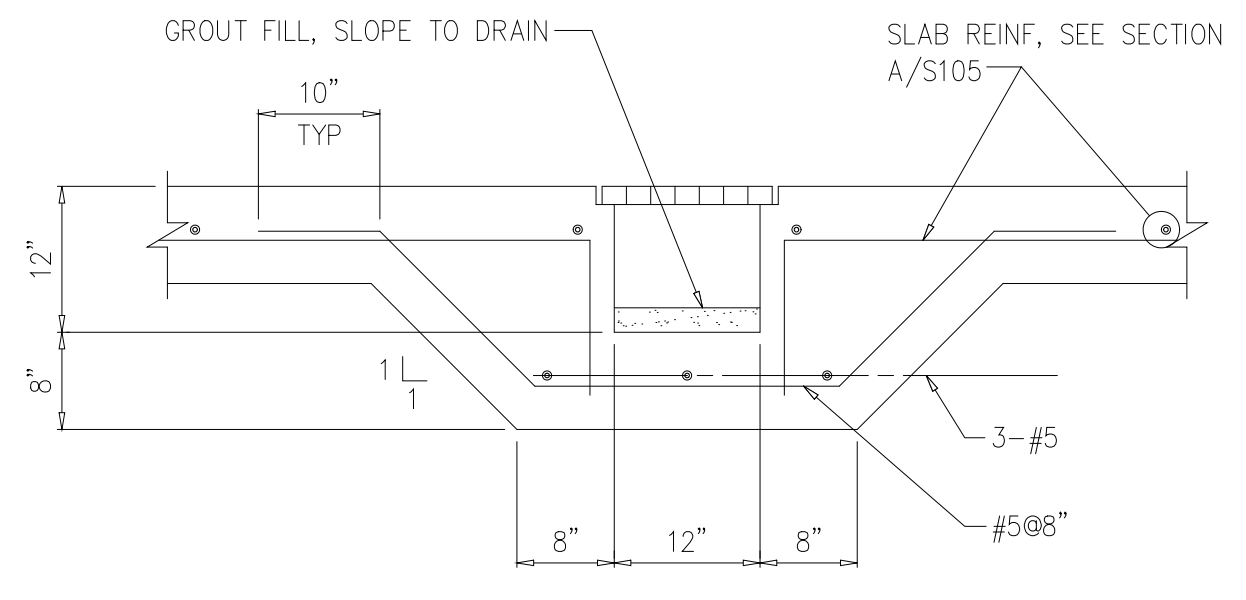
SECTION F
3/4"=1'-0" S102



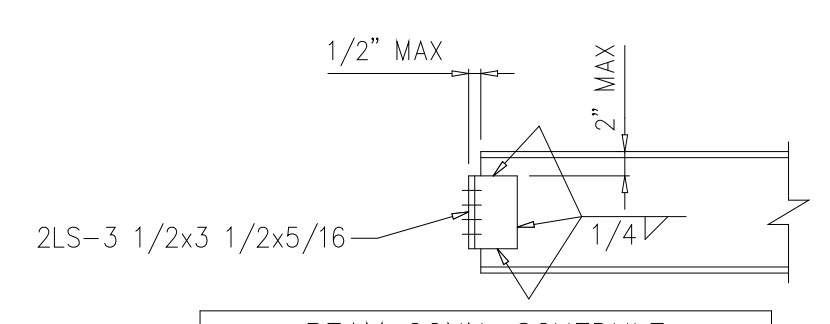
SECTION G
3/4"=1'-0" S102



SECTION H
3/4"=1'-0" S102



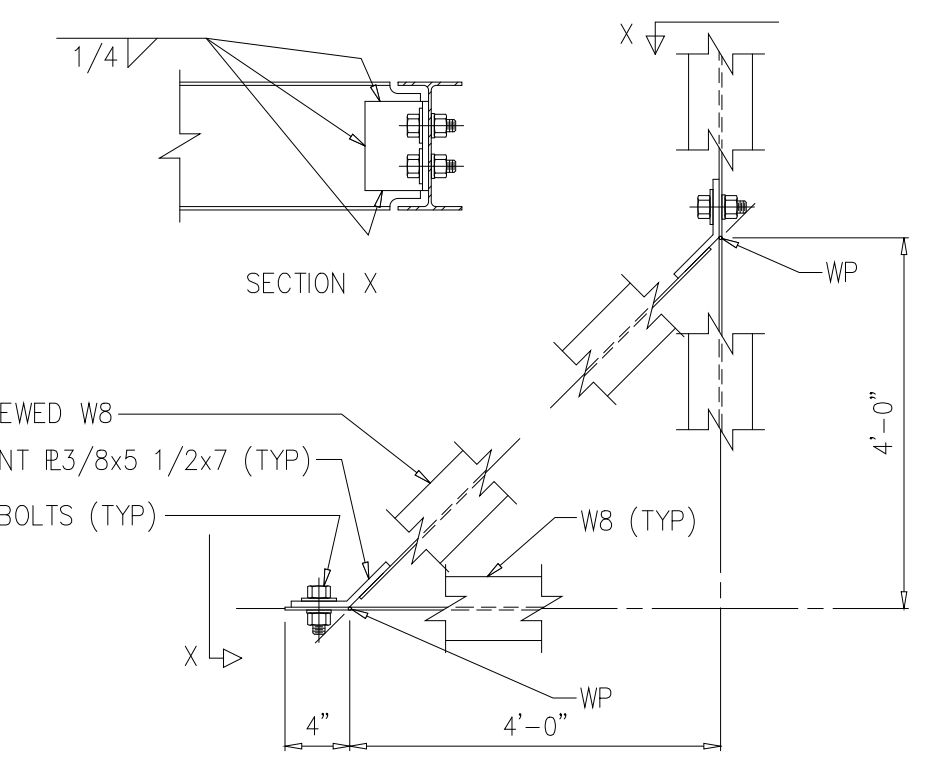
TYP TRENCH
DETAIL 6
3/4"=1'-0" S105



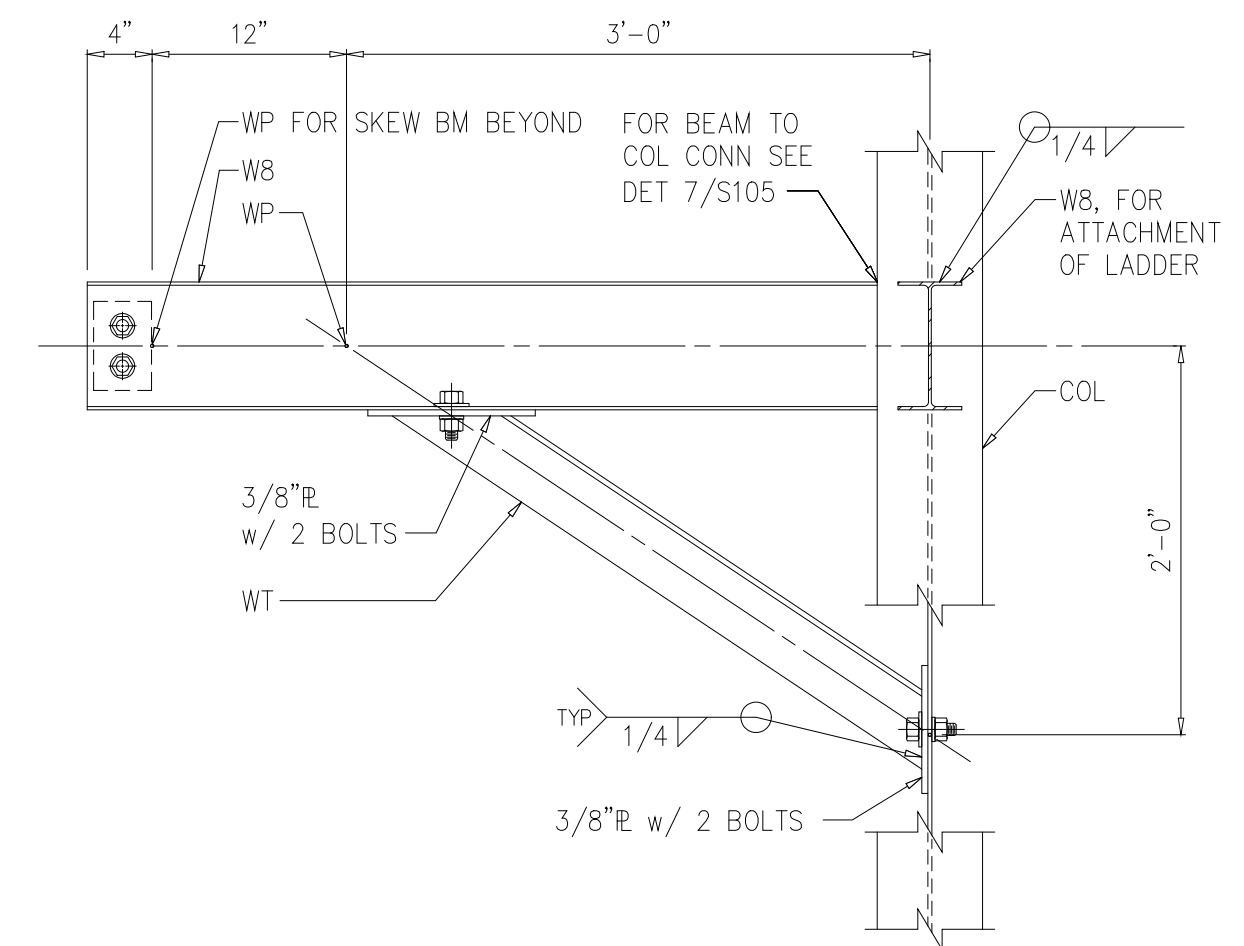
BM DEPTH	L LENGTH	NO. BOLTS
8", 10"	0'-5 1/2"	4
12", 14"	0'-8 1/2"	6
16", 18"	0'-11 1/2"	8
21", 24"	1'-2 1/2"	10

NOTE: USE 2LS-3x3 1/2x5/16 (SLO) WHERE BM FRAMES INTO W8 COL WEB.

TYP BEAM CONNECTIONS
DETAIL 7
NTS S105



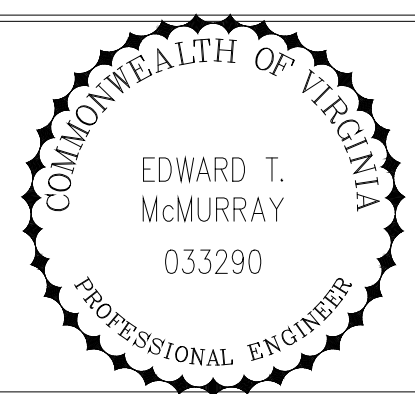
TYP SKEWED BM CONNECTION
DETAIL 8
1"=1'-0" S105



TYP WT KNEE-BRACE CONNECTION
DETAIL 9
1"=1'-0" S105

Structural Consultant:
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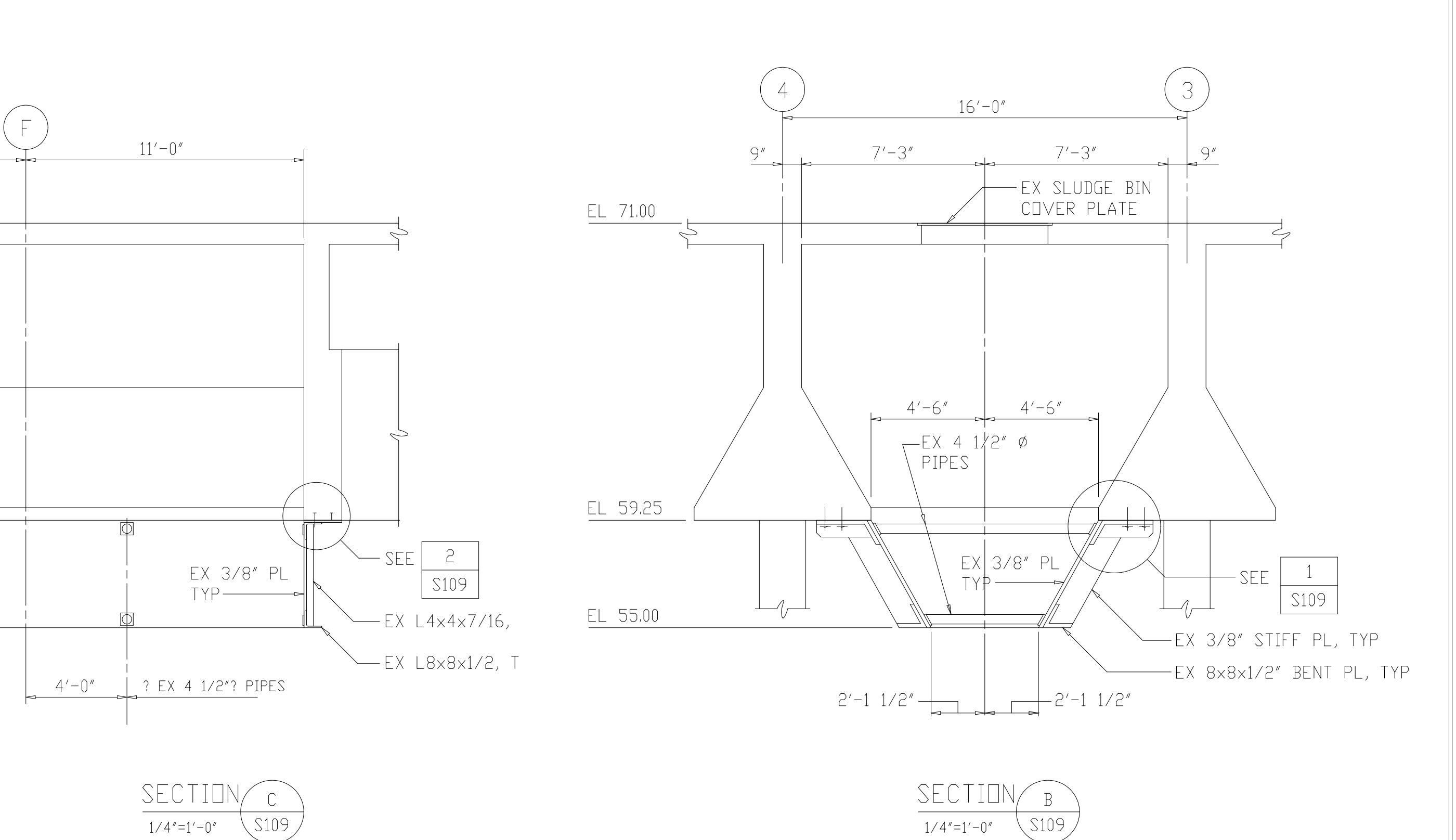
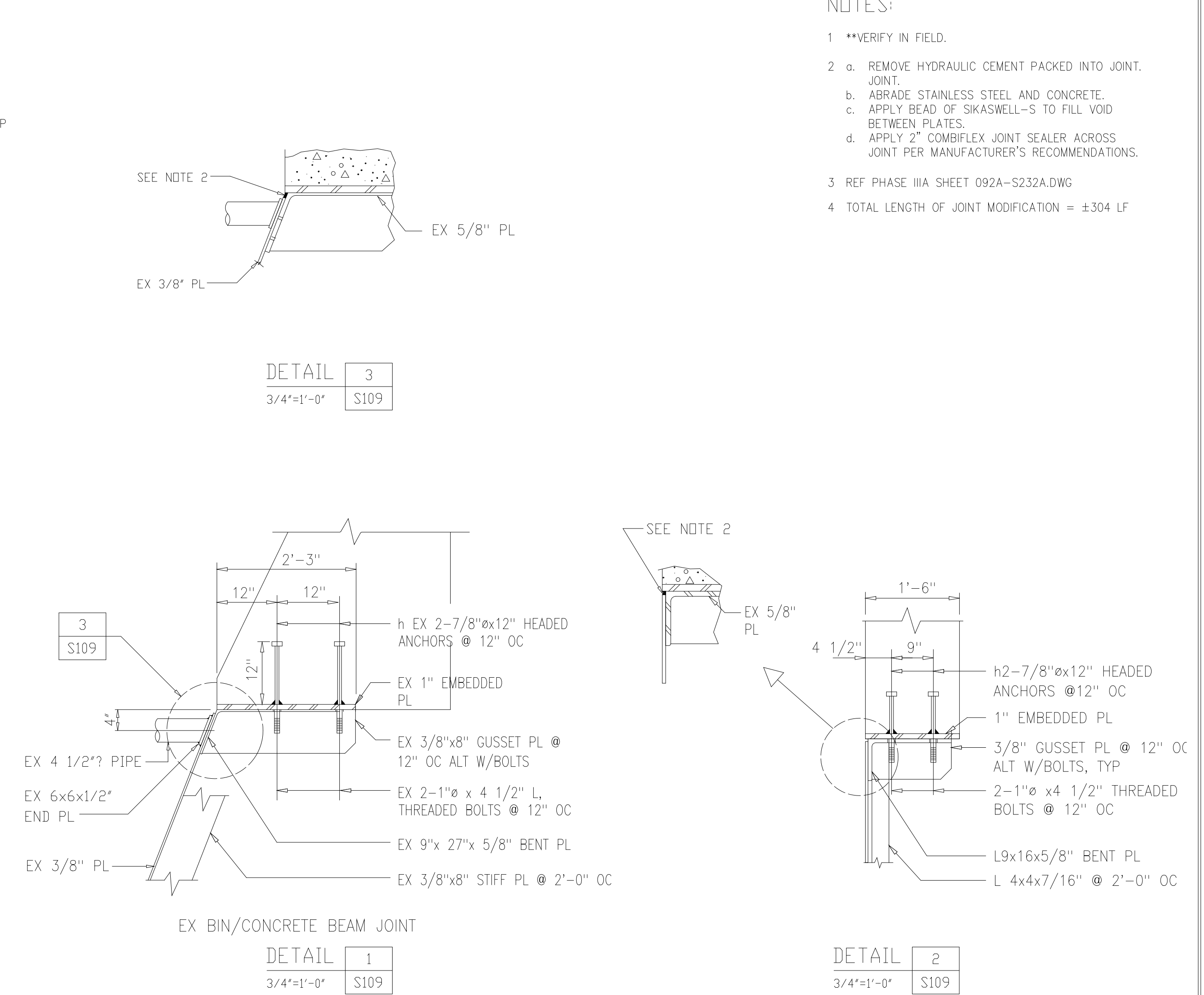
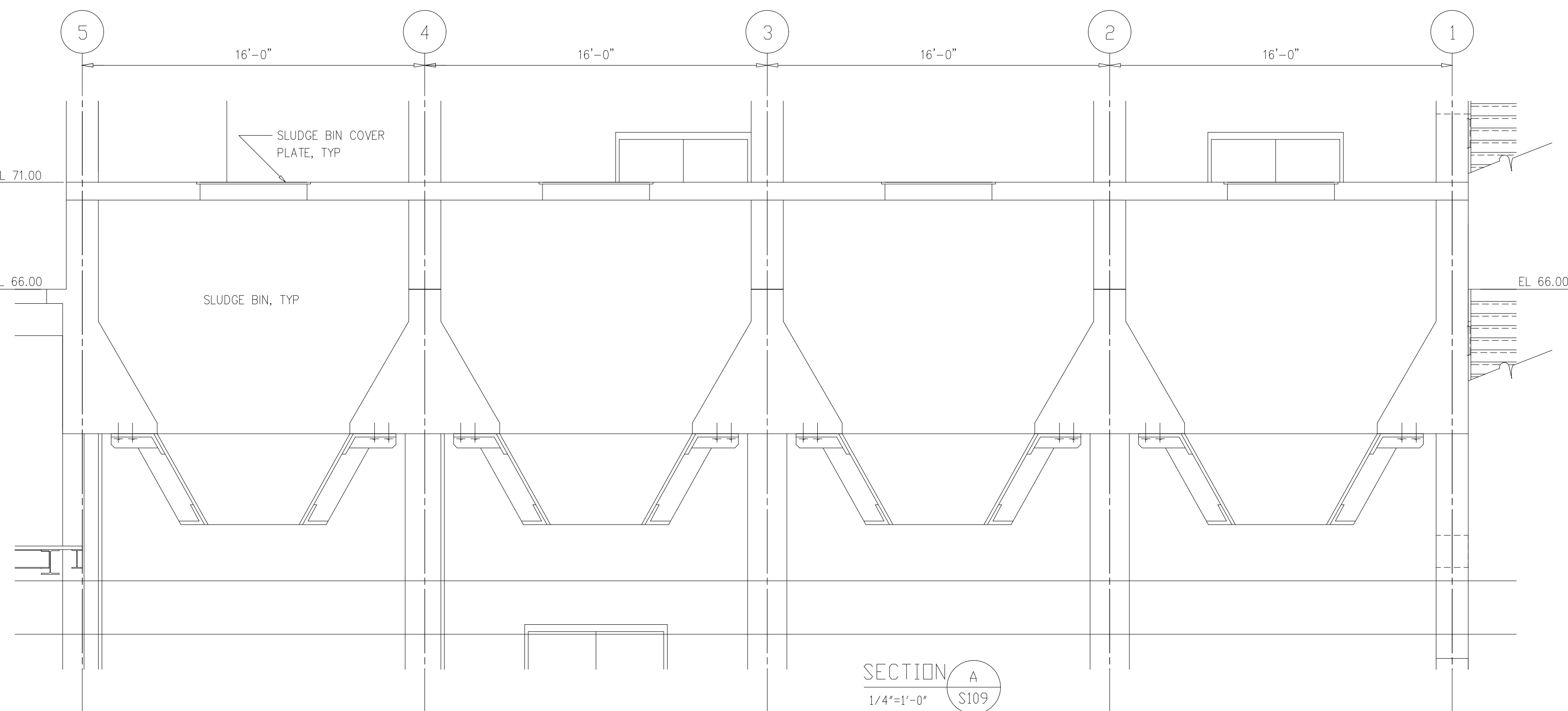
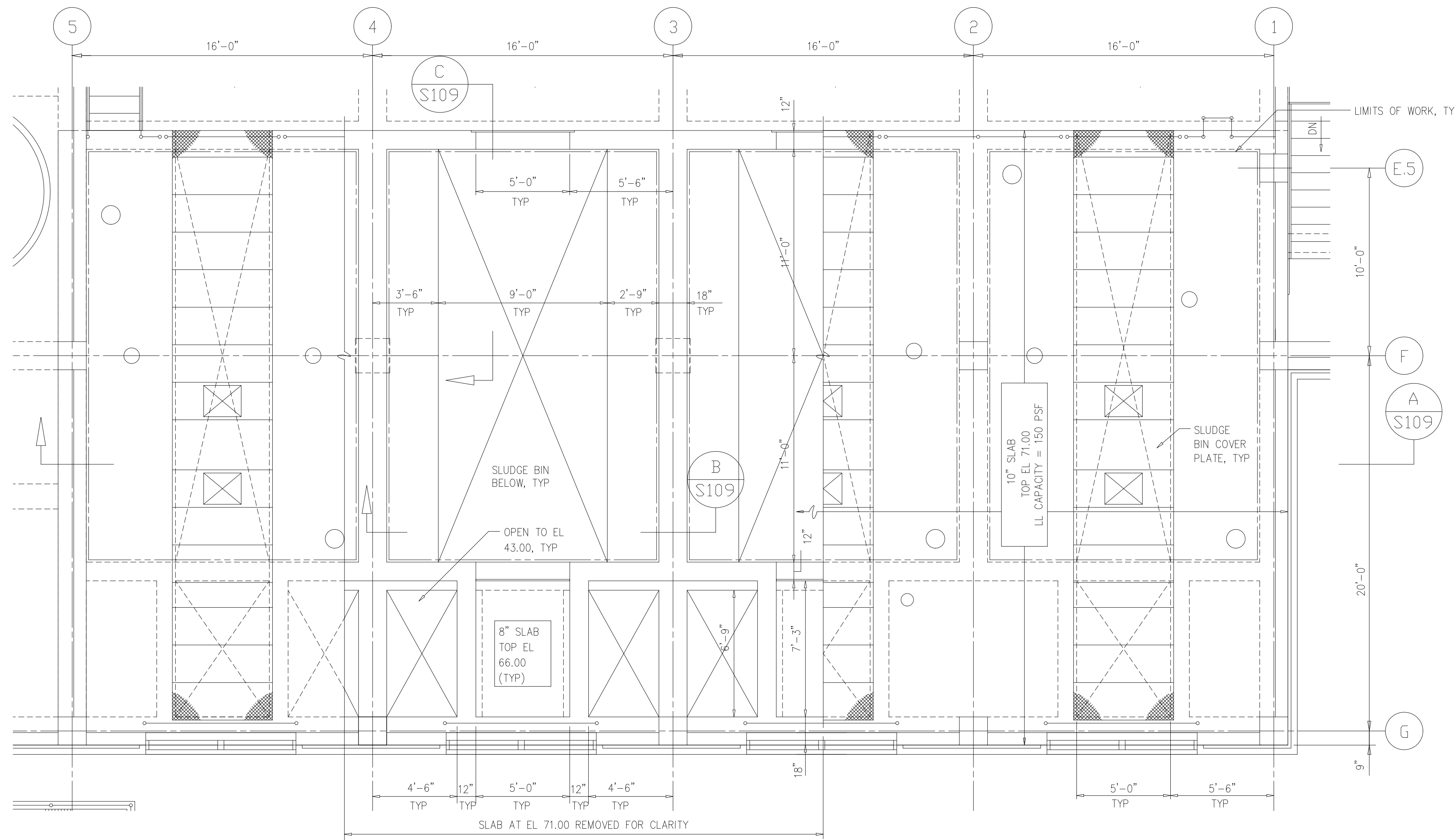
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
STRUCTURAL
SECTIONS AND DETAILS

RECORD DRAWING
DATE: SEPT 2000
H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-WPC
DRAWING NUMBER: S105
SHEET 27 OF 99



- NOTES:
- **VERIFY IN FIELD.
 - a. REMOVE HYDRAULIC CEMENT PACKED INTO JOINT. JOINT.
 - b. ABRASE STAINLESS STEEL AND CONCRETE.
 - c. APPLY BEAD OF SIKASWELL-S TO FILL VOID BETWEEN PLATES.
 - d. APPLY 2" COMBIFLEX JOINT SEALER ACROSS JOINT PER MANUFACTURER'S RECOMMENDATIONS.
- REF PHASE IIIA SHEET 092A-S232A.DWG
 - TOTAL LENGTH OF JOINT MODIFICATION = ±304 LF

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
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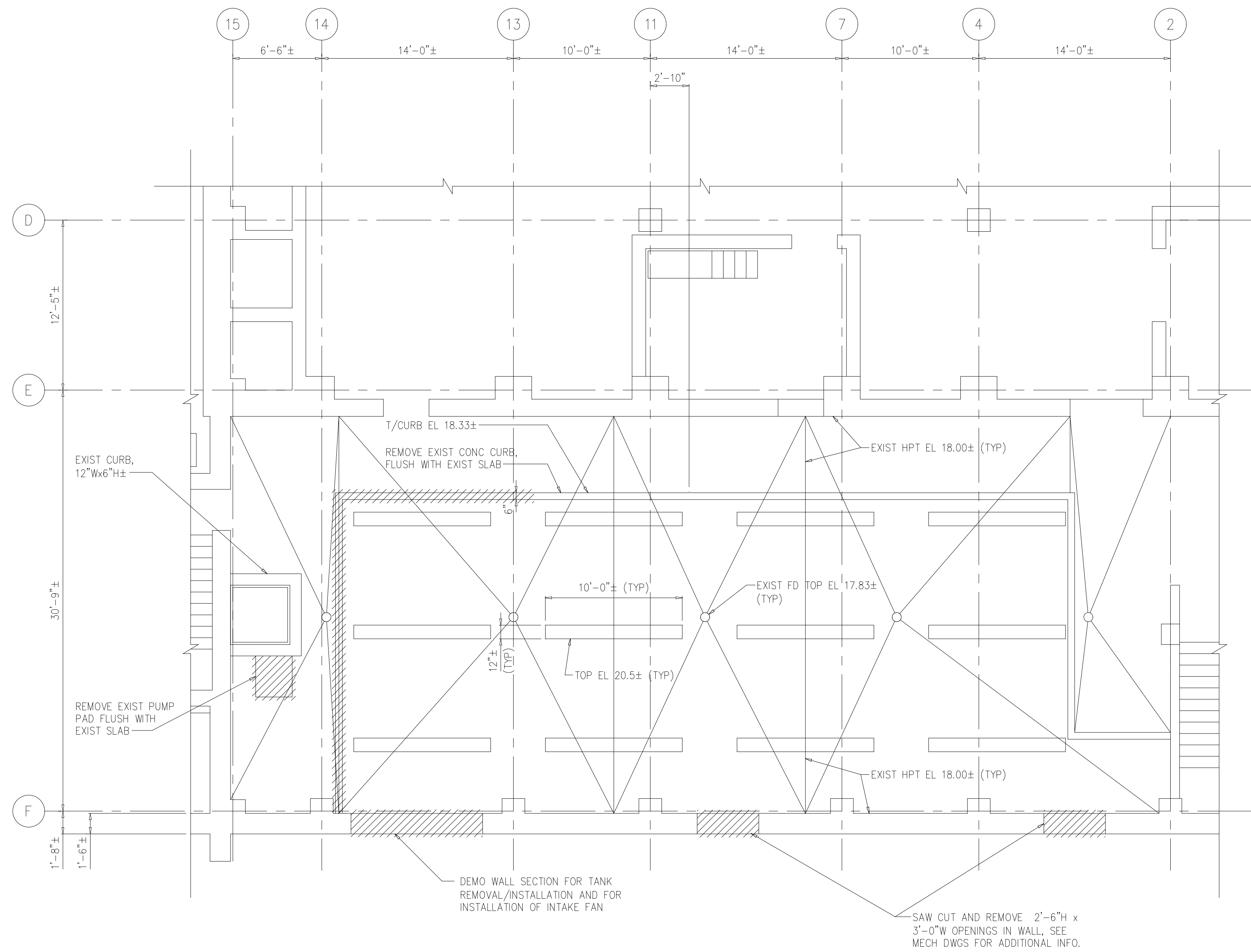
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

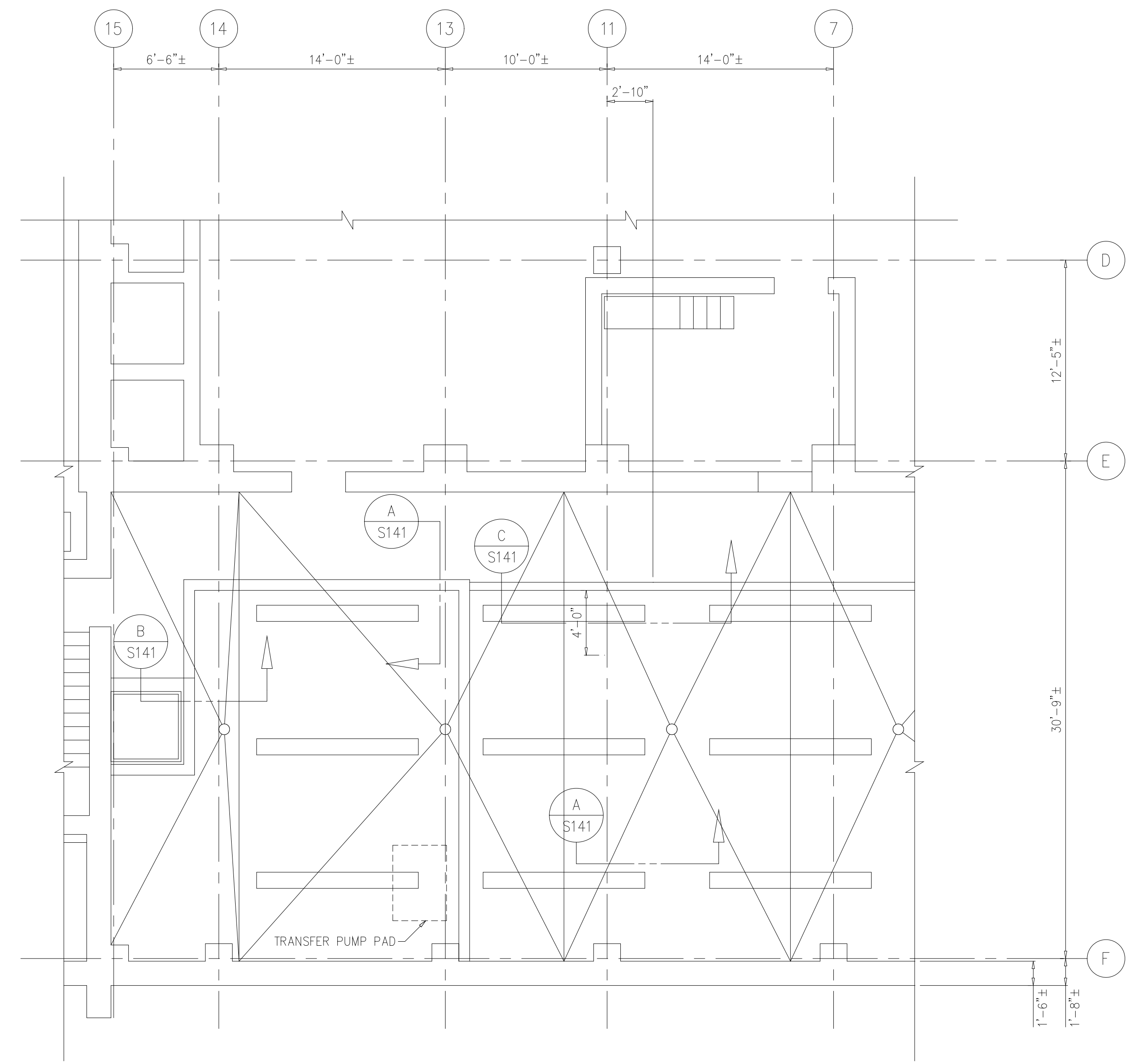
CENTRIFUGE DEWATERING BUILDING
SLUDGE BIN
STRUCTURAL
FLANGE LEAK REPAIR

RECORD DRAWING

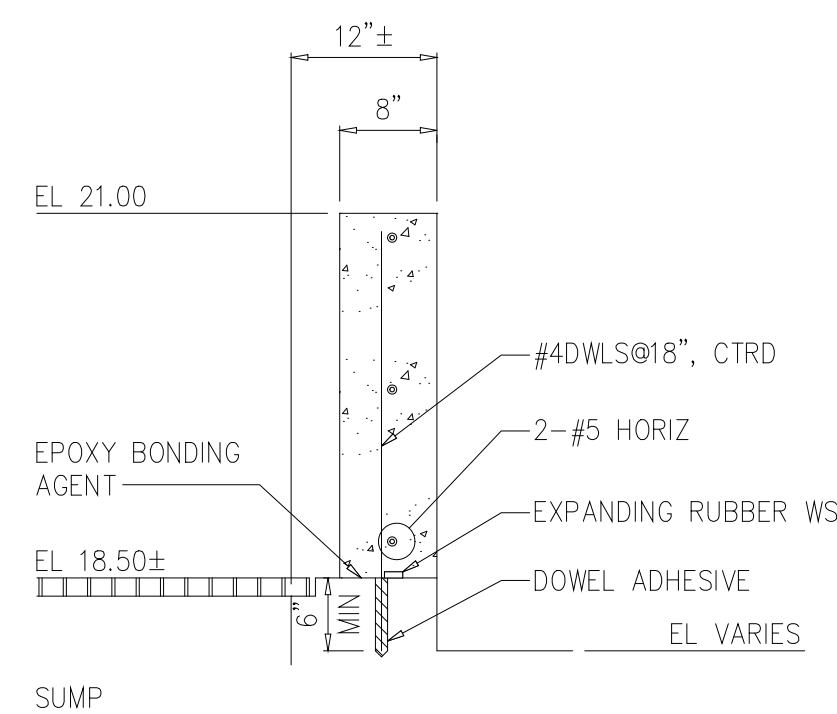
DATE: SEPT 2000	H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC	DRAWING NUMBER: S109
SHEET 29 OF 99	



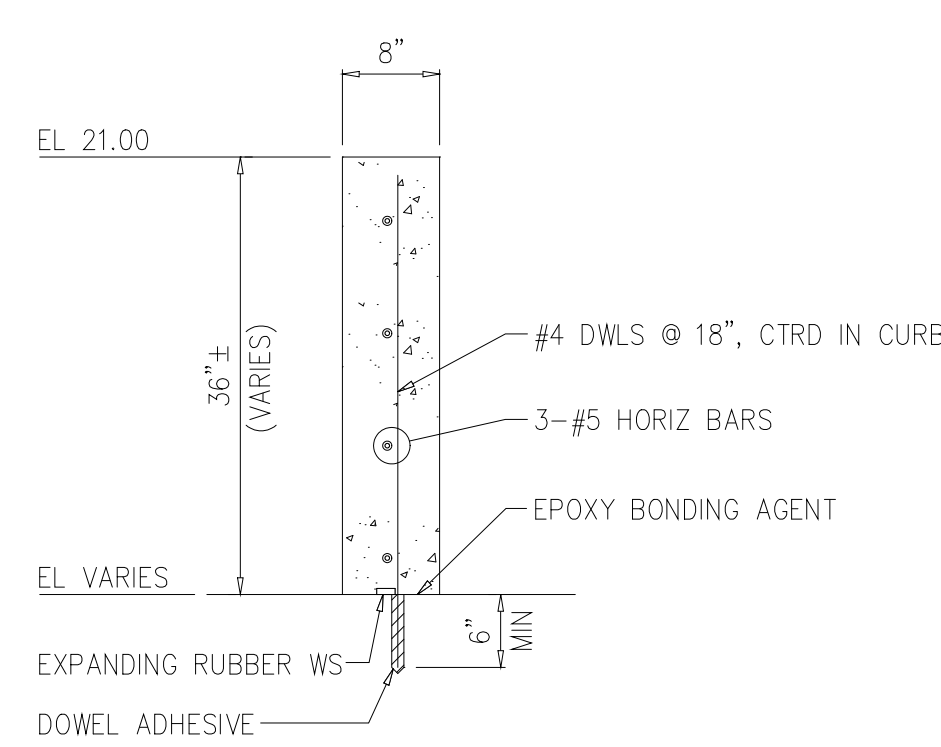
DEMOLITION PARTIAL PLAN AT EL 18.00
3/16"=1'-0"



PARTIAL PLAN AT EL 18.00
3/16"=1'-0"



TYPICAL CURB SECTION B
3/4"=1'-0" S141

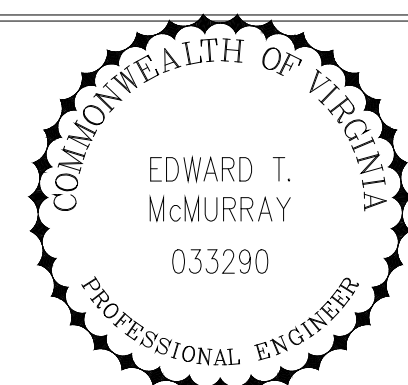


TYPICAL CURB SECTION A
3/4"=1'-0" S141

Structural Consultant:
DIXON ASSOCIATES
CONSULTING ENGINEERS, INC.
260 West Millbrook Road
Raleigh, NC 27609
(919) 870-7005, 870-0575 fax

M0032

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

SLUDGE PROCESSING BUILDING
NaOCI STORAGE FACILITIES
STRUCTURAL
PLANS AND DETAILS

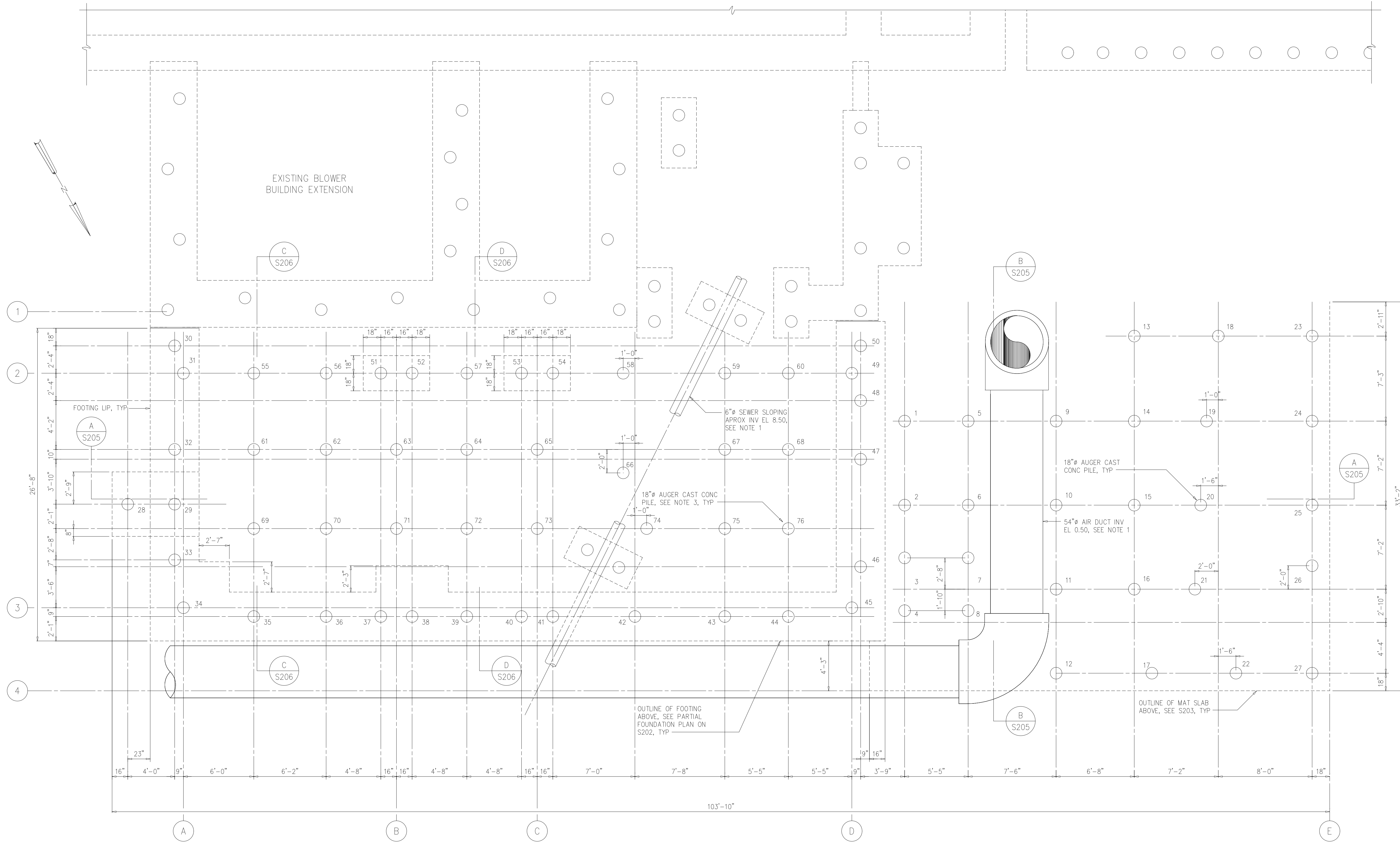
RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S141
	SHEET 30 OF 99

NOTES:

- CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING 54"Ø AIR DUCT AND 6"Ø SEWER PIPE PRIOR TO BEGINNING INSTALLATION OF AUGER CAST PILES. PILE LOCATIONS SHALL BE ADJUSTED AS NECESSARY TO INSURE THAT A MINIMUM OF 12" CLEARANCE IS PROVIDED BETWEEN EXISTING PIPING OR AIR DUCT AND NEW PILES. IF PIPING OR DUCT LOCATION REQUIRES RELOCATING PILES MORE THAN 18" FROM THE LOCATION SHOWN ON PLAN, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO BEGINNING PILE INSTALLATION.
- ALL PILES SHALL BE TWELVE (12) INCH DIAMETER AUGER CAST PRESSURE-INJECTED GROUT PILES. PILES SHALL BE INSTALLED AS REQUIRED TO DEVELOP A MINIMUM VERTICAL DOWNWARD WORKING LOAD OF 25 TONS (50 TONS ULTIMATE CAPACITY). PILES SHALL BE EMBEDDED A MINIMUM OF THIRTY (30) FEET. CONFIRMATION OF PILE LOAD CAPACITY SHALL BE BY TEST PILES IN ACCORDANCE WITH SPECIFICATIONS.
- SEE PARTIAL PILE PLAN ON S203 FOR PILES NOT LOCATED ON THIS SHEET. TOP OF PILE ELEVATION SHALL BE AS FOLLOWS:

PILES	TOP OF PILE EL.
1 TO 27	11.17
28 29	7.33
30 TO 54	9.67
55 TO 76	12.63
- PILES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION SECTION 02363. A MINIMUM OF TWO PILES SHALL BE LOAD TESTED IN ACCORDANCE WITH SPECIFICATIONS. TEST PILES SHALL BE CHOSEN BY PROGRAM MANAGER.
- CAUTION !!! VERIFY LOCATION OF HIGH VOLTAGE VEPCO FEEDERS AND BRANCHES PRIOR TO ANY WORK.



PILE PLAN
1/4"=1'-0"

RECORD DRAWING

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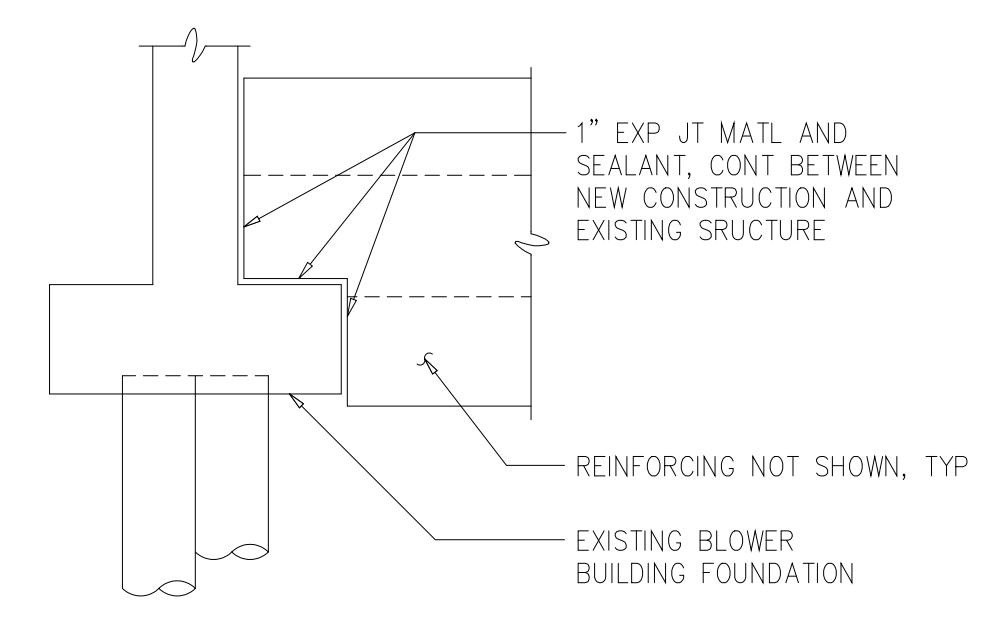
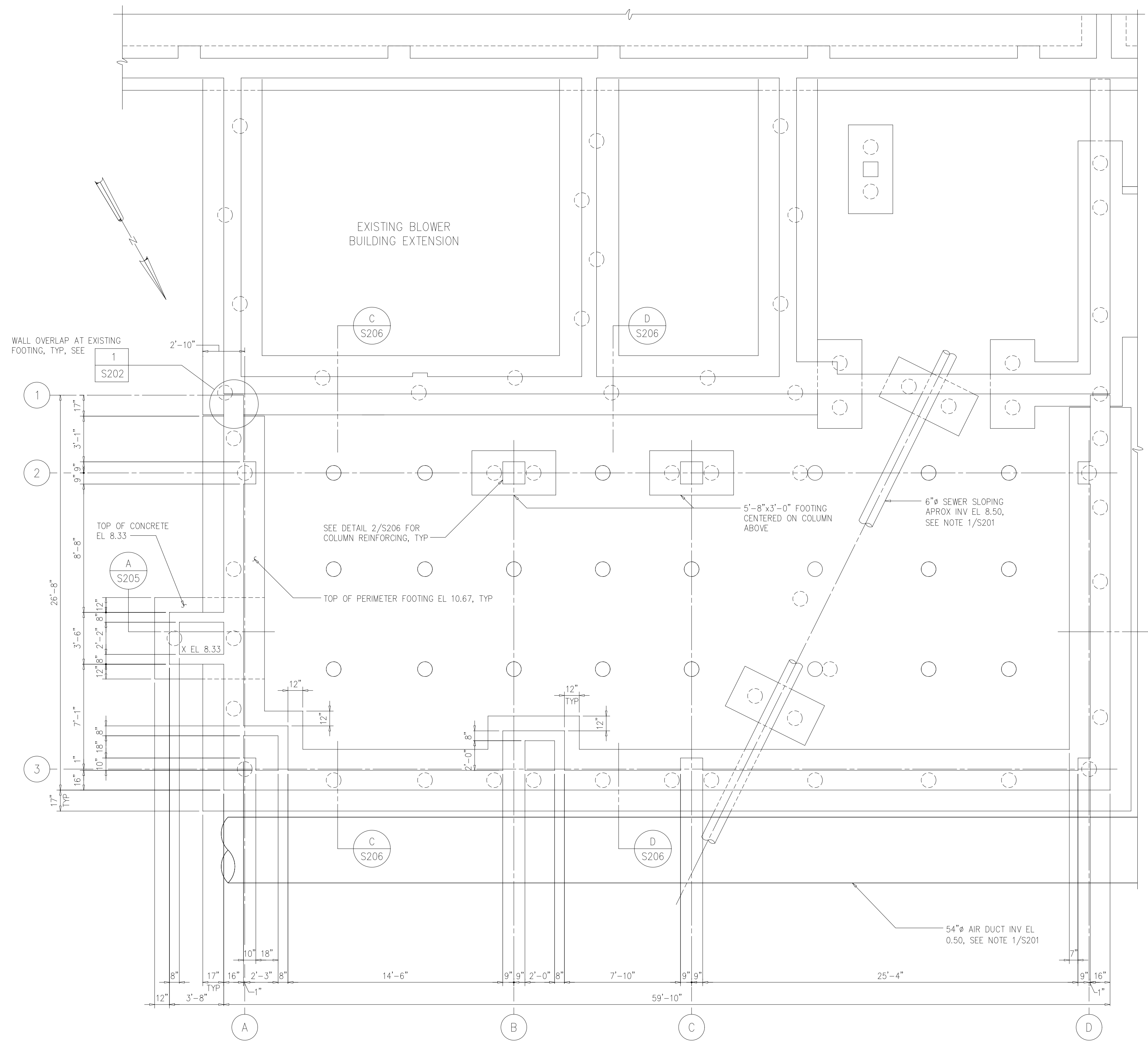
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
PILE PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S201
	SHEET 31 OF 99



WALL AT EXISTING FOOTING
 DETAIL 1
 3/8"=1'-0" S202

PARTIAL FOUNDATION PLAN
 1/4"=1'-0"

RECORD DRAWING

DESIGNED	WLS/ADO
DRAWN	WLS/ADO
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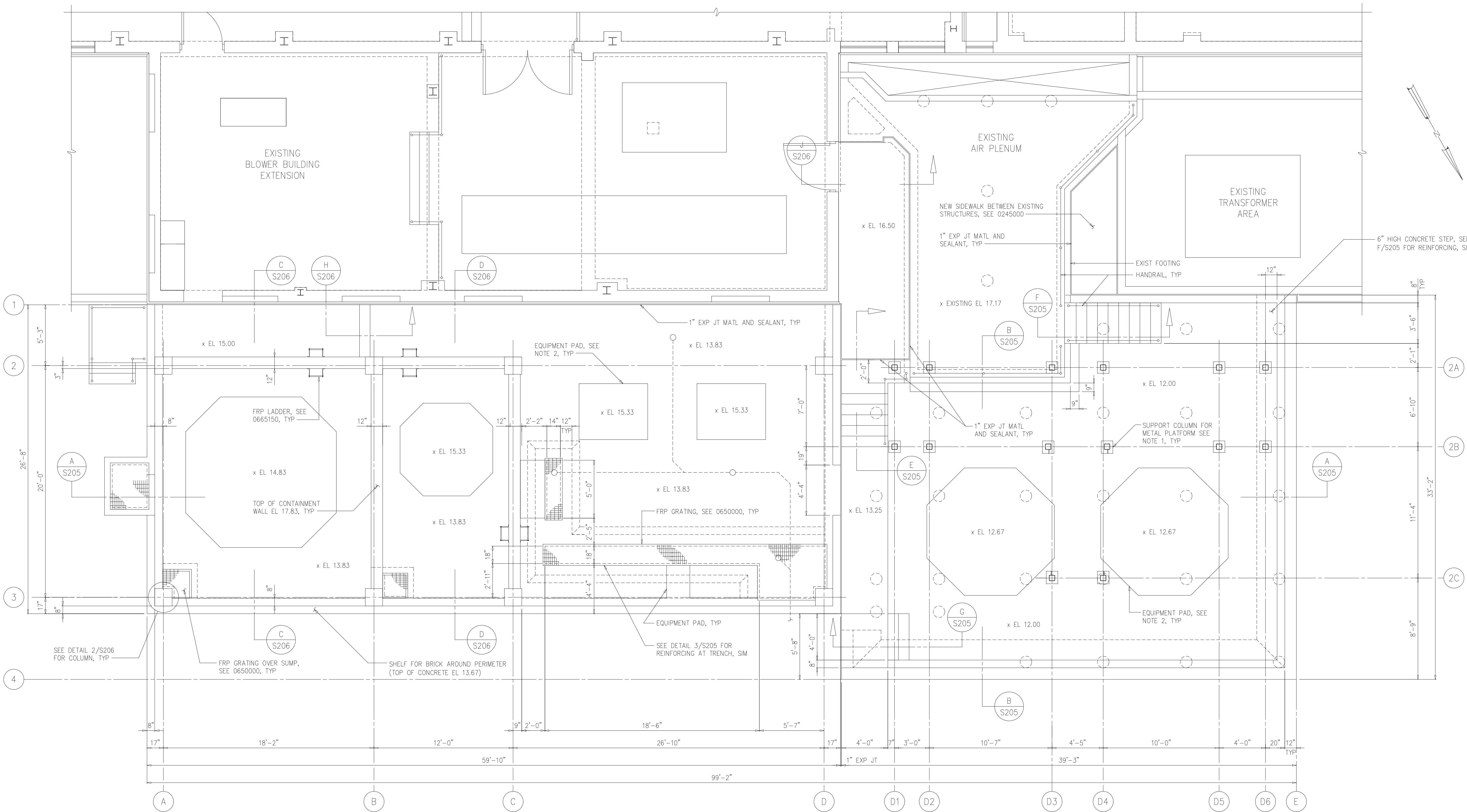
ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
 ODOR CONTROL AREA
 STRUCTURAL
 PARTIAL FOUNDATION PLAN AND DETAIL

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S202
	SHEET 32 OF 99

NOTES:

- 1 SEE S507 FOR METAL PLATFORM AT ODOR SCRUBBERS.
- 2 SEE MECHANICAL DRAWINGS FOR LOCATION AND SIZE OF ALL EQUIPMENT PADS. FOR PAD REINFORCEMENT, SEE DETAIL 0331600.



TOP PLAN
1/4"=1'-0"

RECORD DRAWING

DESIGNED	WLS/ADO
DRAWN	ADO
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

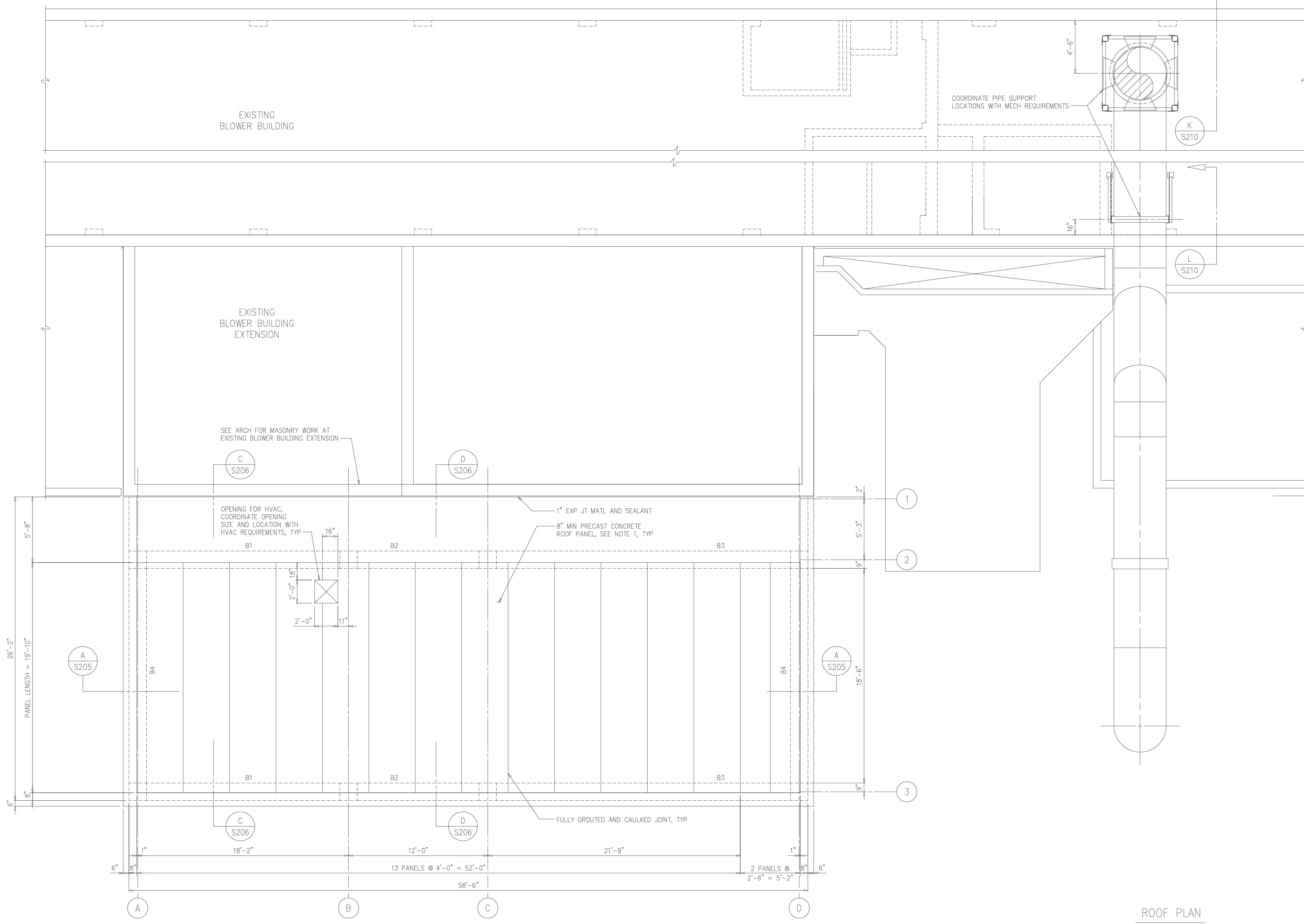
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
TOP PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S203
	SHEET 33 OF 99

NOTES:

- 1 8" PRECAST ROOF PANELS SHALL BE DESIGNED FOR A LIVE LOAD OF 40 PSF.
- 2 LOCATION OF SCRUBBER DUCT SUPPORTS ON EXISTING ROOF SHALL BE COORDINATED WITH MECHANICAL DRAWINGS AND WITH LAYOUT OF EXISTING PRESTRESSED CONCRETE ROOF PANELS. SUPPORT COLUMNS SHALL BE THROUGH BOLTED TO EXISTING ROOF PANELS AS SHOWN ON SECTION R/S510. SUPPORT POINTS SHALL BE LOCATED SO THAT ALL BOLT PENETRATIONS OCCUR IN VOIDS OF PRESTRESSED CONCRETE ROOF PANELS AS SHOWN IN SECTION R/S510.



ROOF PLAN
1/4"=1'-0"

RECORD DRAWING

DESIGNED	WLS/ADO
DRAWN	ADO
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	DATE
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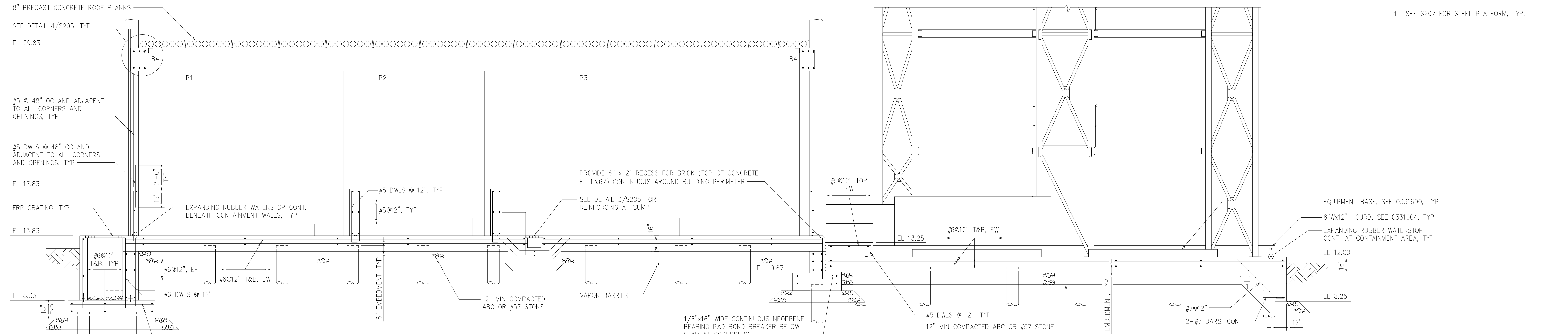
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

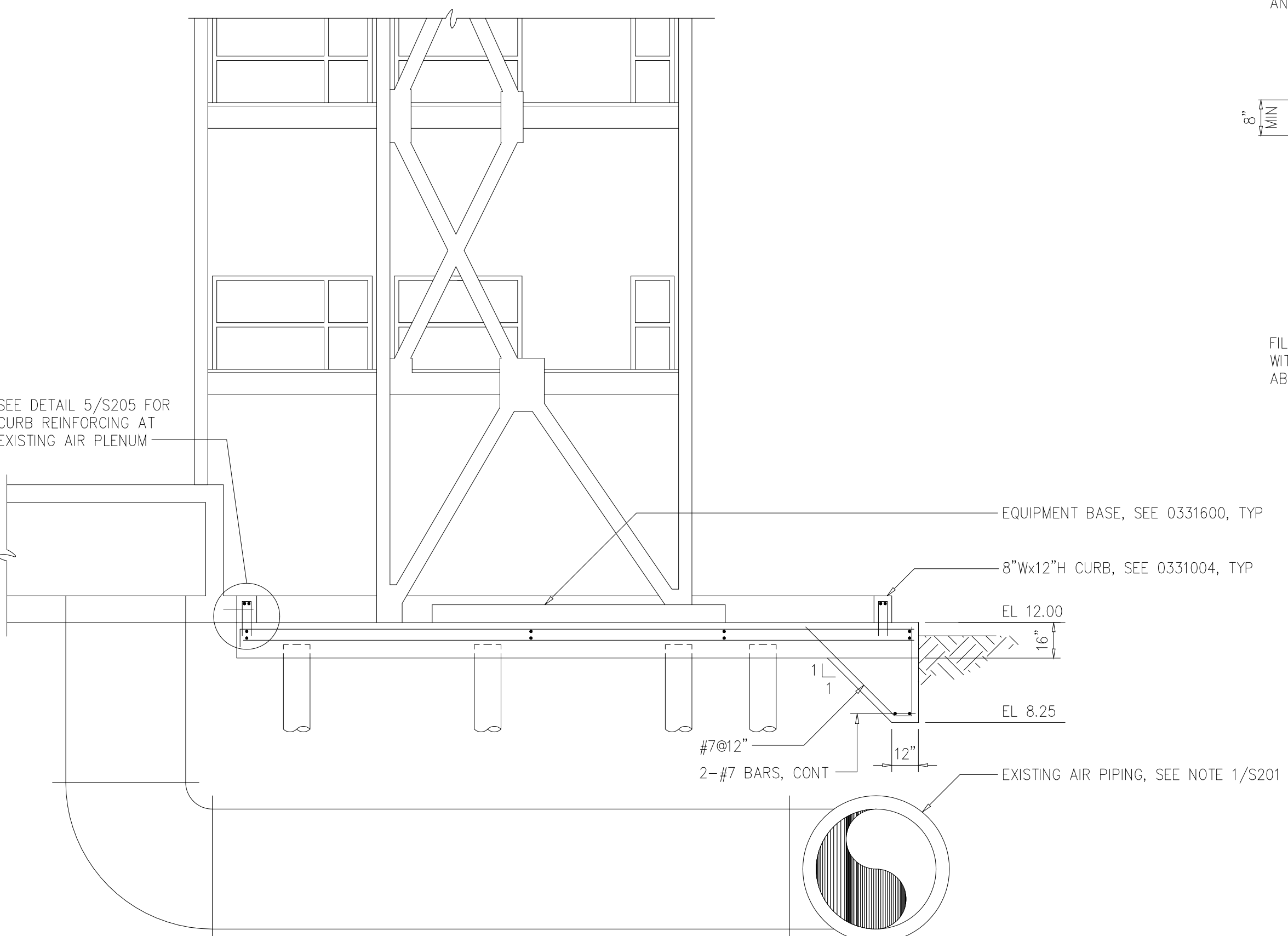
BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
ROOF PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
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	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S204
	SHEET 34 OF 99

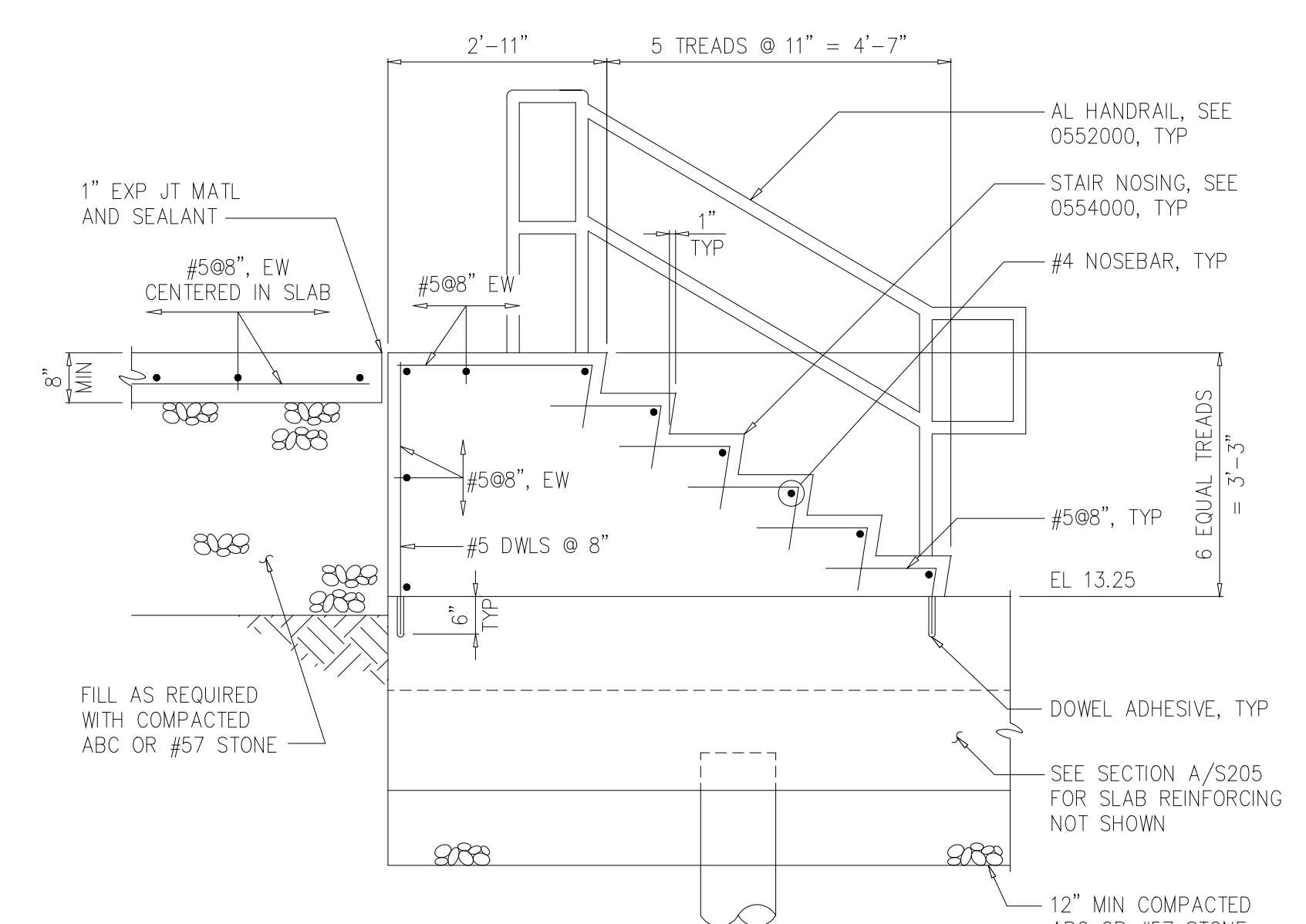
NOTES:
1 SEE S207 FOR STEEL PLATFORM, TYP.



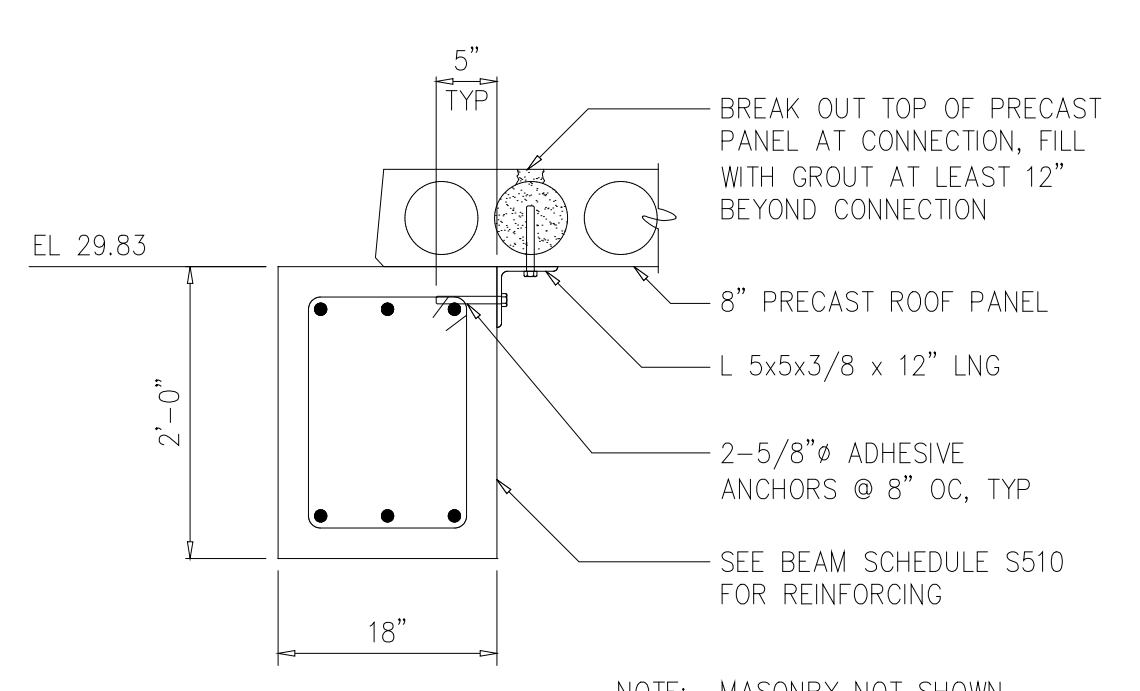
SECTION A
1/4"=1'-0" S201



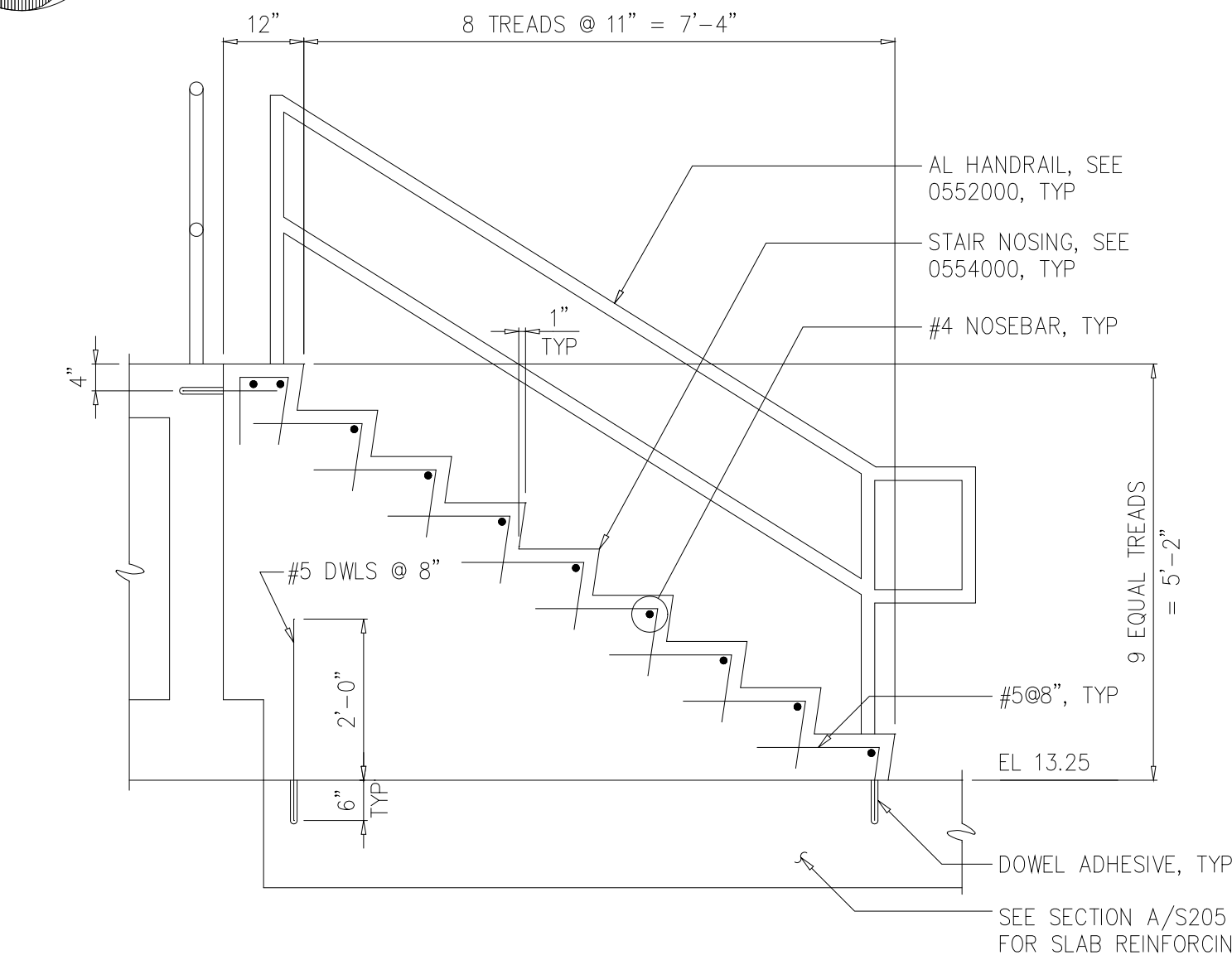
SECTION B
1/4"=1'-0" S201



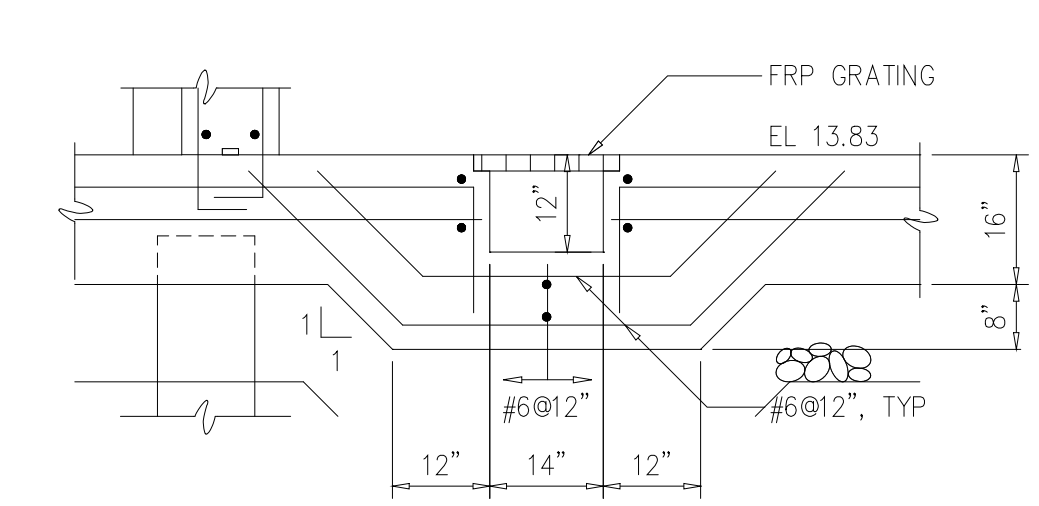
SECTION E
1/2"=1'-0" S203



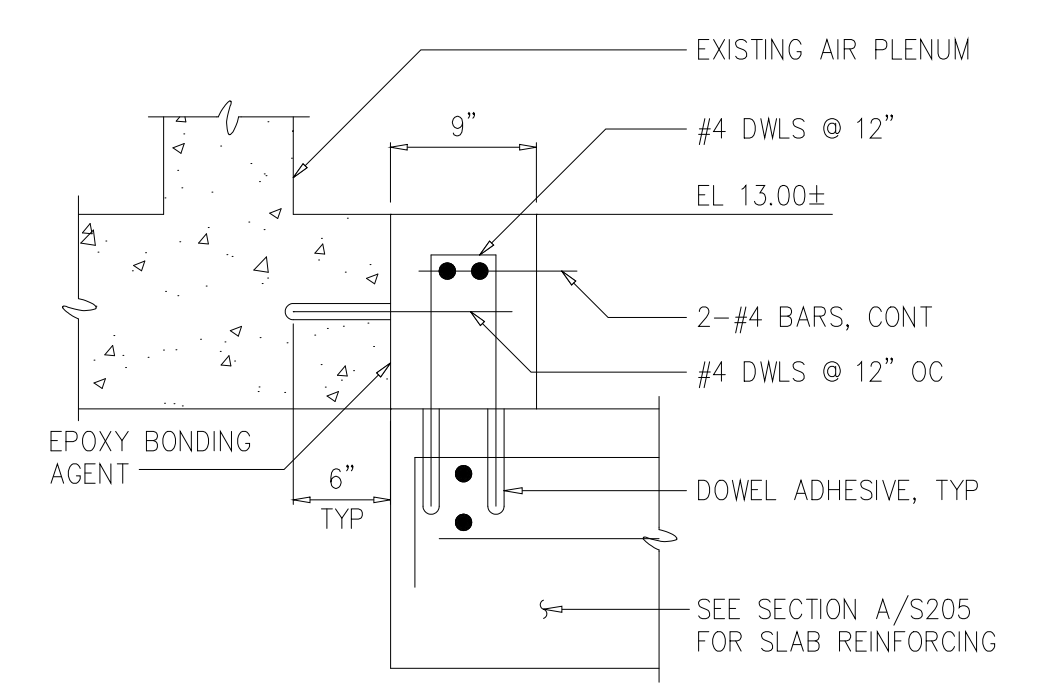
DETAIL 4
3/4"=1'-0" S205



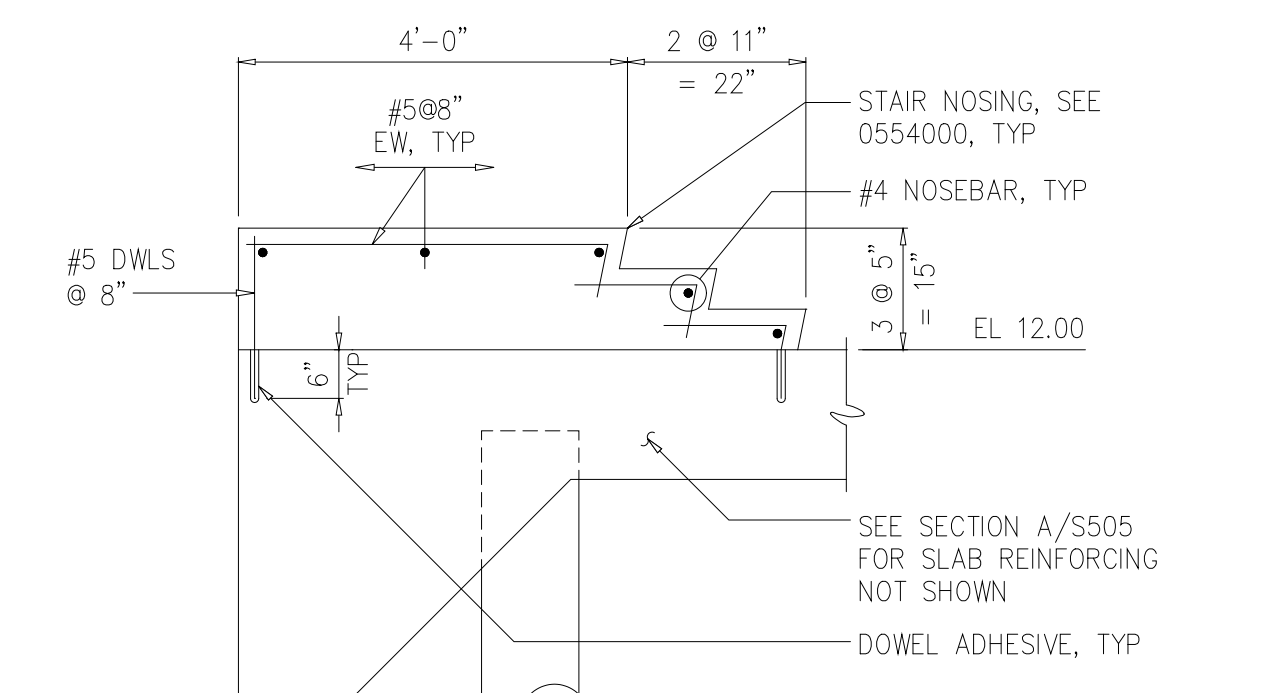
SECTION F
1/2"=1'-0" S203



SUMP REINFORCING
DETAIL 3
1/2"=1'-0" S205



CURB AT AIR PLENUM
DETAIL 5
1"=1'-0" S205



SECTION G
1/2"=1'-0" S203

RECORD DRAWING

DESIGNED WLS/ADO
DRAWN ADO
CHECKED
PROJ.ENGR. RRC

NO. ISSUED FOR DATE BY APPROVED

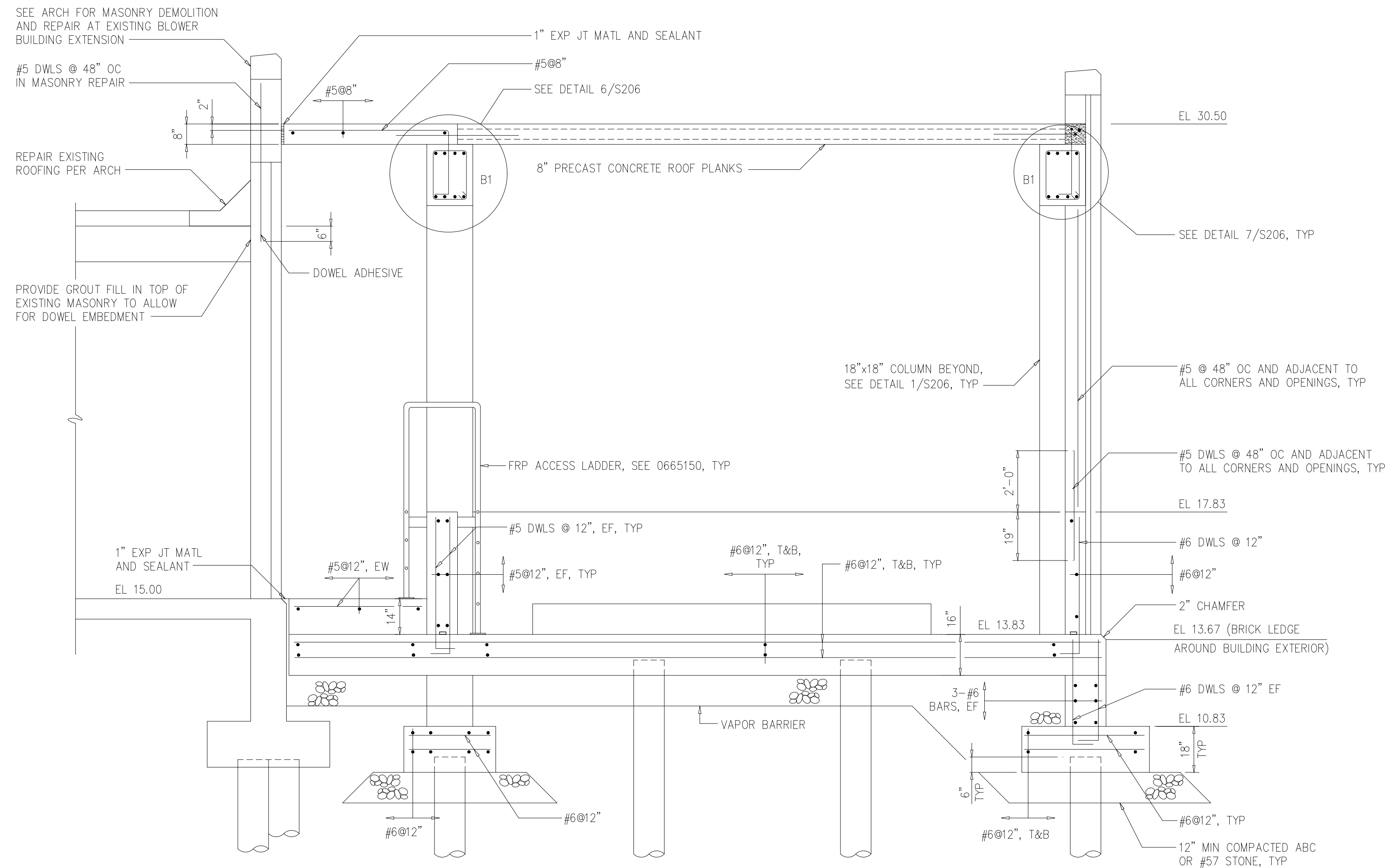
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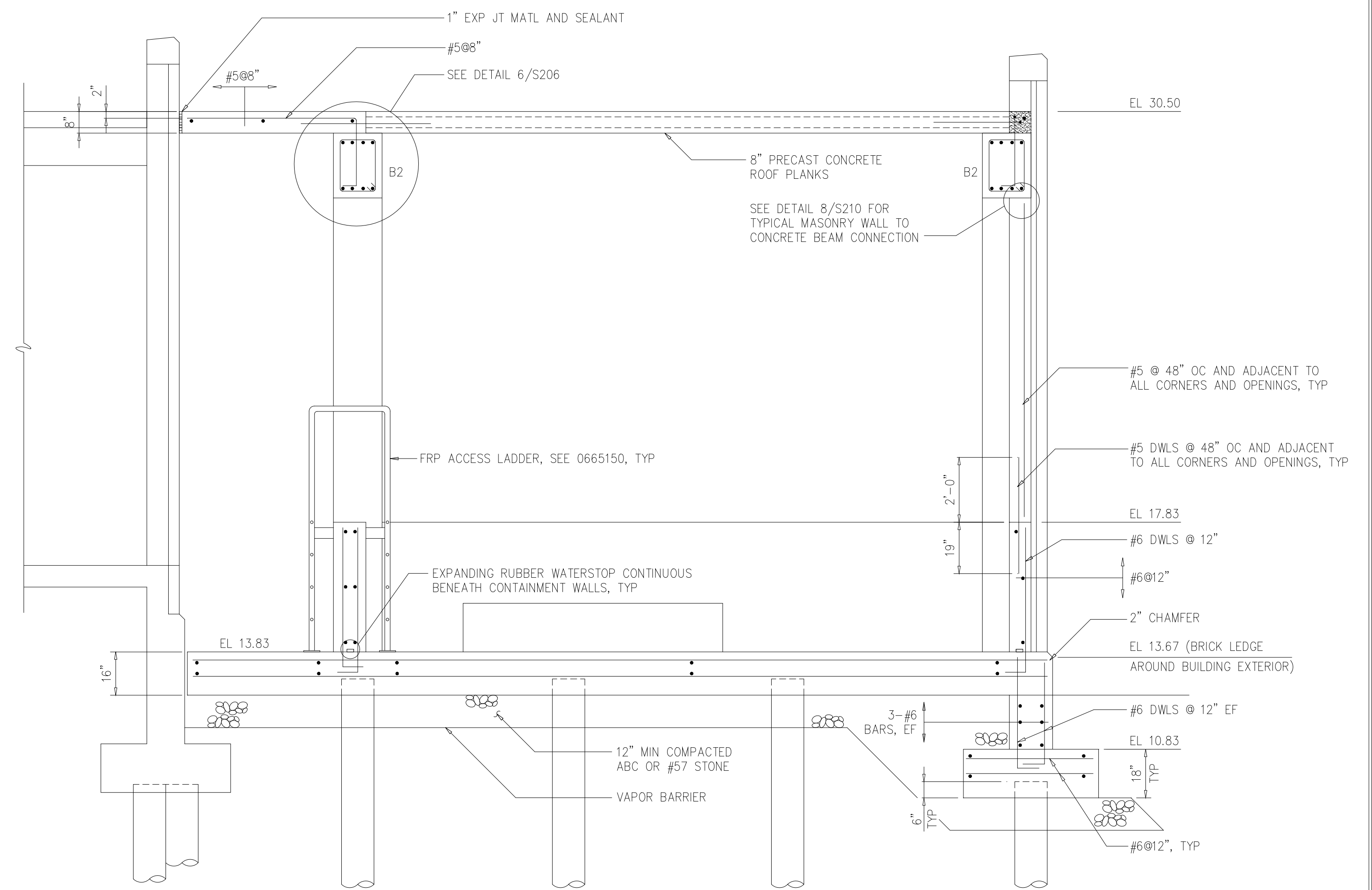
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
SECTIONS AND DETAILS

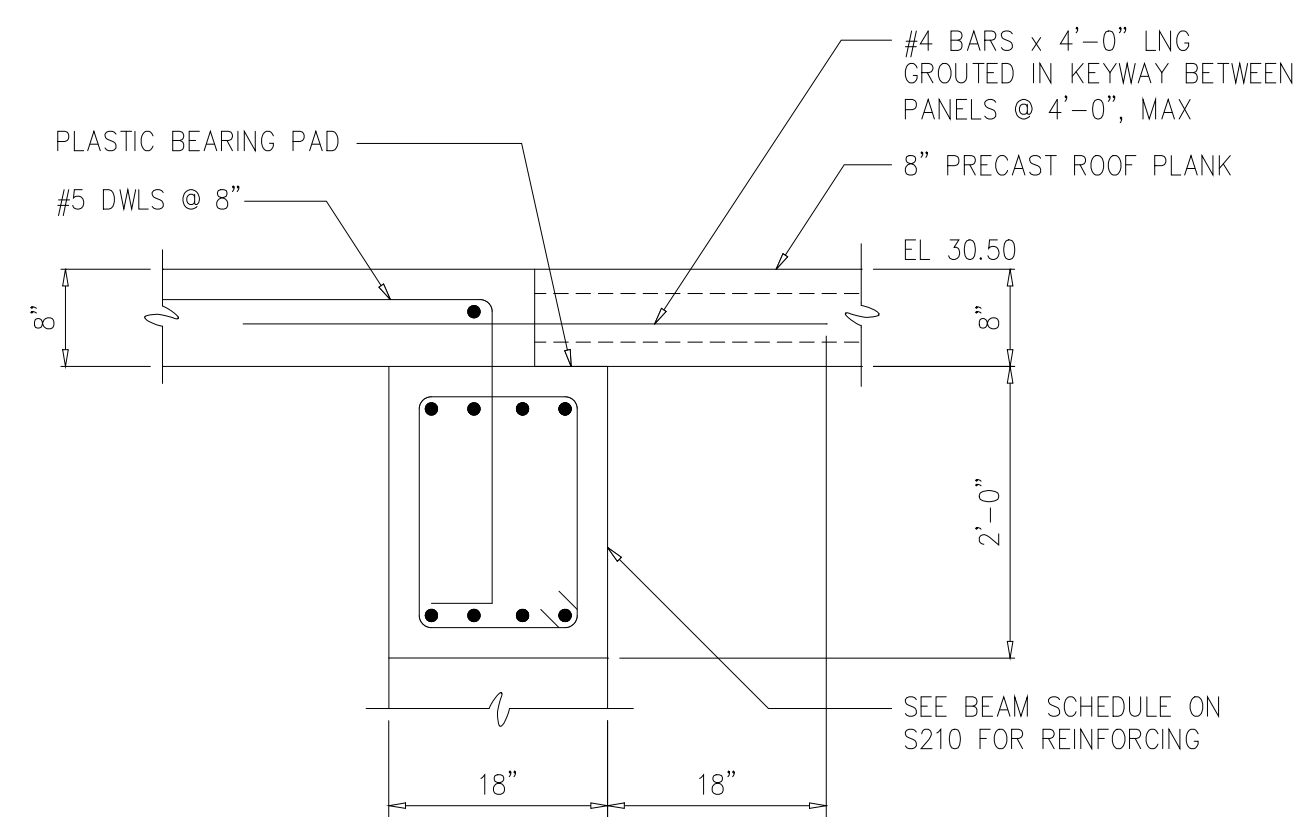
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DATE: SEPT 2000
H & S JOB NUMBER 30313
CONTRACT NUMBER 2000-01-WPC
DRAWING NUMBER S205
SHEET 35 OF 99



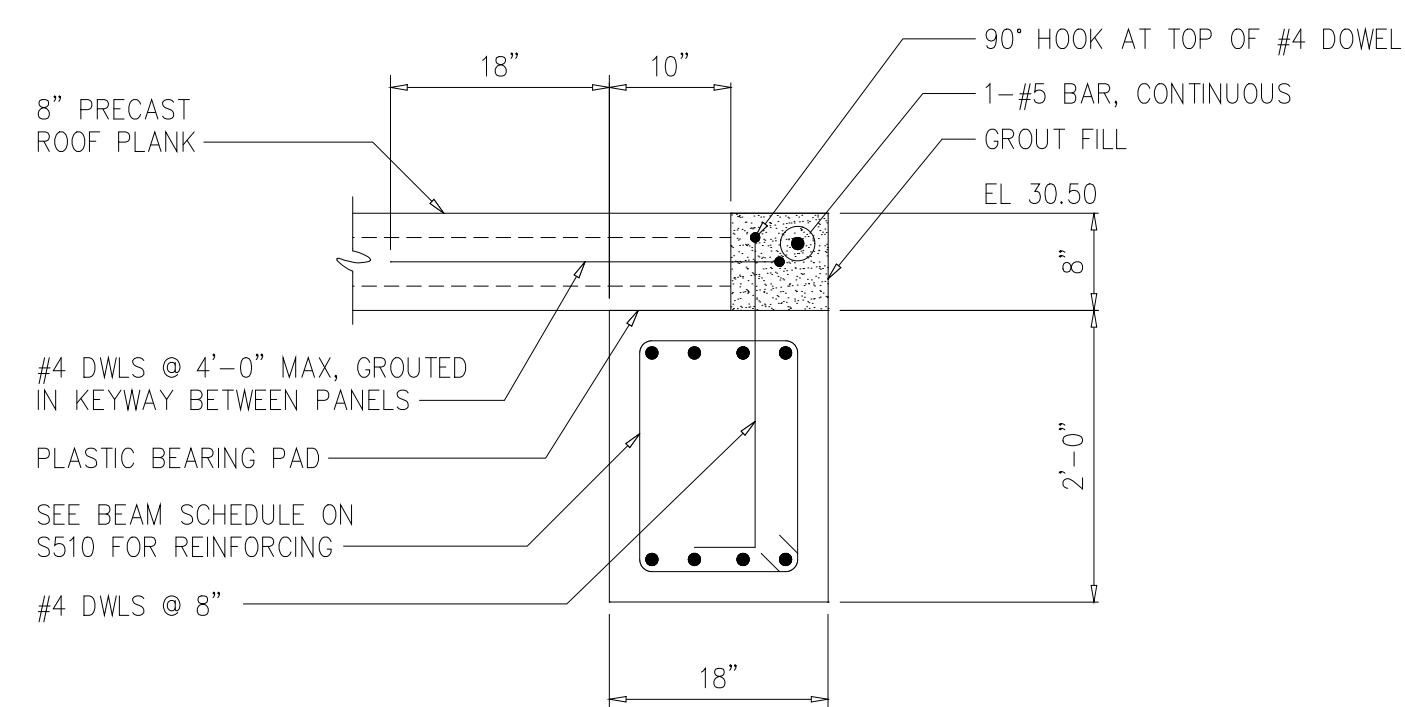
SECTION C
3/8"=1'-0" S201



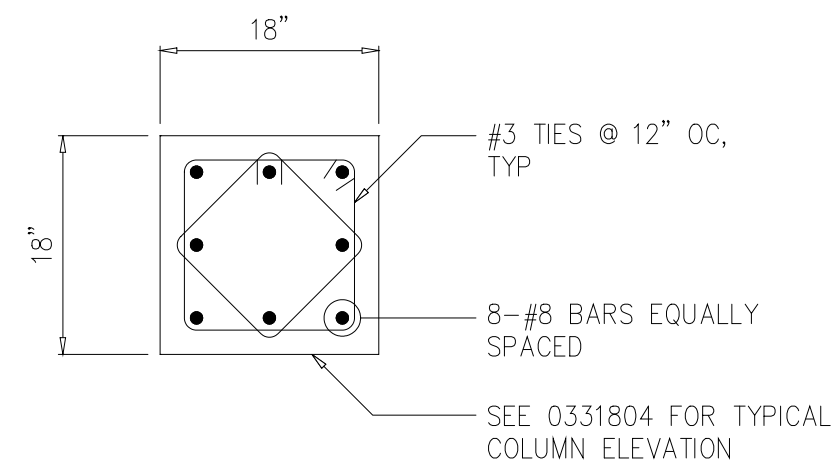
SECTION D
3/8"=1'-0" S201



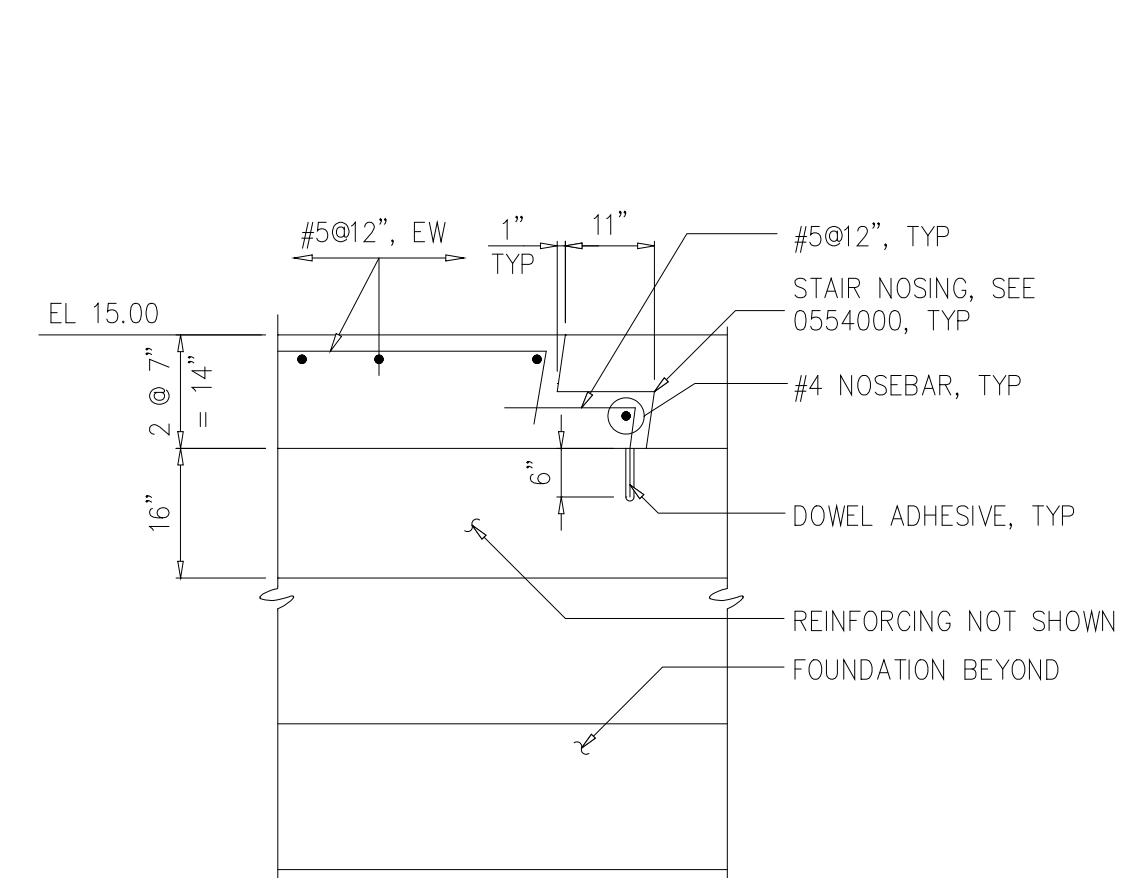
BEAM REINFORCING
DETAIL 6
3/4"=1'-0" S206



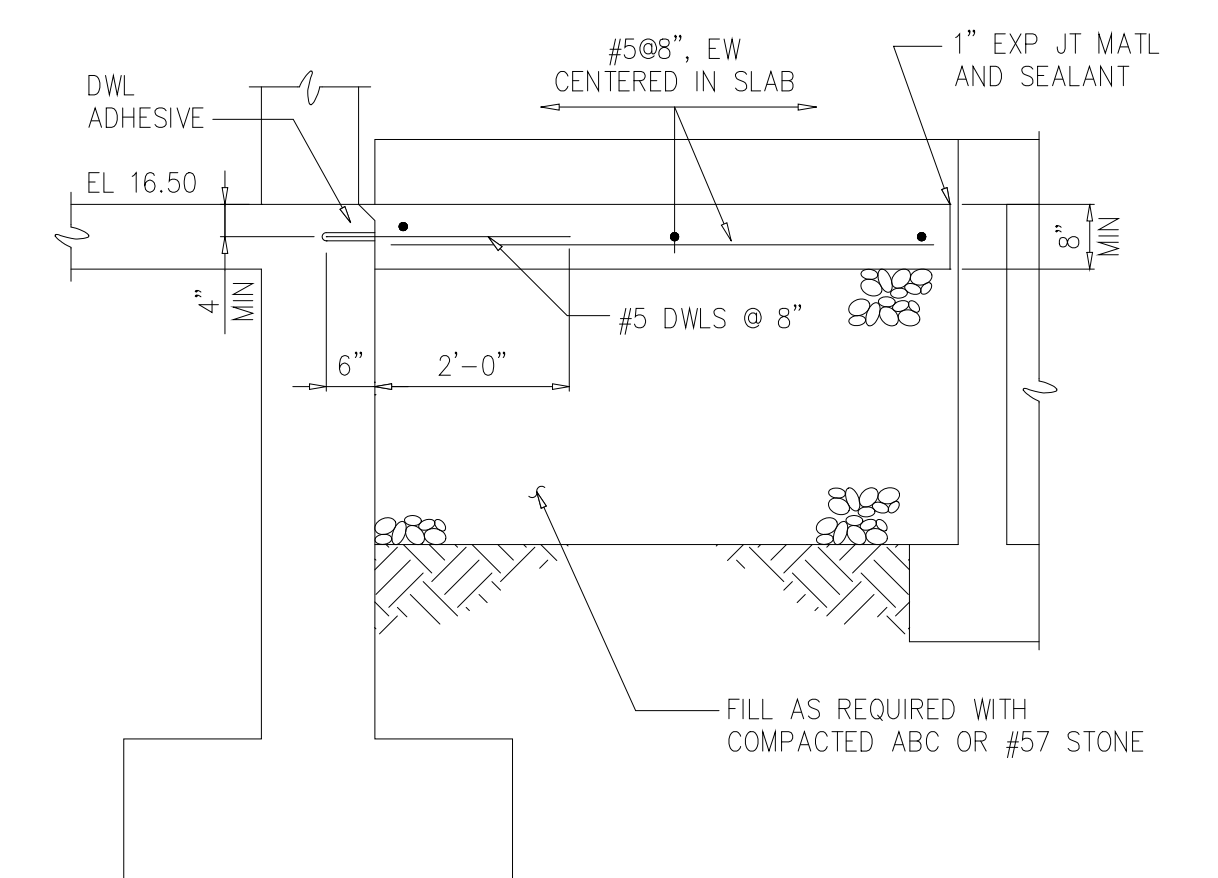
BEAM REINFORCING
DETAIL 7
3/4"=1'-0" S206



COLUMN REINFORCING
DETAIL 2
3/4"=1'-0" S202



SECTION H
1/2"=1'-0" S203



SECTION J
1/2"=1'-0" S203

RECORD DRAWING

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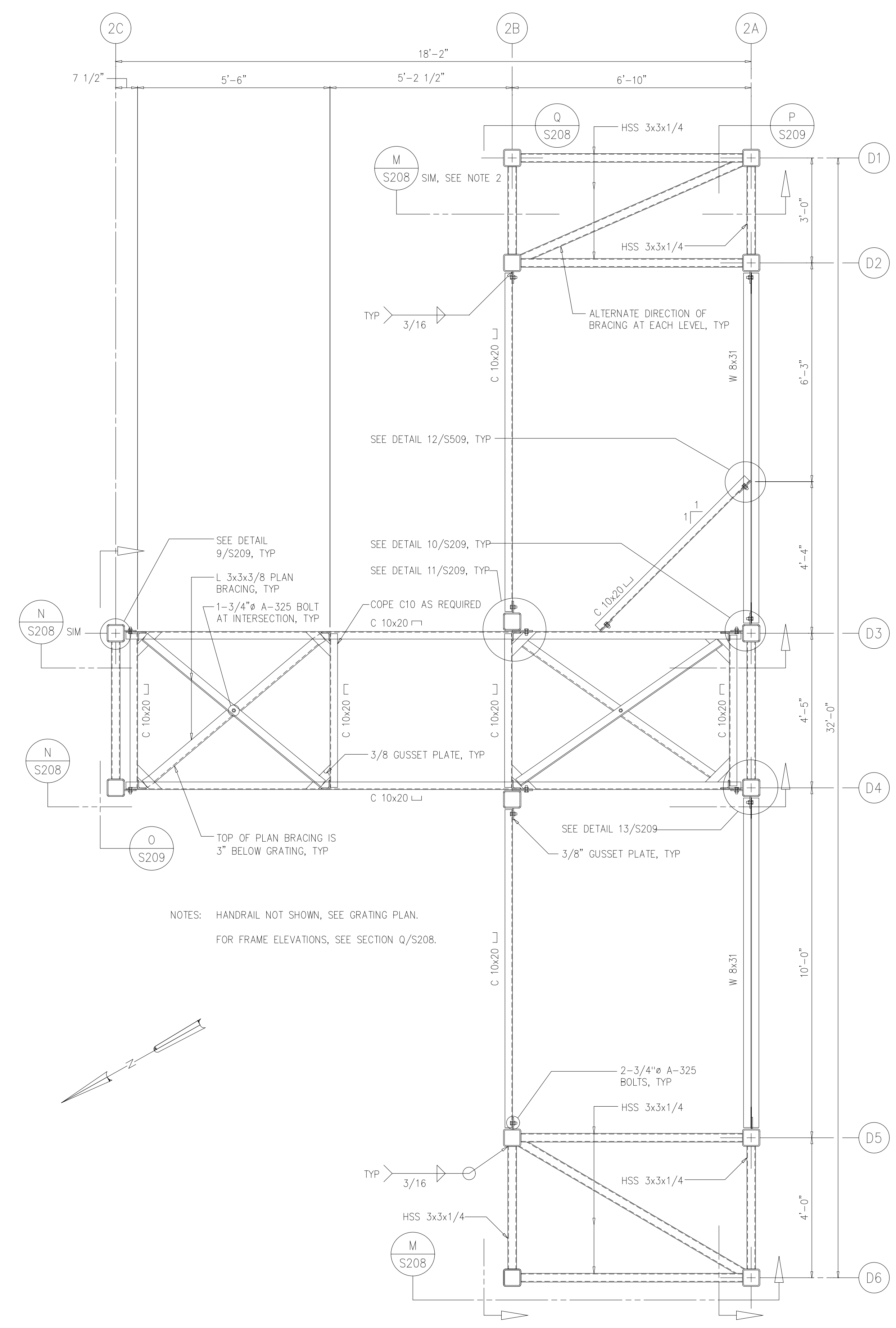
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

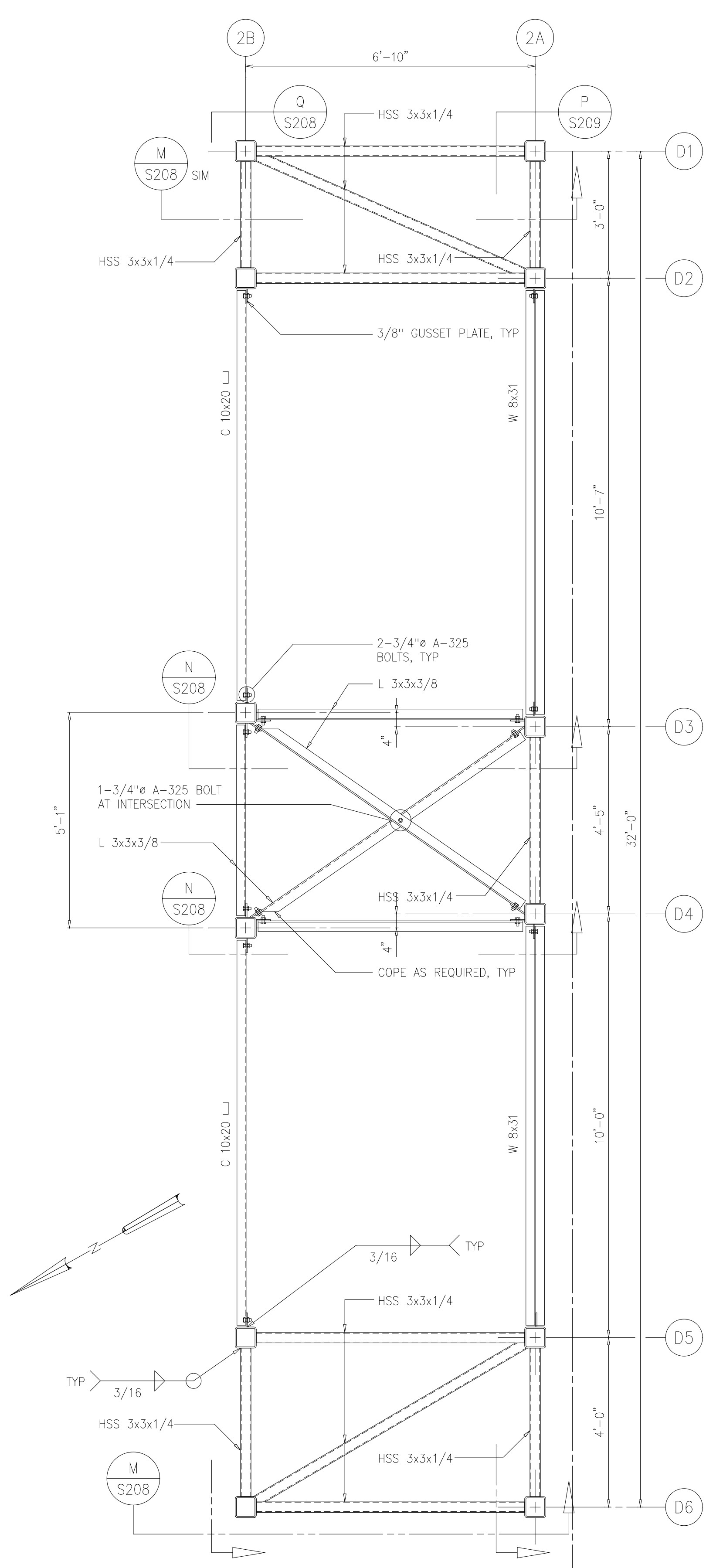
BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
SECTIONS AND DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
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	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S206
	SHEET 36 OF 99

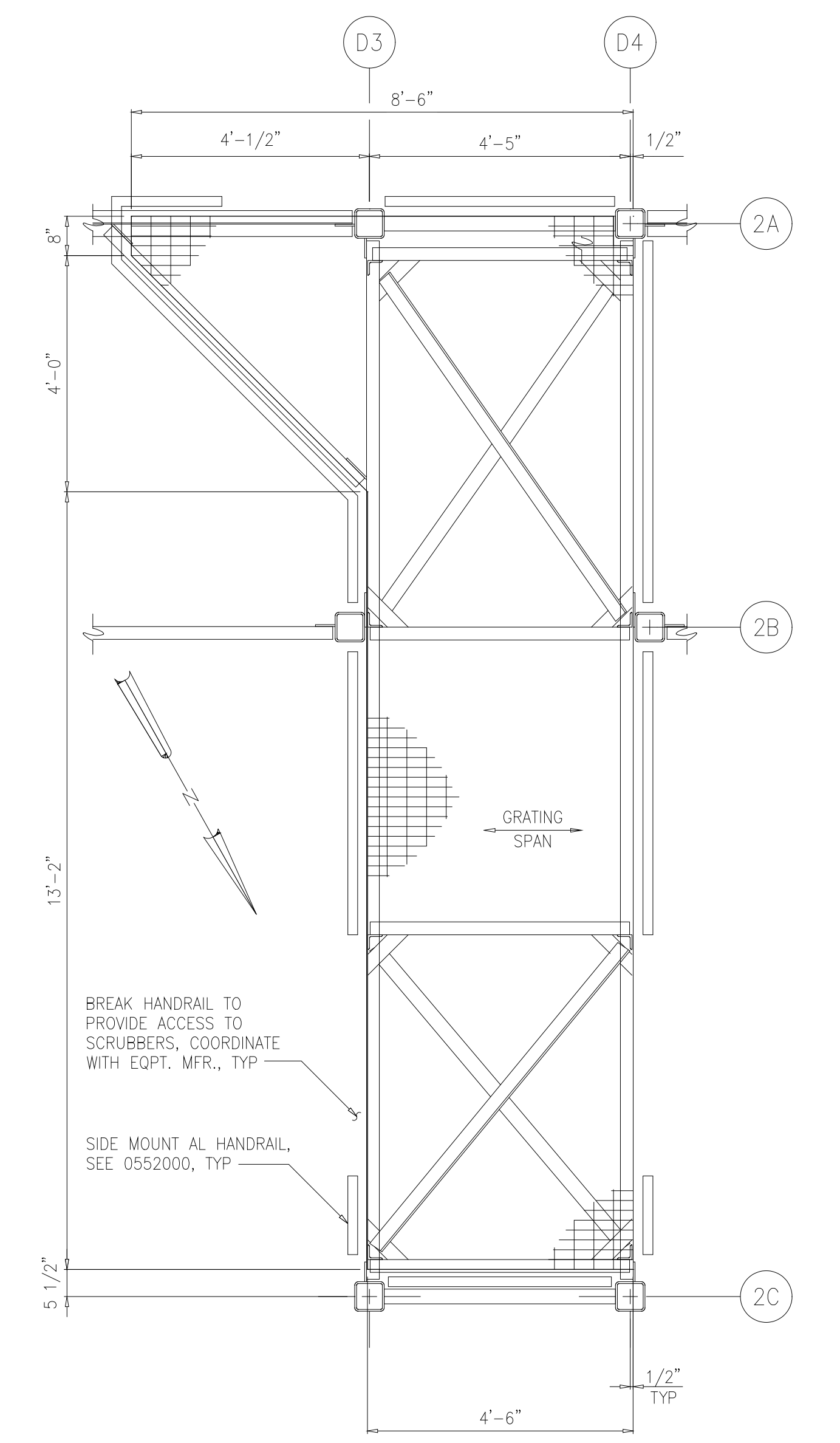
- NOTES:
- 1 ALL STRUCTURAL SHAPES SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.
 - 2 BRACING MEMBERS AND CONNECTIONS ARE THE SAME AS PER SECTION M/S208, EXCEPT NOTE UNEVEN ELEVATIONS OF COLUMN BASES.
 - 3 FRAMING AT INTERMEDIATE LEVELS IS THE SAME AT EACH LEVEL EXCEPT FOR ALTERNATING BRACING IN THE EXTERIOR TOWERS.



INTERMEDIATE PLANS
1/2"=1'-0"



TOP PLAN AT EL 49.00
1/2"=1'-0"



GRATING PLAN
1/2"=1'-0"

NOTES: HANDRAIL NOT SHOWN, SEE GRATING PLAN.
FOR FRAME ELEVATIONS, SEE SECTION Q/S208.

NOTE: THE GRATING PLAN IS THE SAME AT EACH OF THE 3 LEVELS. FOR TOP OF GRATING ELEVATIONS, SEE SECTION N/S208.

RECORD DRAWING

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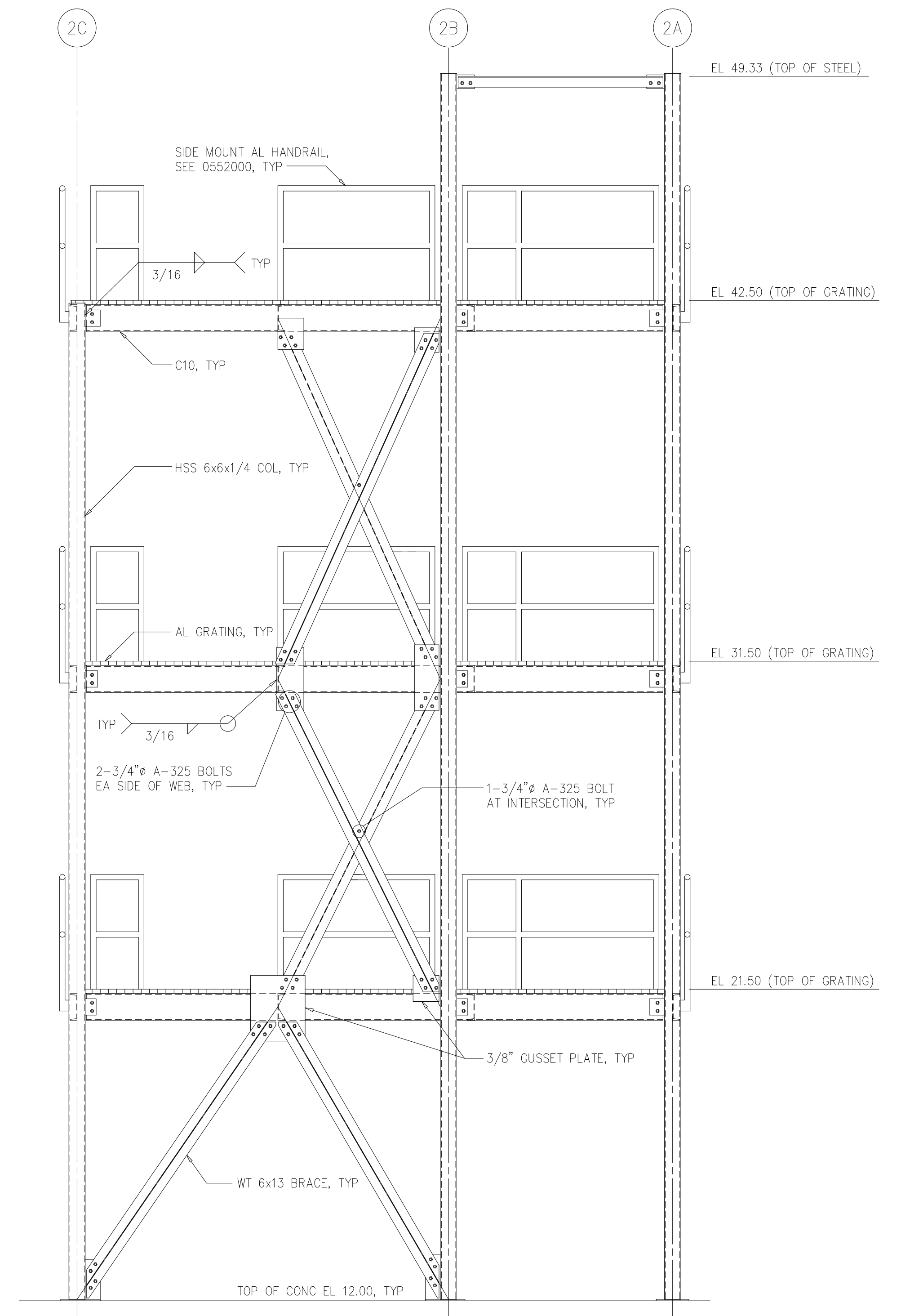
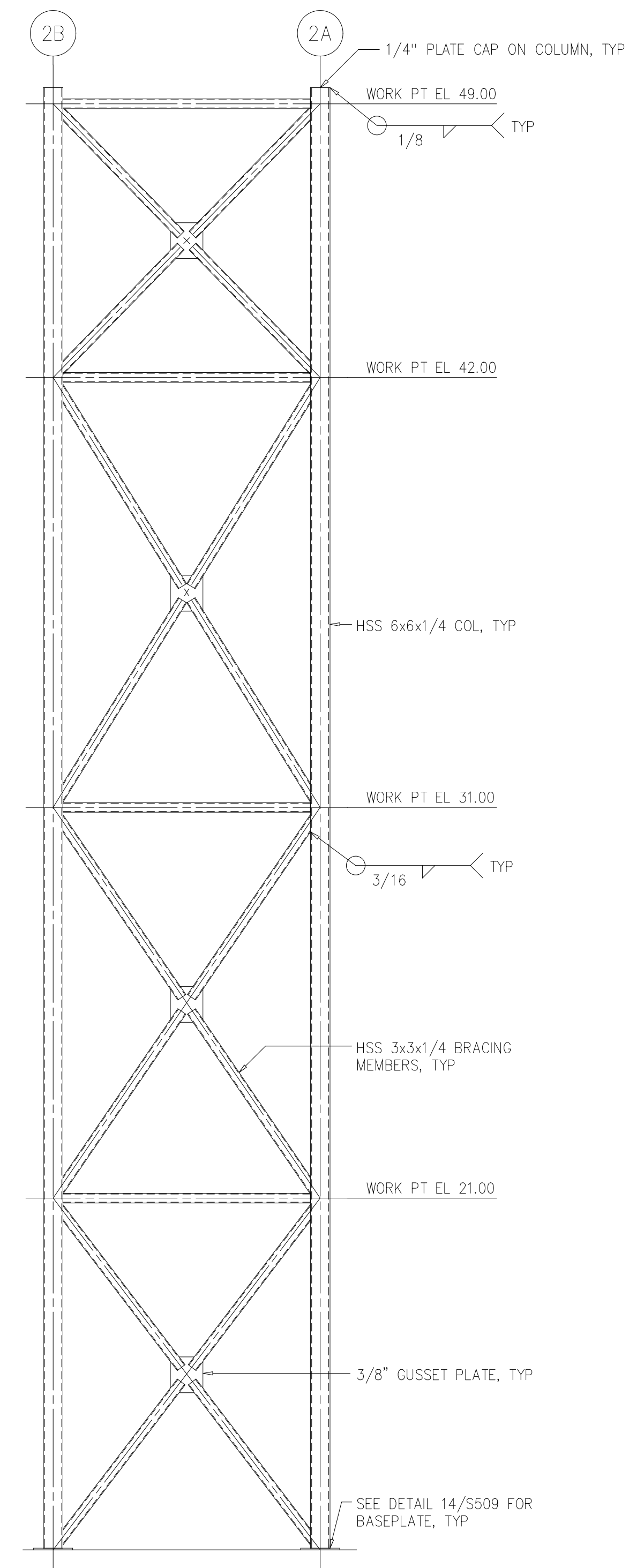
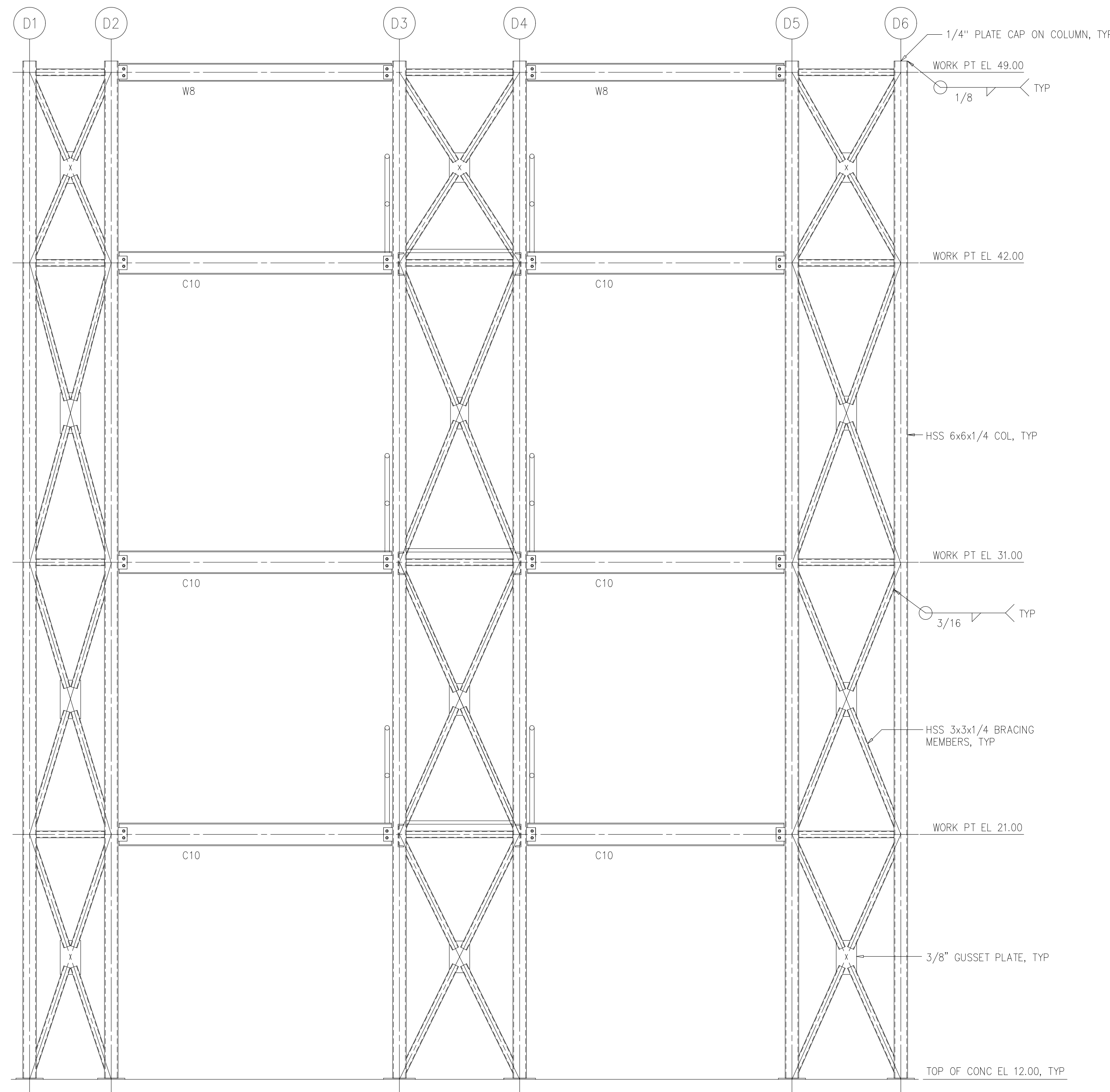
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
FRAMING PLANS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
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	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S207
	SHEET 37 OF 99

NOTES:
 1 ALL STRUCTURAL SHAPES SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.



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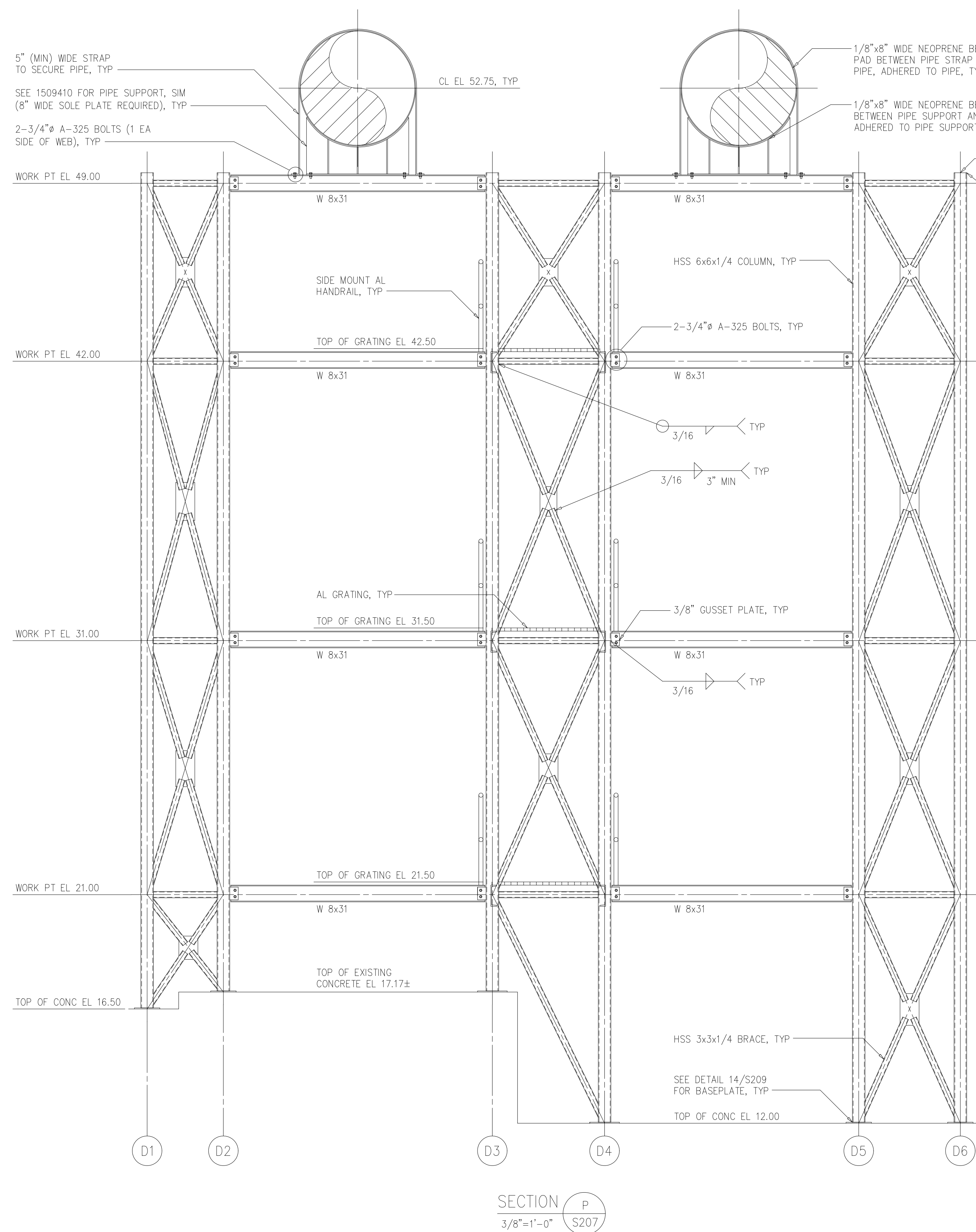
ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
 ODOR CONTROL AREA
 STRUCTURAL
 FRAMING SECTIONS

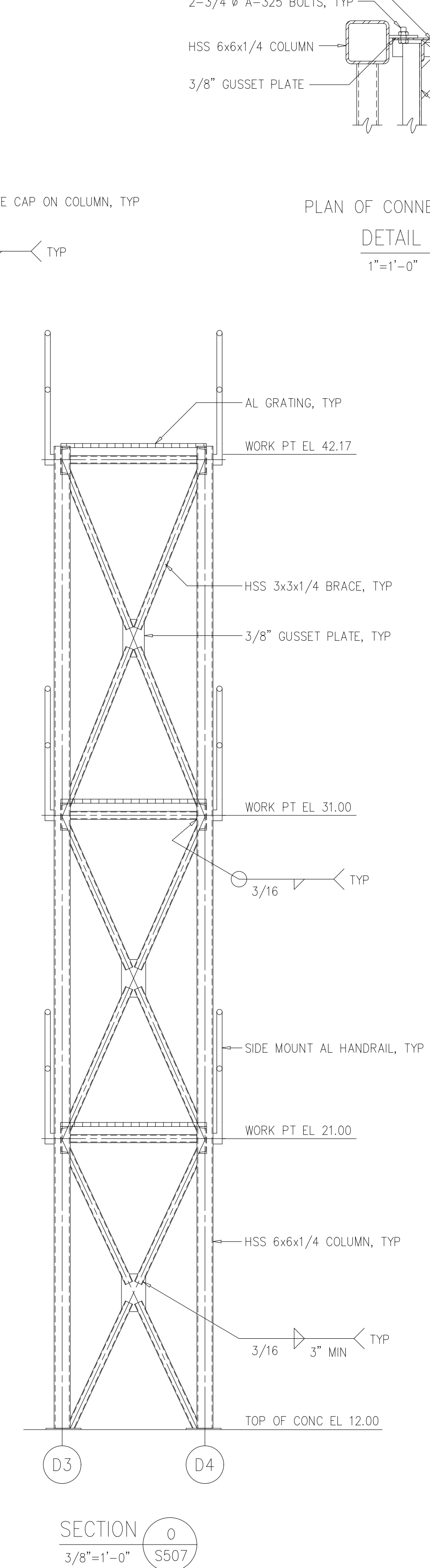
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	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S208
SHEET 38 OF 99	

NOTES:

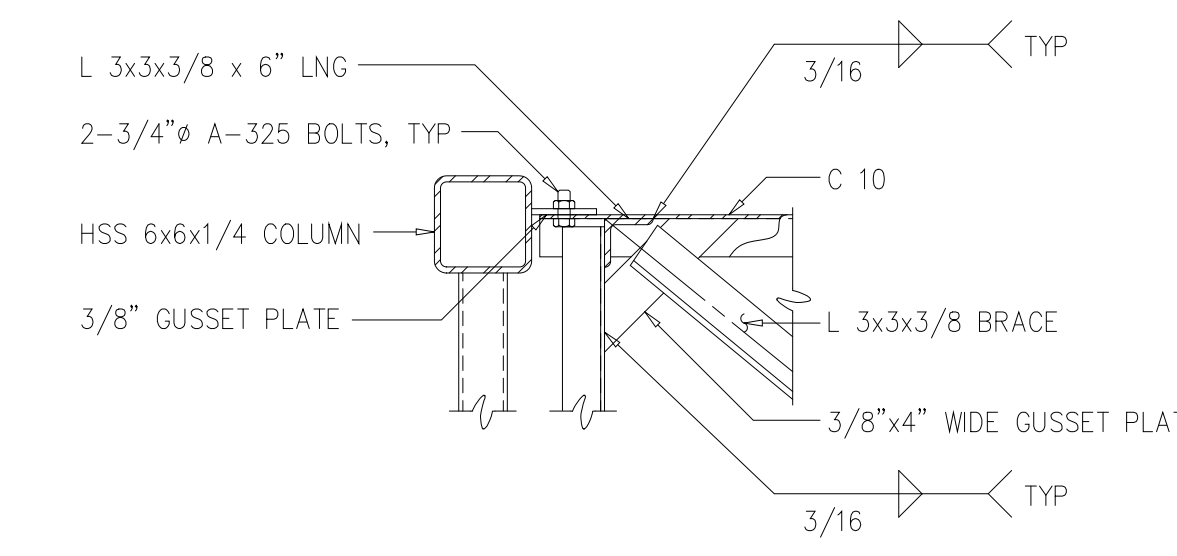
1 ALL STRUCTURAL SHAPES SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.



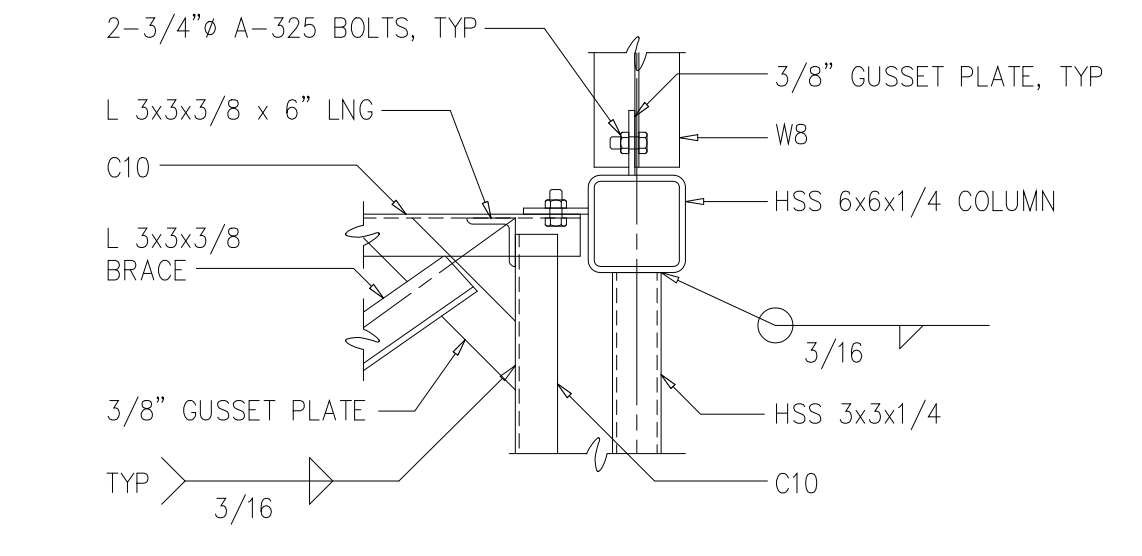
SECTION P
3/8"=1'-0" S207



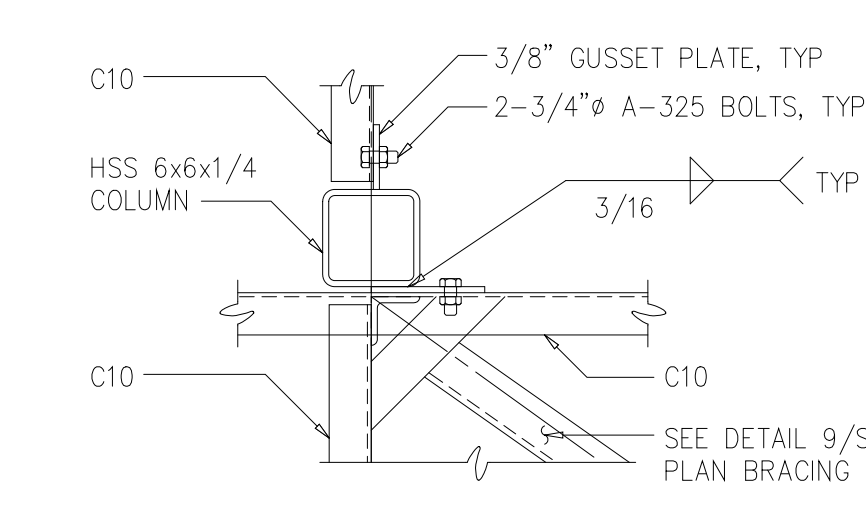
SECTION O
3/8"=1'-0" S507



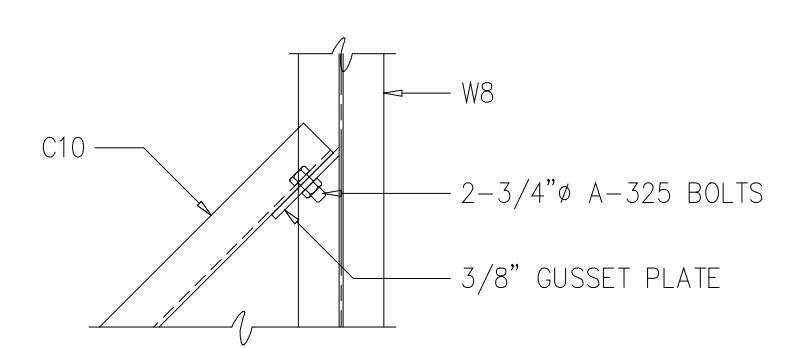
PLAN OF CONNECTION
DETAIL 9
1"=1'-0" S507



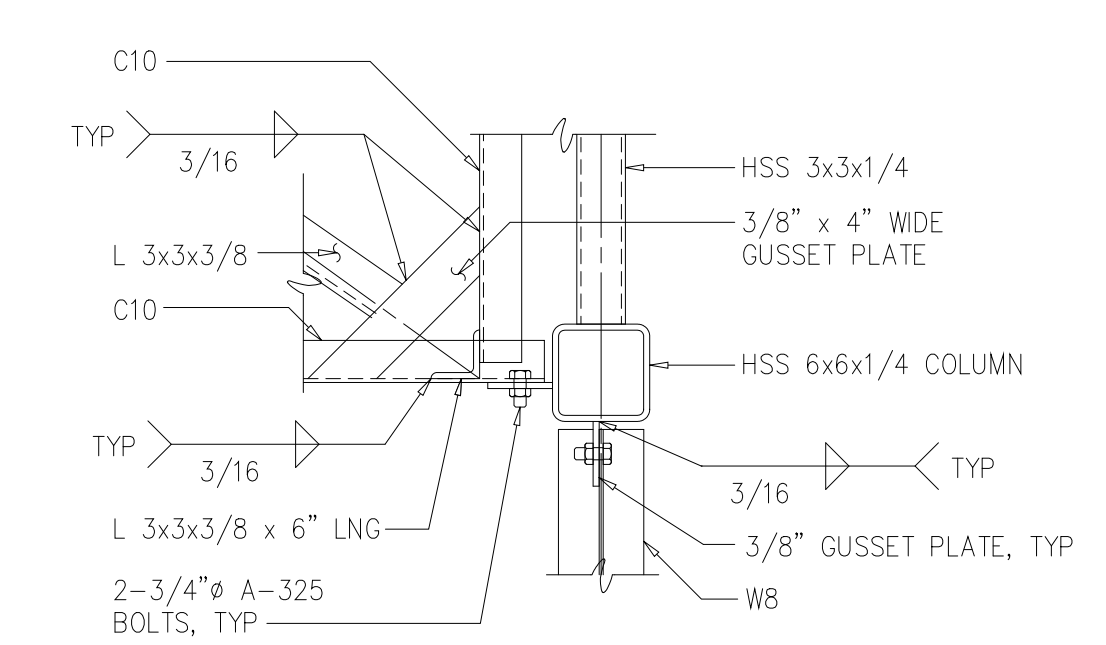
PLAN OF CONNECTION
DETAIL 10
1"=1'-0" S507



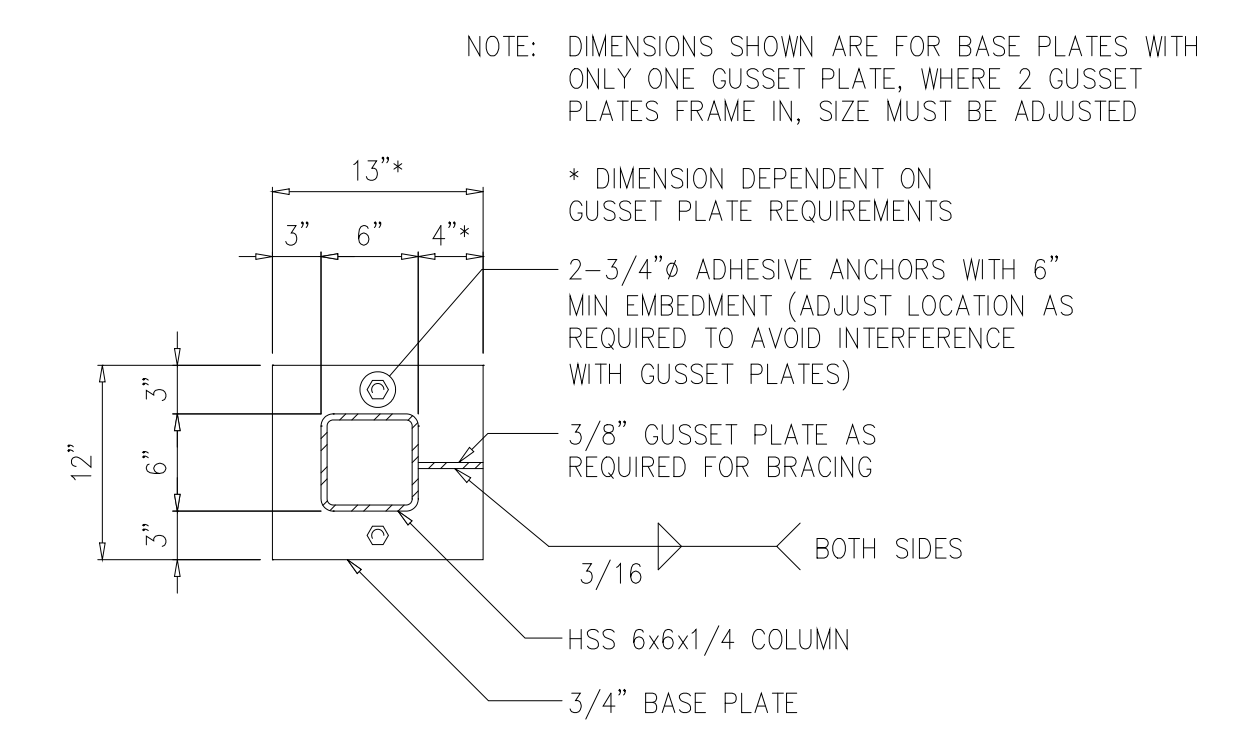
PLAN OF CONNECTION
DETAIL 11
1"=1'-0" S207



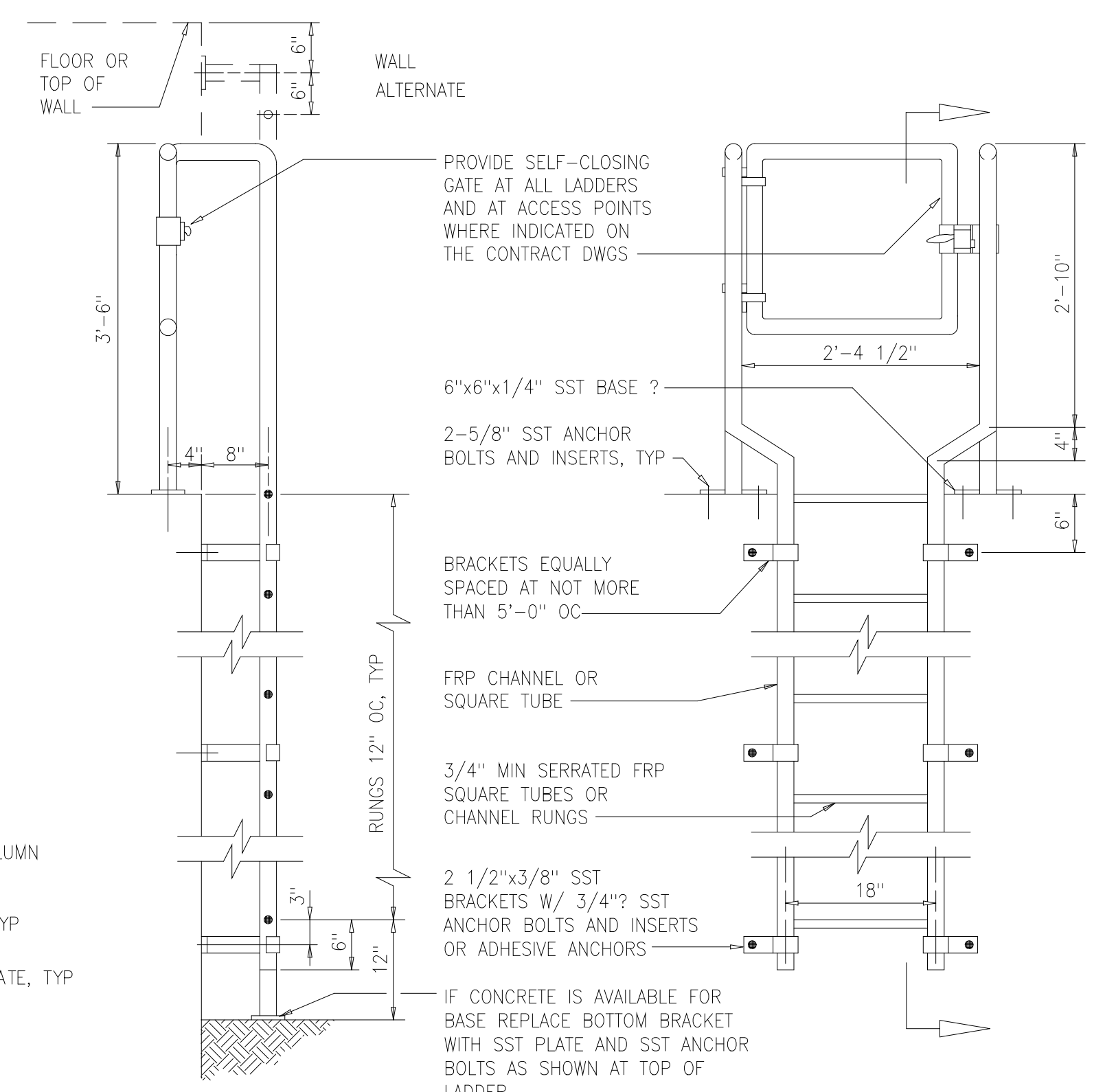
PLAN OF CONNECTION
DETAIL 12
1"=1'-0" S207



PLAN OF CONNECTION
DETAIL 13
1"=1'-0" S207



BASE PLATE
DETAIL 14
1"=1'-0" S208



SECTION

ELEVATION

FRP LADDER
0665150

DESIGNED	CTP/ADO
DRAWN	ADO
CHECKED	
PROJ. ENGR.	RRC
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

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Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

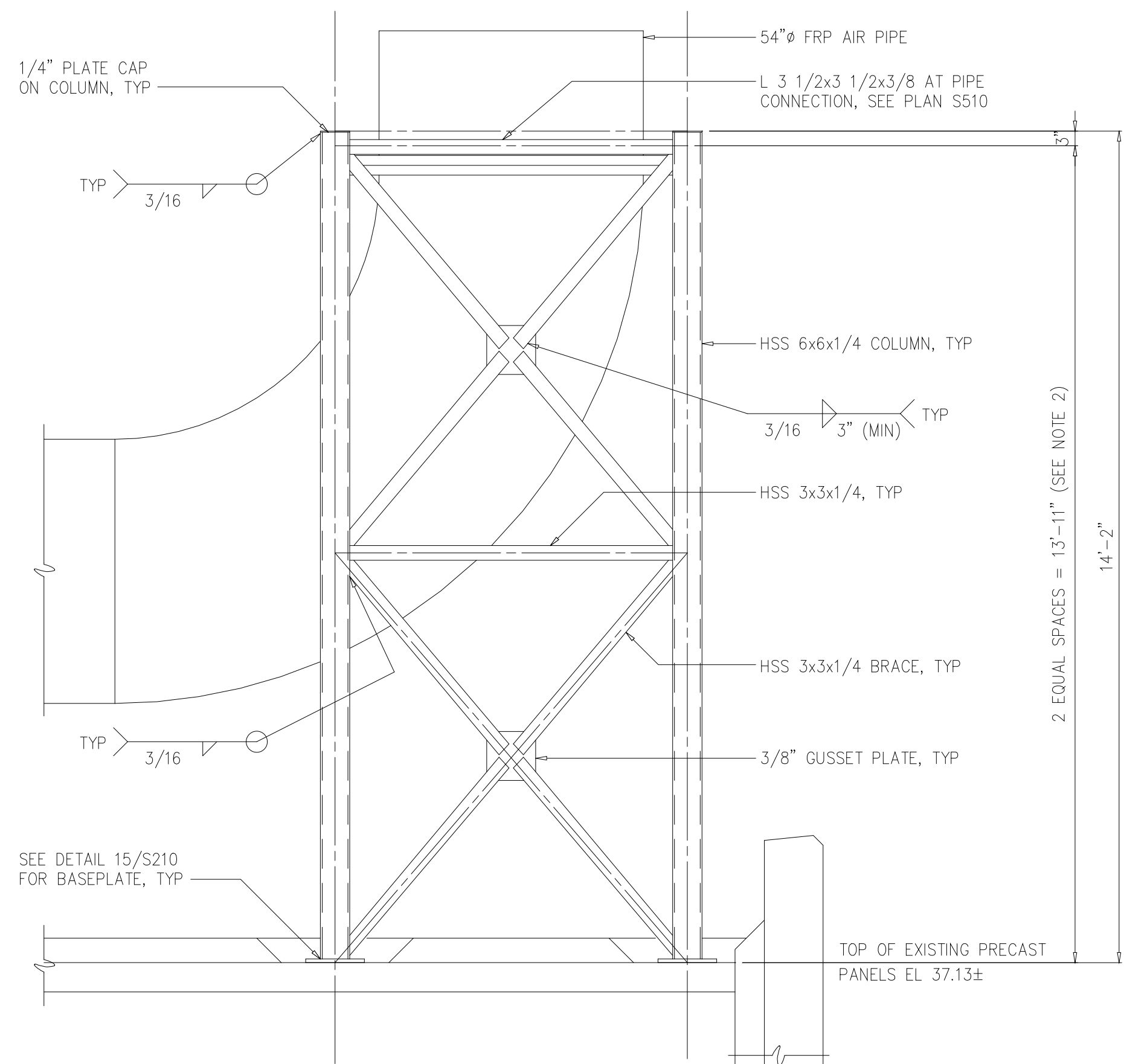
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
SECTIONS AND DETAILS

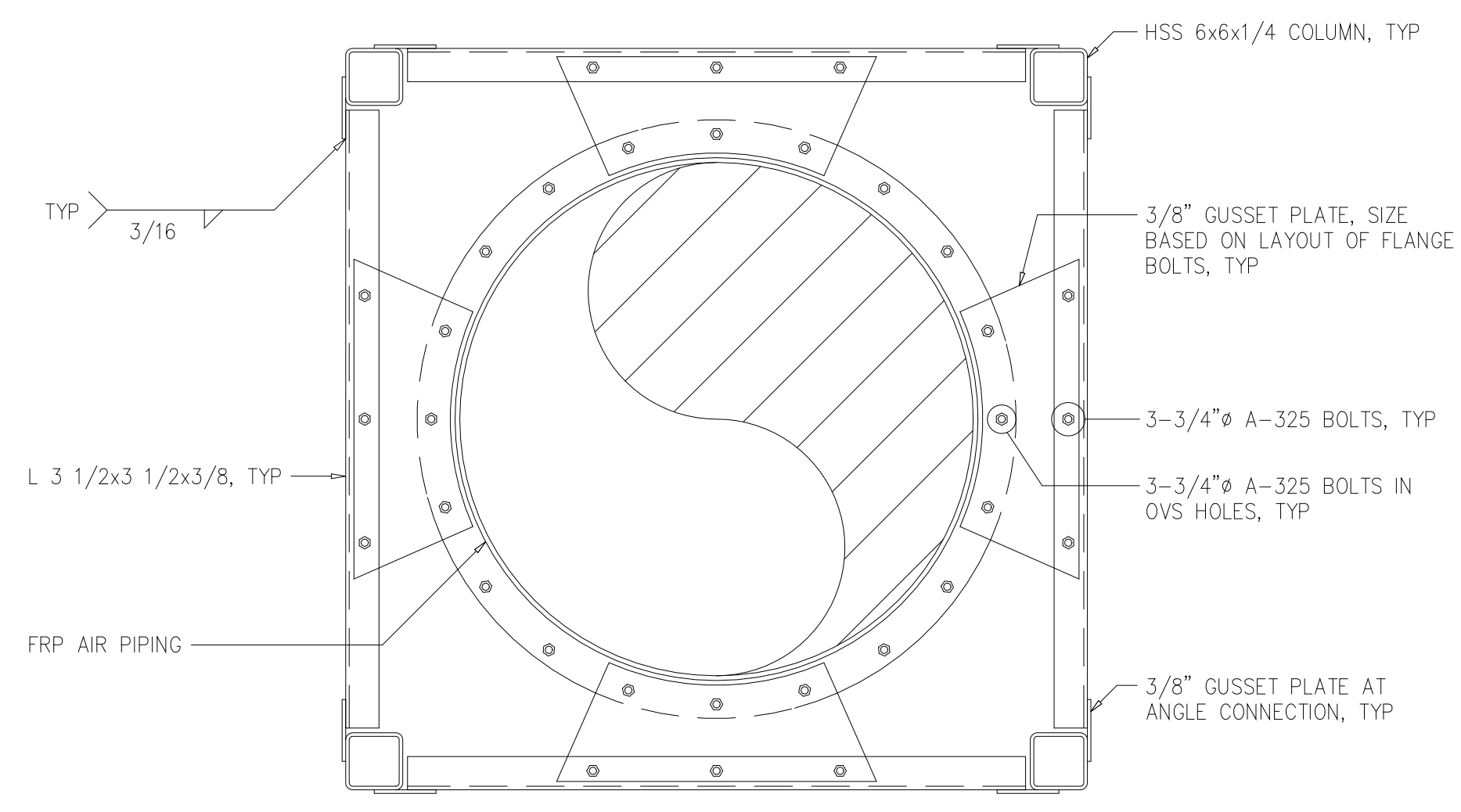
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER S209
	SHEET 39 OF 99

RECORD DRAWING



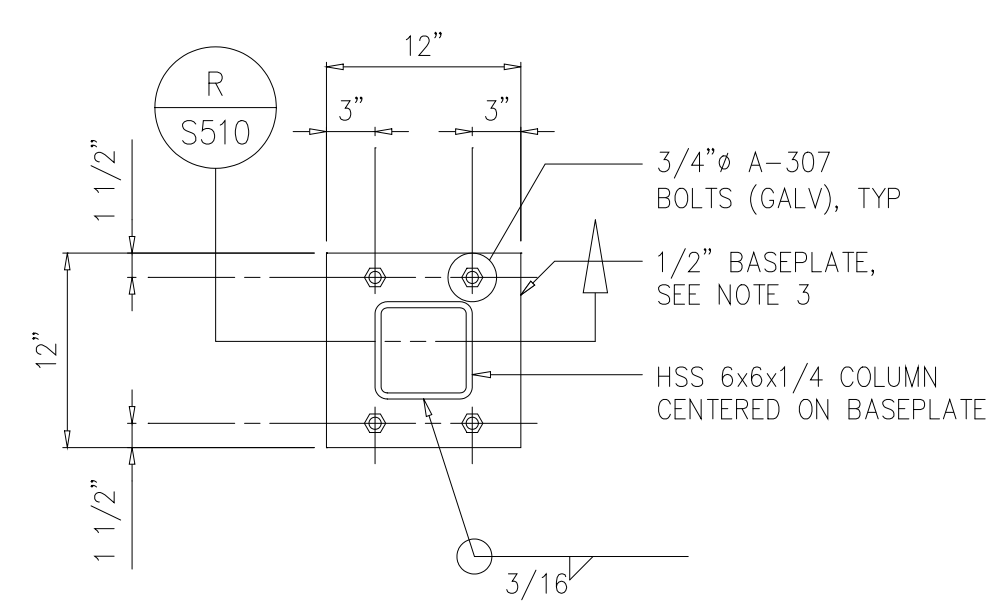
NOTE: FRAMING ON 3 SIDES IS AS SHOWN. ON THE NORTH SIDE THE ONLY FRAMING IS AS SHOWN IN THE PLAN AT PIPE CONNECTION.

STACK SUPPORT SECTION K
1/2"=1'-0" S204



NOTE: VERTICAL BRACING NOT SHOWN

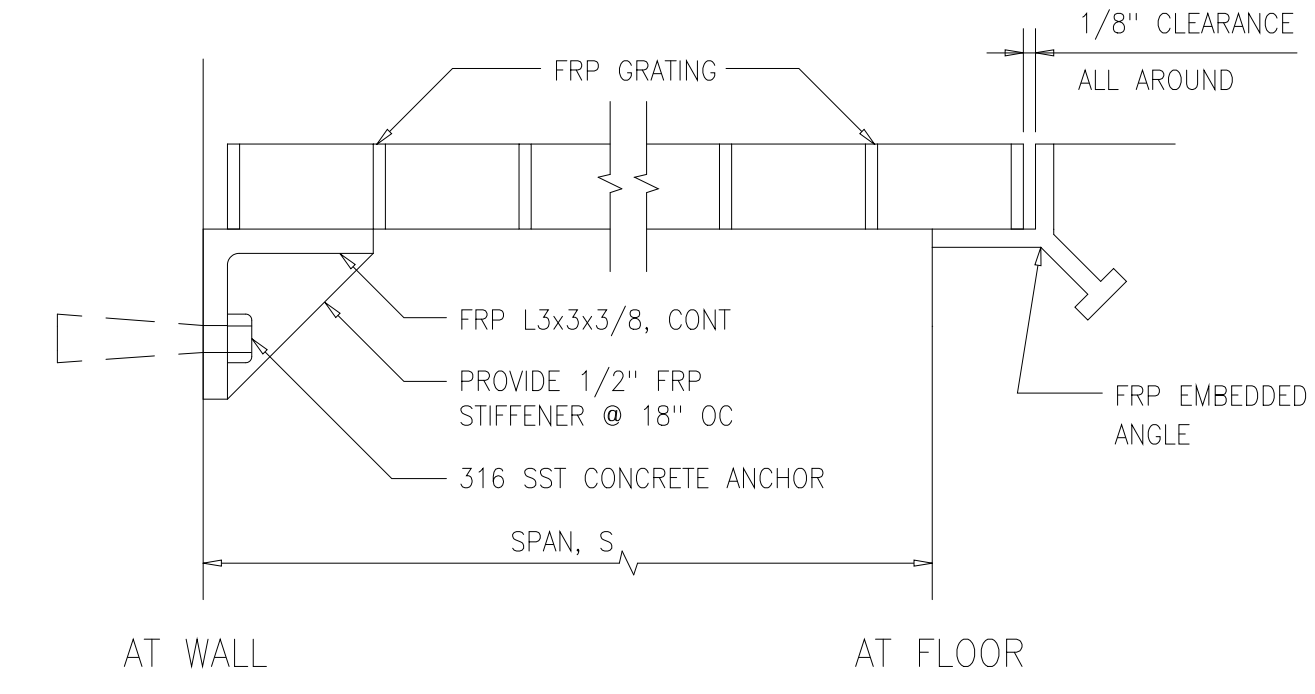
PLAN AT PIPE CONNECTION
3/4"=1'-0"



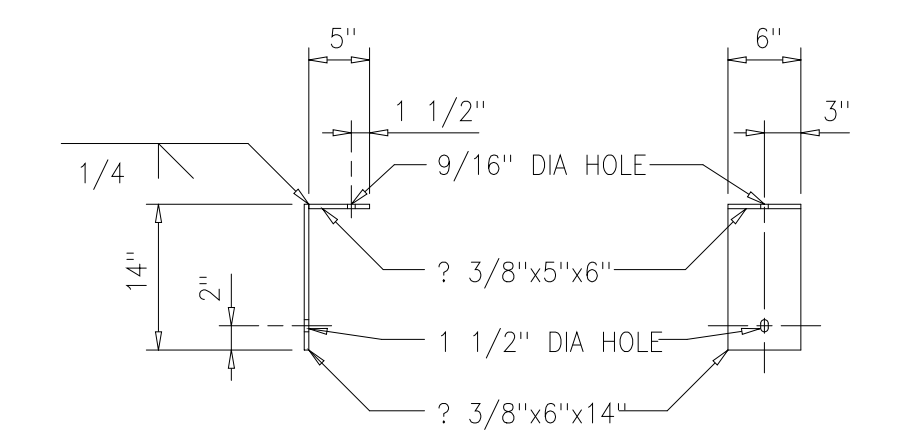
DETAIL 15
1"=1'-0" S210

SPAN, S	DEPTH (MIN)	CONCRETE ANCHOR (SIZE AND SPACING)
0'-0" < S ≤ 3'-6"	1 1/2"	1/2"Øx5 1/2" @ 18"
3'-6" < S ≤ 5'-0"	2"	5/8"Øx6" @ 18"

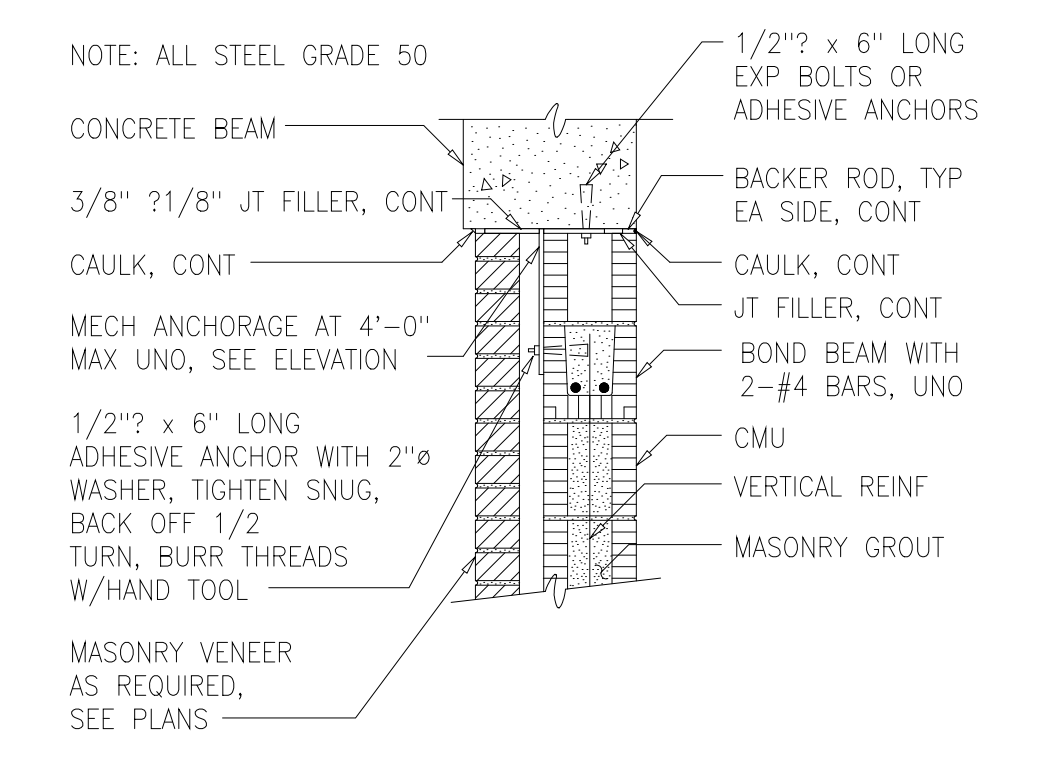
SCHEDULE BASED ON 150 PSF



FRP GRATING
0650000

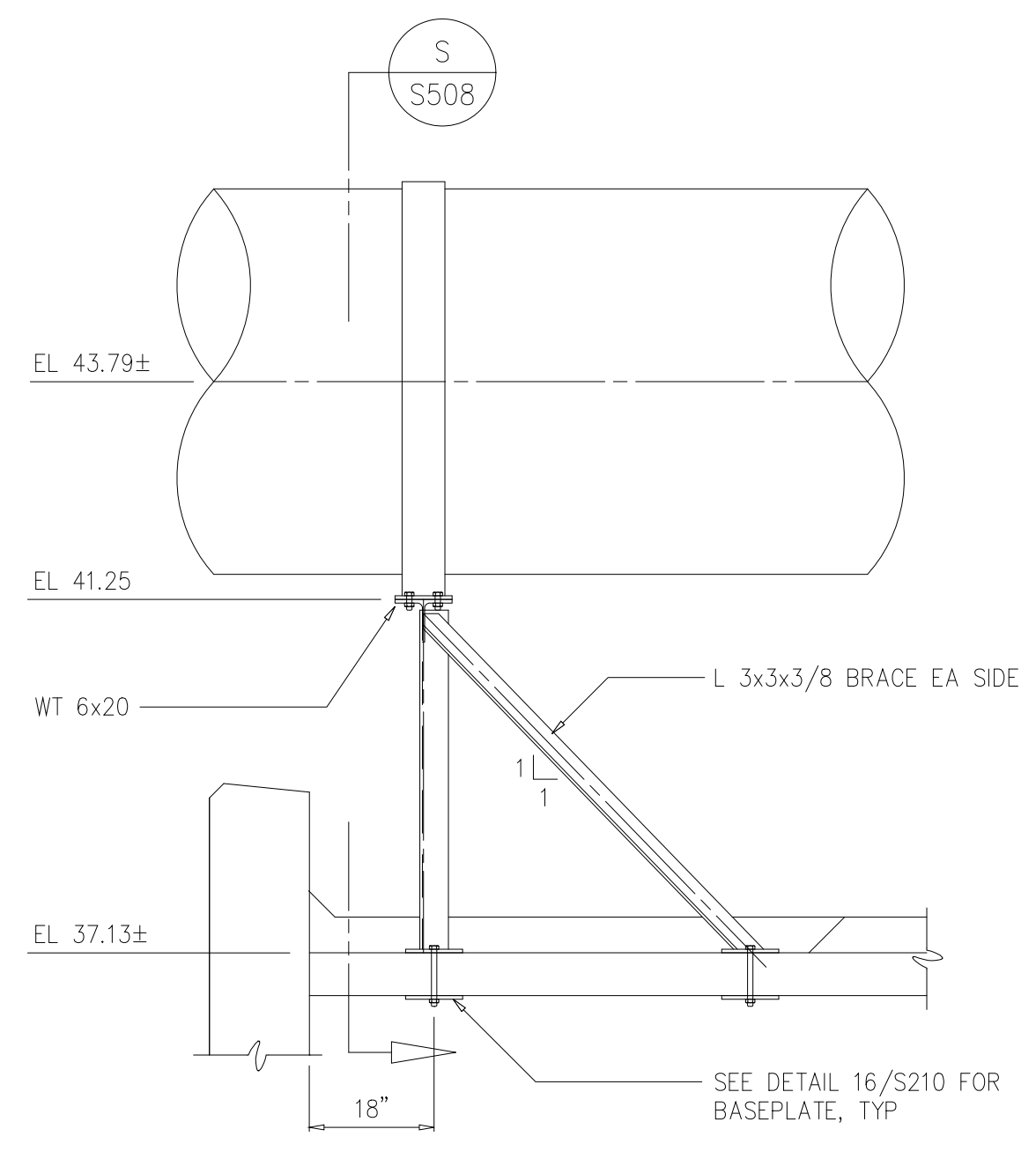


ELEVATION

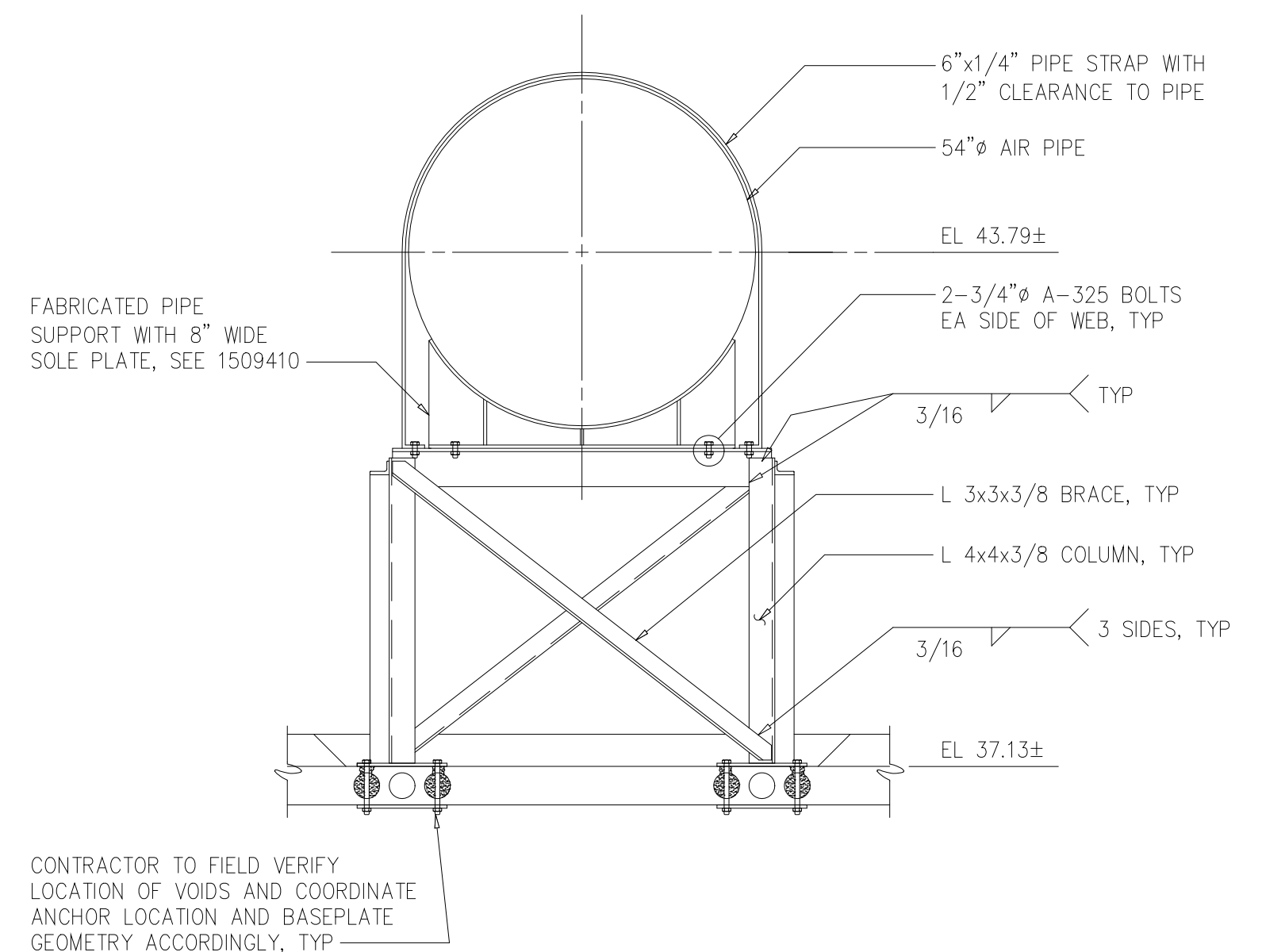


MASONRY TO BEAM CONNECTION

DETAIL 8
N.T.S. S206



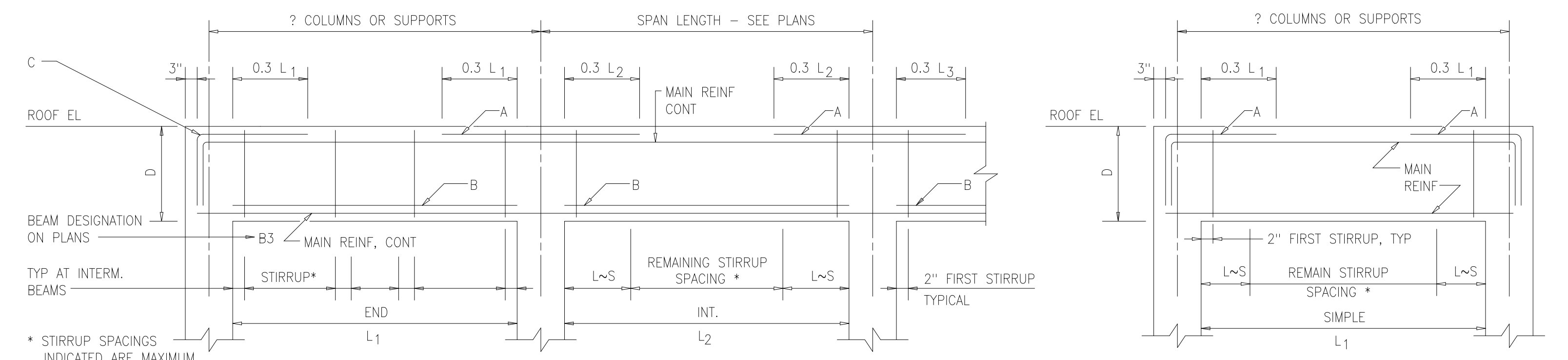
SECTION L
1/2"=1'-0" S204



SECTION S
1/2"=1'-0" S208

MARK	SPAN TYPE	SIZE		TOP ELEV	No REQD	MAIN REINF			ADD REINF			STIRRUPS	REMARKS
		W	D			TOP	BOT	A	B	C			
B1	END	18	24	29.83	2	4-#9	4-#9					#3@8"	
B2	INT	18	24	29.83	2	4-#9	4-#9					#3@8"	
B3	END	18	24	29.83	2	4-#9	4-#9					#3@8"	
B4	SIMPLE	18	24	29.83	2	3-#7	3-#7					#3@8"	

NOTE: REFER TO DETAIL 0331801 ON S510 FOR TYPICAL BEAM ELEVATIONS



TYPICAL BEAM ELEVATIONS
0331801

RECORD DRAWING

DESIGNED	CTP/ADO
DRAWN	ADO
CHECKED	
PROJ. ENGR.	RRC
NO.	ISSUED FOR
DATE	BY
APPROVED	

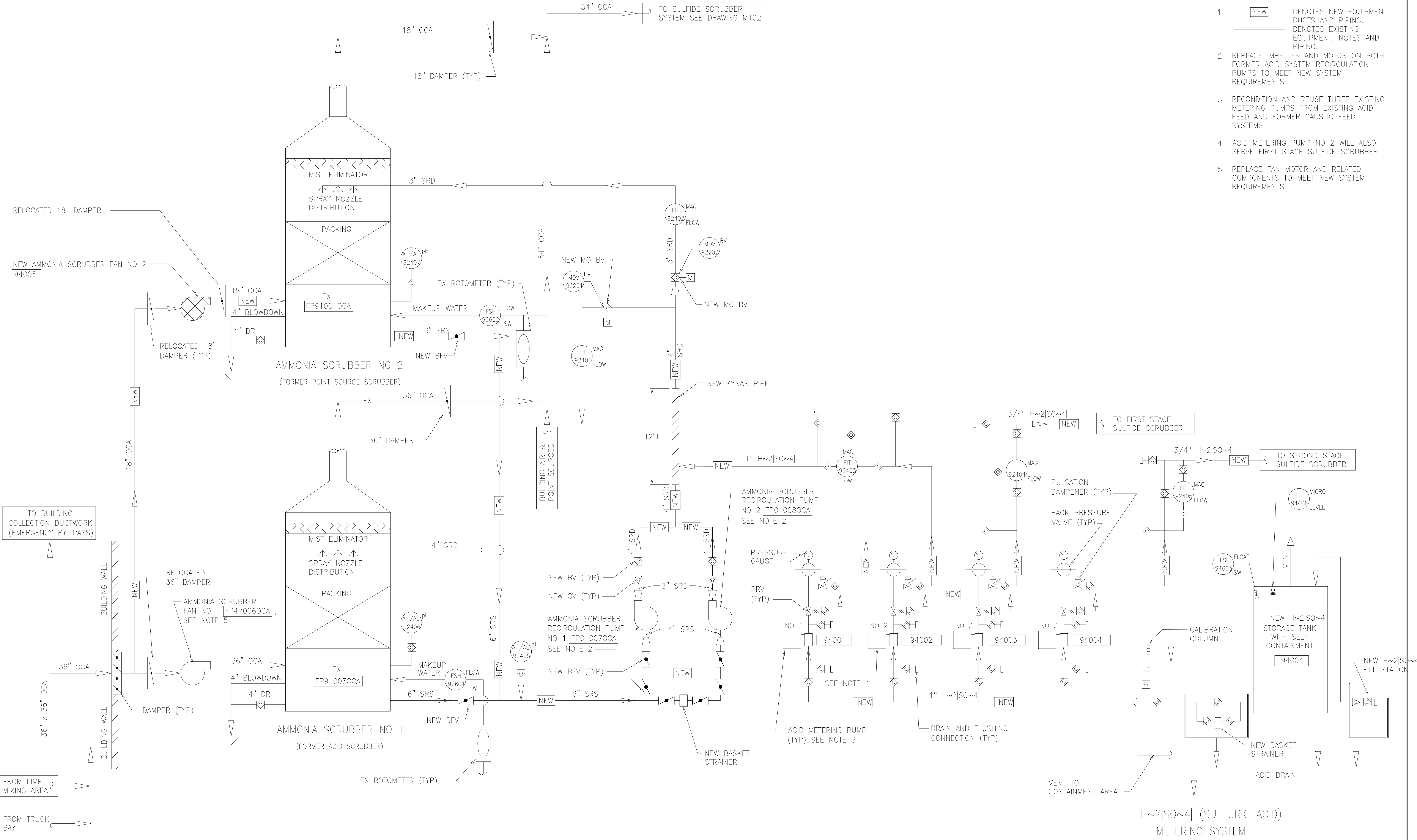
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
STRUCTURAL
PIPE SUPPORT SECTIONS AND DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER S210
	SHEET 40 OF 99



- NOTES:
- 1 NEW DENOTES NEW EQUIPMENT, DUCTS AND PIPING. EXIST DENOTES EXISTING EQUIPMENT, NOTES AND PIPING.
 - 2 REPLACE IMPELLER AND MOTOR ON BOTH FORMER ACID SYSTEM RECIRCULATION PUMPS TO MEET NEW SYSTEM REQUIREMENTS.
 - 3 RECONDITION AND REUSE THREE EXISTING METERING PUMPS FROM EXISTING ACID FEED AND FORMER CAUSTIC FEED SYSTEMS.
 - 4 ACID METERING PUMP NO 2 WILL ALSO SERVE FIRST STAGE SULFIDE SCRUBBER.
 - 5 REPLACE FAN MOTOR AND RELATED COMPONENTS TO MEET NEW SYSTEM REQUIREMENTS.

RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS
APPROVED	

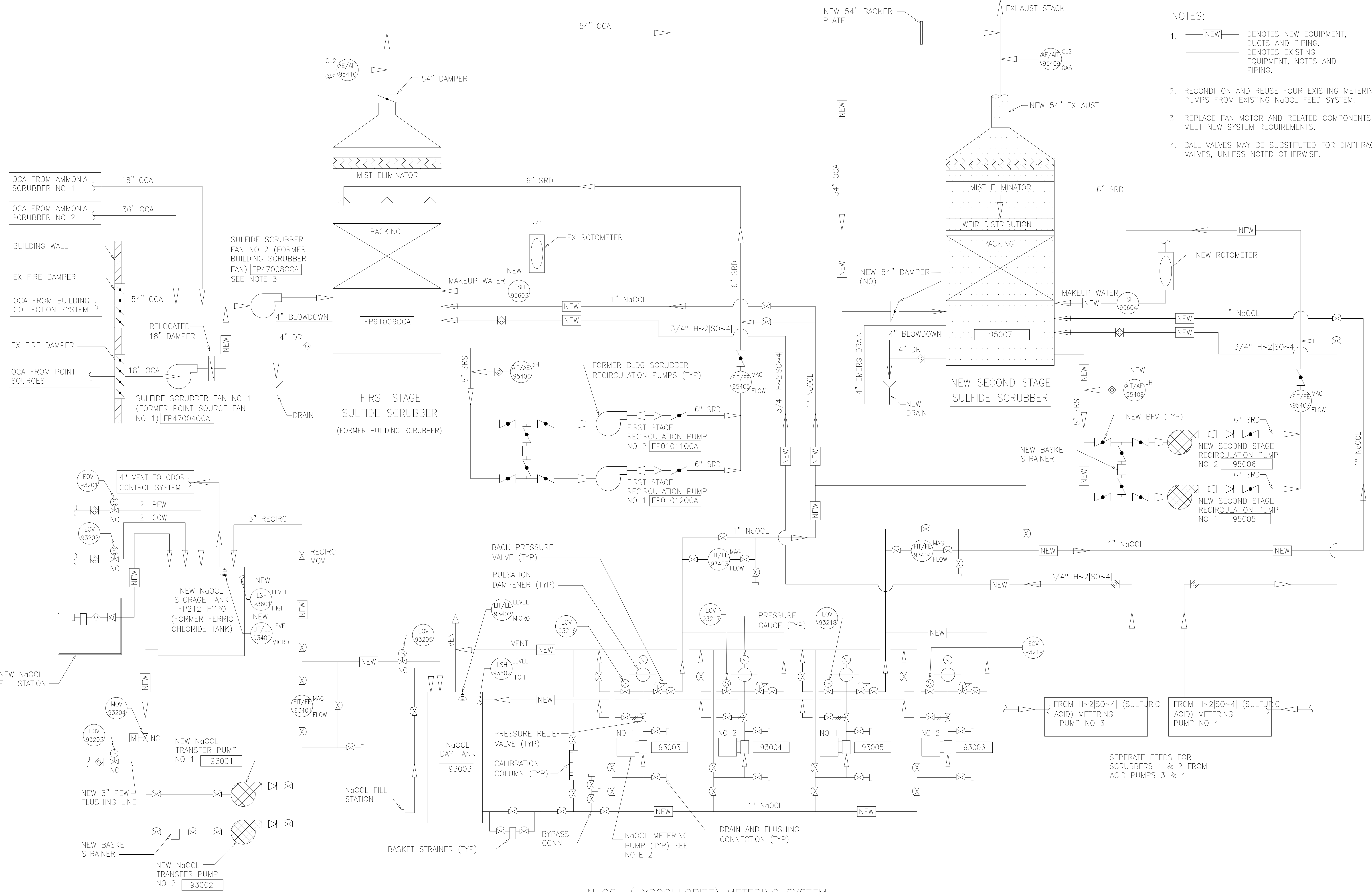
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
AMMONIA SCRUBBER SYSTEM
MECHANICAL
PROCESS FLOW DIAGRAM

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER M101
	SHEET 41 OF 99



- NOTES:
1. **NEW** DENOTES NEW EQUIPMENT, DUCTS AND PIPING.
 ——— DENOTES EXISTING EQUIPMENT, NOTES AND PIPING.
 2. RECONDITION AND REUSE FOUR EXISTING METERING PUMPS FROM EXISTING NaOCL FEED SYSTEM.
 3. REPLACE FAN MOTOR AND RELATED COMPONENTS TO MEET NEW SYSTEM REQUIREMENTS.
 4. BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAGM VALVES, UNLESS NOTED OTHERWISE.

NaOCL (HYPOCHLORITE) METERING SYSTEM

SEPERATE FEEDS FOR SCRUBBERS 1 & 2 FROM ACID PUMPS 3 & 4

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ.ENGR.	AMS
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

NO.	ISSUED FOR	DATE	BY	APPROVED
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

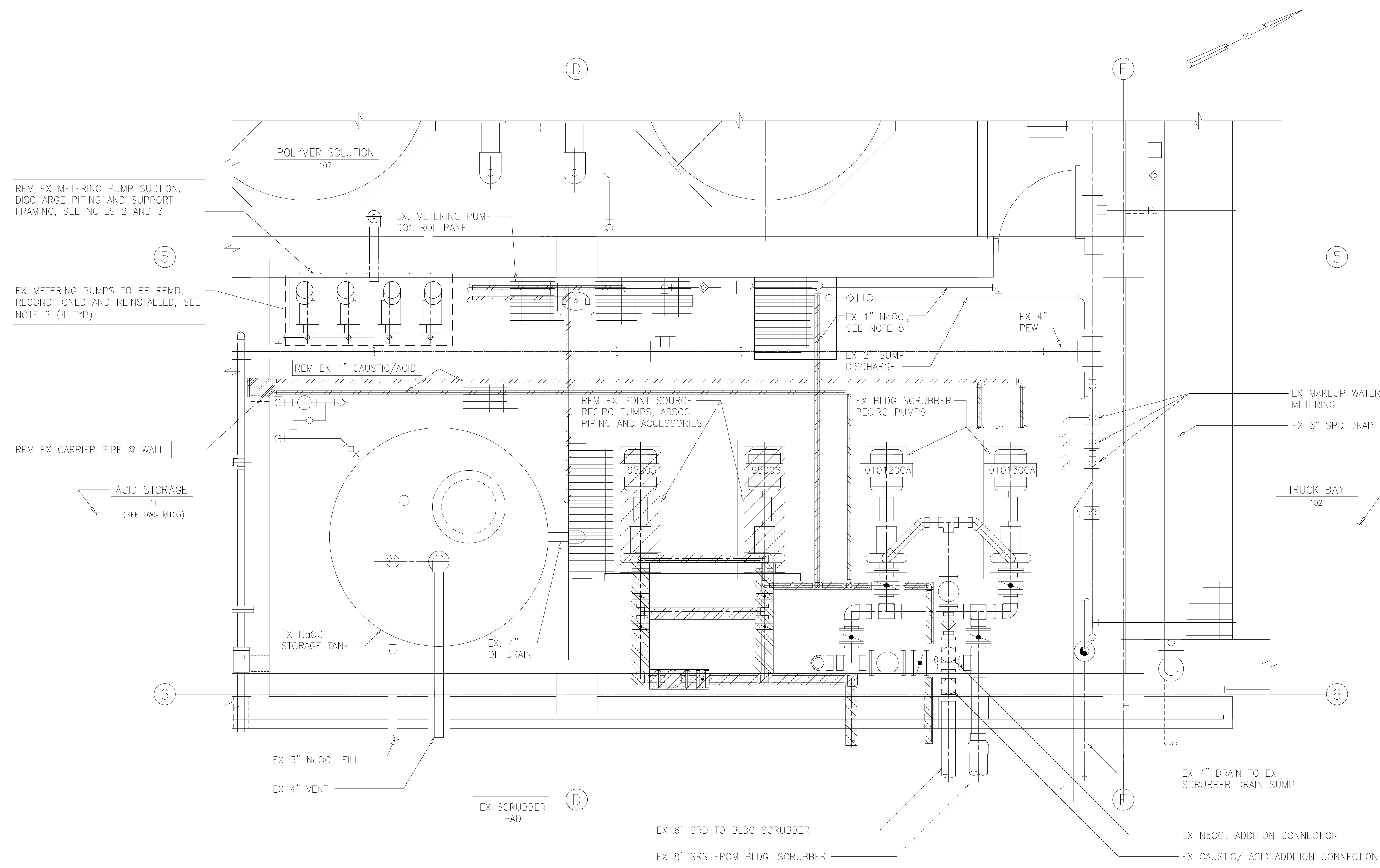
CENTRIFUGE DEWATERING BUILDING
SULFIDE SCRUBBER SYSTEM
MECHANICAL
PROCESS FLOW DIAGRAM

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M102
	SHEET 42 OF 99

NOTES:

- 1 DEMOLITION WORK SHALL BE PERFORMED PER SPECIFICATION SECTION 01520, MAINTENANCE OF PLANT OPERATIONS DURING CONSTRUCTION.
- 2 EXISTING SCRUBBER SYSTEM SHALL REMAIN IN OPERATION AT ALL TIMES. WORK ON METERING PUMPS, RECIRC PUMPS AND RELATED PIPING SHALL BE COORDINATED TO LIMIT DISTURBANCE TO OPERATIONS.
- 3 REUSE EXISTING PULSATION DAMPENERS, PRESSURE GAUGES, BACK PRESSURE VALVES AND PRESSURE RELIEF VALVES AS DIRECTED BY THE ENGINEER.
- 4 WHERE POSSIBLE, REMOVE EXISTING 1" NaOCl TO SCRUBBER OVERFLOWS. WHERE INACCESSIBLE, ABANDON PIPING IN PLACE.
- 5 LIMITS OF EXISTING NaOCl PIPE REMOVAL TO BE DETERMINED IN FIELD AND APPROVED BY THE ENGINEER.



TOP PLAN
1/2"=1'-0"

RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS
NO.	ISSUED FOR
DATE	BY
APPROVED	

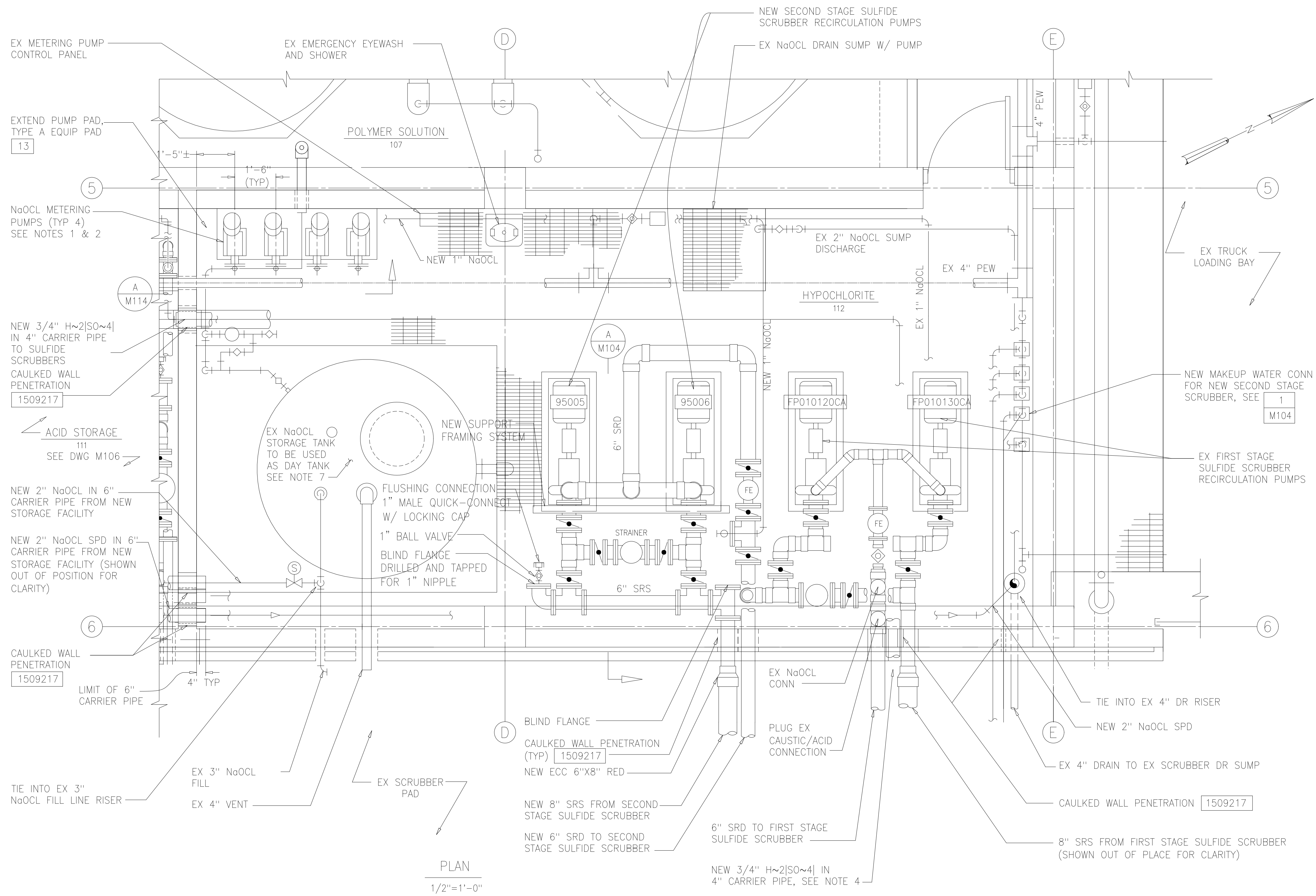
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

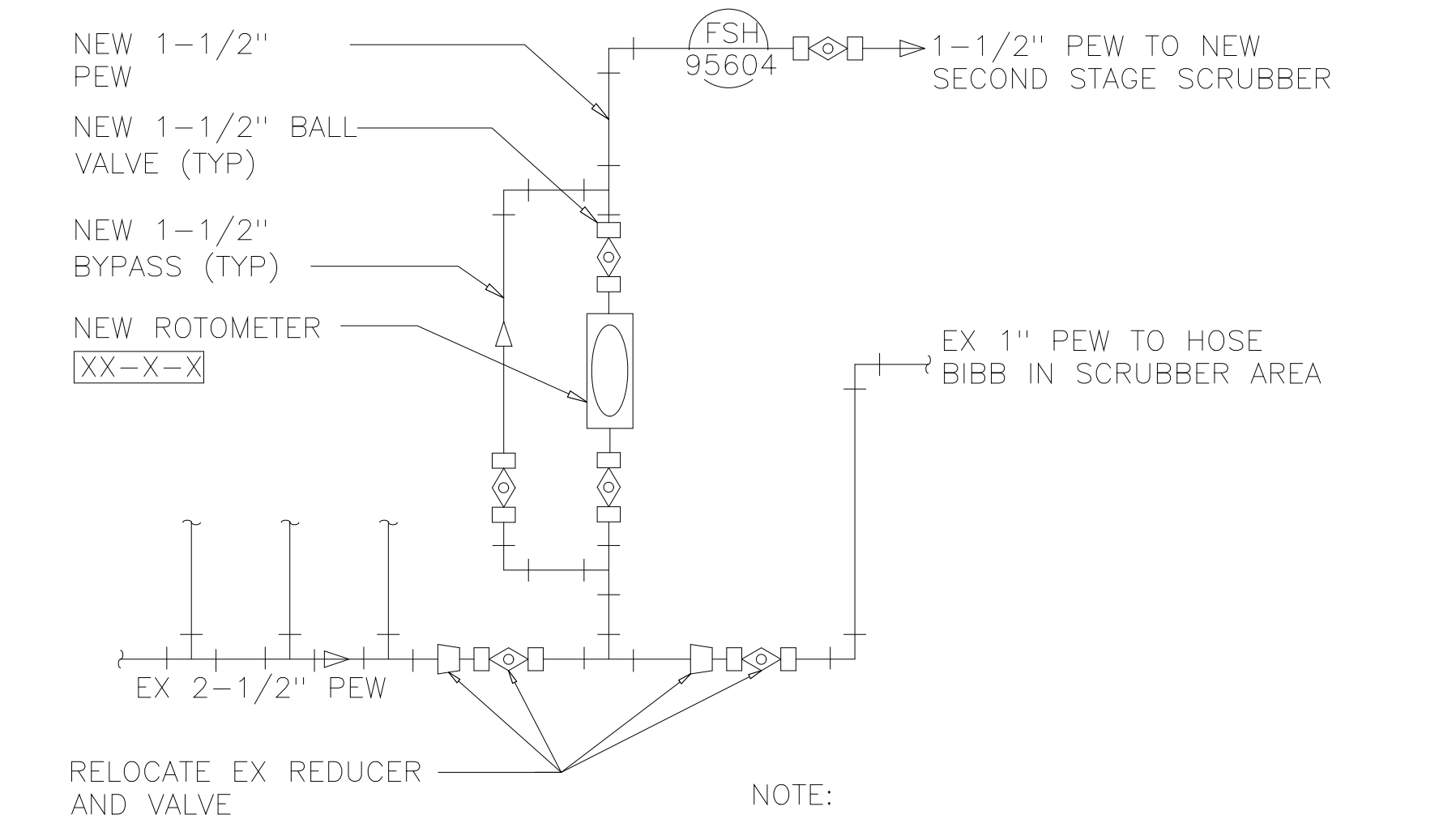
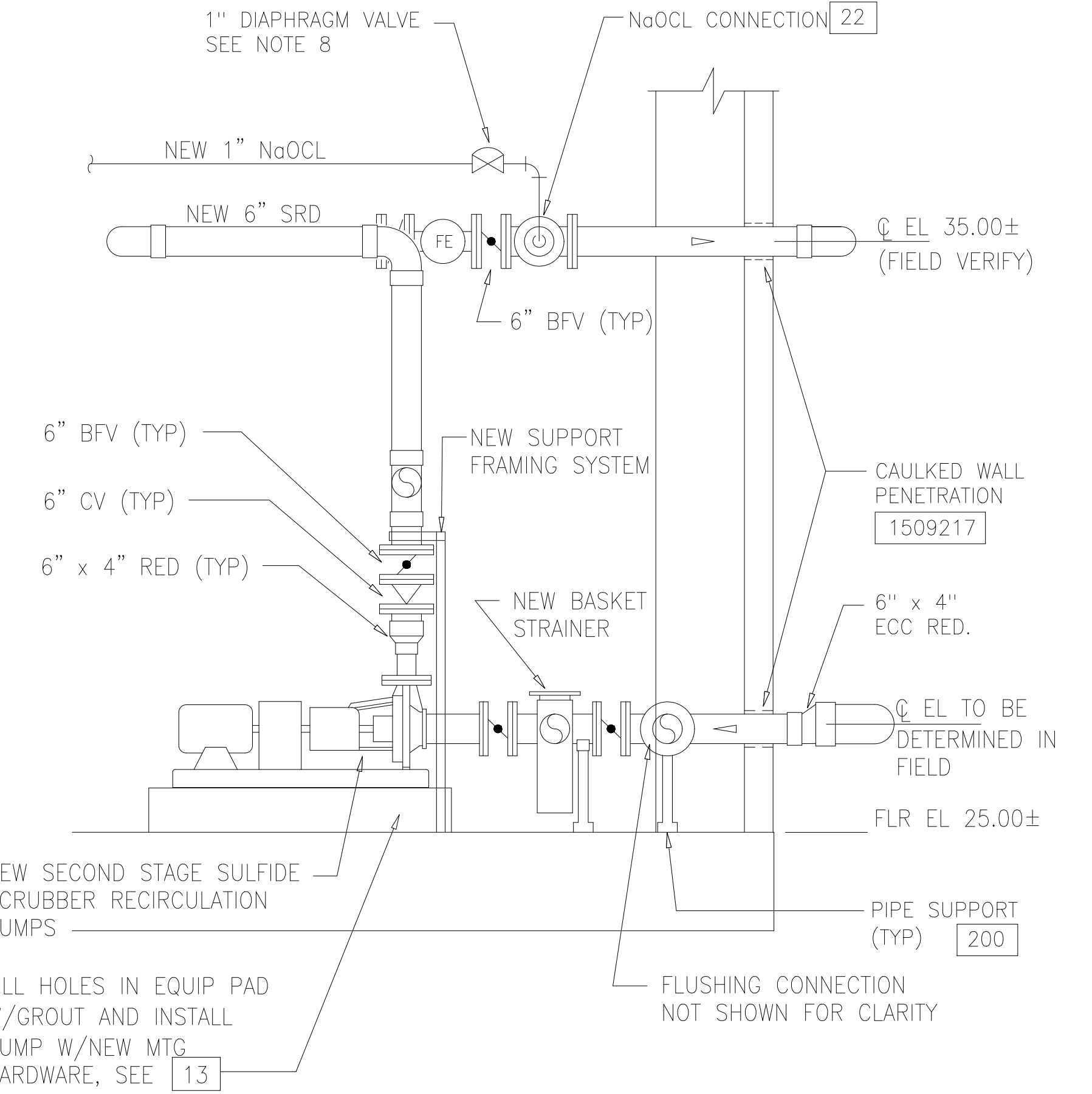
CENTRIFUGE DEWATERING BUILDING
HYPOCHLORITE ROOM 112
MECHANICAL DEMOLITION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M103
	SHEET 43 OF 99



- NOTES:
- RECONDITION AND REINSTALL EXISTING NaOCL METERING PUMPS.
 - NEW NaOCL METERING PUMP SUCTION AND DISCHARGE PIPING NOT SHOWN FOR CLARITY. REFER TO M114 FOR SECTIONS AND M115 FOR ISOMETRIC.
 - ALL PIPING SHALL BE SCH 80 PVC UNLESS NOTED OTHERWISE. H~2[S0~4] PIPING SHALL BE SCH 80 CPVC. CARRIER PIPES SHALL BE SCH 40 PVC OR CPVC AS APPLICABLE.
 - ROUTING OF NEW H~2[S0~4] PIPING SHALL BE DETERMINED IN FIELD AND APPROVED BY THE OWNER AND PROJECT ENGINEER.
 - PROVIDE NON-METALLIC PIPE SUPPORT SYSTEMS UNLESS NOTED OTHERWISE. SUPPORT PIPING FROM SCRUBBER VESSELS, PLATFORMS, CONCRETE SLAB OR WALLS USING PIPE SUPPORT OR HANGER DETAILS SHOWN ON DRAWINGS D004 AND D005. USE DETAILS 223, 224, 225 TO SUPPORT PIPES TO WALL, DETAILS 200 OR 207 TO SUPPORT PIPES FROM FLOOR, DETAILS 210, 211 OR 212 TO SUPPORT PIPES FROM CEILING AND DETAILS 220, 221, OR 222 TO SUPPORT SRS AND SRD FROM WALL.

- LOCATIONS & ELEVATIONS OF EXISTING EQUIPMENT, VESSELS, DUCTWORK, PIPING, STRUCTURES AND OTHER FEATURES ARE TAKEN FROM AVAILABLE INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
- INSTALL NEW ULTRASONIC LEVEL SENSOR & INDICATOR ON EXISTING NaOCL DAY TANK.
- BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAGM VALVES UNLESS NOTED OTHERWISE.



MAKE-UP WATER CONNECTION DETAIL
 DETAIL 1
 NTS M104

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ.ENGR.	AMS
NO.	ISSUED FOR
DATE	BY
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

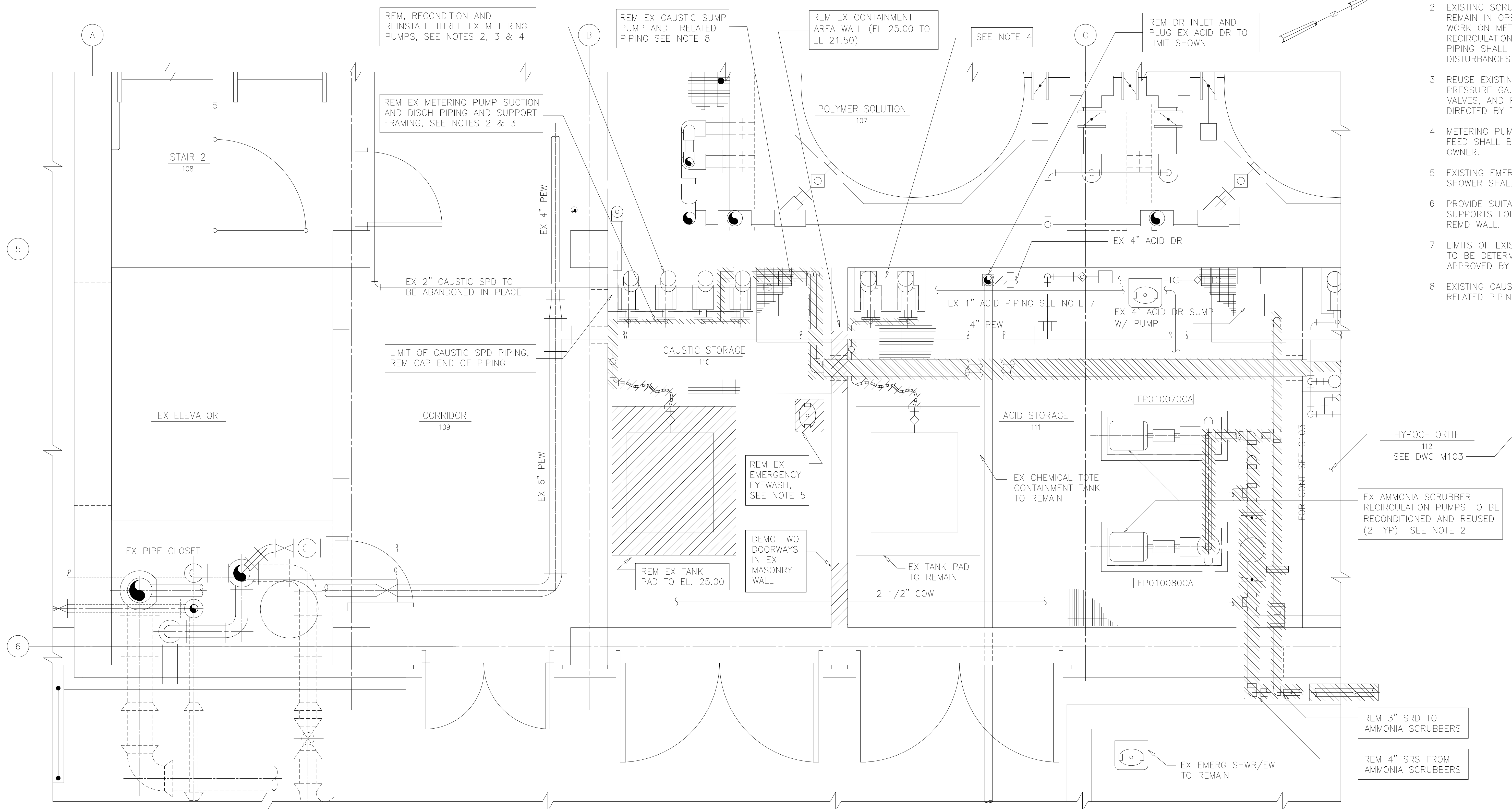
CENTRIFUGE DEWATERING BUILDING
 HYPOCHLORITE ROOM 112
 MECHANICAL MODIFICATIONS

RECORD DRAWING

DATE: SEPT 2000	H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-WPC	DRAWING NUMBER: M104
SHEET 44 OF 99	

NOTES:

- 1 DEMOLITION WORK SHALL BE PERFORMED PER SPECIFICATION SECTION 01520, MAINTENANCE OF PLANT OPERATION DURING CONSTRUCTION.
- 2 EXISTING SCRUBBER SYSTEM SHALL REMAIN IN OPERATION AT ALL TIMES. WORK ON METERING PUMPS, RECIRCULATION PUMPS, AND RELATED PIPING SHALL BE COORDINATED TO LIMIT DISTURBANCES TO OPERATIONS.
- 3 REUSE EXISTING PULSATION DAMPENERS, PRESSURE GAUGES, BACK PRESSURE VALVES, AND PRESSURE VALVES AS DIRECTED BY THE ENGINEER.
- 4 METERING PUMPS NOT USED FOR H2SO4 FEED SHALL BE TURNED OVER TO THE OWNER.
- 5 EXISTING EMERGENCY EYEWASH AND SHOWER SHALL BE RELOCATED.
- 6 PROVIDE SUITABLE PERMANENT PIPE SUPPORTS FOR PIPING SUPPORTED BY REMD WALL.
- 7 LIMITS OF EXISTING ACID PIPING REMOVAL TO BE DETERMINED IN FIELD AND APPROVED BY THE ENGINEER.
- 8 EXISTING CAUSTIC SUMP PUMP AND RELATED PIPING SHALL BE RELOCATED.



PLAN
1/2"=1'-0"

RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS
NO.	ISSUED FOR
DATE	BY
APPROVED	

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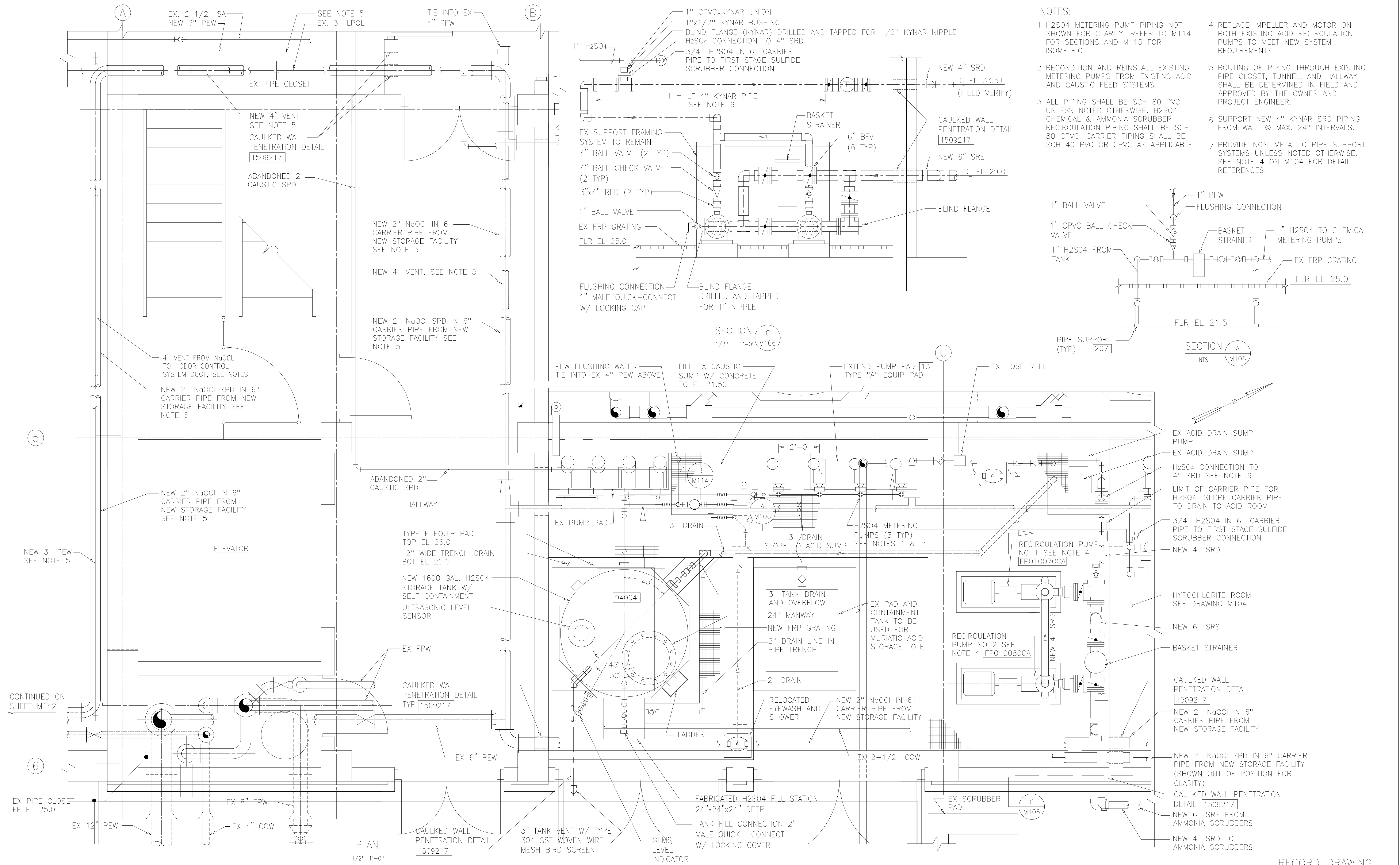
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

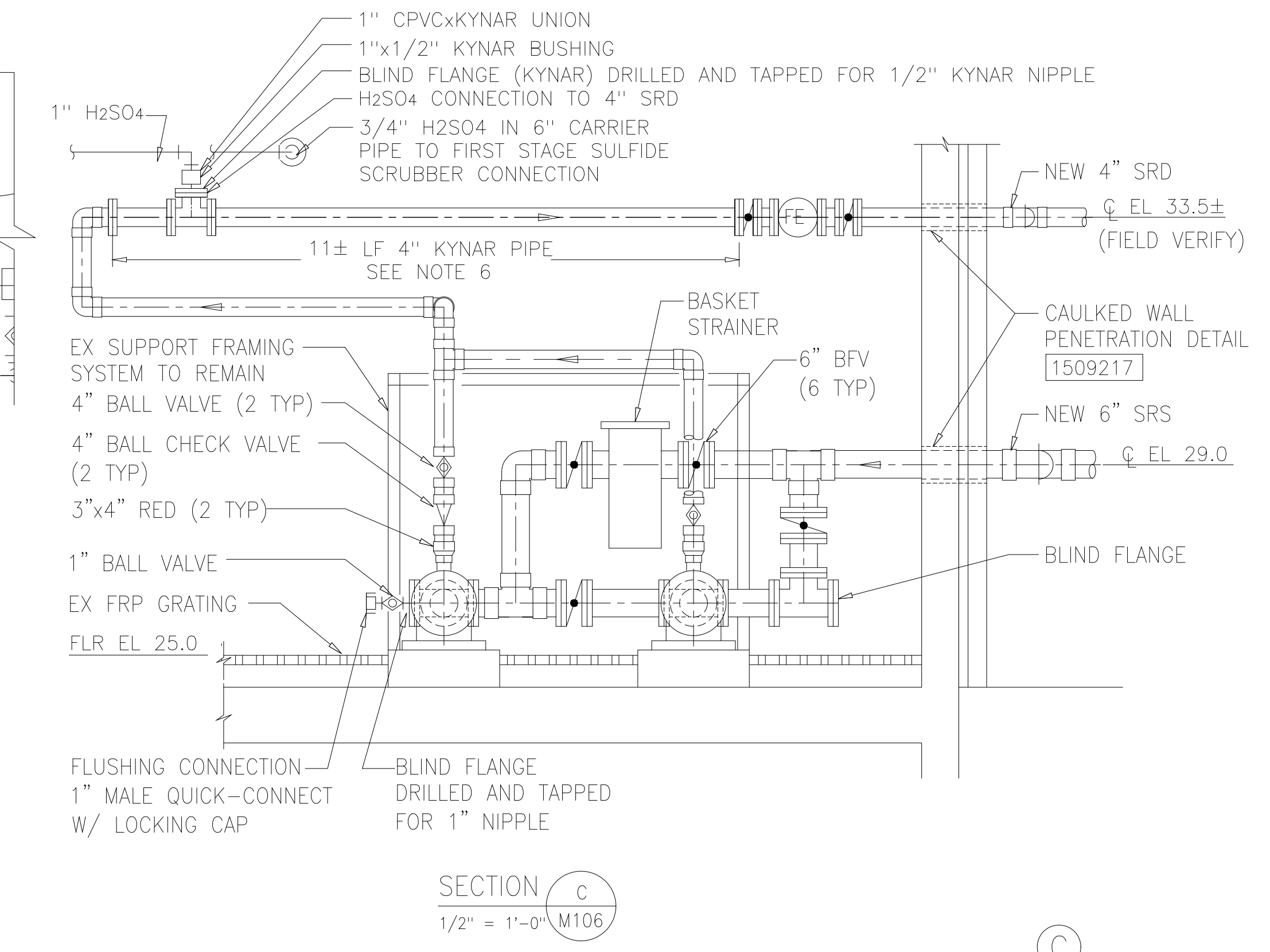
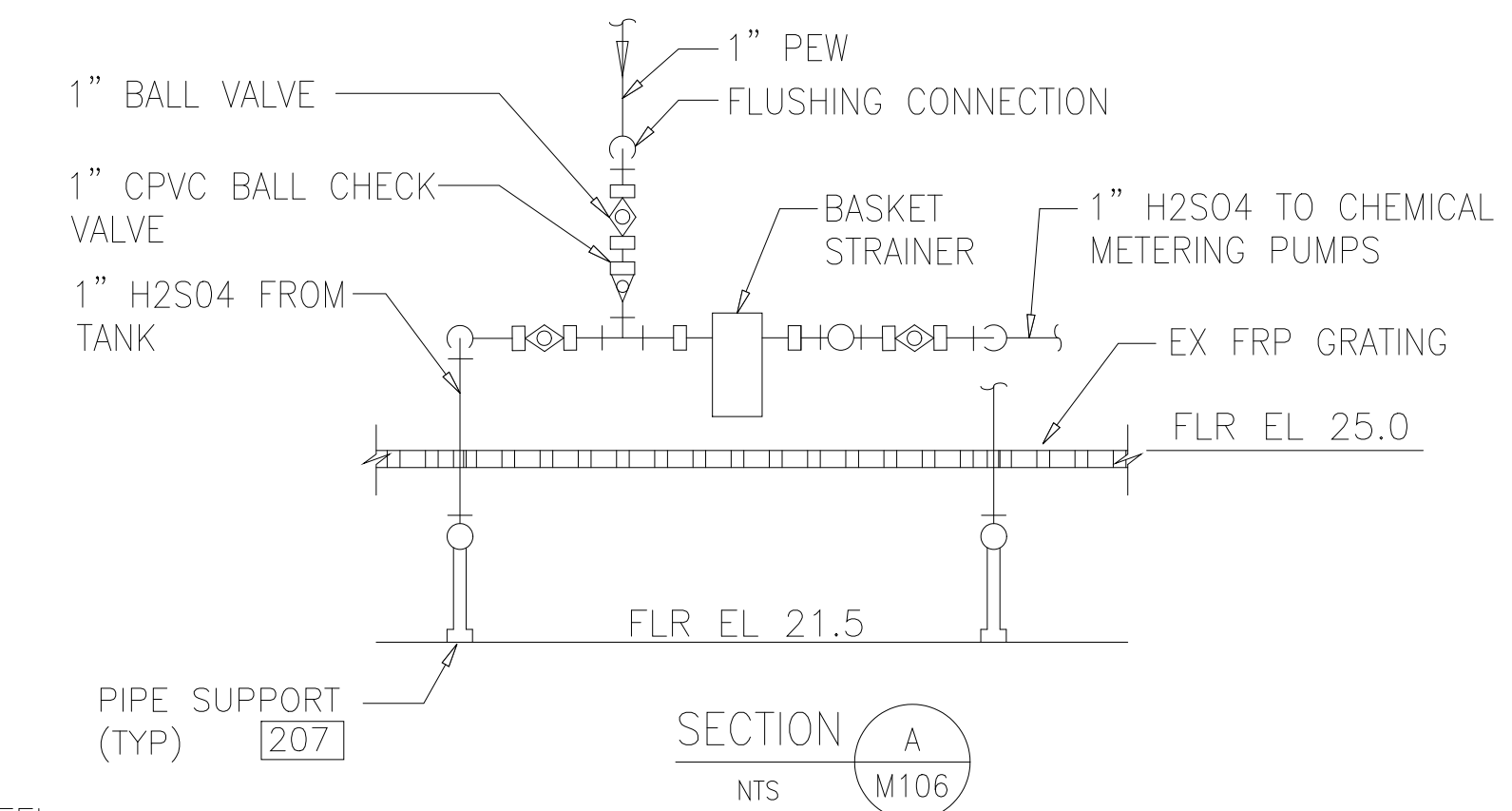
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ACID AND CAUSTIC STORAGE ROOMS
MECHANICAL
DEMOLITION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M105
	SHEET 45 OF 99



- NOTES:
- H2SO4 METERING PUMP PIPING NOT SHOWN FOR CLARITY. REFER TO M114 FOR SECTIONS AND M115 FOR ISOMETRIC.
 - RECONDITION AND REINSTALL EXISTING METERING PUMPS FROM EXISTING ACID AND CAUSTIC FEED SYSTEMS.
 - ALL PIPING SHALL BE SCH 80 PVC UNLESS NOTED OTHERWISE. H2SO4 CHEMICAL & AMMONIA SCRUBBER RECIRCULATION PIPING SHALL BE SCH 80 CPVC. CARRIER PIPING SHALL BE SCH 40 PVC OR CPVC AS APPLICABLE.
 - REPLACE IMPELLER AND MOTOR ON BOTH EXISTING ACID RECIRCULATION PUMPS TO MEET NEW SYSTEM REQUIREMENTS.
 - ROUTING OF PIPING THROUGH EXISTING PIPE CLOSET, TUNNEL, AND HALLWAY SHALL BE DETERMINED IN FIELD AND APPROVED BY THE OWNER AND PROJECT ENGINEER.
 - SUPPORT NEW 4" KYNAR SRD PIPING FROM WALL @ MAX. 24" INTERVALS.
 - PROVIDE NON-METALLIC PIPE SUPPORT SYSTEMS UNLESS NOTED OTHERWISE. SEE NOTE 4 ON M104 FOR DETAIL REFERENCES.



DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS
NO.	ISSUED FOR
DATE	BY
APPROVED	

NO.	ISSUED FOR	DATE	BY	APPROVED

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ACID AND CAUSTIC STORAGE ROOMS

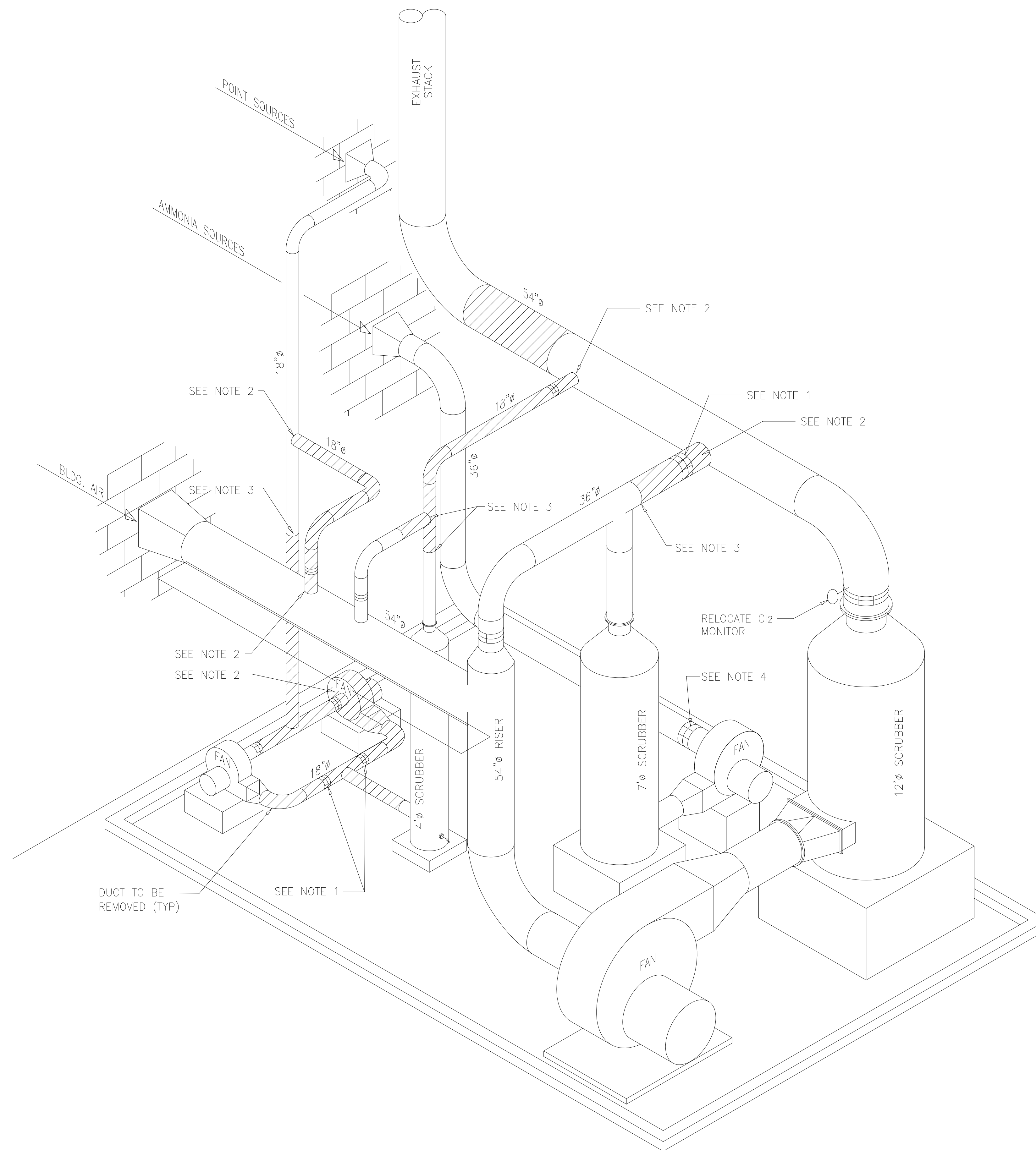
MECHANICAL MODIFICATIONS

RECORD DRAWING

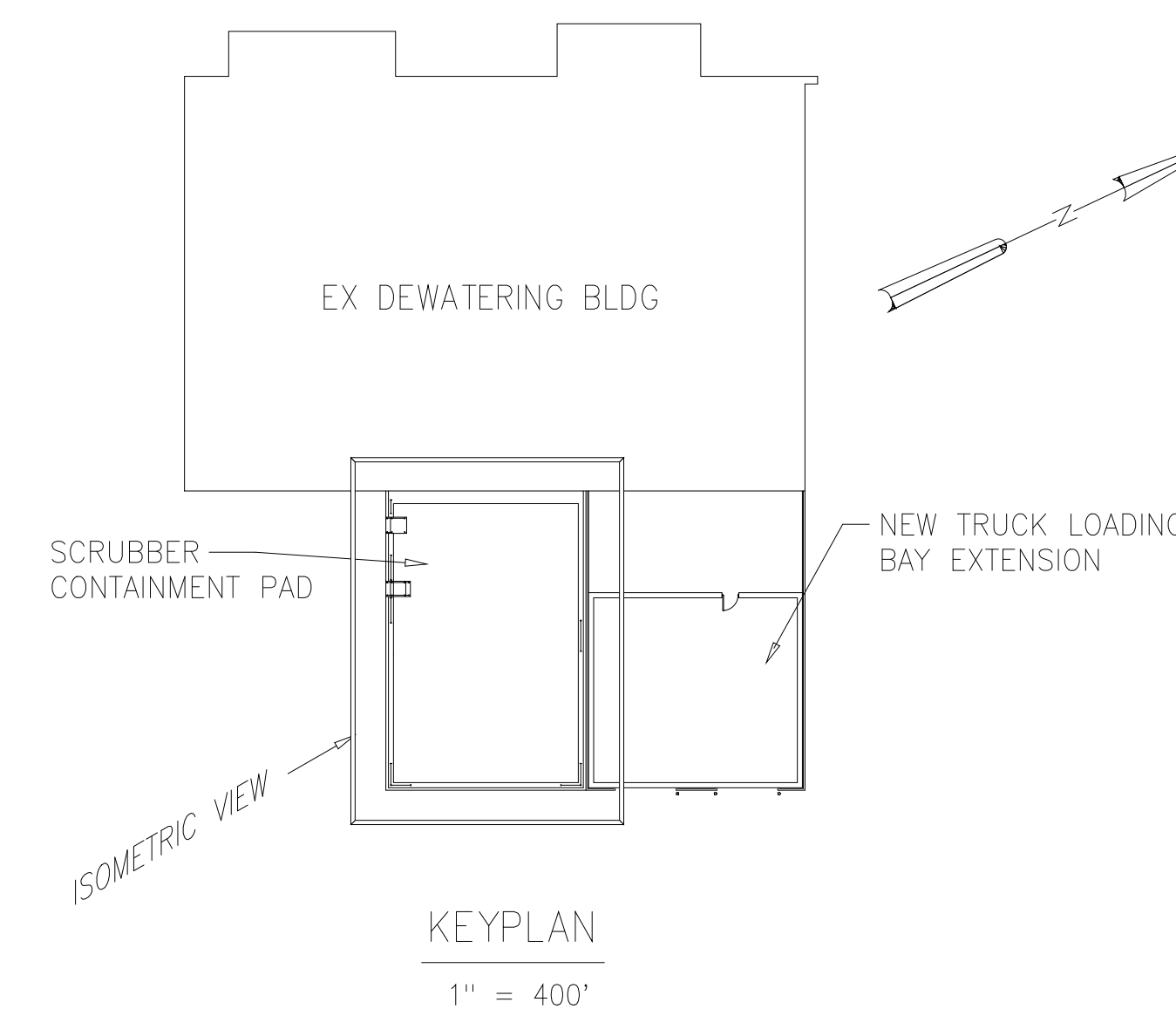
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M106
	SHEET 46 OF 99

NOTES:

- 1 ITEMS TO BE REMOVED FROM EXISTING DUCTWORK AND REUSED:
A TWO 18" DAMPERS
B ONE 36" DAMPER
- 2 PATCH EXISTING DUCT WITH FRP REPAIR SYSTEM COMPATIBLE WITH EXISTING FRP DUCT.
- 3 COORDINATE LIMIT OF DUCT REMOVAL WITH NEW DUCTWORK AND PLATFORM AND LOCATIONS.
- 4 REMOVE PORTION OF EXISTING DUCT FOR INSTALLATION OF RELOCATED 36" DAMPER AND FLANGED STUBS.
- 5 REMOVE EXISTING POINT SOURCE SCRUBBER FAN [FP470050CA] AND TURN OVER TO THE OWNER.



ISOMETRIC DEMOLITION FOR DUCTWORK
NTS



RECORD DRAWING

DESIGNED	AWS
DRAWN	FAH
CHECKED	JSI
PROJ. ENGR.	AMS
APPROVED	

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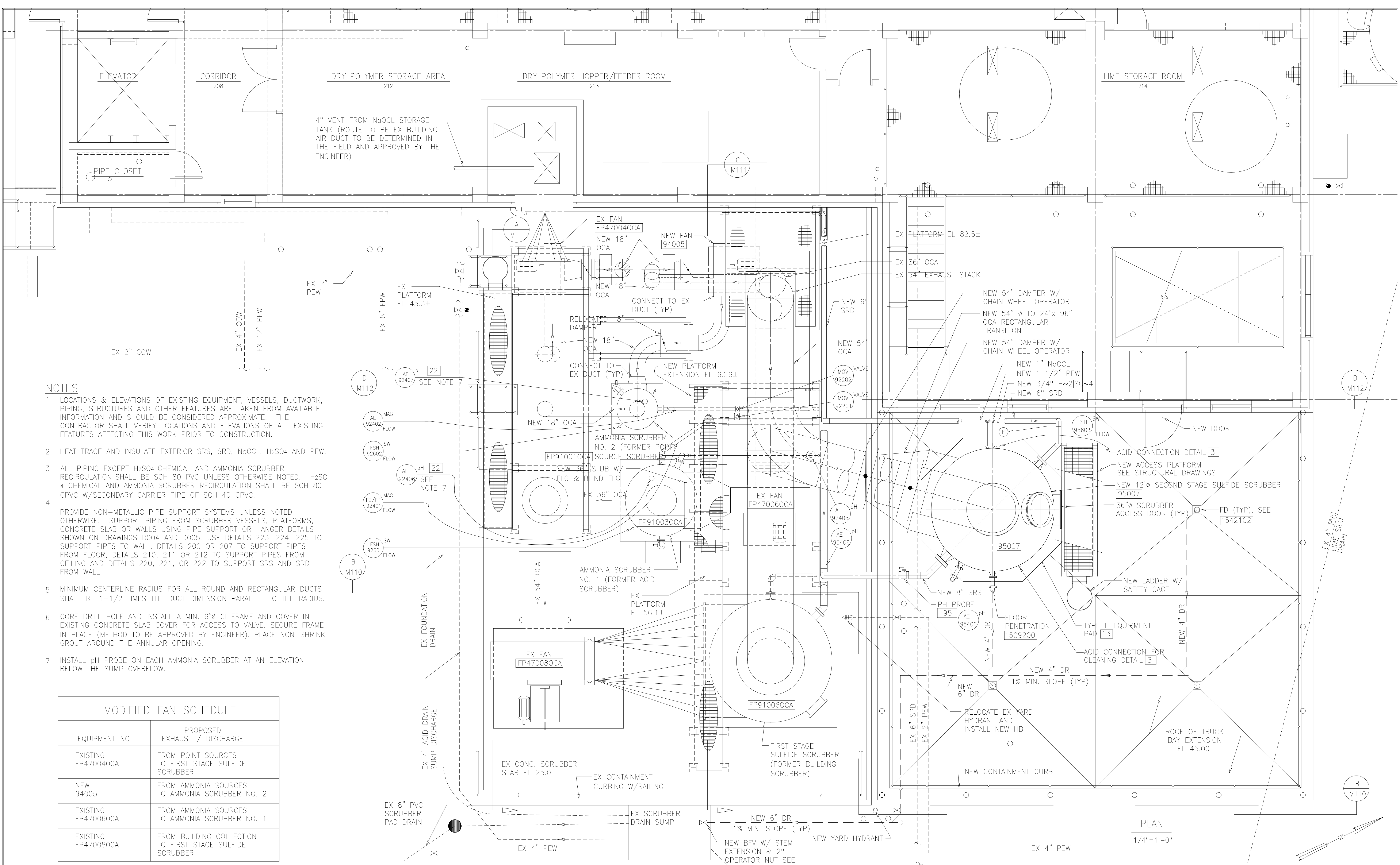
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
MECHANICAL
DEMOLITION ISOMETRIC

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M107
	SHEET 47 OF 99



NOTES

- LOCATIONS & ELEVATIONS OF EXISTING EQUIPMENT, VESSELS, DUCTWORK, PIPING, STRUCTURES AND OTHER FEATURES ARE TAKEN FROM AVAILABLE INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
- HEAT TRACE AND INSULATE EXTERIOR SRS, SRD, NaOCL, H2SO4 AND PEW.
- ALL PIPING EXCEPT H2SO4 CHEMICAL AND AMMONIA SCRUBBER RECIRCULATION SHALL BE SCH 80 PVC UNLESS OTHERWISE NOTED. H2SO4 CHEMICAL AND AMMONIA SCRUBBER RECIRCULATION SHALL BE SCH 80 CPVC W/SECONDARY CARRIER PIPE OF SCH 40 CPVC.
- PROVIDE NON-METALLIC PIPE SUPPORT SYSTEMS UNLESS NOTED OTHERWISE. SUPPORT PIPING FROM SCRUBBER VESSELS, PLATFORMS, CONCRETE SLAB OR WALLS USING PIPE SUPPORT OR HANGER DETAILS SHOWN ON DRAWINGS D004 AND D005. USE DETAILS 223, 224, 225 TO SUPPORT PIPES TO WALL, DETAILS 200 OR 207 TO SUPPORT PIPES FROM CEILING AND DETAILS 220, 221, OR 222 TO SUPPORT SRS AND SRD FROM WALL.
- MINIMUM CENTERLINE RADIUS FOR ALL ROUND AND RECTANGULAR DUCTS SHALL BE 1-1/2 TIMES THE DUCT DIMENSION PARALLEL TO THE RADIUS.
- CORE DRILL HOLE AND INSTALL A MIN. 6"Ø CI FRAME AND COVER IN EXISTING CONCRETE SLAB COVER FOR ACCESS TO VALVE. SECURE FRAME IN PLACE (METHOD TO BE APPROVED BY ENGINEER). PLACE NON-SHRINK GROUT AROUND THE ANNULAR OPENING.
- INSTALL pH PROBE ON EACH AMMONIA SCRUBBER AT AN ELEVATION BELOW THE SUMP OVERFLOW.

MODIFIED FAN SCHEDULE	
EQUIPMENT NO.	PROPOSED EXHAUST / DISCHARGE
EXISTING FP47004OCA	FROM POINT SOURCES TO FIRST STAGE SULFIDE SCRUBBER
NEW 94005	FROM AMMONIA SOURCES TO AMMONIA SCRUBBER NO. 2
EXISTING FP47006OCA	FROM AMMONIA SOURCES TO AMMONIA SCRUBBER NO. 1
EXISTING FP47008OCA	FROM BUILDING COLLECTION TO FIRST STAGE SULFIDE SCRUBBER

PLAN
1/4"=1'-0"

RECORD DRAWING

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ.ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

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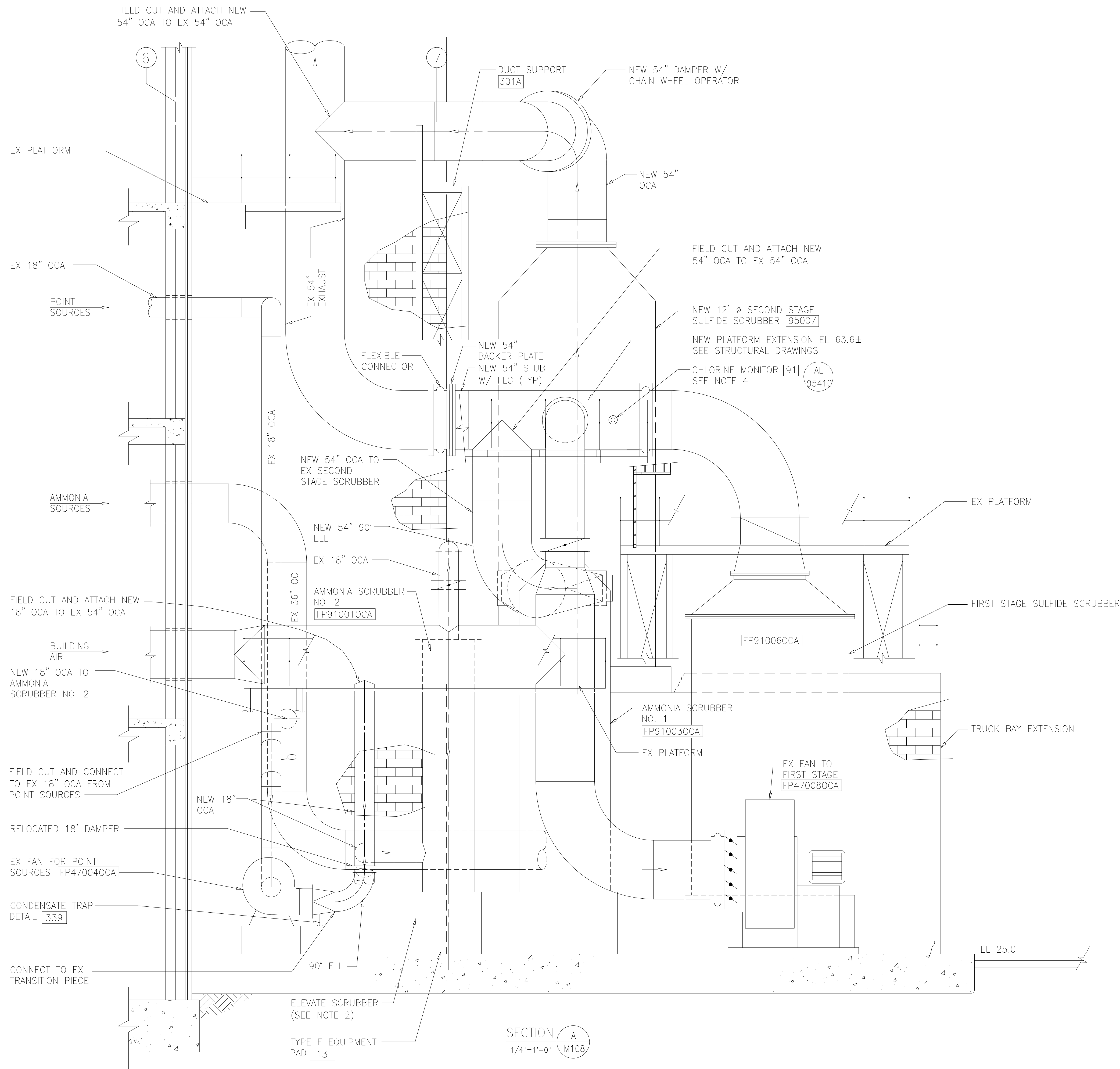
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FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
MECHANICAL PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M108
	SHEET 48 OF 99



NOTES:

- 1 SEE DRAWING M108 FOR PERTINENT NOTES.
- 2 EXISTING POINT SCRUBBER TO BE ELEVATED ON NEW CONCRETE EQUIPMENT PAD. SET TOP OF PAD ELEVATION SUCH THAT THE SCRUBBER SUMP OVERFLOW MATCHES THE SUMP OVERFLOW ELEVATION OF THE EXISTING ACID SCRUBBER.
- 3 EXISTING PLATFORM NEAR FIRST STAGE SULFIDE SCRUBBER NOT SHOWN FOR CLARITY.
- 4 INSTALL NEW CHLORINE MONITOR AT LOCATION SHOWN. REMOVE EXISTING CHLORINE MONITOR AND PATCH EXISTING DUCT WITH FRP. REPAIR SYSTEM COMPATIBLE WITH EXISTING DUCT.
- 5 EXISTING AND PROPOSED SCRUBBER PIPING NOT SHOWN FOR CLARITY.

SECTION A
1/4"=1'-0" M108

RECORD DRAWING

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ.ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

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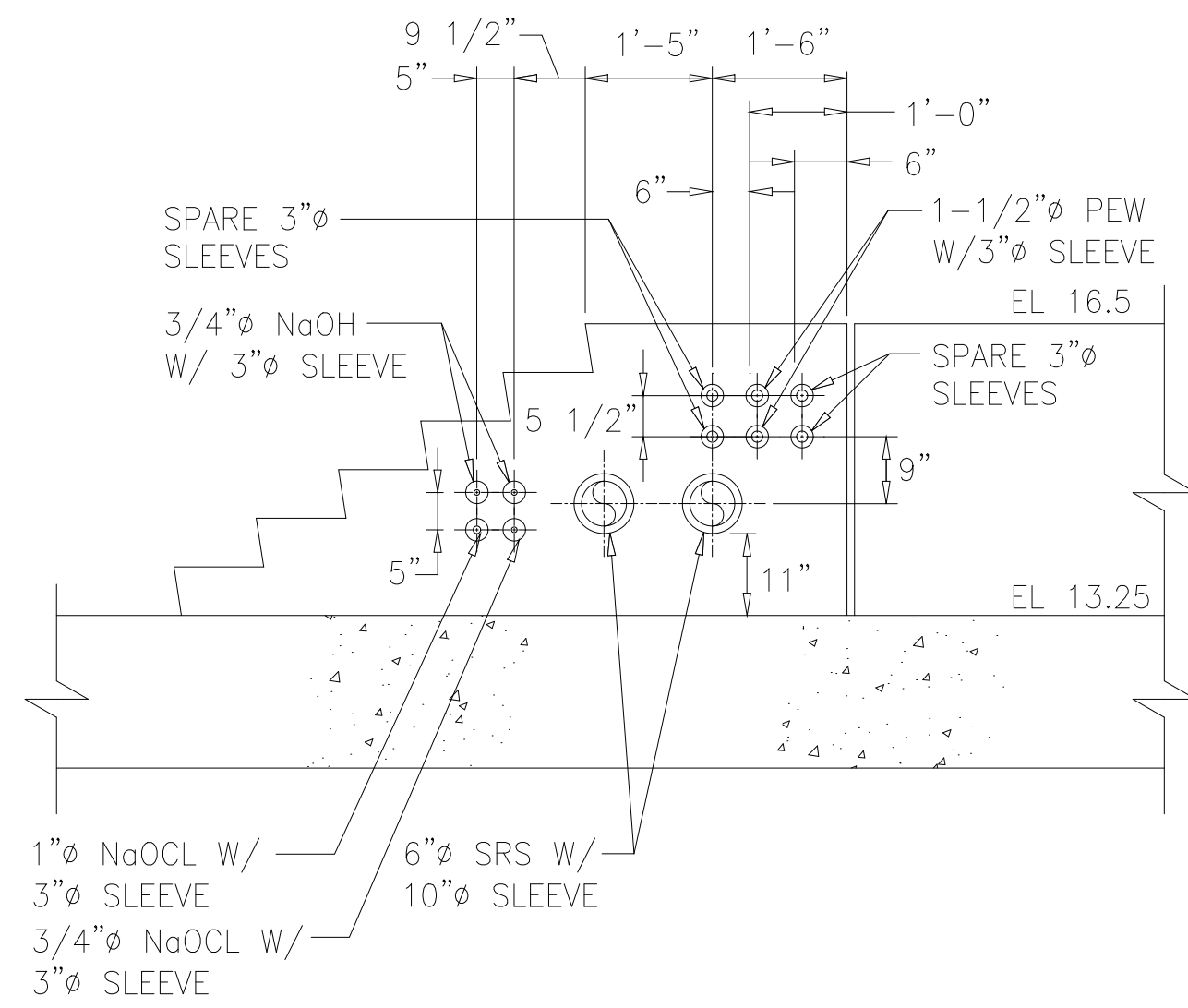
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

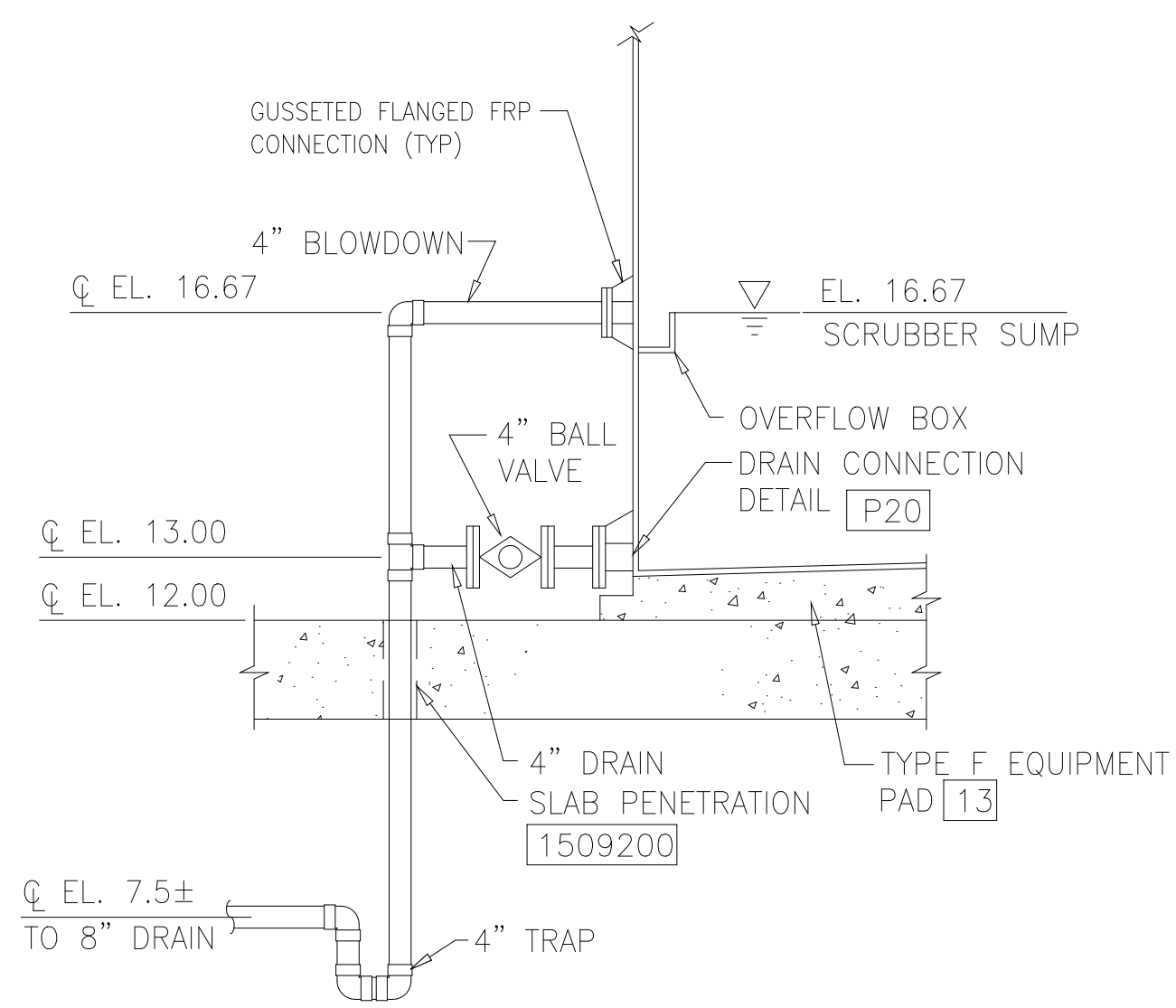
CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
MECHANICAL SECTION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M109
	SHEET 49 OF 99

NOTE:
SEAL ANNULAR SPACE WITHIN SLEEVES WITH BACKER ROD AND SILICONE SEALANT. TYPICAL FOR ALL PIPE PENETRATIONS.

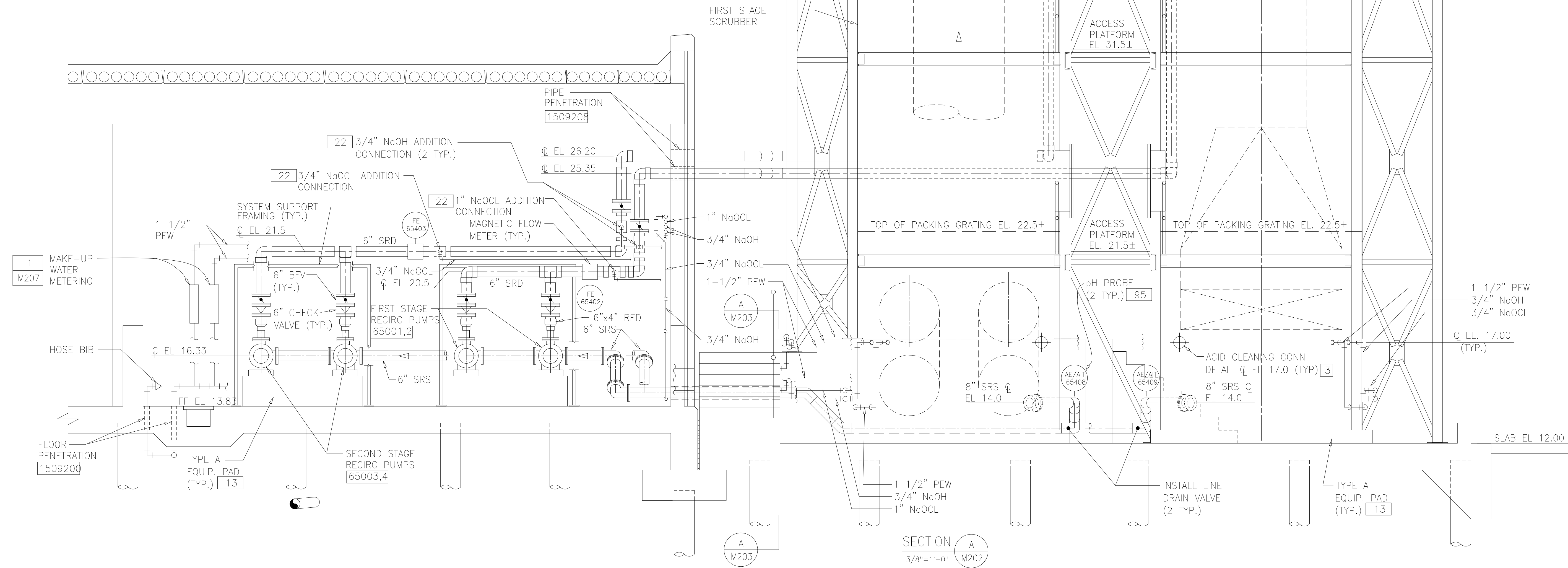


SECTION A
1/2"=1'-0" M203



SCRUBBER BLOWDOWN/ DRAIN DETAIL

DETAIL 1
NTS M202



SECTION A
3/8"=1'-0" M202

NOTES:

- 1 ODOR CONTROL FAN NOT SHOWN FOR CLARITY.
- 2 ELEVATIONS OF PIPE CONNECTIONS TO SCRUBBER ARE APPROXIMATE. COORDINATE WITH SCRUBBER MANUFACTURER.
- 3 PROVIDE NON-METALLIC PIPE SYSTEMS UNLESS NOTED OTHERWISE. SUPPORT PIPING FROM SCRUBBER VESSELS, PLATFORMS, CONCRETE SLAB, OR WALLS USING PIPE SUPPORT OR HANGER DETAILS SHOWN ON STANDARD DETAIL DRAWINGS. USE DETAILS 223, 224, OR 225 TO SUPPORT PIPES TO WALL. USE DETAILS 200 OR 207 TO SUPPORT PIPES FROM FLOOR. USE DETAILS 210, 211, OR 212 TO SUPPORT PIPES FROM CEILING. USE DETAILS 220, 221, OR 222 TO SUPPORT SRS AND SRD FROM WALL.
- 4 HEAT TRACE AND INSULATE EXTERIOR SRS, SRD, NaOCL, NaOH, AND PEW LINES.
- 5 ALL PIPING SHALL BE SCH 80 PVC UNLESS OTHERWISE NOTED.
- 6 SEE STRUCTURAL DRAWINGS FOR ACCESS PLATFORM.

RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

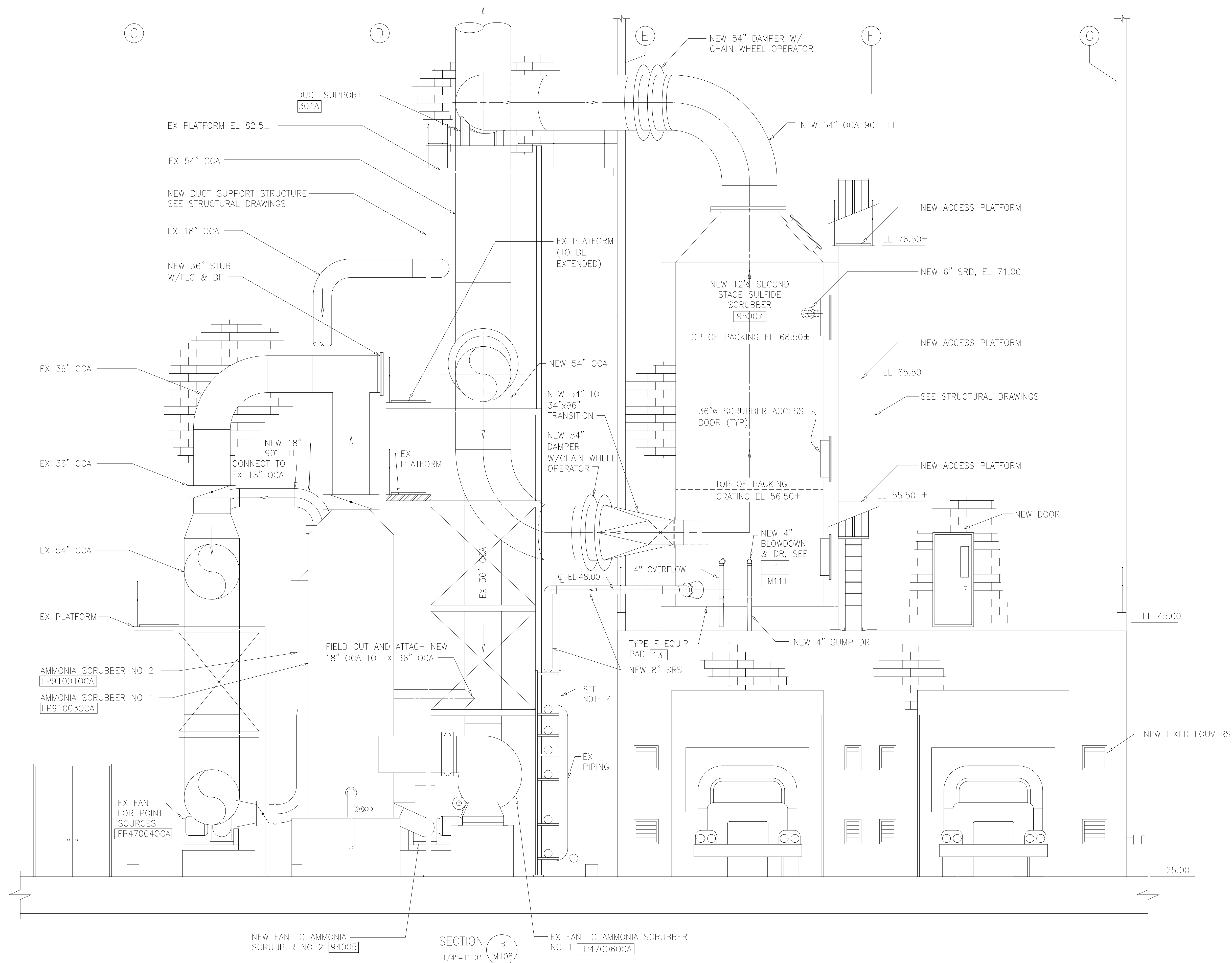
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
MECHANICAL SECTIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M203
	SHEET 66 OF 99

NOTES:

- 1 SEE DRAWING M108 FOR PERTINENT NOTES.
- 2 EXISTING SCRUBBER PIPING NOT SHOWN FOR CLARITY.
- 3 ELEVATIONS FOR SCRUBBER PACKING AND PIPE CONNECTIONS ARE APPROXIMATE. COORDINATE WITH SCRUBBER MANUFACTURER.
- 4 EXTEND EXISTING PIPE PIPE SUPPORT STRUCTURE AS REQUIRED. MATCH EXISTING MATERIALS.



NEW FAN TO AMMONIA SCRUBBER NO 2 [94005]

SECTION B
1/4"=1'-0" M108

EX FAN TO AMMONIA SCRUBBER NO 1 [FP47006OCA]

DESIGNED	AMS
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PROJ.ENGR.	AMS
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

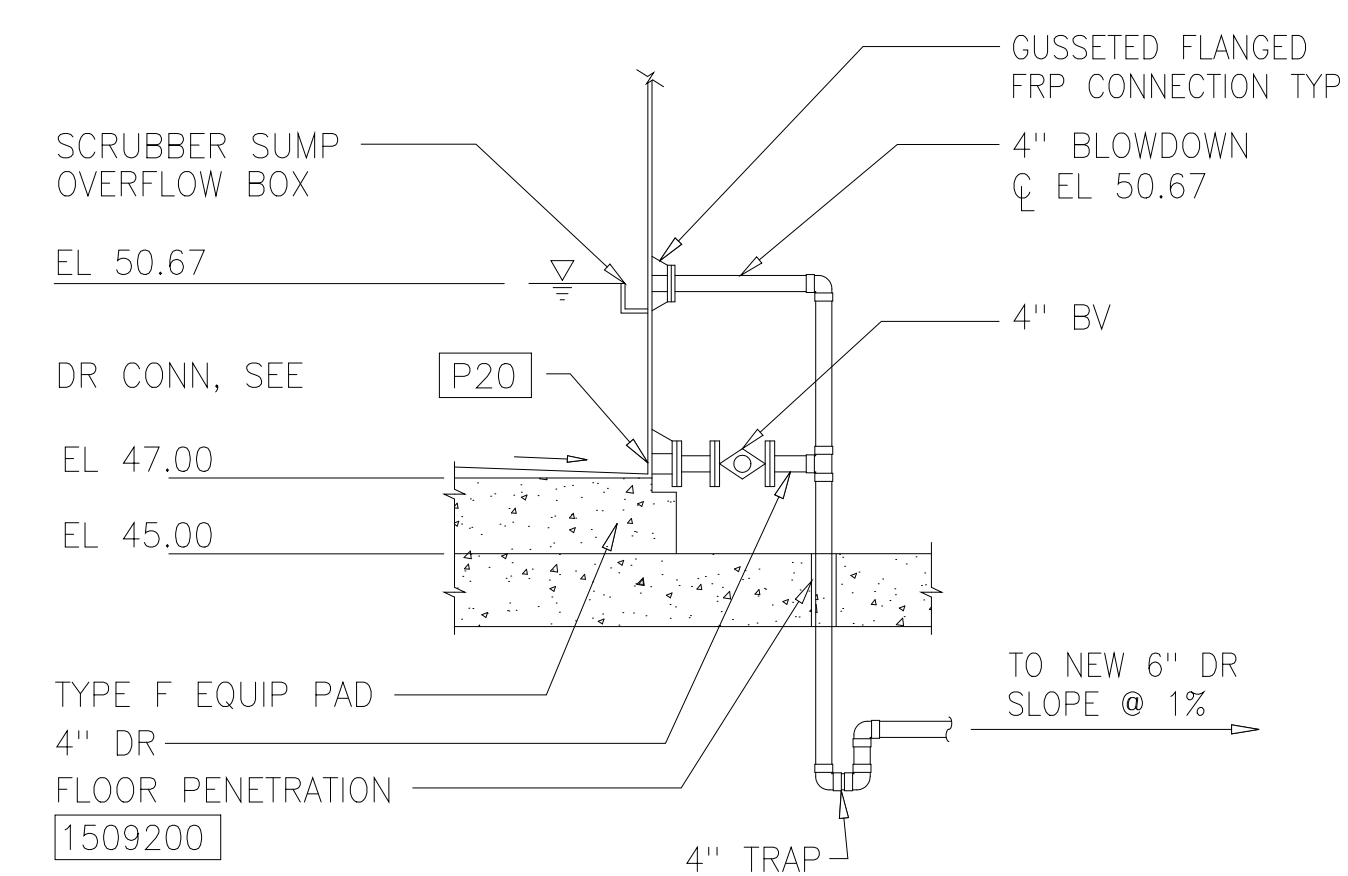
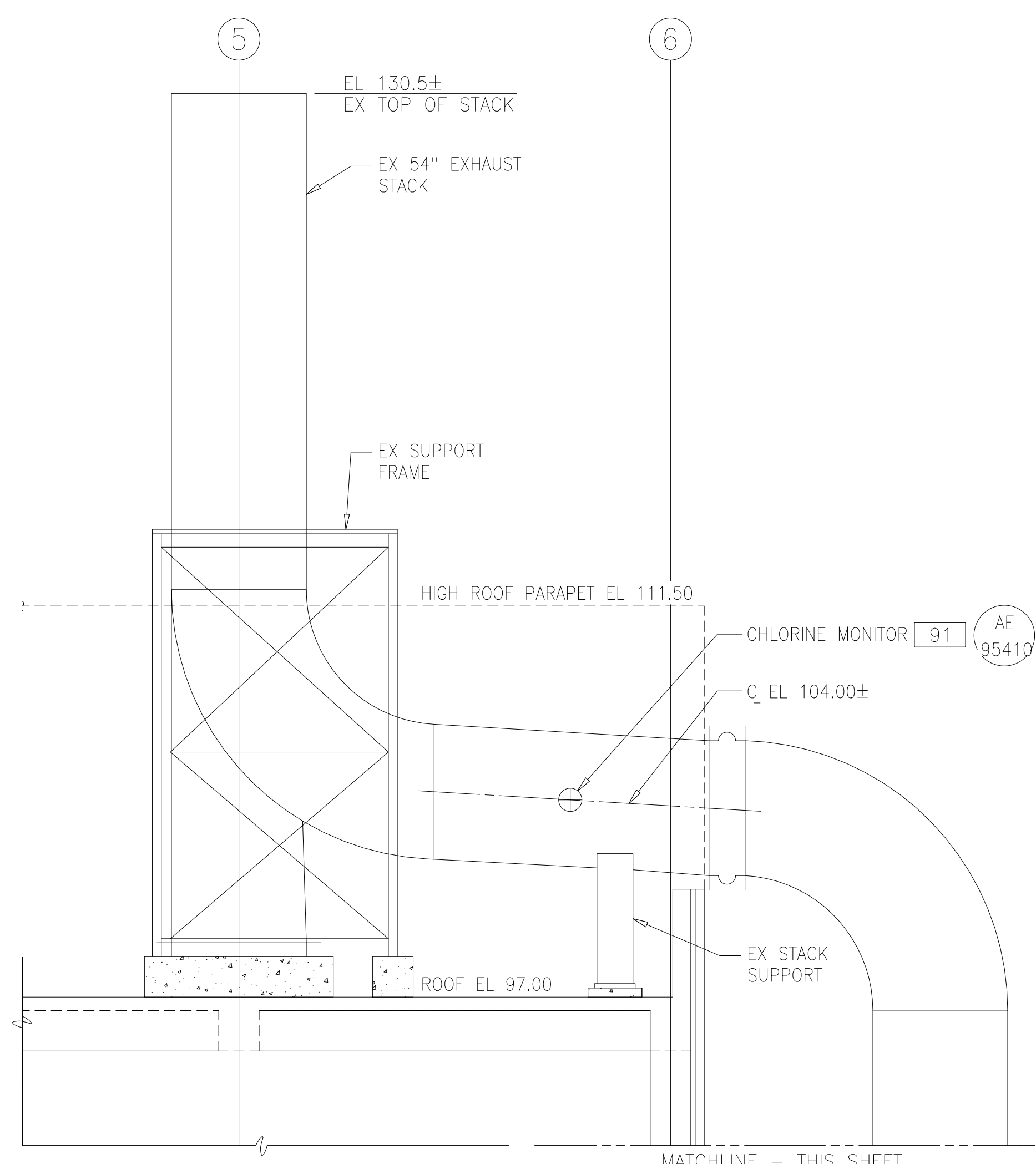
CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
MECHANICAL SECTION

RECORD DRAWING

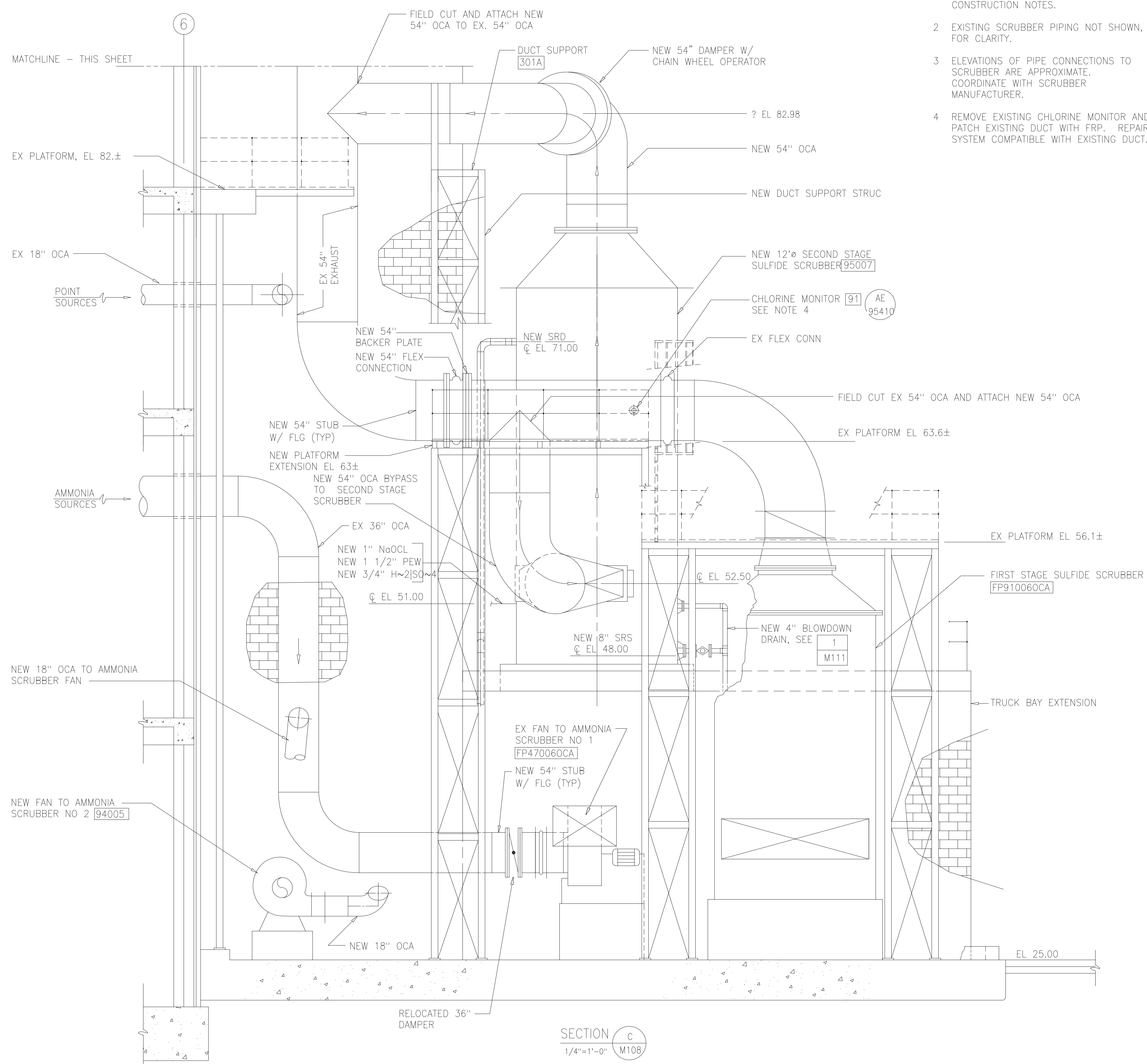
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M110
	SHEET 50 OF 99

NOTES:

- 1 SEE DRAWING M108 FOR PERTINENT CONSTRUCTION NOTES.
- 2 EXISTING SCRUBBER PIPING NOT SHOWN, FOR CLARITY.
- 3 ELEVATIONS OF PIPE CONNECTIONS TO SCRUBBER ARE APPROXIMATE. COORDINATE WITH SCRUBBER MANUFACTURER.
- 4 REMOVE EXISTING CHLORINE MONITOR AND PATCH EXISTING DUCT WITH FRP. REPAIR SYSTEM COMPATIBLE WITH EXISTING DUCT.



SCRUBBER BLOWDOWN/DRAIN
 DETAIL 1
 NTS M111



SECTION C
 1/4"=1'-0" M108

RECORD DRAWING

DESIGNED	AMS
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PROJ. ENGR.	AMS
APPROVED	
NO.	ISSUED FOR
	DATE
	BY

DATE	SEPT 2000
H & S JOB NUMBER	30313
CONTRACT NUMBER	2000-01-MPC
DRAWING NUMBER	M111
SHEET	51 of 99

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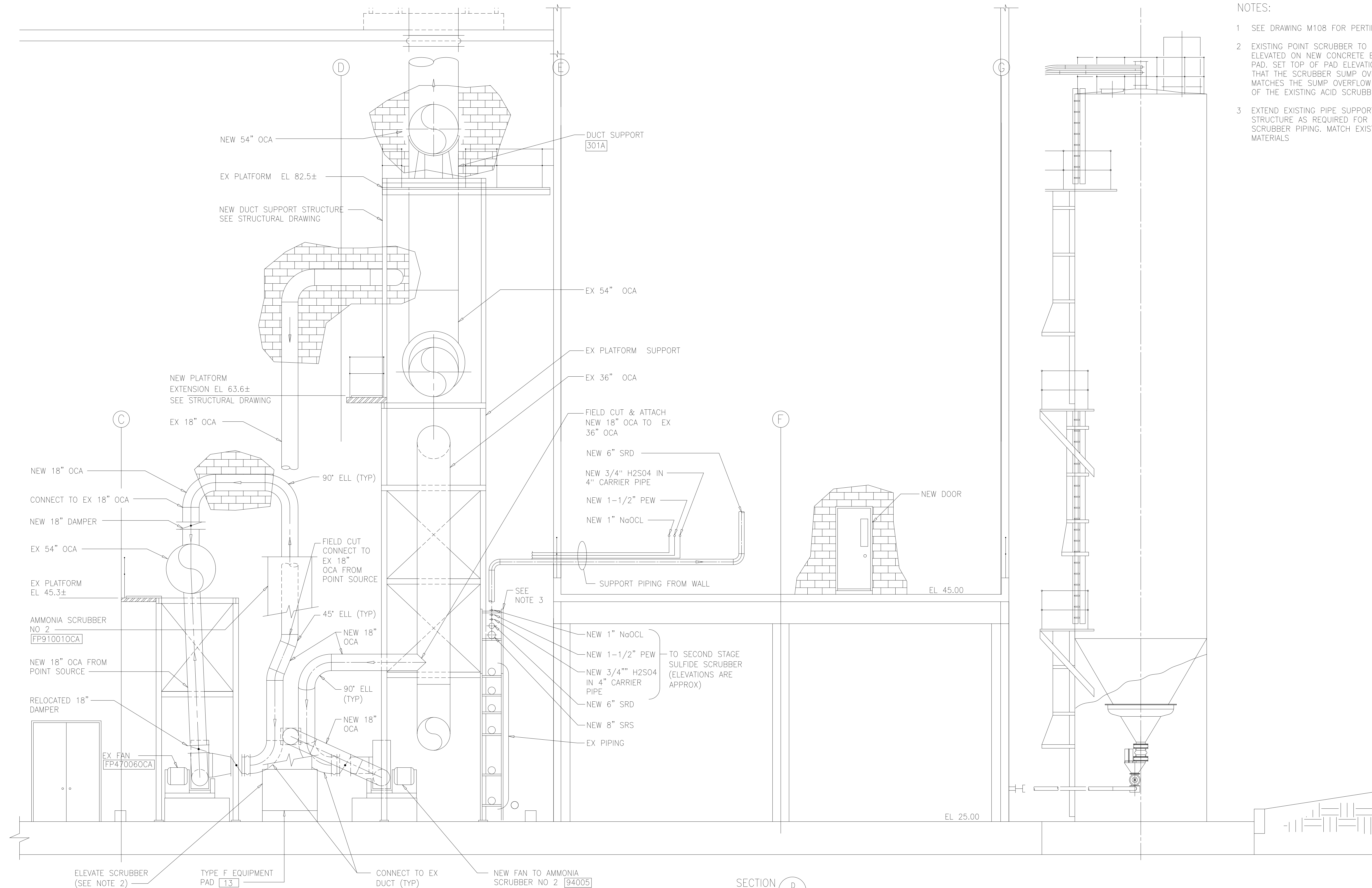
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
 ODOR CONTROL AREA
 MECHANICAL
 SECTION AND DETAIL

NOTES:

- 1 SEE DRAWING M108 FOR PERTINENT NOTES
- 2 EXISTING POINT SCRUBBER TO BE ELEVATED ON NEW CONCRETE EQUIPMENT PAD. SET TOP OF PAD ELEVATION SUCH THAT THE SCRUBBER SUMP OVERFLOW MATCHES THE SUMP OVERFLOW ELEVATION OF THE EXISTING ACID SCRUBBER.
- 3 EXTEND EXISTING PIPE SUPPORT STRUCTURE AS REQUIRED FOR NEW SCRUBBER PIPING. MATCH EXISTING MATERIALS



RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ. ENGR.	AMS
APPROVED	

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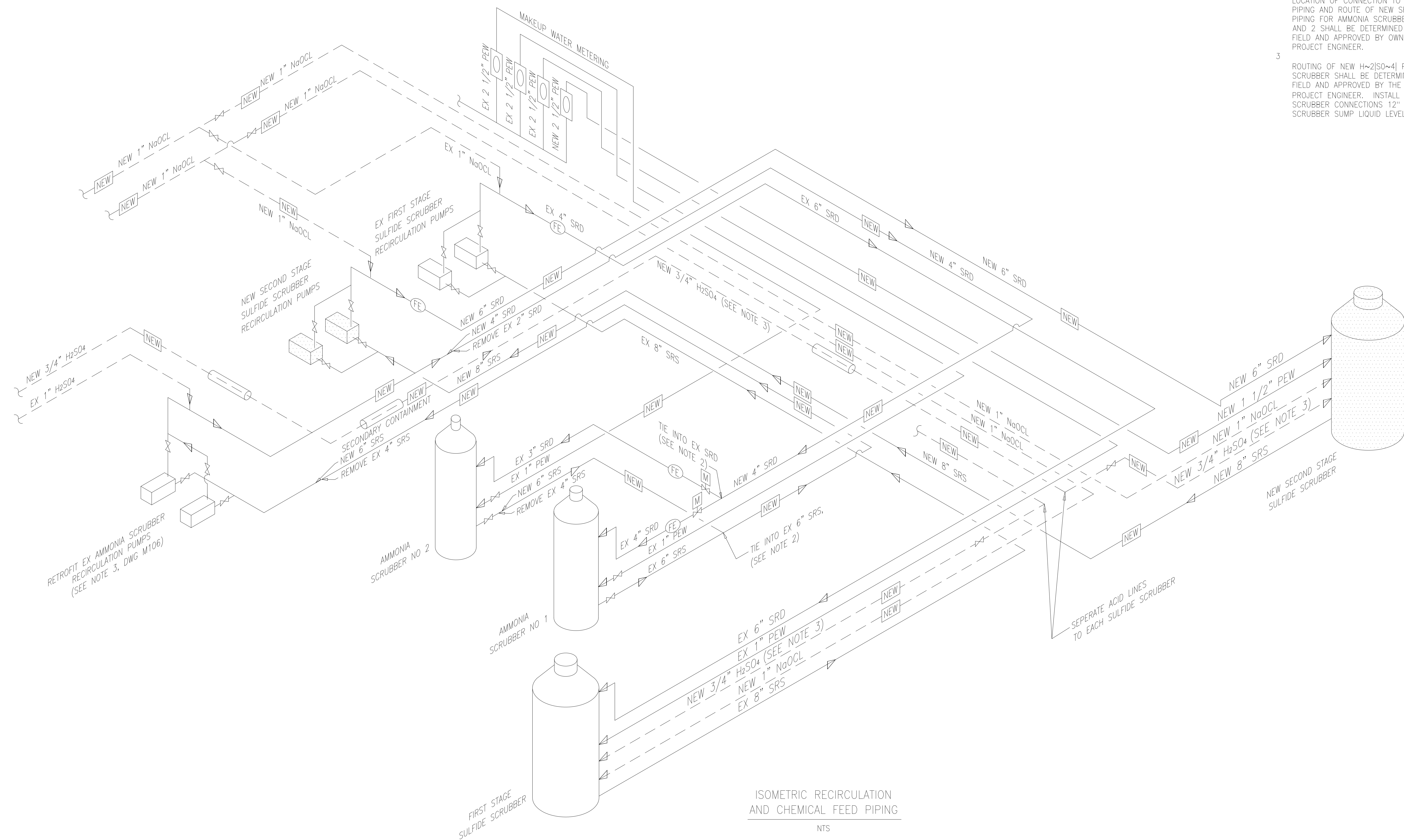
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
MECHANICAL
SECTION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER M112
	SHEET 52 OF 99

NOTES:

- 1 PIPING CONFIGURATION AS SHOWN IS SCHEMATIC.
- 2 LOCATION OF CONNECTION TO EXISTING PIPING AND ROUTE OF NEW SRS AND SRD PIPING FOR AMMONIA SCRUBBERS NO'S 1 AND 2 SHALL BE DETERMINED IN THE FIELD AND APPROVED BY OWNER AND PROJECT ENGINEER.
- 3 ROUTING OF NEW H₂SO₄ PIPING TO SCRUBBER SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE OWNER AND PROJECT ENGINEER. INSTALL H₂SO₄ SCRUBBER CONNECTIONS 12" ABOVE SCRUBBER SUMP LIQUID LEVEL.



RECORD DRAWING

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	APPROVED

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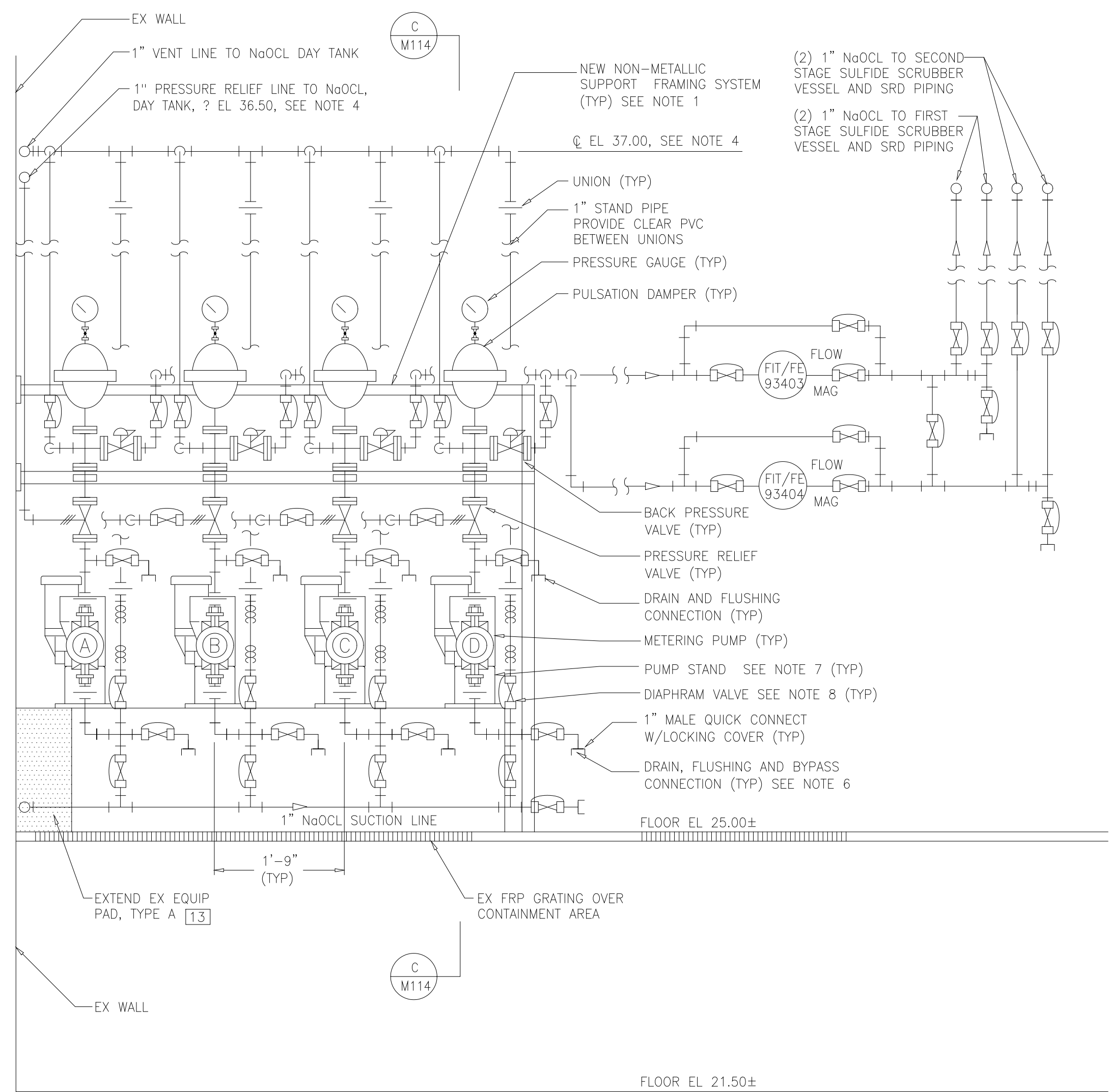
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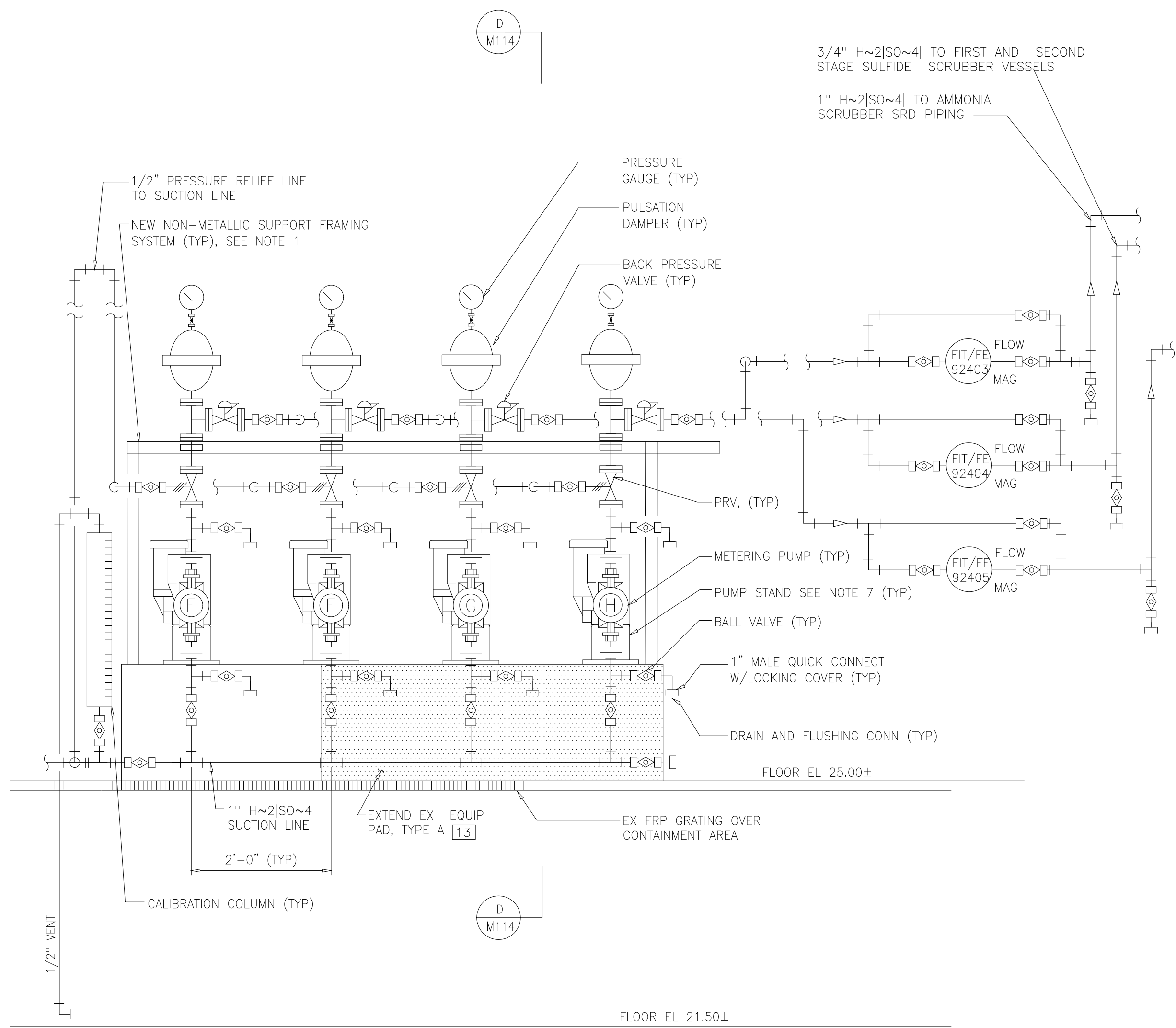
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
MECHANICAL
PIPING ISOMETRIC

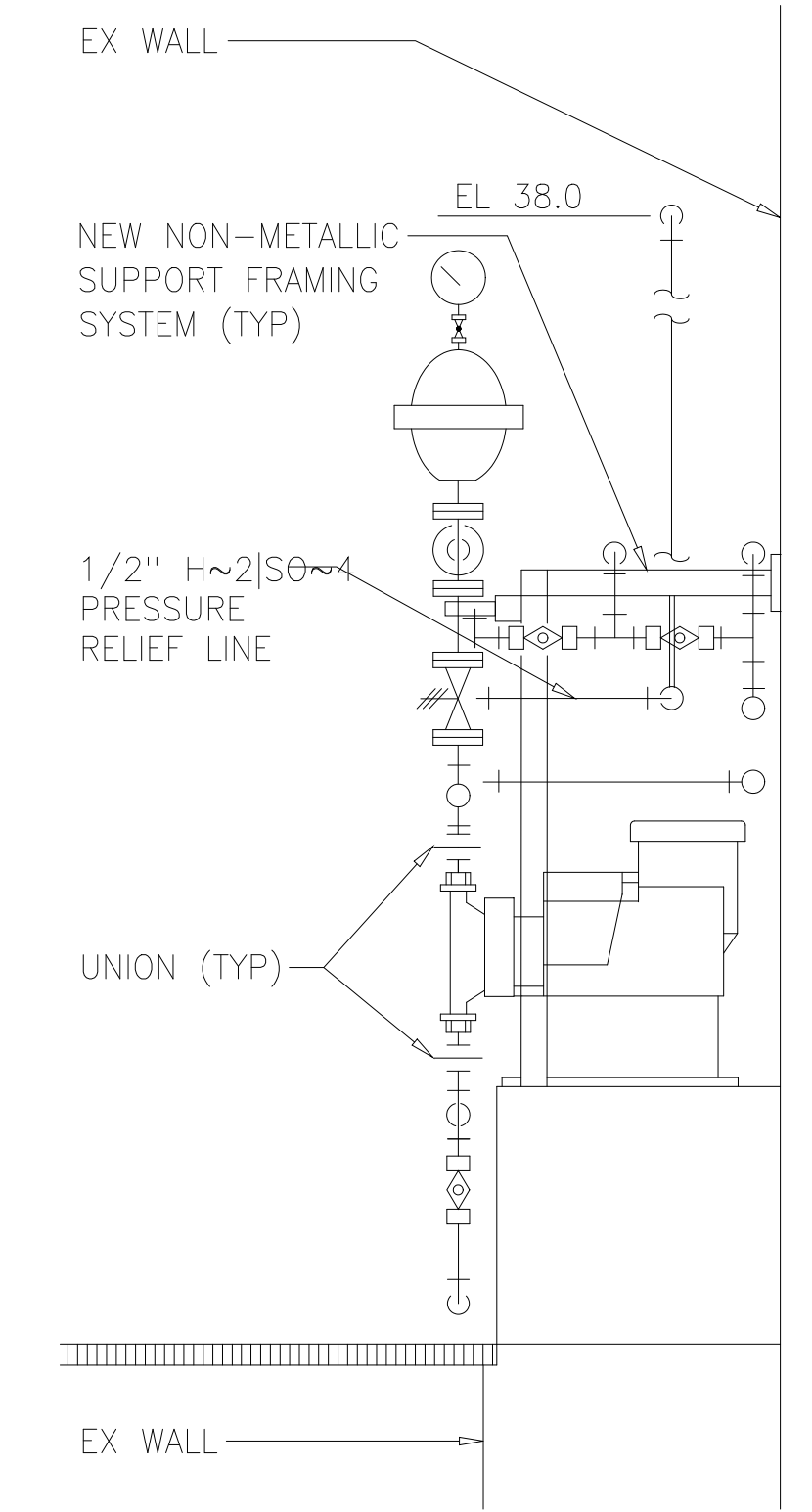
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M113
	SHEET 53 OF 99



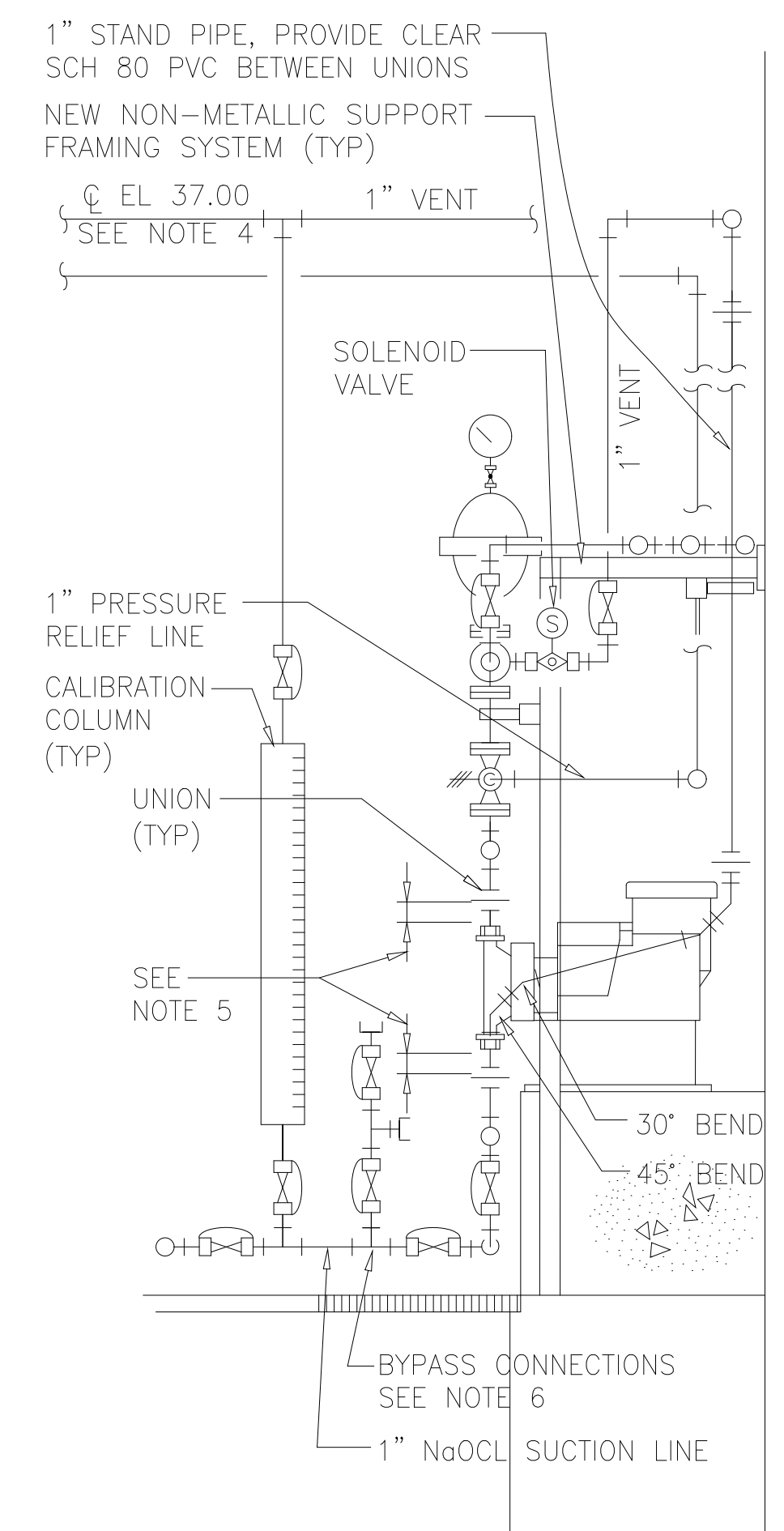
SODIUM HYPOCHLORITE FEED SYSTEM
SECTION A
3/4"=1'-0" M104



SULFURIC ACID FEED SYSTEM
SECTION B
3/4"=1'-0" M106



SECTION D
NTS M114



SECTION C
NTS M114

EQUIPMENT SCHEDULE

LETTER / EQUIPMENT DESCRIPTION	EQUIP TAG NO
(A) NaOCl METERING PUMP NO 1 FOR FIRST STAGE SCRUBBER	93003
(B) NaOCl METERING PUMP NO 2 FOR FIRST STAGE SCRUBBER	93004
(C) NaOCl METERING PUMP NO 1 FOR SECOND STAGE SCRUBBER	93005
(D) NaOCl METERING PUMP NO 2 FOR SECOND STAGE SCRUBBER	93006
(E) H~2 SO~4 METERING PUMP NO 1 FOR AMMONIA SCRUBBER	94003
(F) H~2 SO~4 METERING PUMP NO 2 SWITCH UNIT	94002
(G) H~2 SO~4 METERING PUMP NO 3 FOR FIRST STAGE SCRUBBER	94001

NOTES:

- ANCHOR PUMP DISCHARGE PIPING TO SUPPORT FRAMING SYSTEM.
- ALL VALVES AND ACCESSORIES SHALL BE SERVICABLE WITHOUT CUTTING PIPE THROUGH THE USE OF FLANGES OR UNIONS.
- SEE METERING PUMP ISOMETRICS ON DRAWING M112 FOR CLARIFICATION OF PIPING.
- MAXIMUM LIQUID LEVEL IN NaOCl DAY TANK IS ASSUMED AT EL 35.00. CONTRACTOR TO VERIFY.
- PROVIDE CLEAR SCH 80 PVC PIPE AT SUCTION AND DISCHARGE OF EACH NaOCl METERING PUMP TO LIMITS SHOWN.
- PROVIDE TWO 10 FT LENGTHS OF 1" DIA CLEAR FLEXIBLE PVC TUBING WITH 1" FEMALE QUICK CONNECT COUPLINGS INSTALLED ON EACH END.
- MOUNT PUMP STAND TO #12 GA #304 SST PLATE ON 1/2" THICK NON-SHRINK GROUT PAD.
- BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAM VALVES UNLESS NOTED OTHERWISE.

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ.ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

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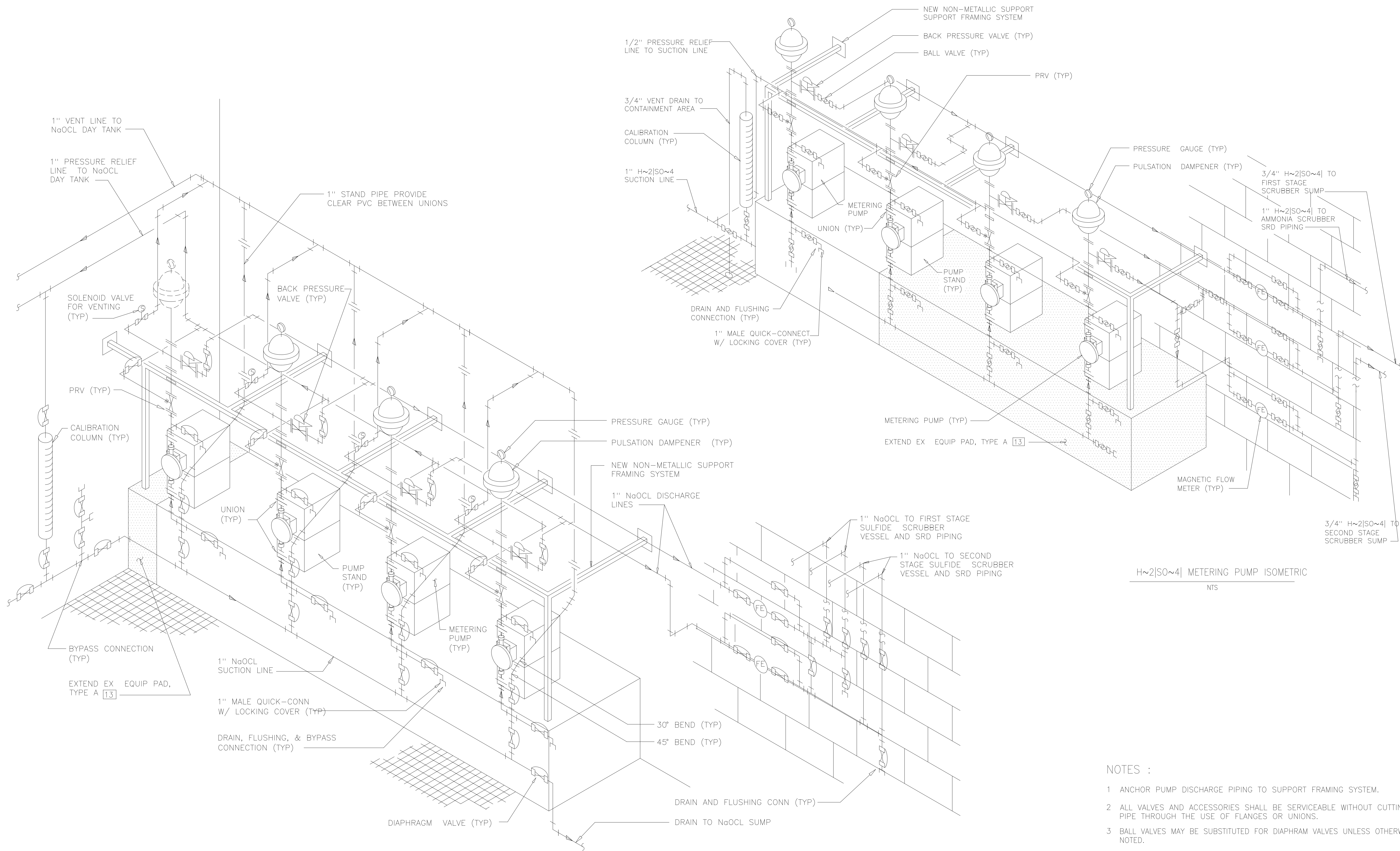
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
CHEMICAL ROOMS
MECHANICAL SECTIONS

RECORD DRAWING

DATE: SEPT 2000	H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC	DRAWING NUMBER: M114
SHEET 54 OF 99	



NaOCl METERING PUMP ISOMETRIC
NTS

H~2[S0~4] METERING PUMP ISOMETRIC
NTS

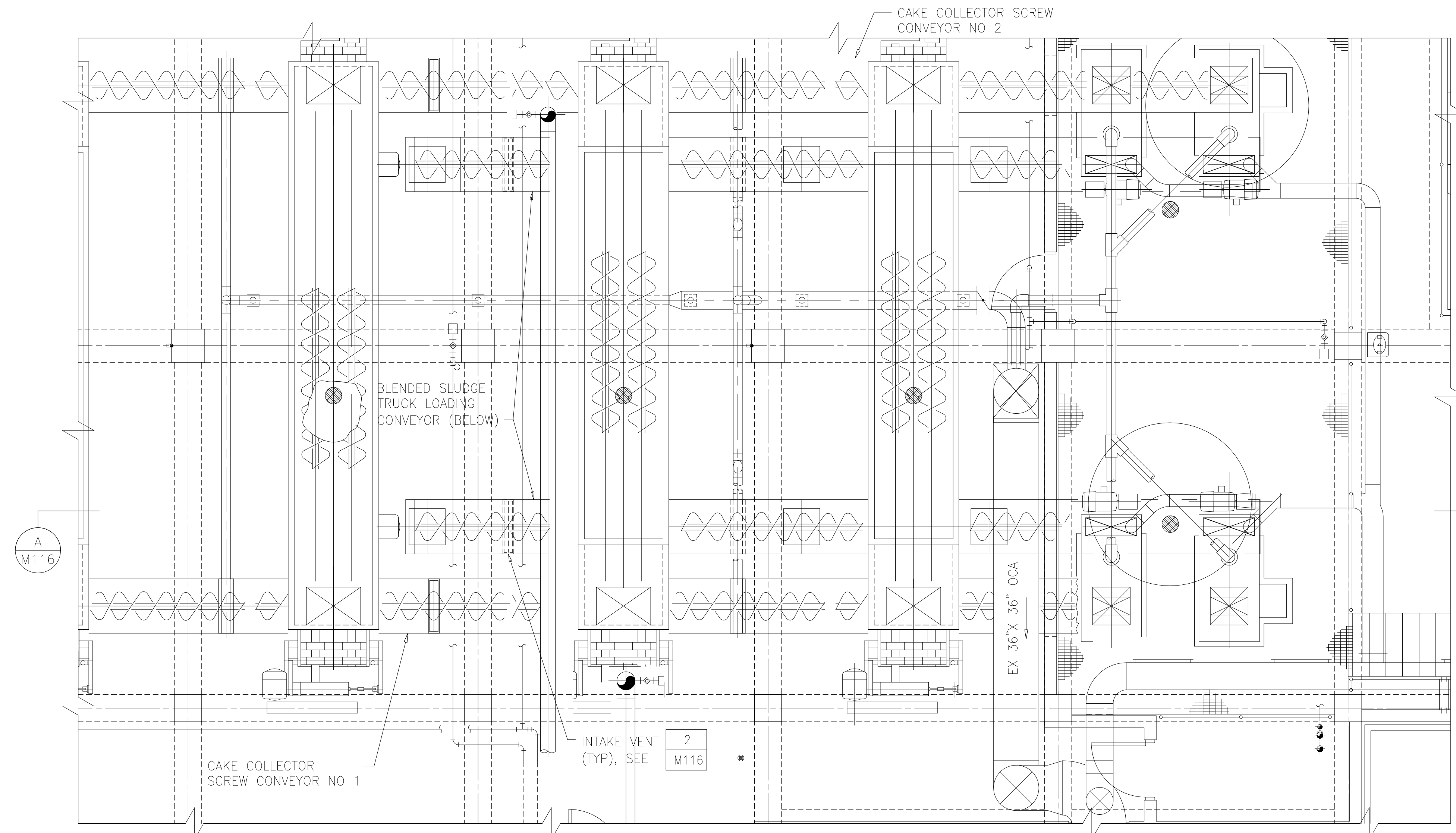
- NOTES :
- 1 ANCHOR PUMP DISCHARGE PIPING TO SUPPORT FRAMING SYSTEM.
 - 2 ALL VALVES AND ACCESSORIES SHALL BE SERVICEABLE WITHOUT CUTTING PIPE THROUGH THE USE OF FLANGES OR UNIONS.
 - 3 BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAM VALVES UNLESS OTHERWISE NOTED.

AMS
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AMS

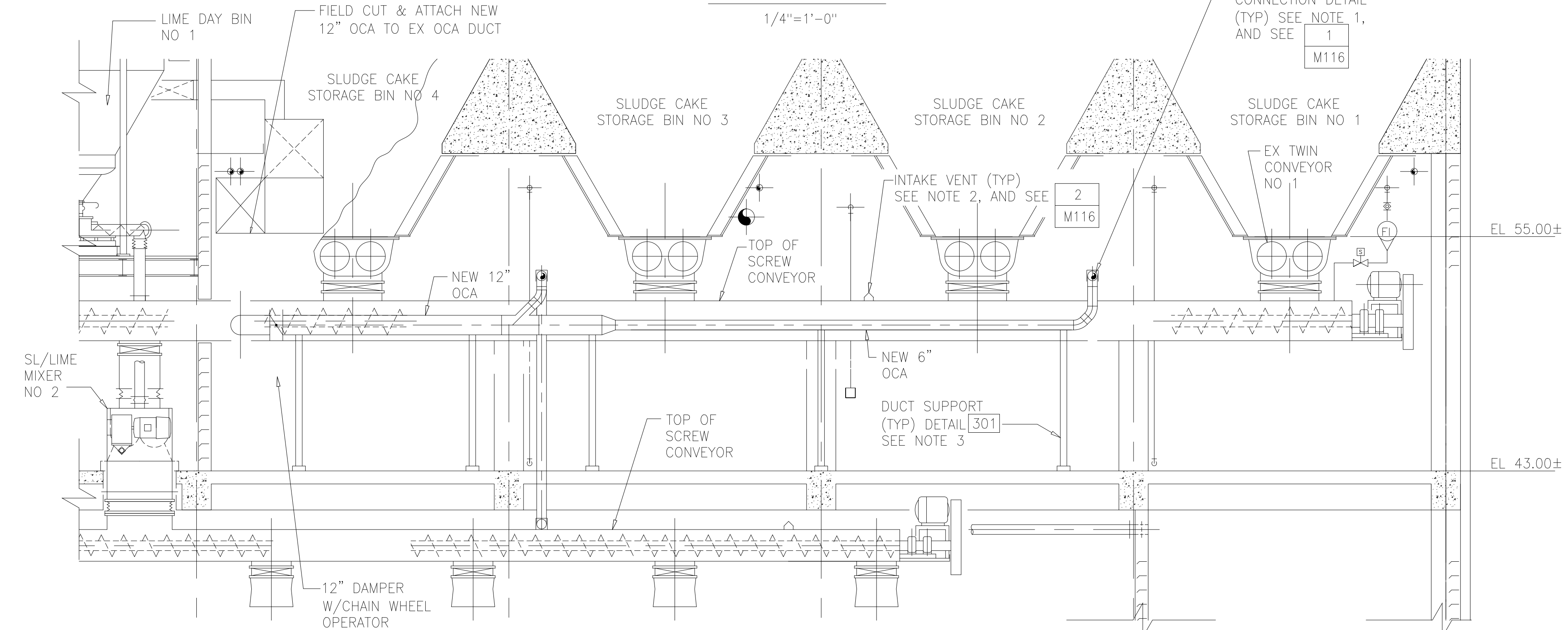
CENTRIFUGE DEWATERING BUILDING
CHEMICAL ROOMS
MECHANICAL
ISOMETRICS

RECORD DRAWING

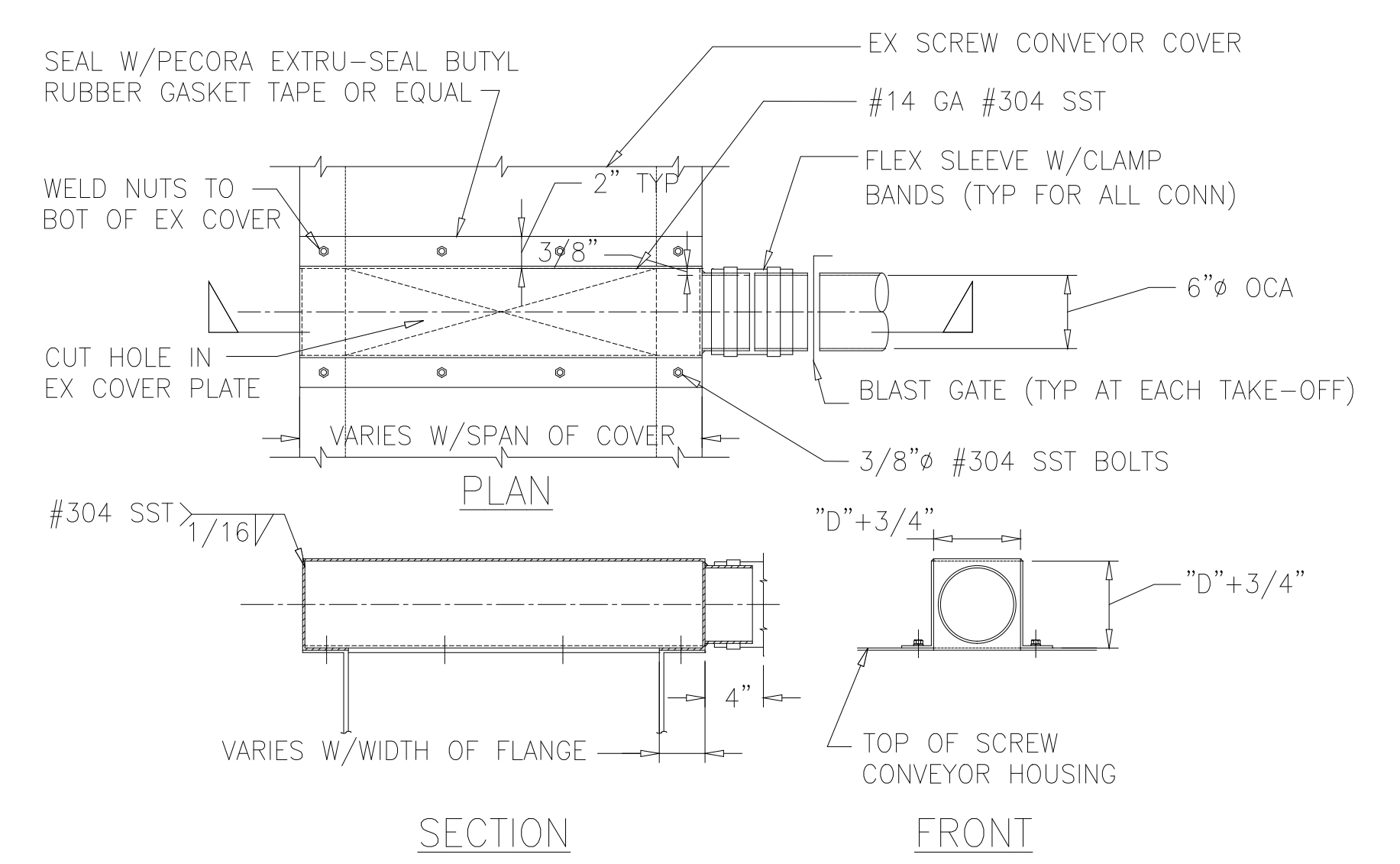
M115



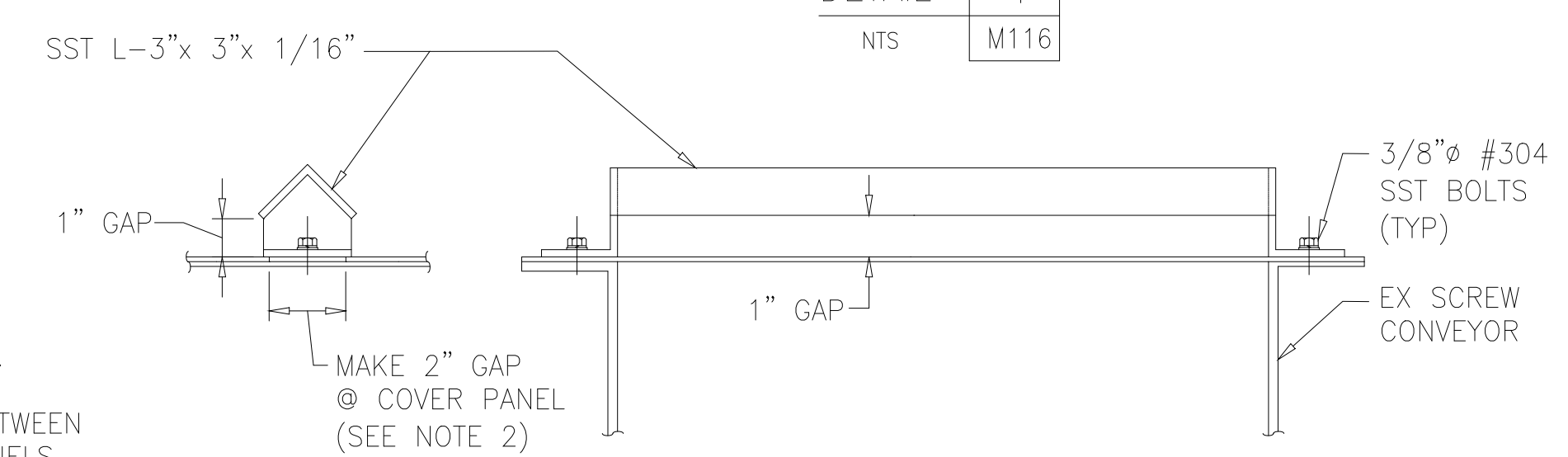
PLAN @ EL 43.00
1/4"=1'-0"



SECTION A
1/4"=1'-0" M116

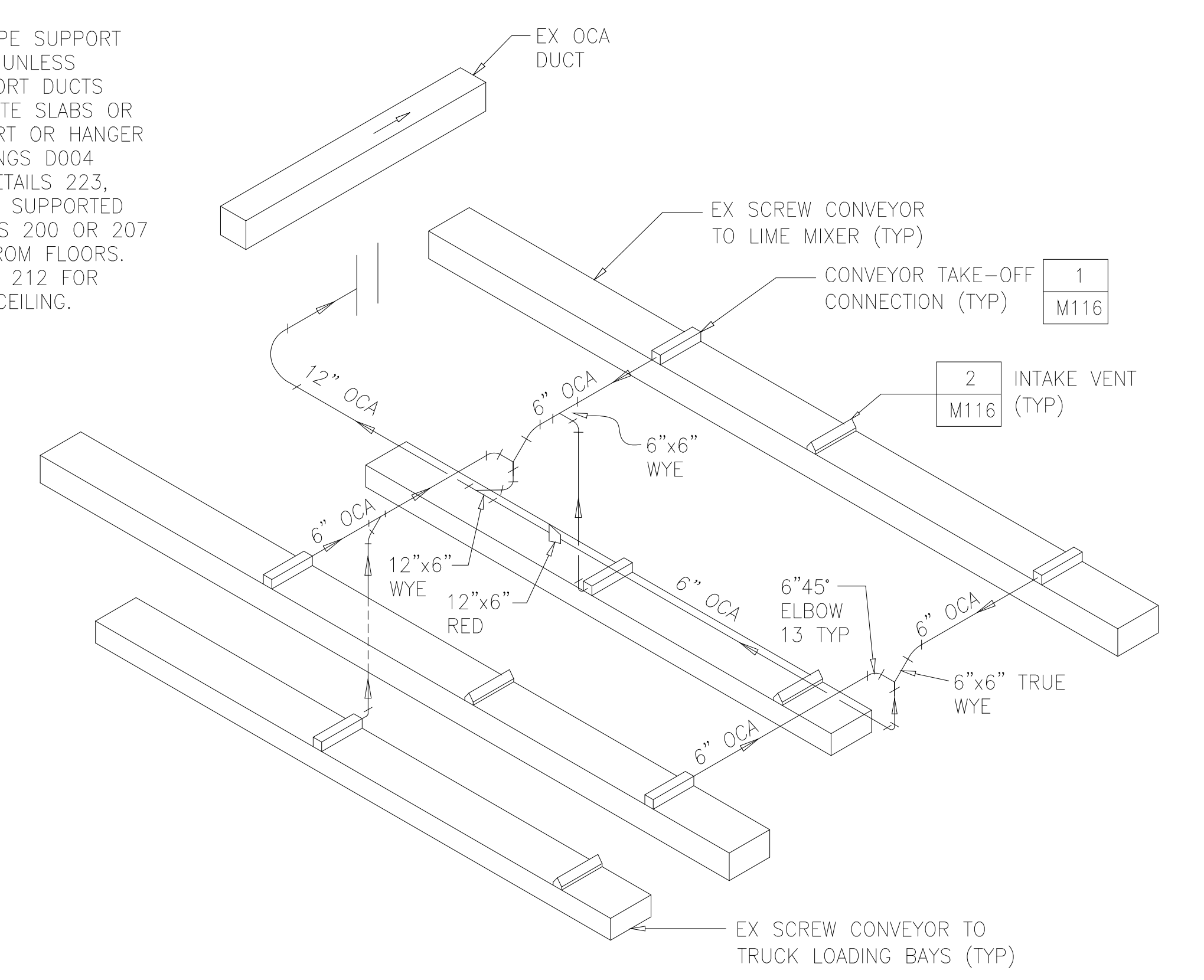


CONVEYOR TAKE-OFF CONNECTION DETAIL
DETAIL 1
NTS M116



INTAKE VENT
DETAIL 2
NTS M116

- NOTES :
- 1 LOCATE TAKEOFF NEAR CENTER OF SCREEN CONVEYOR COVER PANELS.
 - 2 LOCATE INTAKE VENTS @ JOINT BETWEEN TWO SCREW CONVEYOR COVER PANELS.
 - 3 SPACE SUPPORTS @ 10' TO NO MORE THAN 20' APART.
 - 4 NEW OCA DUCTS IN BIN UNLOADER ROOM SHALL BE FRP UNLESS NOTED OTHERWISE.
 - 5 PROVIDE NON-METALLIC PIPE SUPPORT SYSTEMS FOR FRP DUCTS UNLESS NOTED OTHERWISE. SUPPORT DUCTS FROM PLATFORMS, CONCRETE SLABS OR WALLS USING PIPE SUPPORT OR HANGER DETAILS SHOWN ON DRAWINGS D004 THROUGH D005. USE DETAILS 223, 224, AND 225 FOR DUCTS SUPPORTED FROM WALLS. USE DETAILS 200 OR 207 FOR DUCTS SUPPORTED FROM FLOORS. USE DETAILS 210, 211 OR 212 FOR DUCTS SUPPORTED FROM CEILING.



ODOR COLLECTION ISOMETRIC
NTS

DESIGNED	SMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ.ENGR.	AMS			
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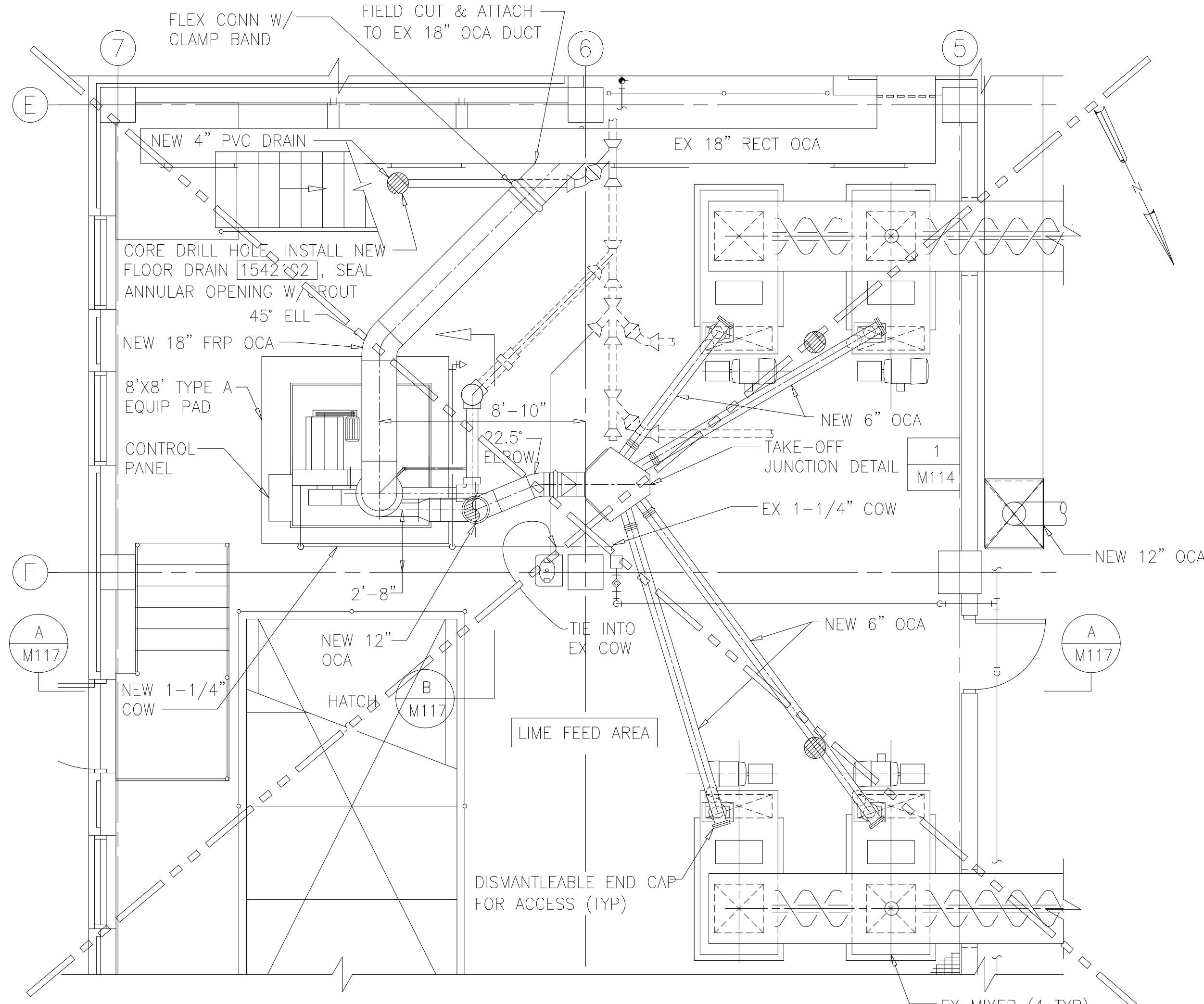
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
BIN UNLOADER ROOM
MECHANICAL
PLAN AND SECTIONS

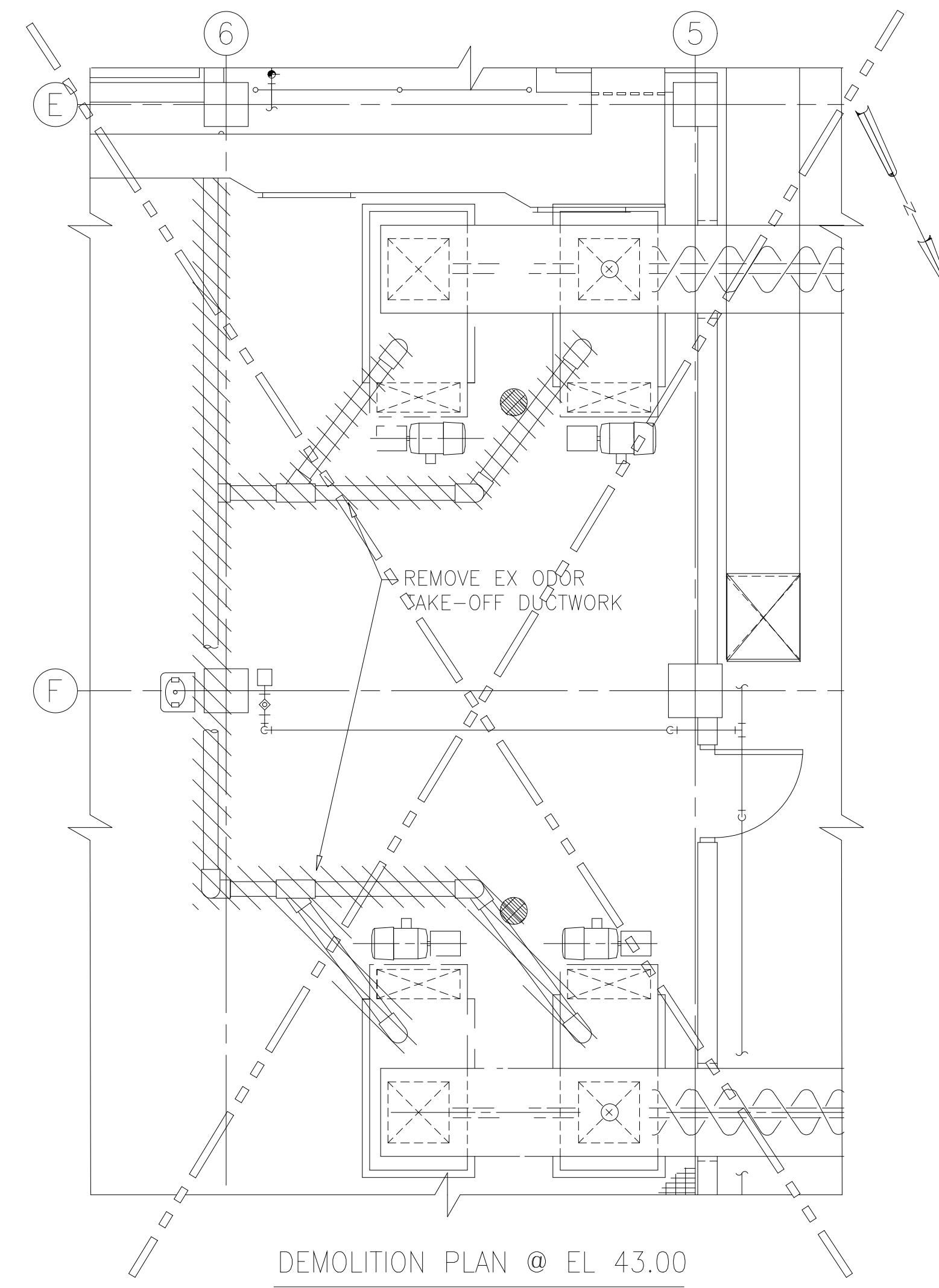
RECORD DRAWING

DATE	SEPT 2000
H & S JOB NUMBER	30313
CONTRACT NUMBER	2000-01-MPC
DRAWING NUMBER	M116
SHEET	56 OF 99



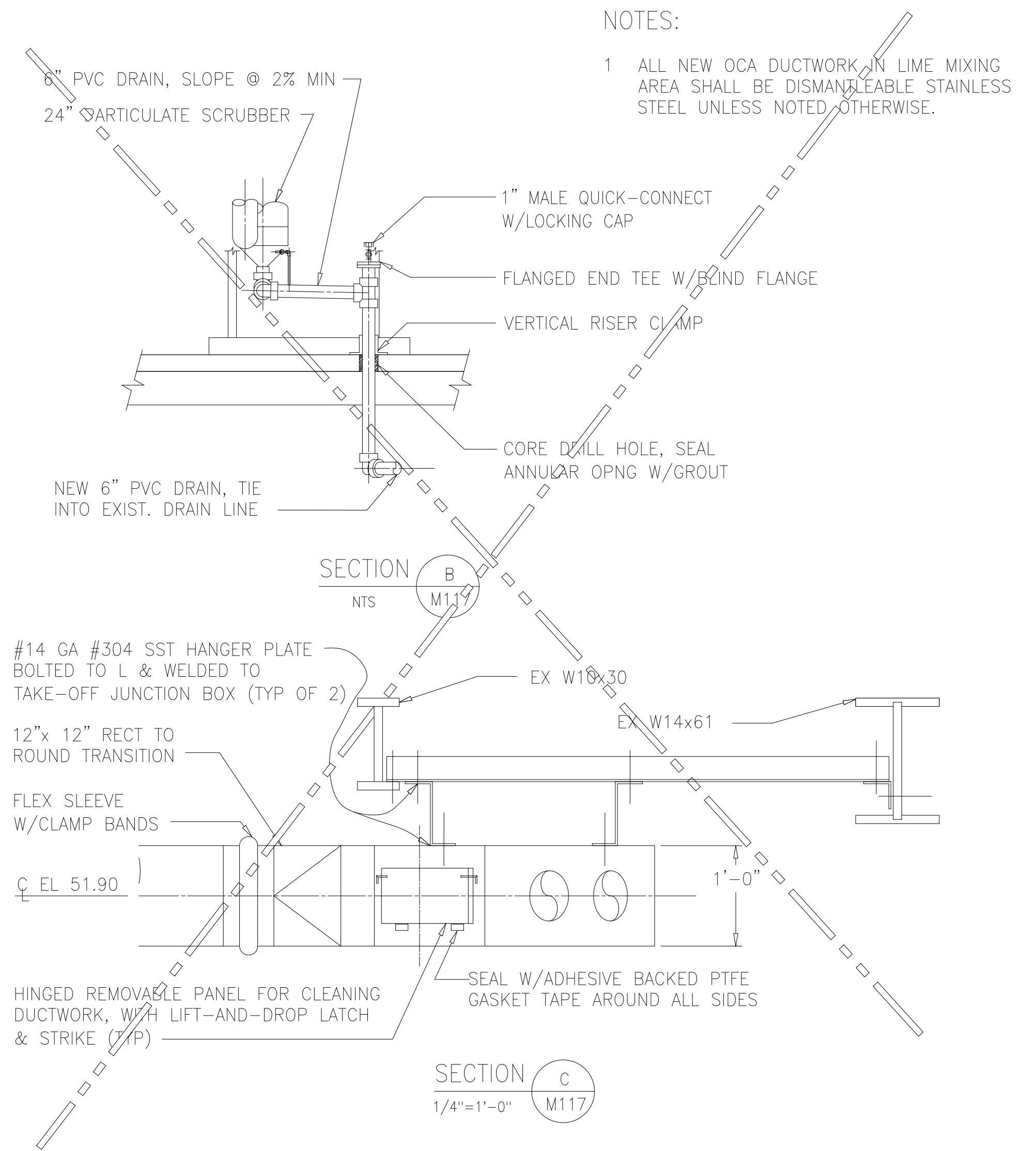
NEW WORK PLAN @ EL 43.00

1/4"=1'-0"



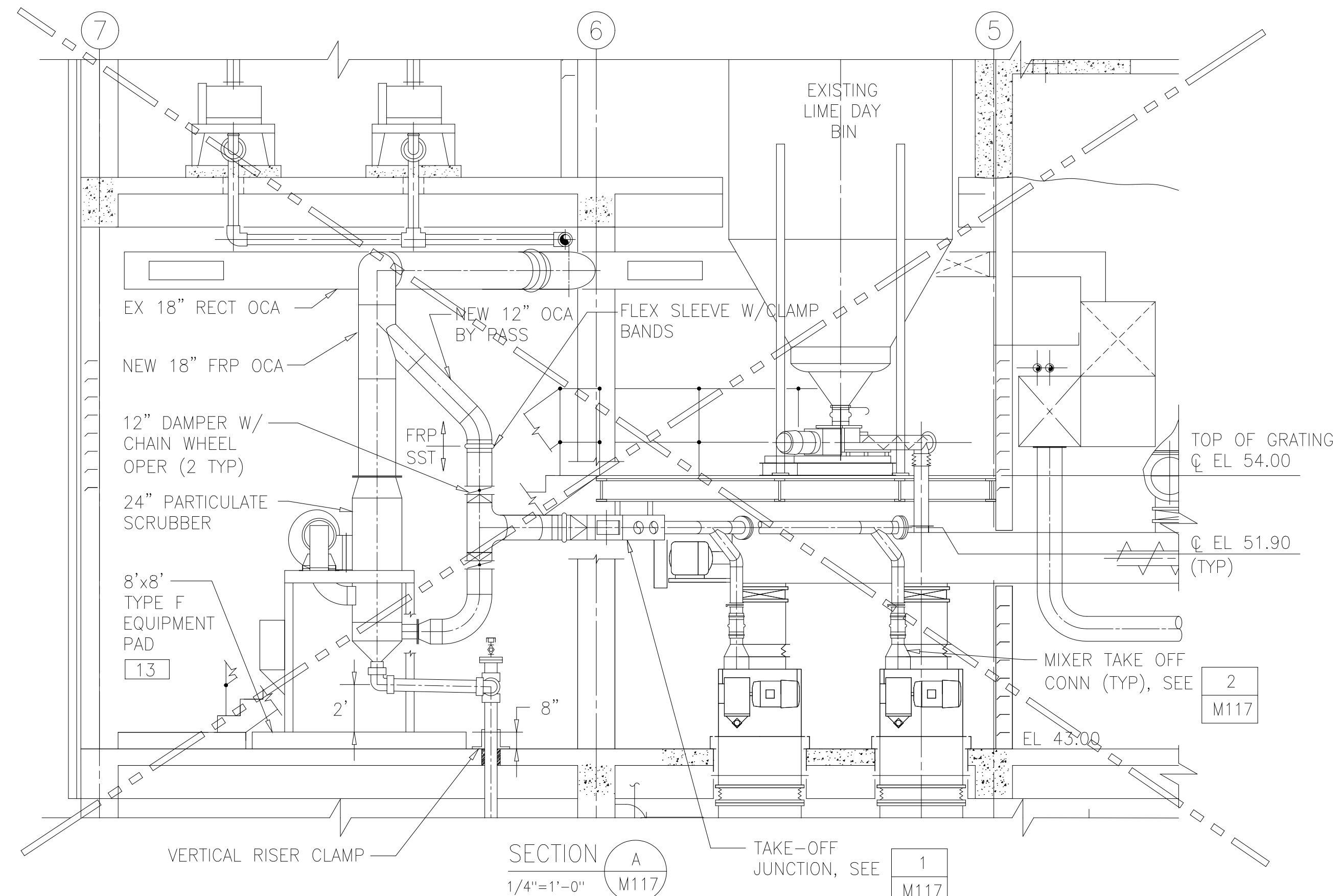
DEMOLITION PLAN @ EL 43.00

1/4"=1'-0"



NOTES:

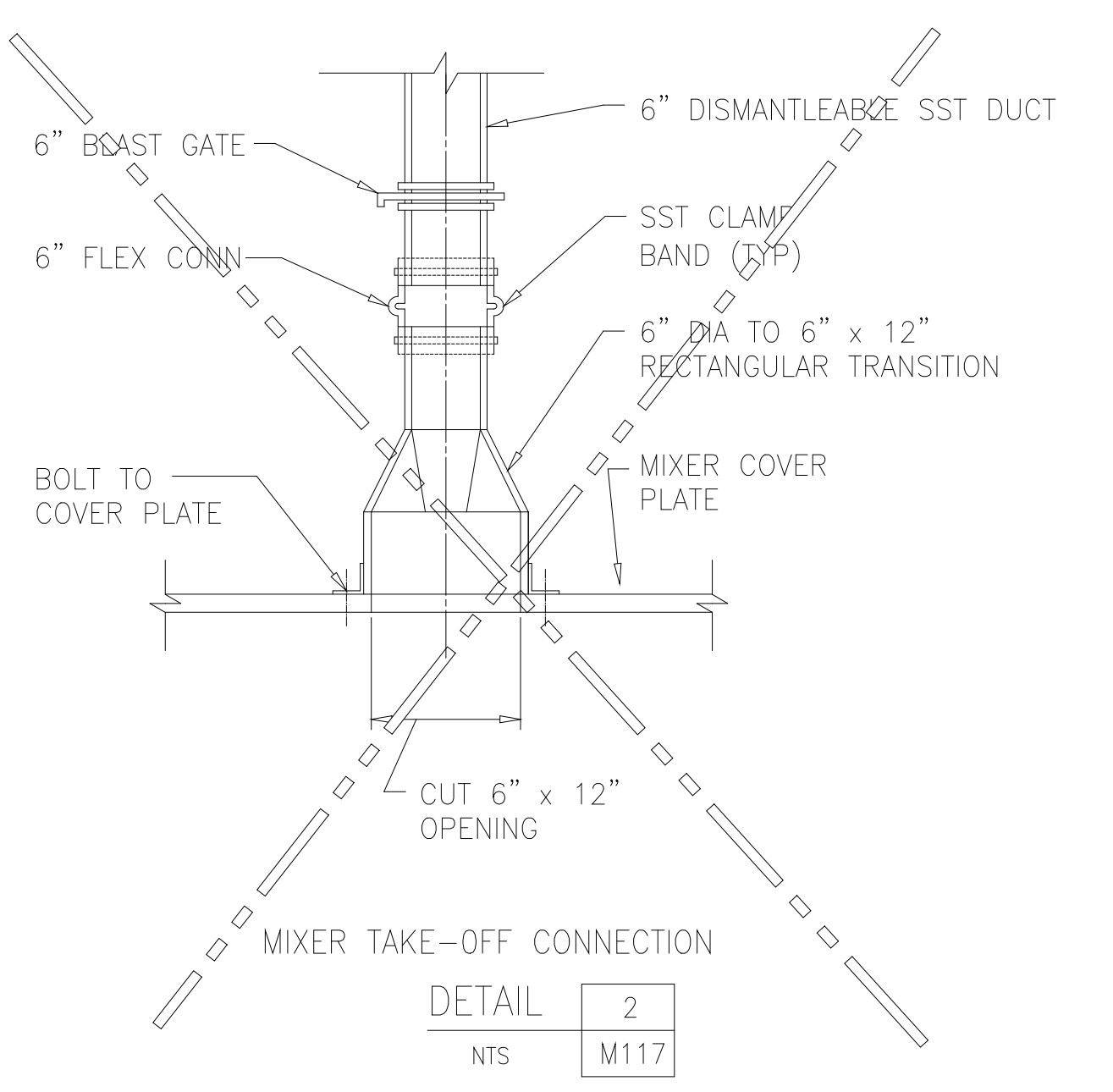
1 ALL NEW OCA DUCTWORK IN LIME MIXING AREA SHALL BE DISMANTLEABLE STAINLESS STEEL UNLESS NOTED OTHERWISE.



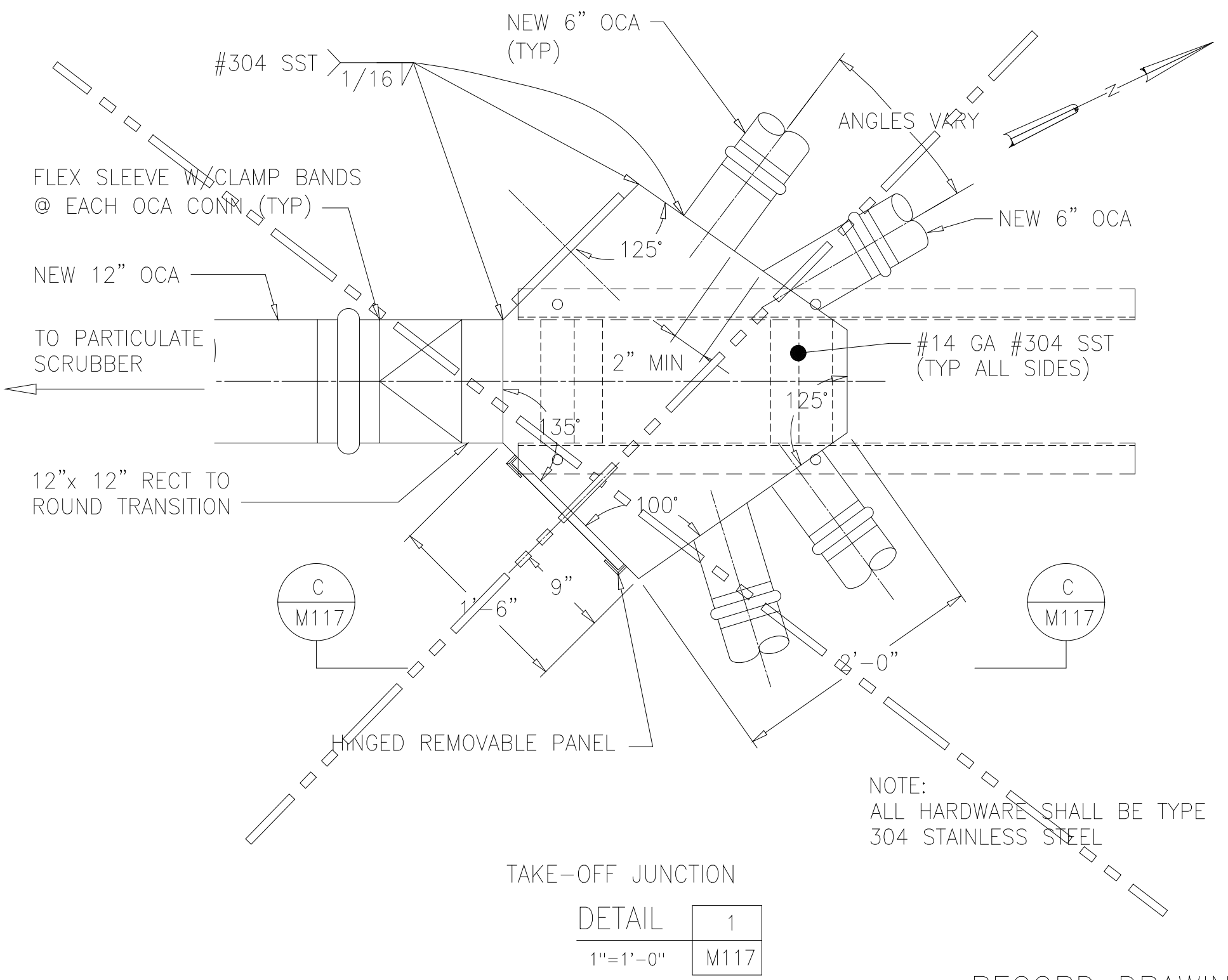
SECTION A
1/4"=1'-0"

TAKE-OFF JUNCTION, SEE 1 M117

ALL WORK SHOWN ON THIS DRAWING WAS NOT DONE



DETAIL 2
NTS M117



TAKE-OFF JUNCTION
DETAIL 1
1"=1'-0" M117

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ. ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

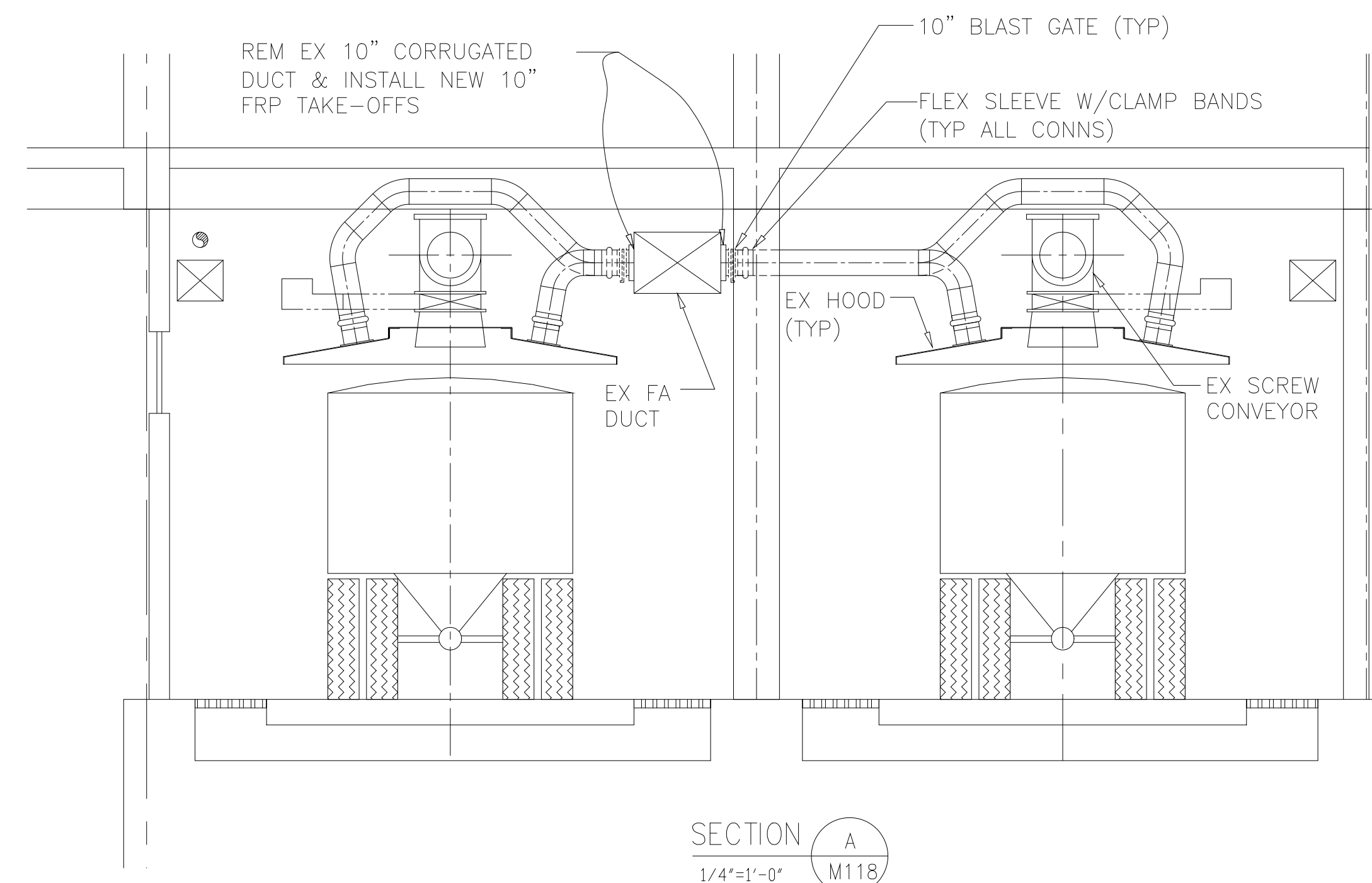
CENTRIFUGE DEWATERING BUILDING
LIME MIXING ROOM
MECHANICAL
PLANS, SECTIONS AND DETAILS

RECORD DRAWING

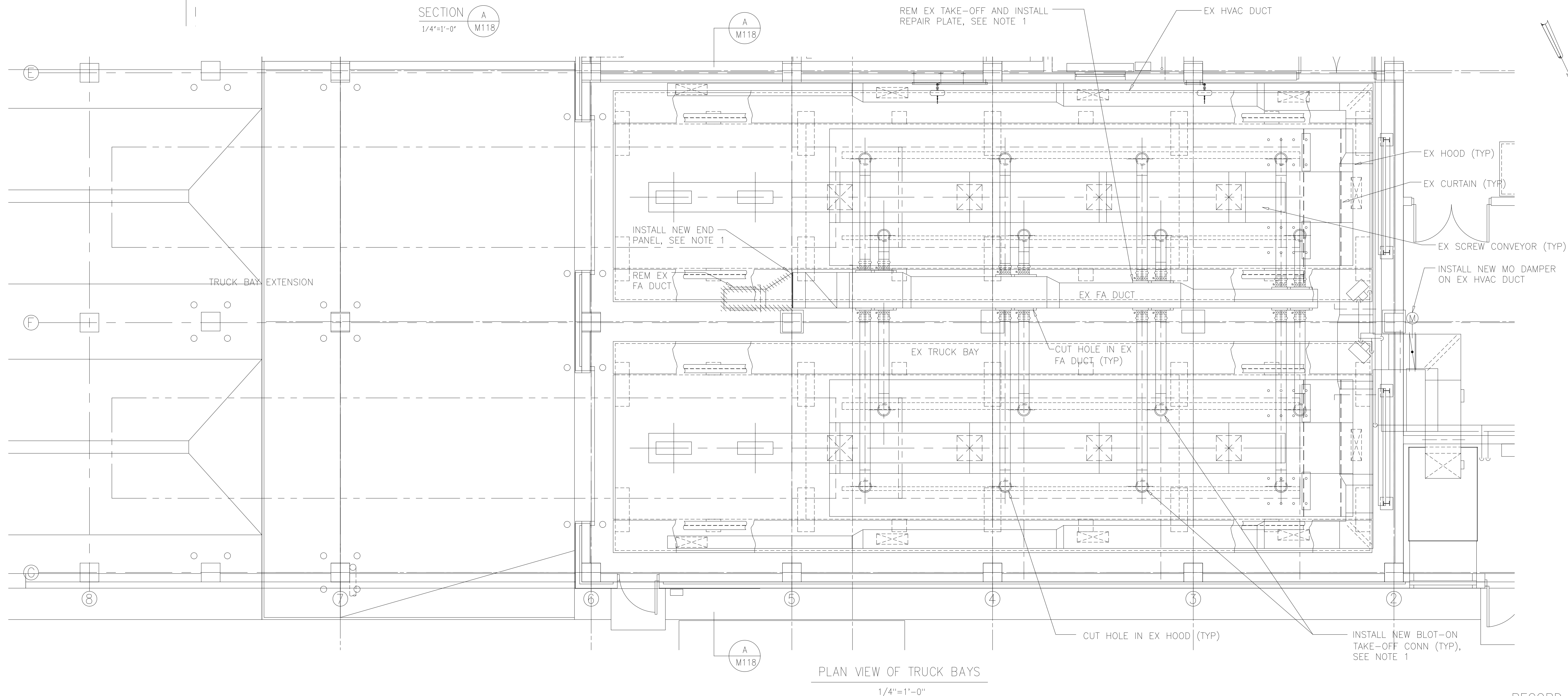
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
CONTRACT NUMBER 2000-01-MPC	H & S JOB NUMBER 30313
DRAWING NUMBER M117	SHEET 57 OF 99

NOTES:

- 1 MATERIALS USED FOR MODIFYING EXISTING FA DUCT AND HOOD SHALL BE COMPATIBLE WITH EXISTING MATERIALS.
- 2 SEE DRAWING M116, NOTE 5, FOR DUCT SUPPORT INFORMATION.



SECTION A
1/4"=1'-0" M118



PLAN VIEW OF TRUCK BAYS
1/4"=1'-0" M118

RECORD DRAWING

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CHECKED JSI
PROJ. ENGR. AMS

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

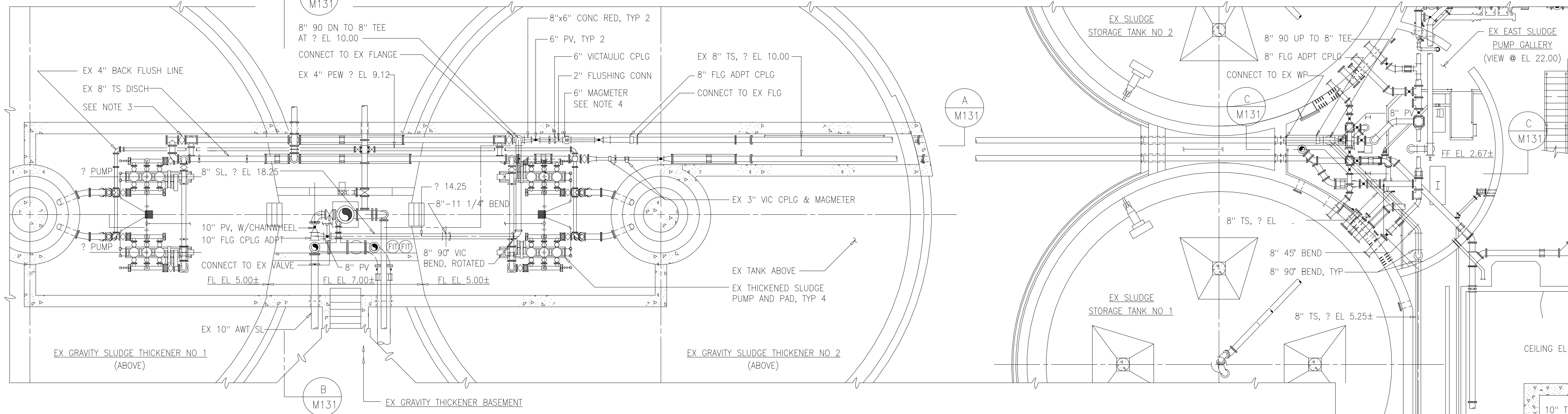
CENTRIFUGE DEWATERING BUILDING
TRUCK BAY
MECHANICAL
PLAN AND SECTION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

DATE: SEPT 2000	H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-WPC	DRAWING NUMBER: M118
SHEET 58 OF 99	

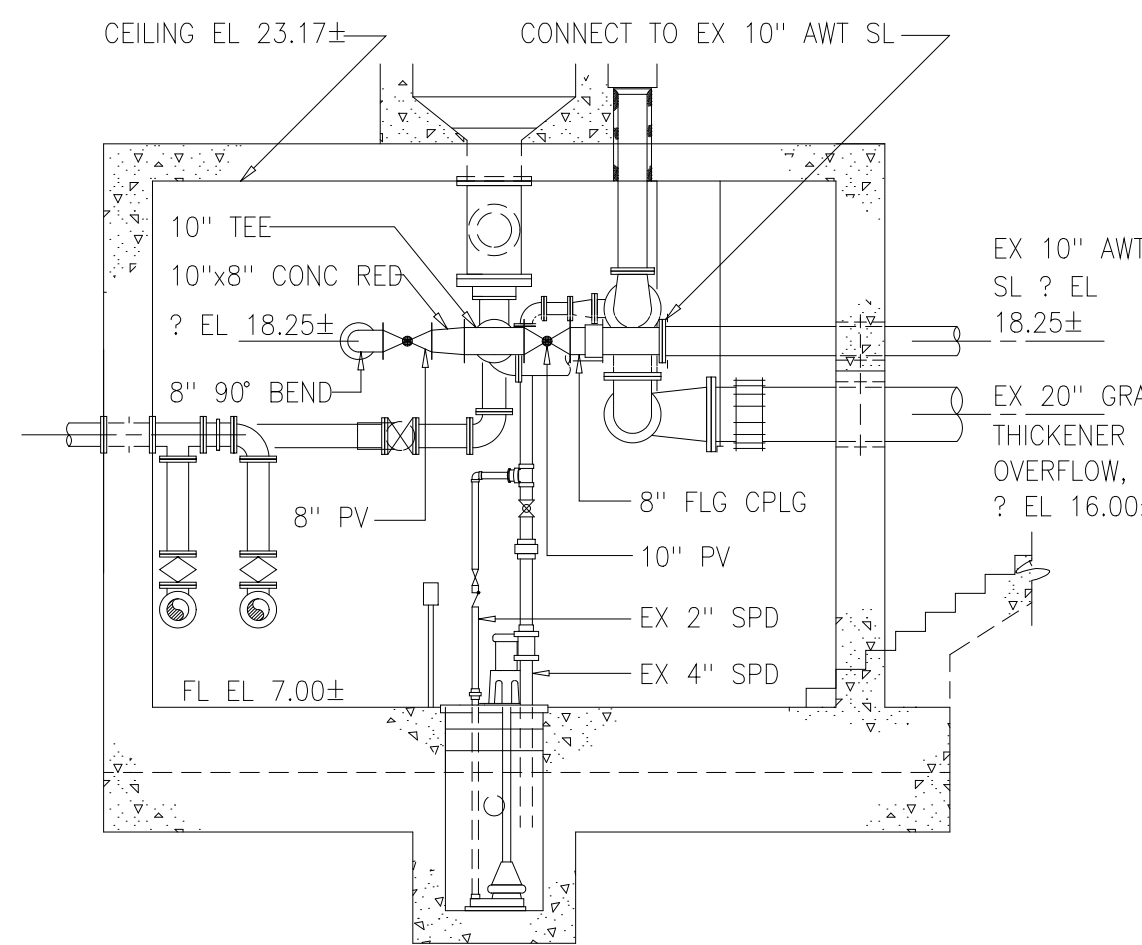
NOTES:

- 1 NOT USED
- 2 HARNESS ALL NEW COUPLINGS, NEW FLANGE COUPLING ADAPTERS, AND NEW FIRST INTERIOR PIPE JOINTS INSIDE WALLS.
- 3 REMOVE SECTION OF PIPE, MAGMETER, AND APPURTENANCES. SALVAGE ELECTRICAL FEEDS FOR REUSE. RETURN MAGMETER TO OWNER.
- 4 REUSE EXISTING POWER FEEDS AND DATA LINES FROM EXISTING 3" MAGMETER.
- 5 USE ADJUSTABLE WROUGHT CLEVIS HANGERS (MSS TYPE 1) WITH 3/4" HANGER ROD, MAXIMUM SPAN 10'-0" OC FOR SUSPENDED PIPING.



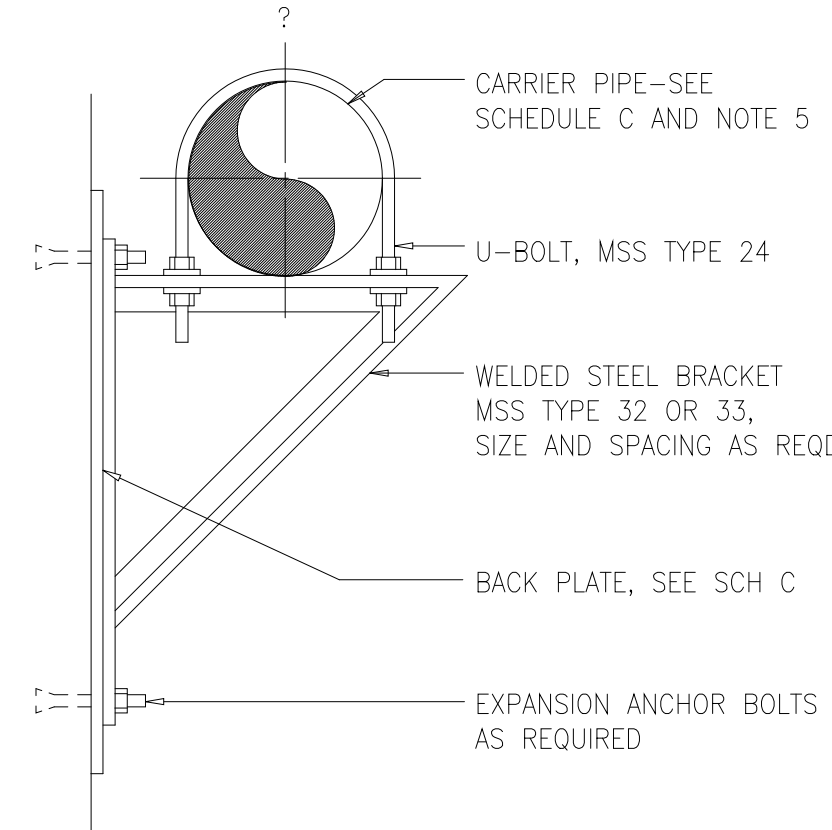
OVERALL PLAN

1/8" = 1'-0"



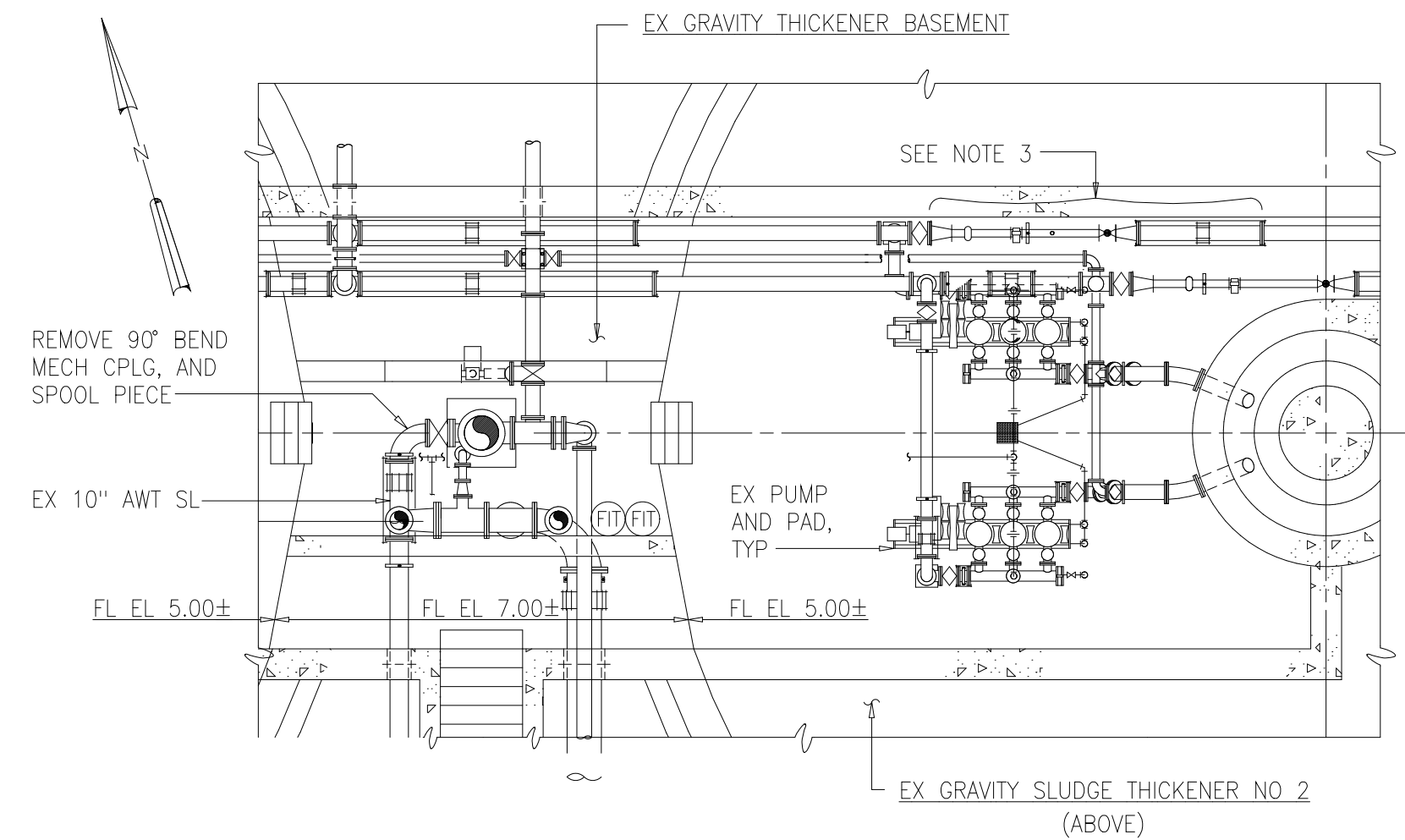
THICKENER PUMP ROOM SECTION B

NTS M131



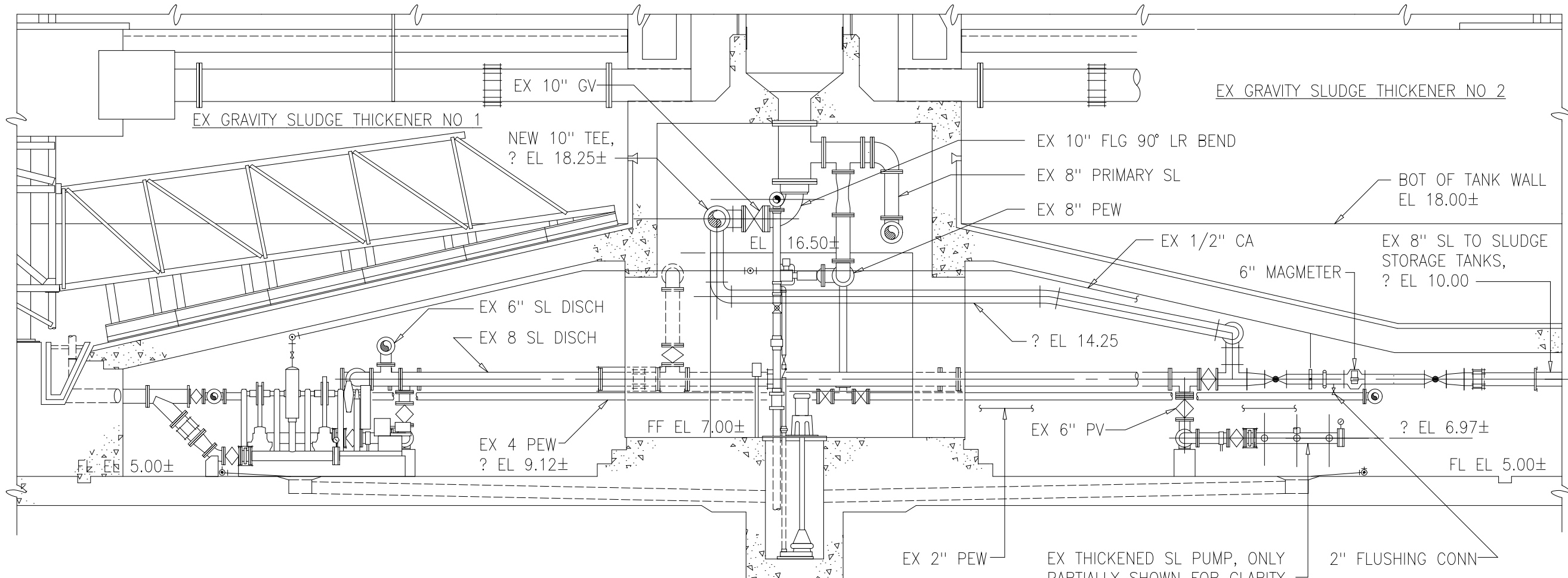
PIPE SUPPORT BRACKET 1509404

NTS M131



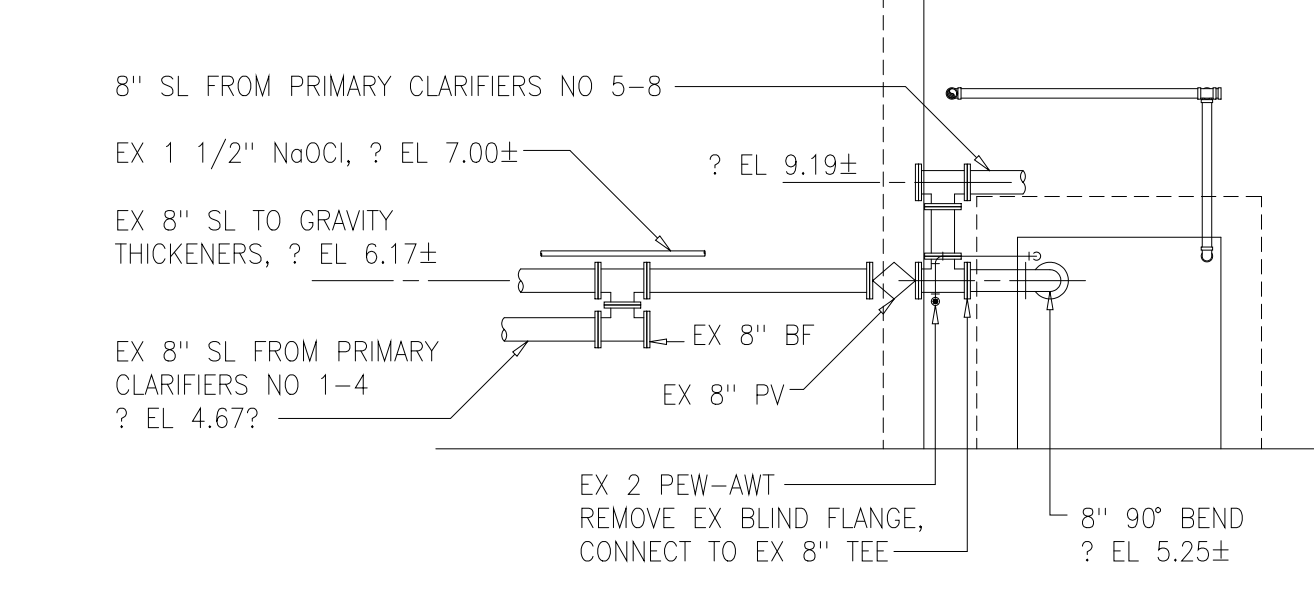
PARTIAL PLAN - DEMOLITION

1/8" = 1'-0"



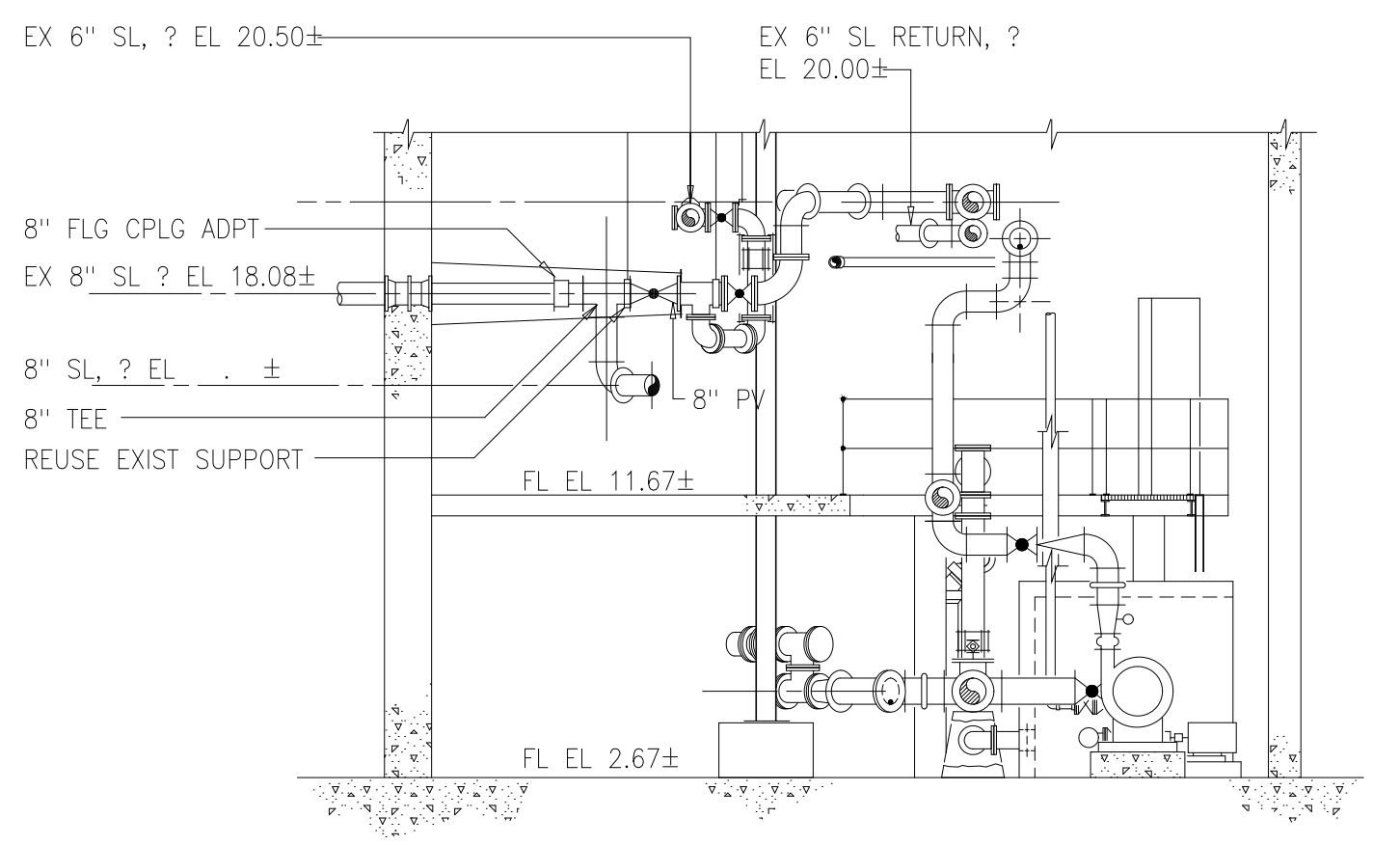
THICKENER PUMP ROOM SECTION A

NTS M131



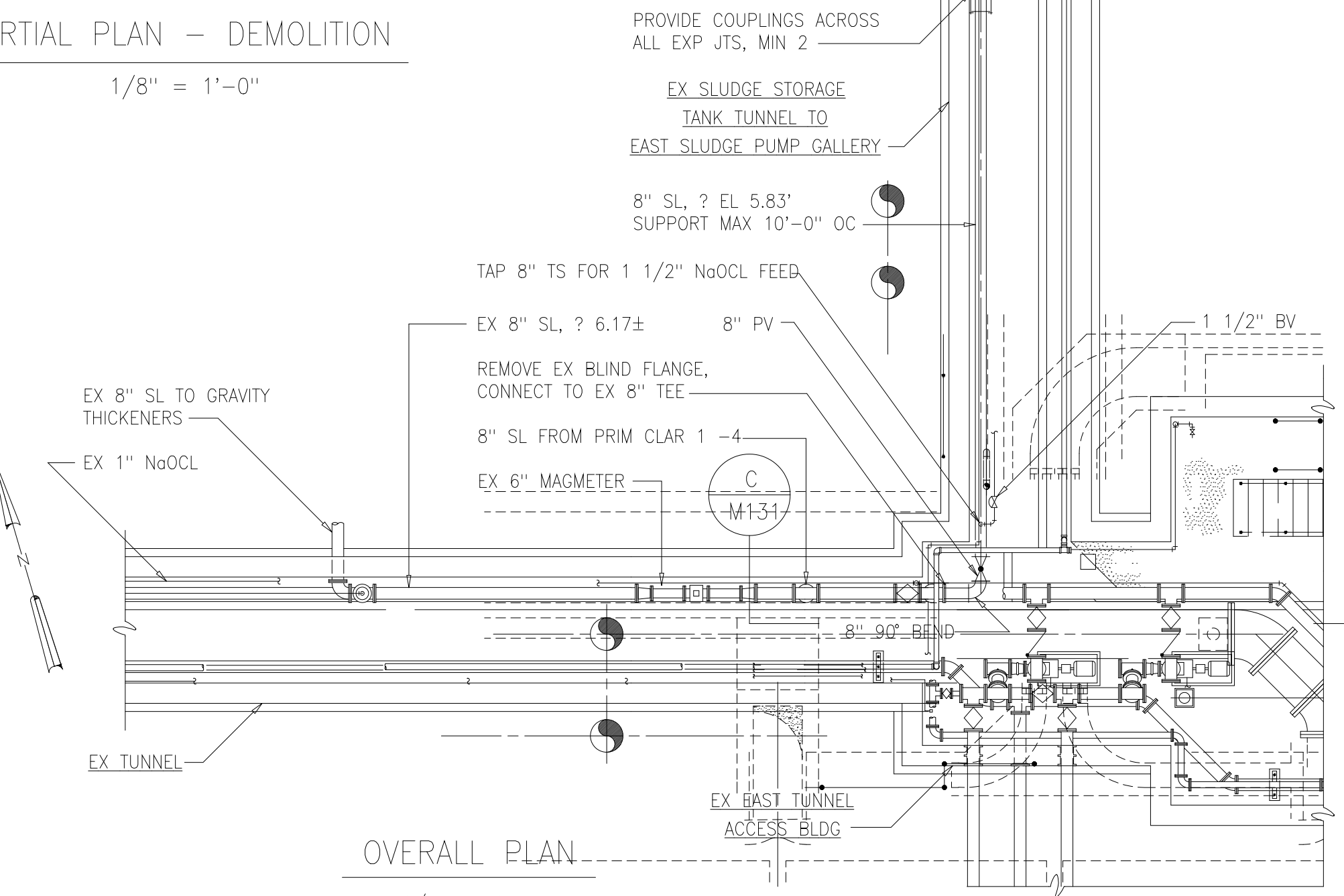
NORTH ACCESS TUNNEL SECTION D

NTS M131



SLUDGE PUMP ROOM SECTION C

NTS M131



OVERALL PLAN

1/8" = 1'-0"

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	
PROJ. ENGR.	ASG
NO.	
ISSUED FOR	
DATE	
BY	
APPROVED	

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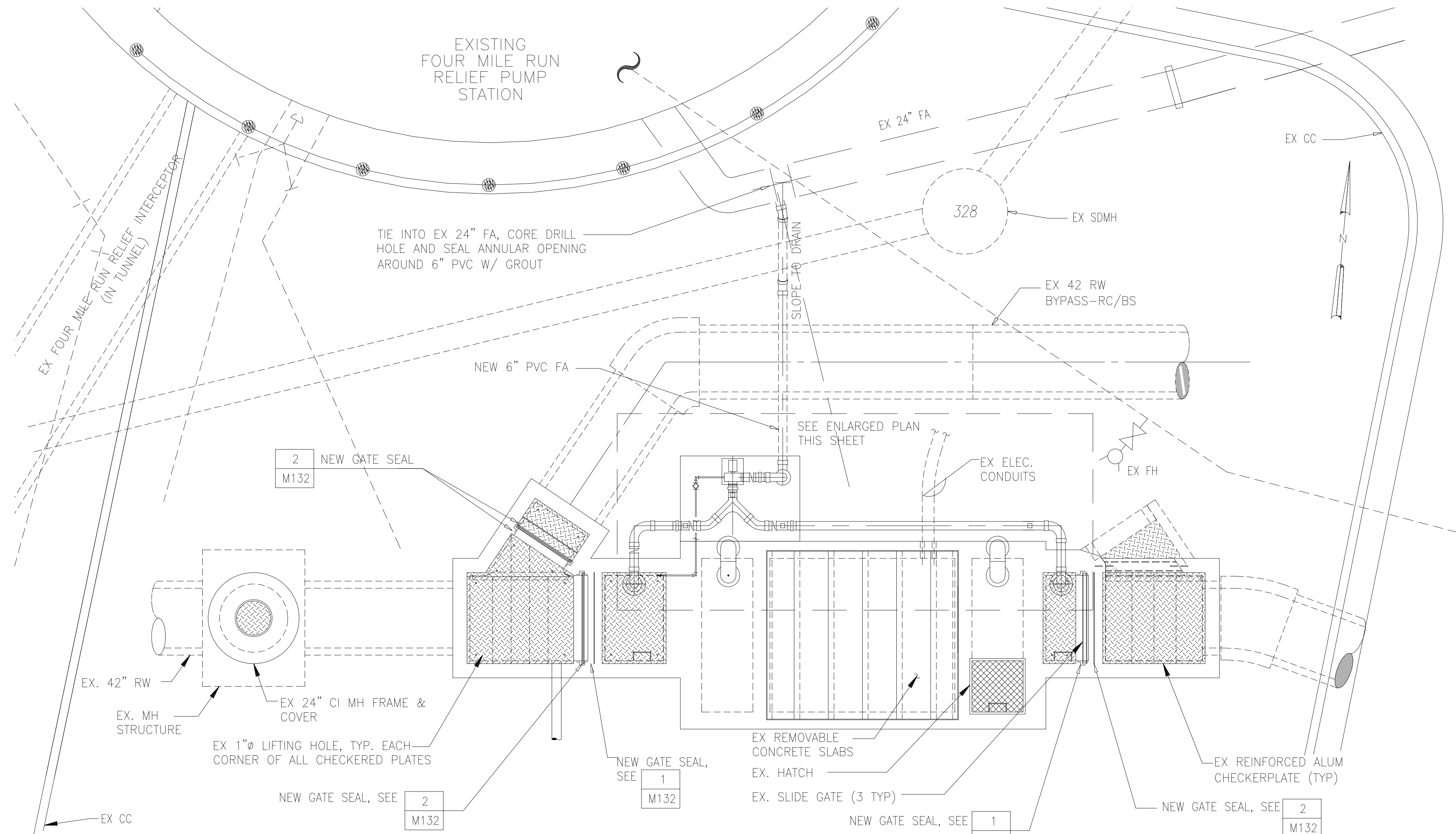
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

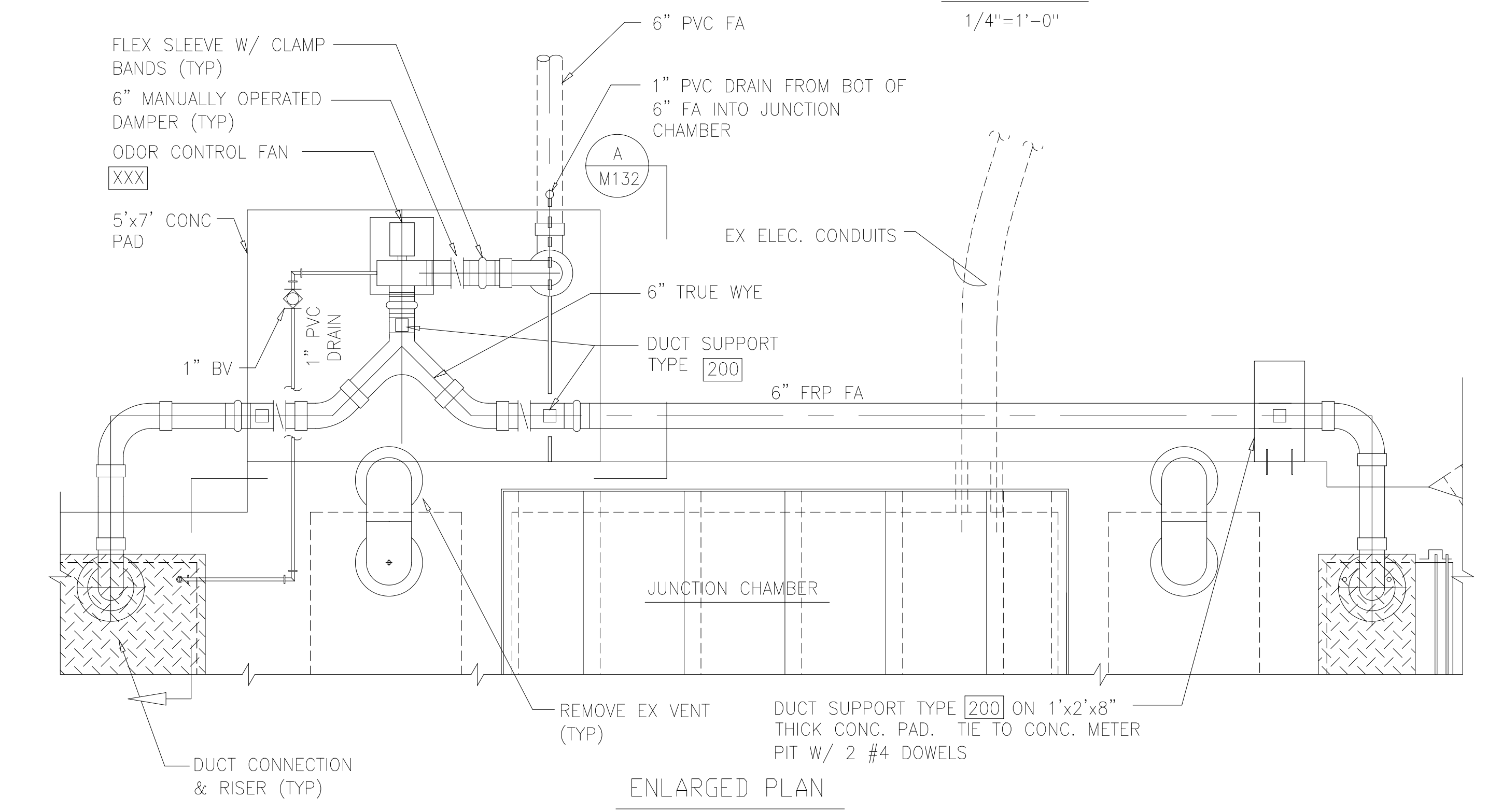
THICKENER AND STORAGE TANKS
PIPING GALLERIES
MECHANICAL
PLANS AND SECTIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER: 30313
	CONTRACT NUMBER: 2000-01-MPC
	DRAWING NUMBER: M131
	SHEET 59 OF 99

04/29/03 4:26pm FILE= H:\30313\Record Dept\59-M131R by FPURCHARON XREFS=130/TU-BP, 300/TU-BP-TX, 130/TU-TP, 130/TU-S01, 130/TU-S02, 130/TU-S03, 130/TU-S04, 130/SI-501, 130/TH-S02, 130/TU-S05, Misc\130313.



PLAN
1/4"=1'-0"



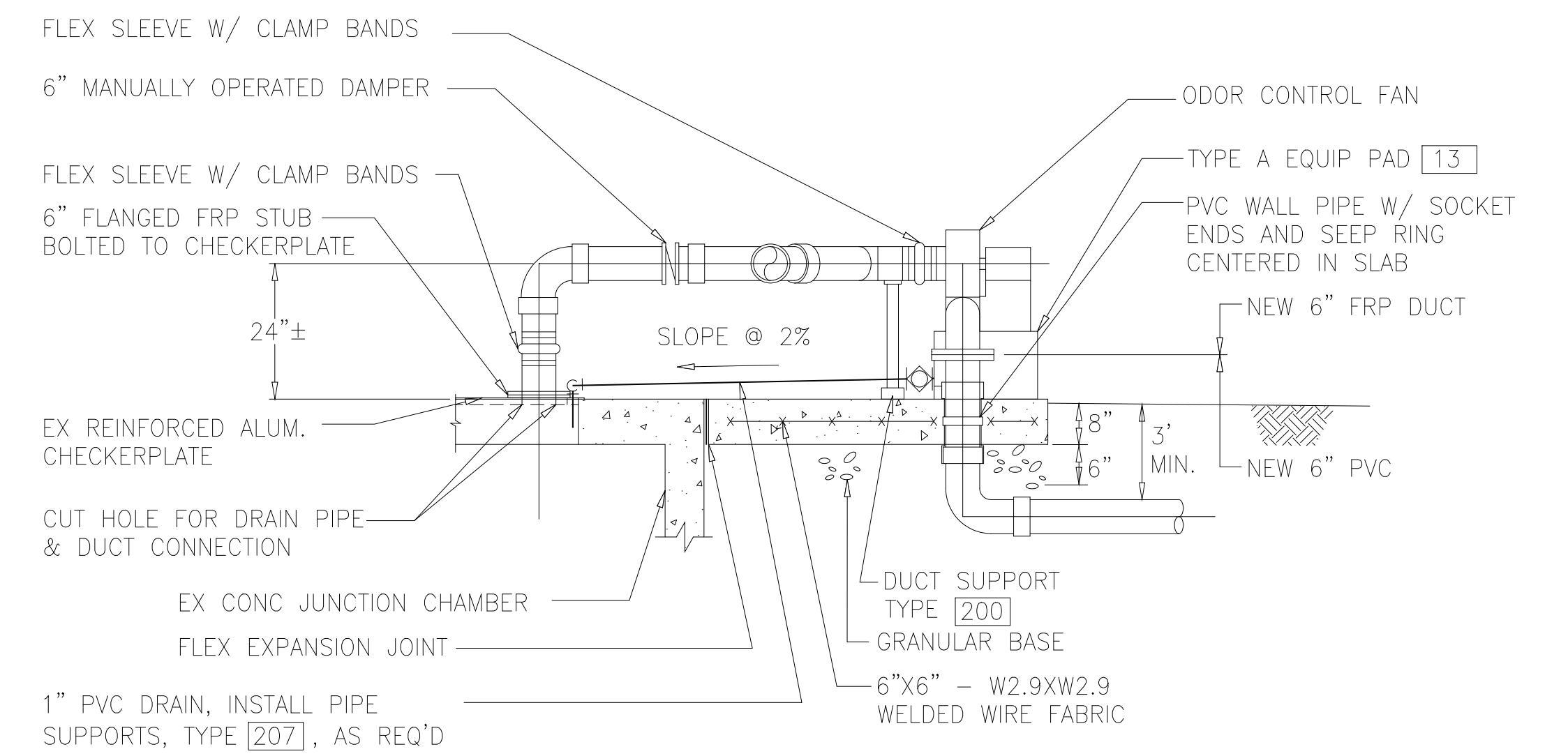
ENLARGED PLAN
1/2"=1'-0"

NOTES:

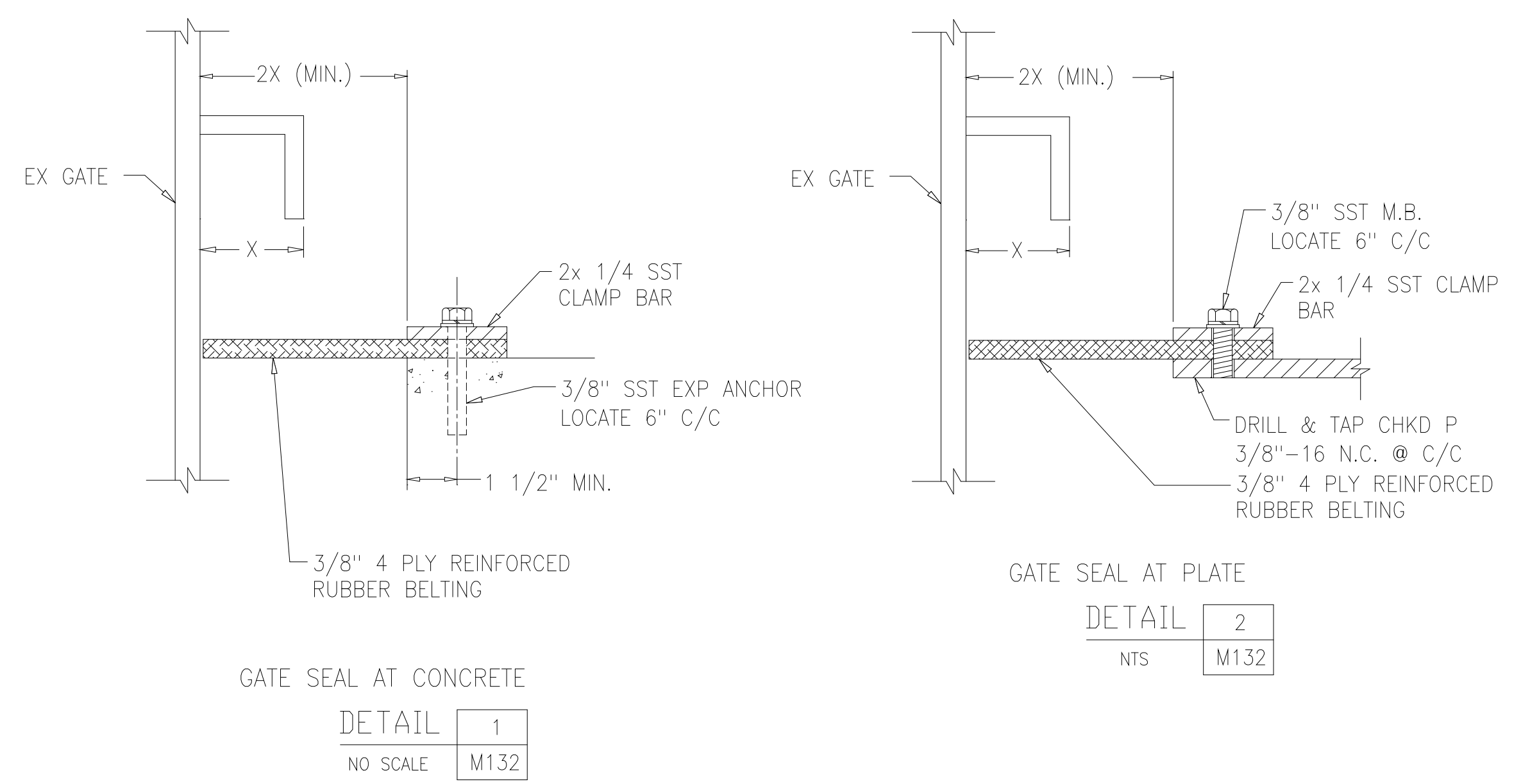
- 1 PROVIDE EROSION AND SEDIMENT CONTROL MEASURES WITHIN WORK AREA IN CONFORMANCE WITH VIRGINIA EROSION & SEDIMENTATION AND PER HANDBOOK 02276. CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION OPERATIONS. AT A MINIMUM, CONTROL MEASURES SHALL INCLUDE INSTALLATION OF SILT FENCE AND INLET PROTECTION DOWNSTREAM OF ALL AREAS DISTURBED DURING CONSTRUCTION.
- 2 ELEVATIONS AND LOCATIONS OF EXISTING STRUCTURES, UTILITIES, YARD PIPING AND OTHER FEATURES ARE TAKEN FROM PREVIOUS CONTRACT DRAWINGS AND OTHER AVAILABLE INFORMATION, AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
- 3 CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES AS NOTED. RELOCATE AND/OR MODIFY EXIST. PIPING AS REQUIRED TO AVOID CONFLICT WITH NEW BUILDING STRUCTURE.
- 4 PROPOSED WORK SHALL BE PERFORMED PER SPECIFICATION SECTION 01520, MAINTENANCE OF PLANT OPERATION DURING CONSTRUCTION.

NOTES (CONTINUED):

- 5 CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES AS NOTED. RELOCATE AND/OR MODIFY EXIST. PIPING AS REQUIRED TO AVOID CONFLICT WITH NEW BUILDING STRUCTURE.
- 6 WHERE PIPING IS TO BE INSTALLED ADJACENT TO EXISTING STRUCTURES OR EXISTING PIPING AT ELEVATIONS BELOW INVERTS OR EXISTING FEATURES, CONTRACTOR SHALL INSTALL SHEET PILING AS NECESSARY TO PROTECT EXISTING STRUCTURES OR PIPING. FOUNDATIONS OF EXISTING PILE SUPPORTED STRUCTURES MUST STILL BE PROTECTED WITH SHEET PILING. SHEET PILING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE COMMONWEALTH OF VIRGINIA. CONTRACTOR SHALL SUBMIT TO ENGINEER PROPOSED DESIGN AND LAYOUT OF SHEET PILE SYSTEM PRIOR TO INSTALLATION OF SHEET PILES.
- 7 CONTRACTOR SHALL FIELD VERIFY PIPE MATERIALS, JOINT TYPES AND JOINT LOCATIONS AT ALL EXISTING/NEW PIPE CONNECTIONS. CONTRACTOR SHALL PROVIDE ALL COUPLINGS, TRANSITION GASKETS AND FITTINGS REQUIRED TO MAKE PIPE CONNECTIONS.



SECTION A
1/2"=1'-0" M132



DETAIL 1
NO SCALE M132

DETAIL 2
NTS M132

RECORD DRAWING

DESIGNED	AMS
DRAWN	FAH
CHECKED	JSI
PROJ.ENGR.	AMS
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

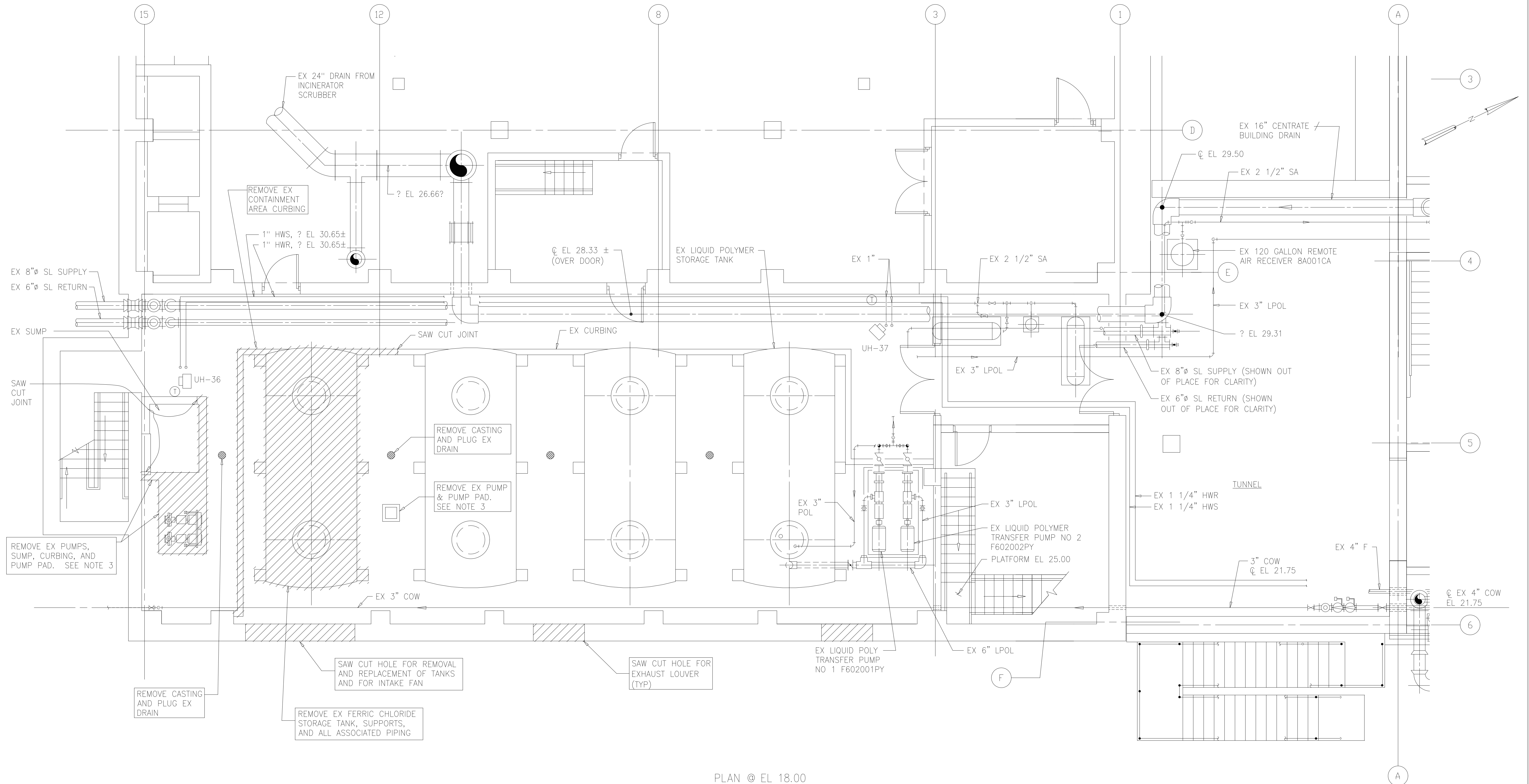
ODOR CONTROL IMPROVEMENTS

FOUR MILE RUN INTERCEPTOR
FLOW METER PIT
MECHANICAL
PLAN, SECTIONS, AND DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER M132
	SHEET 60 OF 99

NOTES:

- 1 CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF DEBRIS AND ABANDONED EQUIPMENT WITHIN WORK AREA AS DIRECTED BY ENGINEER.
- 2 NOT USED
- 3 EXISTING EQUIPMENT, PIPING, CONDUIT, AND ACCESSORIES WITHIN THE PROPOSED AREA OF WORK SHALL BE REMOVED OR ABANDONED AS DIRECTED BY THE COUNTY. LIMITS OF PIPE REMOVAL AND ABANDONMENT SHALL BE DETERMINED BY THE ENGINEER.



PLAN @ EL 18.00
1/4"=1'-0"

RECORD DRAWING

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ. ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

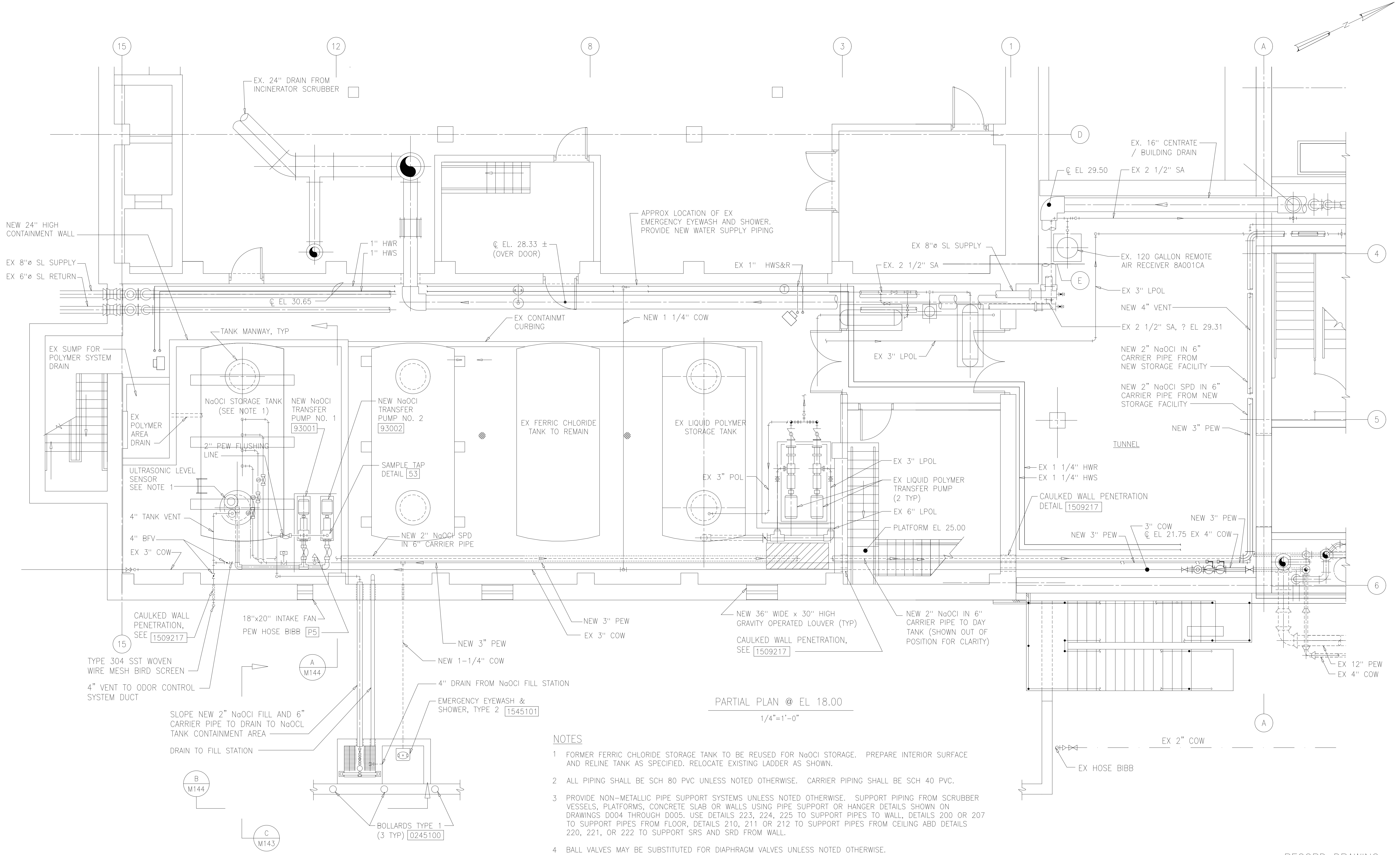
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

SLUDGE PROCESSING BUILDING
SODIUM HYPOCHLORITE STORAGE FACILITIES
MECHANICAL
DEMOLITION PLAN @ EL 18.00

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M141
	SHEET 61 OF 99



PARTIAL PLAN @ EL 18.00
1/4"=1'-0"

NOTES

- 1 FORMER FERRIC CHLORIDE STORAGE TANK TO BE REUSED FOR NaOCl STORAGE. PREPARE INTERIOR SURFACE AND RELINE TANK AS SPECIFIED. RELOCATE EXISTING LADDER AS SHOWN.
- 2 ALL PIPING SHALL BE SCH 80 PVC UNLESS NOTED OTHERWISE. CARRIER PIPING SHALL BE SCH 40 PVC.
- 3 PROVIDE NON-METALLIC PIPE SUPPORT SYSTEMS UNLESS NOTED OTHERWISE. SUPPORT PIPING FROM SCRUBBER VESSELS, PLATFORMS, CONCRETE SLAB OR WALLS USING PIPE SUPPORT OR HANGER DETAILS SHOWN ON DRAWINGS D004 THROUGH D005. USE DETAILS 223, 224, 225 TO SUPPORT PIPES THROUGH WALL, DETAILS 200 OR 207 TO SUPPORT PIPES FROM FLOOR, DETAILS 210, 211 OR 212 TO SUPPORT PIPES FROM CEILING AND DETAILS 220, 221, OR 222 TO SUPPORT SRS AND SRD FROM WALL.
- 4 BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAGM VALVES UNLESS NOTED OTHERWISE.

DESIGNED	AMS
DRAWN	JPG
CHECKED	
PROJ.ENGR.	AMS
1	DELETE DRAINAGE WELLS
NO.	ISSUED FOR
	OCT 2000
	DATE
	FXP
	BY
	APPROVED

A	M144
B	M144
C	M143

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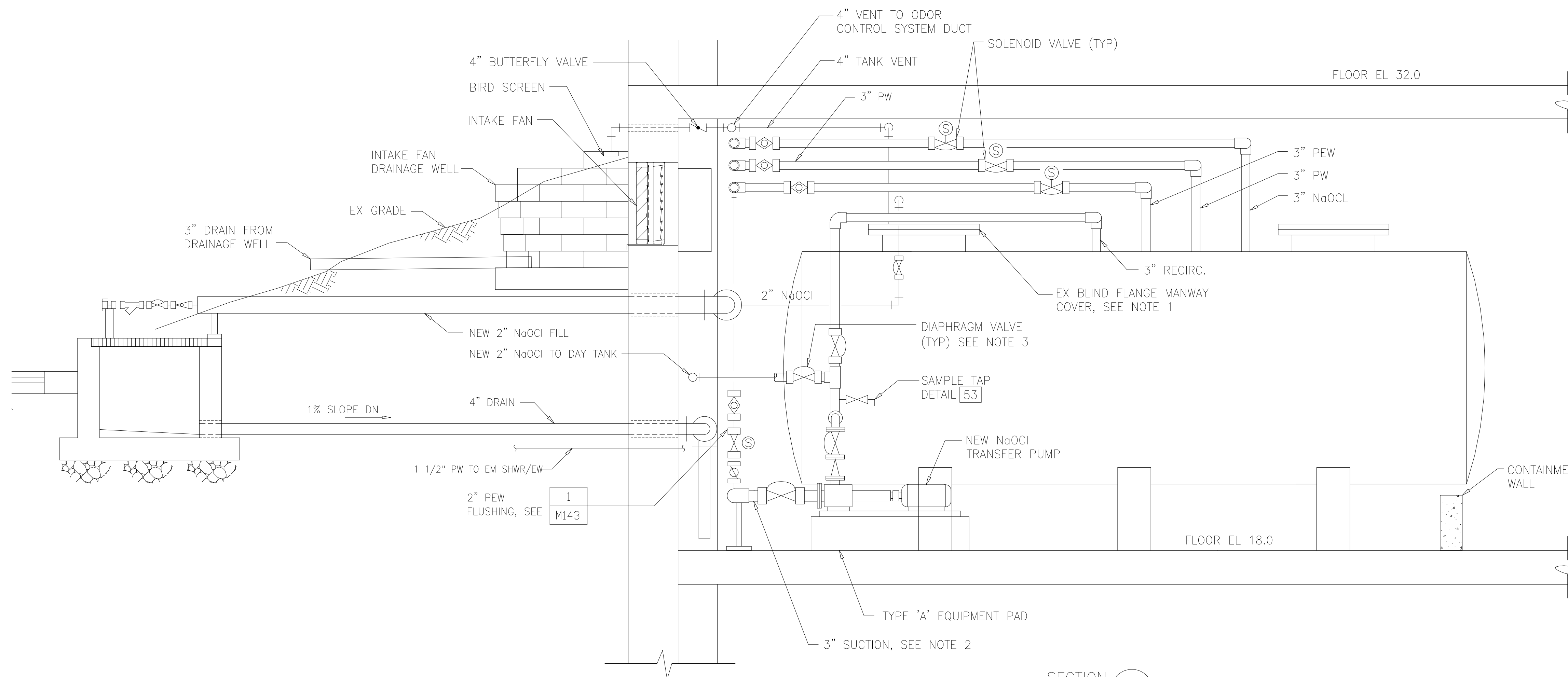
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

SLUDGE PROCESSING BUILDING
SODIUM HYPOCHLORITE STORAGE FACILITIES
MECHANICAL
PLAN AT EL 18.00

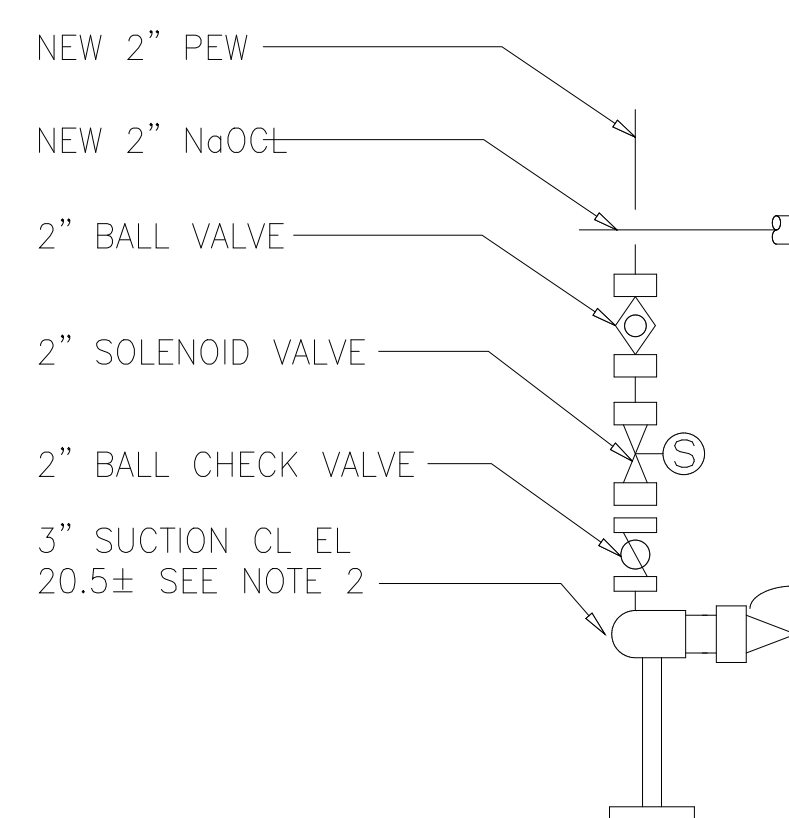
RECORD DRAWING
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.
DATE: SEPT 2000
H & S JOB NUMBER 30313
CONTRACT NUMBER 2000-01-MPC
DRAWING NUMBER M142
SHEET 62 OF 99

NOTES:

- 1 REMOVE BLIND FLANGES, PREPARE AND COAT FLANGES W/ NEW TANK LINING MATERIAL AND REPLACE.
- 2 ROUTE NEW SUCTION LINE TO EXISTING TANK DISCHARGE CONNECTION. PROVIDE NECESSARY FITTINGS FOR CONNECTION.
- 3 BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAM VALVES UNLESS NOTED OTHERWISE.

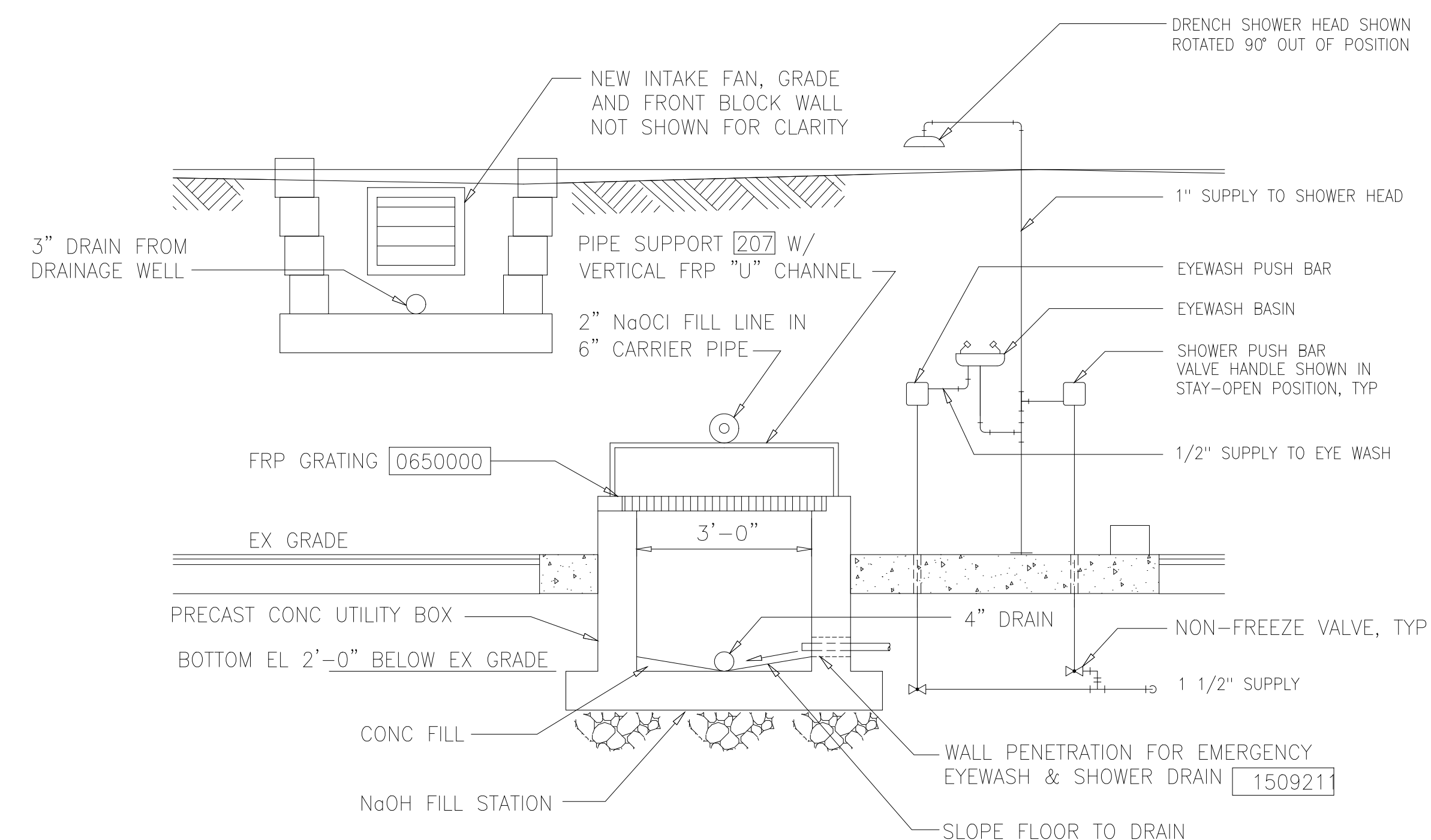


SECTION A
1/2"=1'-0" M143



FLUSHING CONNECTION DETAIL

DETAIL 1
NTS M144



SECTION B
1/2"=1'-0" M143

RECORD DRAWING

DESIGNED	AMS
DRAWN	FAH
CHECKED	JSI
PROJ. ENGR.	AMS
NO.	ISSUED FOR
DATE	BY
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

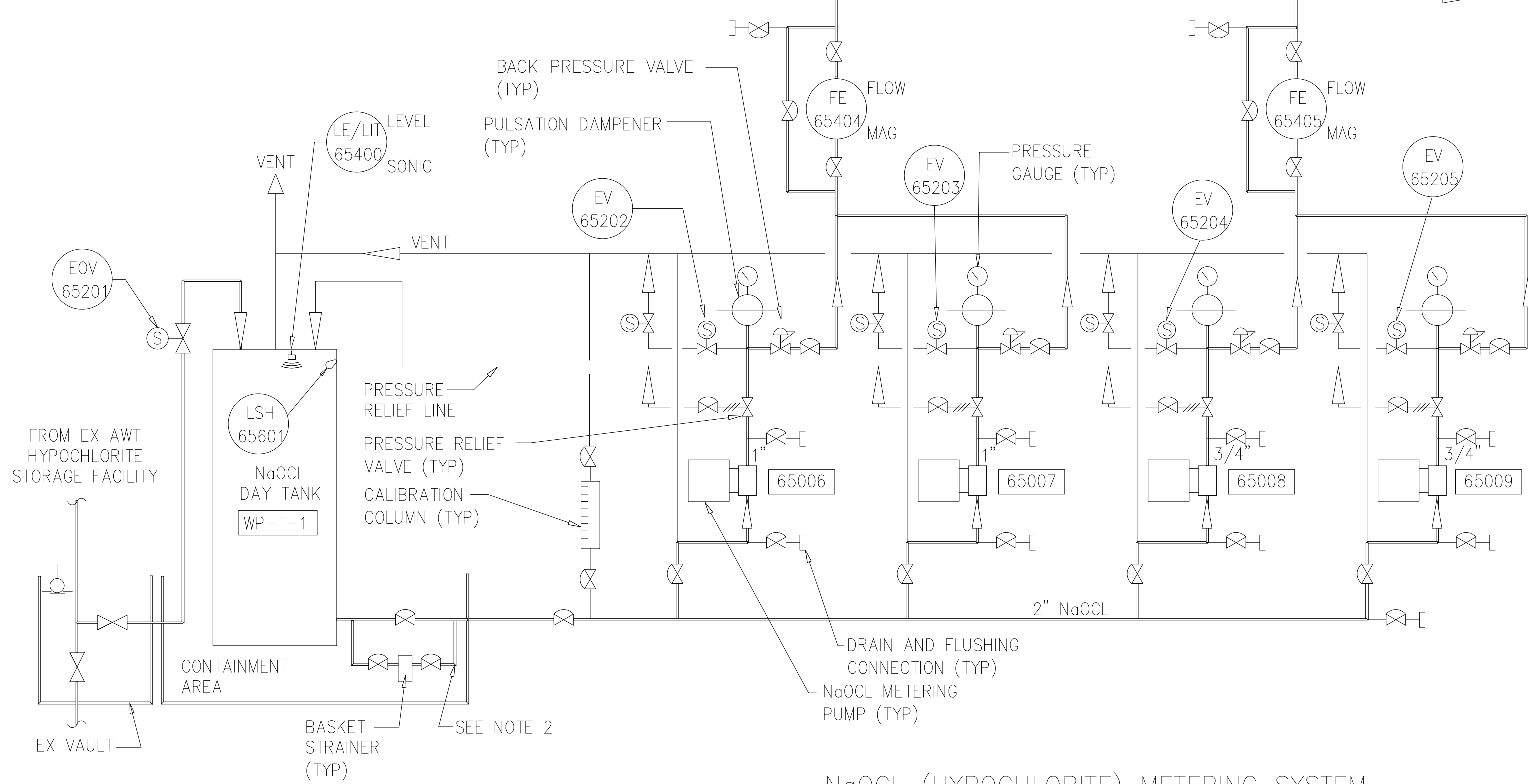
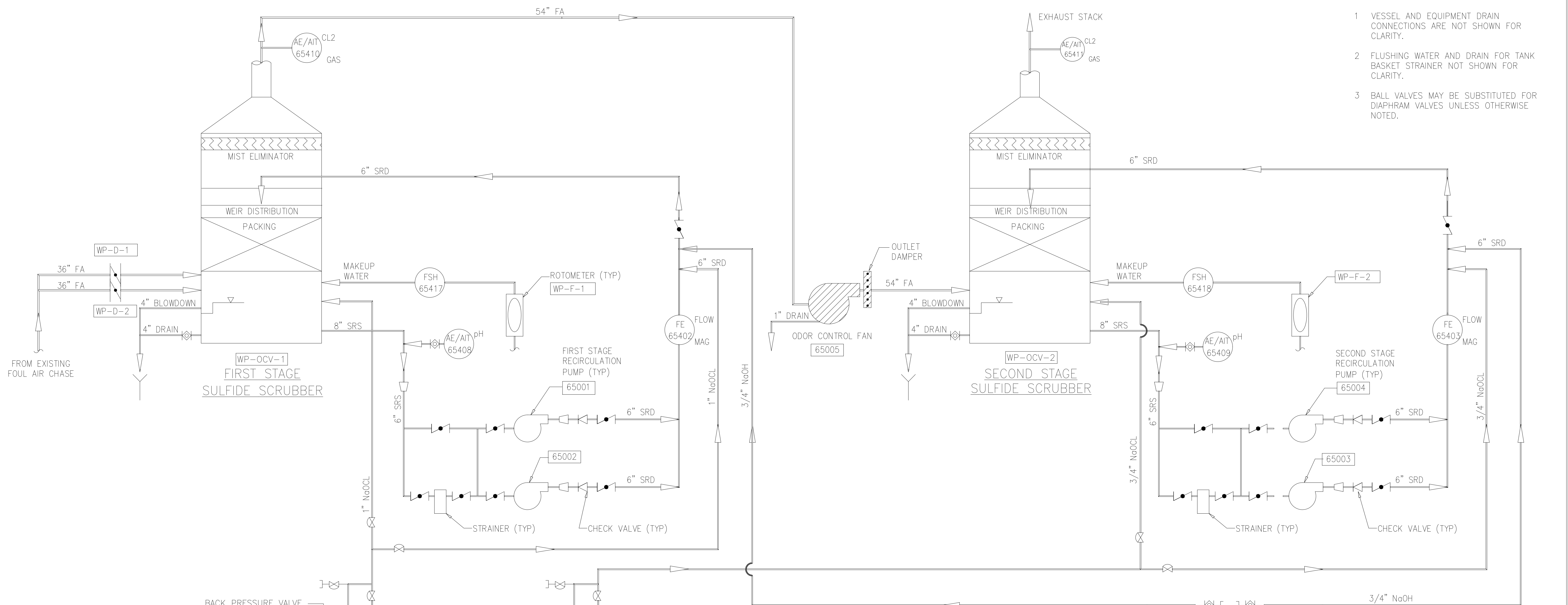
CENTRIFUGE DEWATERING BUILDING
SODIUM HYPOCHLORITE STORAGE FACILITIES

MECHANICAL
SECTIONS AND DETAILS

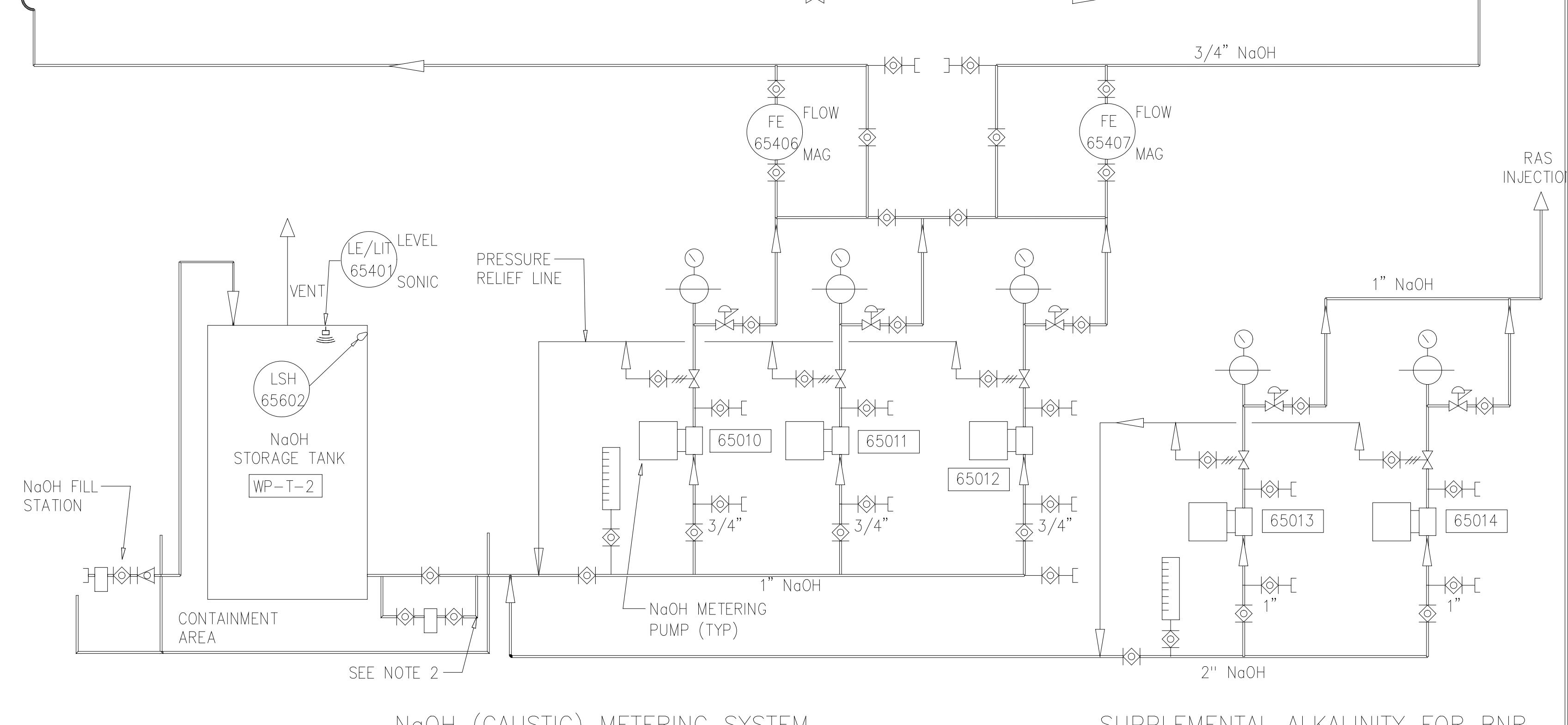
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M143
	SHEET 63 OF 99

NOTES:

- 1 VESSEL AND EQUIPMENT DRAIN CONNECTIONS ARE NOT SHOWN FOR CLARITY.
- 2 FLUSHING WATER AND DRAIN FOR TANK BASKET STRAINER NOT SHOWN FOR CLARITY.
- 3 BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAM VALVES UNLESS OTHERWISE NOTED.



NaOCl (HYPOCHLORITE) METERING SYSTEM



NaOH (CAUSTIC) METERING SYSTEM

SUPPLEMENTAL ALKALINITY FOR BNR

RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB/GDM
CHECKED	JSI
PROJ. ENGR.	AWS
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

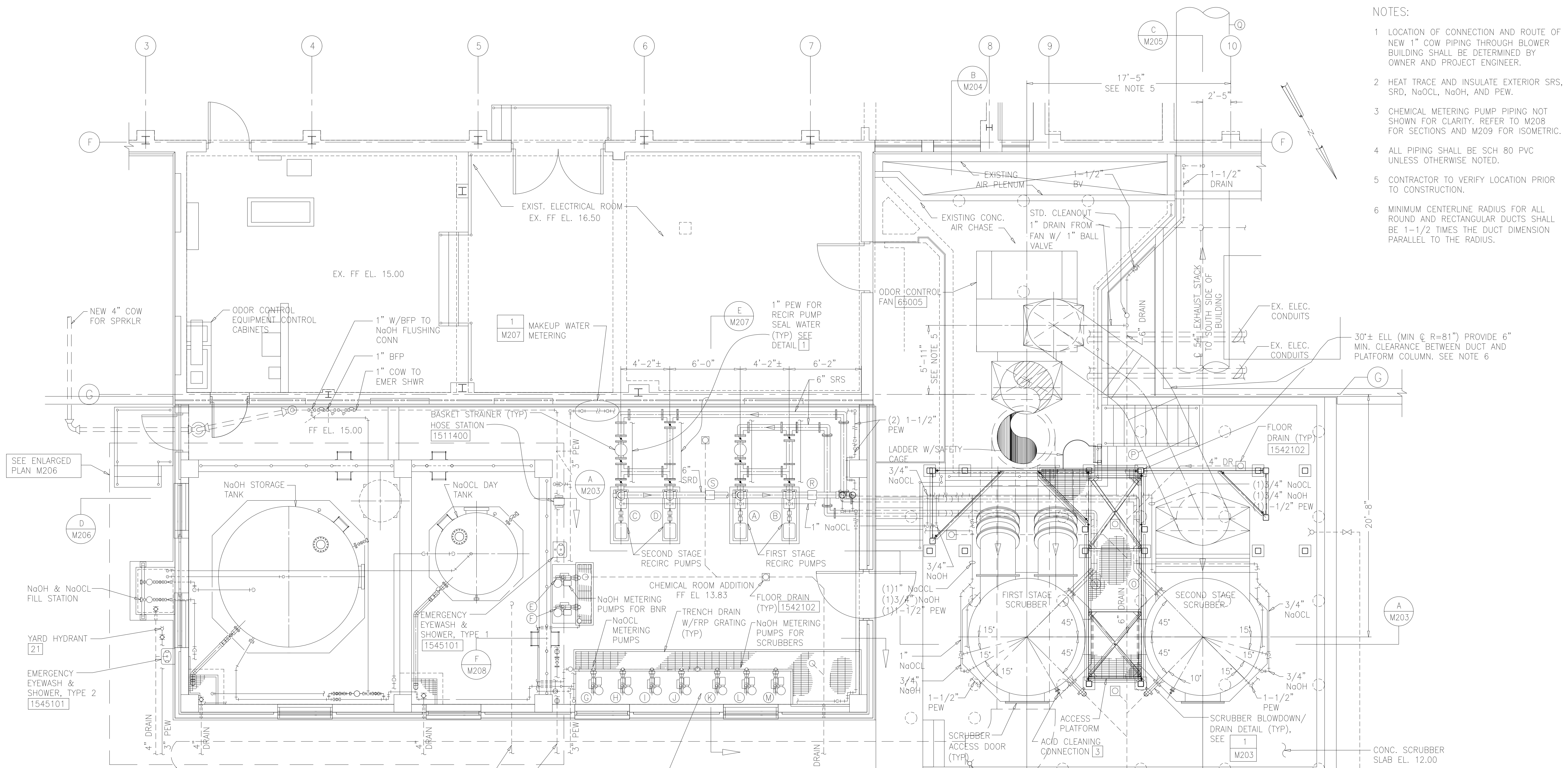
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
MECHANICAL
PROCESS FLOW DIAGRAM

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER: 30313
	CONTRACT NUMBER: 2000-01-MPC
	DRAWING NUMBER: M201
	SHEET 64 OF 99

NOTES:

- 1 LOCATION OF CONNECTION AND ROUTE OF NEW 1" COW PIPING THROUGH BLOWER BUILDING SHALL BE DETERMINED BY OWNER AND PROJECT ENGINEER.
- 2 HEAT TRACE AND INSULATE EXTERIOR SRS, SRD, NaOCL, NaOH, AND PEW.
- 3 CHEMICAL METERING PUMP PIPING NOT SHOWN FOR CLARITY. REFER TO M208 FOR SECTIONS AND M209 FOR ISOMETRIC.
- 4 ALL PIPING SHALL BE SCH 80 PVC UNLESS OTHERWISE NOTED.
- 5 CONTRACTOR TO VERIFY LOCATION PRIOR TO CONSTRUCTION.
- 6 MINIMUM CENTERLINE RADIUS FOR ALL ROUND AND RECTANGULAR DUCTS SHALL BE 1-1/2 TIMES THE DUCT DIMENSION PARALLEL TO THE RADIUS.



EQUIPMENT SCHEDULE

LETTER / EQUIPMENT DESCRIPTION	EQUIP. TAG NO.	LETTER / EQUIPMENT DESCRIPTION	EQUIP. TAG NO.
(A) FIRST STAGE RECIRCULATION PUMP	65001	(J) NaOCL METERING PUMP	65009
(B) FIRST STAGE RECIRCULATION PUMP	65002	(K) NaOH METERING PUMP FOR SCRUBBERS	65010
(C) SECOND STAGE RECIRCULATION PUMP	65003	(L) NaOH METERING PUMP FOR SCRUBBERS	65011
(D) SECOND STAGE RECIRCULATION PUMP	65004	(M) NaOH METERING PUMP FOR SCRUBBERS	65012
(E) NaOH METERING PUMP FOR BNR	65013	(N) pH PROBE, ANALYZER/TRANSMITTER (AE/AIT)	65408
(F) NaOH METERING PUMP FOR BNR	65014	(O) pH PROBE, ANALYZER/TRANSMITTER (AE/AIT)	65409
(G) NaOCL METERING PUMP	65006	(P) CHLORINE GAS MONITOR (AE/AIT)	65410
(H) NaOCL METERING PUMP	65007	(Q) CHLORINE GAS MONITOR (AE/AIT)	65411
(I) NaOCL METERING PUMP	65008	(R) MAGNETIC FLOW METER (FE)	65402
		(S) MAGNETIC FLOW METER (FE)	65403

RECORD DRAWING

DESIGNED AMS
 DRAWN SLB
 CHECKED JSI
 PROJ. ENGR. AMS

HAZEN AND SAWYER
 Environmental Engineers &
 4011 WestChase Blvd, Raleigh, North Carolina 27607

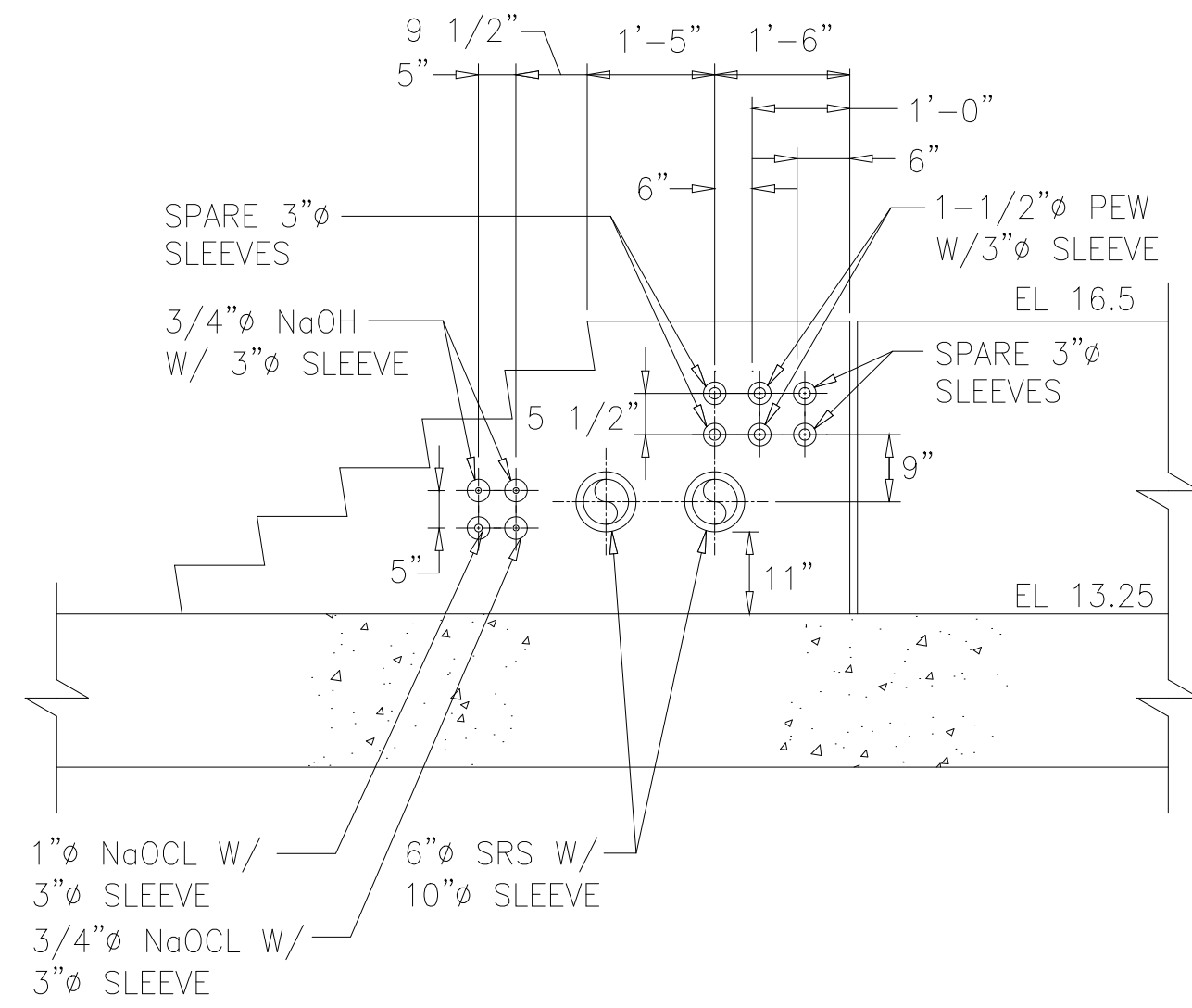
PBS&J
 Scientists
 12101 INDIAN CREEK COURT
 BELTSVILLE, MD 20705
 TELEPHONE: (301) 210-6800
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ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

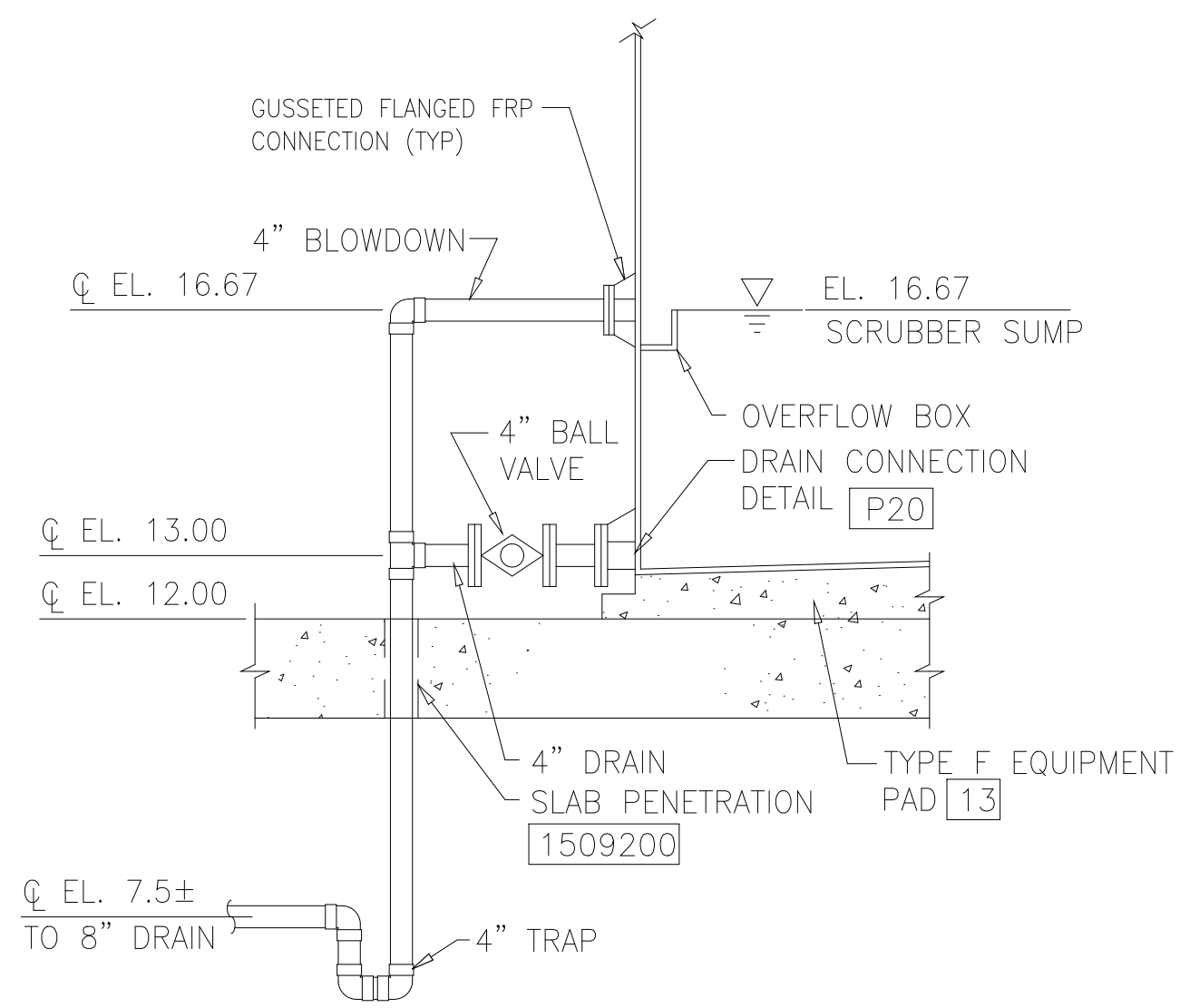
BLOWER BUILDING
 ODOR CONTROL AREA
 MECHANICAL
 PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.
 DATE: SEPT 2000
 H & S JOB NUMBER: 30313
 CONTRACT NUMBER: 2000-01-WPC
 DRAWING NUMBER: M202
 SHEET 65 OF 99

NOTE:
SEAL ANNULAR SPACE WITHIN SLEEVES WITH
BACKER ROD AND SILICONE SEALANT. TYPICAL
FOR ALL PIPE PENETRATIONS.

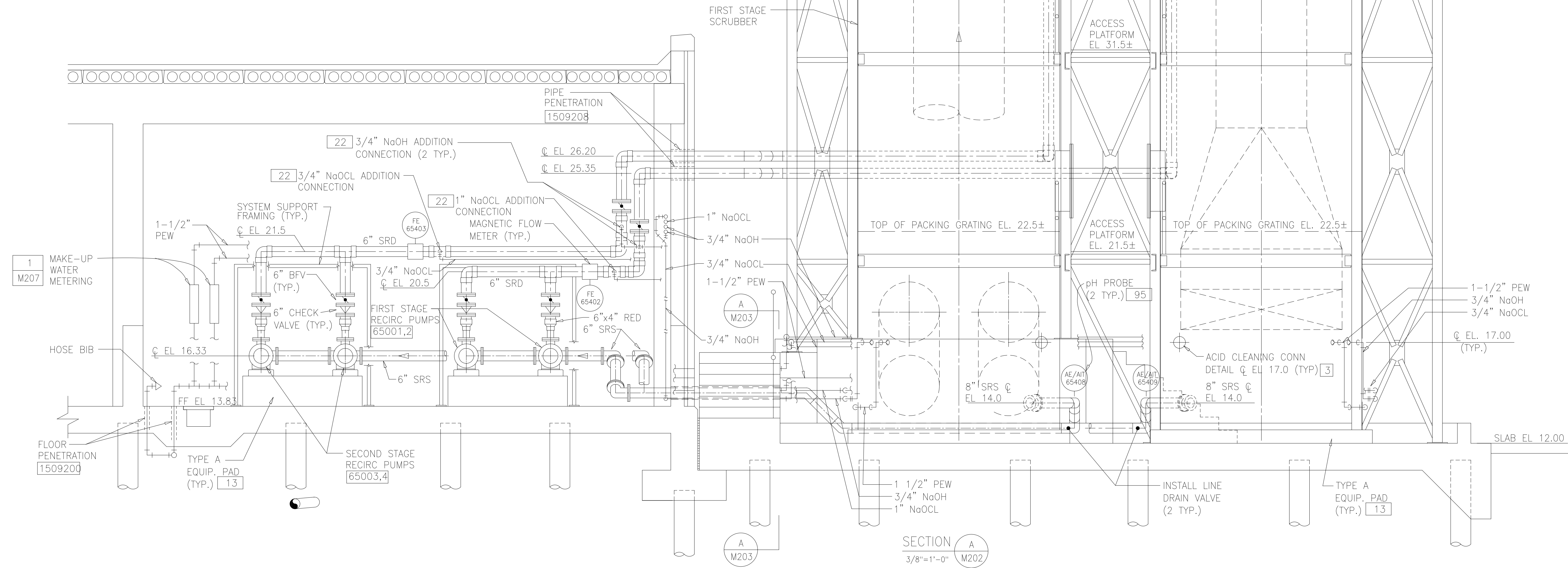


SECTION A
1/2"=1'-0" M203



SCRUBBER BLOWDOWN/ DRAIN DETAIL

DETAIL 1
NTS M202



SECTION A
3/8"=1'-0" M202

NOTES:

- 1 ODOR CONTROL FAN NOT SHOWN FOR CLARITY.
- 2 ELEVATIONS OF PIPE CONNECTIONS TO SCRUBBER ARE APPROXIMATE. COORDINATE WITH SCRUBBER MANUFACTURER.
- 3 PROVIDE NON-METALLIC PIPE SYSTEMS UNLESS NOTED OTHERWISE. SUPPORT PIPING FROM SCRUBBER VESSELS, PLATFORMS, CONCRETE SLAB, OR WALLS USING PIPE SUPPORT OR HANGER DETAILS SHOWN ON STANDARD DETAIL DRAWINGS. USE DETAILS 223, 224, OR 225 TO SUPPORT PIPES TO WALL. USE DETAILS 200 OR 207 TO SUPPORT PIPES FROM FLOOR. USE DETAILS 210, 211, OR 212 TO SUPPORT PIPES FROM CEILING. USE DETAILS 220, 221, OR 222 TO SUPPORT SRS AND SRD FROM WALL.
- 4 HEAT TRACE AND INSULATE EXTERIOR SRS, SRD, NaOCL, NaOH, AND PEW LINES.
- 5 ALL PIPING SHALL BE SCH 80 PVC UNLESS OTHERWISE NOTED.
- 6 SEE STRUCTURAL DRAWINGS FOR ACCESS PLATFORM.

RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ.ENGR.	AMS

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FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

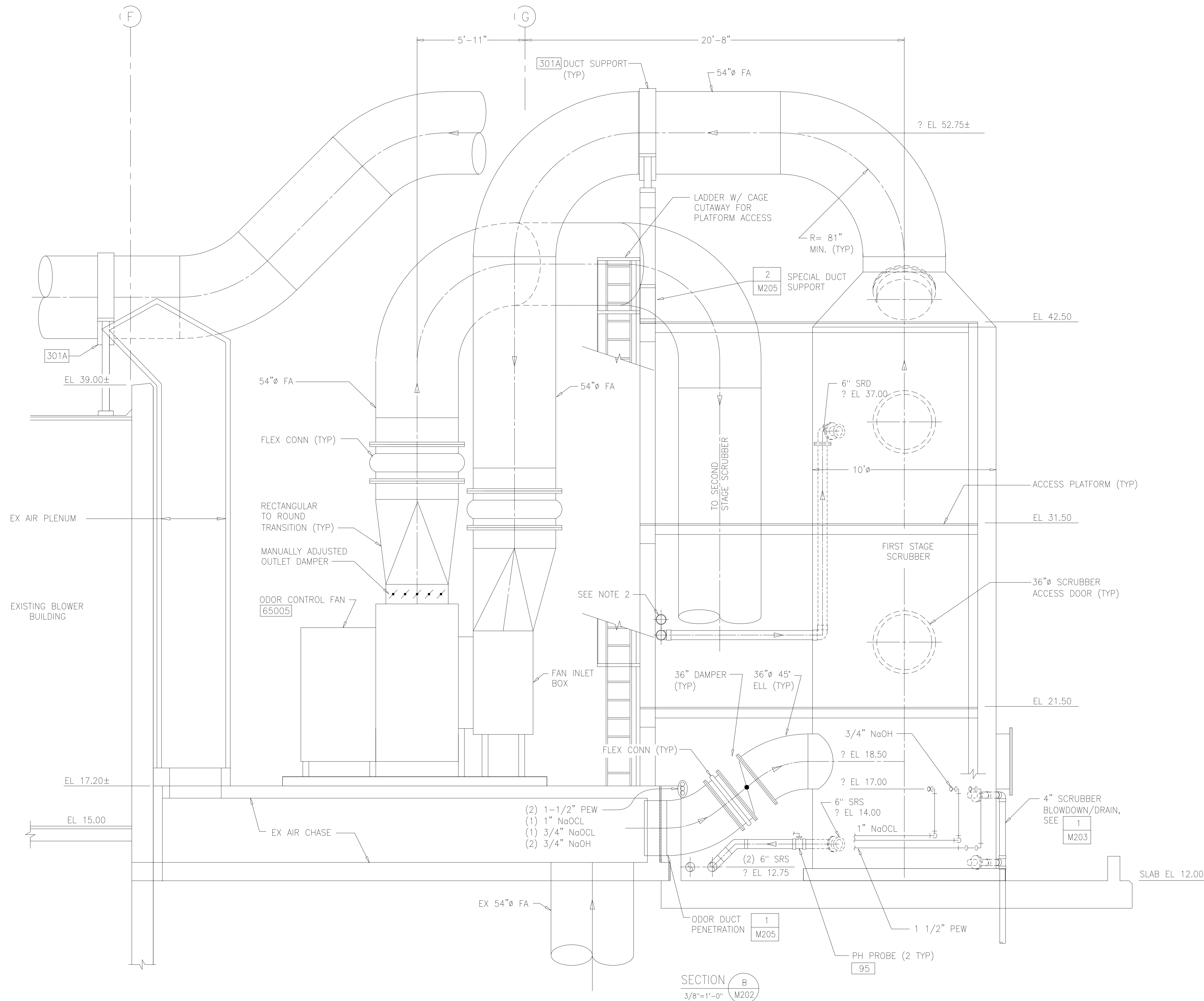
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
MECHANICAL
SECTIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M203
	SHEET 66 OF 99

NOTES:

- 1 SEE DRAWING M203 FOR PERTINENT NOTES.
- 2 SUPPORT SRD FROM SCRUBBER PLATFORM STRUCTURE.



RECORD DRAWING

DESIGNED	AMS
DRAWN	SLB
CHECKED	JSI
PROJ.ENGR.	AMS
APPROVED	

NO.	ISSUED FOR	DATE	BY

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

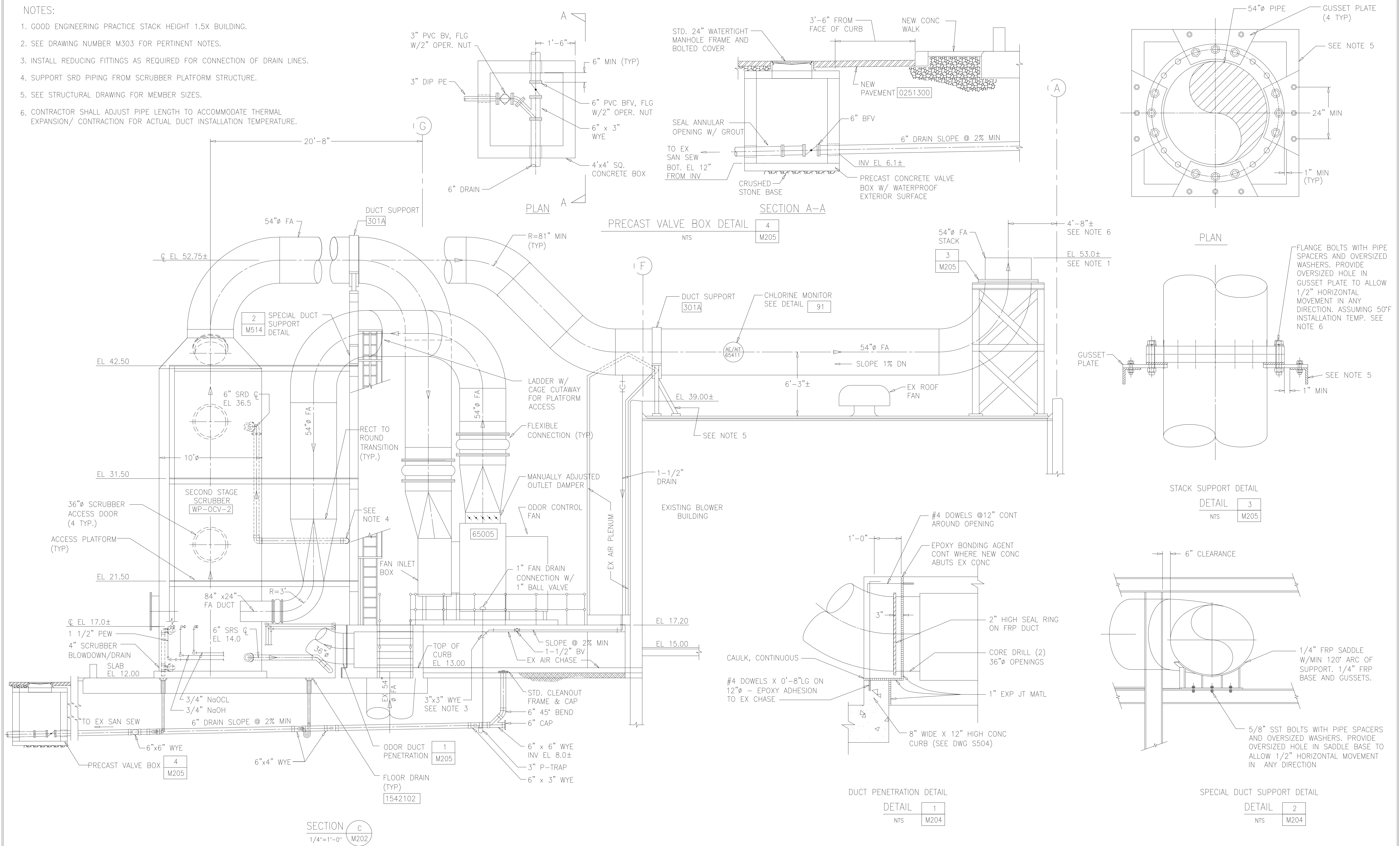
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
MECHANICAL
SECTION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M204
	SHEET 67 OF 99

NOTES:

1. GOOD ENGINEERING PRACTICE STACK HEIGHT 1.5X BUILDING.
2. SEE DRAWING NUMBER M303 FOR PERTINENT NOTES.
3. INSTALL REDUCING FITTINGS AS REQUIRED FOR CONNECTION OF DRAIN LINES.
4. SUPPORT SRD PIPING FROM SCRUBBER PLATFORM STRUCTURE.
5. SEE STRUCTURAL DRAWING FOR MEMBER SIZES.
6. CONTRACTOR SHALL ADJUST PIPE LENGTH TO ACCOMMODATE THERMAL EXPANSION/ CONTRACTION FOR ACTUAL DUCT INSTALLATION TEMPERATURE.



RECORD DRAWING

DESIGNED	AMS			
DRAWN	SLB			
CHECKED	JSI			
PROJ. ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

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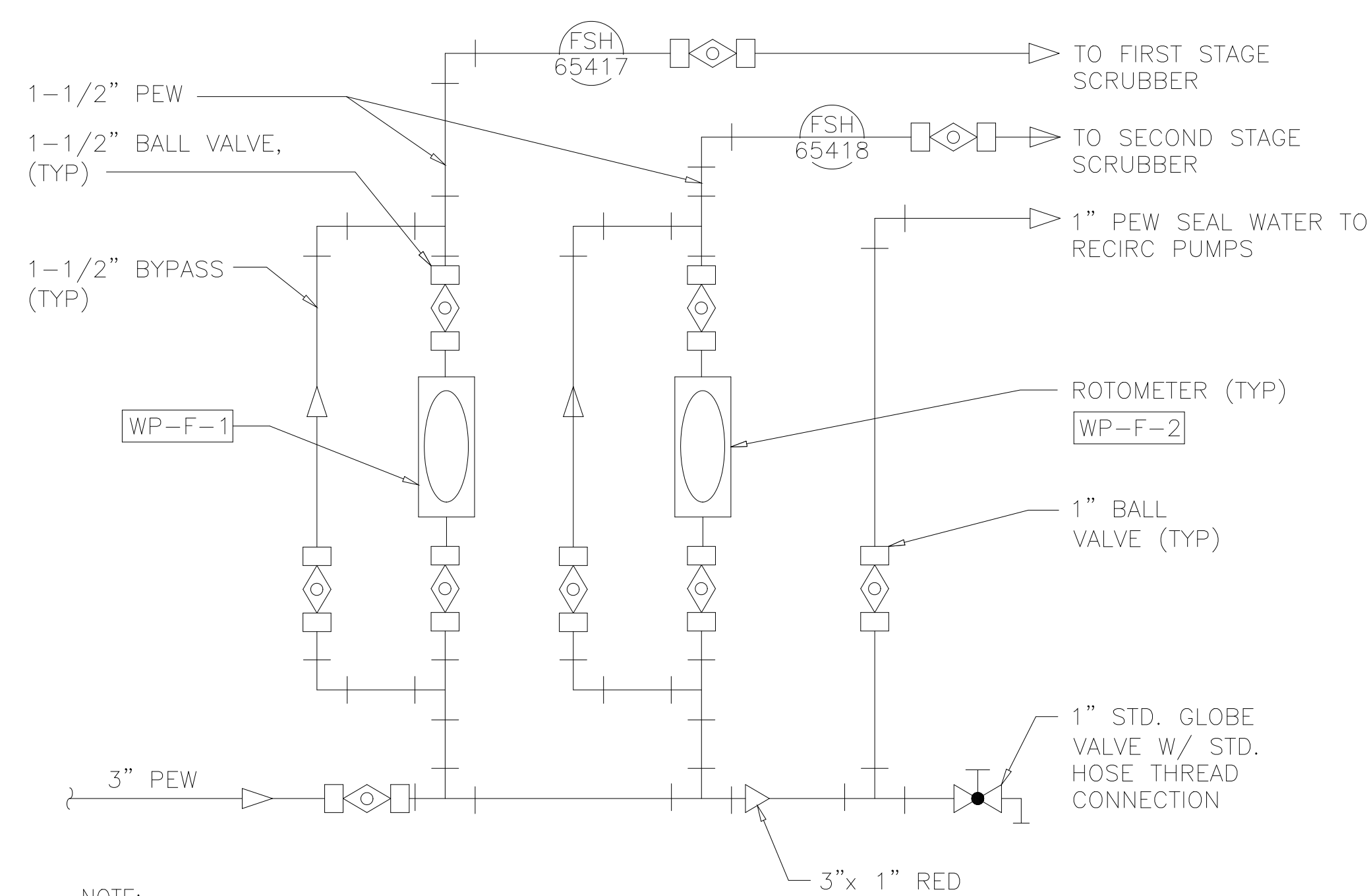
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
MECHANICAL
SECTIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M205
	SHEET 68 OF 99

NOTES:

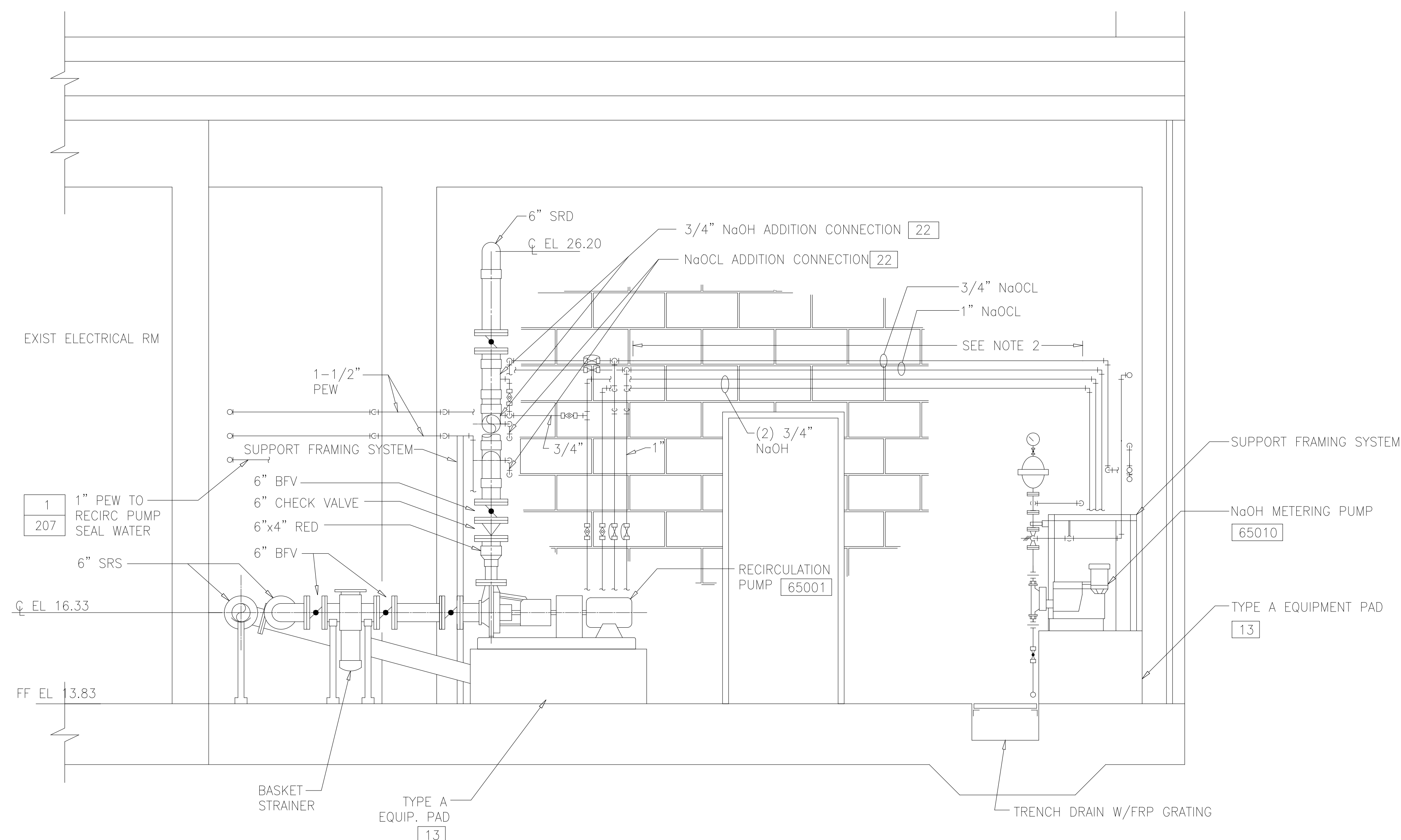
- 1 SEE DRAWING M202 FOR PERTINENT NOTES.
- 2 PROVIDE SECONDARY CONTAINMENT PIPES FOR HORIZONTAL CHEMICAL PIPES TO LIMITS SHOWN. THE SECONDARY PIPE SHALL BE 3" DIAMETER SCH 40 PVC, UNLESS NOTED OTHERWISE. SLOPE SECONDARY PIPE AT 1% TOWARDS TRENCH DRAIN.



NOTE:
1. SUPPORT PEW METERING PIPING FROM WALL.

MAKE-UP WATER METERING DETAIL

DETAIL	1
NTS	M207



SECTION E
1/2"=1'-0" M202

RECORD DRAWING

DESIGNED	AMS
DRAWN	FAH
CHECKED	JSI
PROJ.ENGR.	AMS
APPROVED	

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Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

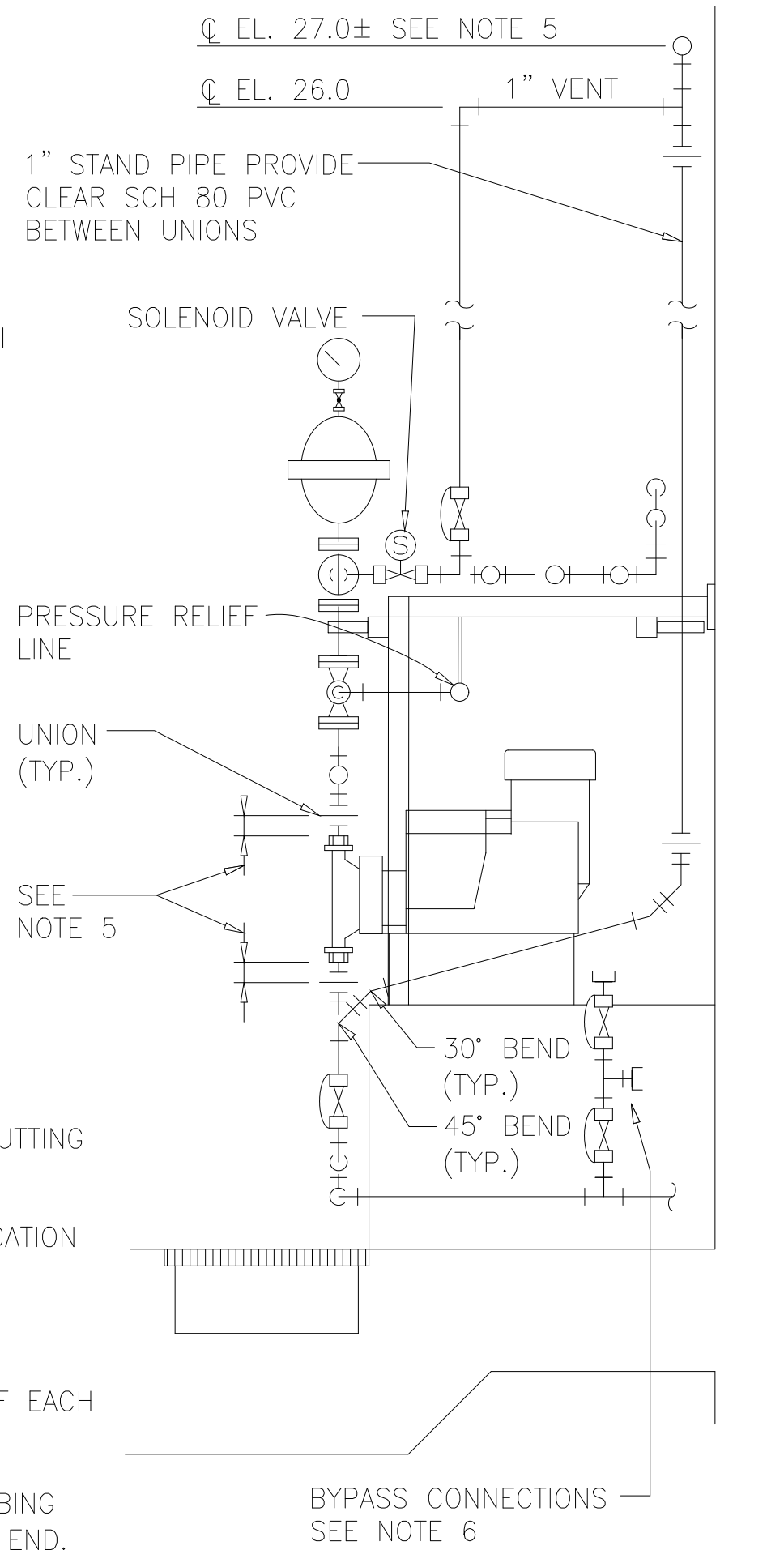
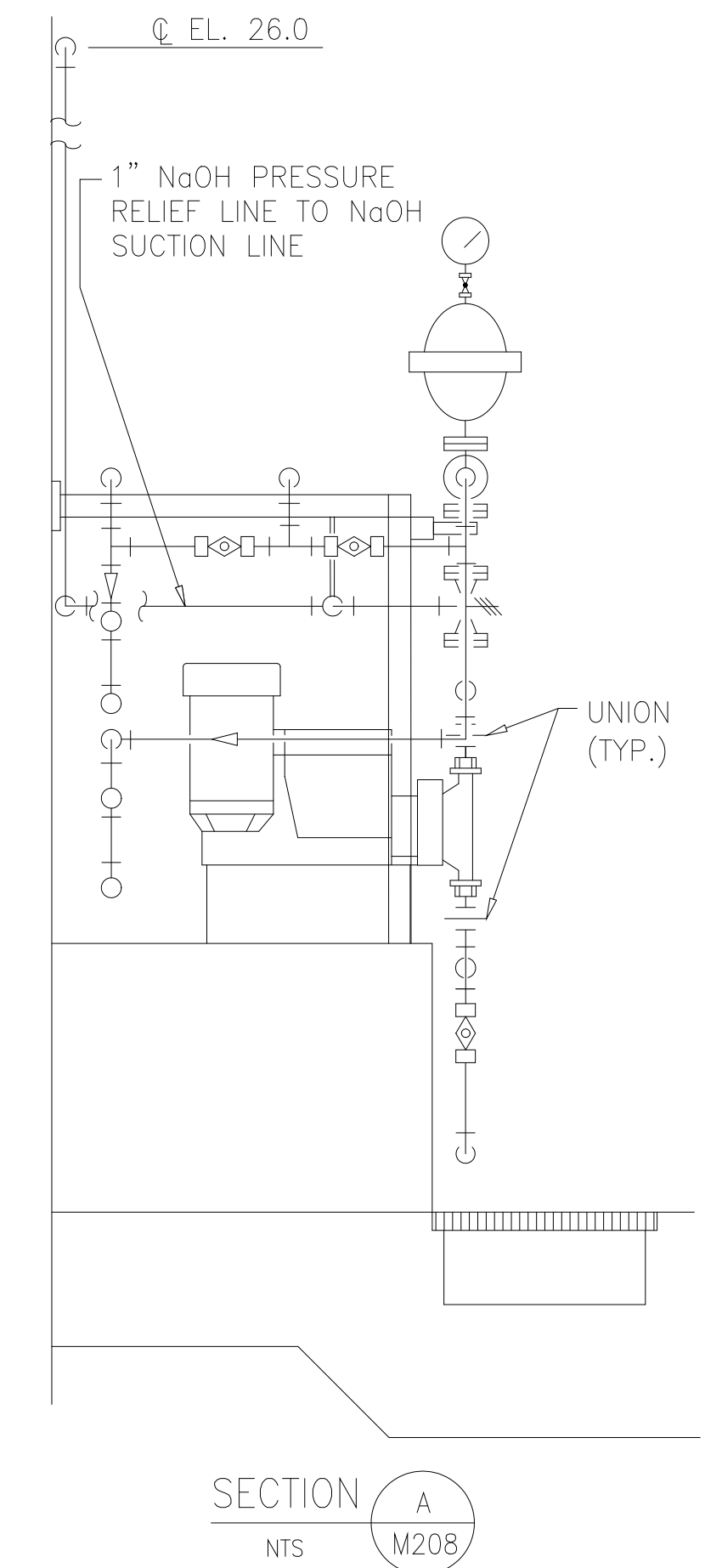
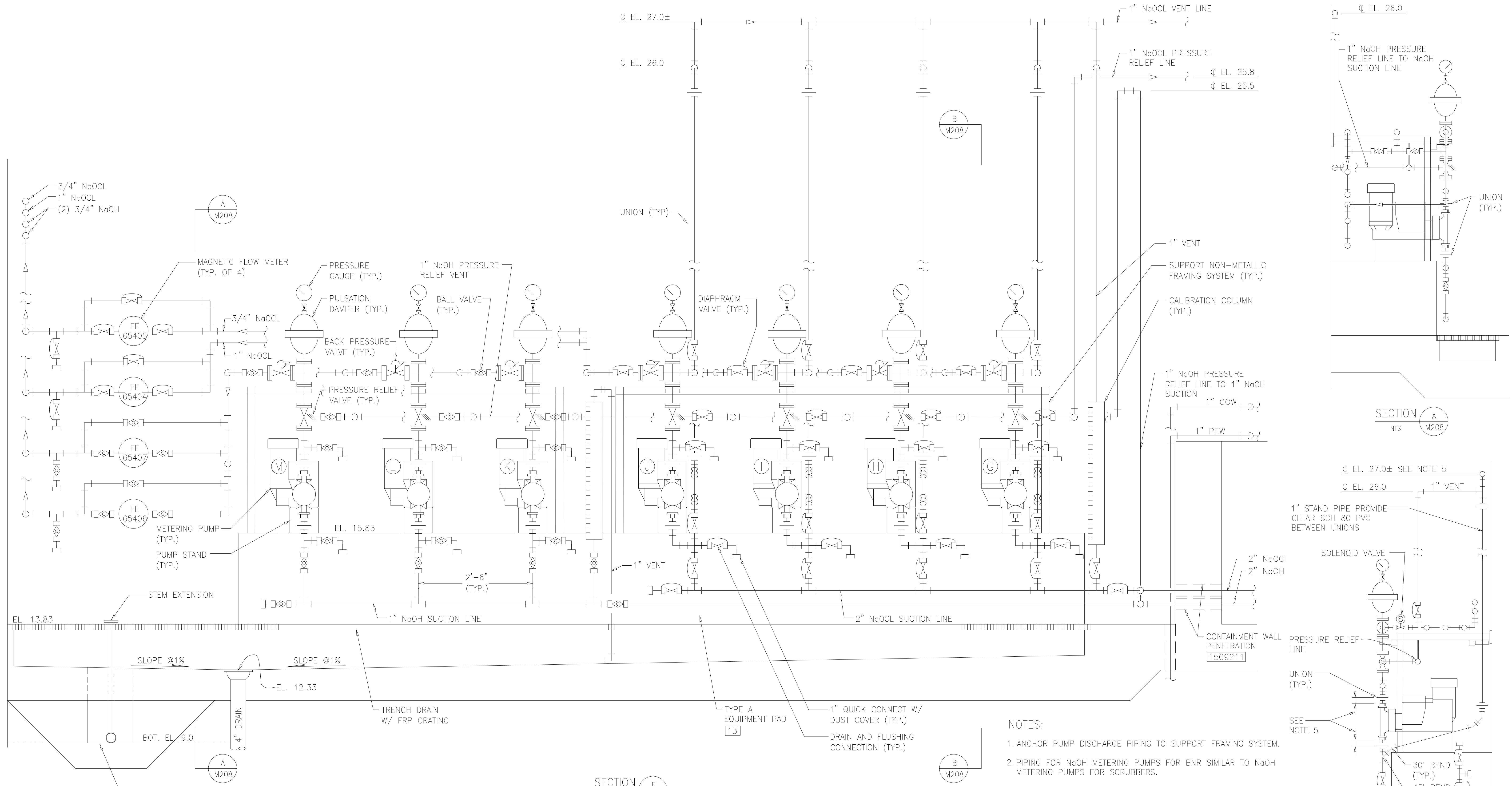
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
MECHANICAL
SECTION AND DETAIL

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER M207
	SHEET 70 OF 99



EQUIPMENT SCHEDULE

LETTER / EQUIPMENT DESCRIPTION	EQUIP. TAG NO.
Ⓒ NaOCl METERING PUMP	65006
Ⓗ NaOCl METERING PUMP	65007
Ⓘ NaOCl METERING PUMP	65008
Ⓙ NaOCl METERING PUMP	65009
Ⓚ NaOH METERING PUMP FOR SCRUBBERS	65010
Ⓛ NaOH METERING PUMP FOR SCRUBBERS	65011
Ⓜ NaOH METERING PUMP FOR SCRUBBERS	65012

- NOTES:**
1. ANCHOR PUMP DISCHARGE PIPING TO SUPPORT FRAMING SYSTEM.
 2. PIPING FOR NaOH METERING PUMPS FOR BNR SIMILAR TO NaOH METERING PUMPS FOR SCRUBBERS.
 3. ALL VALVES AND ACCESSORIES SHALL BE SERVICEABLE WITHOUT CUTTING PIPE THROUGH THE USE OF FLANGES OR UNIONS.
 4. SEE METERING PUMP ISOMETRICS ON DRAWING M209 FOR CLARIFICATION OF PIPING.
 5. MAX. LIQUID LEVEL IN NaOCl TANK IS ELEVATION 25.3.
 6. PROVIDE CLEAR SCH 80 PVC PIPE AT SUCTION AND DISCHARGE OF EACH NaOCl METERING PUMP TO LIMITS SHOWN.
 7. PROVIDE TWO 10 FT LENGTHS OF 1" DIA CLEAR FLEXIBLE PVC TUBING WITH 1" FEMALE QUICK CONNECT COUPLINGS INSTALLED ON EACH END.
 8. BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAGM VALVES UNLESS NOTED OTHERWISE

NO.	ISSUED FOR	DATE	BY	APPROVED

DESIGNED: AMS
 DRAWN: AMS
 CHECKED: JSI
 PROJ. ENGR.: AMS
 APPROVED: _____

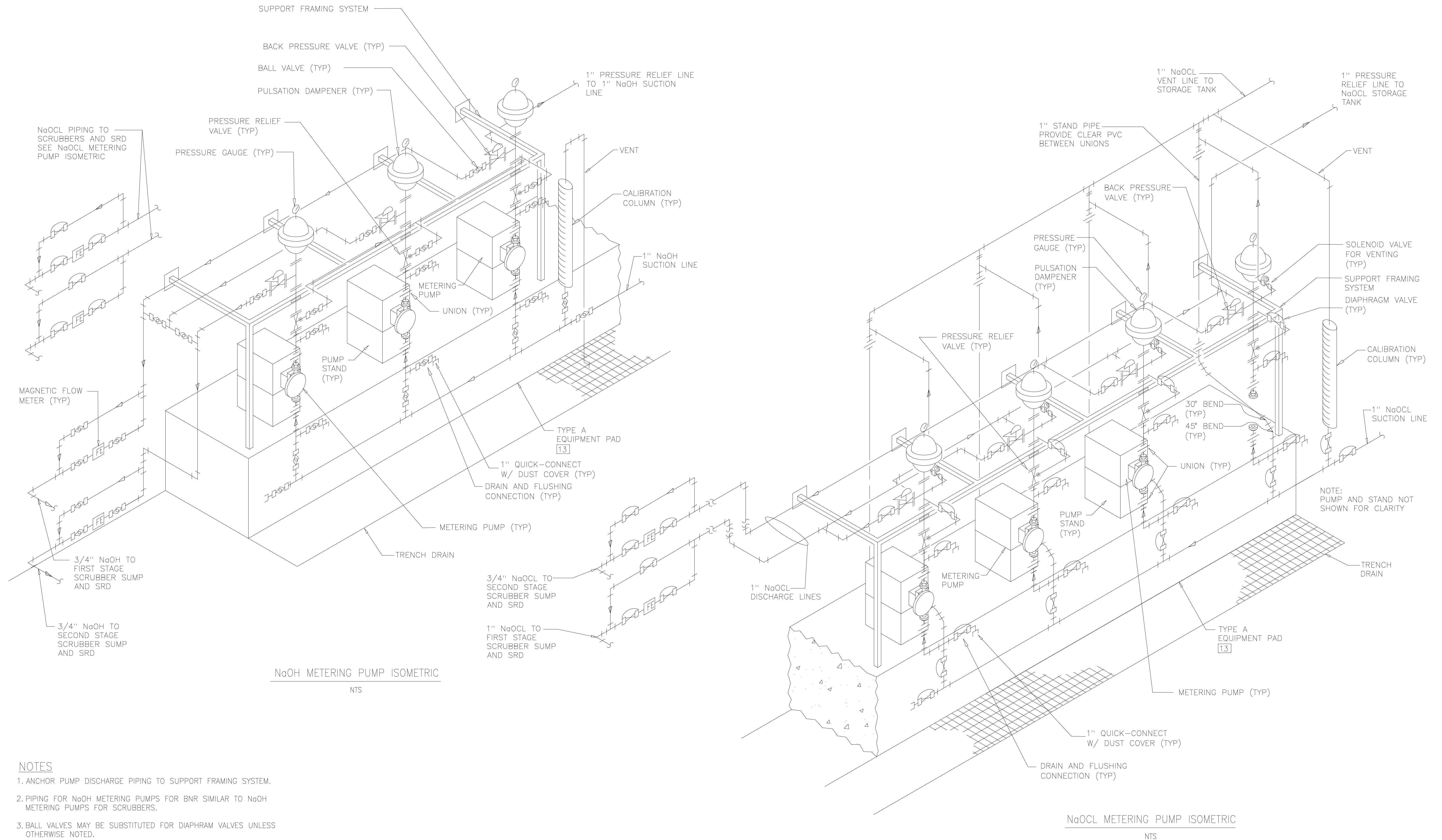
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ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
 ODOR CONTROL AREA
 MECHANICAL
 SECTIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
H & S JOB NUMBER	30313
CONTRACT NUMBER	2000-01-WPC
DRAWING NUMBER	M208
SHEET 71 OF 99	



- NOTES**
1. ANCHOR PUMP DISCHARGE PIPING TO SUPPORT FRAMING SYSTEM.
 2. PIPING FOR NaOH METERING PUMPS FOR BNR SIMILAR TO NaOH METERING PUMPS FOR SCRUBBERS.
 3. BALL VALVES MAY BE SUBSTITUTED FOR DIAPHRAM VALVES UNLESS OTHERWISE NOTED.

RECORD DRAWING

DESIGNED AMS
 DRAWN SLB
 CHECKED
 PROJ.ENGR. AMS
 APPROVED

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ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING EXTENSION
 MECHANICAL
 ISOMETRICS

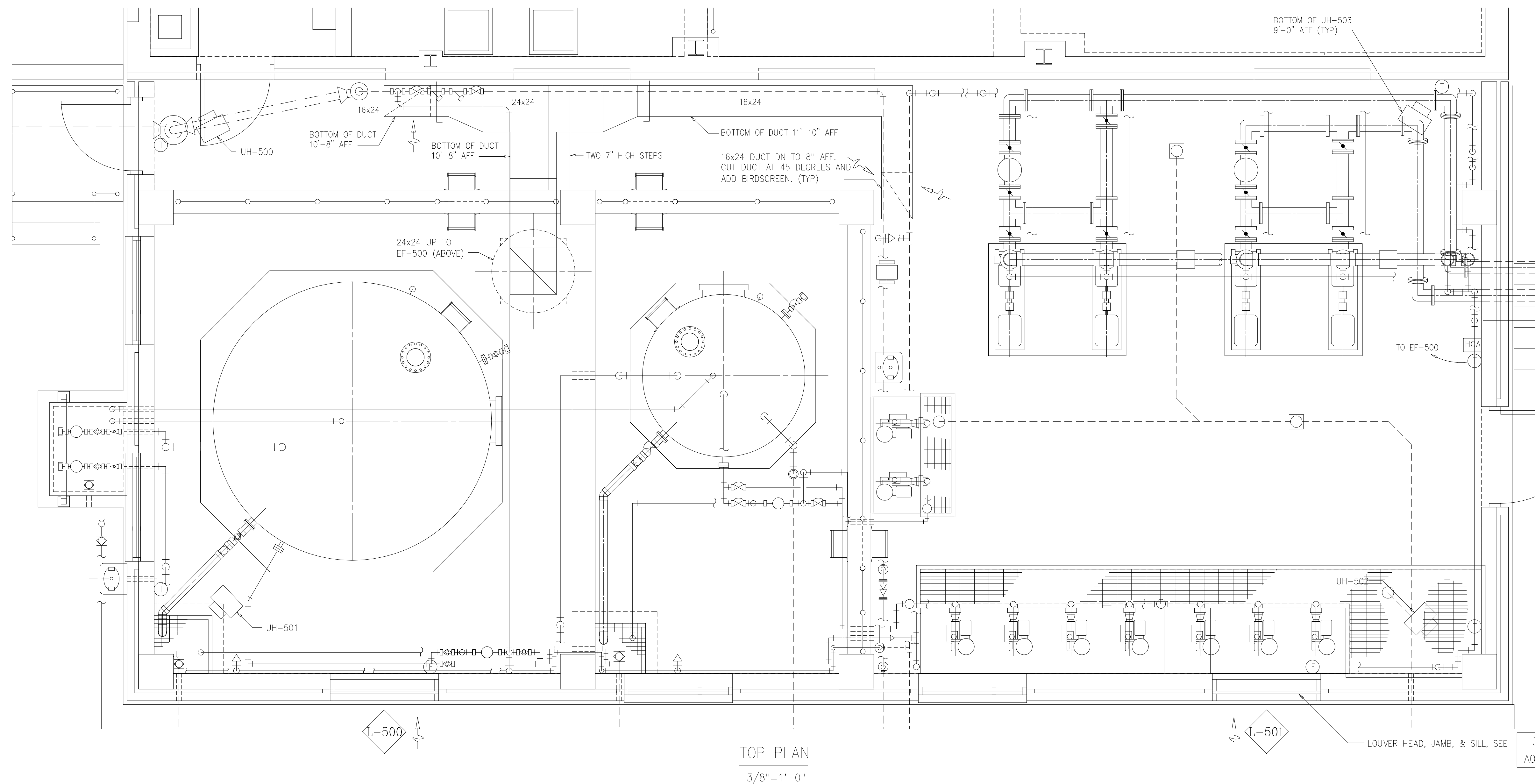
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.
 DATE: SEPT 2000
 H & S JOB NUMBER 30313
 CONTRACT NUMBER 2000-01-WPC
 DRAWING NUMBER M209
 SHEET 72 OF 99

ELECTRIC UNIT HEATER SCHEDULE										
MARK	LOCATION	DESCRIPTION	KW	CFM	VOLTAGE	PHASE	HERTZ	MANUFACTURER	MODEL	REMARKS
ODOR CONTROL FACILITY										
UH-500	CHEMICAL ROOM	HOR	20	1330	460	3	60	CHROMALOX	HDH-2000	1,2,3
UH-501	CHEMICAL ROOM	HOR	20	1330	460	3	60	CHROMALOX	HDH-2000	1,2,3
UH-502	CHEMICAL ROOM	HOR	20	1330	460	3	60	CHROMALOX	HDH-2000	1,2,3
UH-503	CHEMICAL ROOM	HOR	20	1330	460	3	60	CHROMALOX	HDH-2000	1,2,3
REMARKS: 1. PROVIDE CHROMALOX WCRT THERMOSTAT 2. PROVIDE CHROMALOX STAINLESS STEEL SWIVEL WALL MOUNTING BRACKET 3. PROVIDE PILOT LIGHT TO INDICATE WHEN POWER IS ON										

LOUVER SCHEDULE										
MARK	LOCATION	MAX PRESS DROP	WIDTH	HEIGHT	CFM	MIN FREE AREA (SQ FT)	MATERIAL	MFR/MODEL	REMARKS	
ODOR CONTROL FACILITY										
L-500	CHEMICAL ROOM	0.1	4'-8"	4'-6"	2,900	8.44'	AL	RUSKIN/ELC6375D	1	
L-501	CHEMICAL ROOM	0.1	4'-8"	4'-6"	2,900	8.44'	AL	RUSKIN/ELC6375D	1	
REMARKS: 1. PROVIDE WITH ELECTRIC ACTUATOR.										

VENTILATION SCHEDULE											
MARK	LOCATION	FAN TYPE	DRIVE TYPE	CFM	EXT. SP	HP	RPM	VOLTAGE /PHASE	MANUFACTURER	MODEL NO	REMARKS
ODOR CONTROL FACILITIES											
EF-500	CHEMICAL ROOM	CENTRIFUGAL	BELT	5,800	0.5	1 1/2	759	460/3	GREENHECK	GB-240-15	1,2,3,4,5,6
REMARKS: 1. EPOXY COATED ENTIRE UNIT. 2. PREFAB CURB. 3. DISCONNECT SWITCH. 4. SCREEN. 5. GRAVITY DAMPER. 6. PROVIDE TOTALLY ENCLOSED MOTOR.											

- NOTES:
- EF-500 SHALL BE INTERLOCKED WITH L-500, AND L-501.
 - A HAND-OFF-AUTO SWITCH, AND THERMOSTAT SHALL BE PROVIDED TO CONTROL EF-500, AND L-500, L-501.
 - ALL DUCTWORK SHALL BE SECURELY HUNG AND ANCHORED. DUCTS SHALL BE SUPPORTED ON HANGERS OR RODS. USE OF STRAPS HANGERS AND STRAPS IS PROHIBITED.
 - DUCTS AND DUCT HARDWARE SHALL BE OF ALUMINUM CONSTRUCTION.
 - HANGERS, AND SUPPORT ACCESSORIES MATERIAL TO BE 316 SST.



NO.	LOUVER NOTE AND DUCT ISSUED FOR	OCT 2000 DATE	FXP BY
1	LOUVER NOTE AND DUCT	OCT 2000	FXP
	ISSUED FOR	DATE	BY

DESIGNED	HFB
DRAWN	NGI
CHECKED	
PROJ.ENGR.	ASG
APPROVED	

DESIGNED	HFB
DRAWN	NGI
CHECKED	
PROJ.ENGR.	ASG
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
HVAC
PLAN AND SCHEDULES

RECORD DRAWING	
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000 H & S JOB NUMBER: 30313 CONTRACT NUMBER: 2000-01-MPC DRAWING NUMBER: H201 SHEET 73 OF 99

GENERAL NOTES:

- UNLESS SPECIFICALLY NOTED OTHERWISE, ALL UNDERGROUND CONCRETE ENCASED ELECTRICAL CONDUITS SHALL BE PER STANDARD DETAIL 1611801.
- THE INSTALLATION OF ALL CONCRETE ENCASED ELECTRICAL CONDUITS SHALL COMPLY WITH AGI 318, SECTION 6.3. CONTRACTOR SHALL SUPPLY EXPANSION JOINT FITTINGS AS REQUIRED FOR THERMAL EXPANSION AND DEFLECTION.
- BOND ALL NEW CONCRETE ENCASED GROUND CONDUCTORS TO EXISTING GROUND CONDUCTORS IN ALL MANHOLES, PULL BOXES, CABLE TRAYS, AND SIMILAR LOCATIONS WHERE APPLICABLE.
- UNLESS OTHERWISE SPECIFIED OR NOTED, ALL WALL MOUNTED ELECTRICAL PANELS, ENCLOSURES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED 6'-6" (MAX) FROM THE TOP OF THE PANEL TO FINISHED FLOOR OR GRADE.
- UNLESS OTHERWISE NOTED, ALL LIGHTING SWITCHES, CONTROL SWITCHES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED WITH THEIR CENTERLINE APPROXIMATELY 4'-0" ABOVE FINISHED FLOOR, SLAB, OR GRADE. THERMOSTATS SHALL BE MOUNTED 4'-4" ABOVE FINISHED FLOOR.
- A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH CIRCUIT (SEPARATE CONDUCTOR IN THE CONDUIT). THE CONDUCTOR SHALL BE TERMINATED AT THE PROPER DEVICE, TERMINAL OR LUG AT THE POWER SOURCE (MCC GROUND BUS, PANELBOARD GROUND BUS, ETC.). GROUND CONDUCTOR SIZE SHALL BE PER THE LATEST EDITION OF THE NEC.
- ELECTRICAL SYSTEMS INSTALLED IN HAZARDOUS LOCATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 5, ART. 500 OF THE LATEST EDITION OF THE NEC. CONTRACTOR SHALL SEAL ALL CONDUITS LEAVING HAZARDOUS AREA. WALL AND FLOOR OPENINGS SHALL BE SEALED WITH FIREPROOF COMPOUND.
- ALL EQUIPMENT LOCATED IN HAZARDOUS AREAS SHALL BE SUITABLE FOR THE CLASS, DIVISION, AND GROUP RATING OF THE LOCATION.
- UNLESS SPECIFICALLY NOTED OTHERWISE, EXISTING PAVEMENT SHALL BE SAW CUT AND REMOVED TO ALLOW FOR THE INSTALLATION OF NEW ELECTRICAL DUCTBANKS. AFTER INSTALLATION, REPLACE PAVEMENT WITH NEW TO MATCH ORIGINAL CONDITIONS.

ABBREVIATIONS

TPS	TWISTED PAIR SHIELDED
PA	ONE PA/INTERCOM CABLE
2PA	TWO PA/INTERCOM CABLES
FSS	FUSED SAFETY SWITCH
NFSS	NON-FUSED SAFETY SWITCH
SST	STAINLESS STEEL
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
RVSS	REDUCED VOLTAGE SOLID STATE
VFD	VARIABLE FREQUENCY DRIVE
L_O_R	LOCAL_OFF_REMOTE
H_O_A	HAND_OFF_AUTO
MOL	MOTOR OPERATED LOUVER
W.T.	WALK THRU
PCC	POINT OF COMMON COUPLING
PLC	PROGRAMMABLE LOGIC CONTROLLER
PLC-R	REMOTE RACK (FOR PLC)
SP. C.	SPARE CONDUIT

EQUIPMENT/DEVICE LOCATION SYMBOLS

- * LOCATED AT MCC, COMBINATION STARTER, OR BYPASS STARTER
- △ LOCATED IN FIELD
- # LOCATED AT CONTROL PANEL #
- LOCATED AT VFD

MISC PLAN VIEW SYMBOLS

- ⊕ EQUIPMENT CONNECTION
- ⊗ GROUND ROD
- CONCRETE ENCASED DUCT BANK IDENTIFIER. # DENOTES NUMBER. SEE DUCT BANK SCHEDULE.
- # CONDUIT AND WIRE (SEE LEGEND)
- INSTRUMENT TRANSMITTER

COMMUNICATIONS

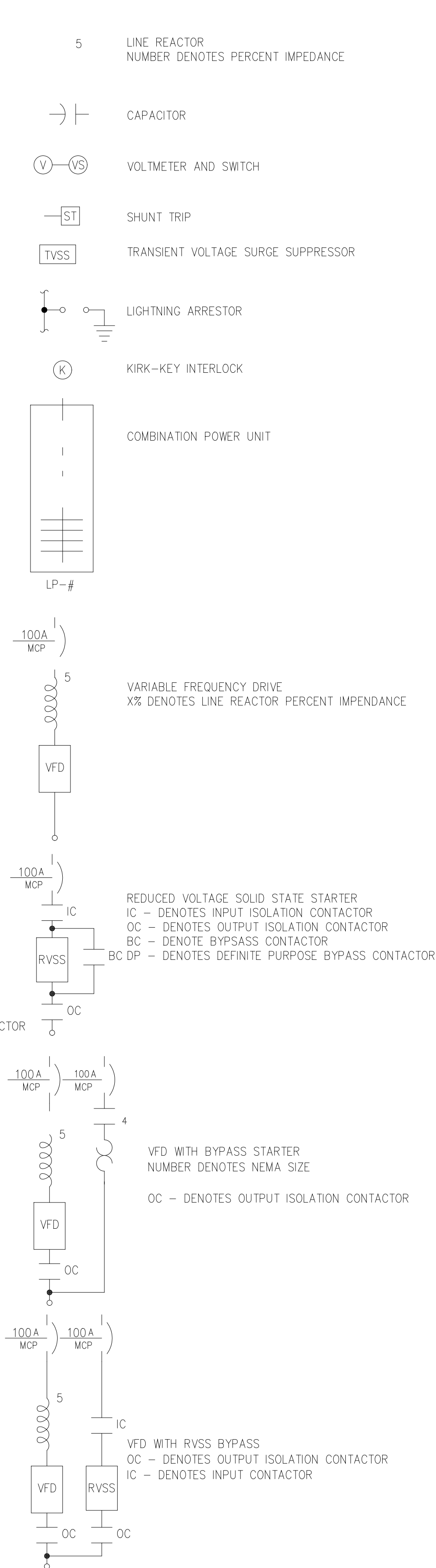
- ▽ TELEPHONE OR NETWORK DROP
- ▽ PAGER RECEPTACLE
- ▽ HORN/LIGHT DEVICE

RECORD DRAWING

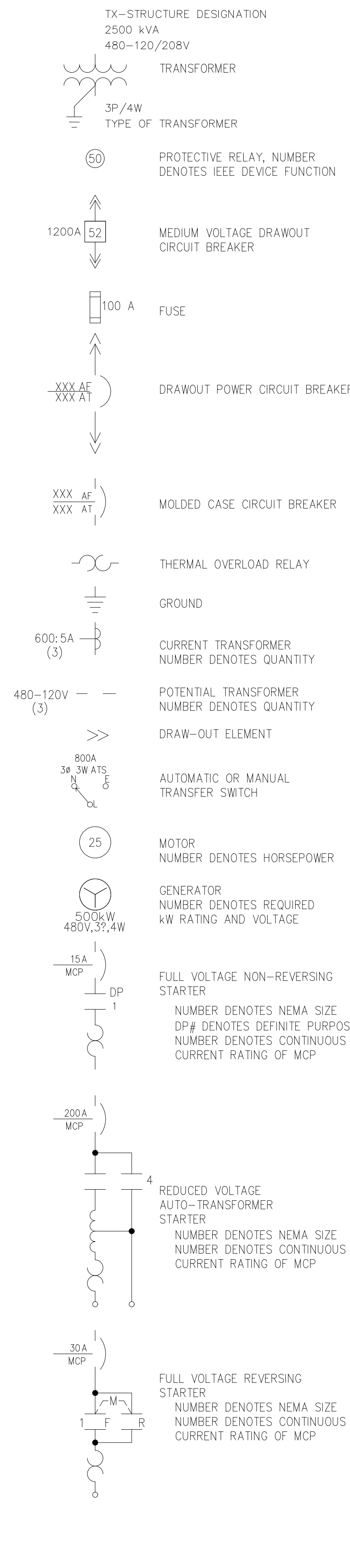
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER E101
	SHEET 74 OF 99

ELECTRICAL GENERAL LEGEND

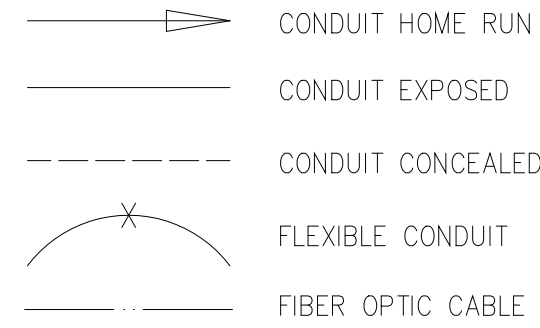
SINGLE LINE, CONT'D.



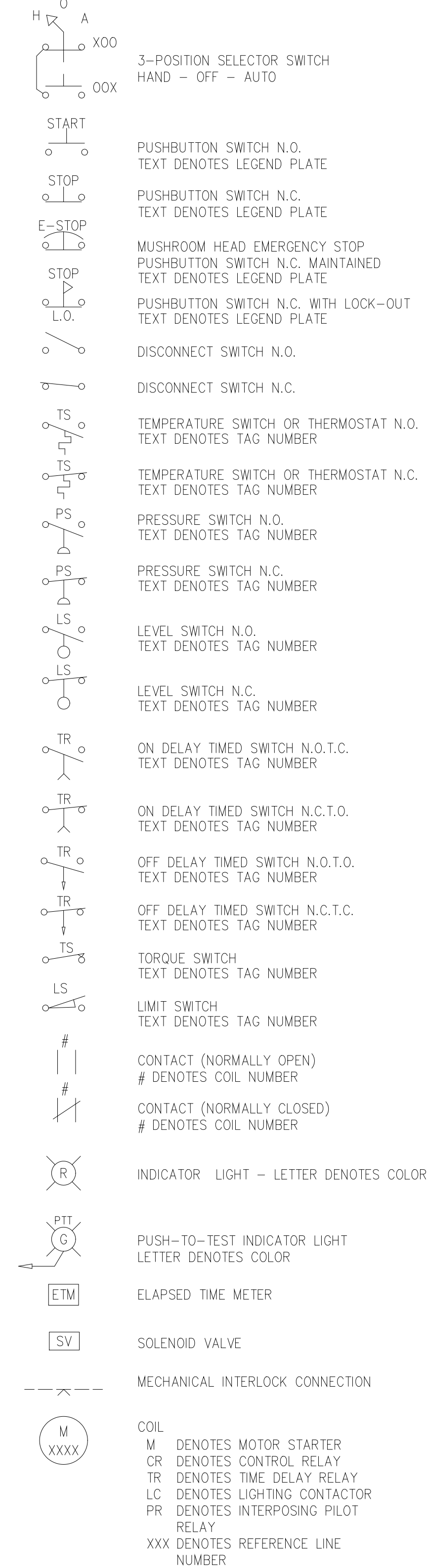
SINGLE LINE



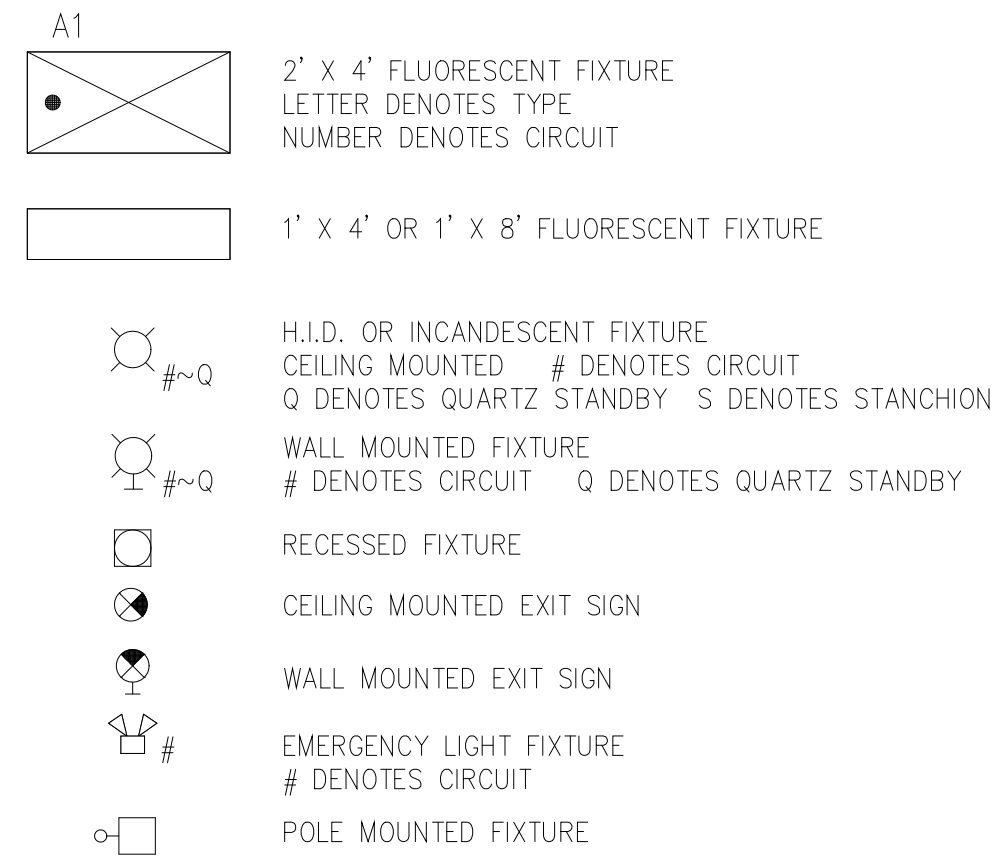
WIRING



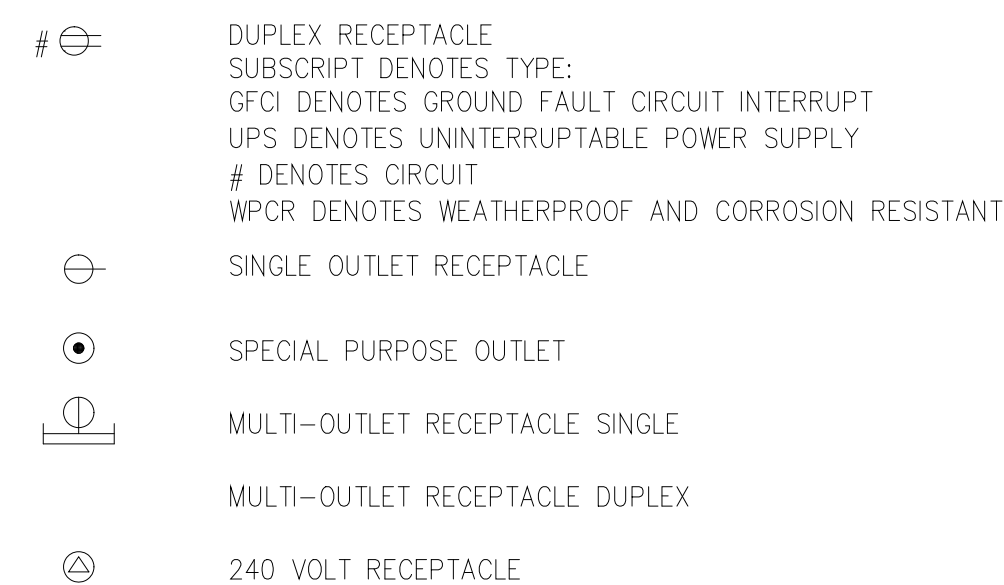
SCHEMATICS



LIGHTING



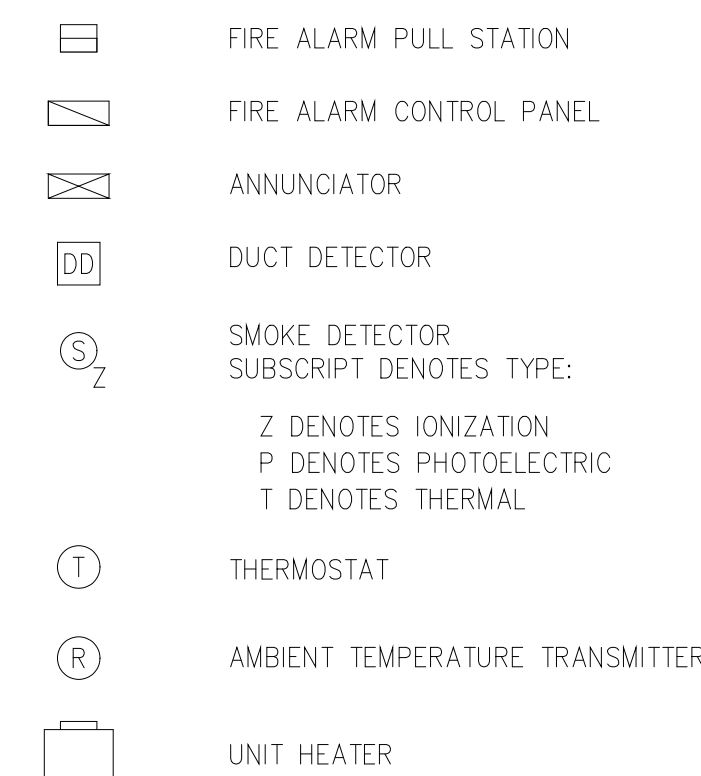
RECEPTACLES



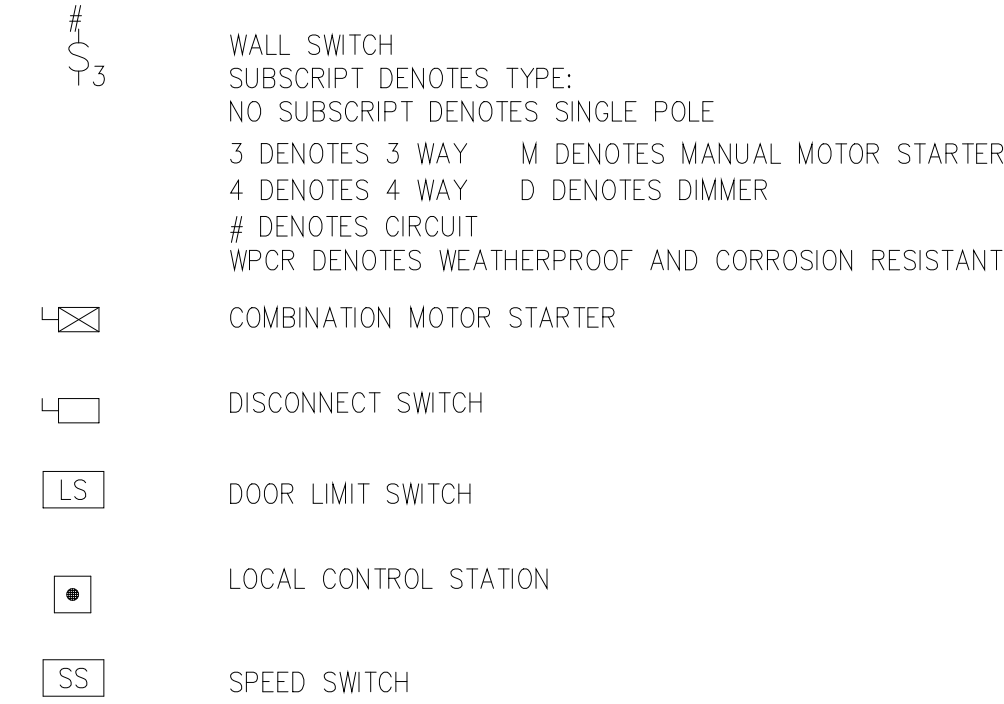
PANELS AND BOXES



HVAC AND FIRE ALARM



SWITCHES



DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
APPROVED	

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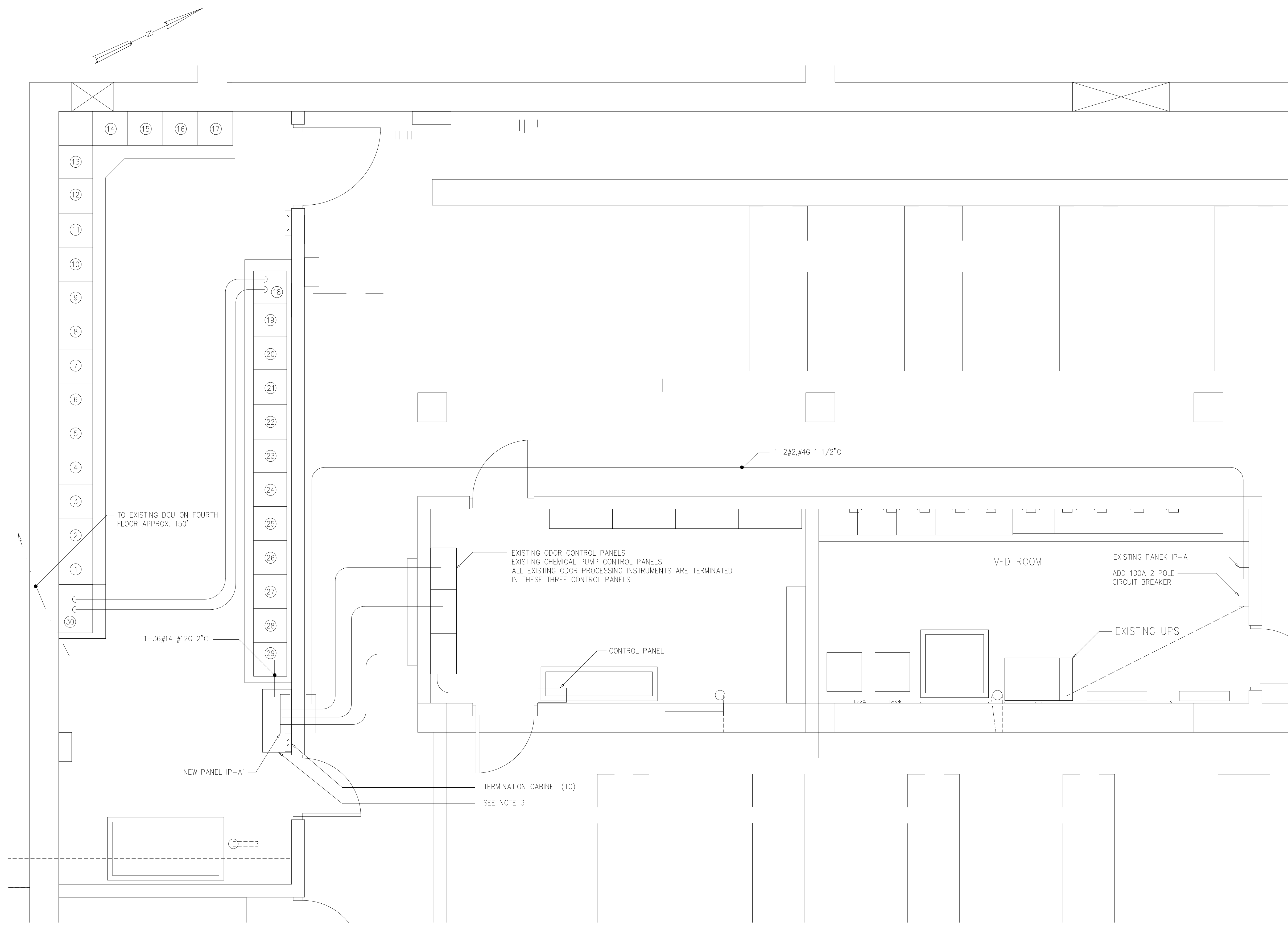
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

NOTES

- EXISTING CONTROL DEVICES AND PILOT INDICATORS SHALL BE DISCONNECTED DURING START UP OF THE NEW ODOR CONTROL SYSTEM.
- THE THREE EXISTING CONTROL PANELS SHALL BE USED AS JUNCTION PANELS ONLY. ALLELECTRICAL COMPONENTS SHALL BE REMOVED AND NEW TERMINAL STRIPS SHALL BE ADDED AS REQUIRED. ALL DOOR MOUNTED DEVICES SHALL BE REMOVED AND BLANK CLOSURES INSTALLED.
- CONTRACTOR SHALL RELOCATE THERMOSTAT AND LIGHT SWITCH TO OTHER SIDE OF DOOR FRAME.



PARTIAL PLAN AT ELEVATION 25.00'
3/8"=1'-0"

120/240 VOLTS 1Ø, 2 WIRE		IP-A (EXISTING)		TYPE: NOOD MOUNT: SURFACE	
DESCRIPTION	CKT BKR	CKT	MAIN BKR 125 A 2 P	CKT BKR	DESCRIPTION
DEDICATED RECEP. BSMT	20	1		2	100 SUB-FEED TO IP-A1
POLYSONIC ON/OFF SWITCH	20	3		4	100 SUB-FEED TO IP-A1
TRUCK UNLOADING PANEL	20	5		6	20 FLOW METER/POLY. PUMP #1
BLDG & PT SOURCE FLOW MTRS	20	7		8	20 FLOW METER/POLY. PUMP #2
ACID SCRUB. FLOW METER	20	9		10	20 FLOW METER/POLY. PUMP #4
SPARE	20	11		12	20 HV-3
SPARE	20	13		14	20 EF-1
SPARE	20	15		16	20 EF-10
BLDG. VALVE	20	17		18	20 HV-4
TRUCK UNLOADING VALVE	20	19		20	20 BLDG. O.C. SYSTEM PANEL
ACID O.C. PANEL	20	21		22	20 LIME TRUCK UNLOADING PANEL
POINT SOURCE O.C. PANEL	20	23		24	20 POLY. MAKEUP CONTROL PANEL
ORP-POINT SOURCE	20	25		26	20 POLY. PUMP SYSTEM CTRL. PANEL
PH-POINT SOURCE	20	27		28	20 SLDG. FEED SYSTEM CTRL. PANEL
PH-ACID SCRUBBER	20	29		30	20 SLG/CENT. WETWELL CTRL. PANEL
PH	20	31		32	20 SLDG. GRANDER #1 CTRL. PANEL
OPR-BLDG.	20	33		34	20 POLY. RM. SMP. PUMP CTRL. PANEL
ODOR ALARM PANEL (OUTSIDE)	20	35		36	20 SLDG. RM. SMP. PMP. CTRL. PANEL
SPARE	20	37		38	20 SLDG. GRANDER #2 CTRL. PANEL
SPARE	20	39		40	20 SLDG. TRUCK LDNG. CTRL. PANEL
STAIRWELL HEAT TRACE	20	41		42	20 HYPO. FILL ST. ALARM PANEL

ADD NEW 100A 2 POLE CB

120/240 VOLTS 1Ø, 3 WIRE		IP-A1 (NEW)		TYPE: NOOD MOUNT: SURFACE	
DESCRIPTION	CKT BKR	CKT	MAIN BKR 100 A 2 P	CKT BKR	DESCRIPTION
EOV 93201 SOLENOID VALVE	20	1		2	20 LE/LIT93400 MICROWAVE LEVEL
EOV 93203 SOLENOID VALVE	20	3		4	20 FE/FIT93401 MAG FLOW
EOV 93202 SOLENOID VALVE	20	5		6	20 LE/LIT93402 MICROWAVE LEVEL
EOV 93205 SOLENOID VALVE	20	7		8	20 FE/FIT93403 MAG FLOW
EOV 93216 SOLENOID VALVE	20	9		10	20 FE/FIT93404 MAG FLOW
EOV 93217 SOLENOID VALVE	20	11		12	20 FE/FIT95405 MAG FLOW
EOV 93218 SOLENOID VALVE	20	13		14	20 FE/FIT95407 MAG FLOW
EOV 93219 SOLENOID VALVE	20	15		16	20 AE/AIT95408 pH ANALYZER
MOV 93204 VALVE	20	17		18	20 AE/AIT95409/10 CL2 ANALYZER
MOV 92201 VALVE	20	19		20	20 AE/AIT95406 pH ANALYZER
MOV 92202 VALVE	20	21		22	20 AE/AIT92406 pH ANALYZER
FE/FIT92401 MAG FLOW	20	23		24	20 AE/AIT92405 pH ANALYZER
FE/FIT92402 MAG FLOW	20	25		26	20 AE/AIT92407 pH ANALYZER
FE/FIT92403 MAG FLOW	20	27		28	20 LE/LIT94406 MICROWAVE LEVEL
FE/FIT92404 MAG FLOW	20	29		30	20 FE/FIT92404 MAG FLOW
FE/FIT92403 MAG FLOW	20	31		32	20 DCU 2A-R1
TERMINATION CABINET	20	33		34	20 DCU 2A-R1
TERMINATION CABINET	20	35		36	20
	20	37		38	20
	20	39		40	20
	20	41		42	20

ALL CIRCUITS 2#12 #126 3/4" UNLESS OTHERWISE INDICATED

RECORD DRAWING

DESIGNED	GDM
DRAWN	BRL
CHECKED	
PROJ.ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

DATE: SEPT 2000
H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC
DRAWING NUMBER: E102
SHEET 75A OF 99

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
PARTIAL PLAN AT ELEVATION 25.00'
ELECTRICAL
MCC-31 A & B MODIFICATIONS

NOTES

- 1 ABANDON EXISTING STARTER IN PLACE.
- 2 CONTRACTOR SHALL REMOVE EXISTING POINT SOURCE RECIRCULATION PUMPS 1 & 2 STARTERS AND RETURN STARTERS TO OWNER. CONTRACTOR SHALL FURNISH AND INSTALL NEW STARTERS FOR SECOND STAGE SULFIDE SCRUBBER RECIRCULATION PUMPS 1 & 2 IN PLACE OF THE EXISTING POINT SOURCE RECIRCULATION PUMPS 1 & 2 STARTERS.
- 3 TYPICAL FOR THE FOLLOWING EQUIPMENT:
FIRST STAGE SULFIDE SCRUBBER RECIRC PUMPS 1 & 2
SULFIDE SCRUBBER FAN 1
AMMONIA SCRUBBER RECIRC PUMPS 1 & 2
AMMONIA SCRUBBER RECIRC PUMPS 1 & 2
NAOCL METERING PUMPS 1, 2, 3 & 4
ACID METERING PUMPS 1, 2 & 3
- 4 CONTRACTOR SHALL FIELD VERIFY EQUIPMENT LOCATION.

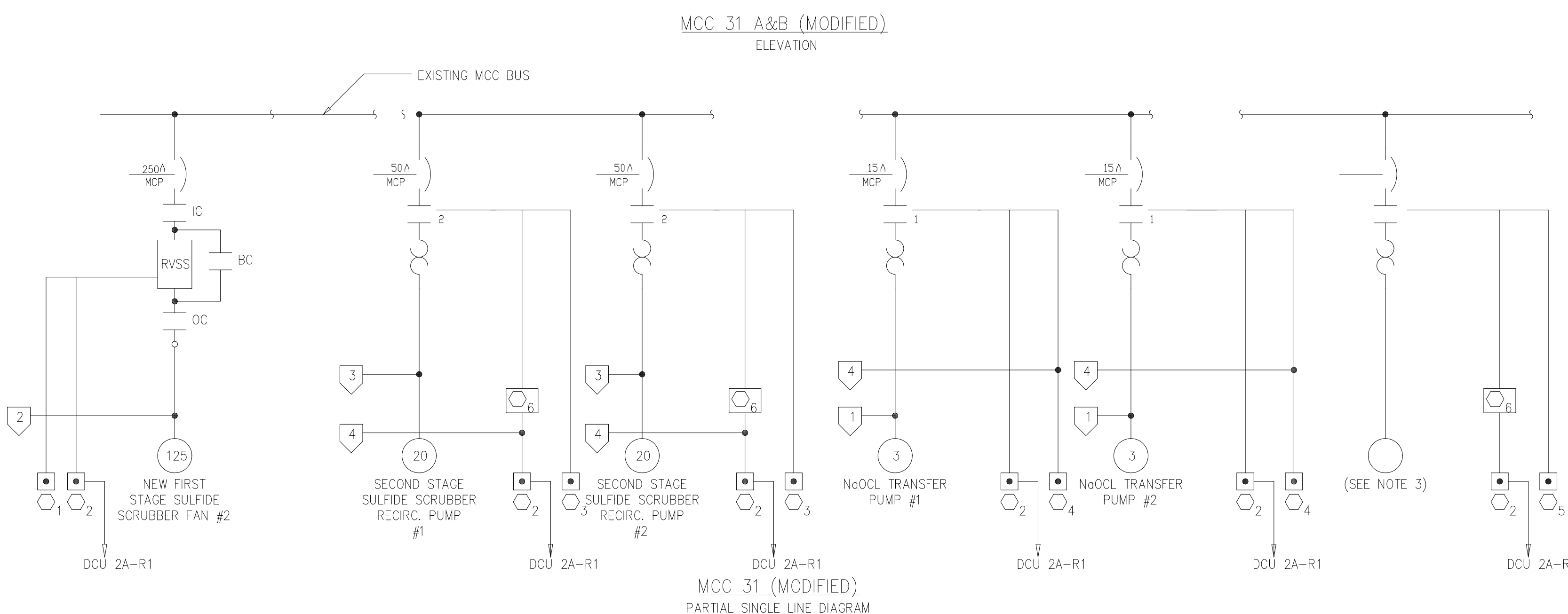
⑩	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	
NEW FIRST STAGE SULFIDE SCRUBBER FAN #2 (RVSS)	SPACE	SPACE	BLENDED SLUDGE TRUCK GATE 1A	SPARE	POLYMER SOLN FEED PUMP #1	BLENDED SLUDGE TRUCK GATE #1C	SLUDGE FEED AREA SUMP PUMP #1	POLYMER AREA SUMP PUMP #1	SOUTH EADS ST. GATE #2	SPARE	ACID METERING PUMP #2 (NOTE 4)	POLYMER TANK #2 MIXER	MAIN BREAKER BUS A	
			BLENDED SLUDGE TRUCK GATE 1B		POLYMER SOLN FEED PUMP #2	BLENDED SLUDGE TRUCK GATE #1D			SLUDGE CONTROL VALVE MOTOR					
			SOUTH EADS ST GATE NO. 1		LIQUID POLYMER TRANSFER PUMP #1	POLYMER CONTROL PANEL #2			NO LABEL		BUILDING OC SCRUBBER IMMERSION HEATER #1			SLUDGE GRINDER #1
SPACE	SPACE	SPACE	NAOCL METERING PUMP #1 (NOTE 4)	EF-1	SLUDGE FEED PUMP #1	ACID METERING PUMP (NOTE 4)	NAOCL METERING PUMP #3 (NOTE 4)	NEW NaOCL TRANSFER PUMP #1	EXISTING ACID METERING PUMP #1 (NOTE 1)	FIRST STAGE SULFIDE SCRUBBER FAN #1	31ST. STREET GATE	ACID SCRUBBER IMMERSION HEATER #1	MAIN BREAKER BUS A	
			SLUDGE FEED PUMP #2	EF-2 ACETIC ACID PUMP ROOM	CRAC-1	BLENDED SLUDGE TRUCK CONVEYOR #1	NO LABEL	SECOND STAGE SULFIDE SCRUBBER RECIRCULATION PUMP #2 (SEE NOTE 2)	SECOND STAGE SULFIDE SCRUBBER RECIRCULATION PUMP #1 (SEE NOTE 2)	AMMONIA SCRUBBER FAN #2	TRUCKBAY ROLL UP DOOR #1	DOOR HEATER #2		AMMONIA SCRUBBER FAN #1
			SPACE											

SEE NOTE 1

⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗	㉘	㉙
TIE BREAKER	MAIN BREAKER BUS B	POLYMER TANK #1 MIXER	BLENDED SLUDGE TRUCK GATE #2A	BUILDING ODOR CONTROL FAN	HV-4	SPACE	SLUDGE FEED PUMP #3	BUILDING OC SCRUBBER IMMERSION HEATER #2	NAOCL METERING PUMP #2 (NOTE 4)	SPACE	SPACE	SPACE	NEW NaOCL TRANSFER PUMP #2	SPACE	SPACE
			BLENDED SLUDGE TRUCK GATE #2B		FIRST STAGE SULFIDE SCRUBBER RECIRCULATION PUMP #2	SPACE	SLUDGE FEED PUMP #4	BLENDED SLUDGE TRUCK CONVEYOR #2	SPACE	SPACE	SPACE	SLUDGE GRINDER #2	AMMONIA SCRUBBER RECIRCULATION PUMP #2	SPACE	SPACE
			POLYMER CONTROL PANEL #1		POLYMER SOLUTION FEED PUMP #3	CRAC-6	CRAC-6	SPACE	VFD 24VCD POWER SUPPLY	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE
POLYMER TANK #3 MIXER	POLYMER CONTROL PANEL #3	POLYMER TANK #3 MIXER	BLENDED SLUDGE TRUCK GATE #2C	ACID METERING PUMP #3 (NOTE 4)	EF-10	POLYMER SOLUTION FEED PUMP #4 (FUTURE)	TRUCK BAY ROLL UP DOOR #2	EF-11	SPACE	SPACE	SPACE	ACID SCRUBBER IMMERSION HEATER #2	EXISTING ACID METERING PUMP #2 (NOTE 1)	SPACE	POLYMER AREA SUMP PUMP #2
			POLYMER CONTROL PANEL #2		POLYMER SOLUTION FEED PUMP #5 (FUTURE)	LIQUID POLYMER TRANSFER PUMP #2	EF-11	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE
			POLYMER TANK #1 MIXER		SLUDGE FEED PUMP #5 (SPARE)	DOOR HEATER #1	HV-3	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE	SPACE

CONDUIT AND WIRE LEGEND (NUMBERS REFERENCE THIS SHEET ONLY)	
NO.	DESCRIPTION
1	3#10, #12G, 1" C
2	3#3/0, #3G, EXISTING 2" C
3	3#8, #10G, EXISTING CONDUIT
4	10#14, #12G, 1" C
5	16#14, #12G, 1" C

CONTROL PANEL SCHEDULE	
1	EXISTING BUILDING OC FAN LOCAL CONTROL STATION
2	NEW ODOR CONTROL PANEL TERMINATION CABINET (TC)
3	EXISTING SECOND STAGE SULFIDE SCRUBBER RECIRC PUMP LOCAL CONTROL STATION
4	NEW NaOCL TRANSFER PUMP LOCAL CONTROL STATION
5	EXISTING LOCAL CONTROL STATION
6	EXISTING ODOR CONTROL PANEL



RECORD DRAWING

DESIGNED	GDM
DRAWN	BRL
CHECKED	
PROJ.ENGR.	ASG
APPROVED	
NO.	ISSUED FOR
	DATE
	BY

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

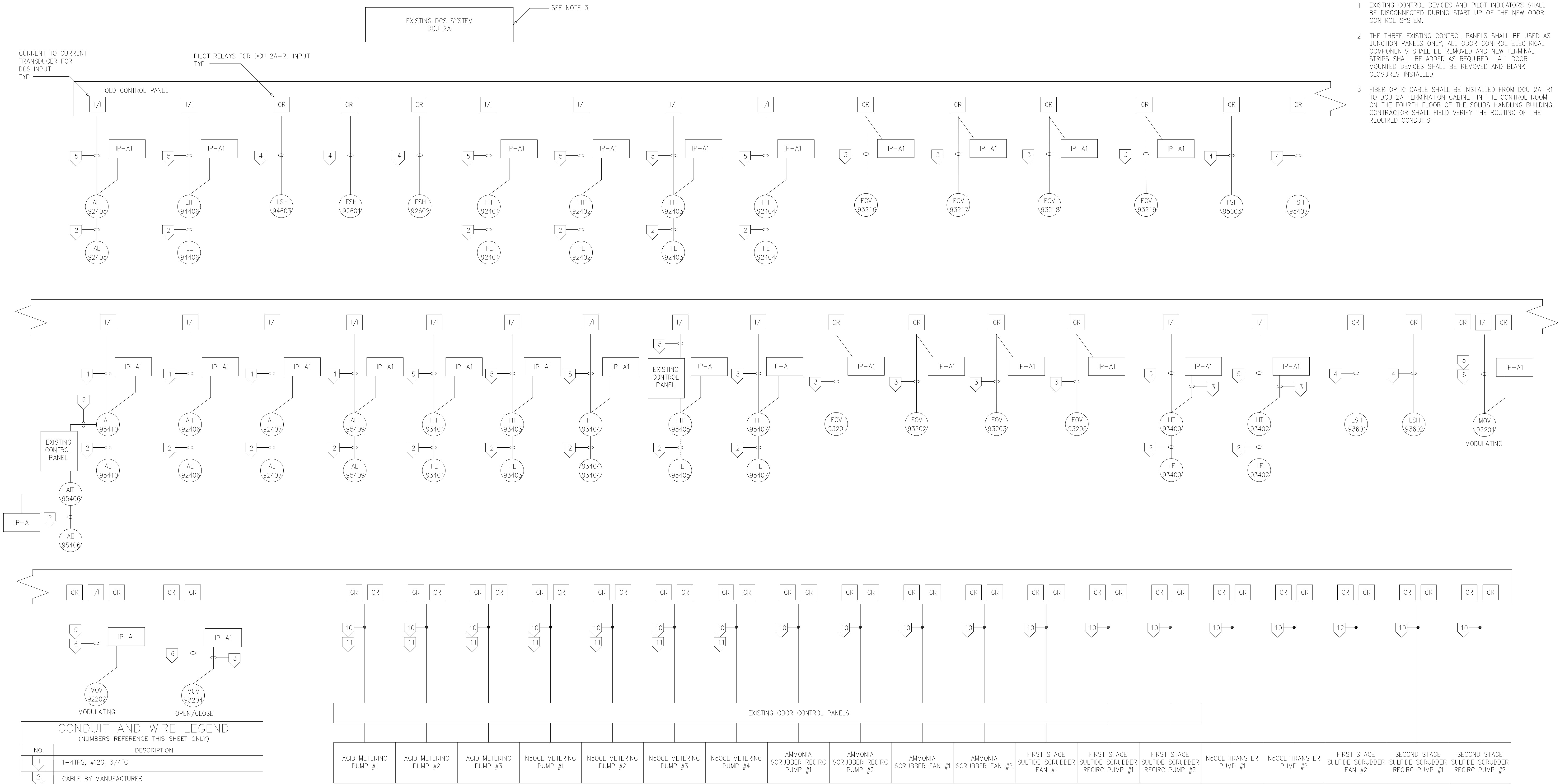
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
MCC ROOM - 104
ELECTRICAL
MCC-31 A & B MODIFICATIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER E103
	SHEET 75B OF 99

NOTES:

- EXISTING CONTROL DEVICES AND PILOT INDICATORS SHALL BE DISCONNECTED DURING START UP OF THE NEW ODOR CONTROL SYSTEM.
- THE THREE EXISTING CONTROL PANELS SHALL BE USED AS JUNCTION PANELS ONLY. ALL ODOR CONTROL ELECTRICAL COMPONENTS SHALL BE REMOVED AND NEW TERMINAL STRIPS SHALL BE ADDED AS REQUIRED. ALL DOOR MOUNTED DEVICES SHALL BE REMOVED AND BLANK CLOSURES INSTALLED.
- FIBER OPTIC CABLE SHALL BE INSTALLED FROM DCU 2A-R1 TO DCU 2A TERMINATION CABINET IN THE CONTROL ROOM ON THE FOURTH FLOOR OF THE SOLIDS HANDLING BUILDING. CONTRACTOR SHALL FIELD VERIFY THE ROUTING OF THE REQUIRED CONDUITS



TERMINATION CABINET SINGLE LINE DIAGRAM

CONDUIT AND WIRE LEGEND (NUMBERS REFERENCE THIS SHEET ONLY)	
NO.	DESCRIPTION
1	1-4TPS, #12G, 3/4"C
2	CABLE BY MANUFACTURER
3	1-3#12, #12G, 3/4"C
4	1-2#14, #12G, 3/4"C
5	1-2TPS, #12G, 3/4"C
6	1-8#14, #12G, 3/4"C
7	3TPS EXISTING 3/4"C
8	1-30#14,#12G 2"C
9	1-22 TPS 2"C
10	1-10#14, #12G
11	3-2/C#16TPS
12	1-12#14, #12G, 1"C

DESIGNED	GDM			
DRAWN	BRL			
CHECKED				
PROJ.ENGR.	ASG			
NO.	ISSUED FOR	DATE	BY	APPROVED

DATE: SEPT 2000
H & S JOB NUMBER 30313
CONTRACT NUMBER 2000-01-WPC
DRAWING NUMBER E104
SHEET 75C OF 99

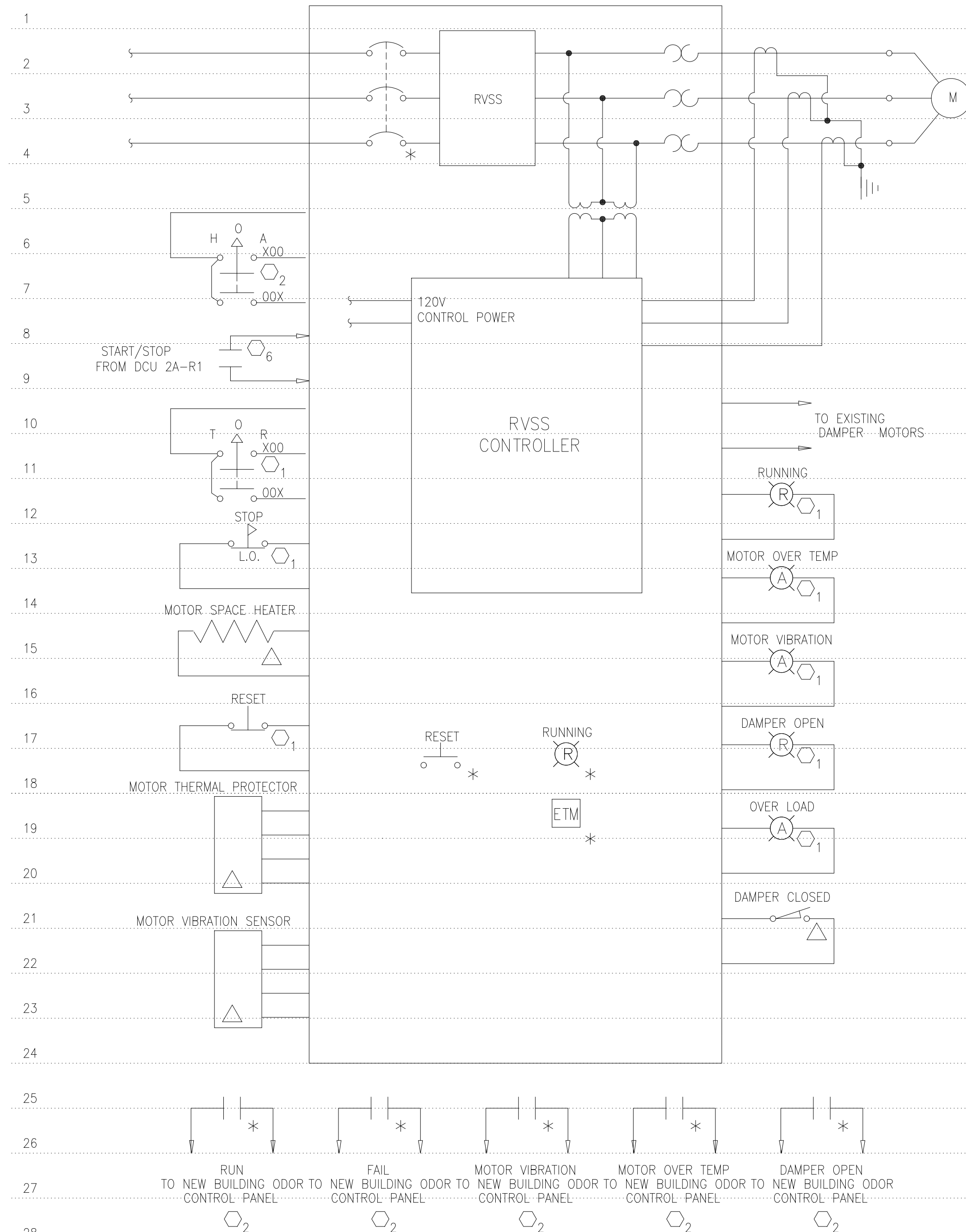
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

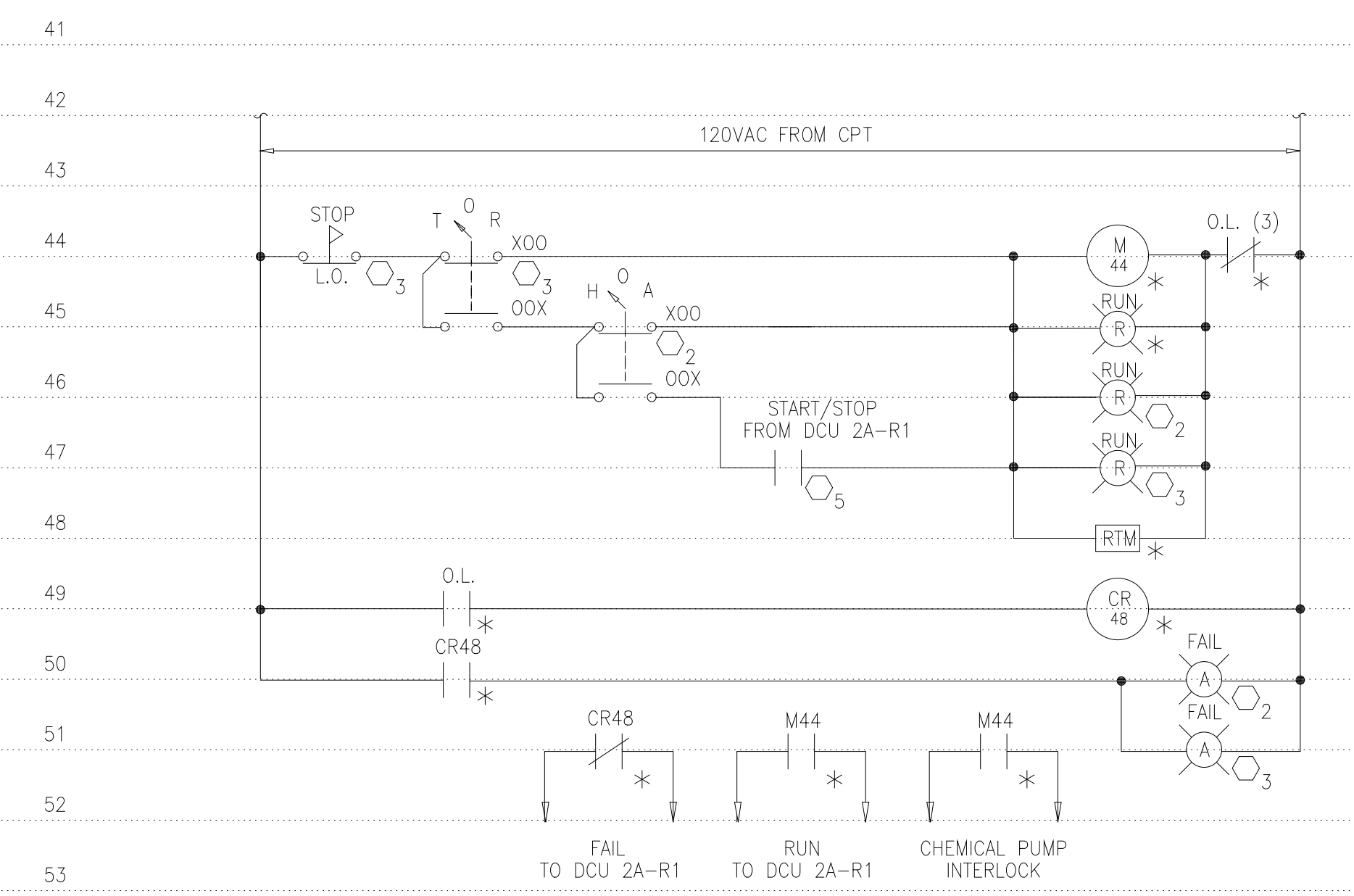
CENTRIFUGE DEWATERING BUILDING
MCC ROOM 104 - TERMINATION CABINET
ELECTRICAL
SINGLE LINE DIAGRAM

RECORD DRAWING

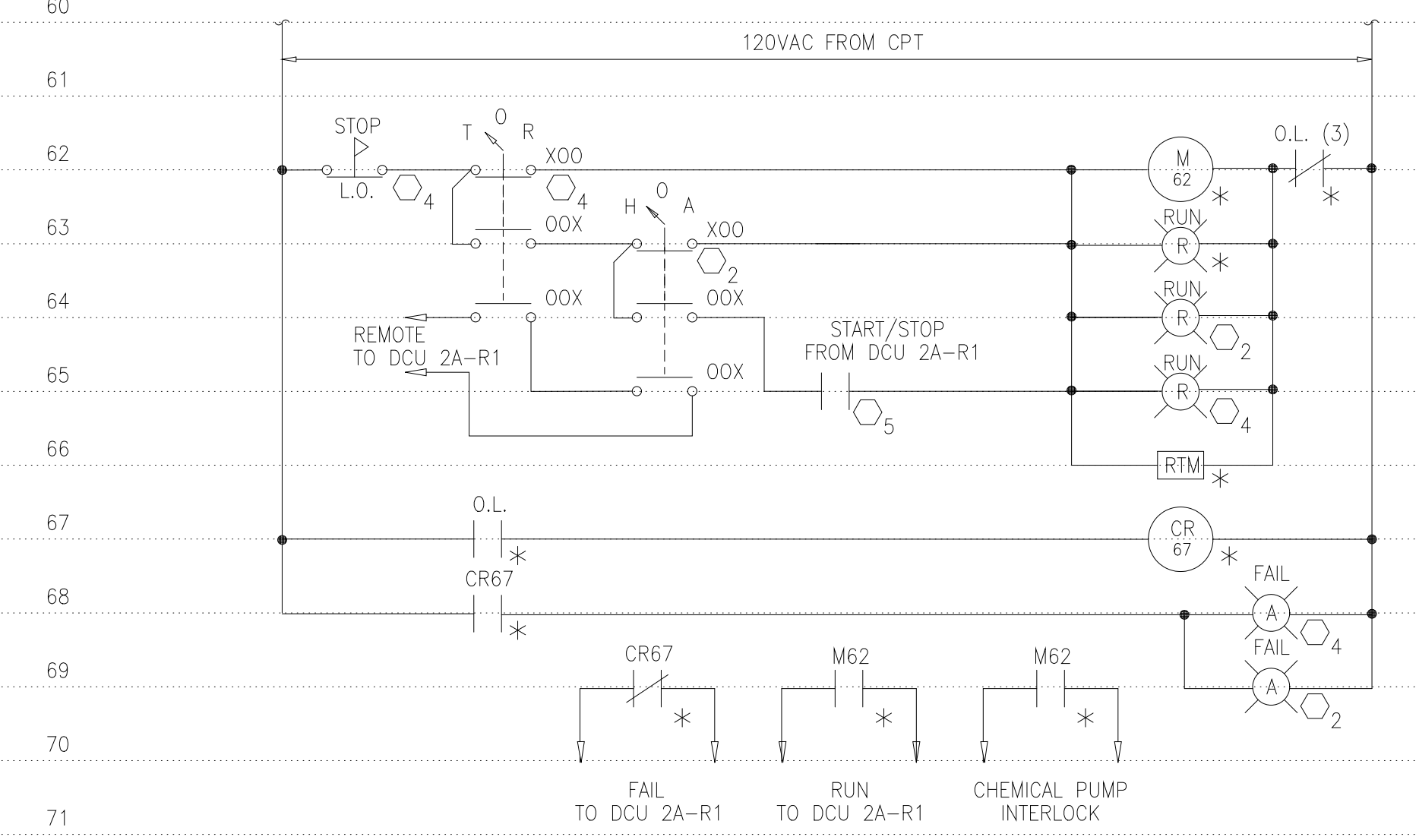


NEW BUILDING ODOR CONTROL SCRUBBER FAN
ELEMENTARY CONTROL SCHEMATIC
(SEE NOTE 1)

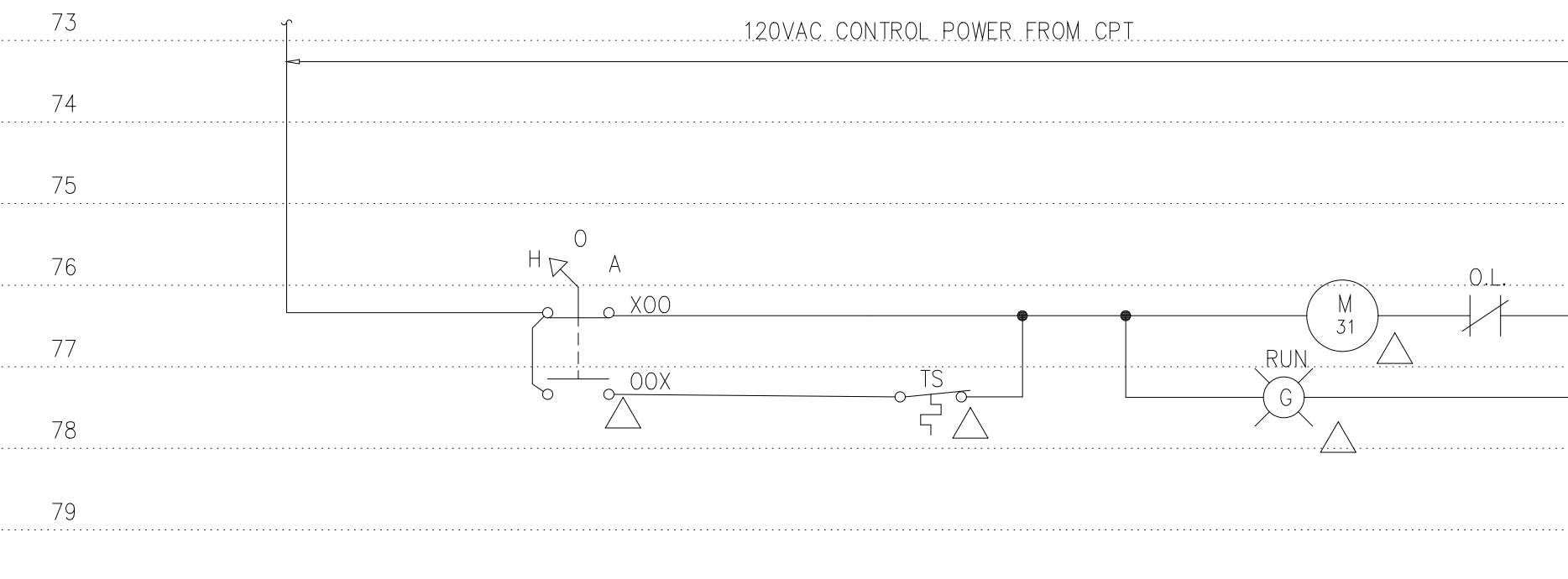
CONTROL PANEL SCHEDULE	
1	EXISTING BUILDING OC FAN LOCAL CONTROL STATION
2	NEW ODOR CONTROL PANEL TERMINATION CABINET (TC)
3	EXISTING SECOND STAGE SULFIDE SCRUBBER RECIRC PUMP LOCAL CONTROL STATION
4	NEW NaOCl TRANSFER PUMP LOCAL CONTROL STATION
5	DCU 2A-R1



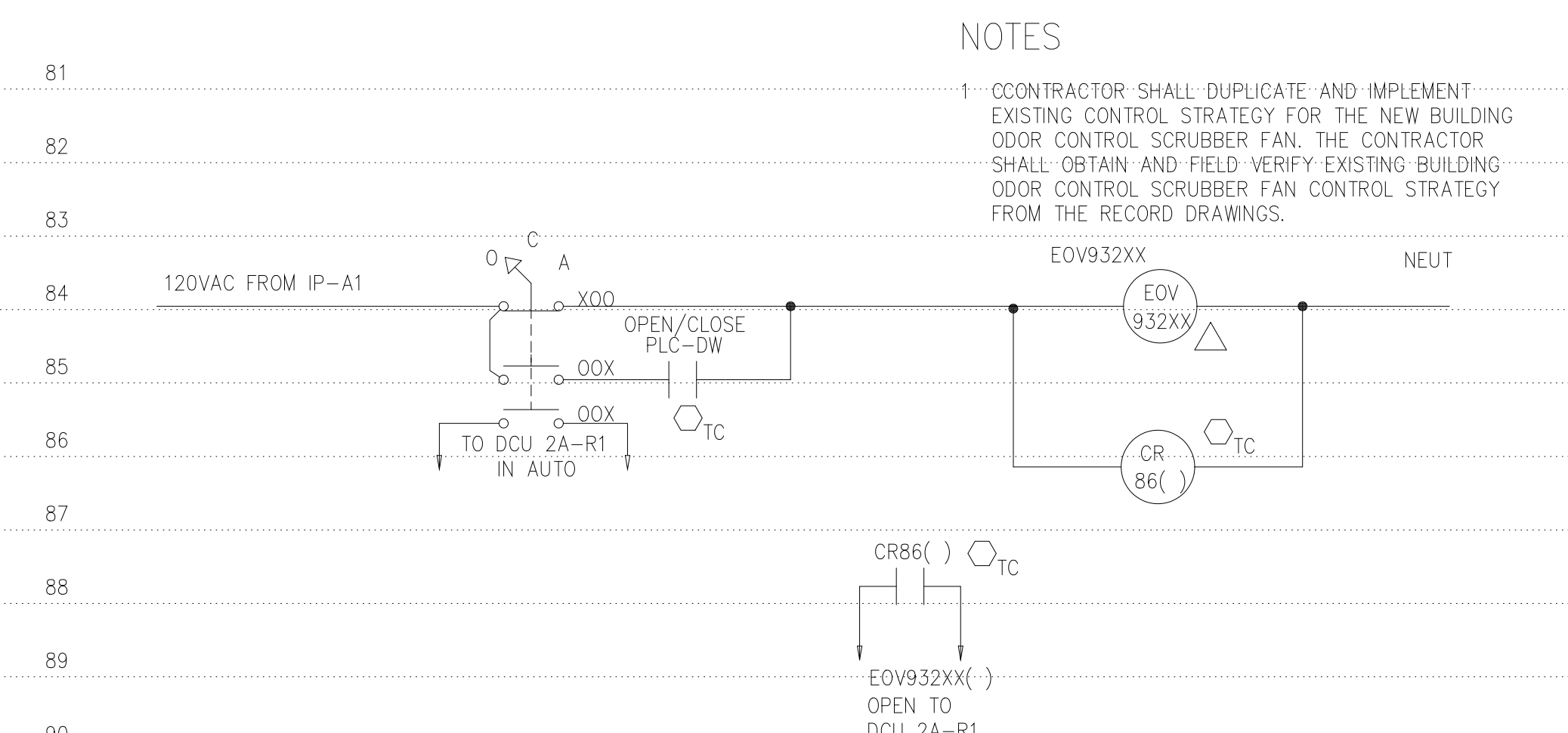
NEW SECOND STAGE SULFIDE SCRUBBER RECIRCULATION PUMPS 1 & 2
ELEMENTARY CONTROL SCHEMATIC



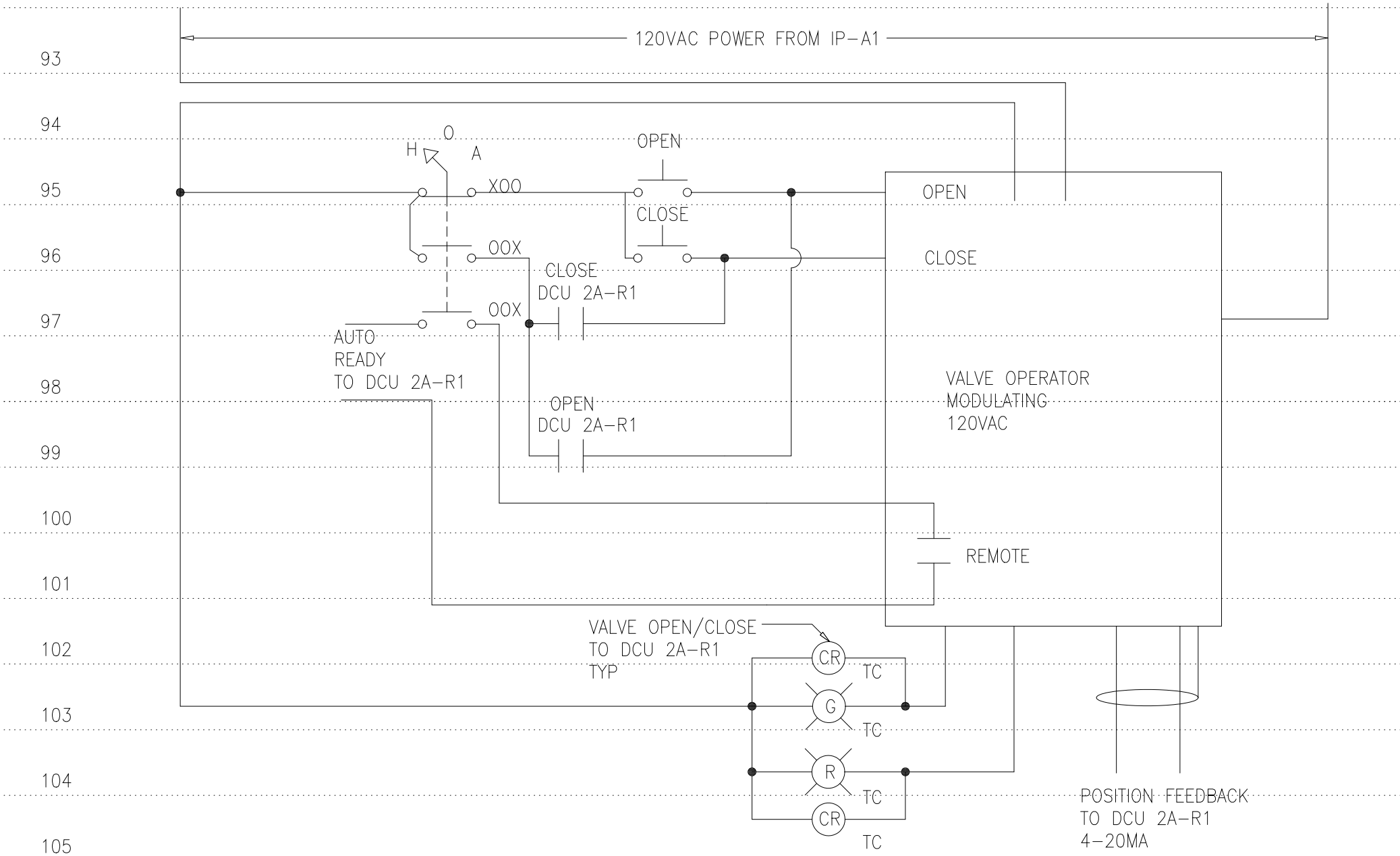
NaOCl TRANSFER PUMPS 1 & 2
ELEMENTARY CONTROL SCHEMATIC



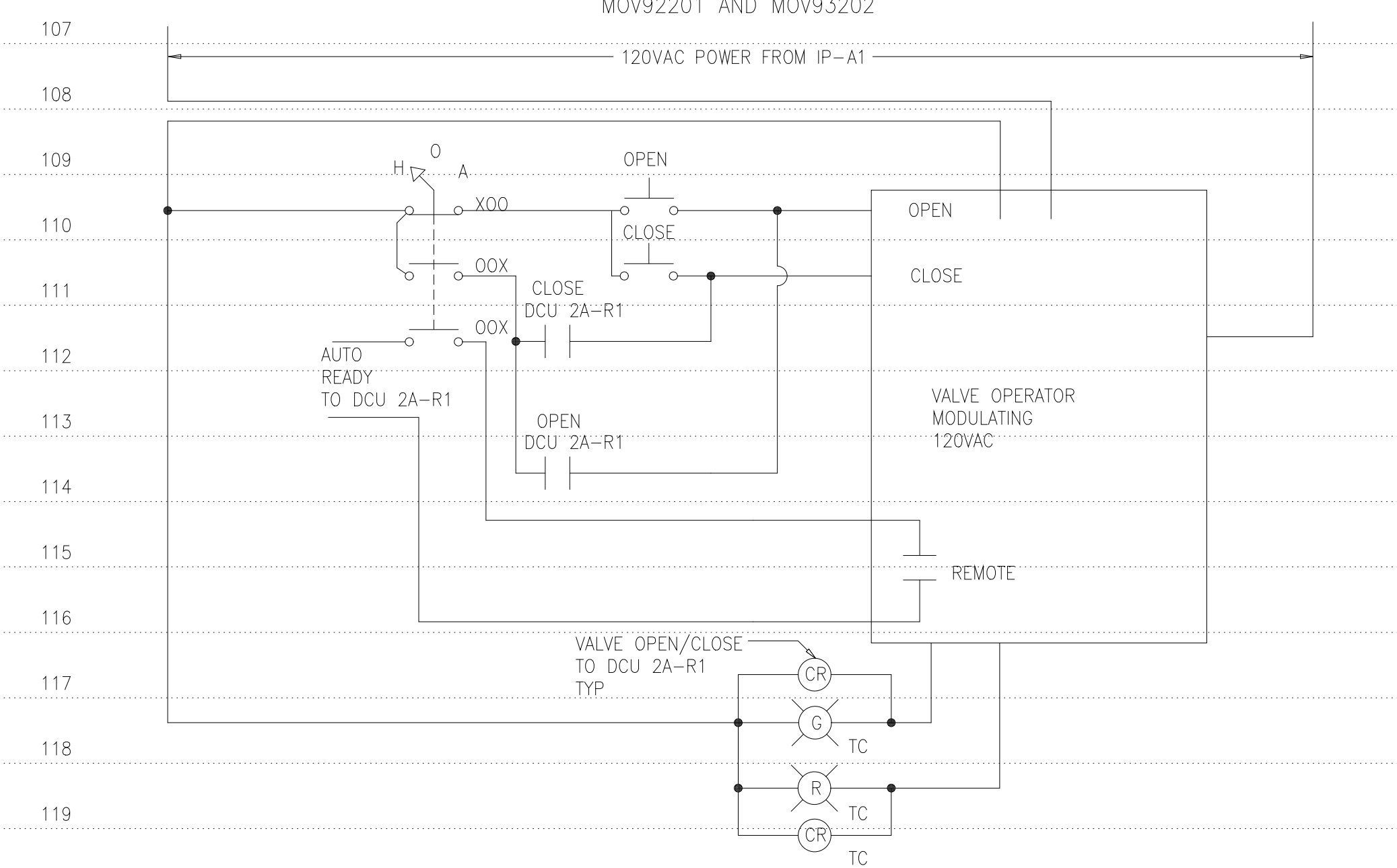
ELEMENTARY CONTROL SCHEMATIC FOR EXHAUST FANS EF-140



ELEMENTARY CONTROL SCHEMATIC FOR NaOCl SOLENOID VALVES
EOV93201, EOV93202, EOV93203, EOV93205, EOV93216, EOV93217, EOV93218, AND EOV93219



ELEMENTARY CONTROL SCHEMATIC FOR AMMONIA SCRUBBER RECIRCULATION VALVES
MOV92201 AND MOV93202



ELEMENTARY CONTROL SCHEMATIC FOR SODIUM HYPOCHLORITE TANK MIXING VALVE
MOV92204

NOTES
1- CONTRACTOR SHALL DUPLICATE AND IMPLEMENT EXISTING CONTROL STRATEGY FOR THE NEW BUILDING ODOR CONTROL SCRUBBER FAN. THE CONTRACTOR SHALL OBTAIN AND FIELD VERIFY EXISTING BUILDING ODOR CONTROL SCRUBBER FAN CONTROL STRATEGY FROM THE RECORD DRAWINGS.

NO.	ISSUED FOR	DATE	BY	APPROVED

DESIGNED GDM
DRAWN BRL
CHECKED
PROJ.ENGR. ASG

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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

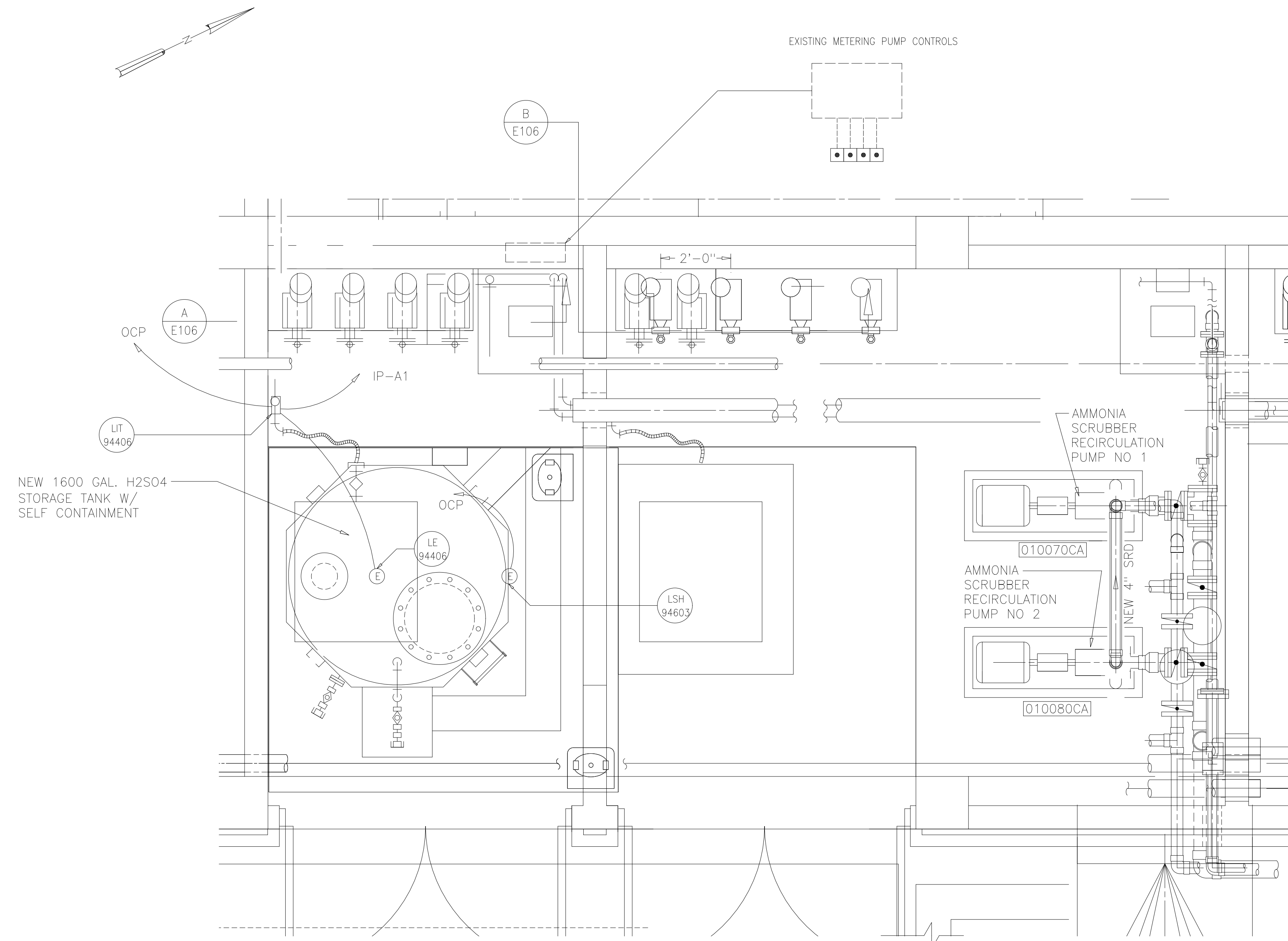
CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ELECTRICAL
ELEMENTARY CONTROL SCHEMATICS

RECORD DRAWING	
DATE: SEPT 2000	H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-WPC	DRAWING NUMBER: E105
SHEET 75D OF 99	

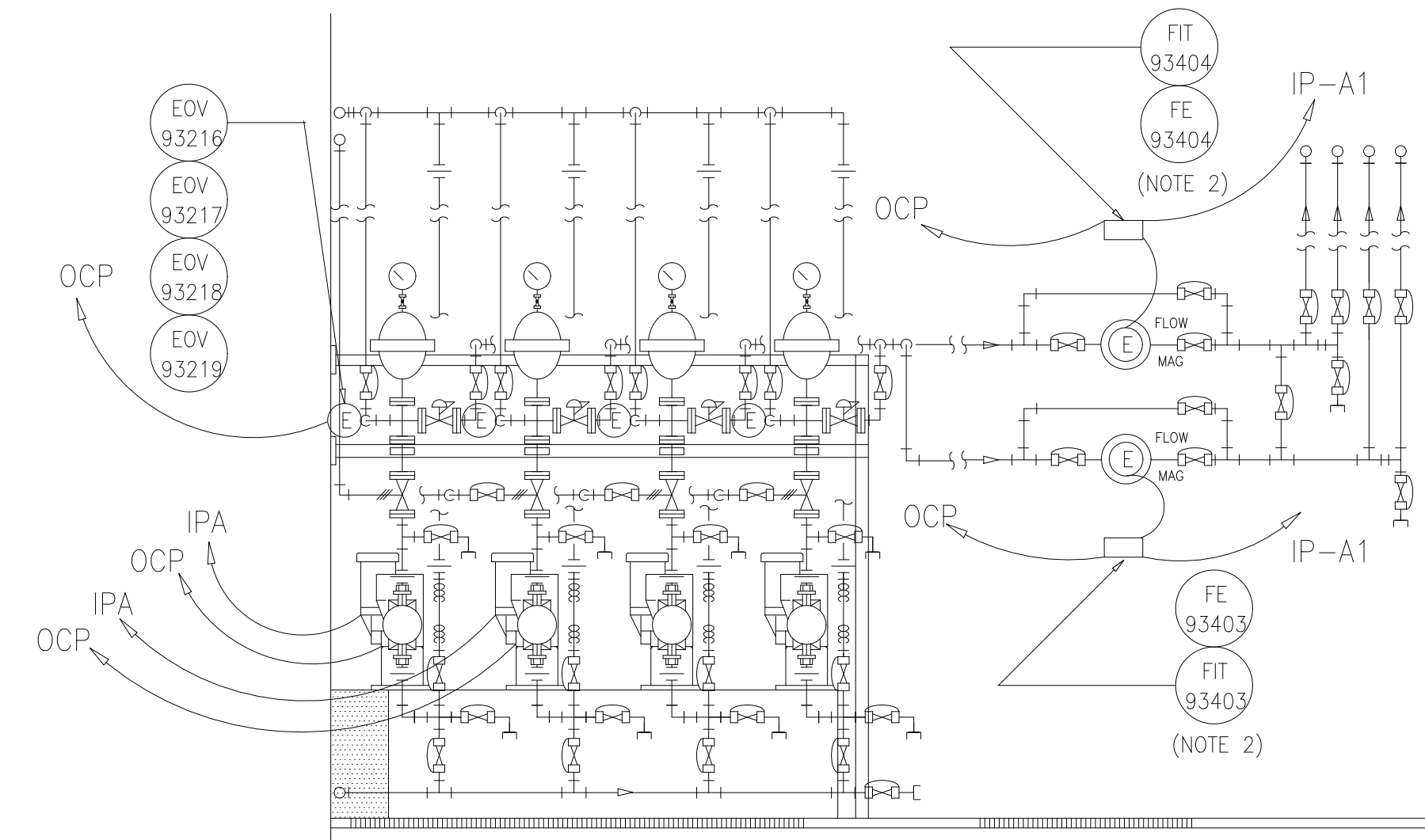
NOTES:

NOTES

- 1 DISCONNECT AND RECONNECT CHEMICAL FEED PUMPS AS REQUIRED FOR RECONDITIONING.
- 2 THE LOCATION OF THE MAGNETIC FLOW METER WALL MOUNTED CONTROL UNIT SHALL BE AS DIRECTED BY THE OWNER.
- 3 OCP - OLD CONTROL PANEL IN EXISTING CONTROL ROOM

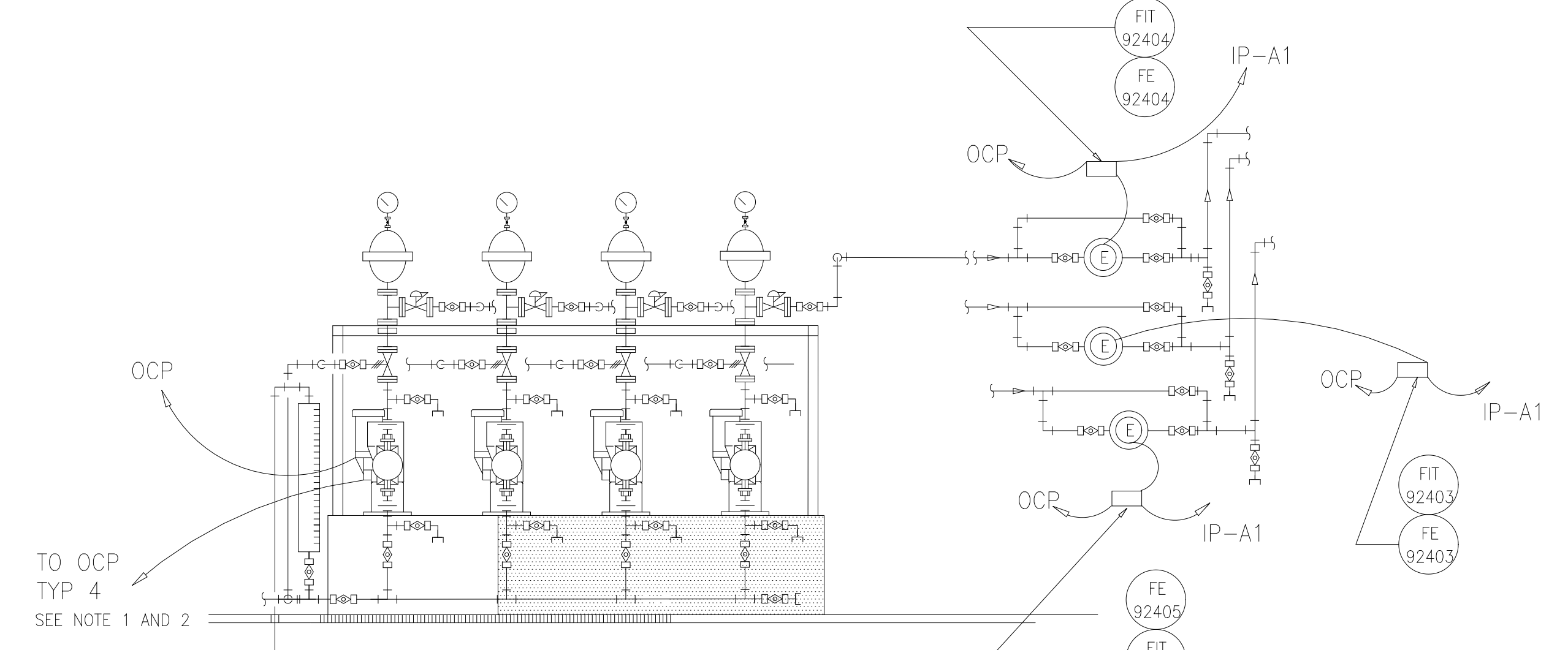


PLAN
1/2"=1'-0"



HYPERCHLORITE METERING PUMPS (H~d|OCL)

SECTION A
1/2"=1'-0" E106



ACID METERING PUMPS (H~2|S0~4)

SECTION B
1/2"=1'-0" E106

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

DATE	BY	APPROVED
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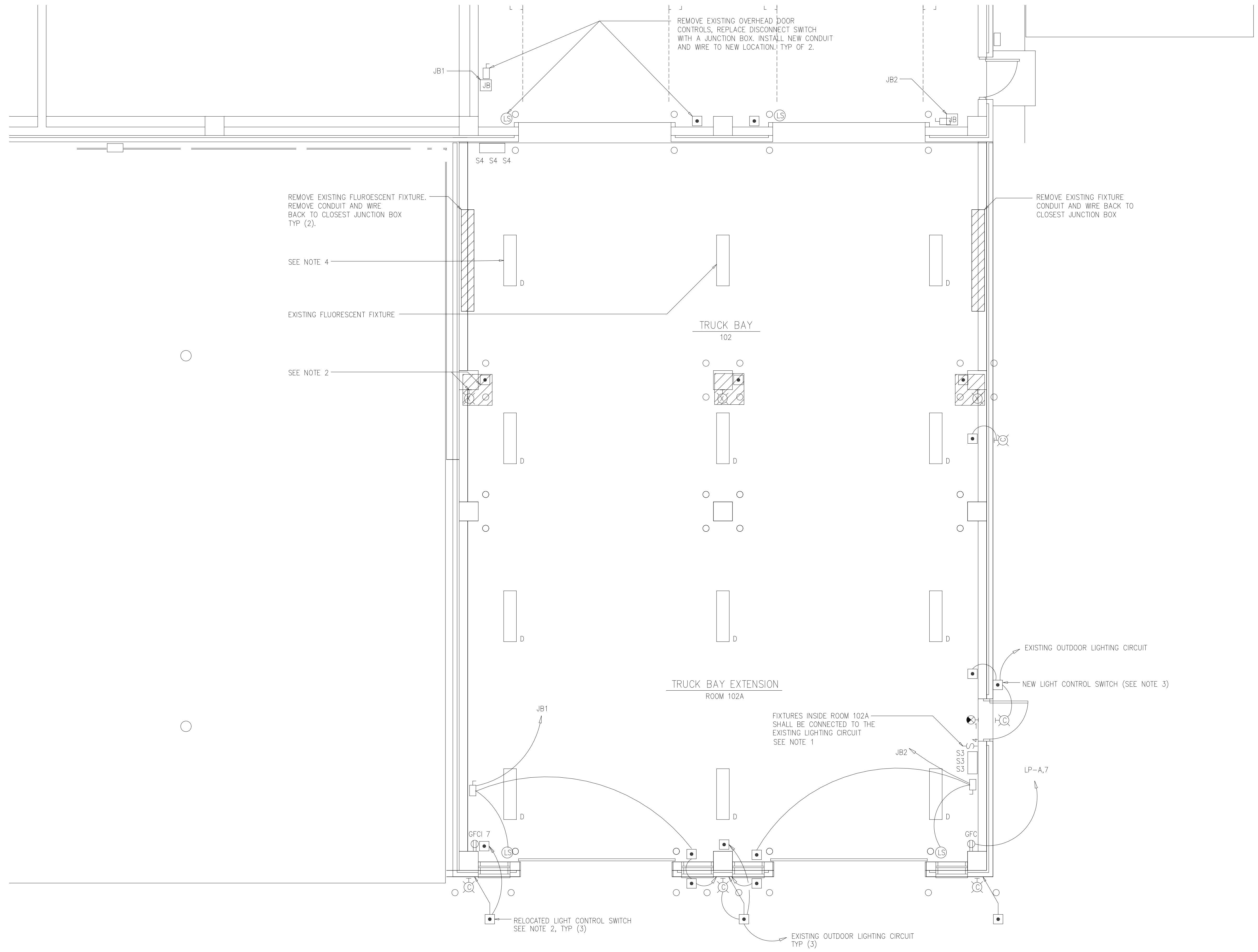
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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ELECTRICAL
POWER AND LIGHTING

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E106
	SHEET 75E OF 99



- NOTES:
- 1 ALL 120VAC CIRCUITS ON THIS SHEET ARE FROM LP-A LOCATED IN ROOM 106 SEE SHEET A101
 - 2 CONTRACTOR SHALL REMOVE EXISTING FIXTURES. THE EXISTING CONTROL SWITCHES SHALL BE RELOCATED AS INDICATED. USE THE EXISTING CIRCUIT TO POWER THE FOUR (4) NEW OUTDOOR FIXTURES.
 - 3 THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW LIGHT CONTROL SWITCH. WIRE THE NEW CONTROL SWITCH THE SAME AS THE RELOCATED CONTROL SWITCHES.
 - 4 CONTRACTOR SHALL FURNISH AND INSTALL THE NEW TYPE "D" FIXTURES AT THE SAME HEIGHT AS THE EXISTING FLUORESCENT FIXTURE.

PLAN AT EL 25.00
1/4"=1'-0"

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ. ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

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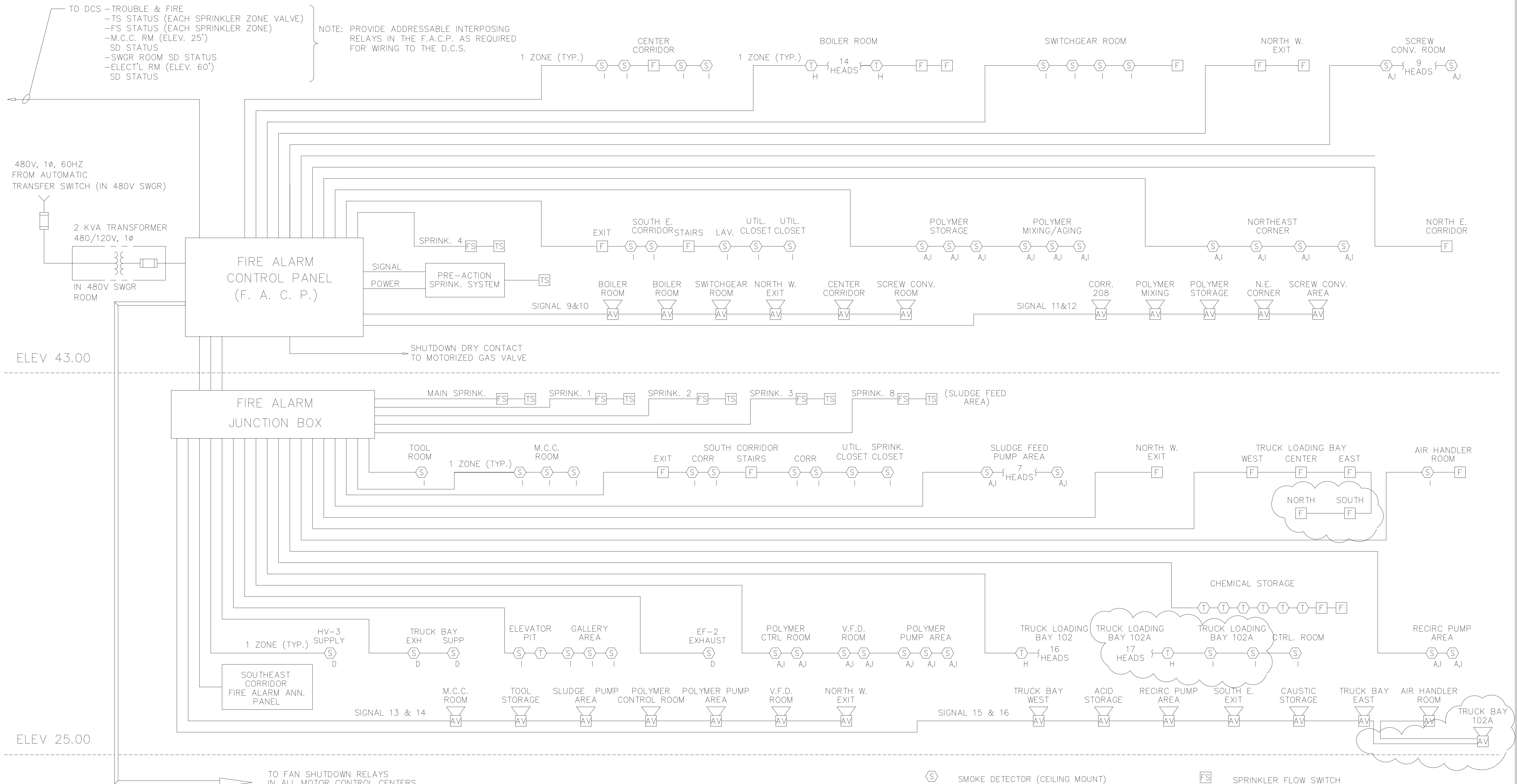
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ELECTRICAL
POWER AND LIGHTING

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E107
	SHEET 75FA OF 99



NOTE: PROVIDE ADDRESSABLE INTERPOSING RELAYS IN THE F.A.C.P. AS REQUIRED FOR WIRING TO THE D.C.S.

480V, 1Ø, 60HZ FROM AUTOMATIC TRANSFER SWITCH (IN 480V SWGR)

FIRE ALARM CONTROL PANEL (F. A. C. P.)

FIRE ALARM JUNCTION BOX

SOUTHEAST CORRIDOR FIRE ALARM ANN. PANEL

NOTES:
 FIRE ALARM EQUIPMENT QUANTITIES AND LOCATIONS ARE MINIMUM REQUIREMENTS. ACTUAL INSTALLATION SHALL BE PER MANUFACTURERS RECOMMENDATIONS, NFPA AND ALL LOCAL CODE REQUIREMENTS.
 IN ADDITION TO THE ZONES INDICATED, THE AUXILIARY CONTACTS FROM ALL HVAC SYSTEM SMOKE DETECTORS SHALL BE WIRED TO THE F.A.C.P. WITH 1 ZONE PER UNIT.
 EACH GROUPING SHALL BE CONSIDERED AN INDEPENDENT INITIATING ZONE AND SHALL HAVE A UNIQUE CODE AND MESSAGE.

- (S) SMOKE DETECTOR (CEILING MOUNT)
 I - IONIZATION TYPE
 P - PHOTOELECTRIC TYPE
 A - ADDRESSABLE (MULTIPLEXED)
 D - DUCT TYPE
 - (T) THERMAL DETECTOR (FIXED AND RATE OF RISE)
 X - EXPLOSION PROOF (RATED FOR AREA)
 H - HIGH TEMPERATURE (FOR HIGH AMBIENT)
 - (AV) AUDIO/VISUAL ALARM INDICATOR (HORN AND STROBE)
 - (F) MANUAL PULL STATION
 - (FS) SPRINKLER FLOW SWITCH
 - (TS) VALVE TAMPER SWITCH
- SPRINKLER EQUIPMENT
 INSTALLED BY SPRINKLER CONTRACTOR
 WIRE & COND. BY ELECTRICAL CONTRACTOR

THIS DRAWING HAS BEEN MODIFIED FROM DRAWING E210 OF THE PLANS FOR THE UPGRADE AND EXPANSION, PHASE III-A, SOLIDS PROCESSING FACILITIES, SEPTEMBER 1994.

DESIGNED	GDM
DRAWN	FXP
CHECKED	
PROJ. ENGR.	ASG
NO.	1
ISSUED FOR	REVISED FOR TRUCK BAY ADDITION
DATE	3/14/01
BY	GDM
APPROVED	

DATE	3/14/01
BY	GDM
APPROVED	

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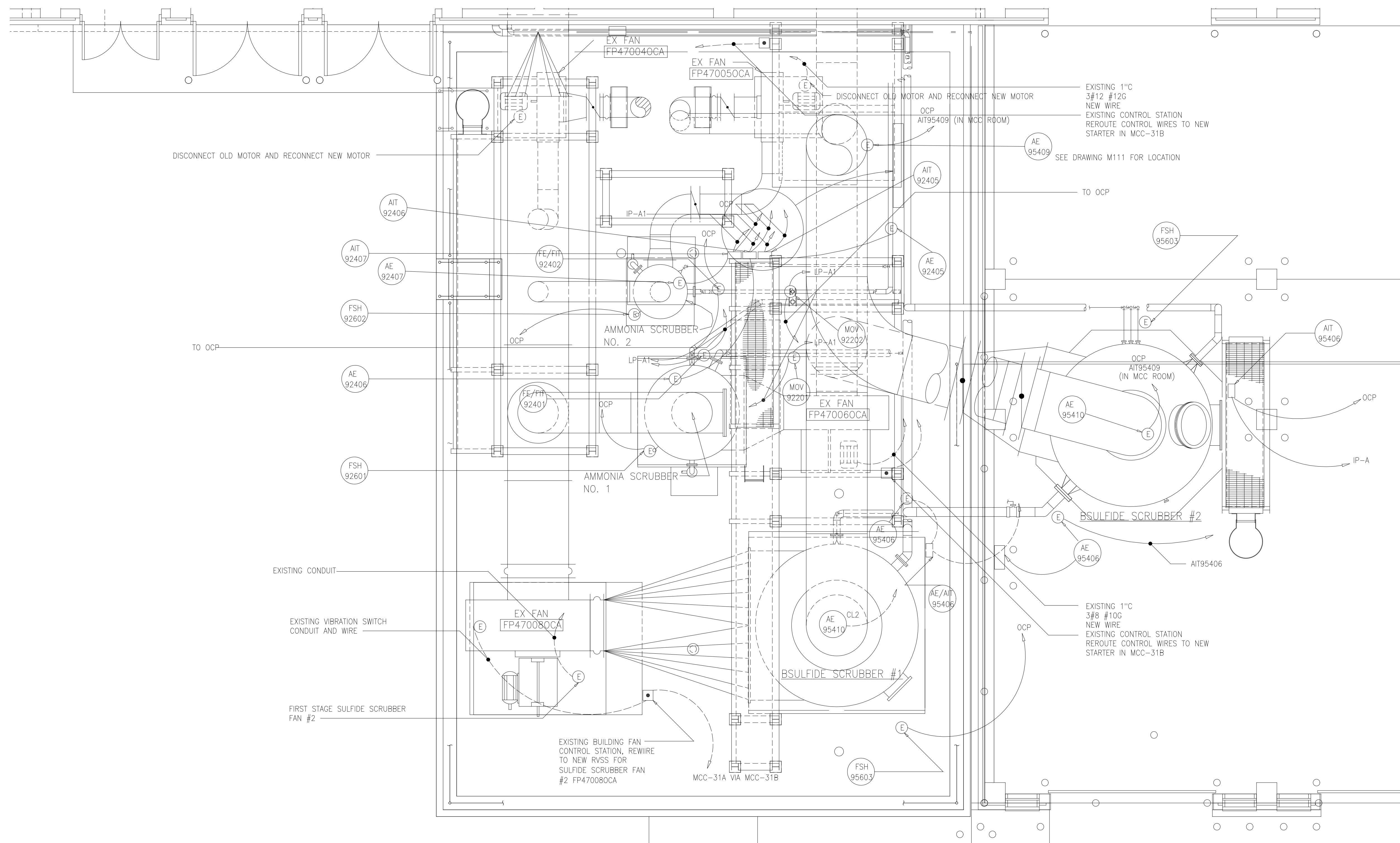
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
 ELECTRICAL
 ODOR CONTROLS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E107a
	SHEET 75FB OF 99

NOTES:

- 1 SEE DRAWING E103 FOR LOCATION OF MCC-31, OCP, LP-A, IP-A, AND TERMINATION CABINET
- 2 OCP - OLD CONTROL PANELS IN CONTROL ROOM



TOP PLAN
1/4"=1'-0"

RECORD DRAWING

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ. ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ. ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

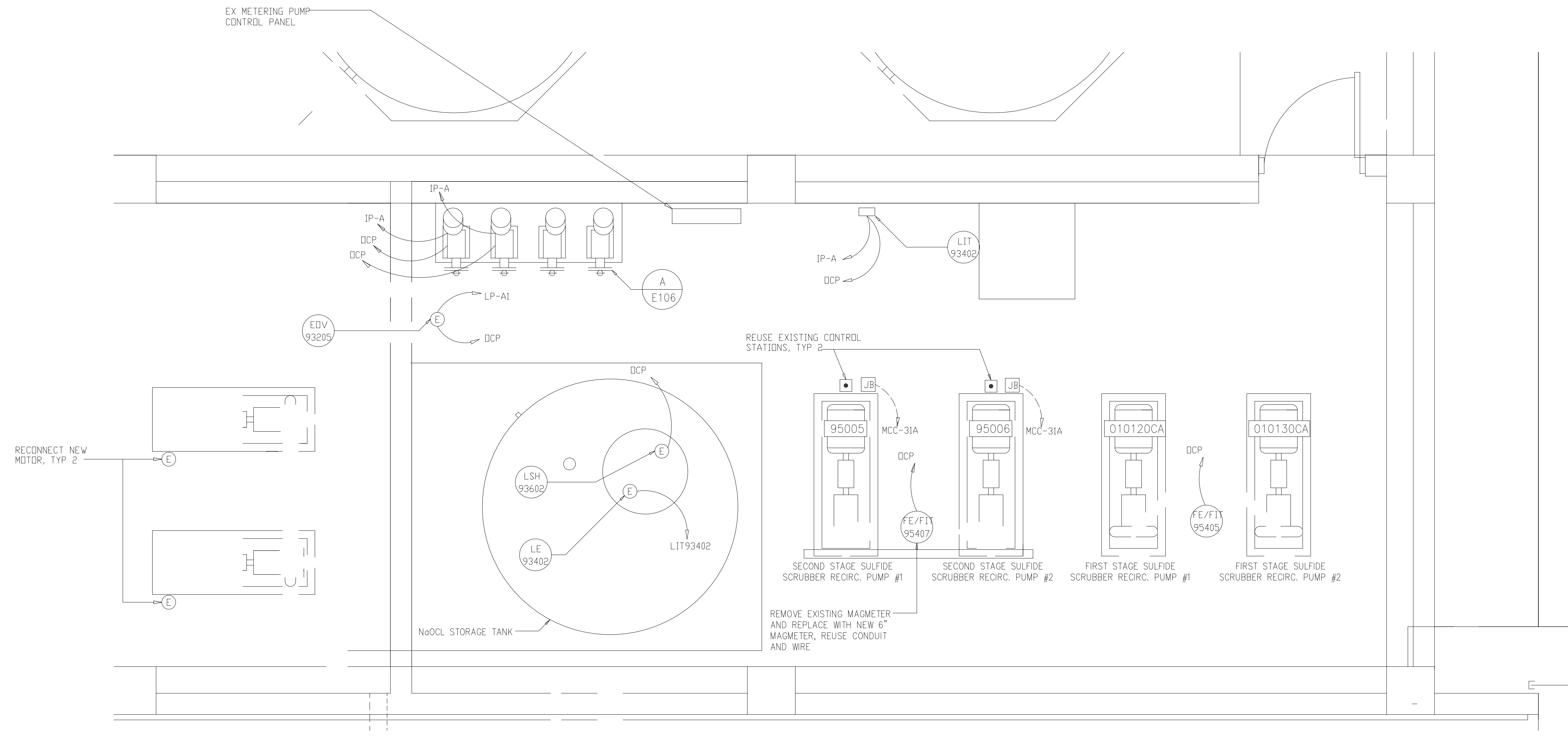
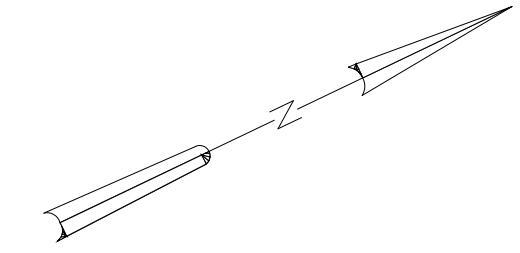
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
ODOR CONTROL AREA
ELECTRICAL
MODIFICATIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E108
	SHEET 75G OF 99



PLAN
1/2"=1'-0"

RECORD DRAWING

DESIGNED	GDM			
DRAWN	BRL			
CHECKED	JSI			
PROJ.ENGR.	AMS			
NO.	ISSUED FOR	DATE	BY	APPROVED

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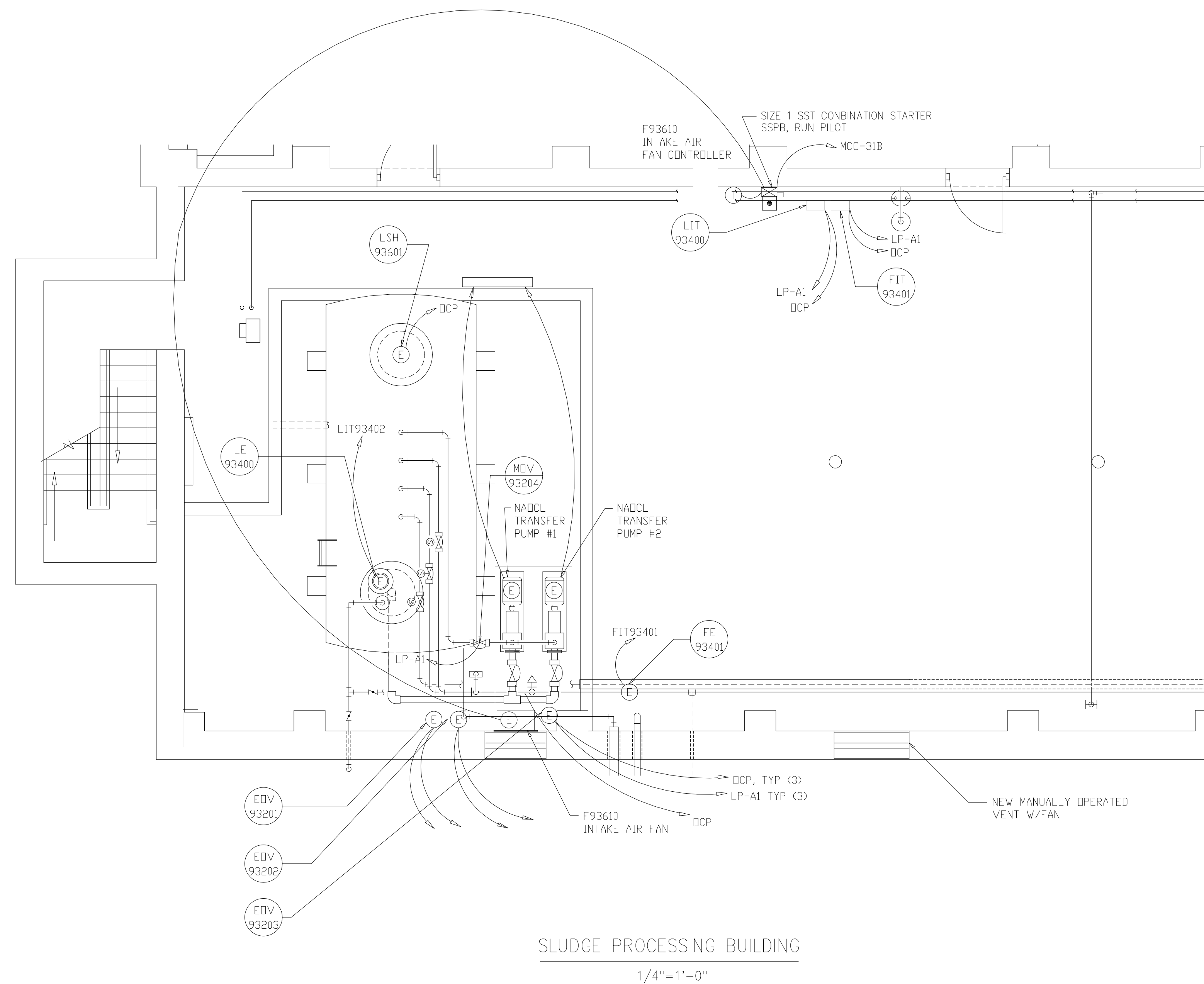
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

CENTRIFUGE DEWATERING BUILDING
HYPOCHLORITE ROOM 112

ELECTRICAL
MODIFICATIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E109
	SHEET 75H OF 99



RECORD DRAWING

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DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

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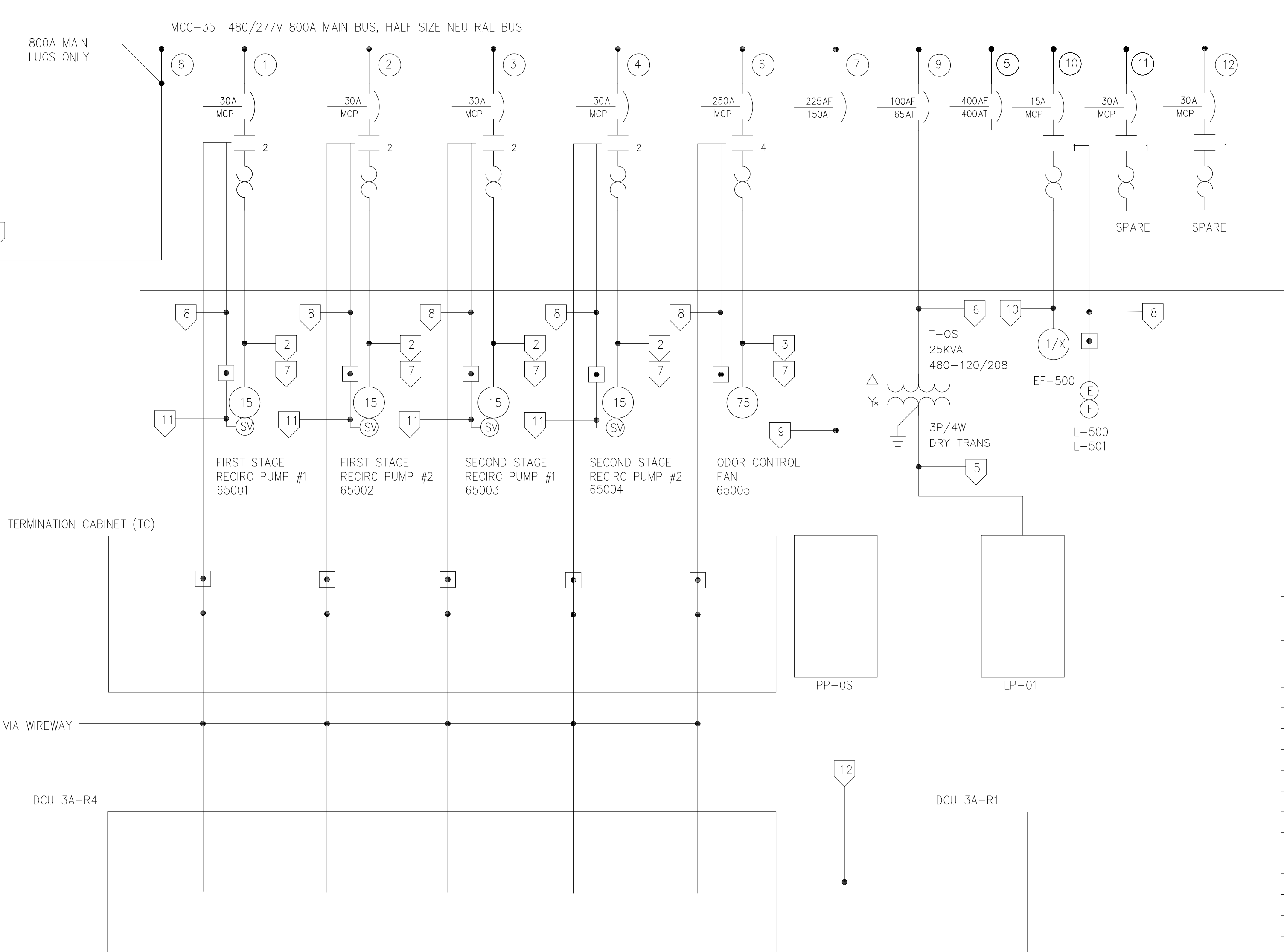
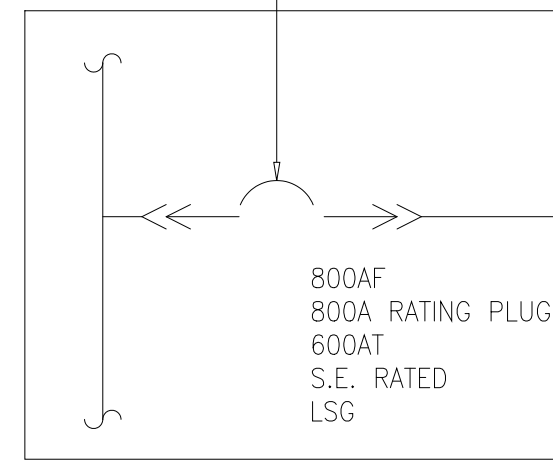
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

SLUDGE PROCESSING BUILDING
SODIUM HYPOCHLORITE STORAGE AREA
ELECTRICAL
MODIFICATIONS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E141
	SHEET 76 of 99

NEW DSL CIRCUIT BREAKER, LOCATED IN DC-A SPACE D-3 IN THE EXISTING ELECTRICAL EQUIPMENT ROOM OF THE EXISTING BLOWER BUILDING.

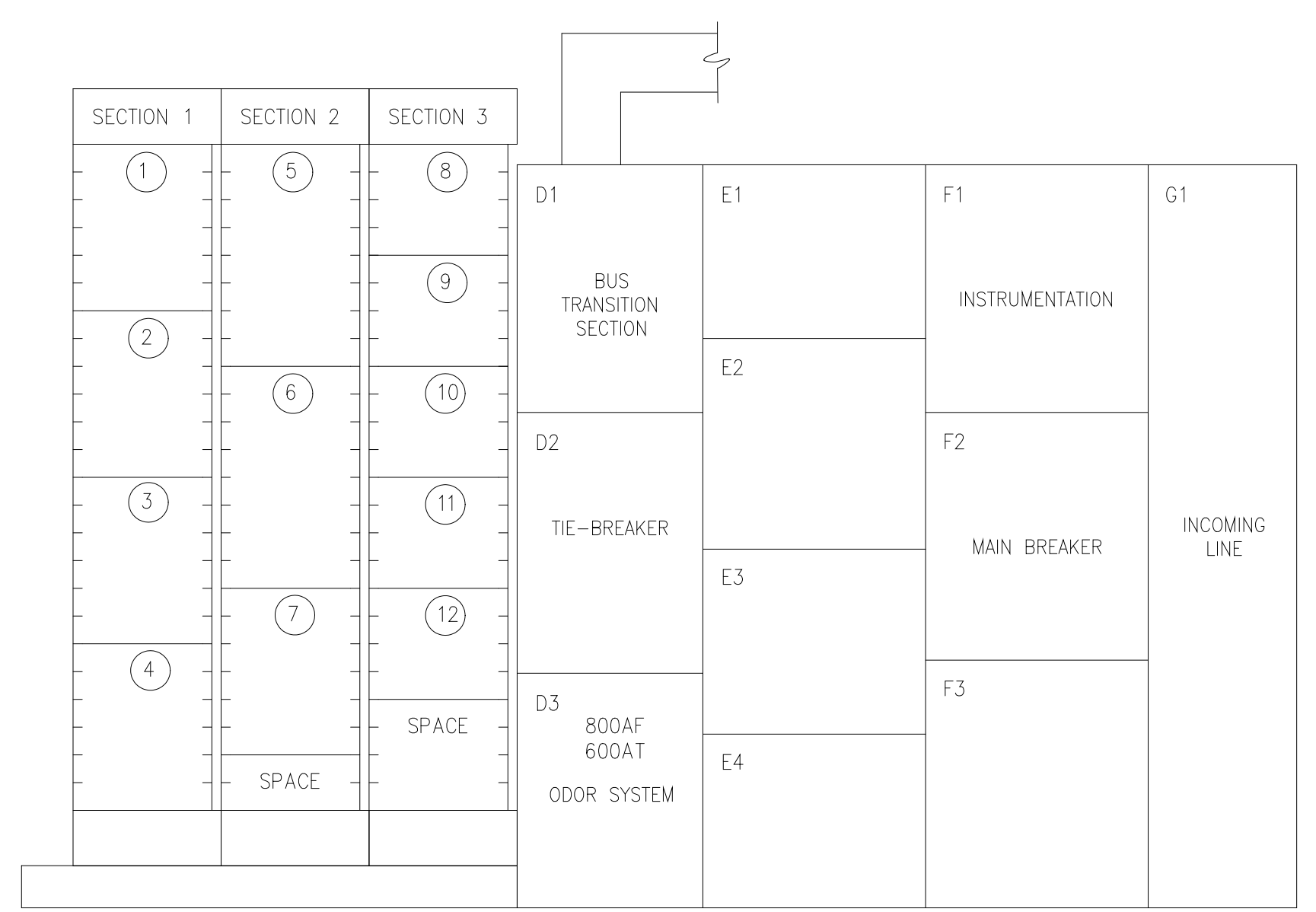


CONDUIT AND WIRE LEGEND (NUMBERS REFERENCE THIS SHEET ONLY)	
NO.	DESCRIPTION
1	2-3 750Kcmil, 500Kcmil #250Kcmil G 4°C
2	1-3#10, #10G 3/4°C
3	1-3#1#1G 2°C
4	1-10#14, #12G 1°C
5	1-4#3/0, #4G 2°C
6	1-4#6, #6G 1°C
7	1-2#12, 2#14 #12G 3/4°C
8	1-14#14 #12G 3/4°C
9	1-3#1/0, 1#4, #4G 2°C
10	1-3#12, 1#12G 3/4°C
11	1-4#14, #12G, 3/4°C
12	1-FIBER OPTIC CABLE 3°C

120/208 VOLTS 3P/3W WIRE		LP-01		TYPE: NQGD SURFACE MOUNT	
USE	CKT. BKR. TRIP POLE NO	MAIN BKR 150 A. 3 P.	CKT. BKR. NO POLE TRIP	USE	
LIGHTING	20	1	2	20	RECEPTACLES
HEAT TRACE NaOH LINES	20	3	4	20	HEAT TRACE NaOH TANK
FE/FIT65402 RECIRC FIRST STAGE	20	5	6	20	FE/FIT65403 RECIRC SECOND STAGE
FE/FIT65404 NaOCI FIRST STAGE	20	7	8	20	FE/FIT65405 NaOCI SECOND STAGE
FE/FIT65406 NaOH FIRST STAGE	20	9	10	20	FE/FIT65407 NaOH SECOND STAGE
AE/AIT65410 CL2 GAS FIRST STAGE	20	11	12	20	AE/AIT65411 CL2 GAS SECOND
LE/LIT65400 LEVEL NaOCI TANK	20	13	14	20	LE/LIT65401 LEVEL NaOH TANK
AE/AIT65408 pH FIRST STAGE	20	15	16	20	AE/AIT65409 pH SECOND STAGE
65006 NaOCI PUMP FEED	20	17	18	20	65010 NaOH PUMP FEED
65007 NaOCI PUMP FEED	20	19	20	20	65011 NaOH PUMP FEED
65008 NaOCI PUMP FEED	20	21	22	20	65012 NaOH PUMP FEED
65009 NaOCI PUMP FEED	20	23	24	20	EOV65200,1,2,3 NaOCI VENT
EOV65204,5 NaOCI FILL SOLENOID	20	25	26	20	65013 NaOH PUMP FEED
	20	27	28	20	65014 NaOH PUMP FEED
DCU 3A-R4	20	29	30	20	OUTSIDE LIGHTS
	20	31	32	20	
	20	33	34	20	
	20	35	36	20	
	20	37	38	20	
	20	39	40	20	
	20	41	42	20	

ALL BRANCH CIRCUITS 3#12, #12G 3/4°C UNLESS NOTED OTHERWISE 10KV A LOAD

MCC-35 SINGLE LINE DIAGRAM



MCC-35 ELEVATION NTS EXIST DC-2, SECT "A"

480/277 VOLTS 3ø, 4 WIRE		PP-05		TYPE: NF MOUNT: SURFACE	
DESCRIPTION	CKT BKR CKT	MAIN BKR 125 A 3 P	CKT BKR	DESCRIPTION	
UH-500	30	1	2	UH-502	
		3	4		
		5	6		
UH-501	30	7	8	UH-503	
		9	10		
		11	12		
	30	13	14		
		15	16	20	
		17	18		
		19	20		
	20	21	22	20	
		23	24		

ALL BRANCH CIRCUITS 3#10, #10G 1°C UNLESS NOTED OTHERWISE 80KW LOAD

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ. ENGR.	ASG
APPROVED	

NO.	ISSUED FOR	DATE	BY

HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

PBS&S
Scientists
12101 INDIAN CREEK COURT
BELTSVILLE, MD 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

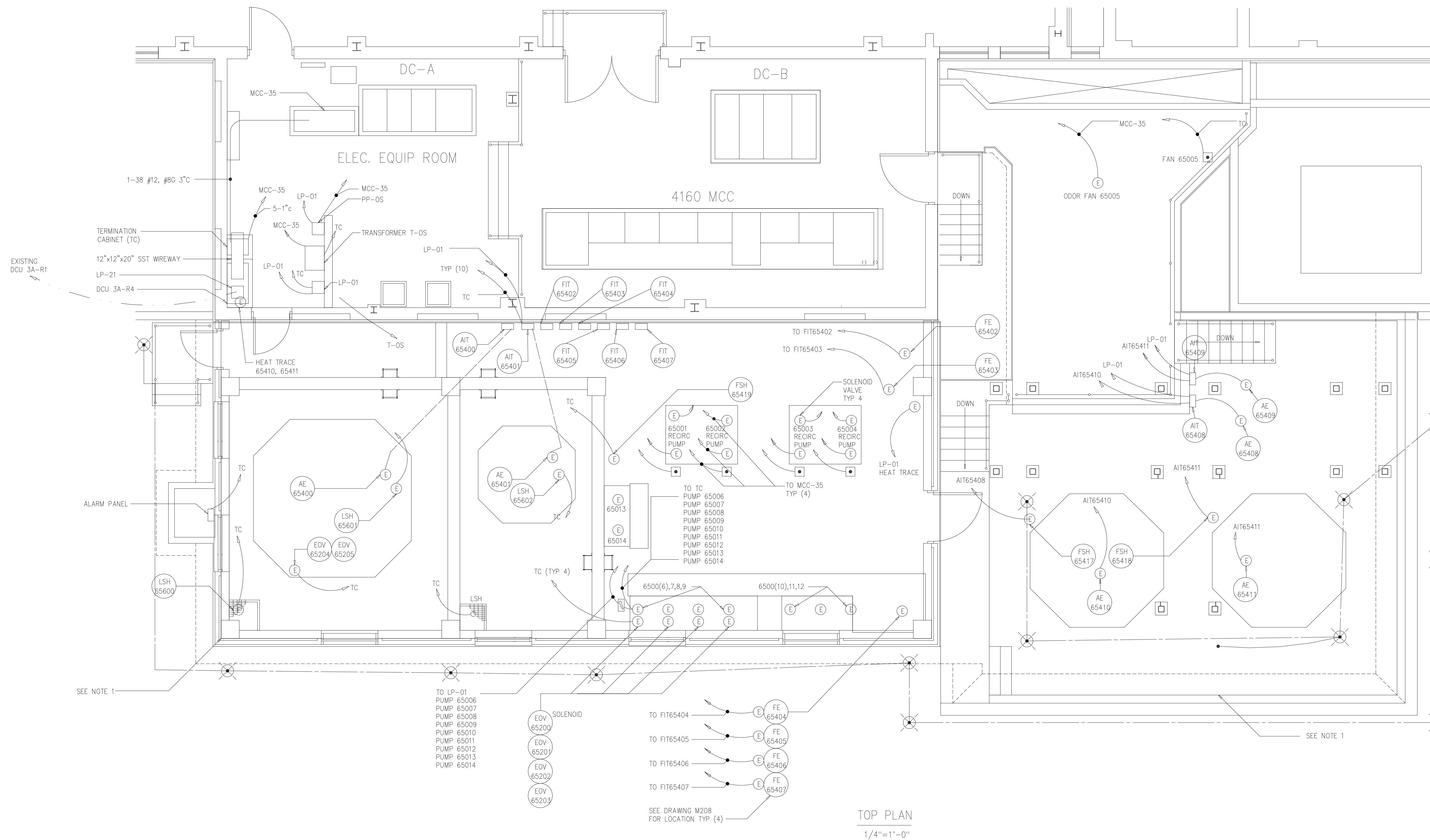
BLOWER BUILDING
ODOR CONTROL AREA
ELECTRICAL
MCC-35 SINGLE LINE DIAGRAM

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E201
	SHEET 77 OF 99

NOTES:

1 LIGHTNING PROTECTION SYSTEM SHALL BE PROVIDED FOR ALL NEW STRUCTURES, LADDERS AND PLATFORMS.



TOP PLAN
1/4"=1'-0"

RECORD DRAWING

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

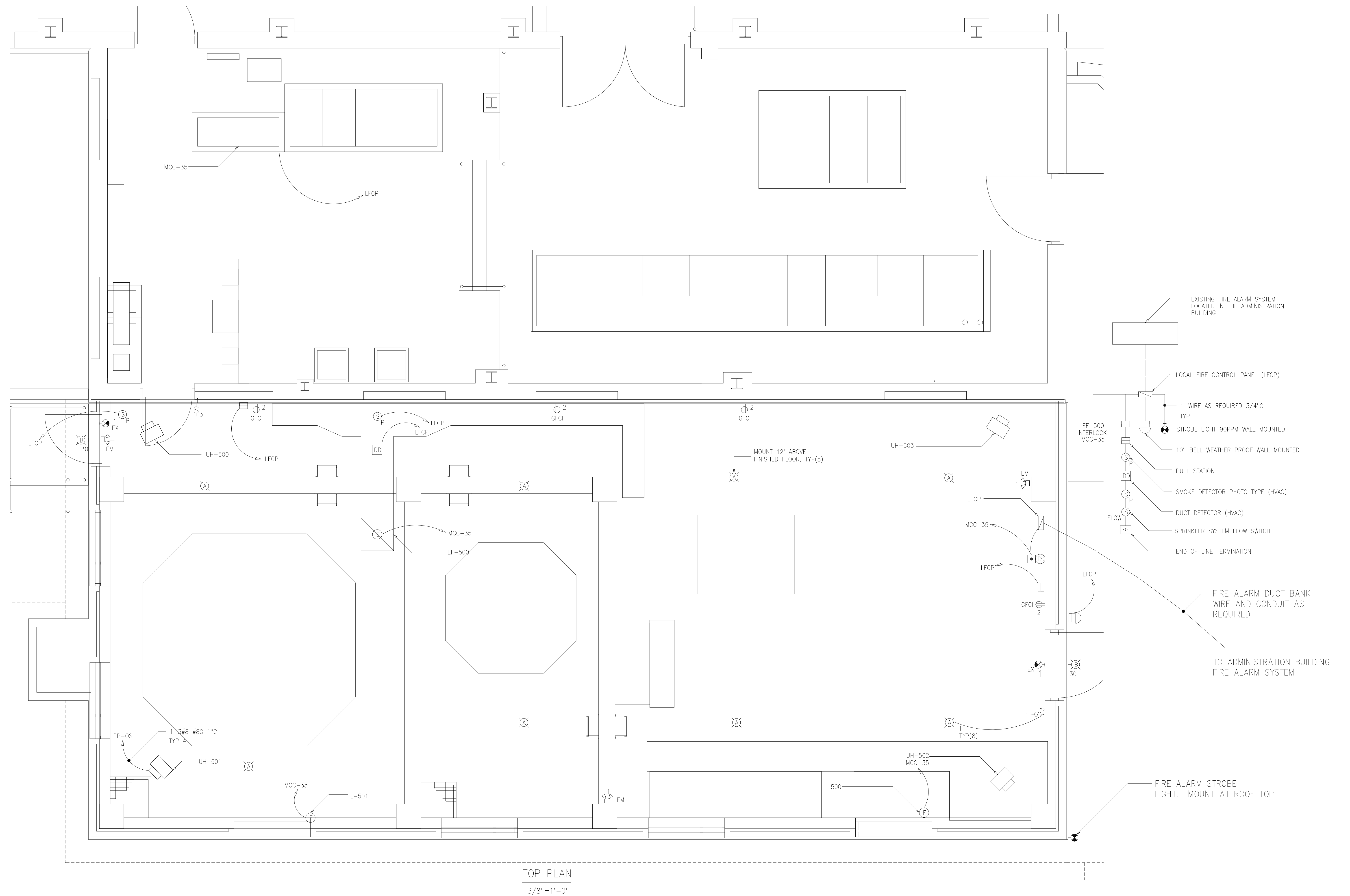
HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

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BELTSVILLE, MD 20705
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ELECTRICAL
POWER PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E202
	SHEET 78 OF 99



TOP PLAN
3/8"=1'-0"

RECORD DRAWING

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
APPROVED	

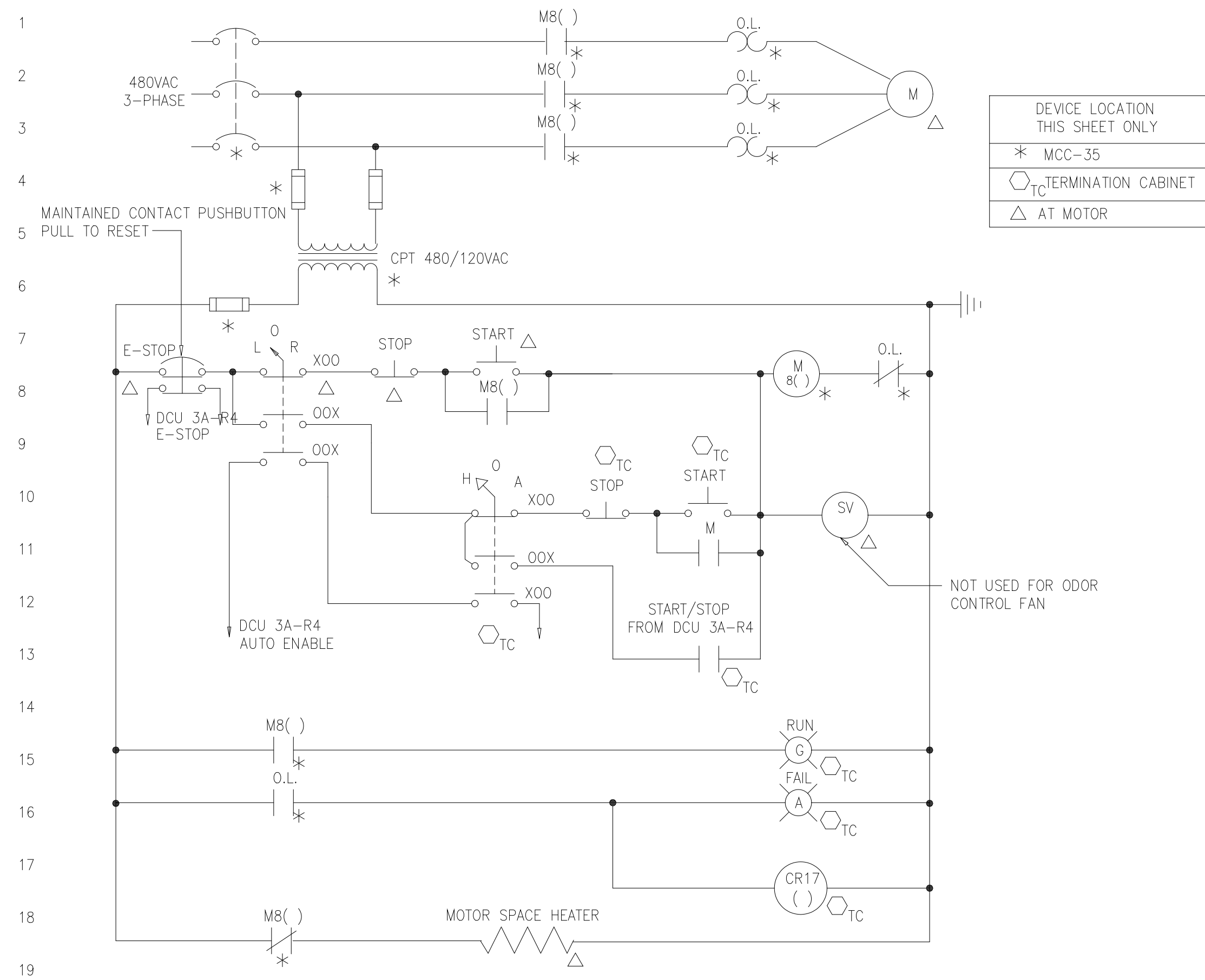
HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

PBS&S
Scientists
12101 INDIAN CREEK COURT
BELTSVILLE, MD 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ELECTRICAL
LIGHTING, HVAC AND FIRE ALARM

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E203
SHEET 79 OF 99	



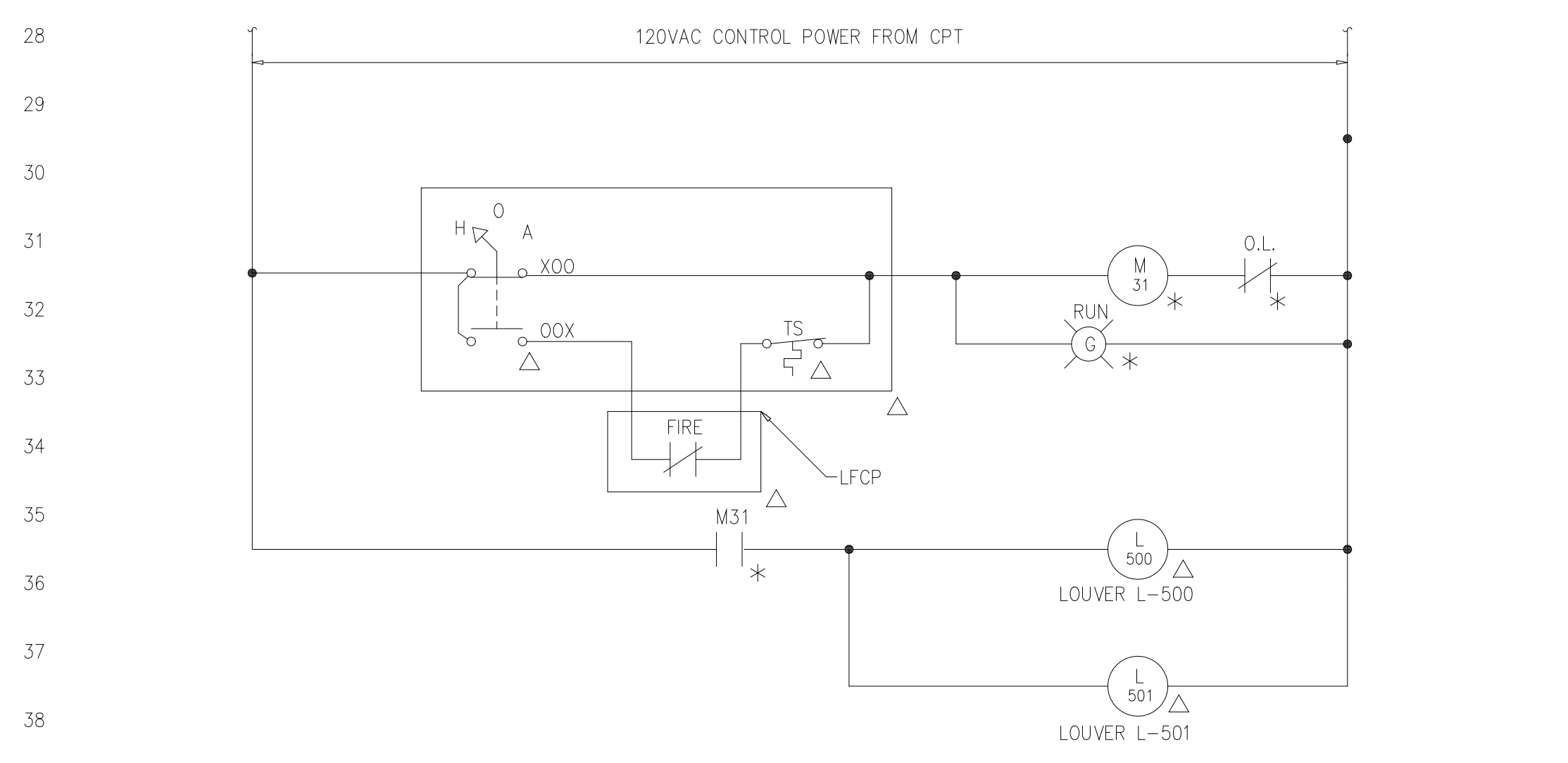
DEVICE LOCATION THIS SHEET ONLY

- * MCC-35
- TC TERMINATION CABINET
- △ AT MOTOR

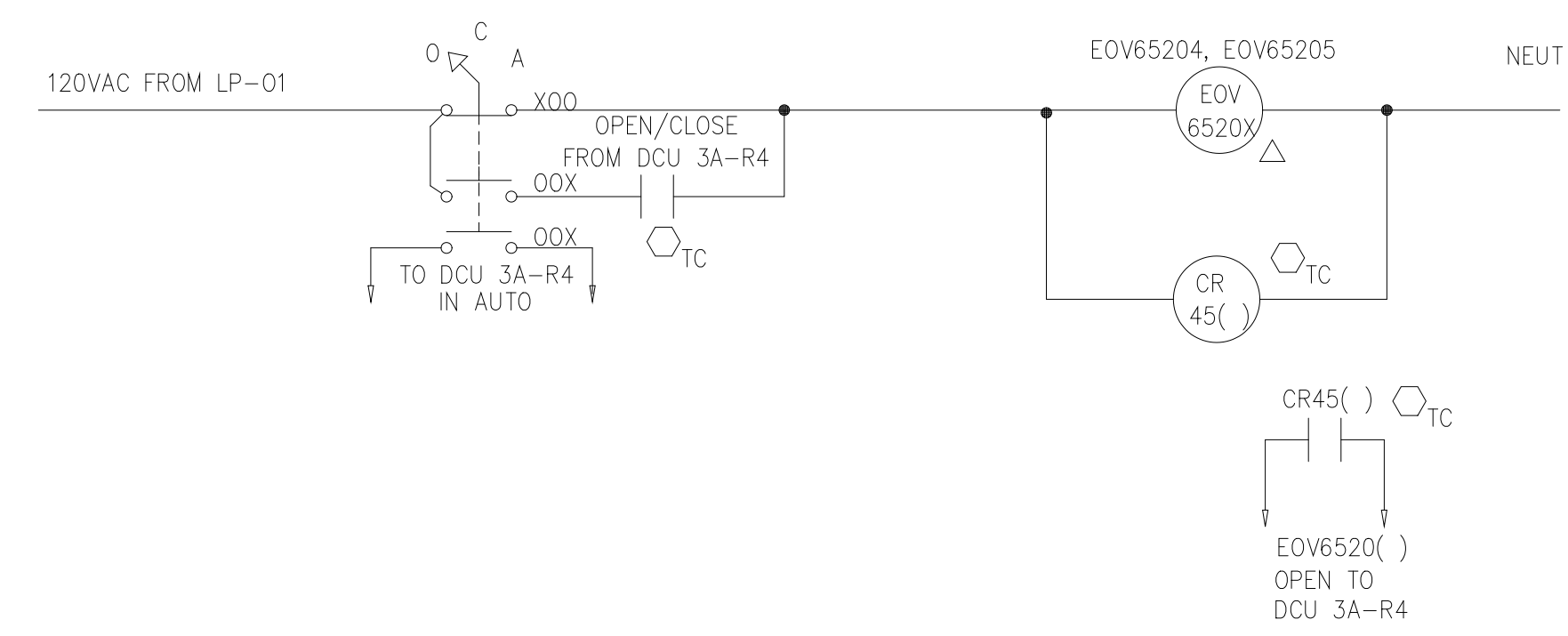
DESCRIPTION	LP-01	CR17()
FIRST STAGE RECIRC #1 65001	LP-01	CR17(A)
FIRST STAGE RECIRC #2 65002	LP-01	CR17(B)
SECOND STAGE RECIRC #1 65003	LP-01	CR17(C)
SECOND STAGE RECIRC #2 65004	LP-01	CR17(D)
ODOR CONTROL FAN 65005	LP-01	CR17(E)



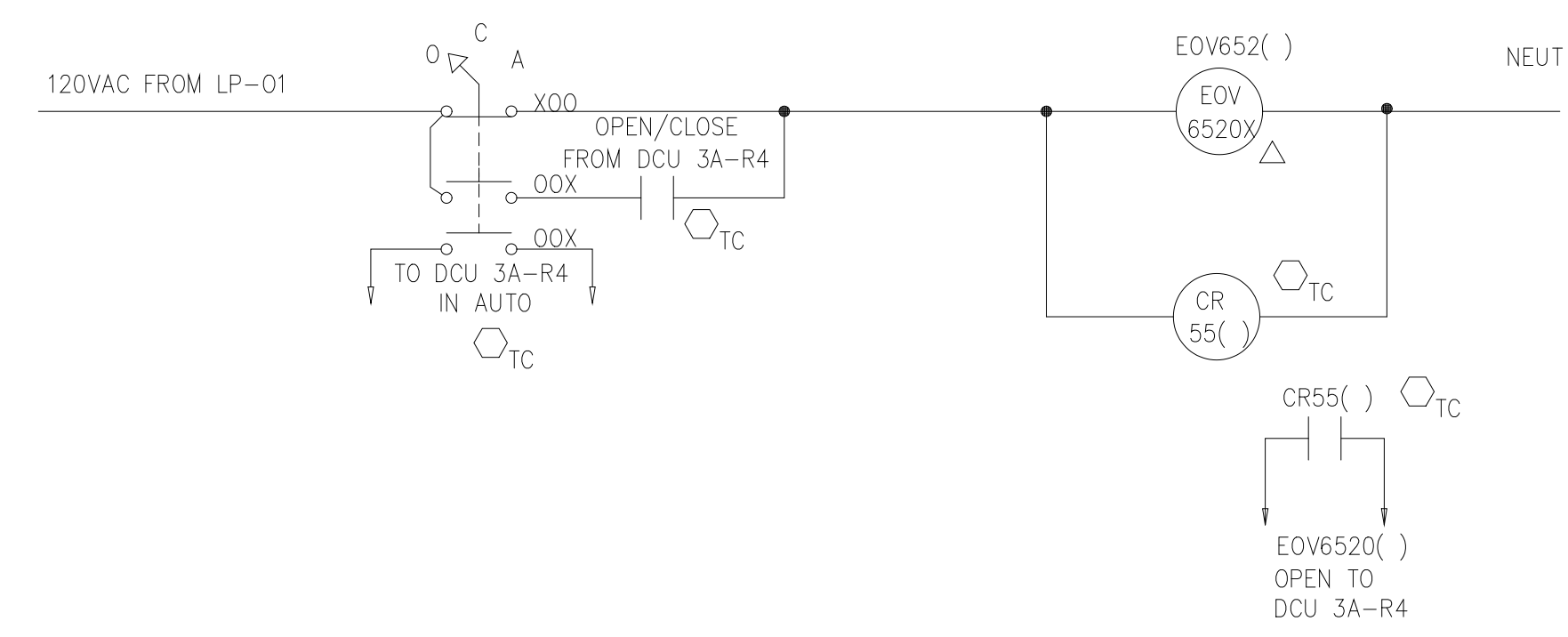
ELEMENTARY CONTROL SCHEMATIC FOR RECIRCULATION PUMPS AND ODOR CONTROL FAN



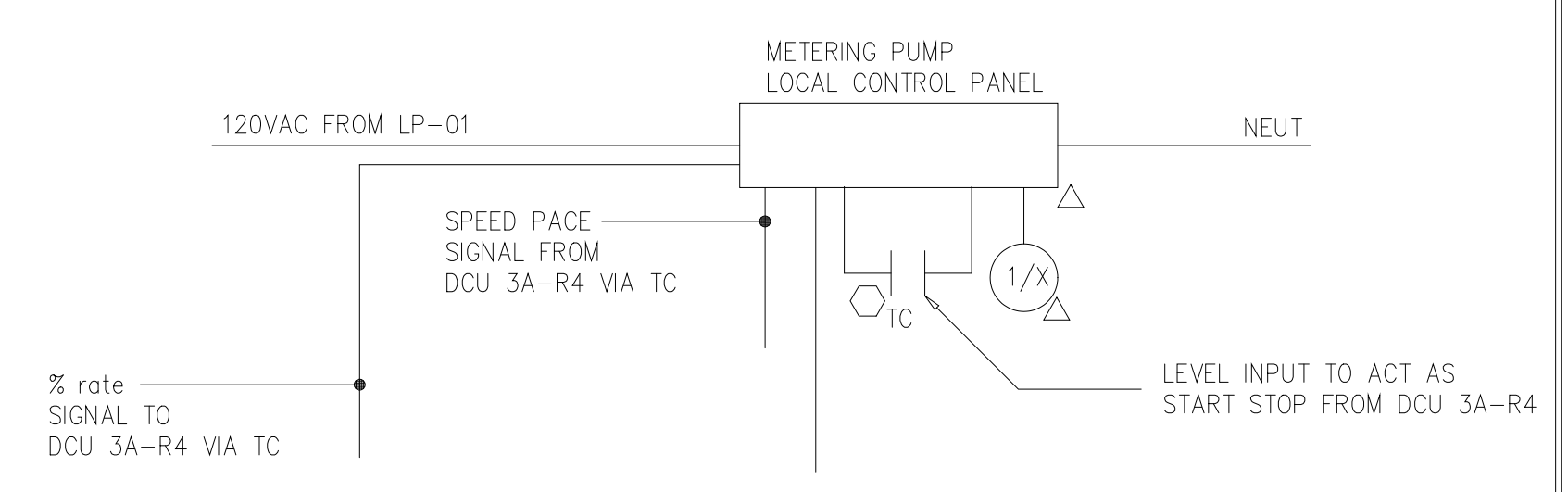
ELEMENTARY CONTROL SCHEMATIC FOR EXHAUST FANS EF-500



ELEMENTARY CONTROL SCHEMATIC FOR NaOCI FILL SOLENOID VALVES
EOVS204, AND EOVS205

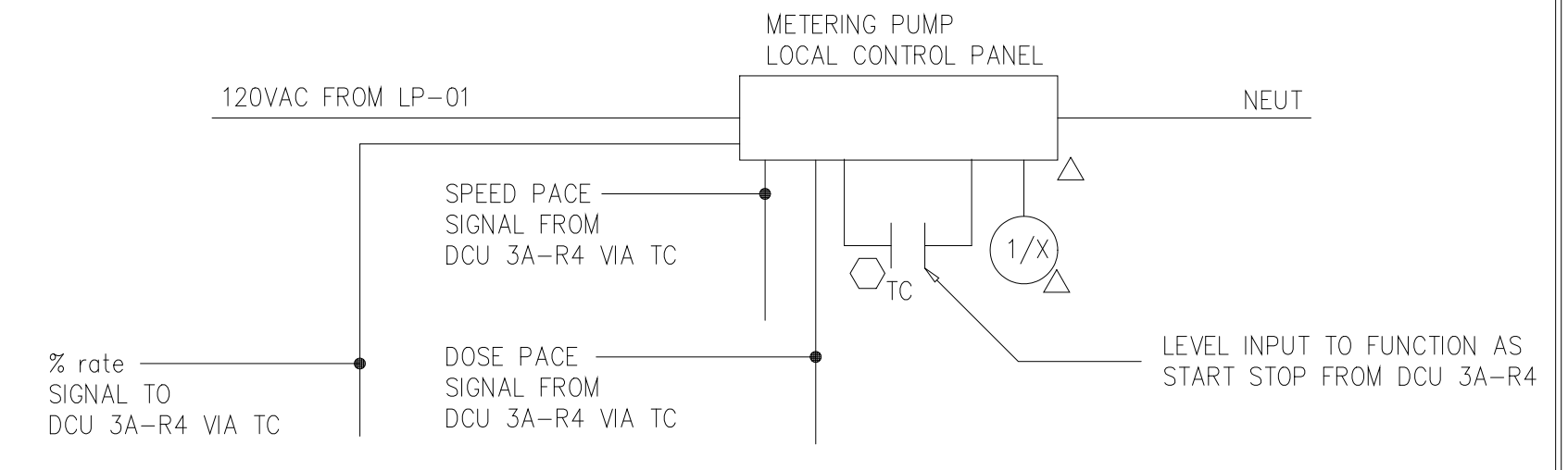


ELEMENTARY CONTROL SCHEMATIC FOR NaOCI VENT SOLENOID VALVES
EOVS200,65201,65202,65203



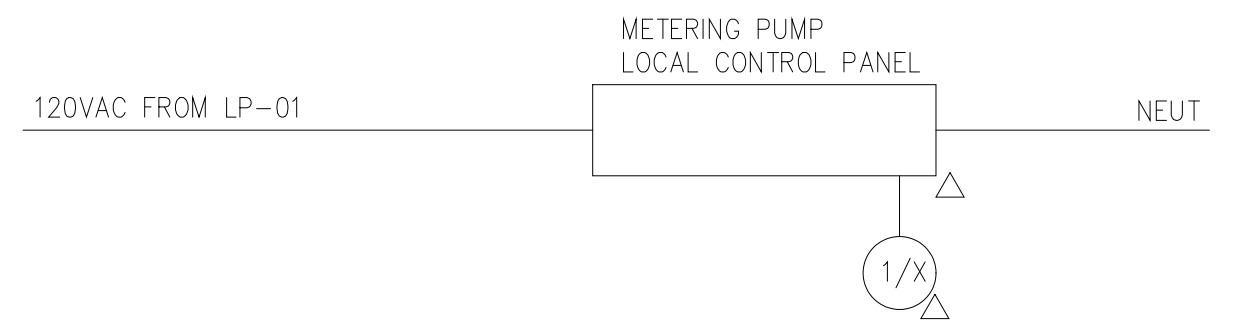
DESCRIPTION	LP-01
METERING PUMP 65006	LP-01
METERING PUMP 65007	LP-01
METERING PUMP 65008	LP-01
METERING PUMP 65009	LP-01

ELEMENTARY CONTROL SCHEMATIC FOR NaOCI METERING PUMPS



DESCRIPTION	LP-01
METERING PUMP 65010	LP-01
METERING PUMP 65011	LP-01
METERING PUMP 65012	LP-01

ELEMENTARY CONTROL SCHEMATIC FOR NaOH METERING PUMPS



ELEMENTARY CONTROL SCHEMATIC FOR NaOH METERING PUMPS
TYPICAL METERING PUMPS 65013,AND 65014

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
APPROVED	

HAZEN AND SAWYER
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

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BELTSVILLE, MD 20705
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FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

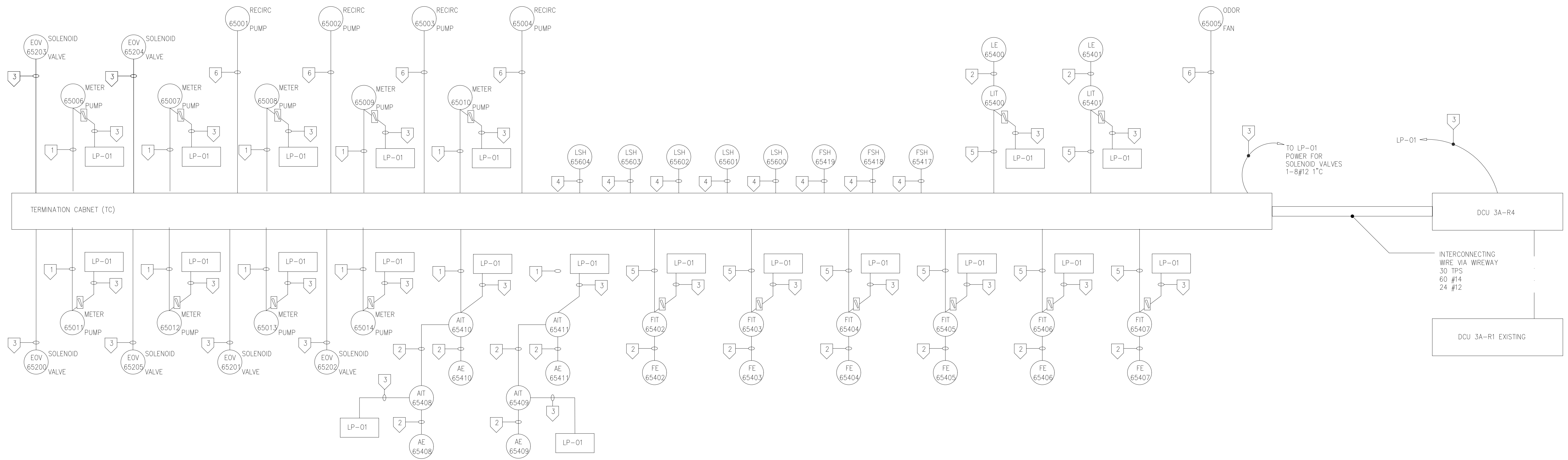
ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
ODOR CONTROL AREA
ELECTRICAL
CONTROL DIAGRAMS

RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E204
	SHEET 80 OF 99

NOTES:
 1 THE CONTRACTOR SHALL PROVIDE A TERMINATION CABINET (TC) IN ORDER TO INTEGRATE THE ODOR CONTROL SYSTEM INTO THE EXISTING PLANT DCS SYSTEM. ALL INPUTS AND OUTPUTS TO THE ODOR CONTROL SYSTEM, SHALL FIRST BE TERMINATED IN THE TC. ALL SELECTOR SWITCHES, AND PILOT LIGHTS SHALL BE PROVIDED, INSTALLED, AND ALL CONTACTS WIRE TO TERMINAL STRIPS IN THIS TC UNLESS NOTED OTHER WISE.



CONDUIT AND WIRE LEGEND
 (NUMBERS REFERENCE THIS SHEET ONLY)

NO.	DESCRIPTION
1	1-4TPS, #12G 3/4"C
2	CABLE BY MANUFACTURER
3	1-3#12, #12G 3/4"C
4	1-2#14, #12G 3/4"C
5	1-2TPS, #12G 3/4"C
6	10#14, VIA WIREWAY MCC-35 TO TC

RECORD DRAWING

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

DESIGNED GDM
 DRAWN GDM
 CHECKED
 PROJ.ENGR. ASG

HAZEN AND SAWYER
 Environmental Engineers &
 4011 WestChase Blvd, Raleigh, North Carolina 27607

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 Scientists
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 BELTSVILLE, MD 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

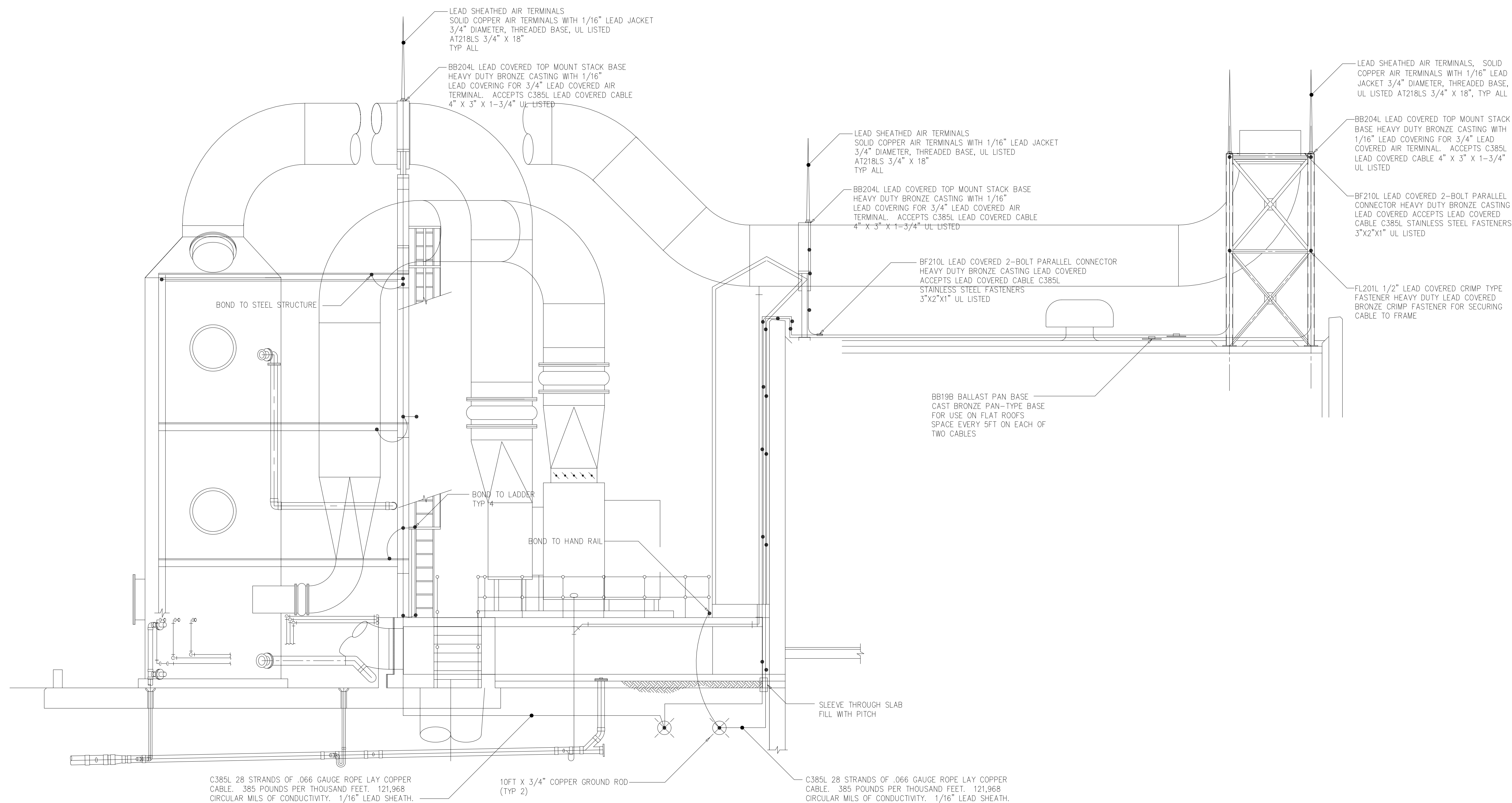
BLOWER BUILDING
 ELEC. ROOM - TERMINATION CABINET
 ELECTRICAL
 SINGLE LINE DIAGRAM

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E205
	SHEET 81 of 99

NOTES:

1 LIGHTNING SYSTEM PART NUMBERS BASE ON

Maxwell Lightning Protection Company
 621 Pond Street
 Dayton, Ohio 45402
 (937) 228-7250
 800-872-1657
 Fax: (937) 228-1508 maxwell@maxwell-lp.com



RECORD DRAWING

DESIGNED	GDM
DRAWN	GDM
CHECKED	
PROJ.ENGR.	ASG
APPROVED	

NO.	ISSUED FOR	DATE	BY

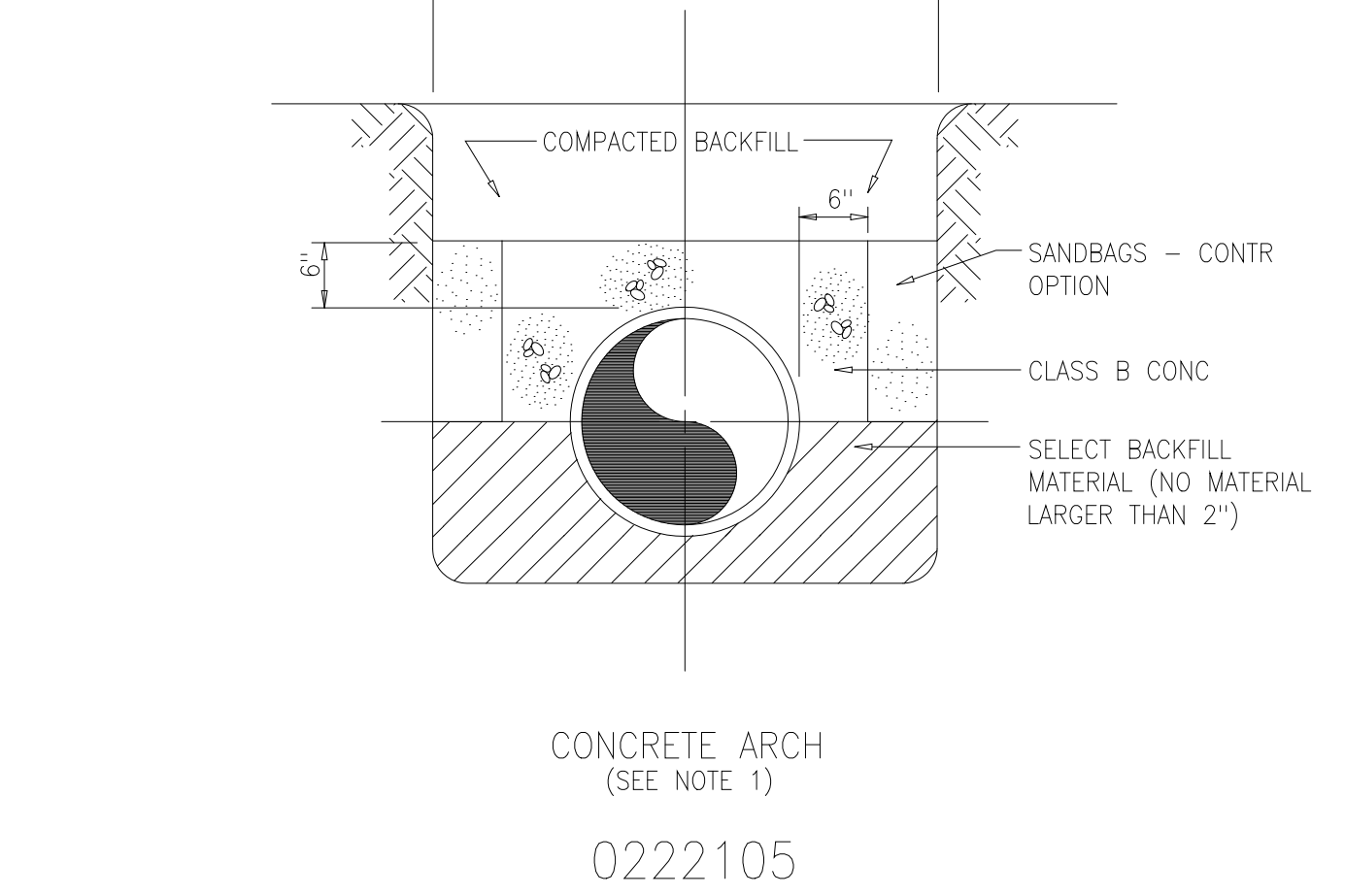
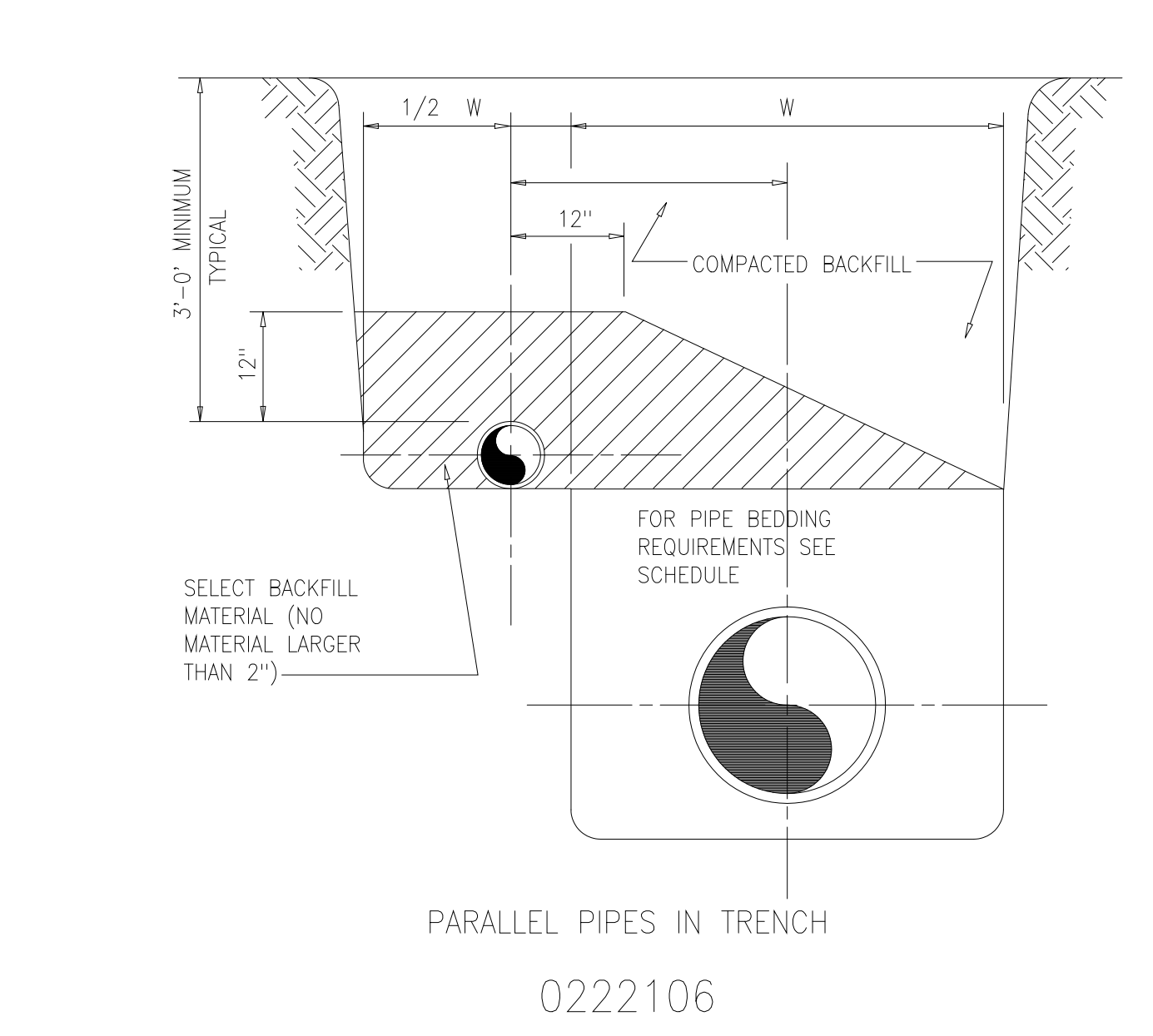
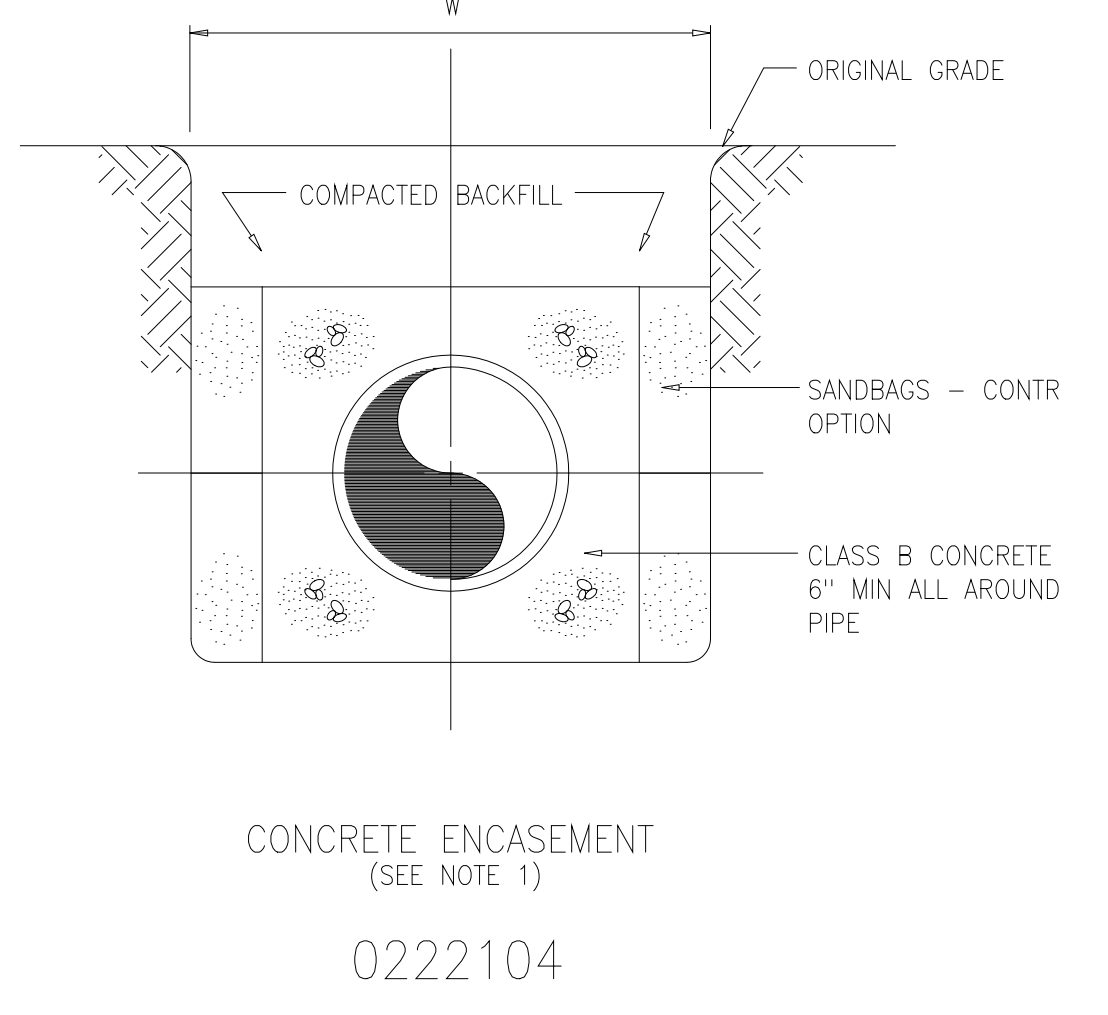
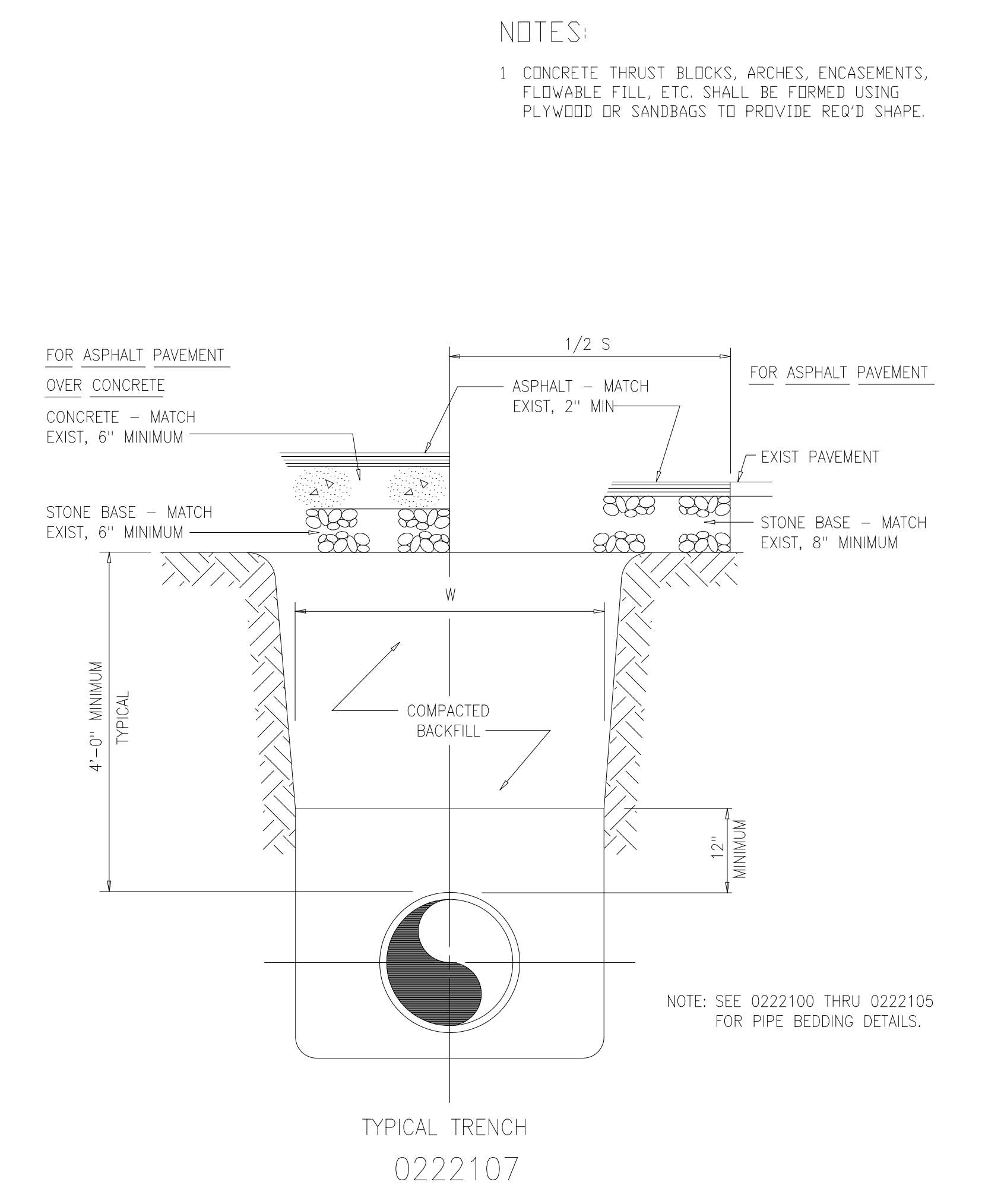
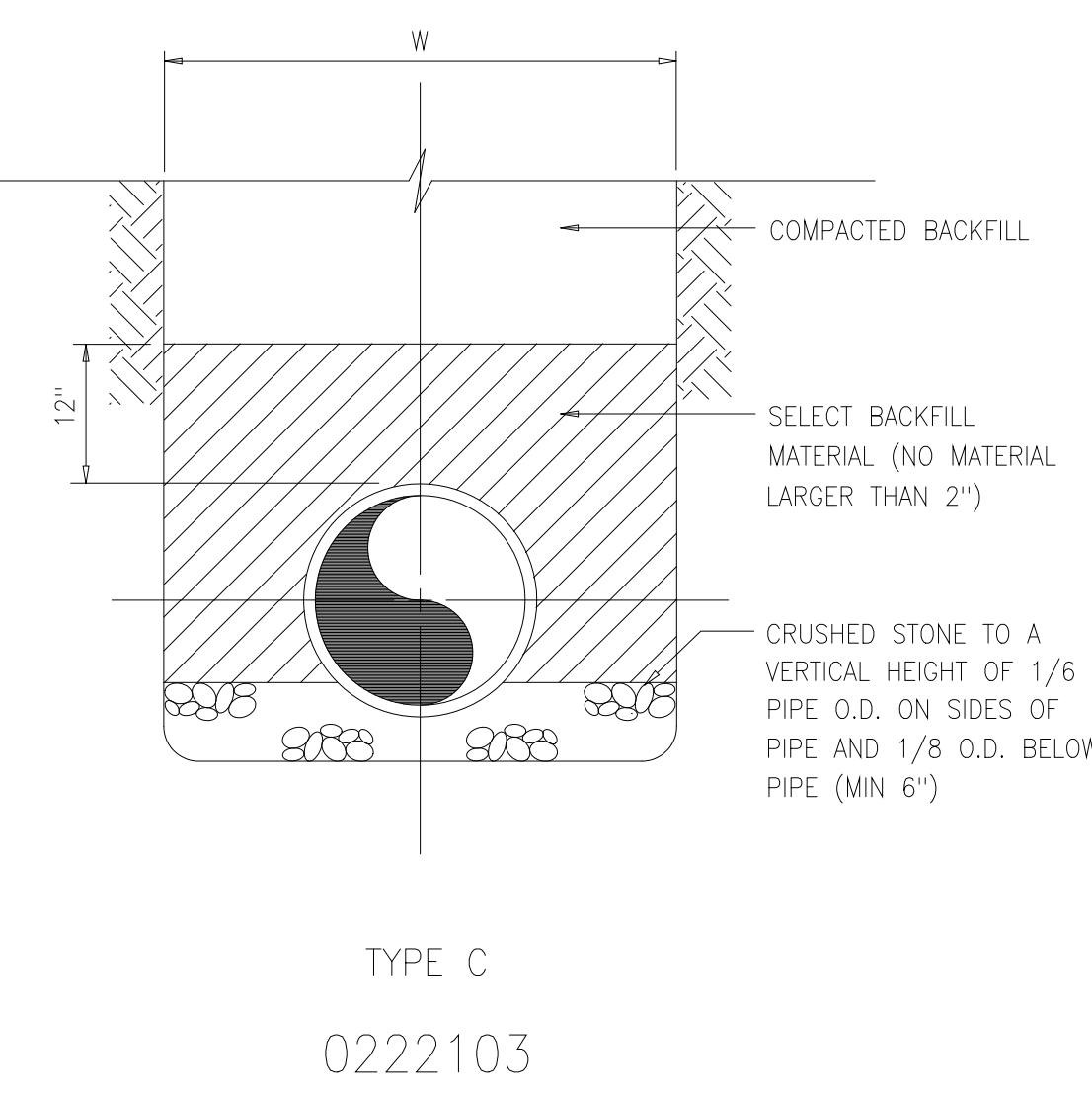
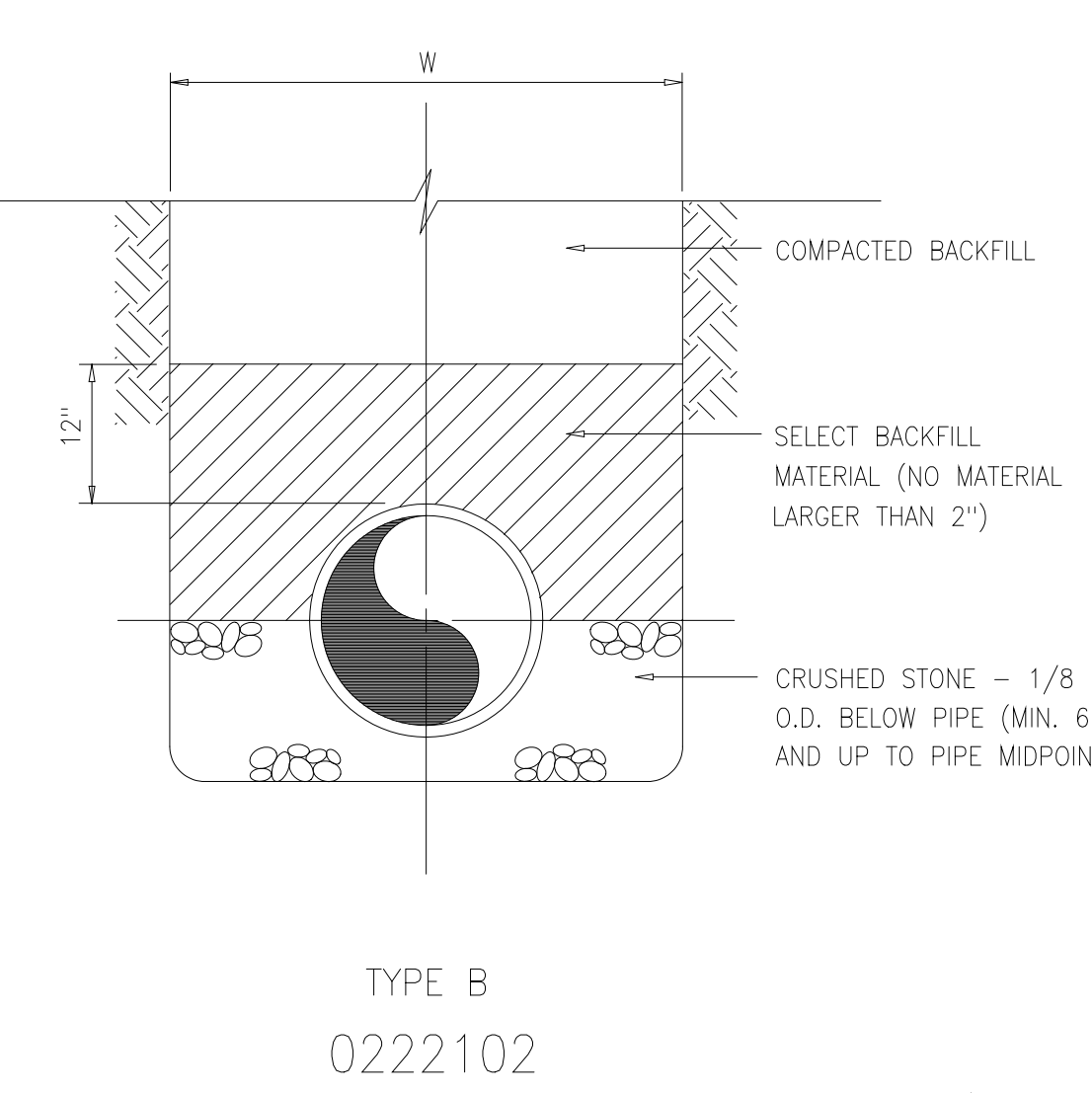
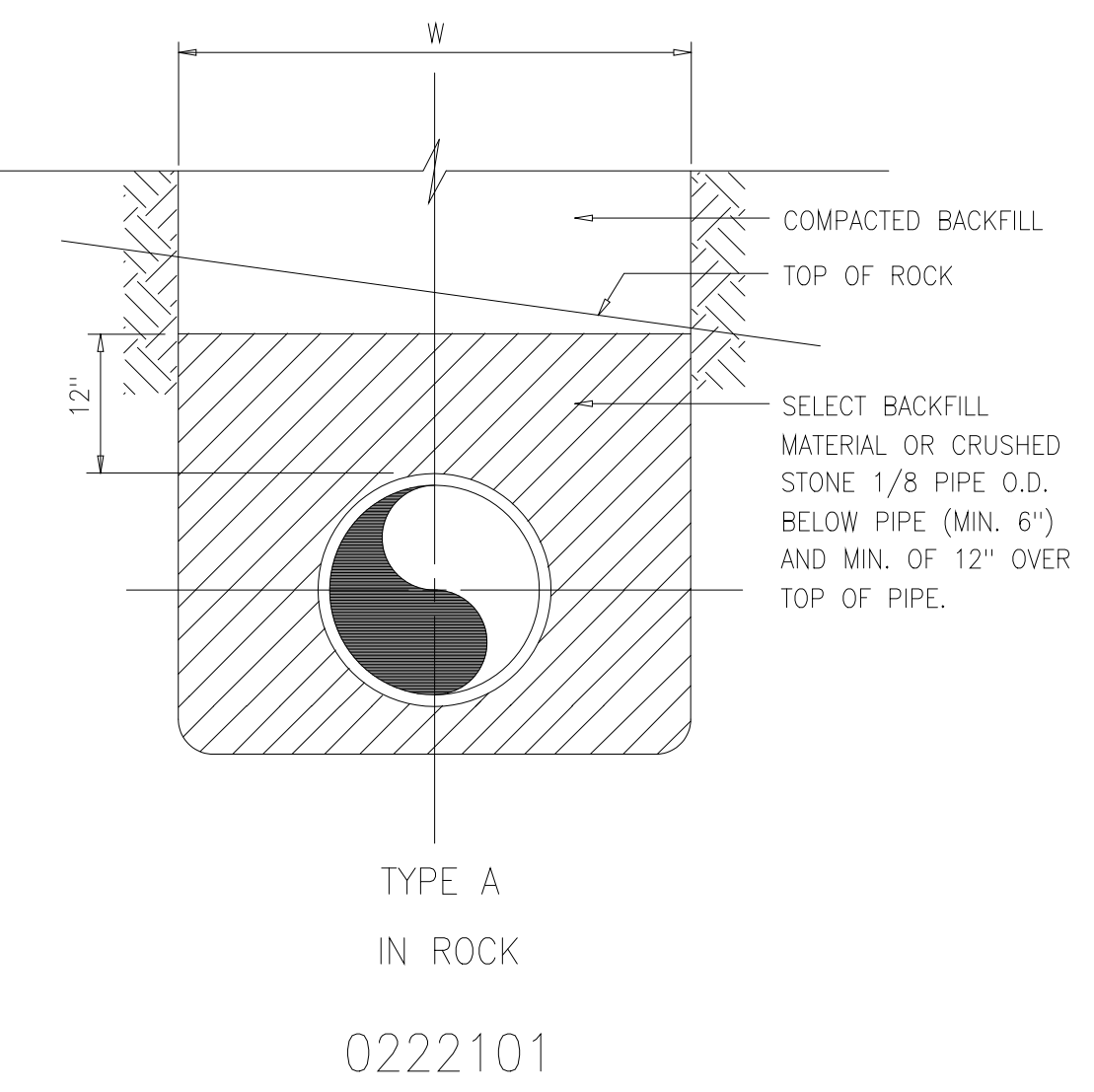
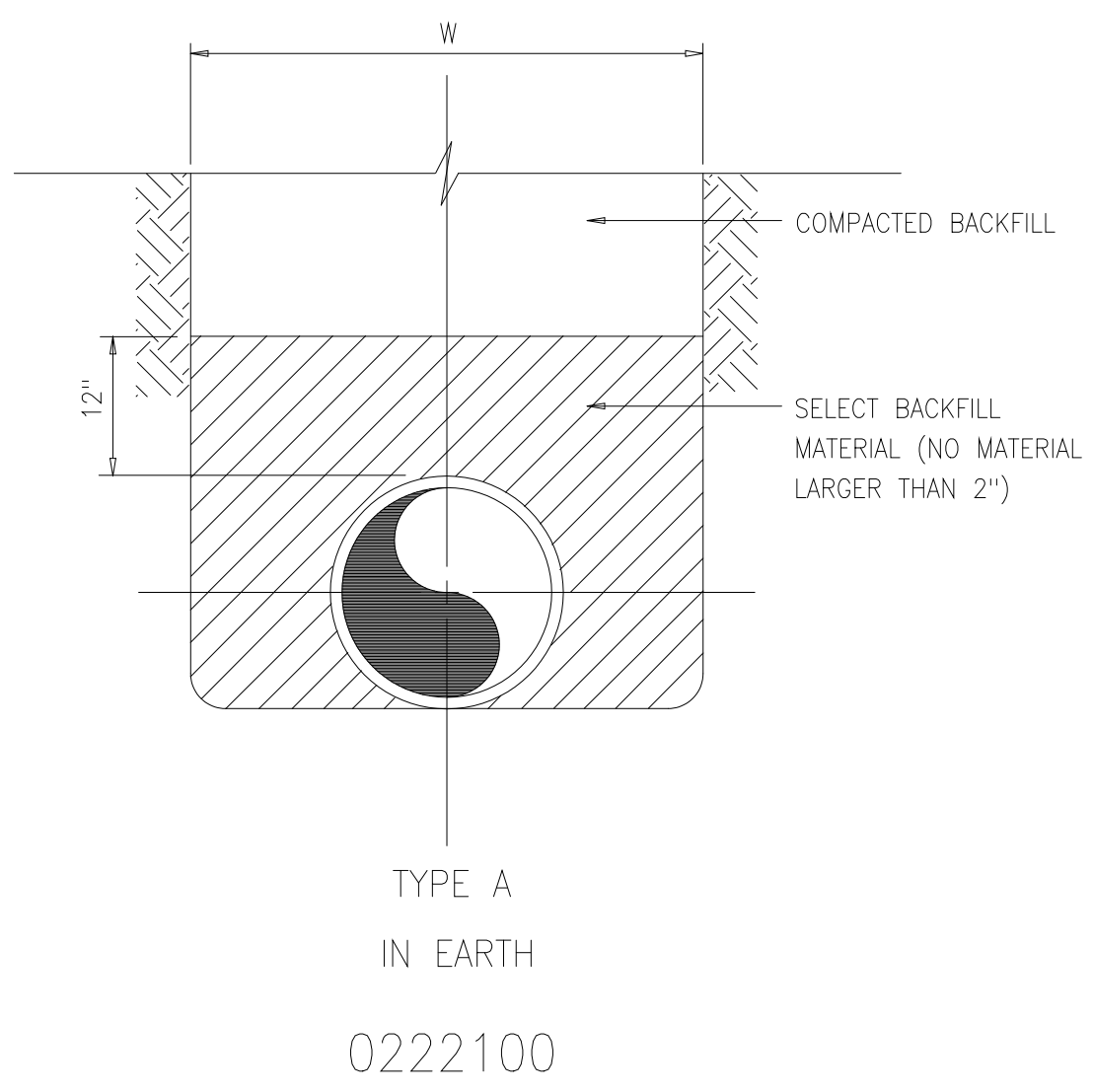
HAZEN AND SAWYER
 Environmental Engineers &
 4011 WestChase Blvd, Raleigh, North Carolina 27607

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 BELTSVILLE, MD 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156

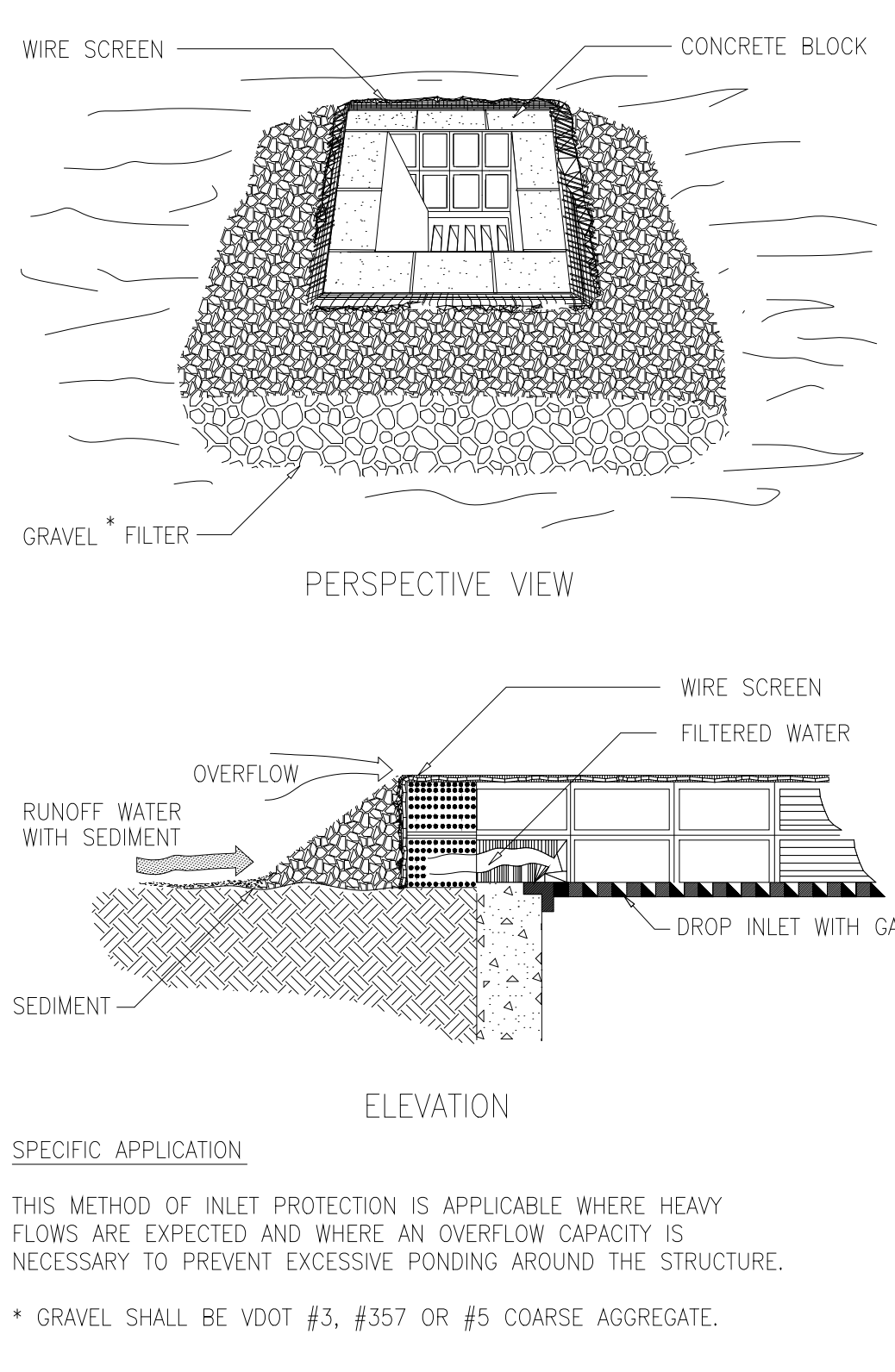
ARLINGTON COUNTY WATER POLLUTION
 CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

BLOWER BUILDING
 ODOR CONTROL AREA
 ELECTRICAL
 LIGHTNING PROTECTION SYSTEM

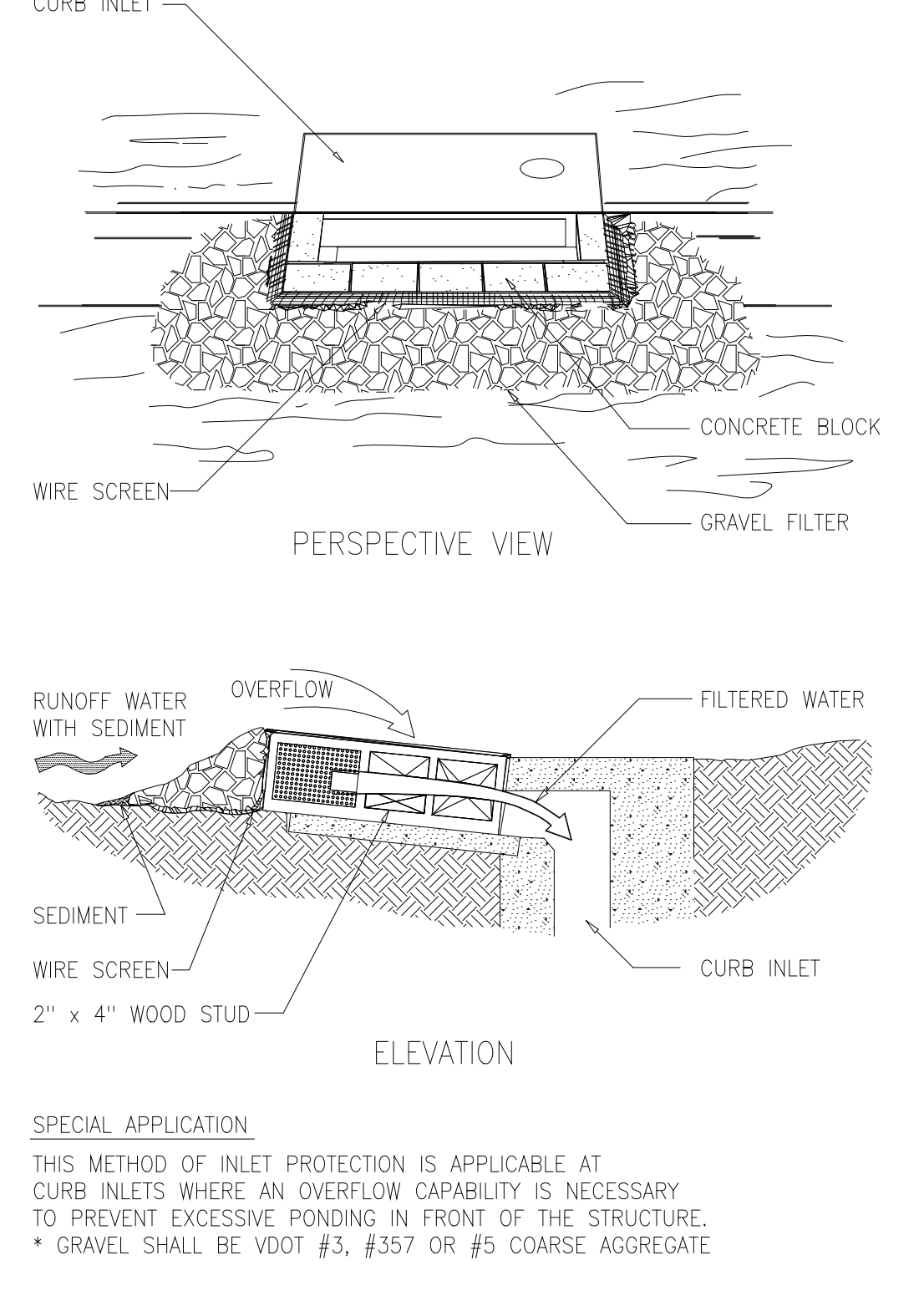
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-WPC
	DRAWING NUMBER E206
	SHEET 82 OF 99



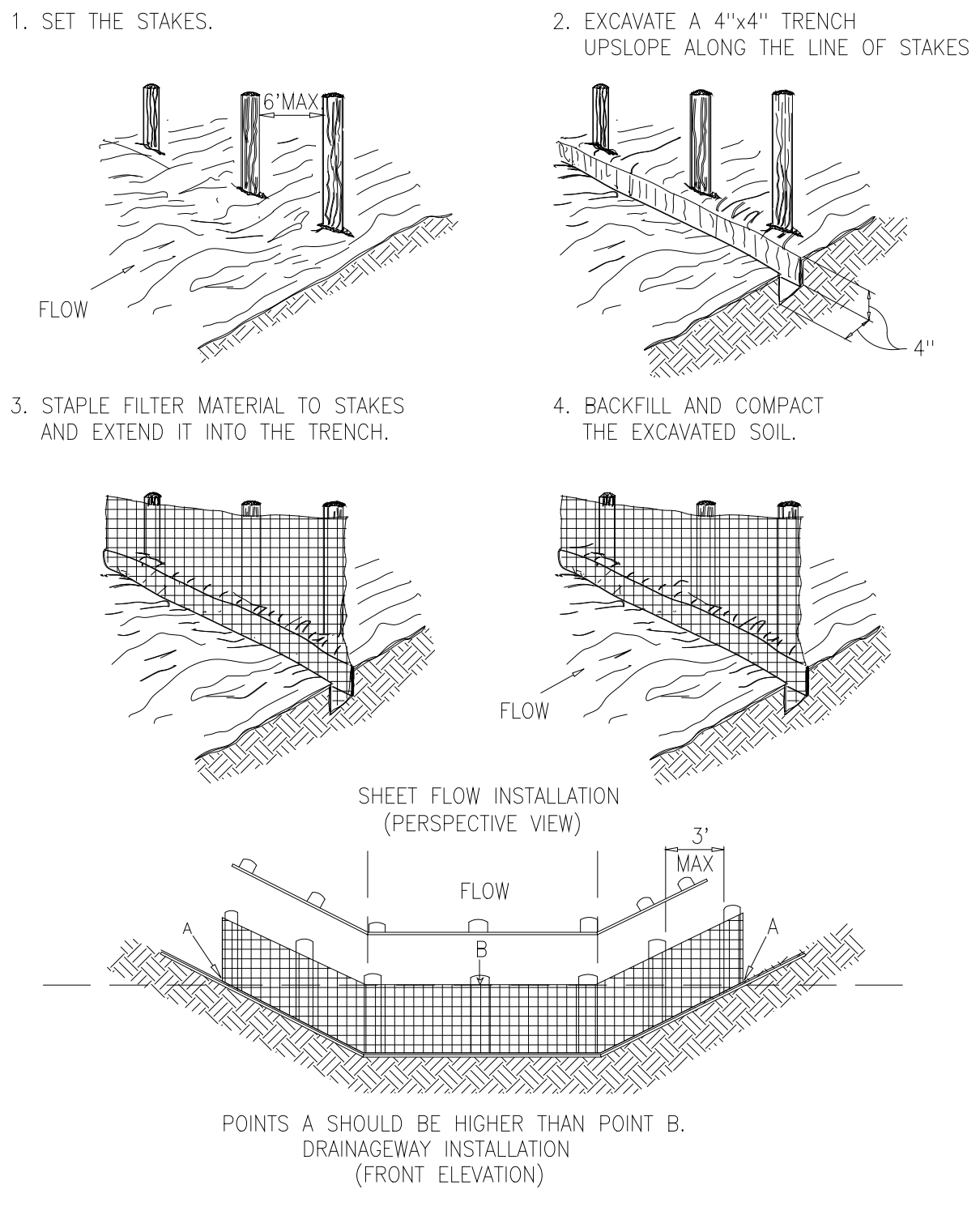
BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER (IP)



BLOCK & GRAVEL CURB INLET SEDIMENT FILTER (IP)

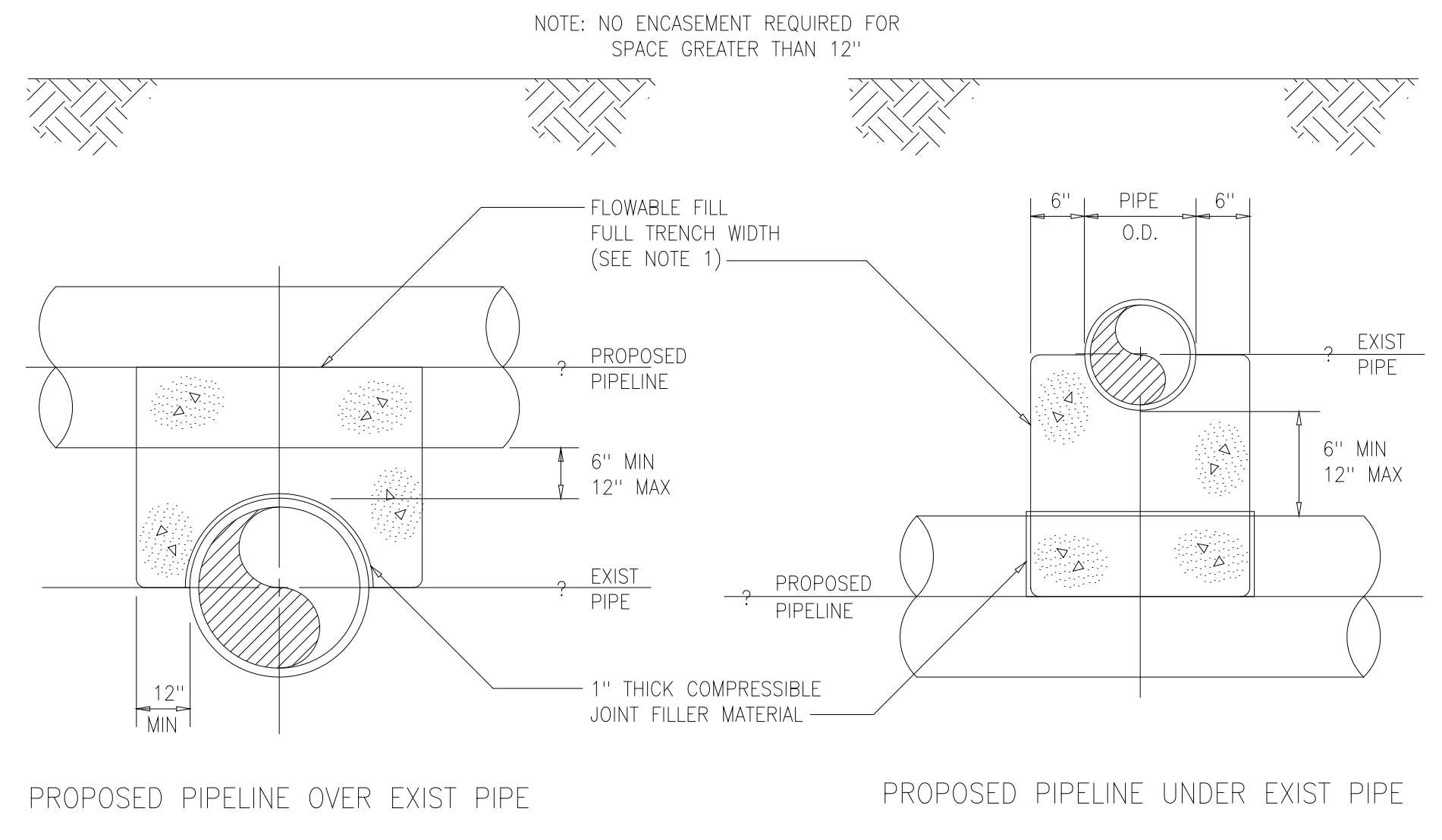


CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT) (SF)



TRENCH EXCAVATION LIMITS	
INTERNAL DIAMETER OF PIPE	W
	WIDTH OF TRENCH
4"-6"	3'-9" W=MIN 2'-0"
8"-10"	3'-9" W=MIN 2'-2"
12"	3'-9" O.D.+2'
14"-16"	4'-2" O.D.+2'
18"	4'-4" O.D.+2'
20"-21"	4'-8" O.D.+2'
24"	4'-11" O.D.+2'
27"	5'-9" O.D.+2'
30"	6'-7" O.D.+2'
36"	7'-4" O.D.+2'
42"	8'-2" O.D.+2'
48"	8'-9" O.D.+2'
54"	9'-4" O.D.+2'
60"	9'-10" O.D.+2'
72"	11'-0" O.D.+2'
78"	11'-8" O.D.+2'
84"	12'-0" O.D.+2'
90"	12'-6" O.D.+2'
96"	13'-0" O.D.+2'
108"	14'-0" O.D.+2'
DEPTH OF CUT	S
	MAXIMUM PAVEMENT REPLACEMENT WIDTH
0'-6"	S=W+4'
>6'-8"	S=W+8'
>8'-10"	S=W+12'
>10'-12"	S=W+16'
>12'-14"	S=W+20'
>14'-16"	S=W+24'
>16'-18"	S=W+28'
>18"	S=W+32'

W = TRENCH WIDTH AT BOTTOM OF PIPE. TRENCH SIDE SLOPES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS.



0222118

0227000V

0227001V

0227002V

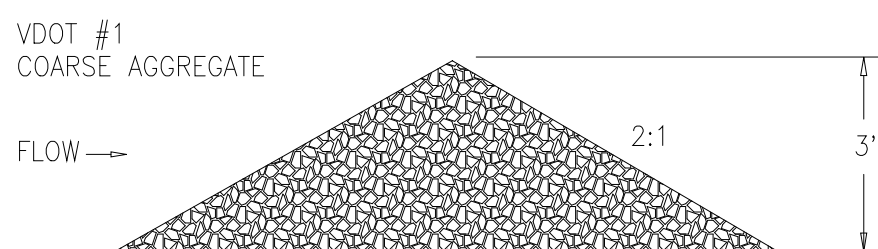
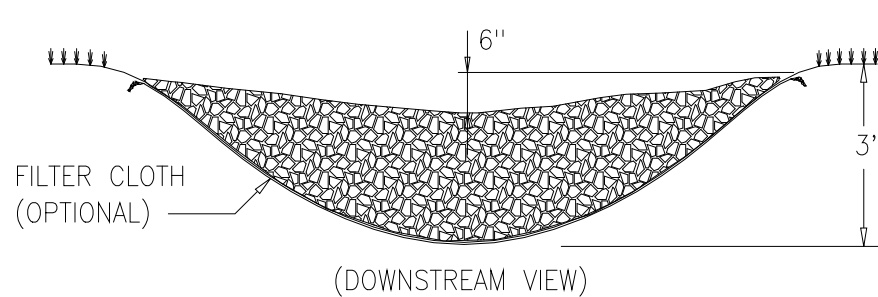
DESIGNED: ASG	HAZEN AND SAWYER Environmental Engineers & 4011 WestChase Blvd, Raleigh, North Carolina 27607	PBS&S Scientists 12101 INDIAN CREEK COURT BELTSVILLE, MD 20705 TELEPHONE: (301) 210-6800 FAX: (301) 210-4156	ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT ODOR CONTROL IMPROVEMENTS	MISCELLANEOUS STANDARD DETAILS	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
DRAWN: FXP					H & S JOB NUMBER: 30313	
CHECKED: CAS					CONTRACT NUMBER: 2000-01-WPC	
PROJ. ENGR.: ASG					DRAWING NUMBER: D001	
APPROVED:					SHEET 83 OF 99	

NOTES:

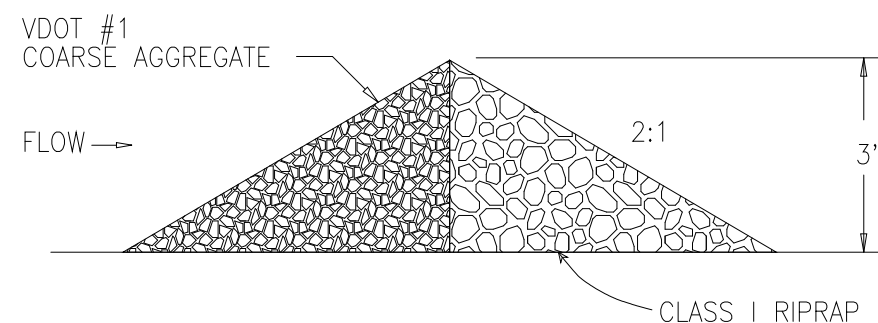
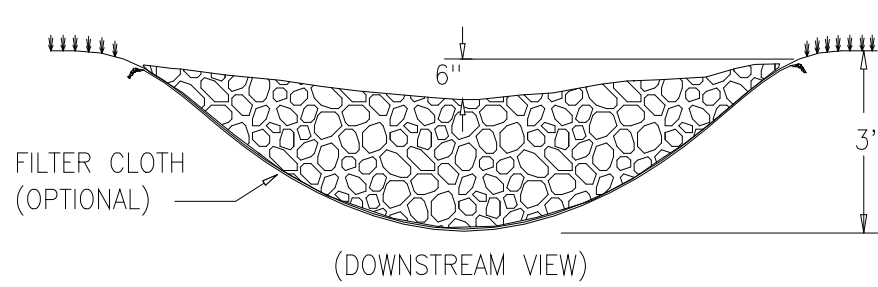
1 REFER TO SPECIFICATION SECTION 02276 FOR MATERIALS AND INSTALLATION

ROCK CHECK DAM (CD)

2 ACRES OR LESS OF DRAINAGE AREA:

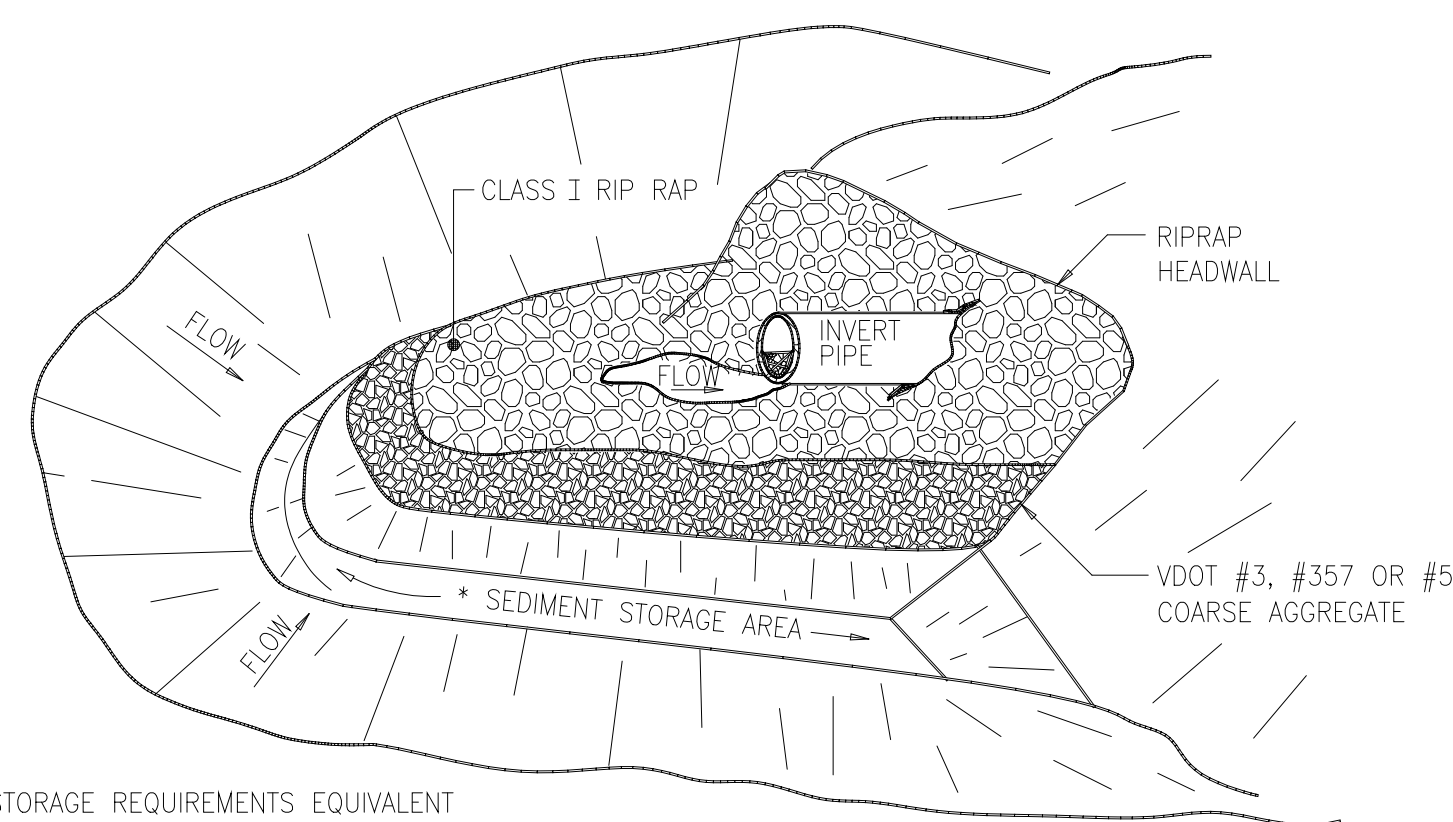


2-10 ACRES OF DRAINAGE AREA:



0227003V

CULVERT INLET SEDIMENT TRAP (CIP)

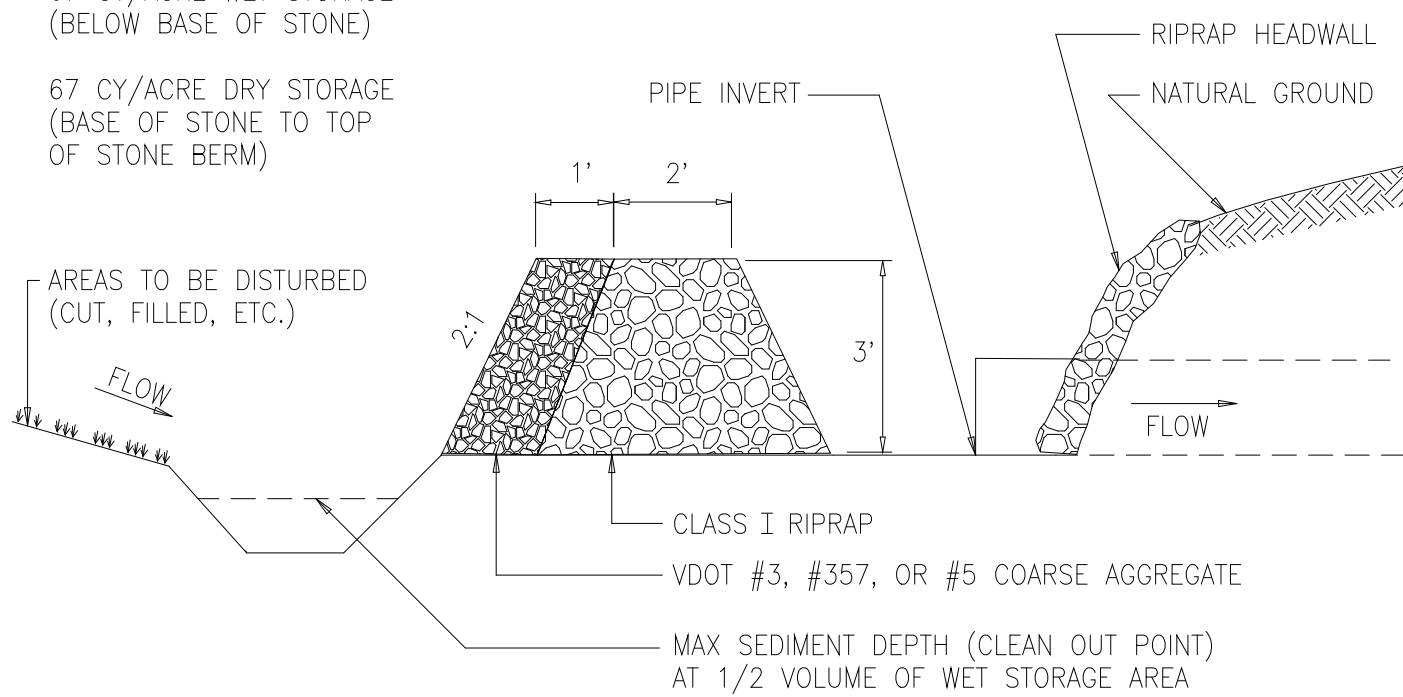


* STORAGE REQUIREMENTS EQUIVALENT TO THAT OF TEMPORARY SEDIMENT TRAP, STD & SPEC 3.13

67 CY/ACRE WET STORAGE (BELOW BASE OF STONE)

67 CY/ACRE DRY STORAGE (BASE OF STONE TO TOP OF STONE BERM)

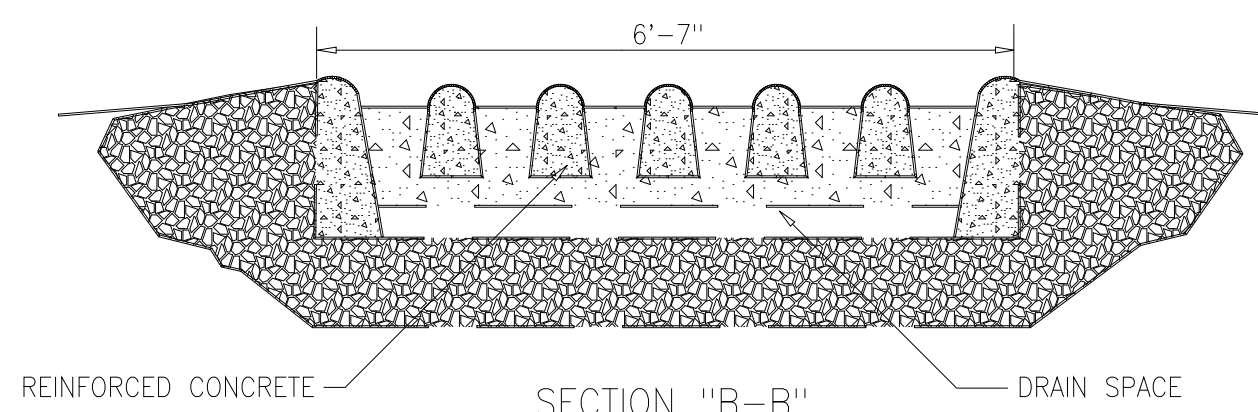
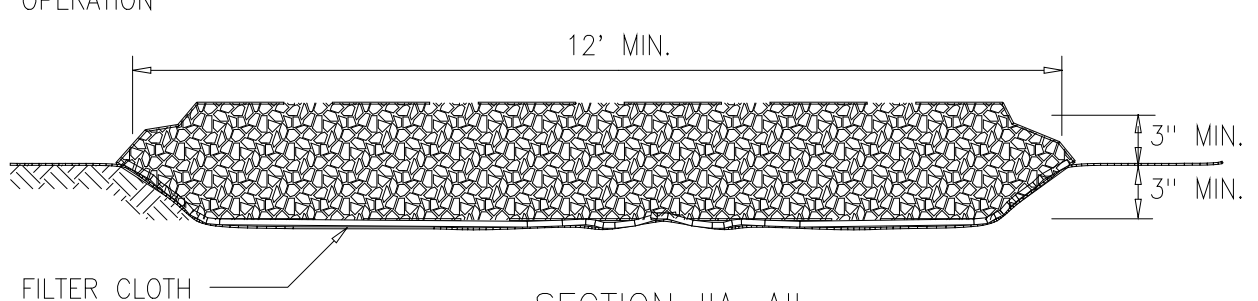
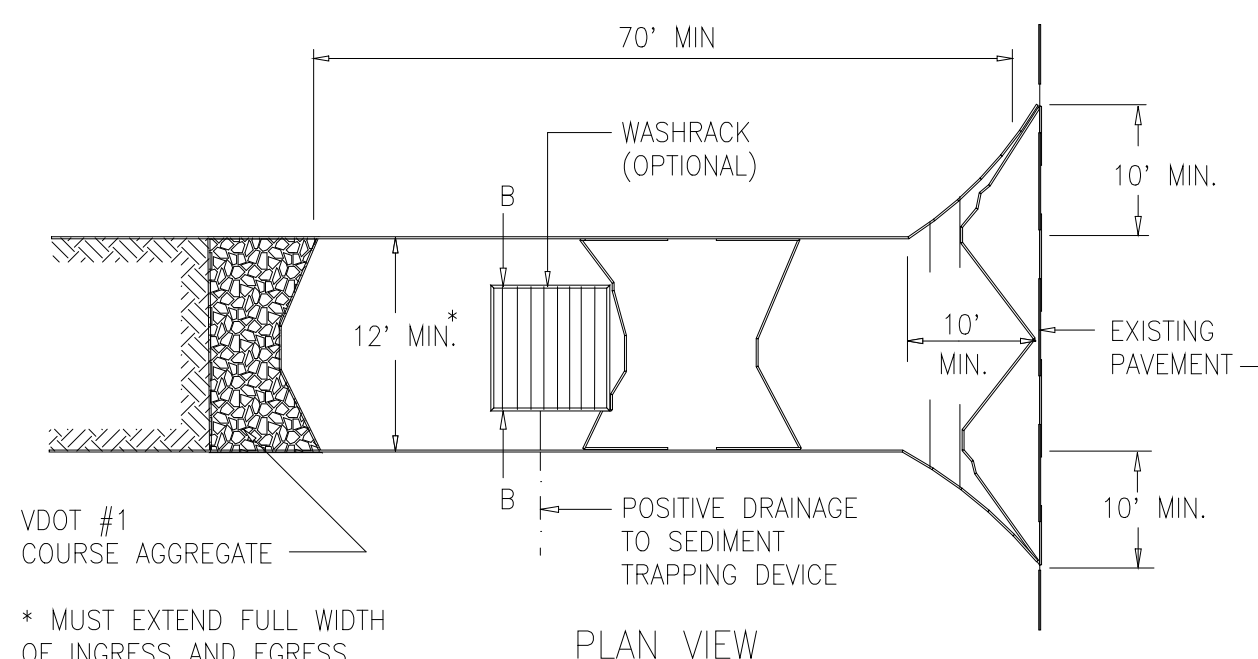
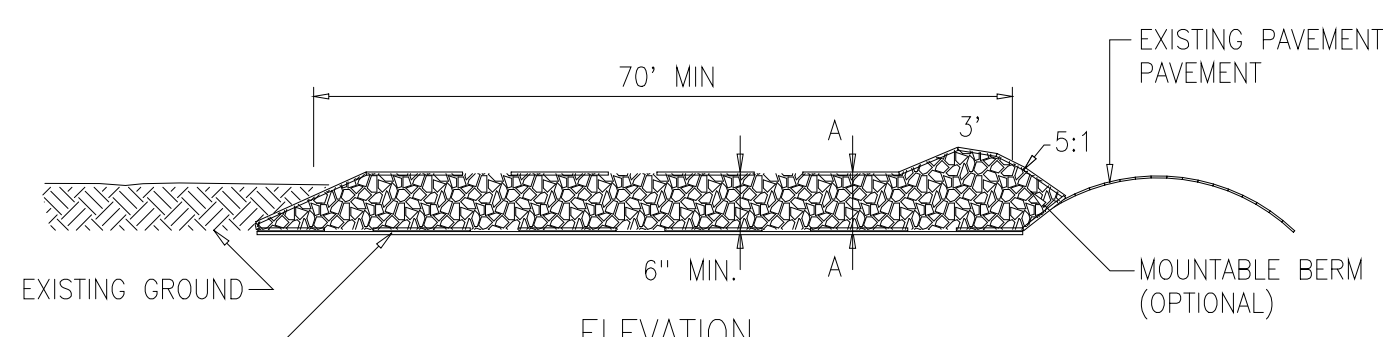
PERSPECTIVE VIEW



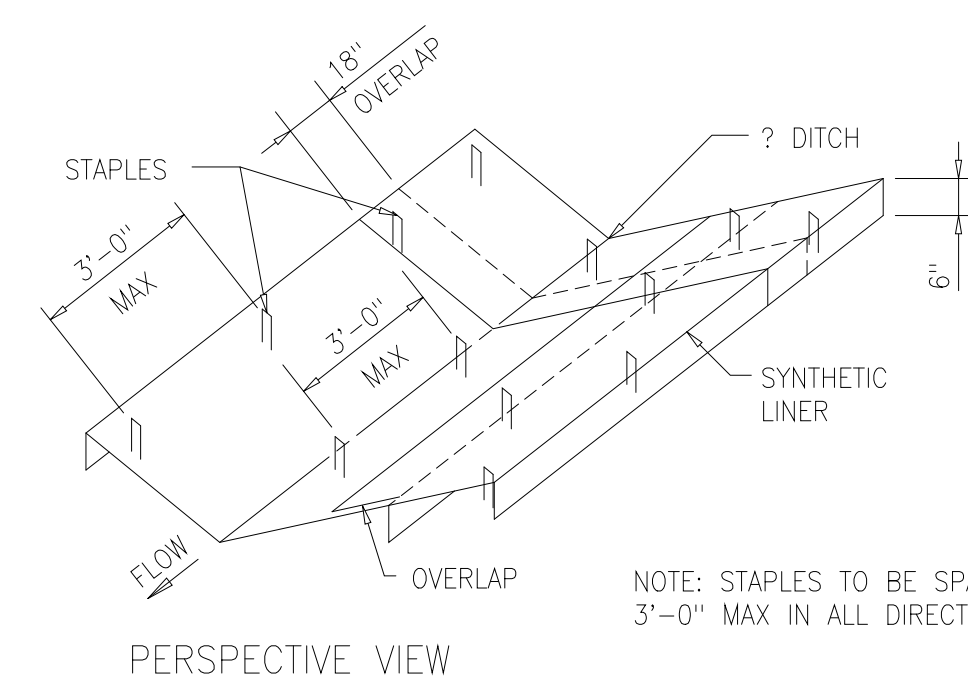
ELEVATION

0227016V

STONE CONSTRUCTION ENTRANCE (CE)

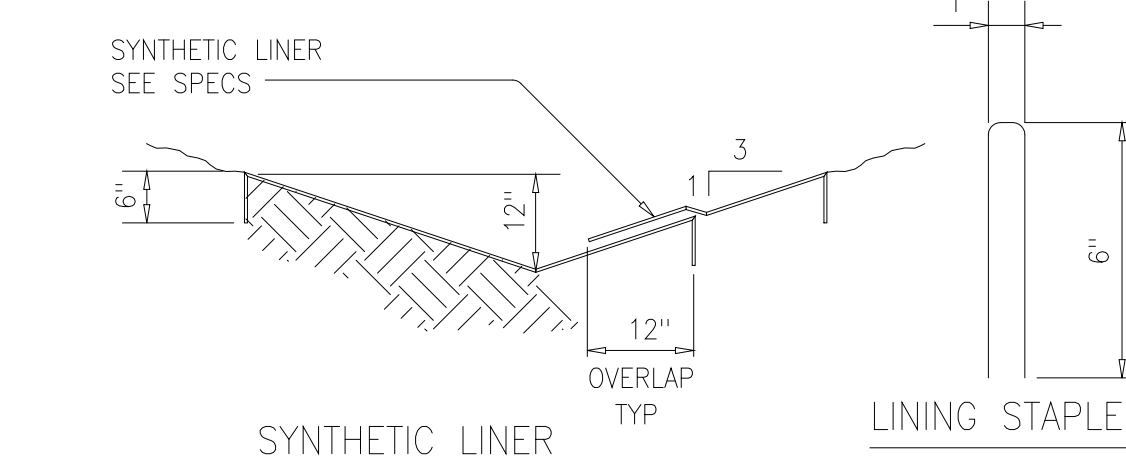


0227017V



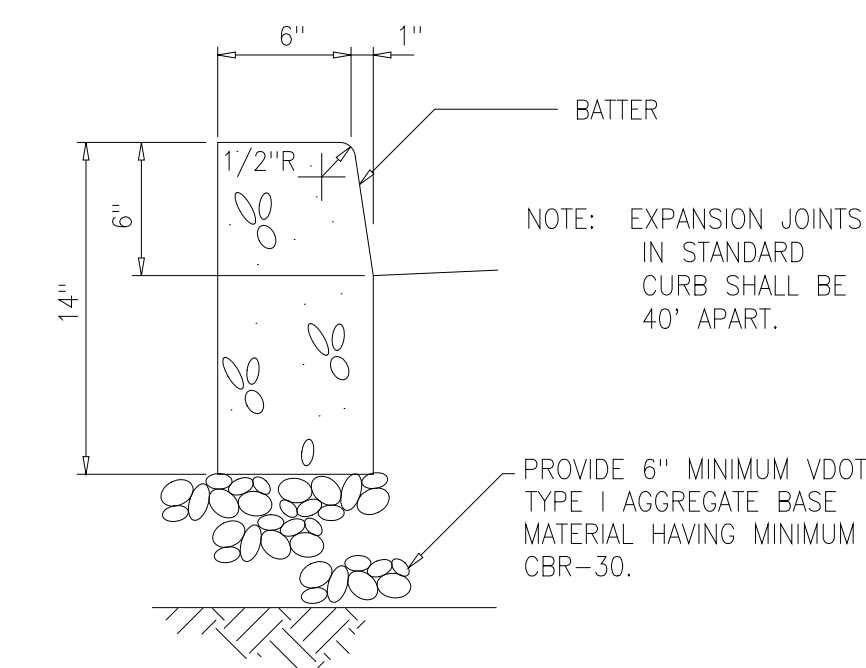
PERSPECTIVE VIEW

NOTE: STAPLES TO BE SPACED AT 3'-0" MAX IN ALL DIRECTIONS.

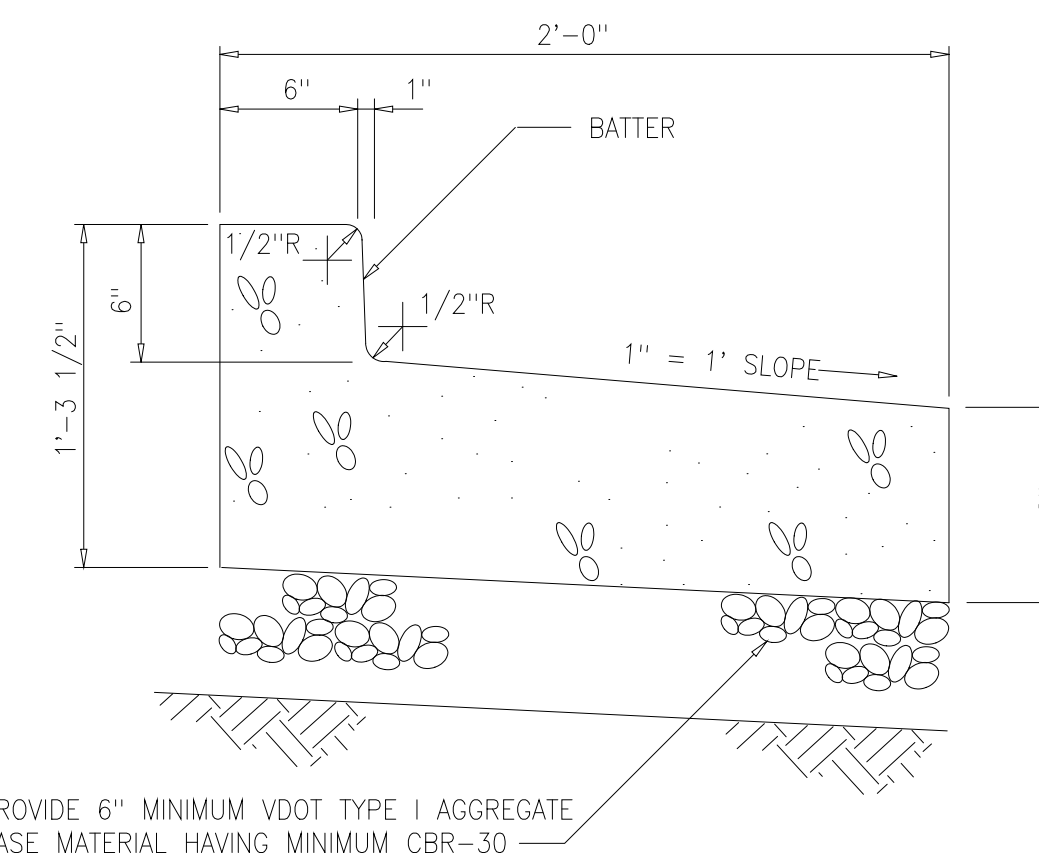


SYNTHETIC LINER

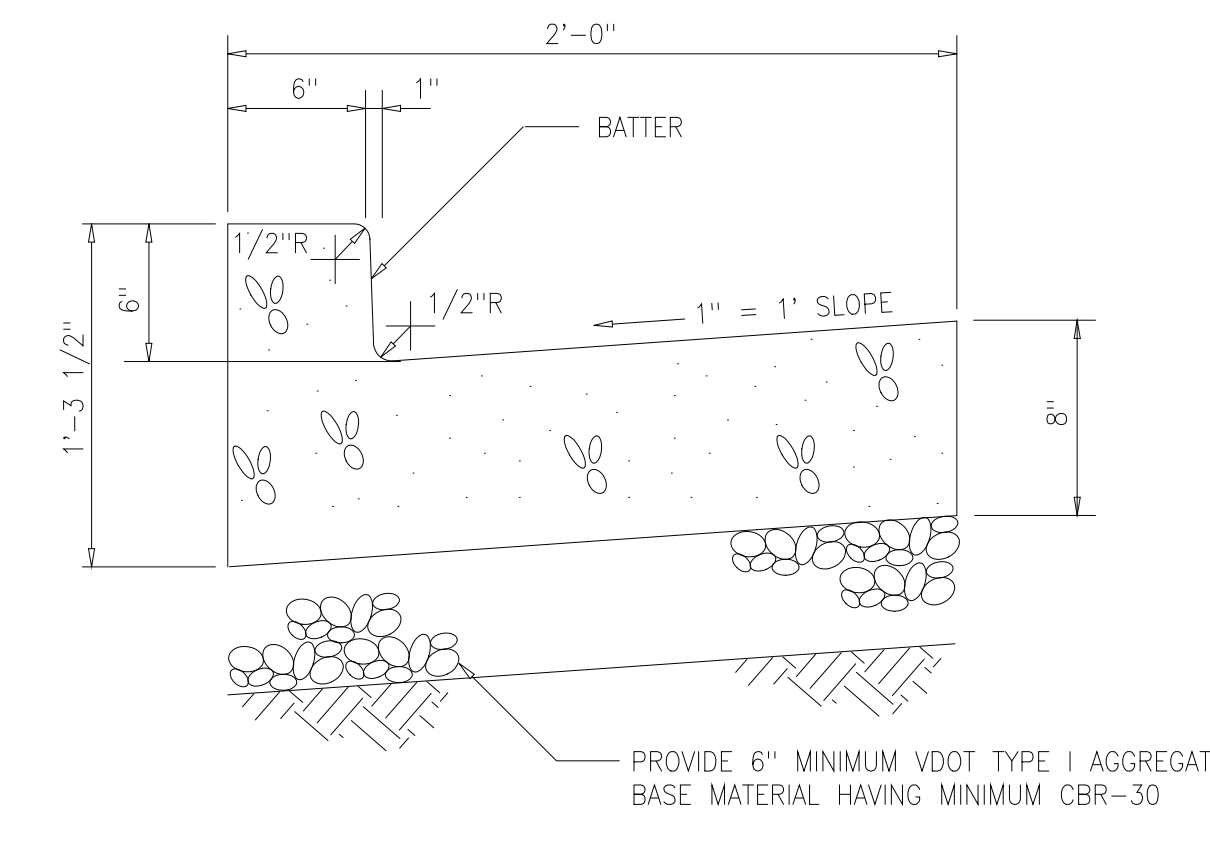
0227014



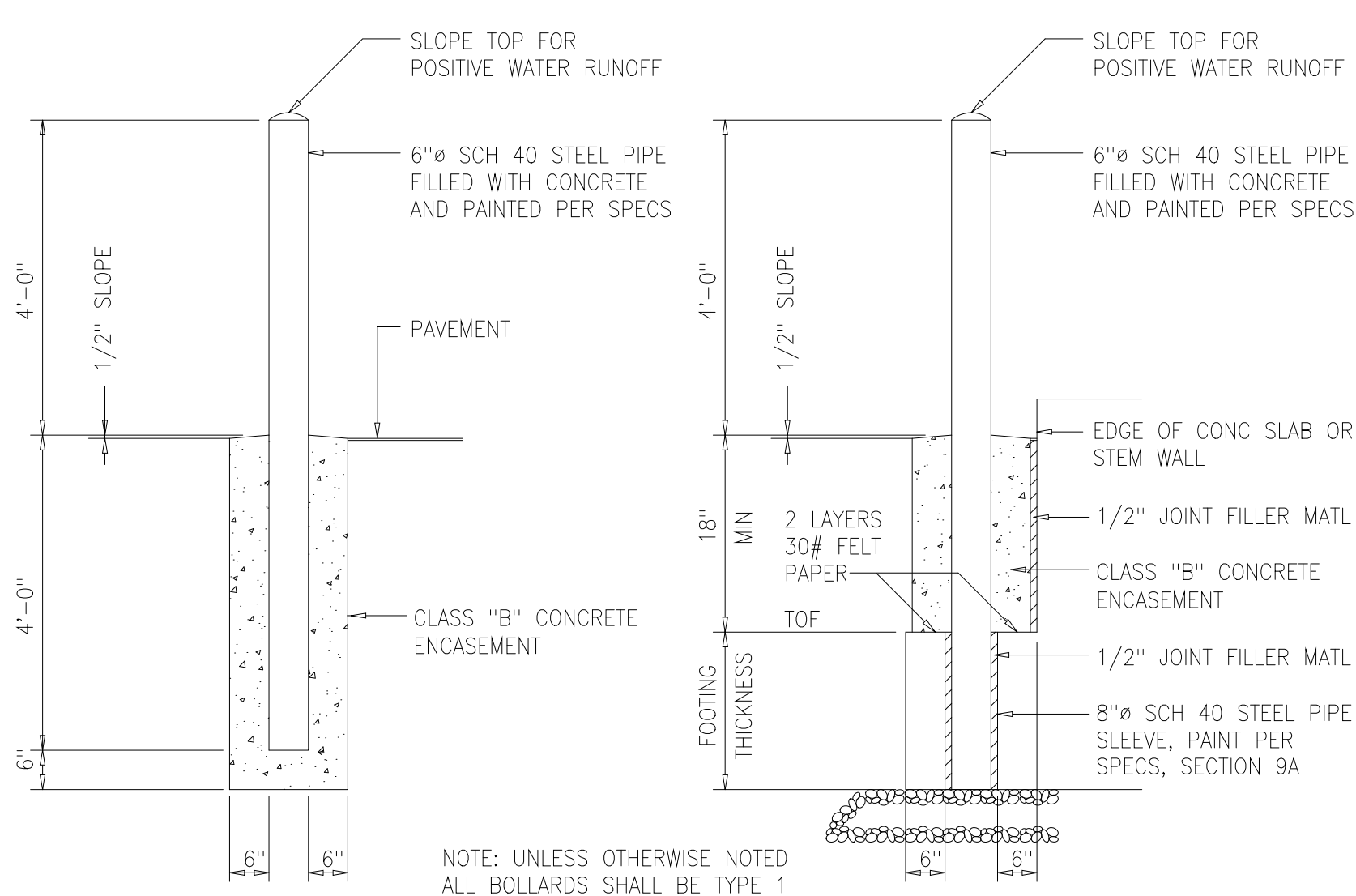
0242000B



0242000A



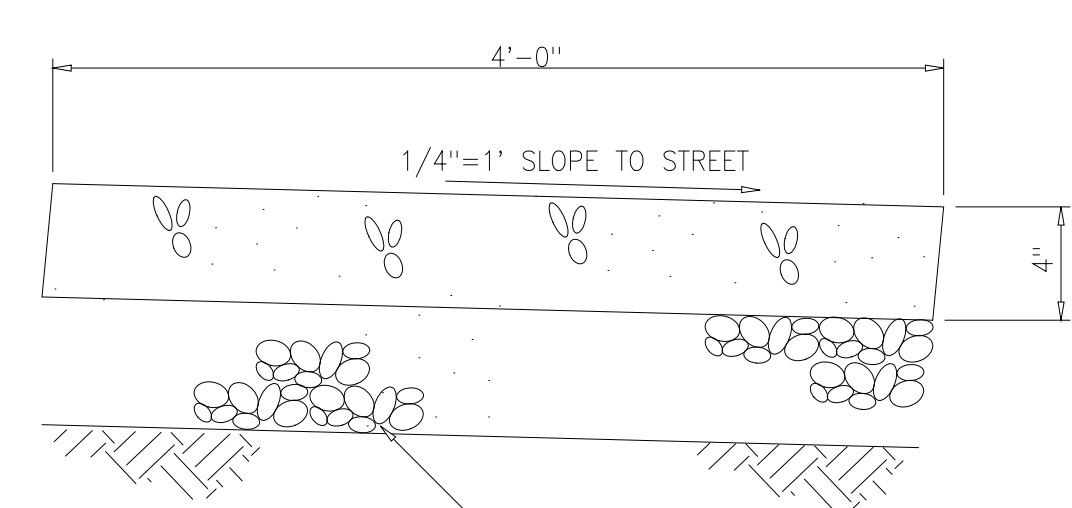
0242000



BOLLARD TYPE 1

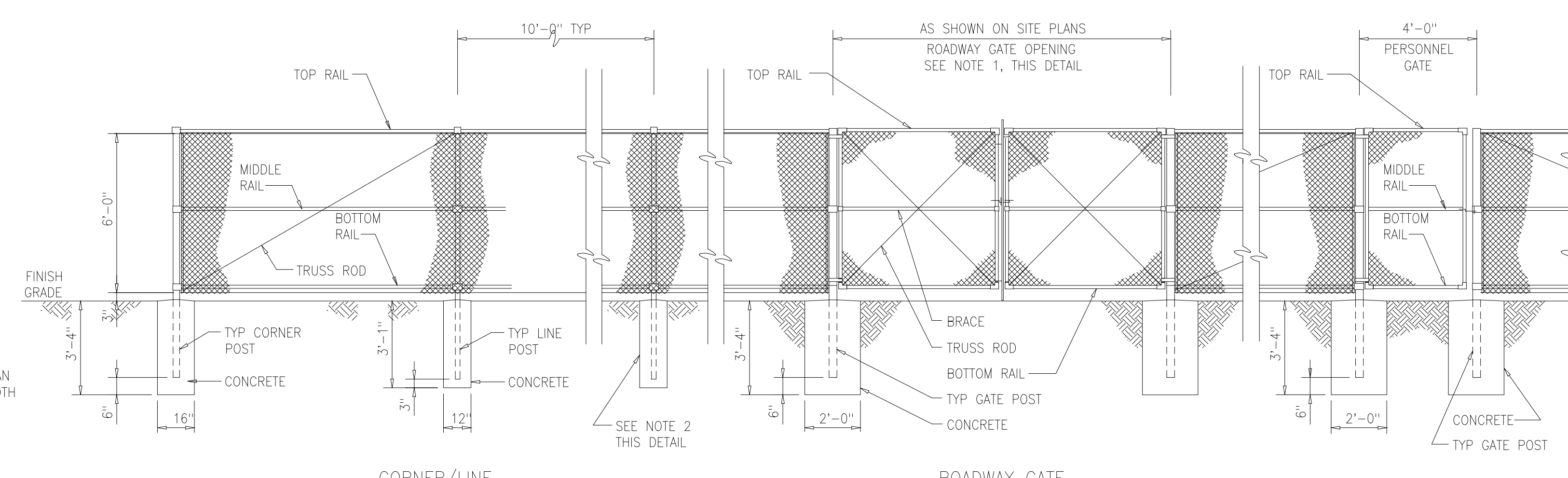
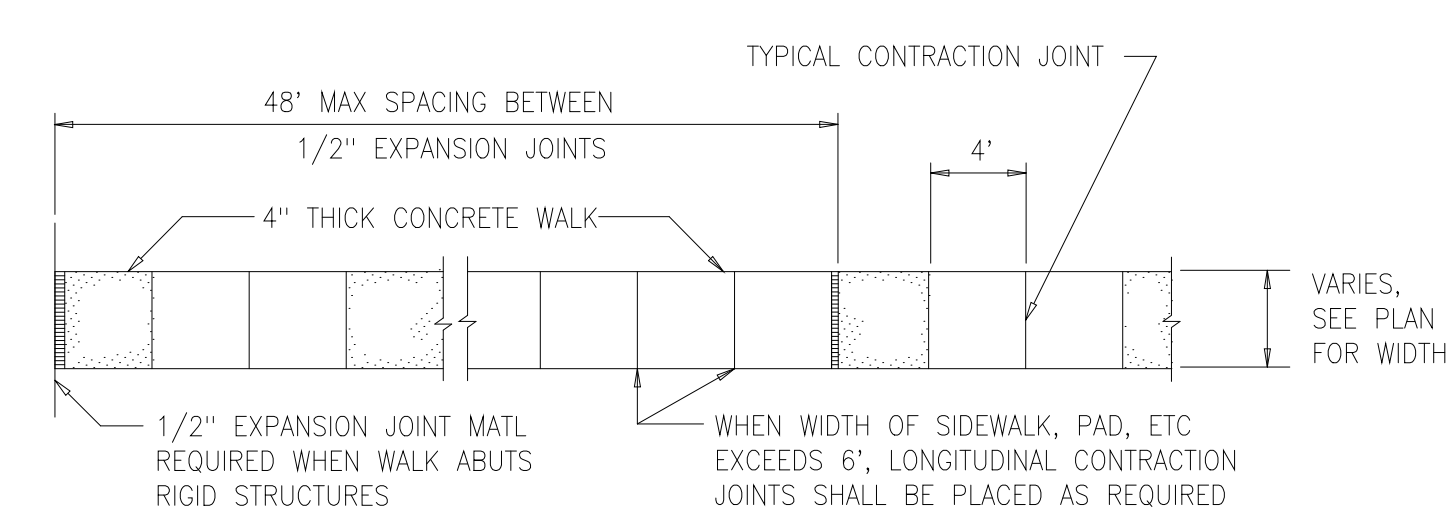
BOLLARD TYPE 2

0245100



TYPICAL CONCRETE WALKWAY

0245000



CORNER/LINE

CHAIN LINK FENCE

ROADWAY GATE

PERSONNEL GATE

0244400R

NOTES: 1. PROVIDE LATCHING DEVICES TO HOLD GATES IN OPEN POSITION.
2. IF ROCK IS ENCOUNTERED WHEN SETTING POSTS, DRILL HOLES 4 INCHES LARGER IN DIAMETER THAN POSTS AND BACKFILL TO GRADE WITH CLASS "B" CONCRETE.

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ. ENGR.	ASG
NO.	ISSUED FOR
	DATE
	BY
	APPROVED

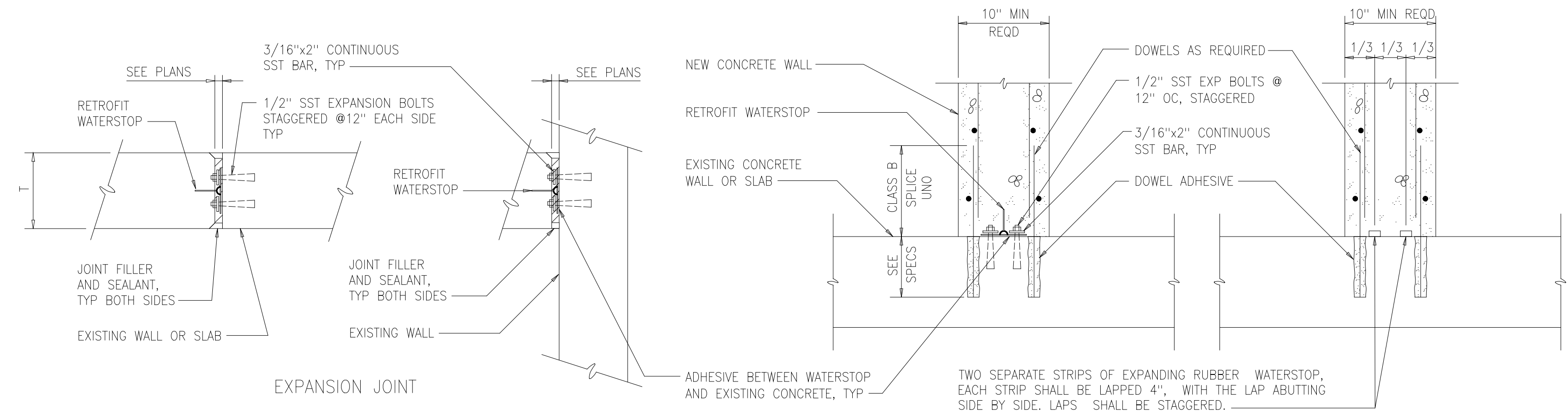
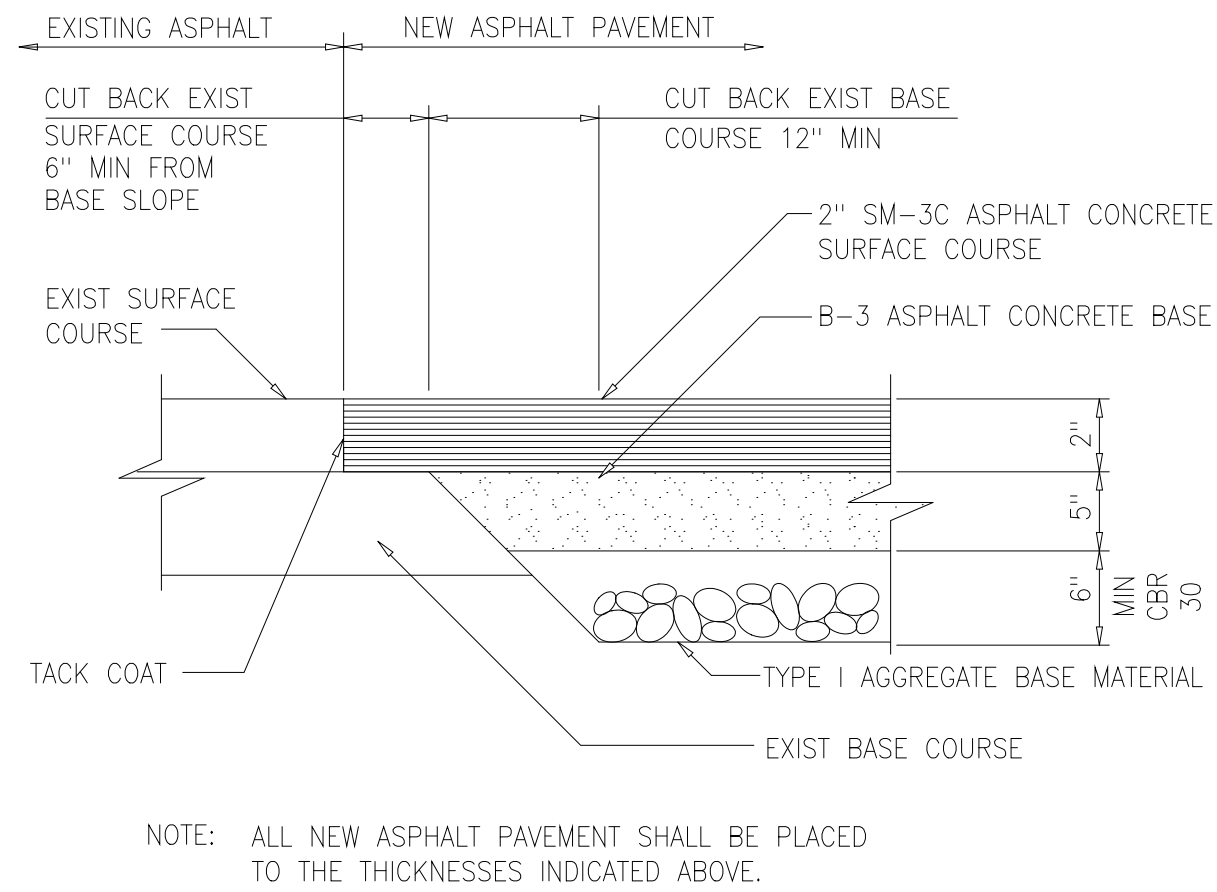
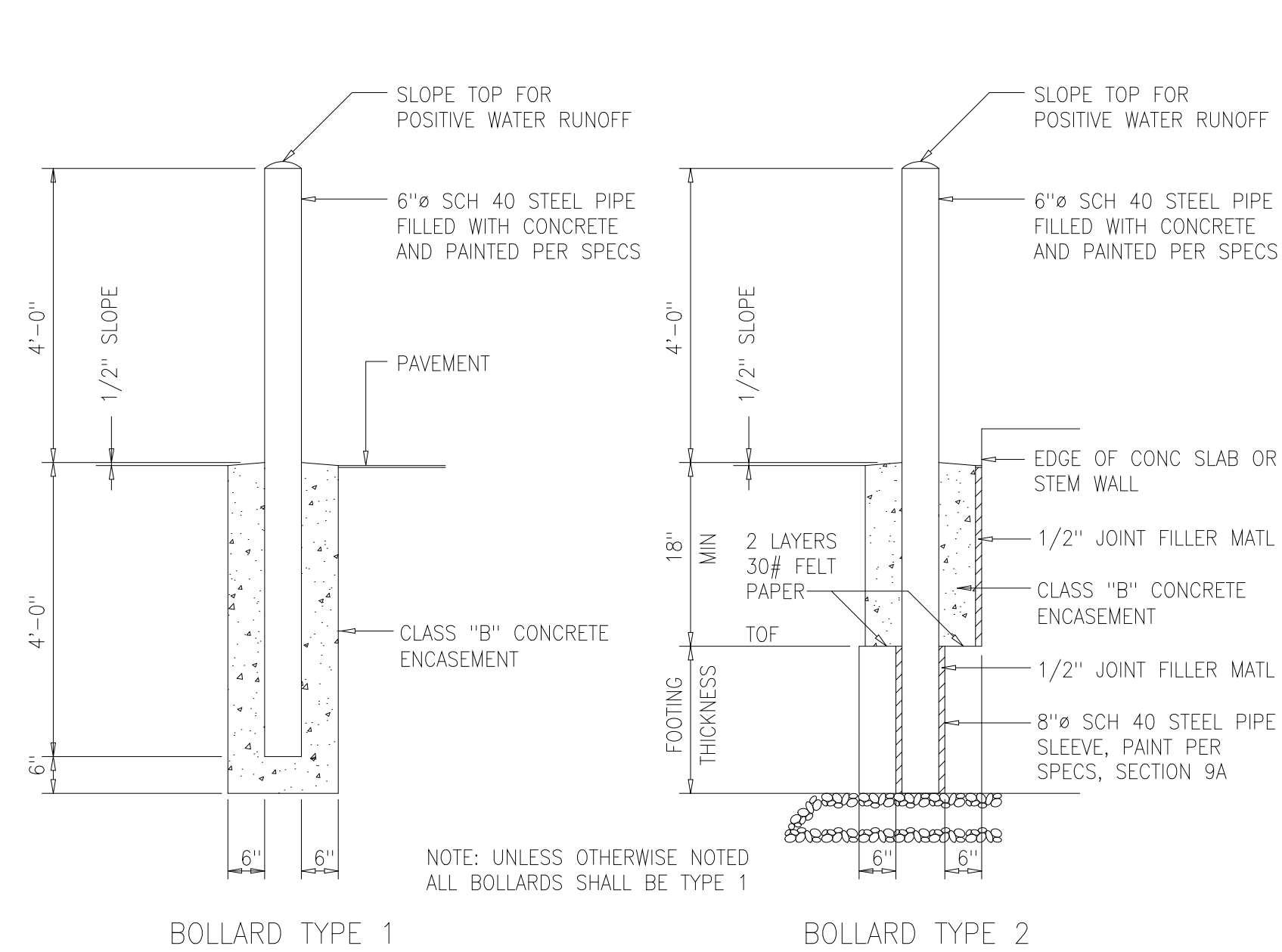
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Scientists
12101 INDIAN CREEK COURT
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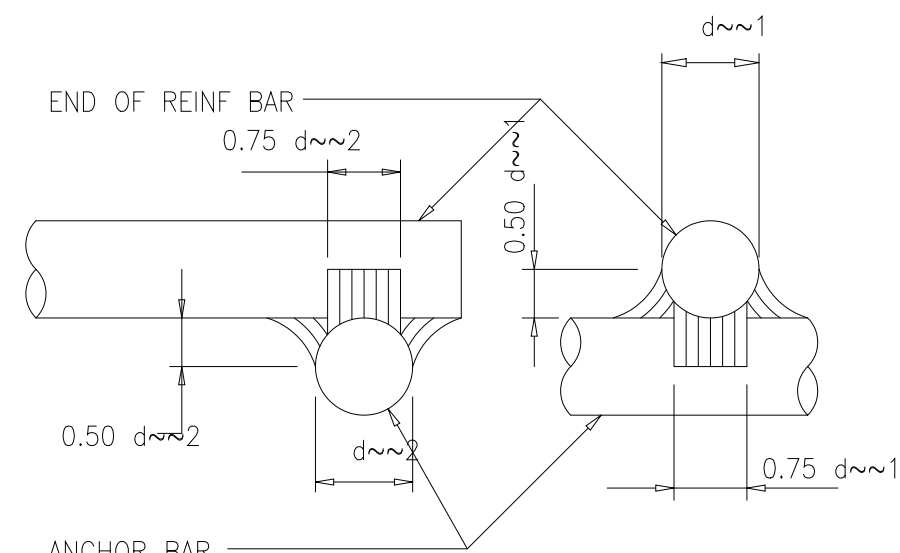
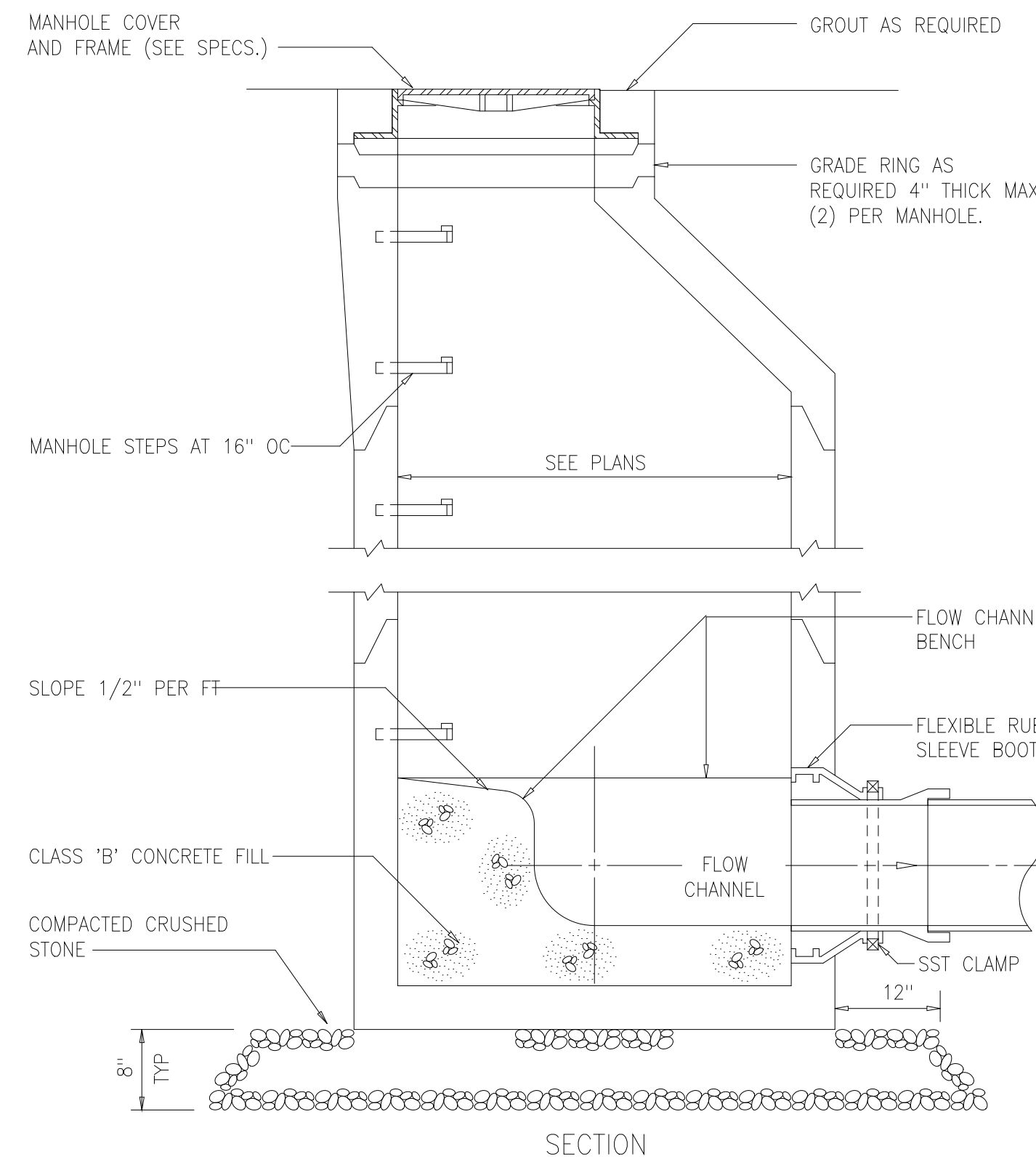
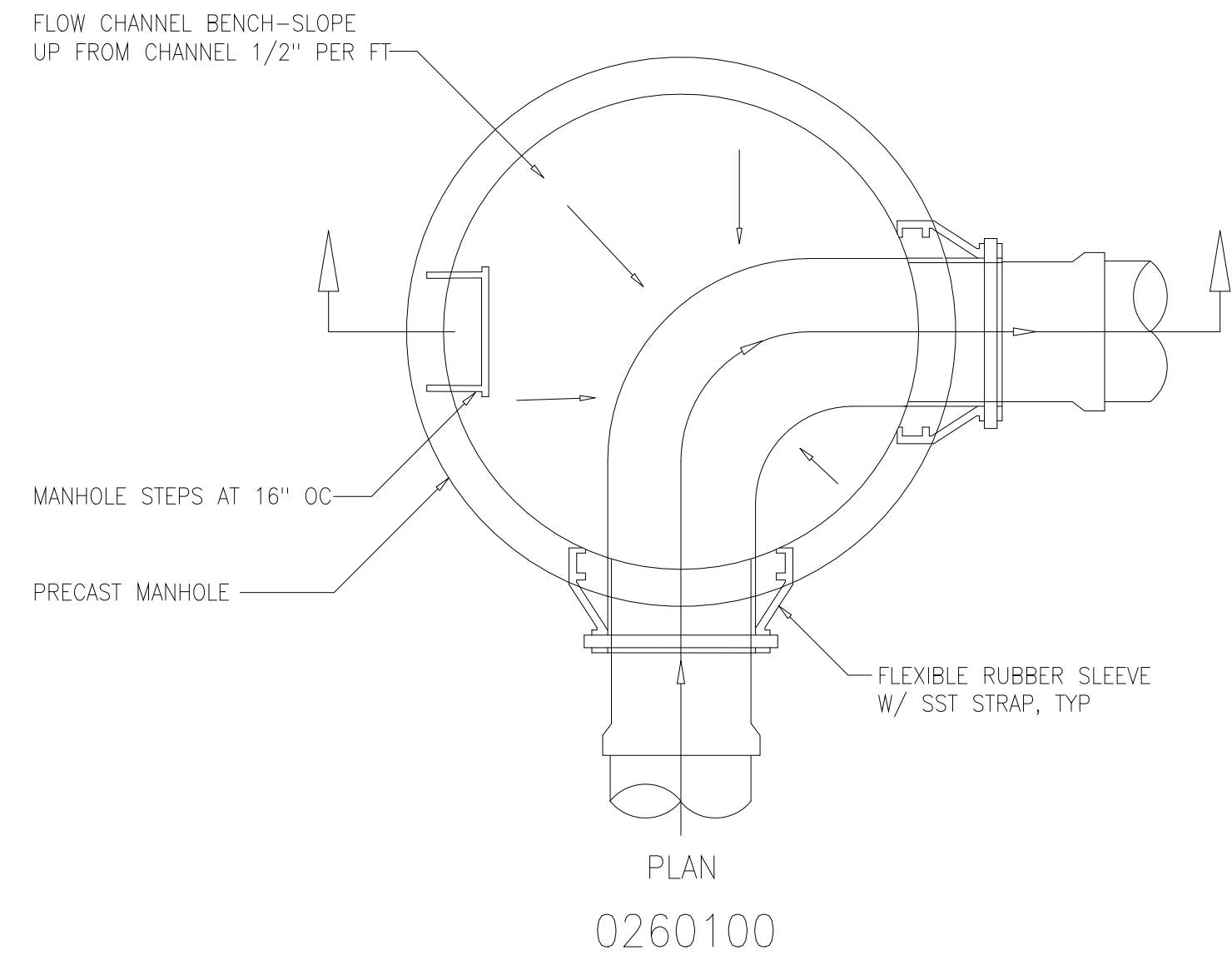
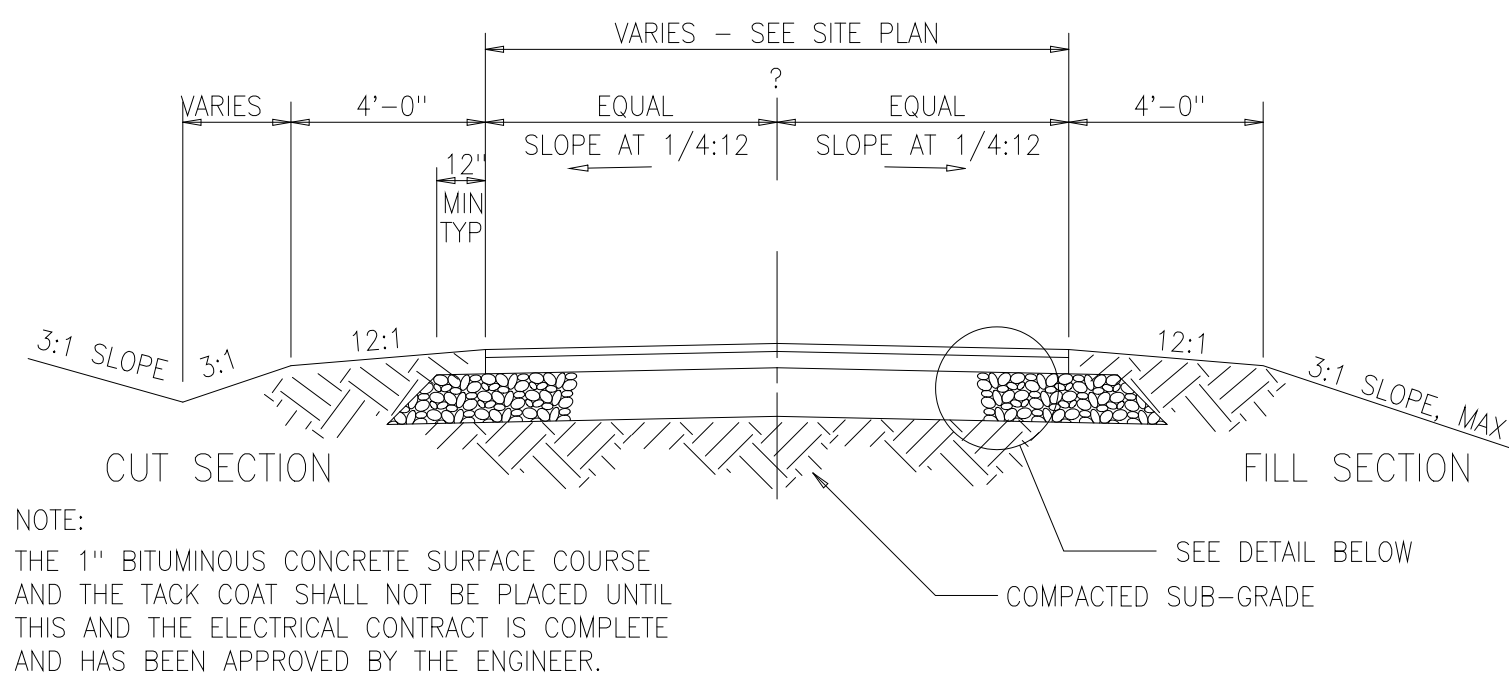
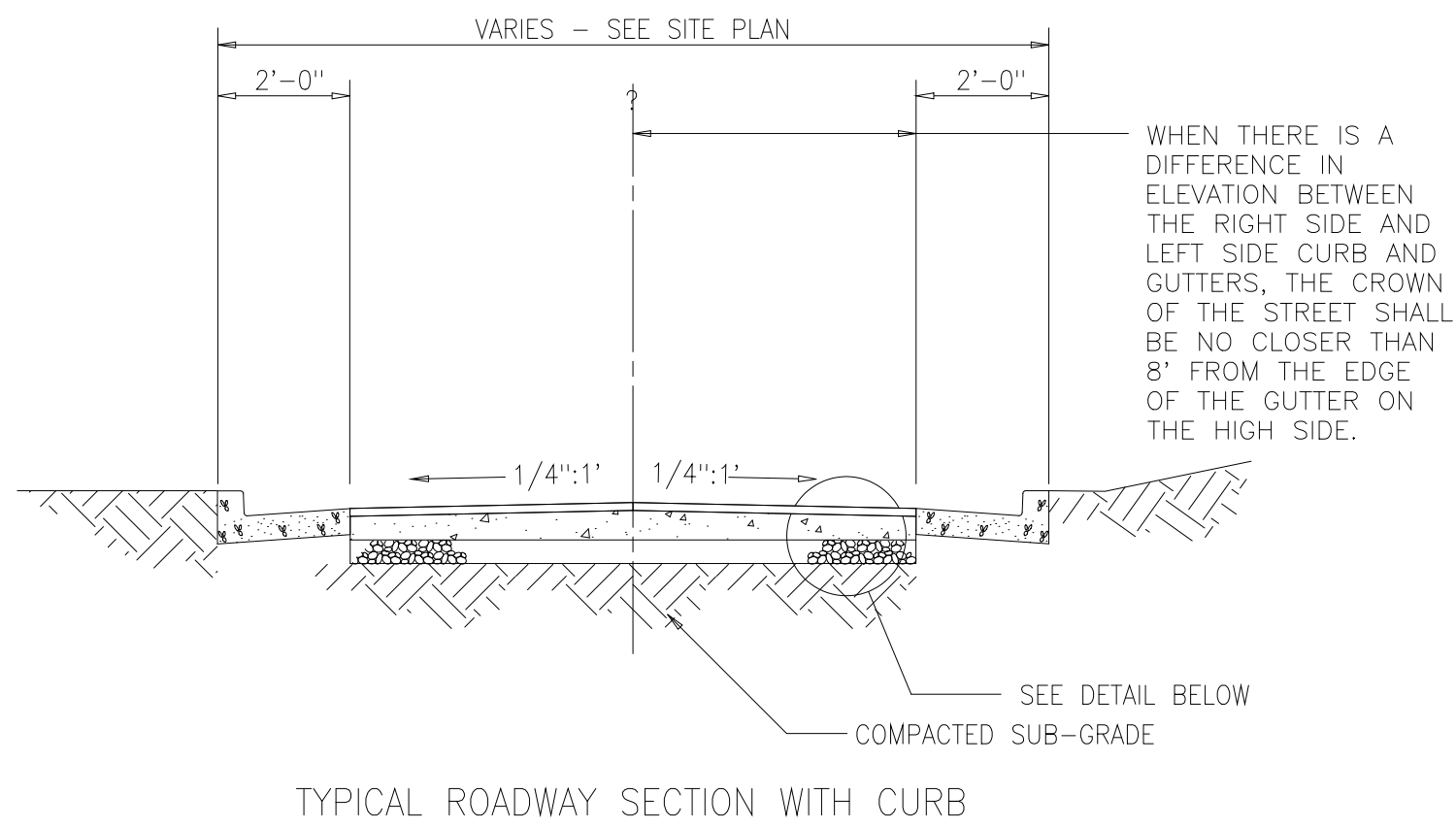
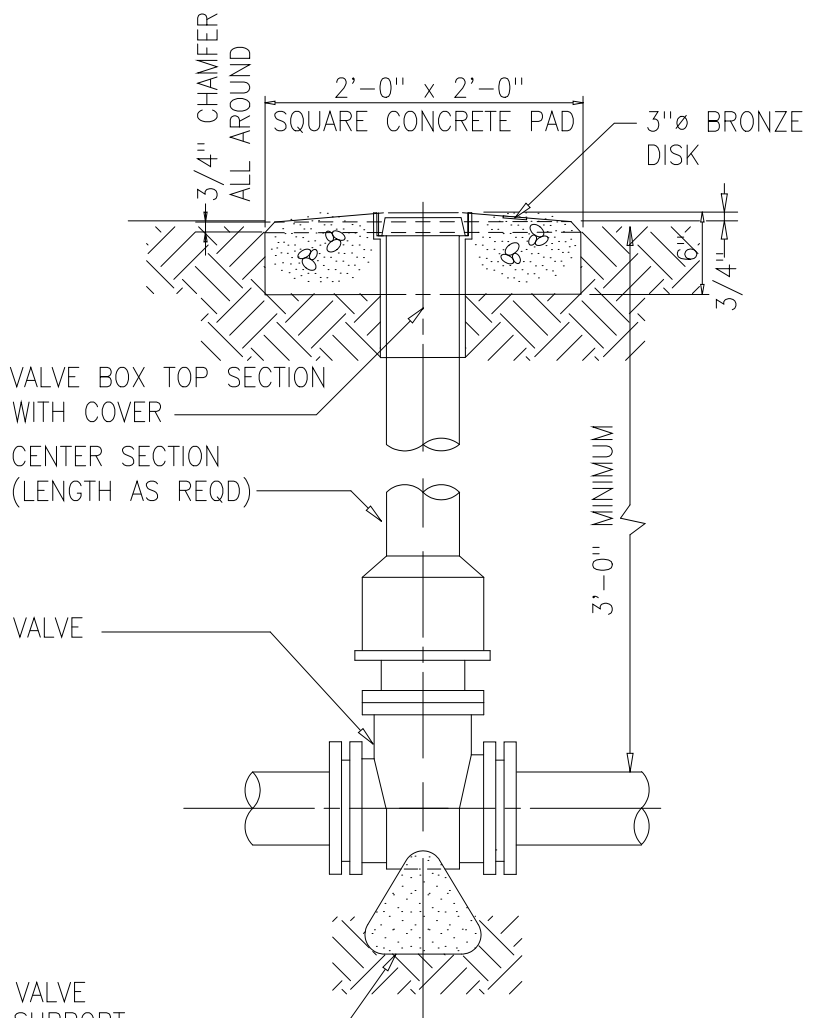
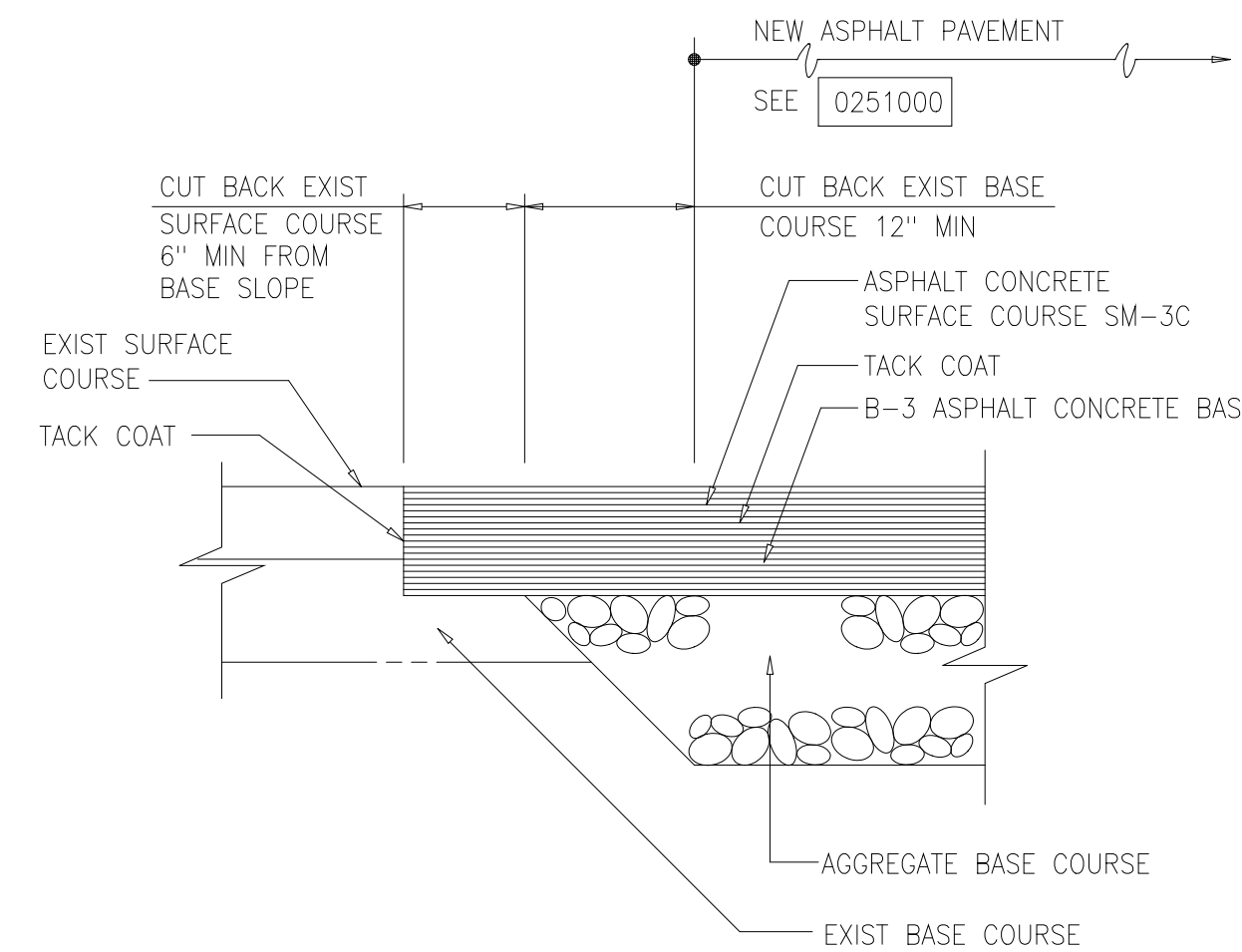
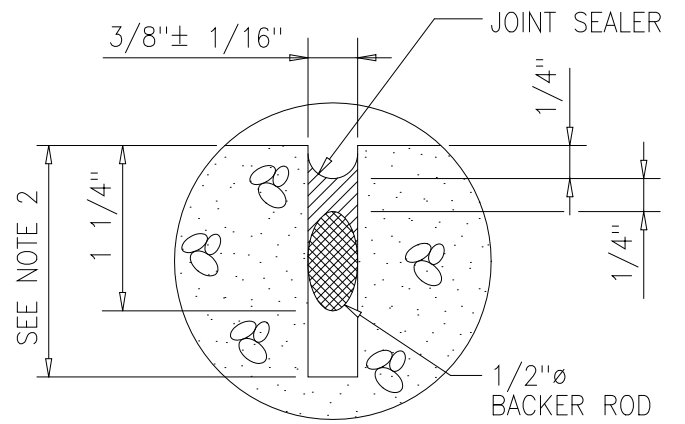
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

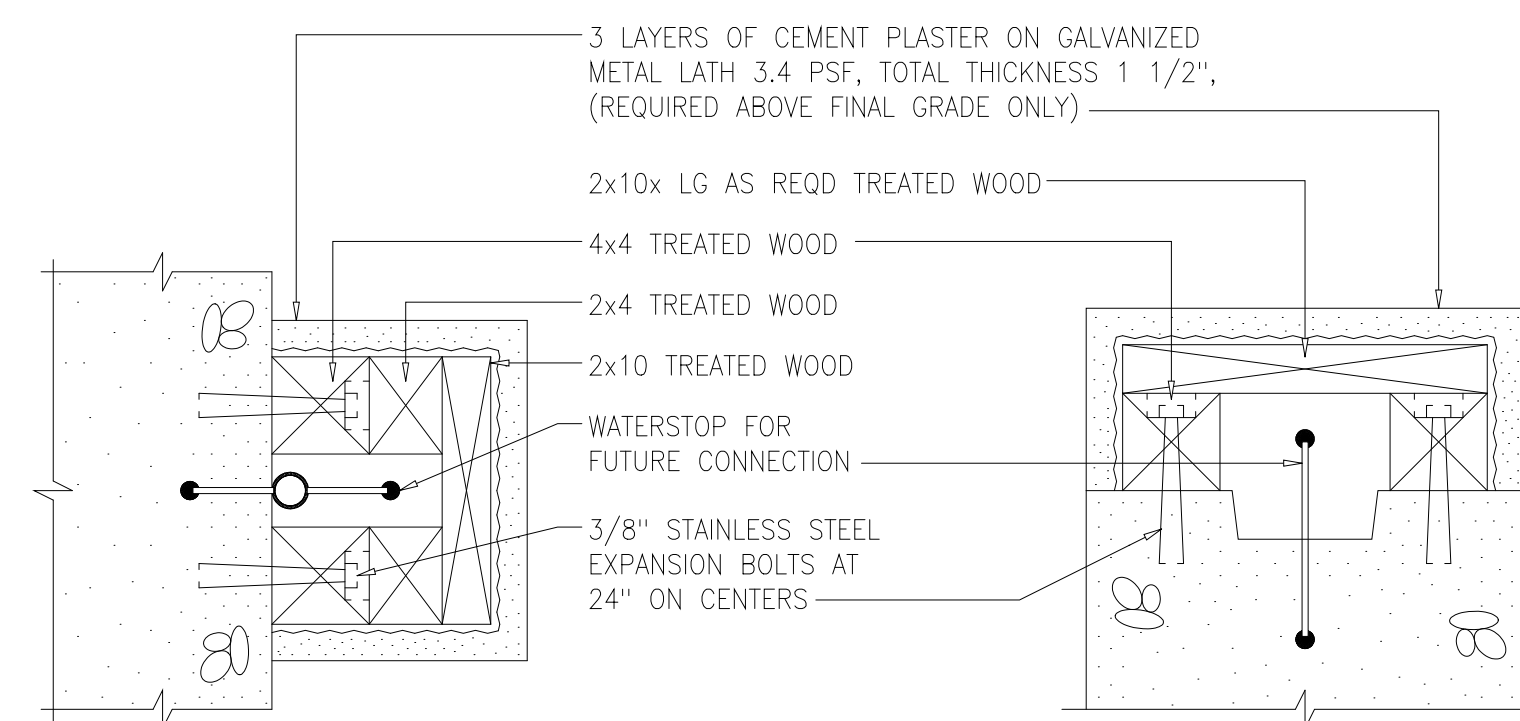
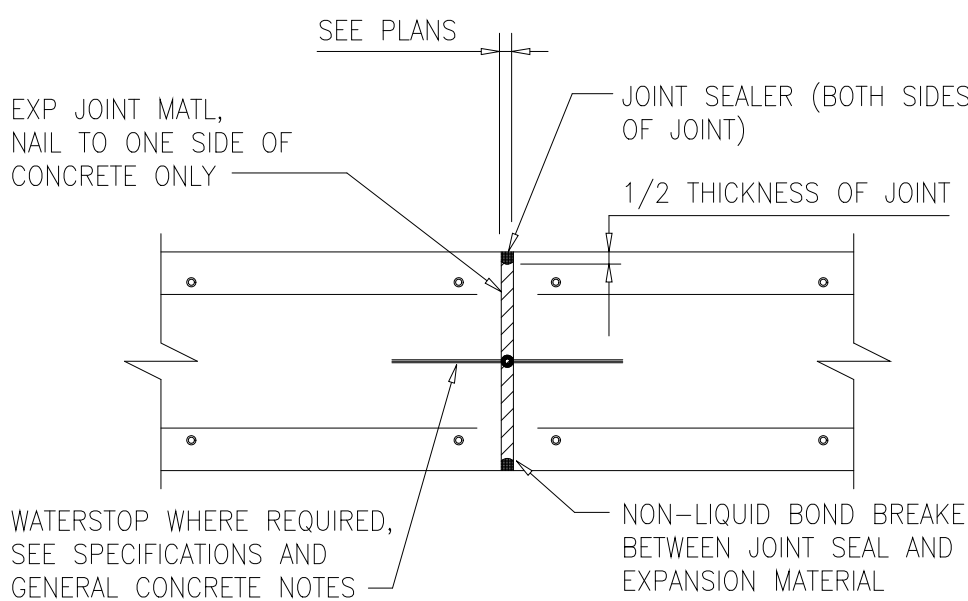
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D002
	SHEET 84 OF 99



NOTES:
1. JOINTS SHALL BE FORMED BY AN APPROVED JOINT INSERT. SAWCUTTING OF JOINTS WILL NOT BE ALLOWED.
2. DEPTH SHALL BE 1 1/2" IN REINF CONC. DEPTH SHALL BE 1/3 OF CONCRETE THICKNESS IN UNREINFORCED CONCRETE PAVEMENT.



NOTES:
BARS TO BE WELDED SHALL CONFORM TO ASTM A706. WELDING SHALL BE DONE BY CERTIFIED WELDERS IN CONFORMANCE WITH AWS D1.4. WELDING IS PERMITTED ONLY WHERE SHOWN ON PLANS OR OTHERWISE APPROVED BY THE ENGINEER.



DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ.ENGR.	ASG
APPROVED	

NO.	ISSUED FOR	DATE	BY

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

RECORD DRAWING

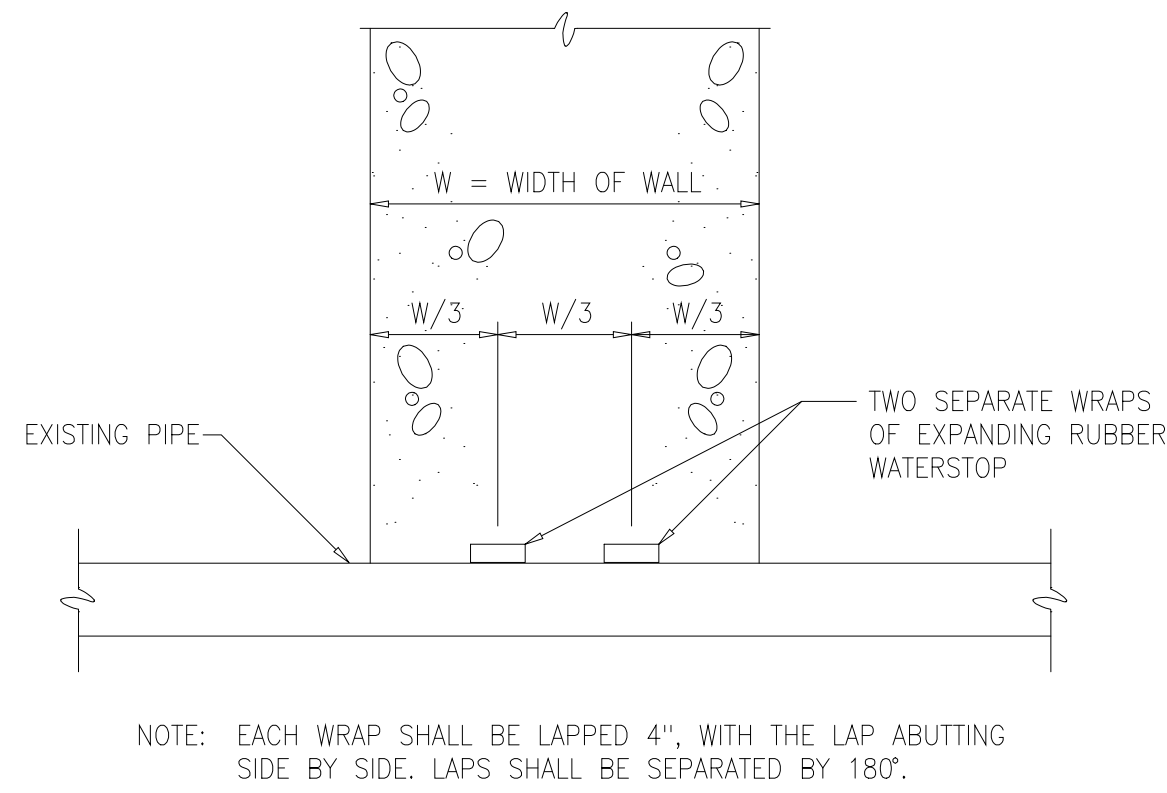
DATE: SEPT 2000

H & S JOB NUMBER: 30313

CONTRACT NUMBER: 2000-01-MPC

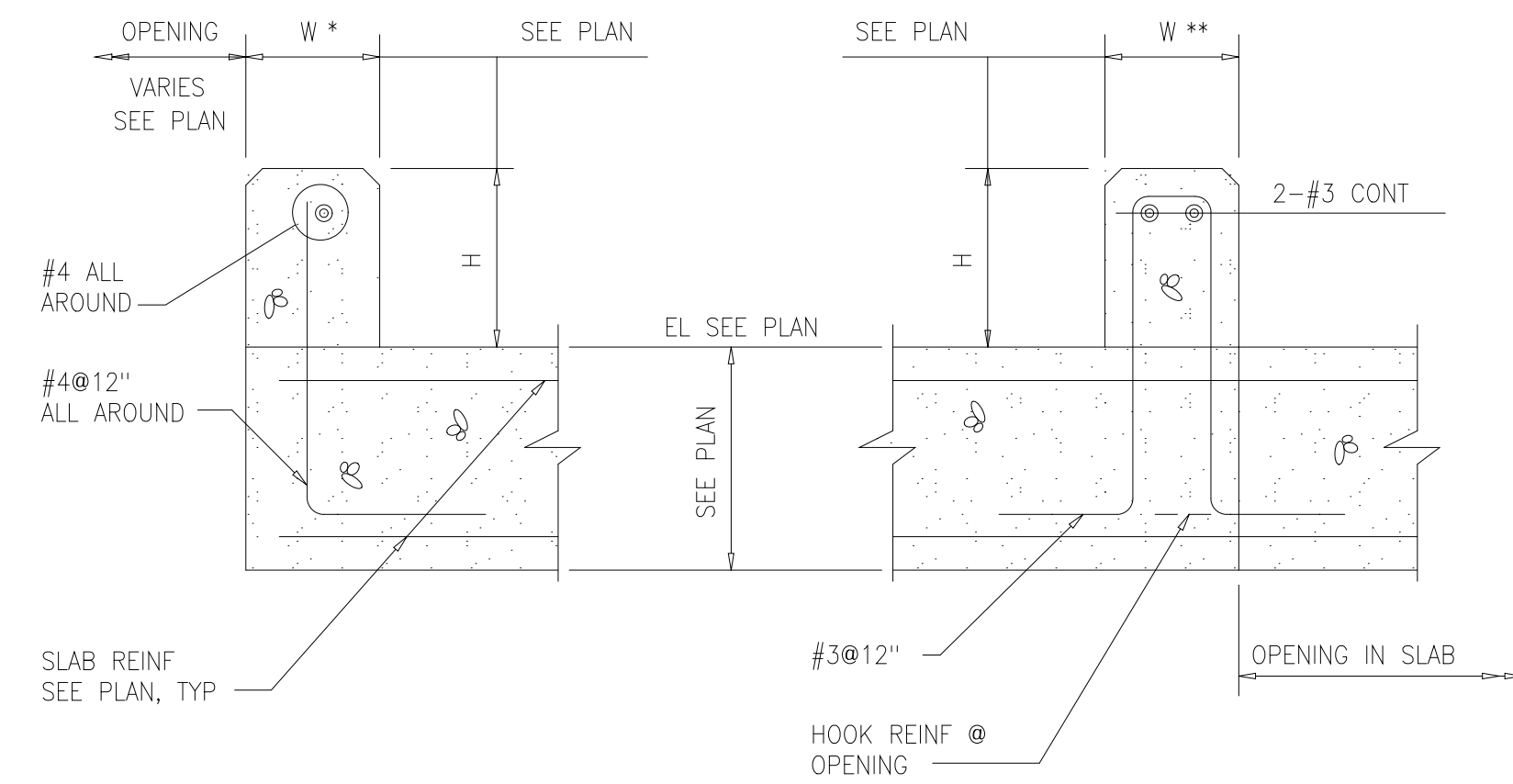
DRAWING NUMBER: D003

SHEET 85 OF 99



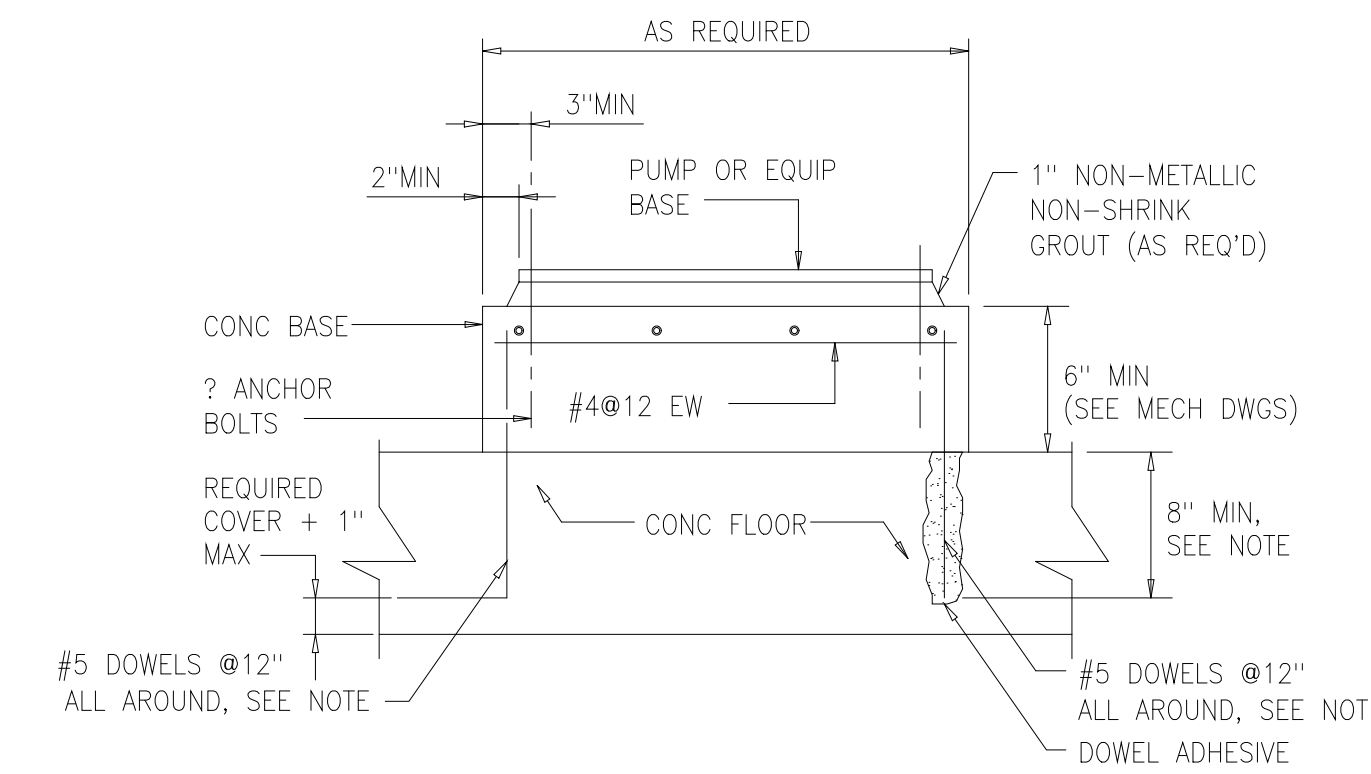
WATERSTOP CONNECTION
AROUND EXISTING PIPE

0325303



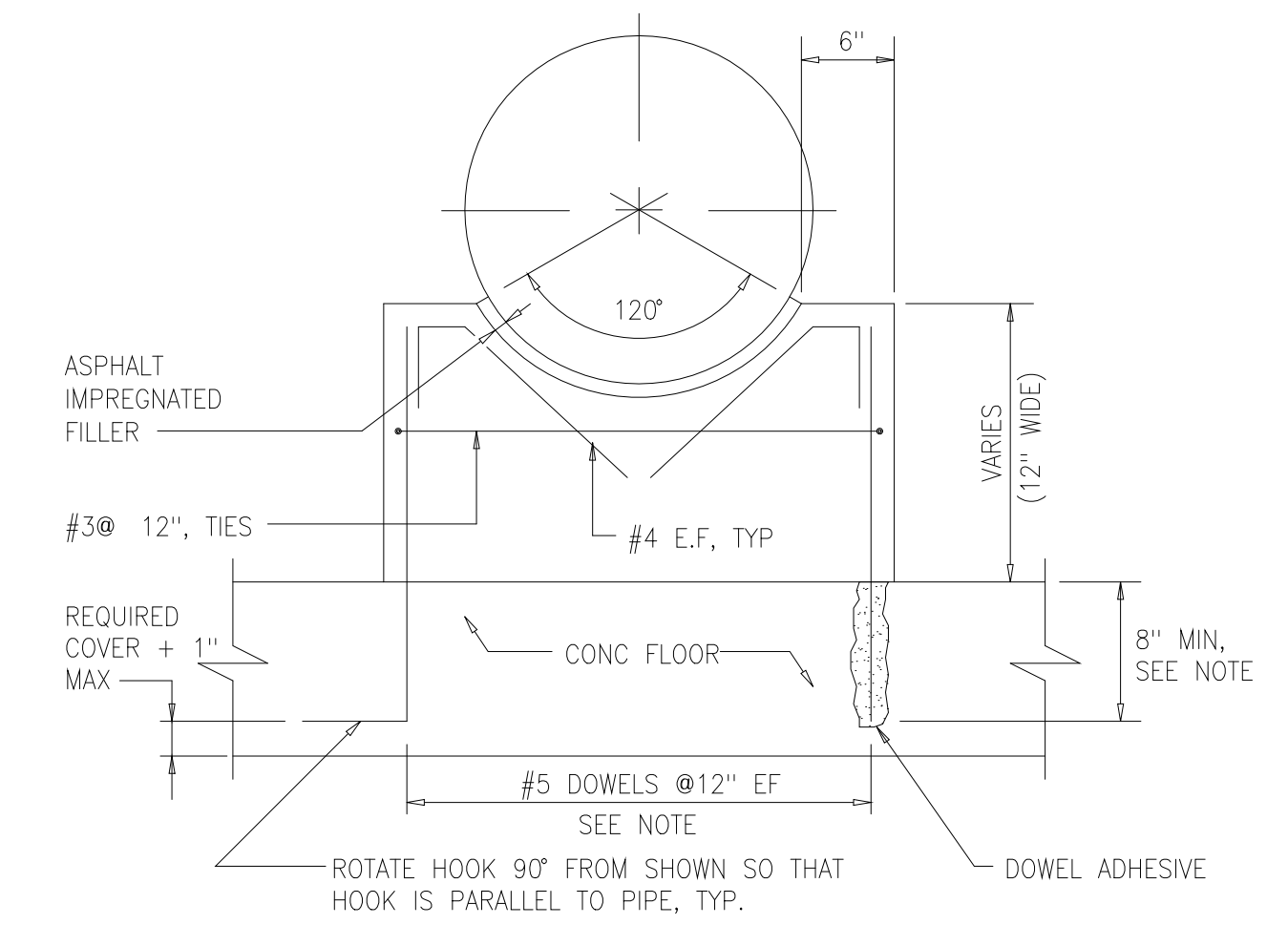
TYPICAL CONCRETE CURB

0331004



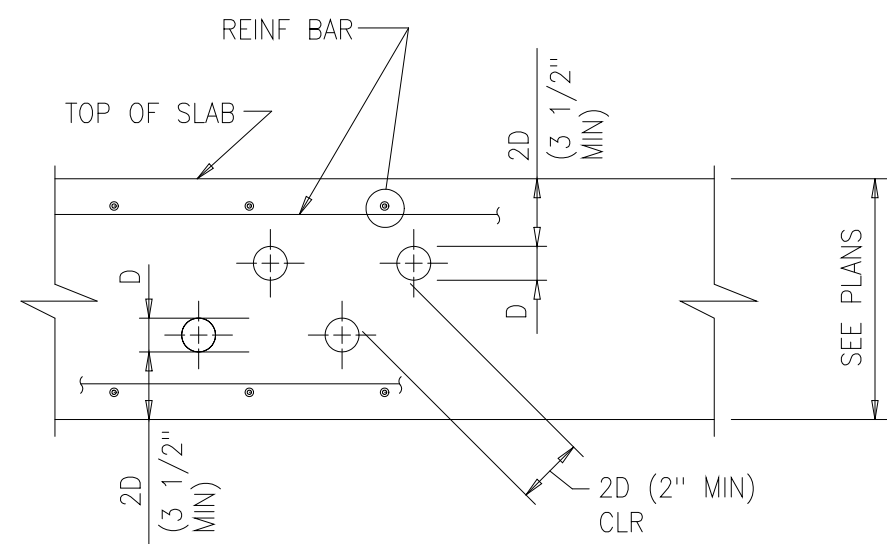
TYP PUMP OR EQUIP BASE

0331600



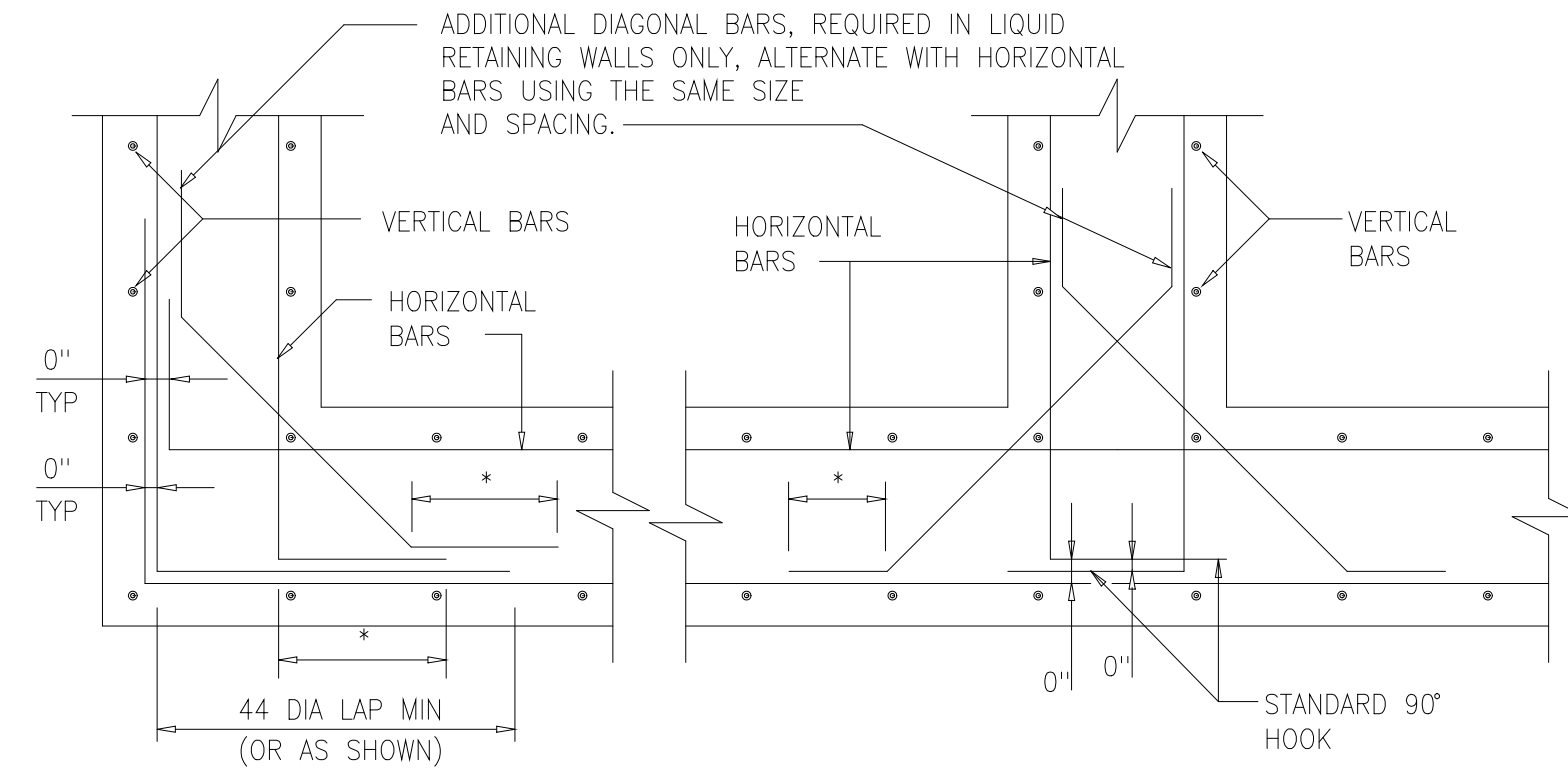
CRADLE PIPE SUPPORT

0331601



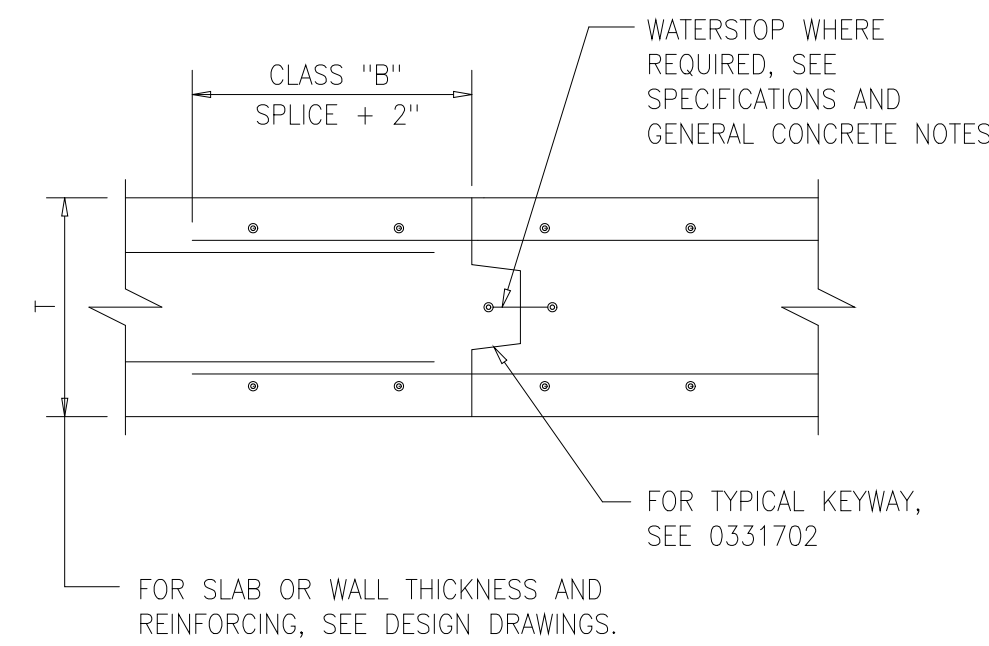
PIPE OR CONDUIT EMBEDDED IN SLAB

0331604



TYPICAL WALL REINFORCING

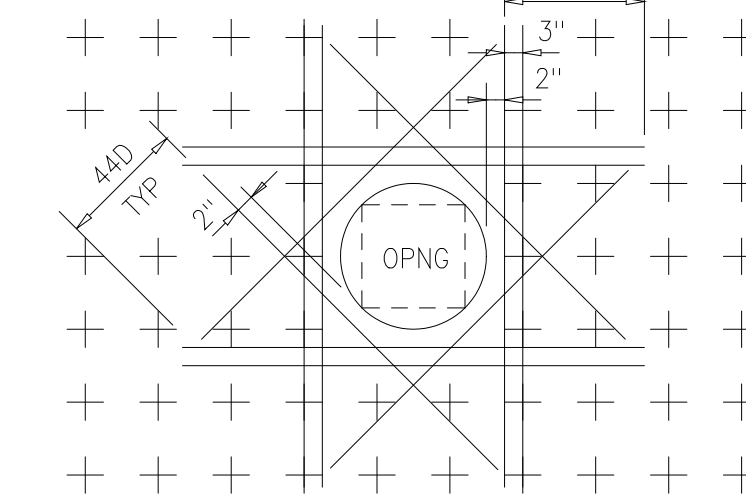
0331700



TYPICAL CONSTRUCTION JOINT

0331701

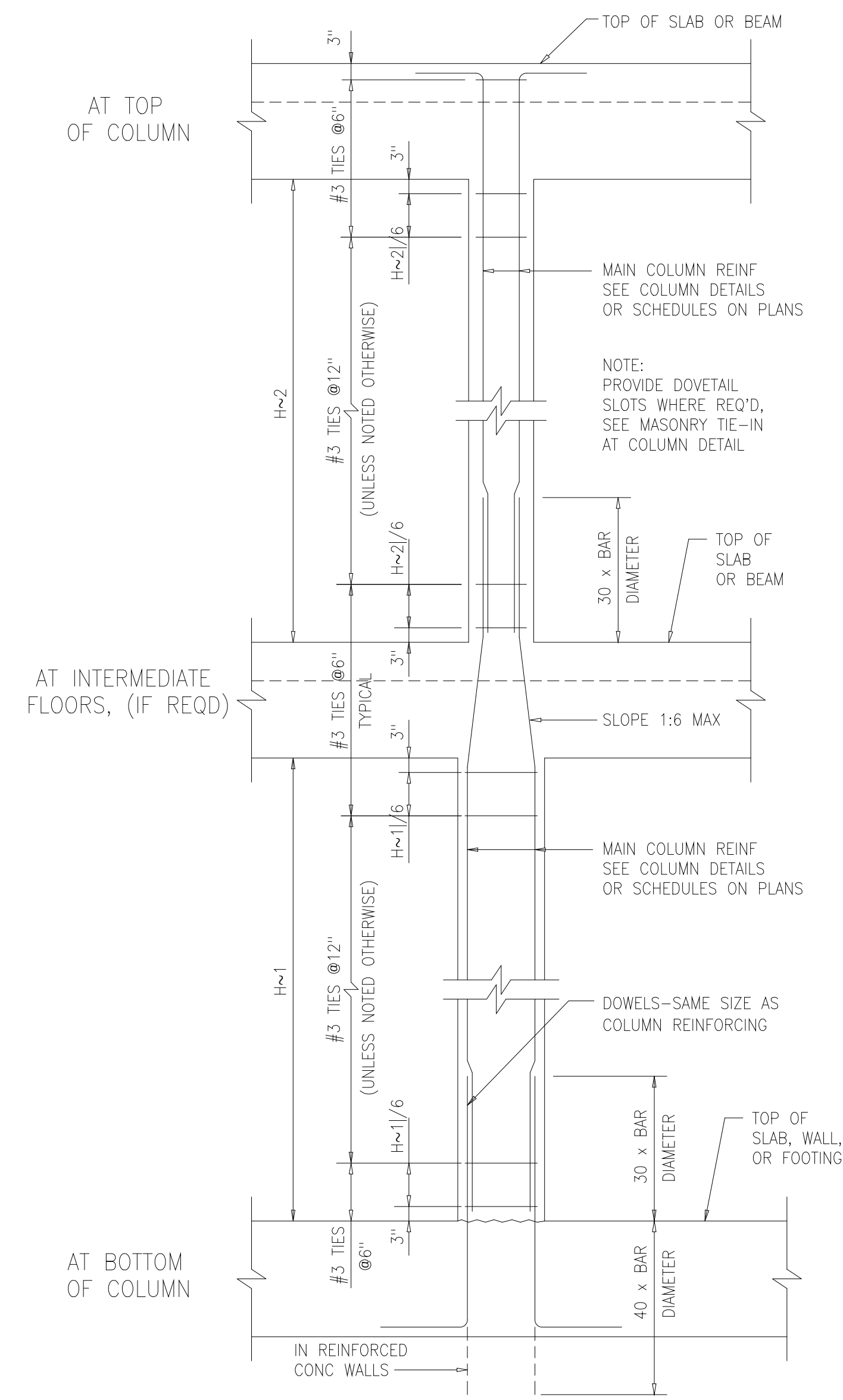
PLACE EXTRA BARS OF THE SAME SIZE AS THE INTERRUPTED BARS AT EACH SIDE OF OPENINGS. QUANTITY OF EXTRA BARS AT EACH SIDE SHALL EQUAL HALF THE QUANTITY OF INTERRUPTED BARS, EXCEPT WHERE NOTED OTHERWISE. PROVIDE ONE DIAGONAL BAR EACH SIDE OF OPENING, SIZE TO BE EQUAL TO MAIN REINFORCING. (TYPICAL EACH FACE)



NOTE: THIS DETAIL IS FOR OPENINGS 8" OR LARGER, FOR SMALLER OPENINGS, BEND BARS.

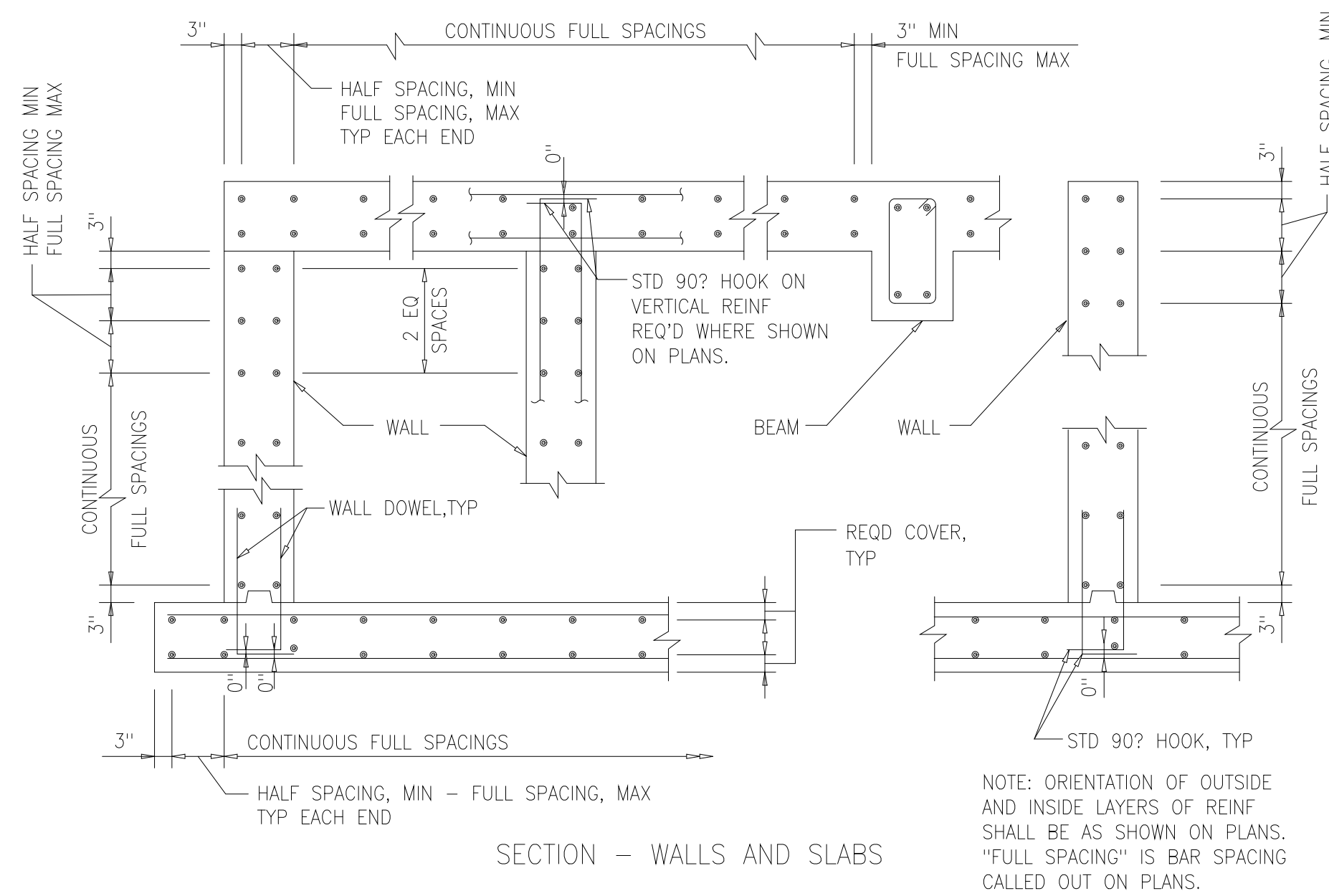
TYPICAL REINF AT OPENINGS

0331703



TYPICAL COLUMN ELEVATION

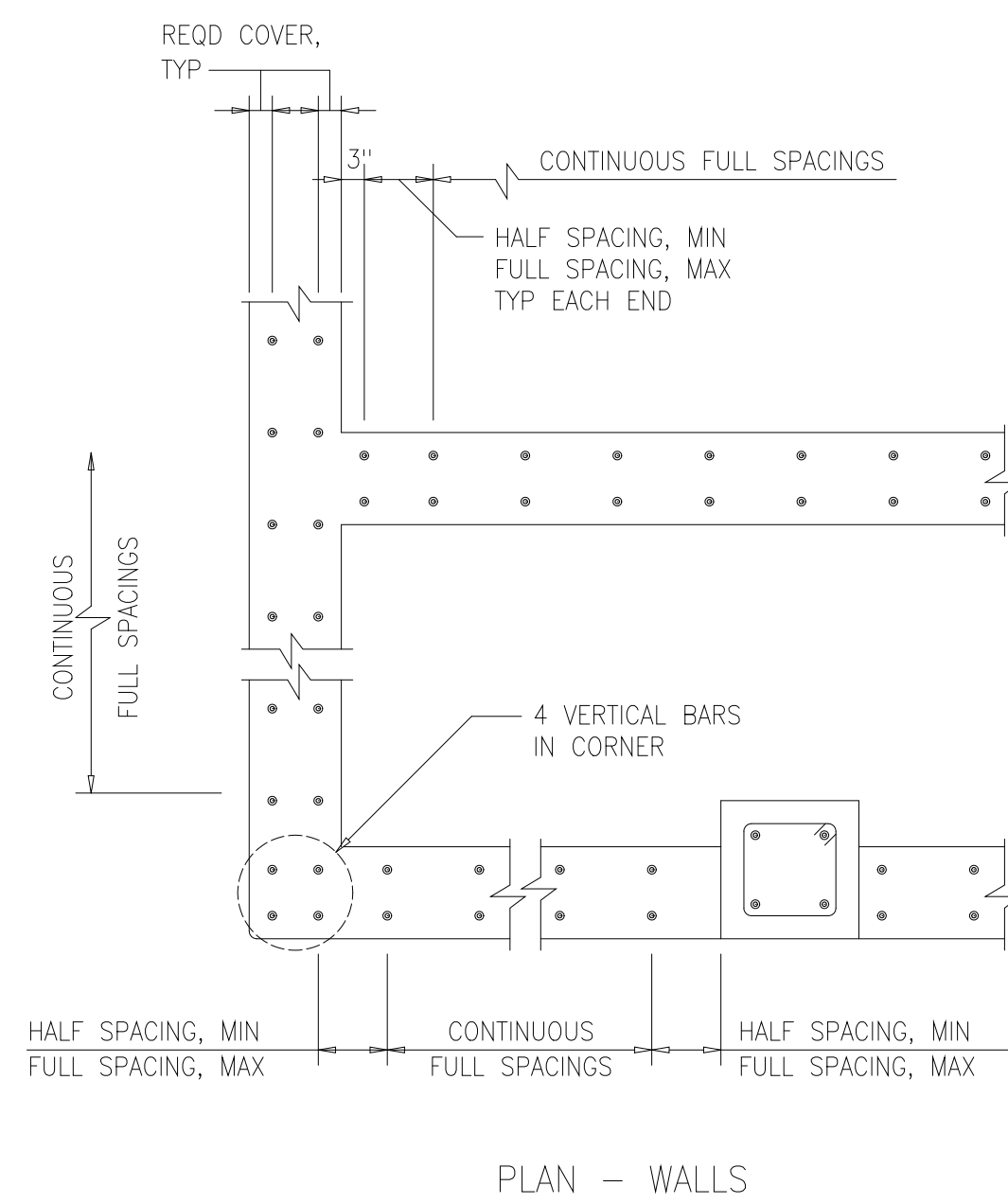
0331800



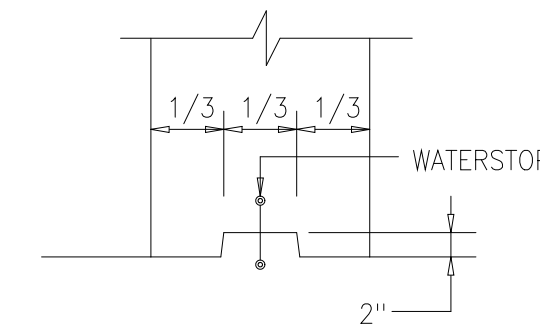
SECTION - WALLS AND SLABS

TYPICAL BAR PLACEMENT

0331704

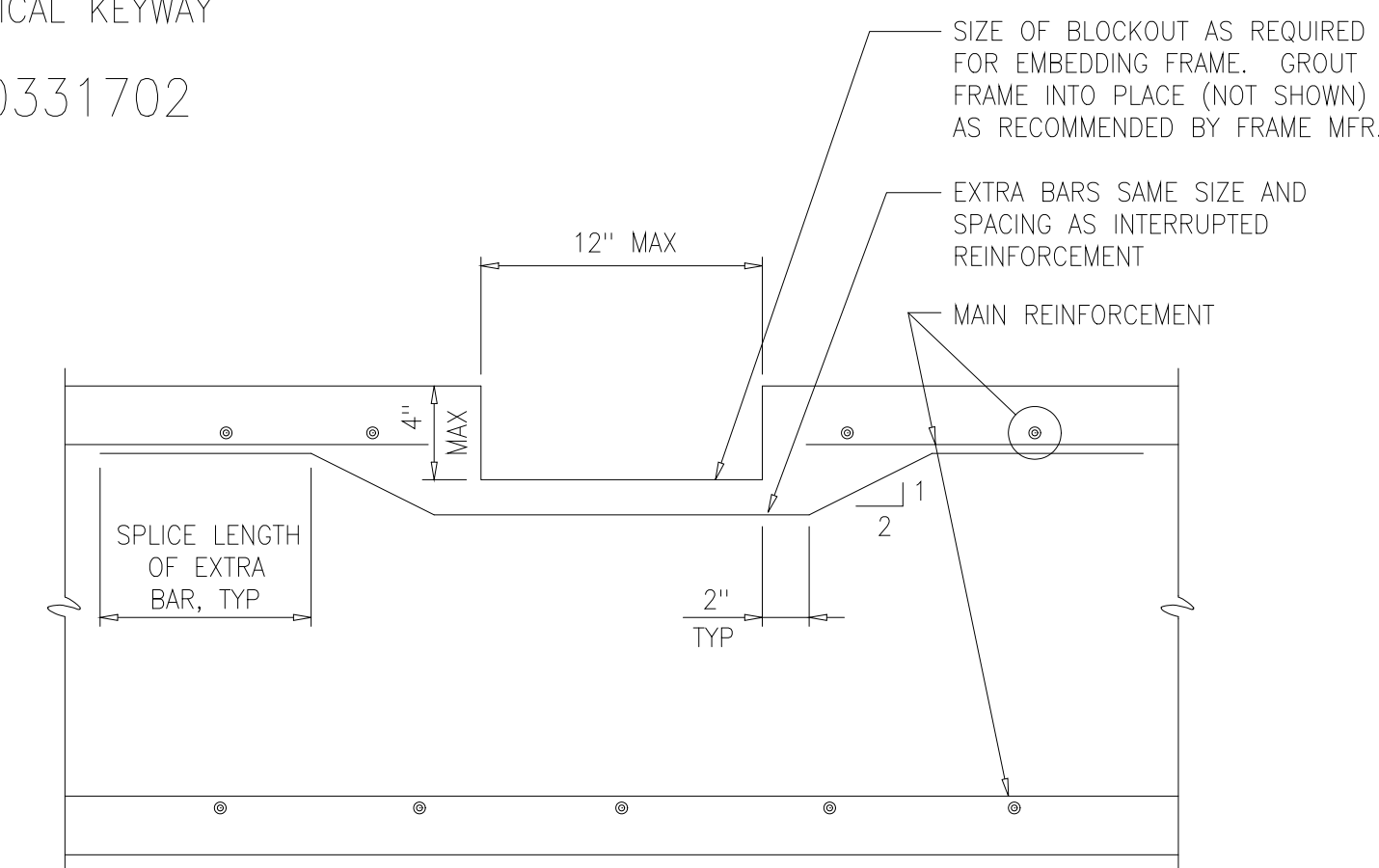


PLAN - WALLS



TYPICAL KEYWAY

0331702



TYPICAL BLOCKOUT FOR EMBEDDED EQUIPMENT FRAME

0331710

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ.ENGR.	ASG

APPROVED

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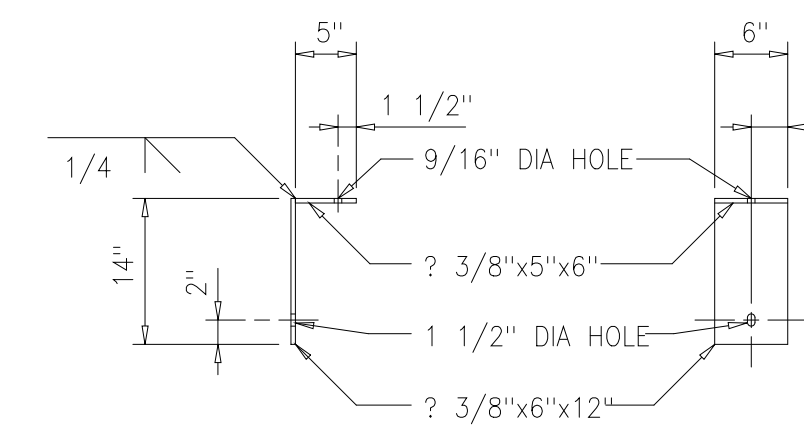
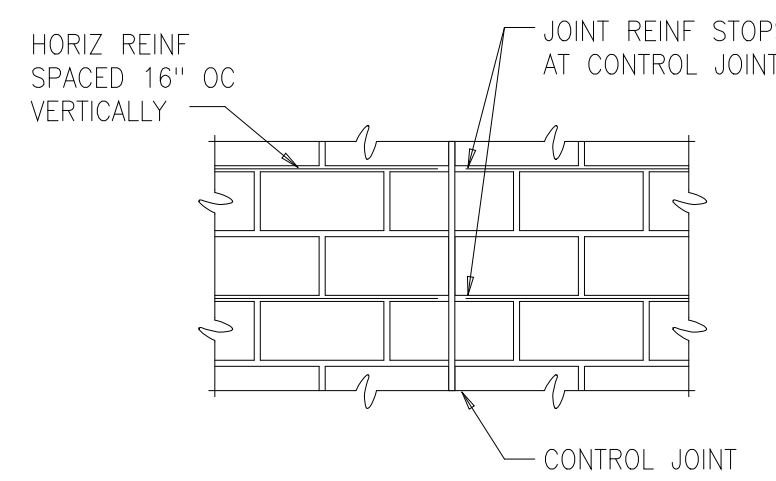
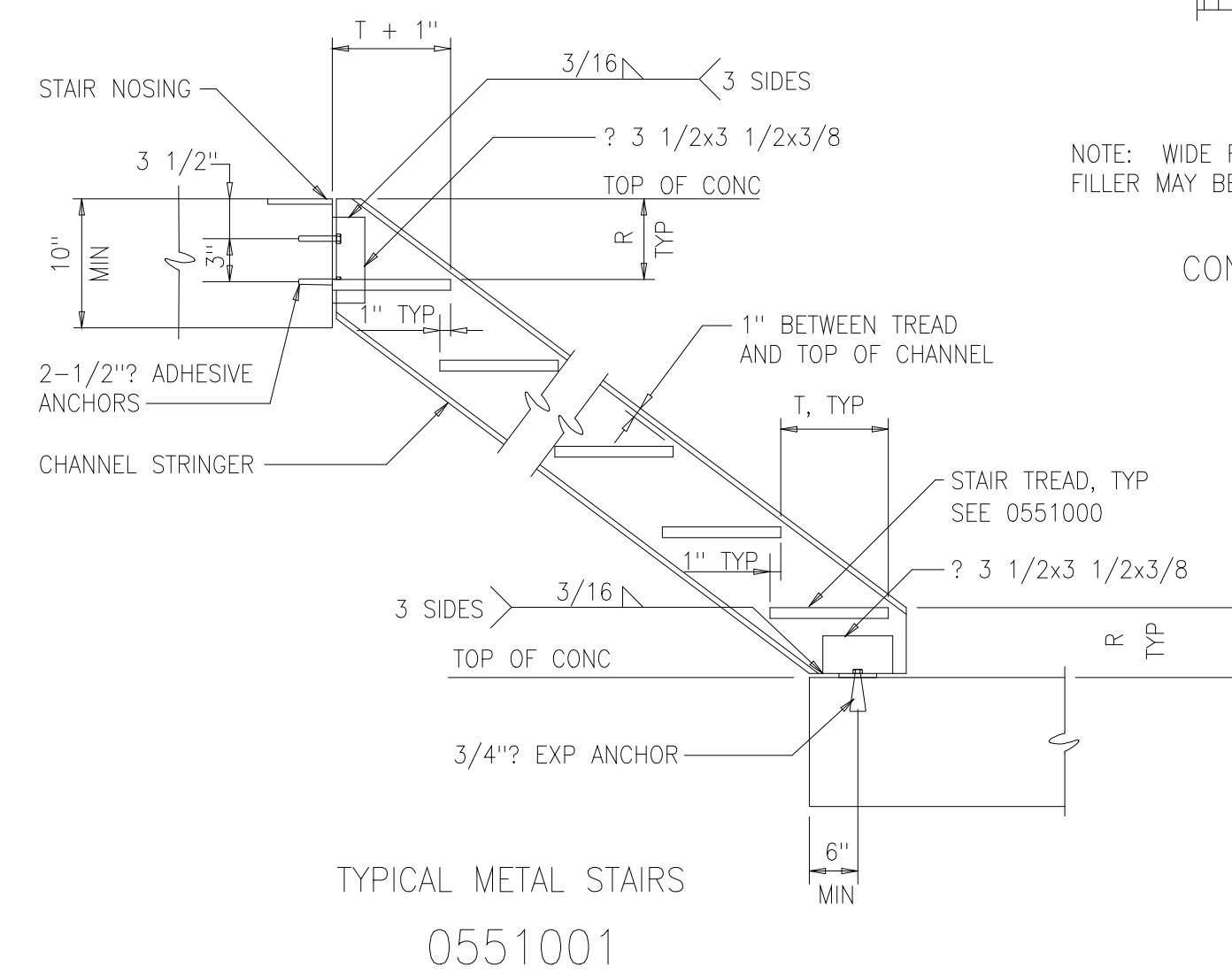
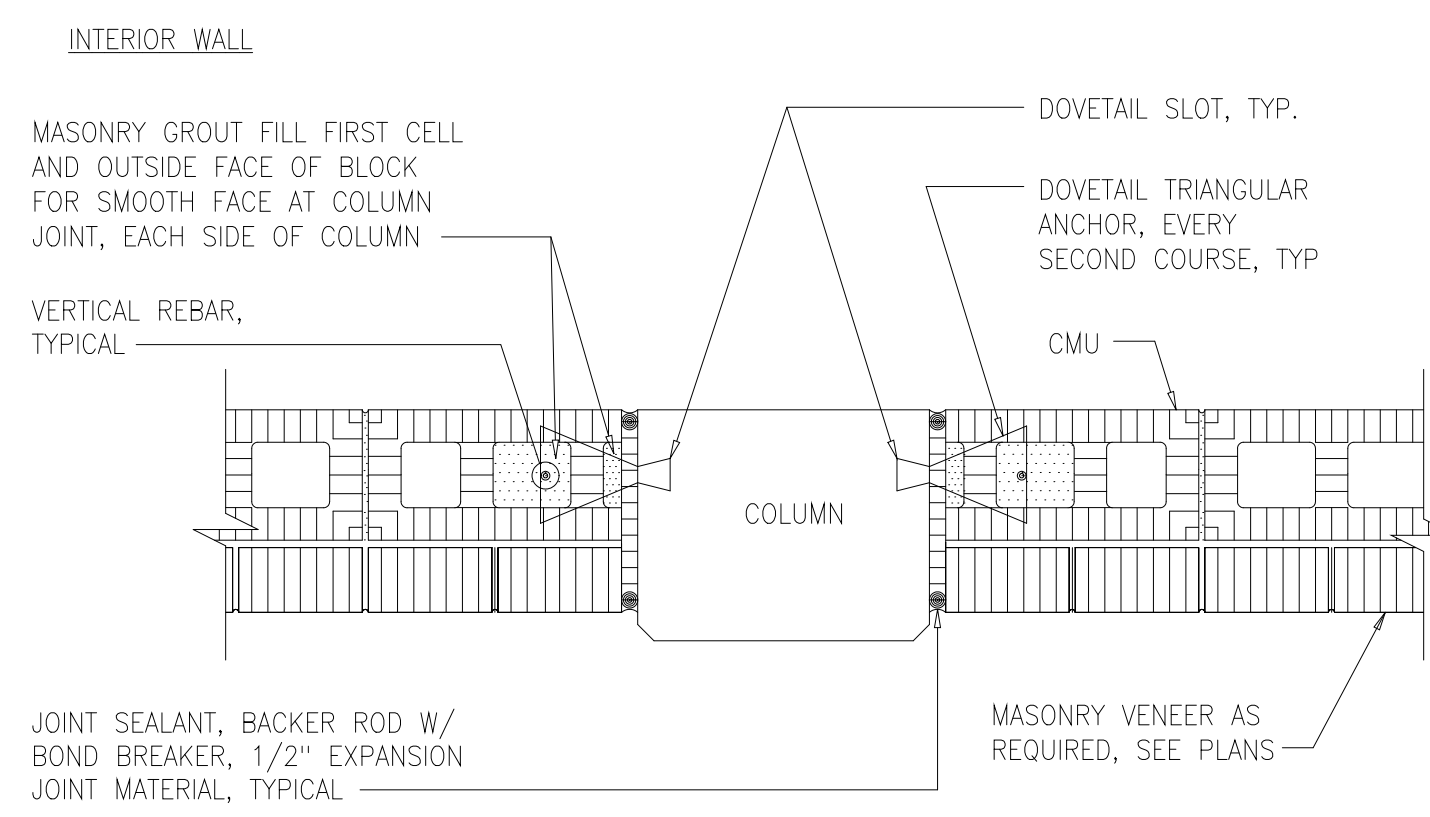
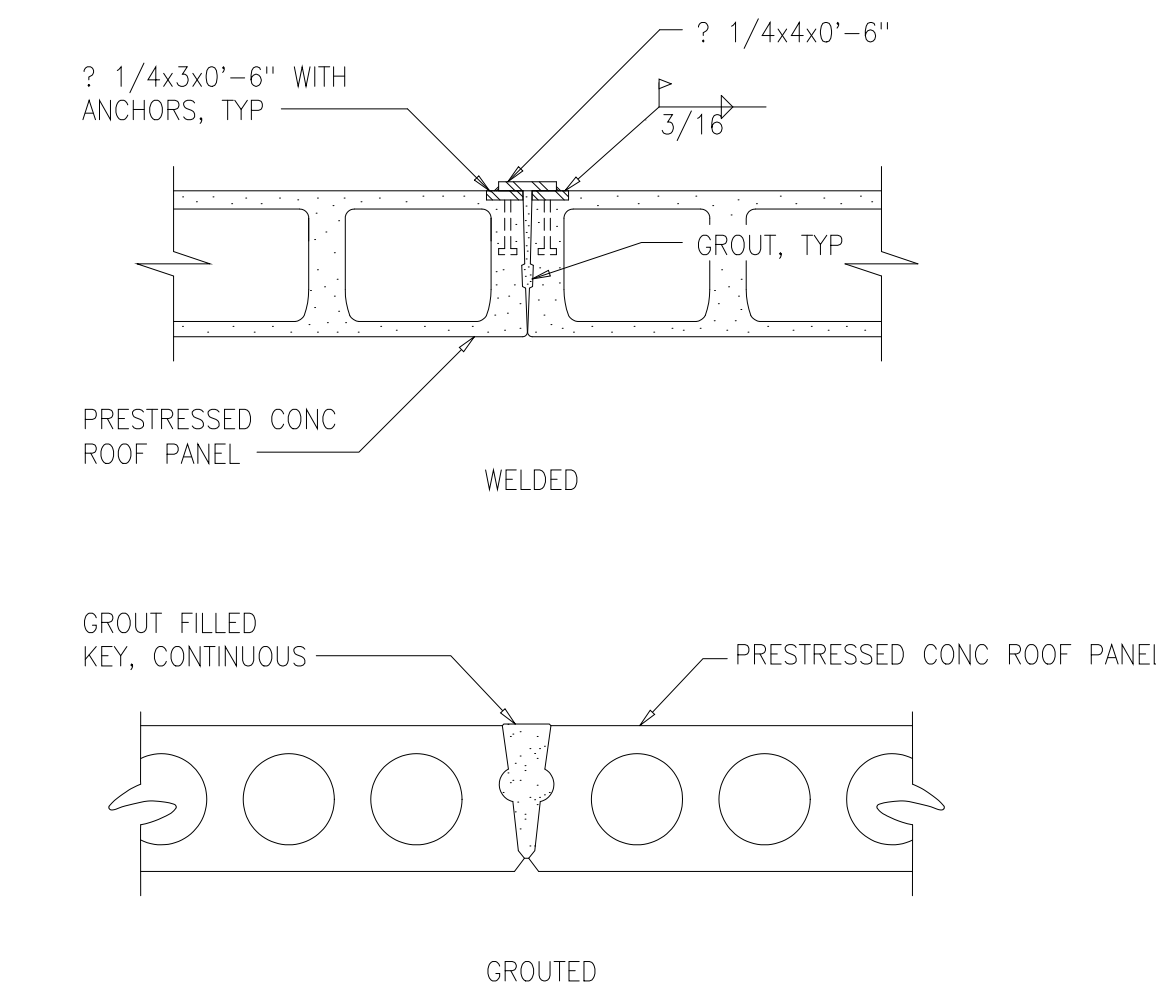
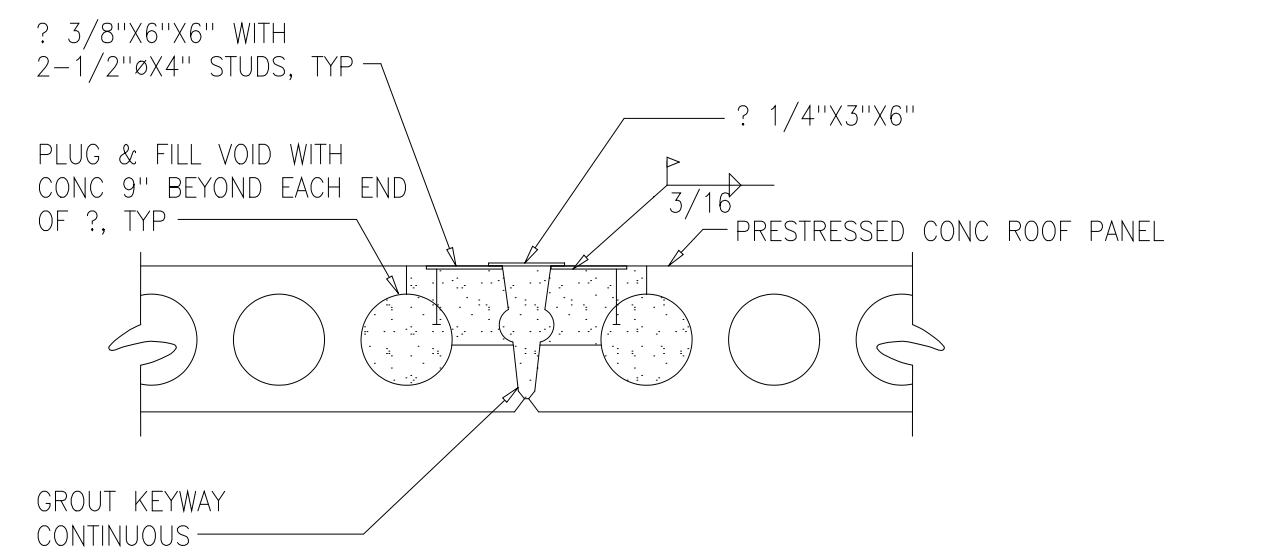
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

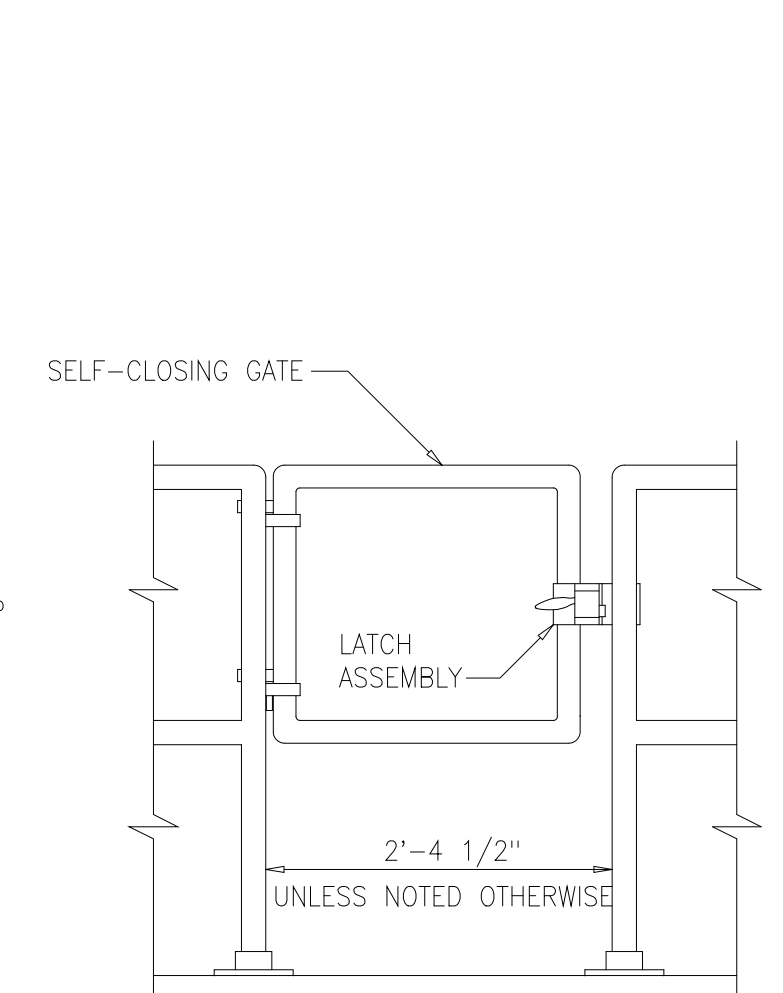
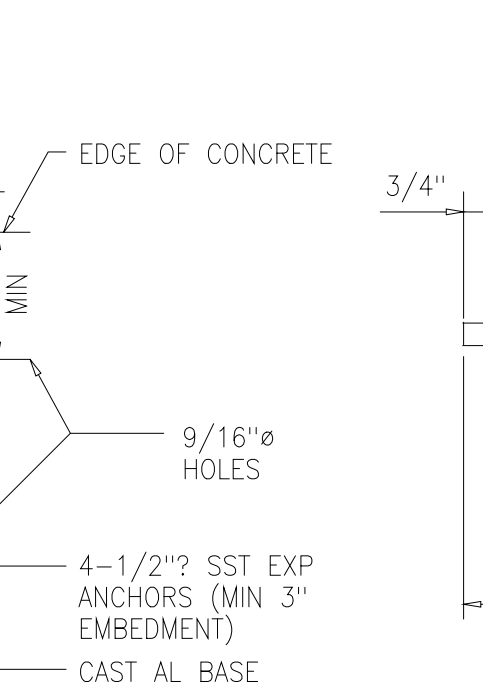
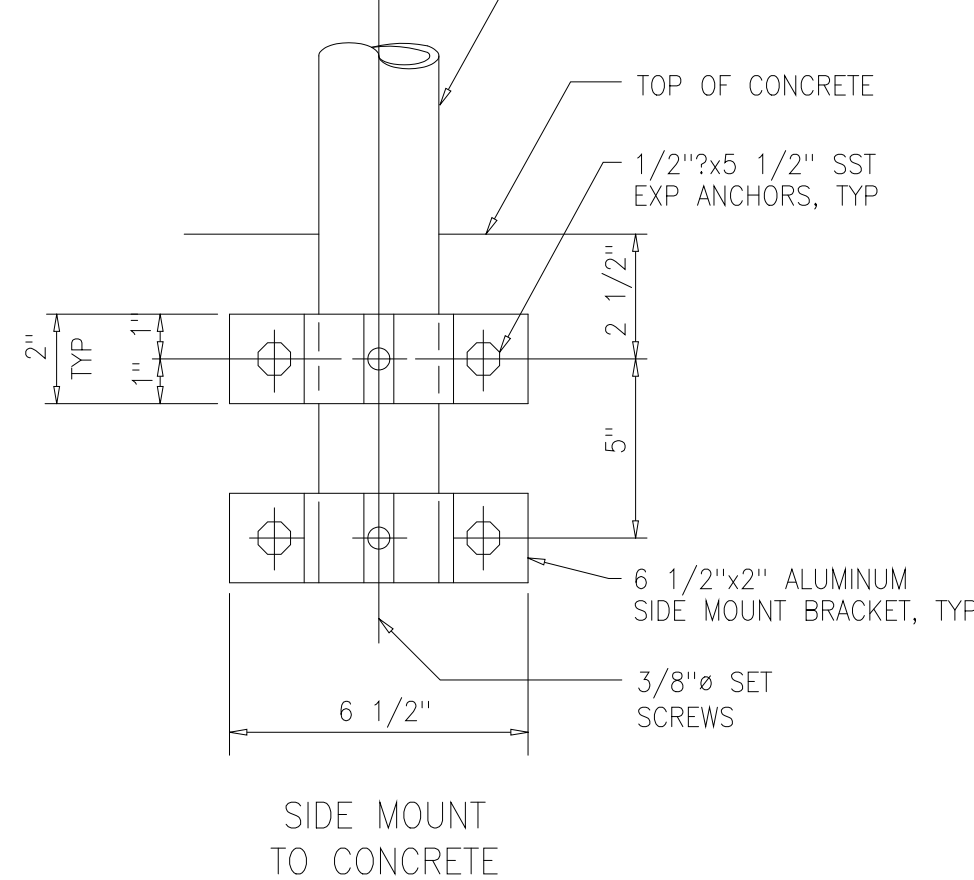
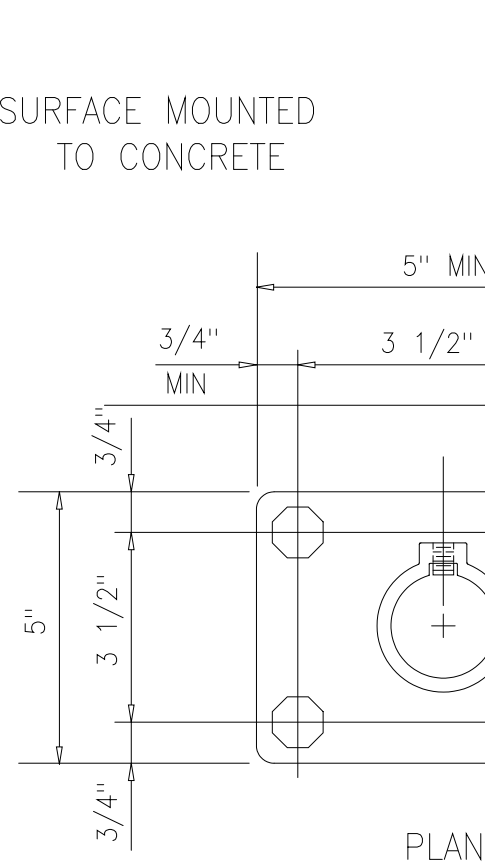
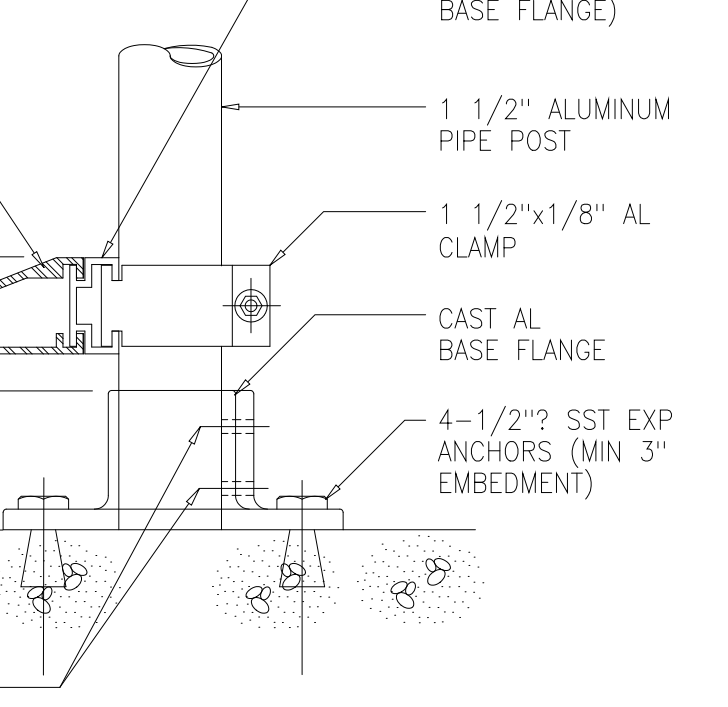
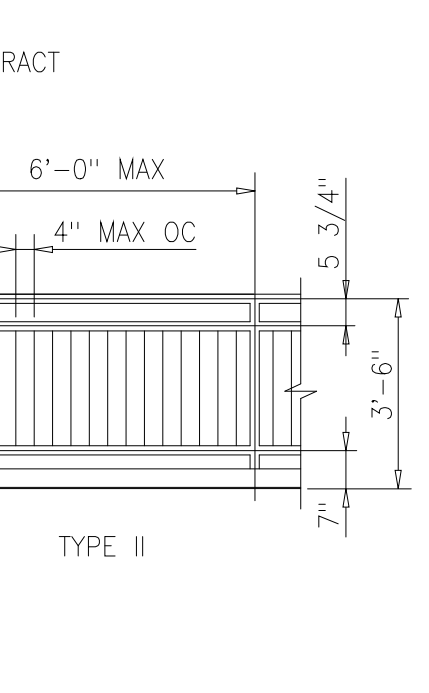
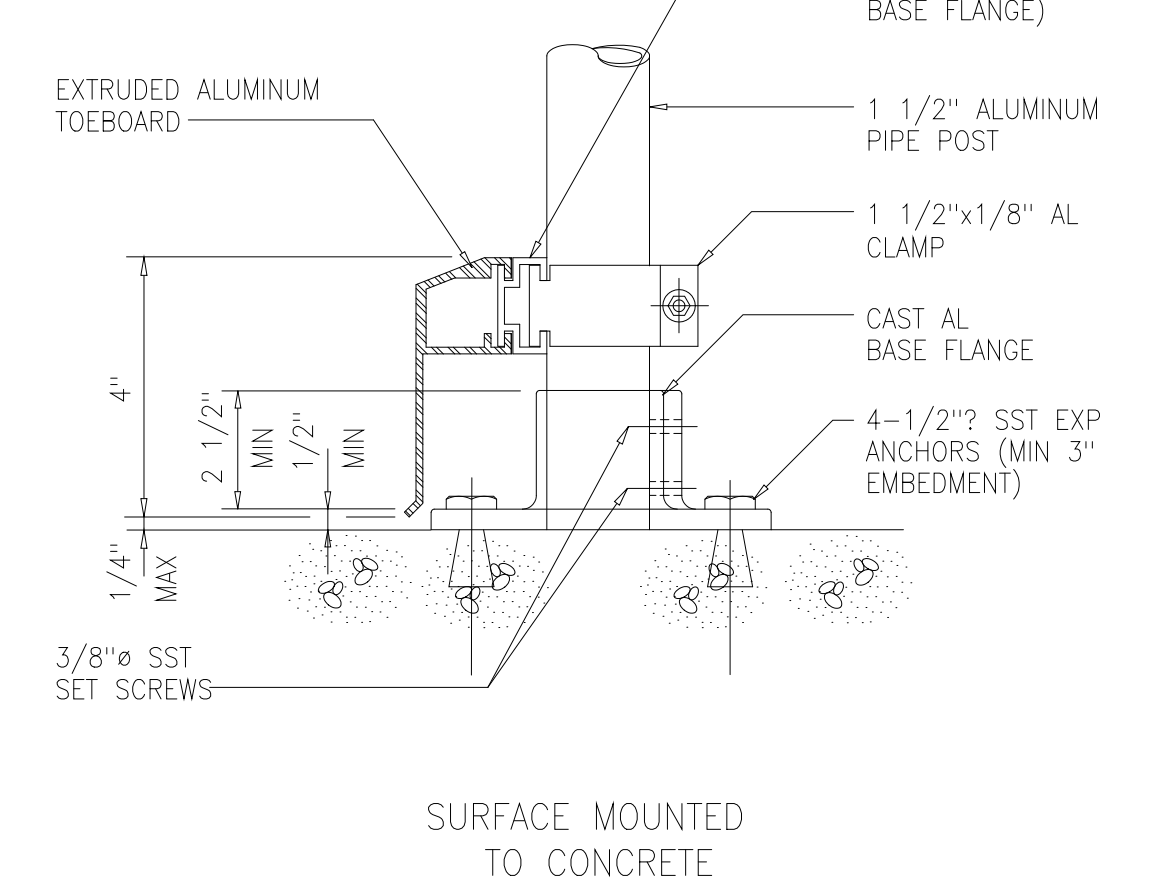
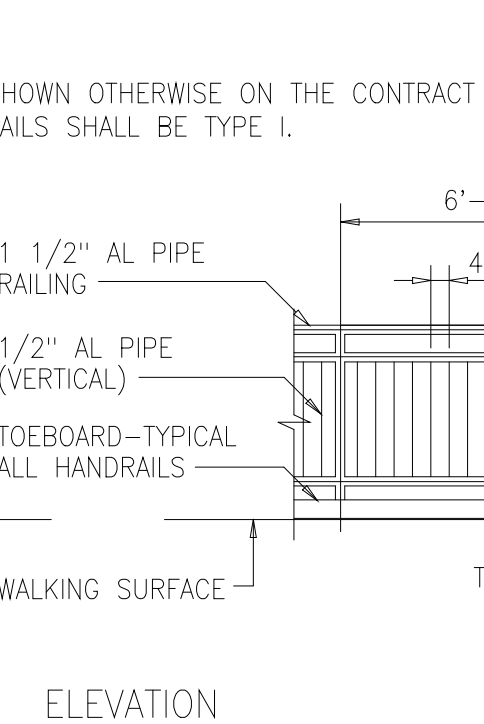
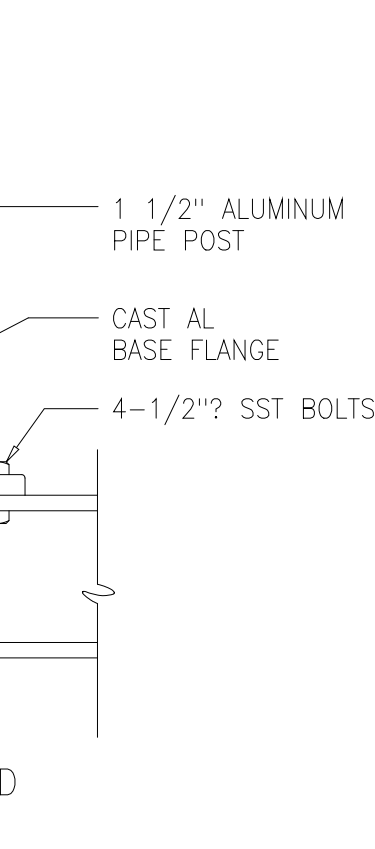
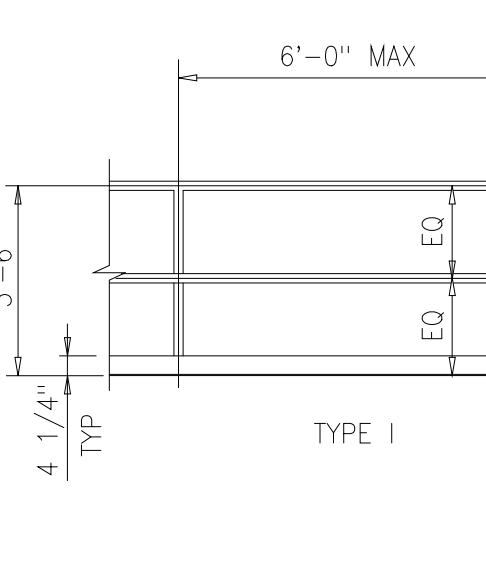
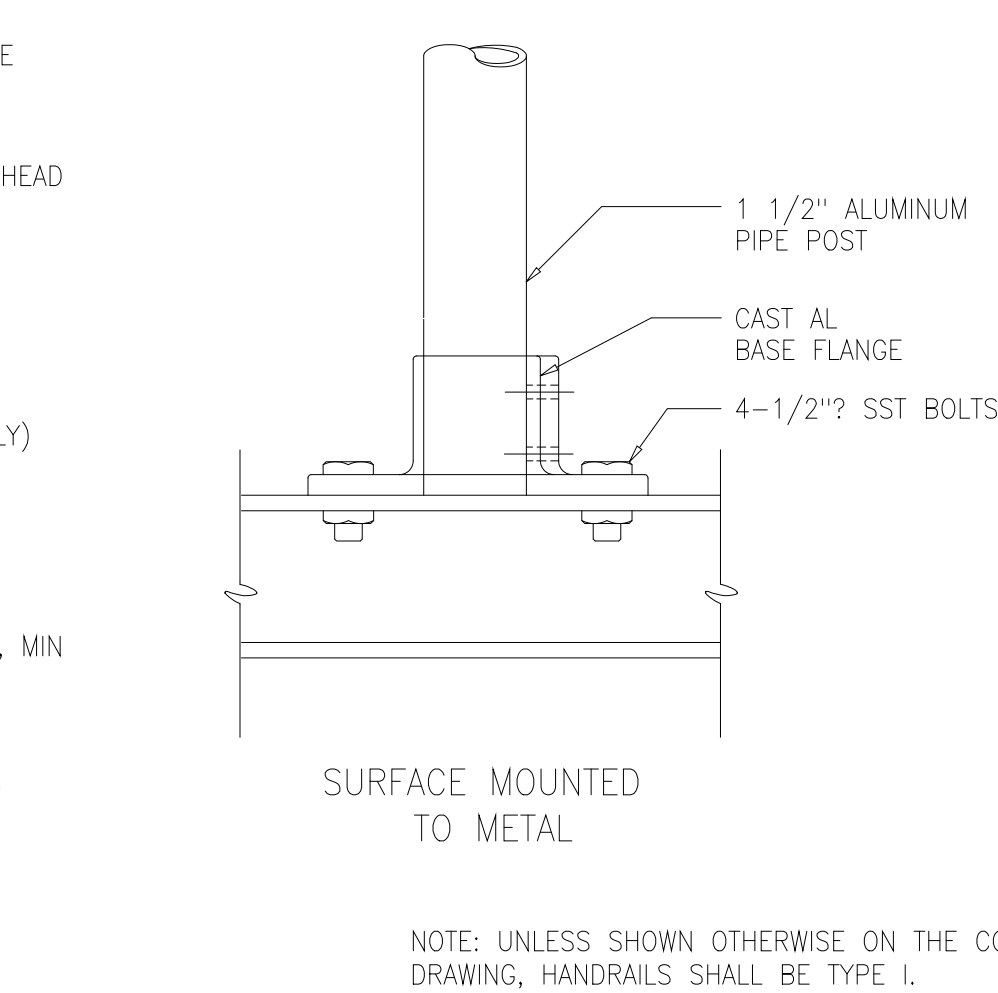
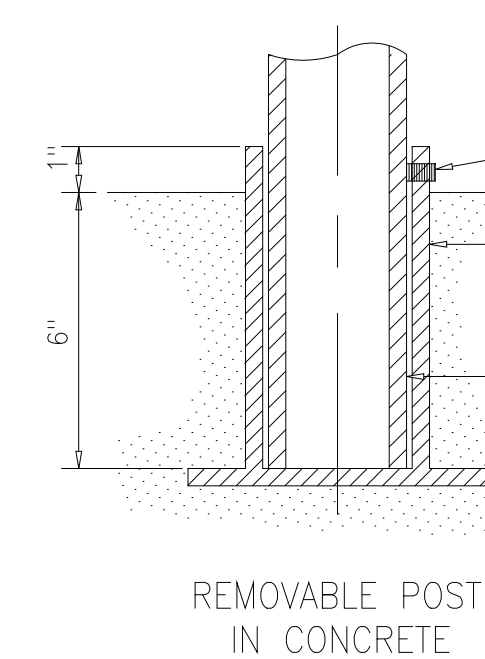
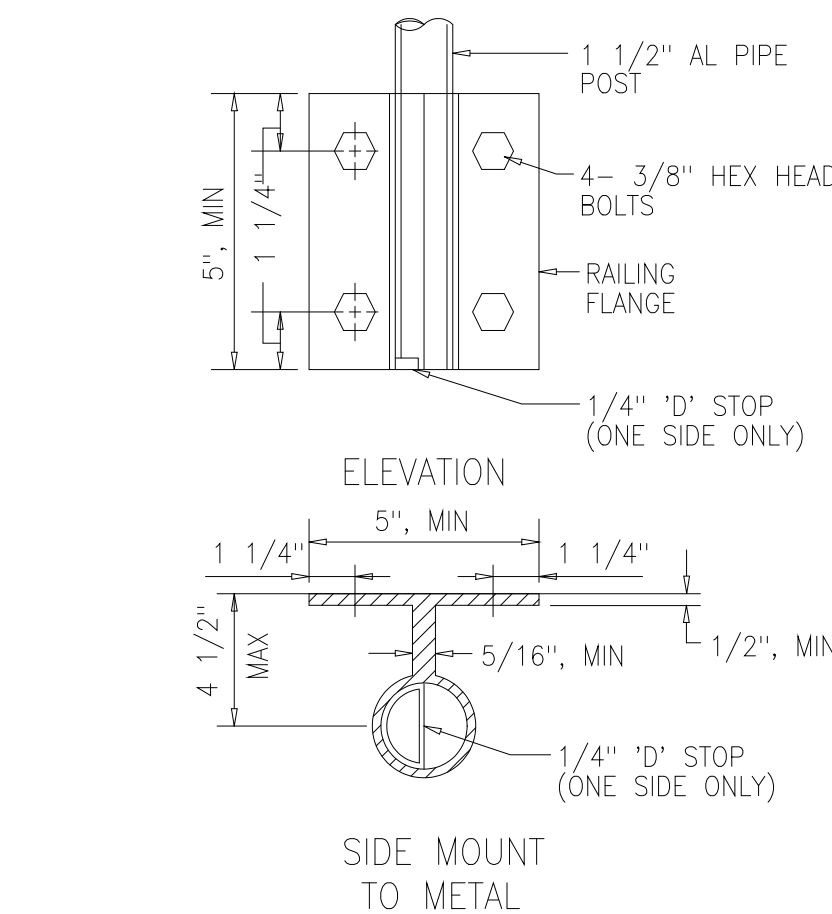
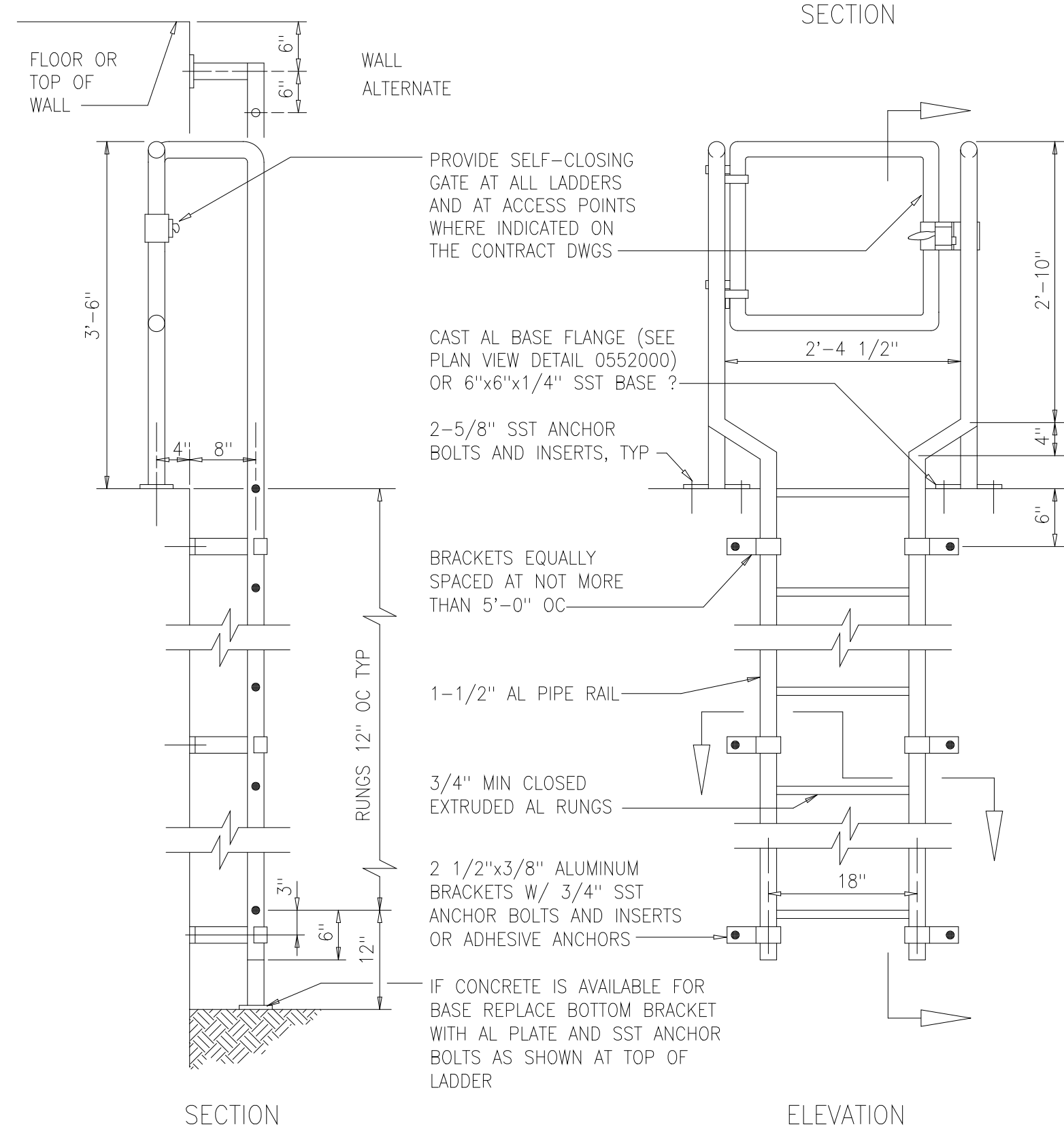
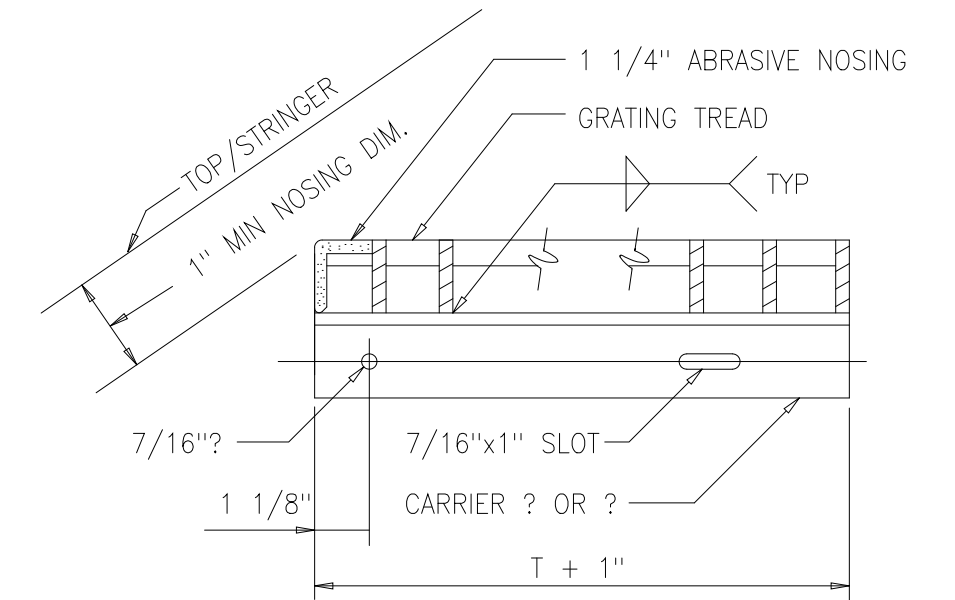
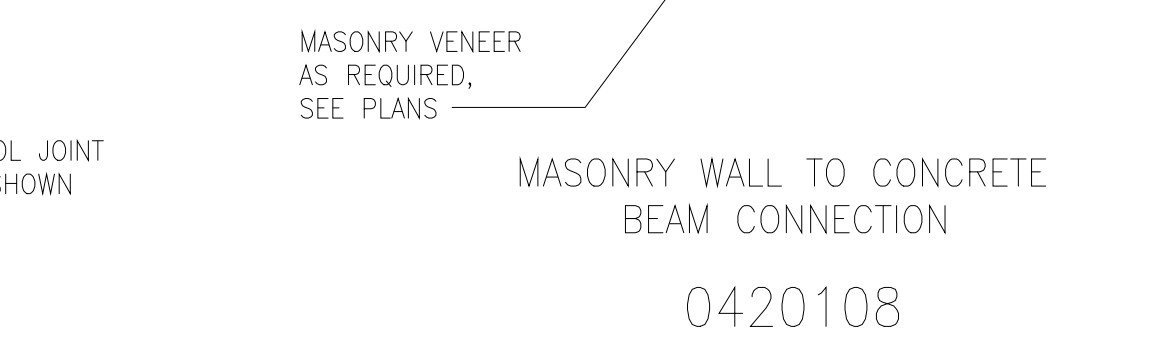
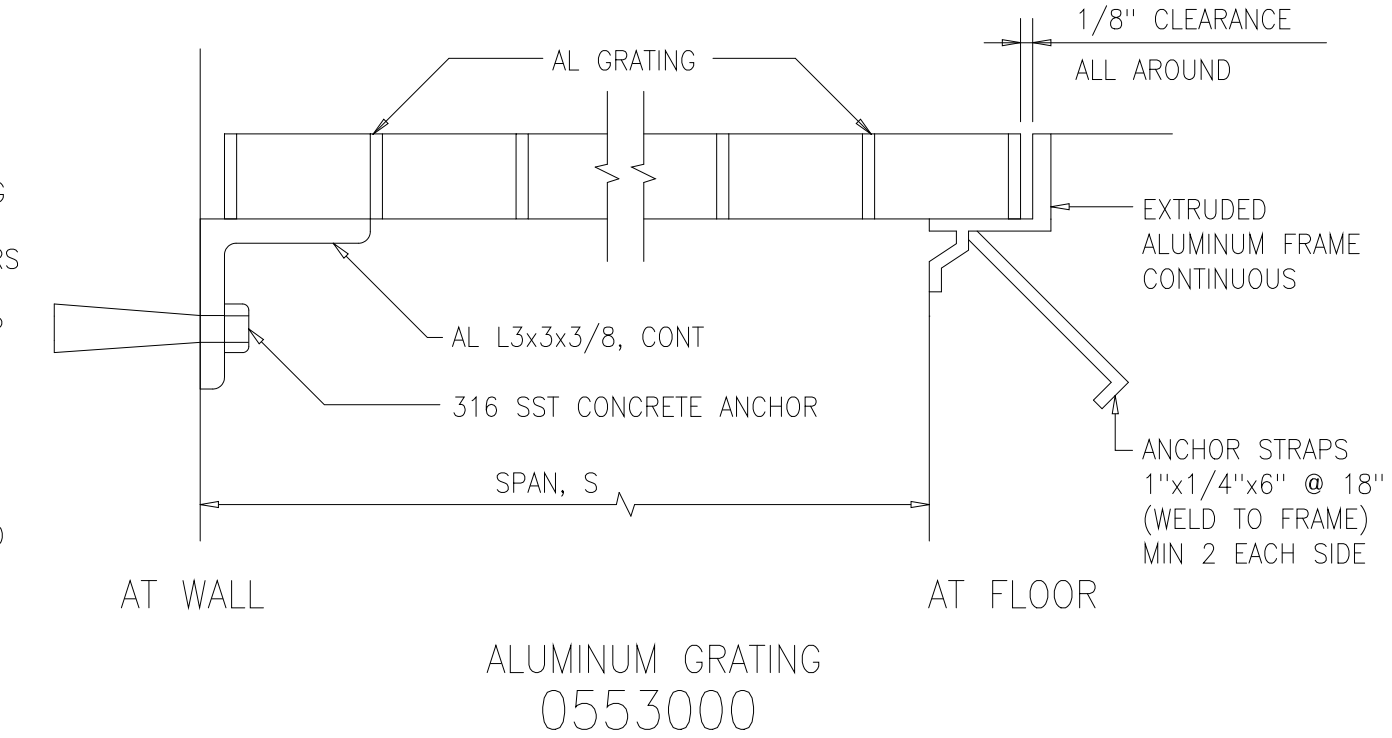
MISCELLANEOUS STANDARD DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D004
	SHEET 86 OF 99



SPAN, S	DEPTH (MIN)	CONCRETE ANCHOR (SIZE AND SPACING)
0'-0" < S ≤ 4'-0"	1 1/2"	1/2" x 5 1/2" @ 18"
4'-0" < S ≤ 5'-0"	1 3/4"	
5'-0" < S ≤ 5'-6"	2"	
5'-6" < S ≤ 6'-0"	2 1/4"	5/8" x 6" @ 18"
6'-0" < S ≤ 6'-6"	2 1/2"	

SCHEDULE BASED ON 150 PSF



RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ. ENGR.	ASG
APPROVED	

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ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

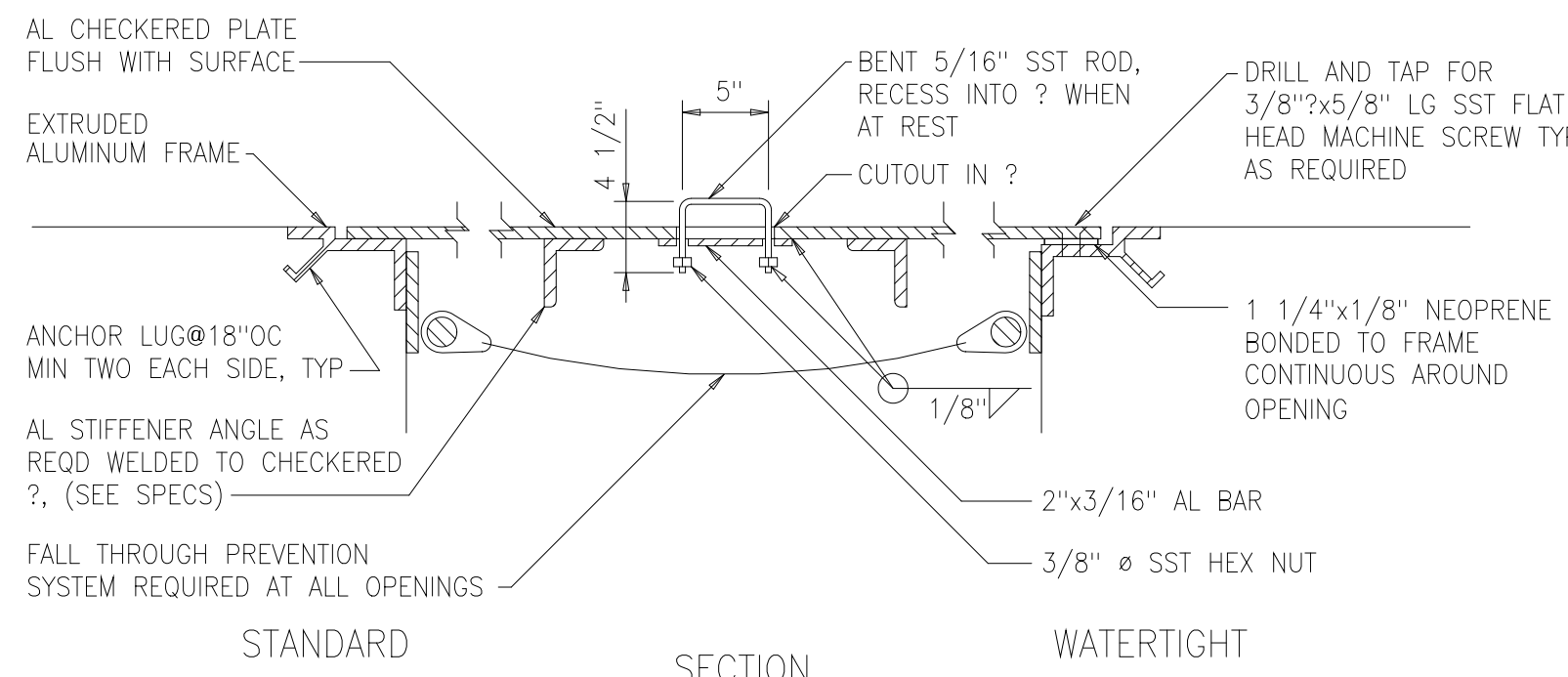
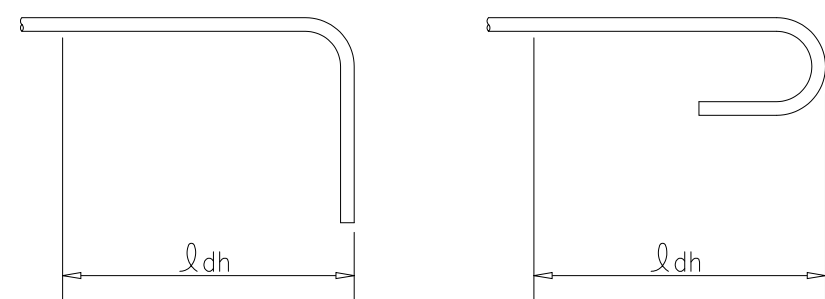
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D005
	SHEET 87 OF 99

DEVELOPMENT LENGTH OF STANDARD HOOKS FOR BARS IN TENSION

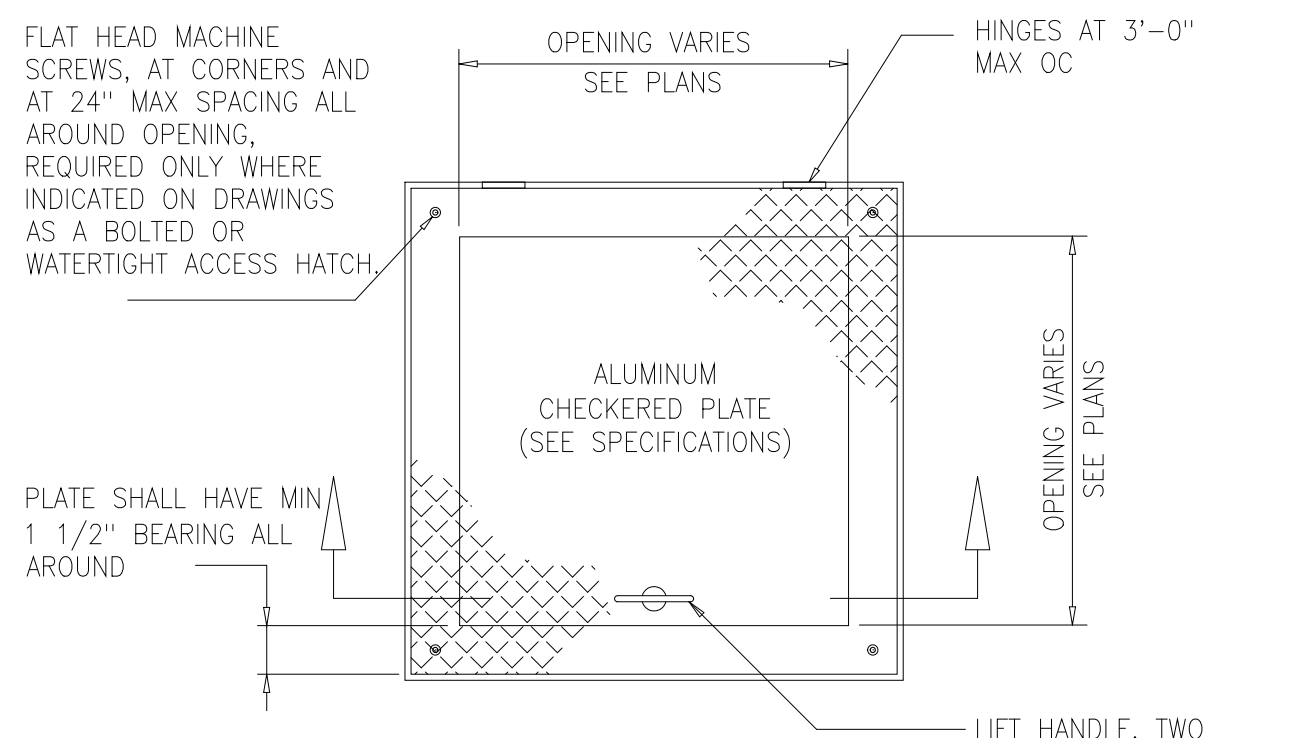
fy = 60,000 psi fc' = 4000 psi OR GREATER

BAR SIZE	DEVELOPMENT LENGTH, ℓ_d	
	BASIC	W/ CONC COVER *
#3	8"	6"
#4	10"	7"
#5	1'-0"	9"
#6	1'-3"	11"
#7	1'-5"	1'-0"
#8	1'-7"	1'-2"
#9	1'-10"	1'-4"
#10	2'-1"	1'-6"
#11	2'-3"	1'-7"

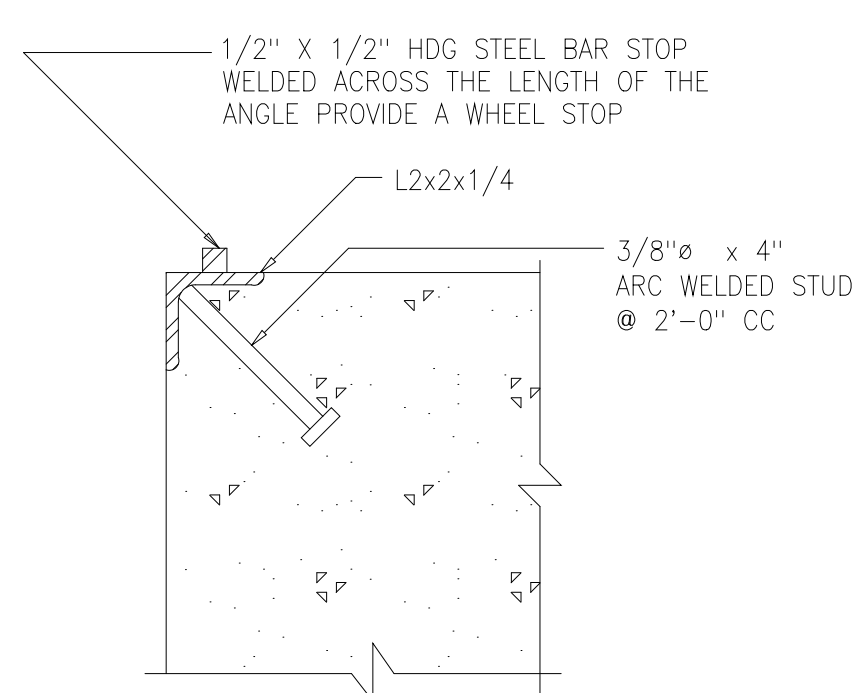
* SIDE COVER NORMAL TO PLANE OF HOOK AT LEAST 2 1/2", AND FOR 90° HOOK, END COVER BEYOND OUTSIDE END OF HOOK AT LEAST 2".



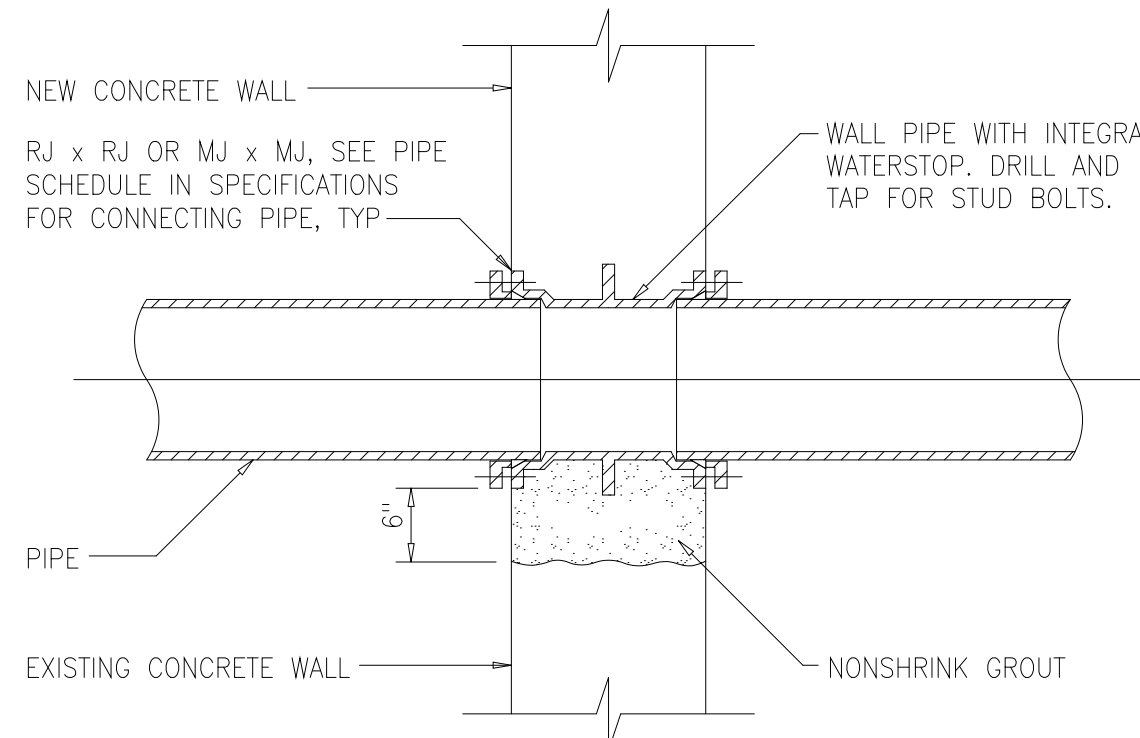
STANDARD ACCESS HATCH



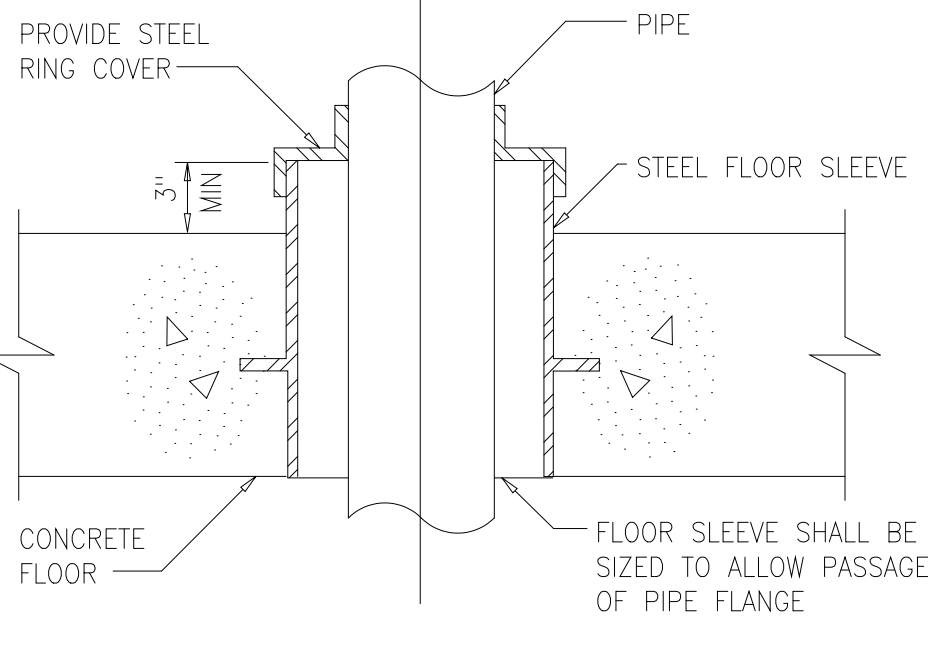
WATERTIGHT ACCESS HATCH



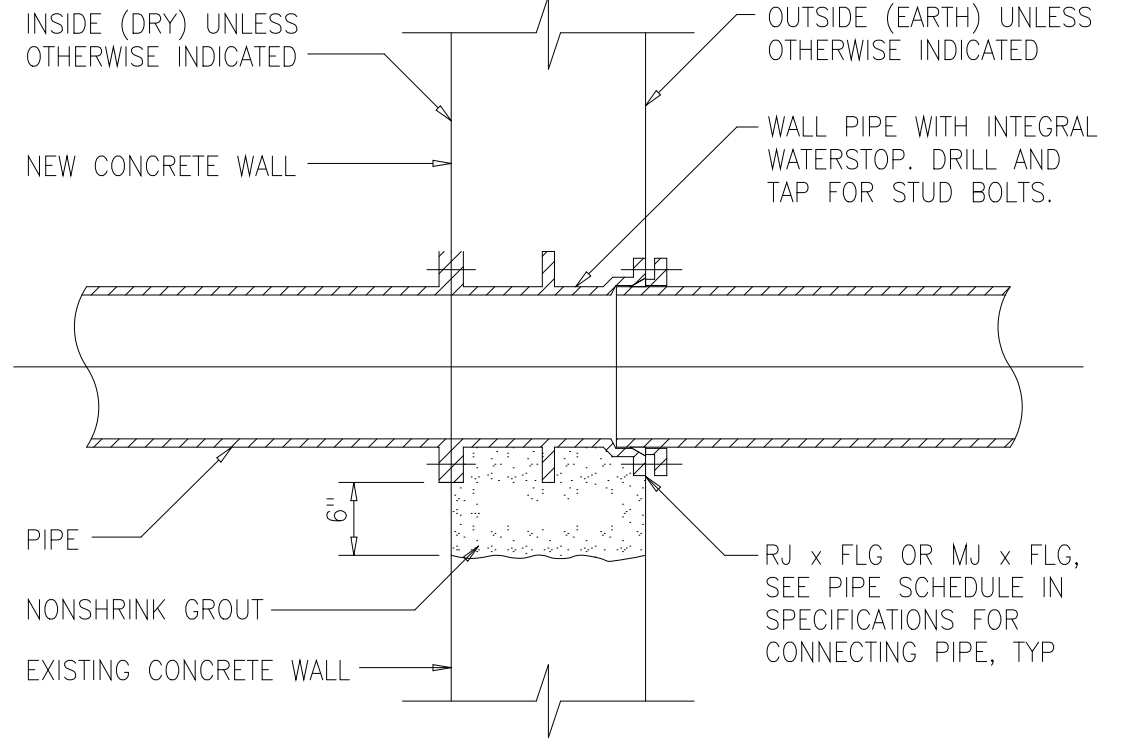
CORNER GUARD



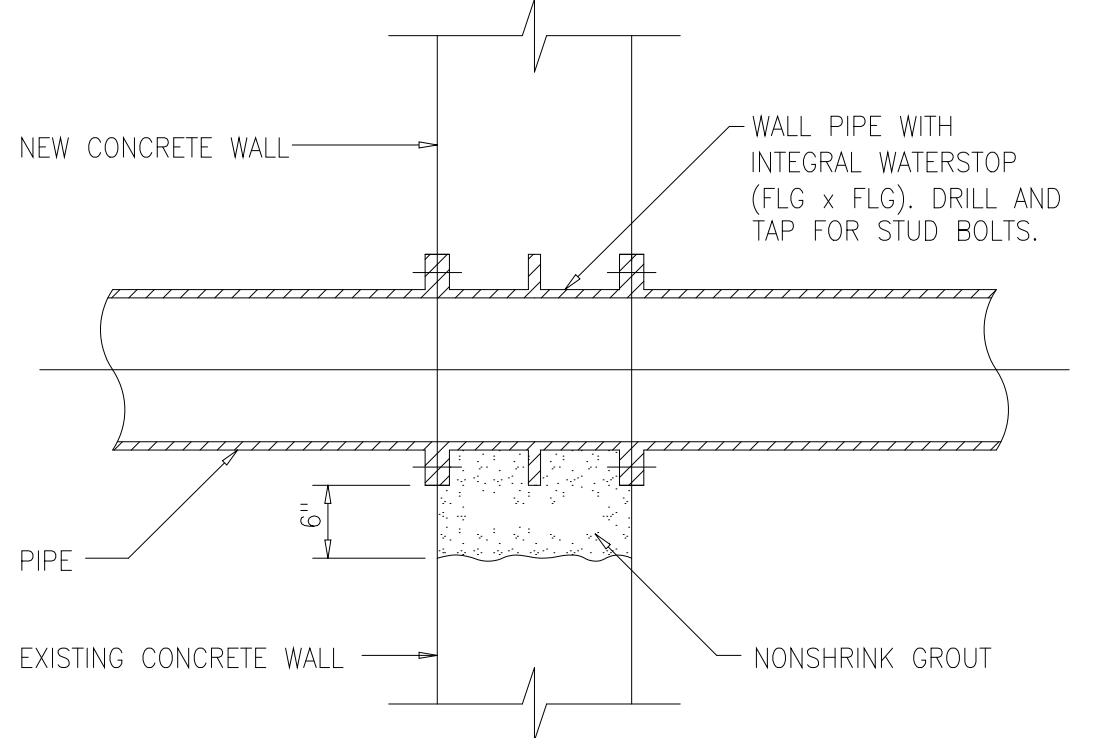
FLOOR PENETRATION



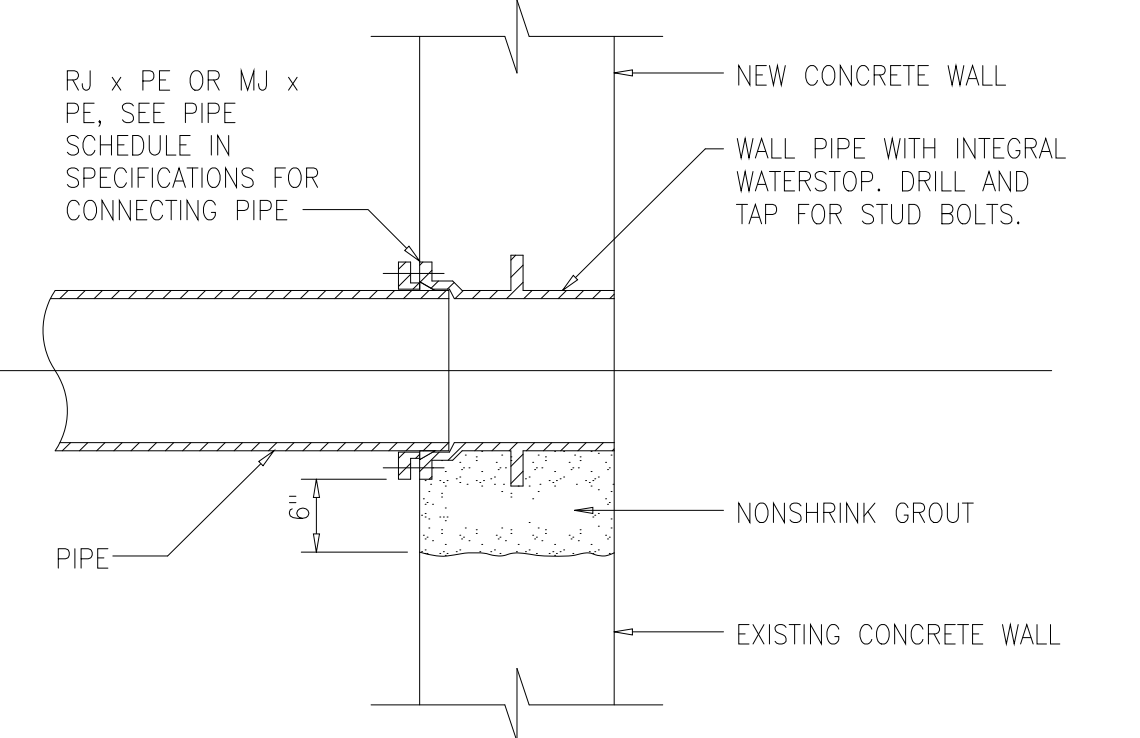
FLOOR PENETRATION



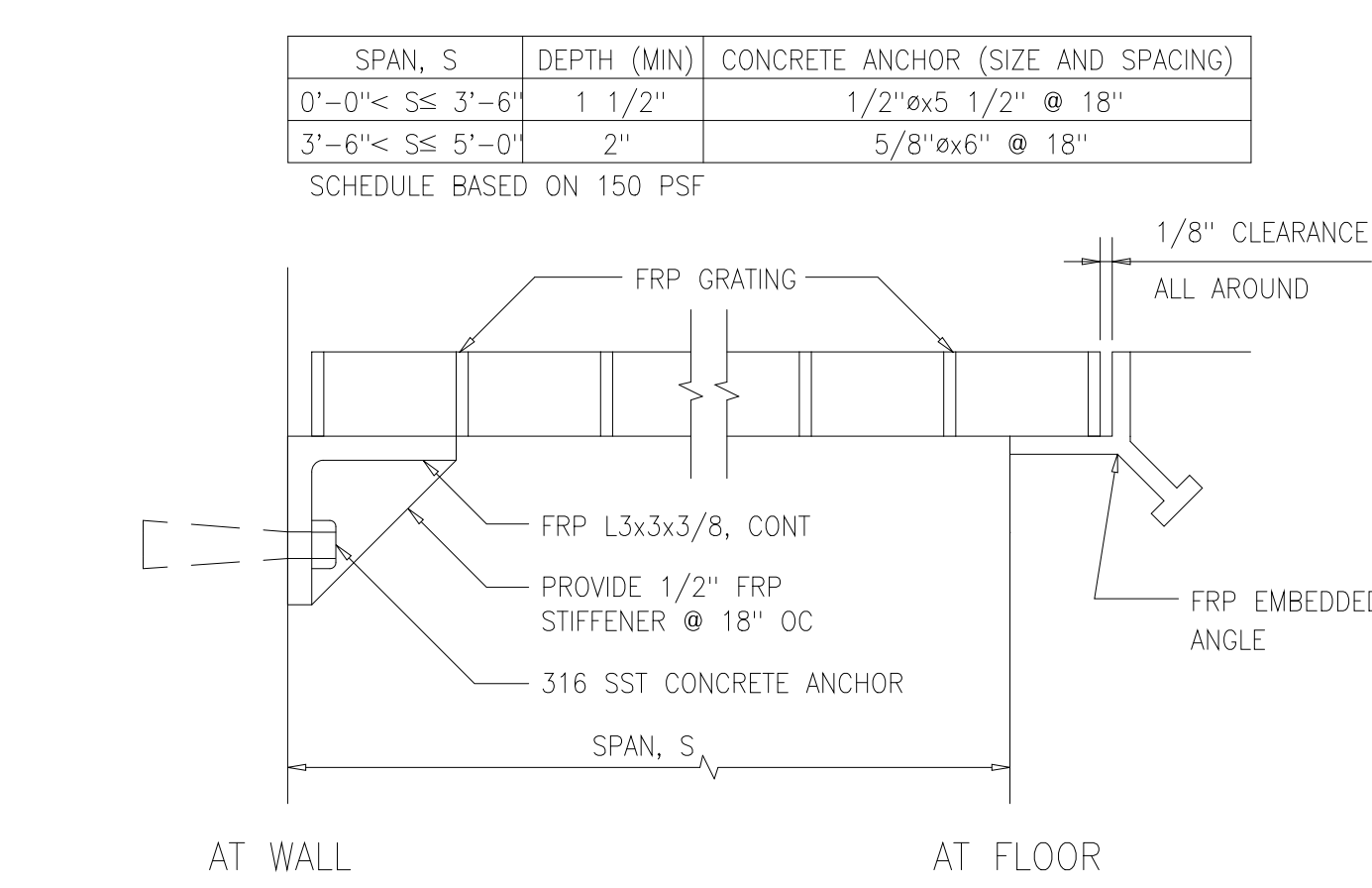
FLOOR PENETRATION



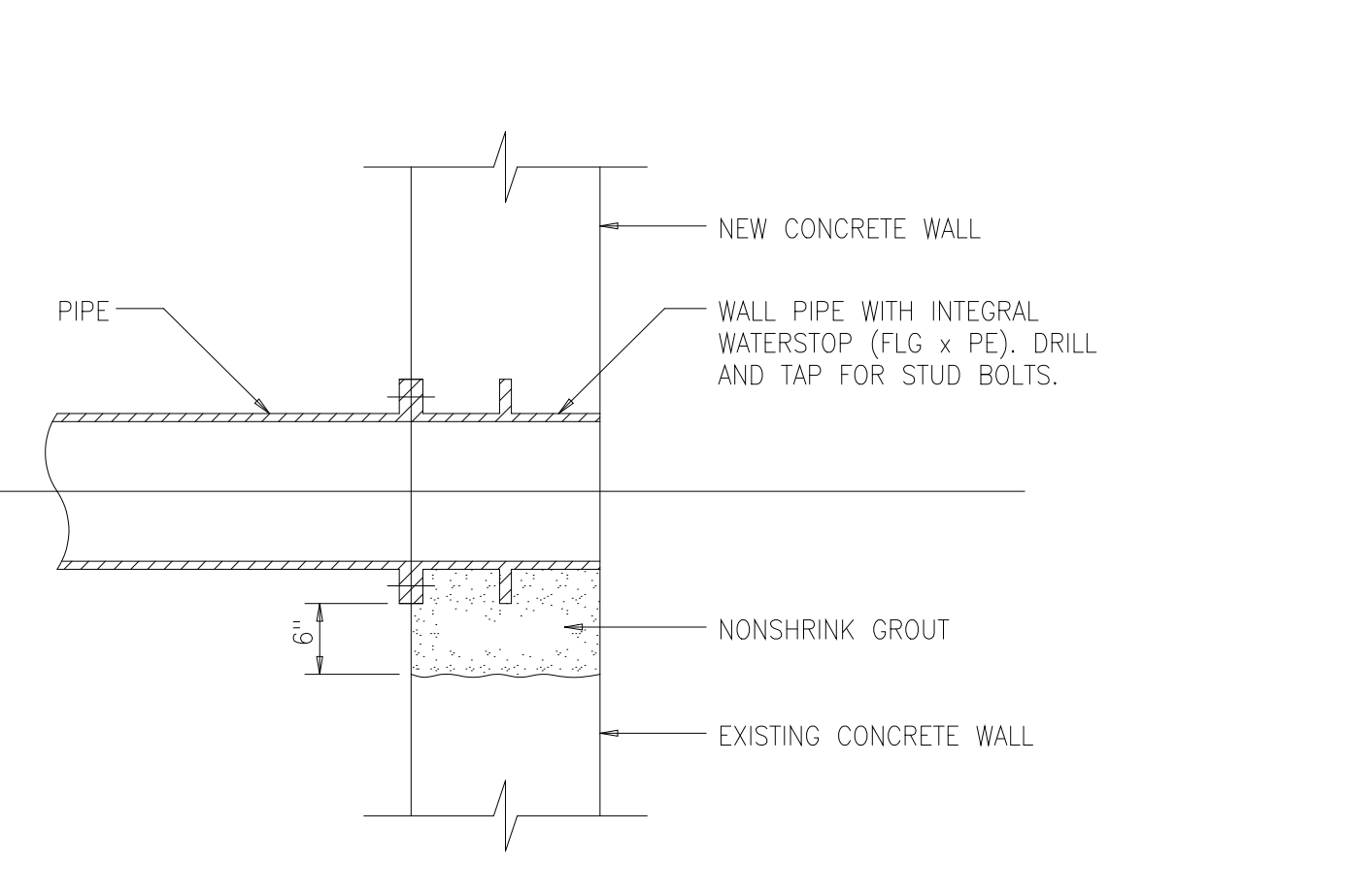
FLOOR PENETRATION



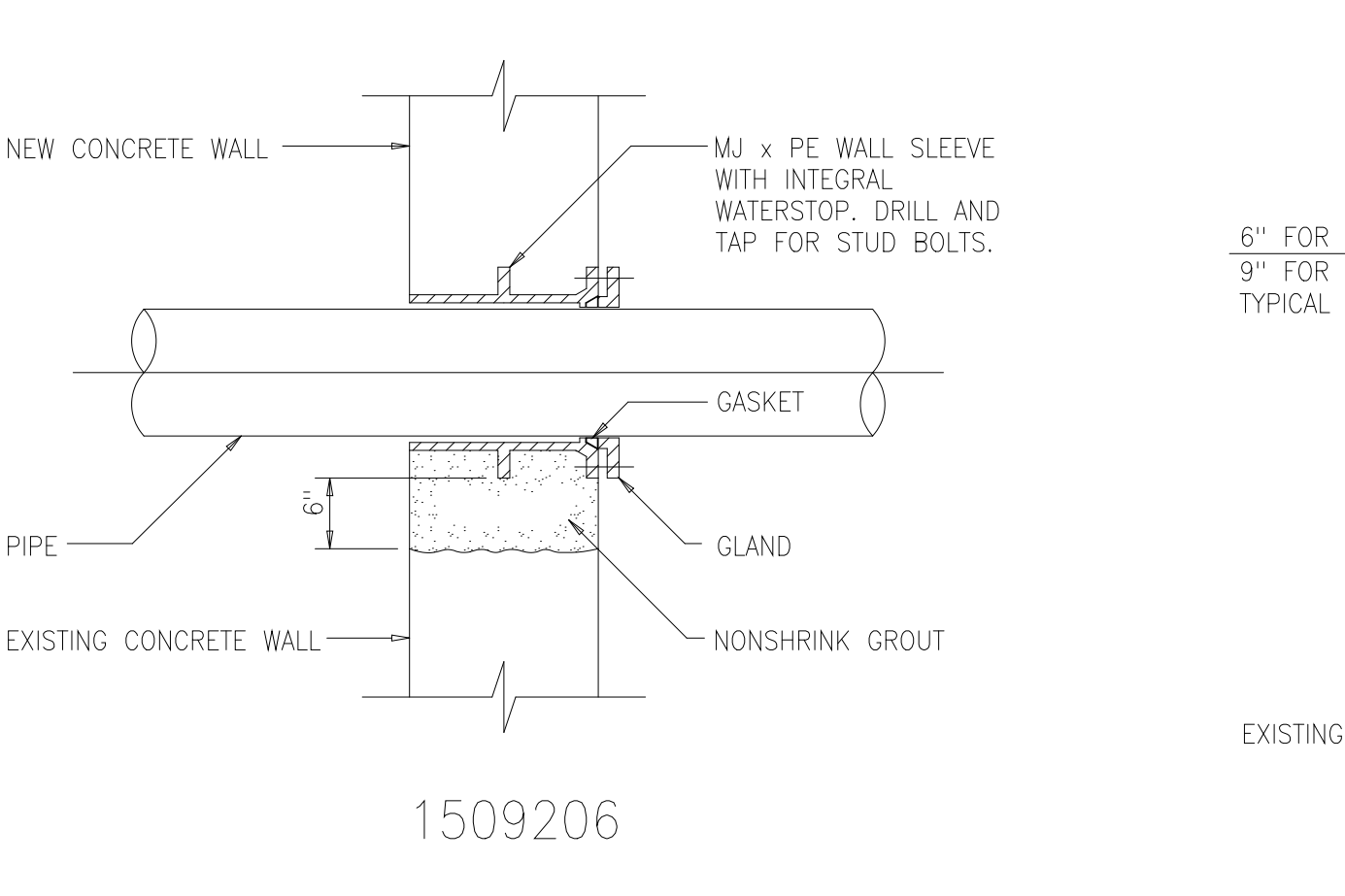
FLOOR PENETRATION



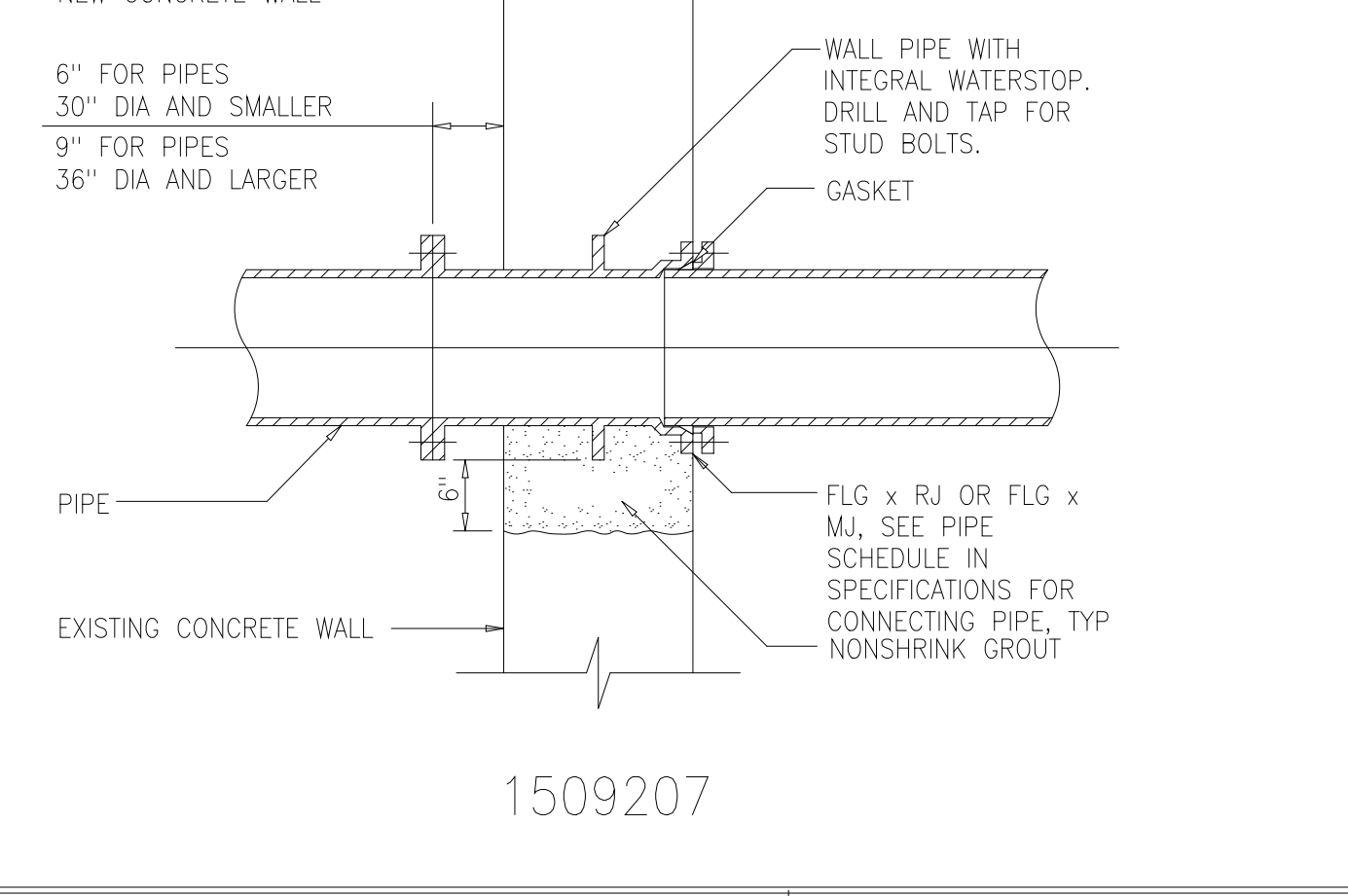
FRP GRATING



FRP GRATING

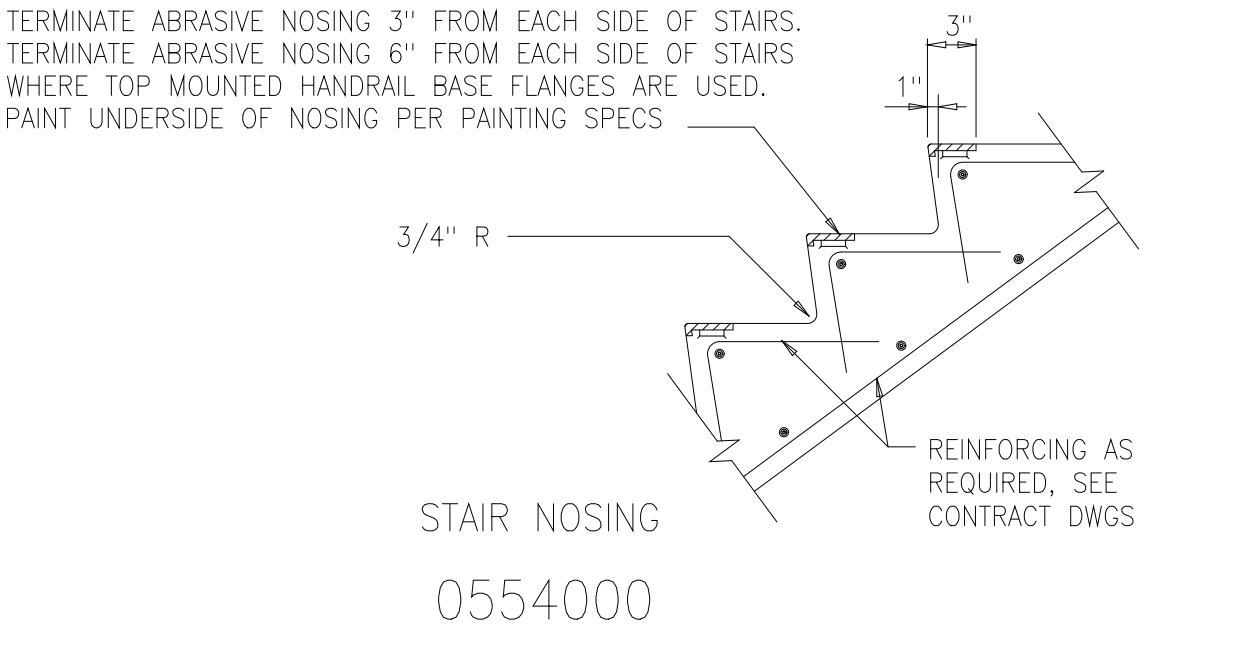


FLOOR PENETRATION

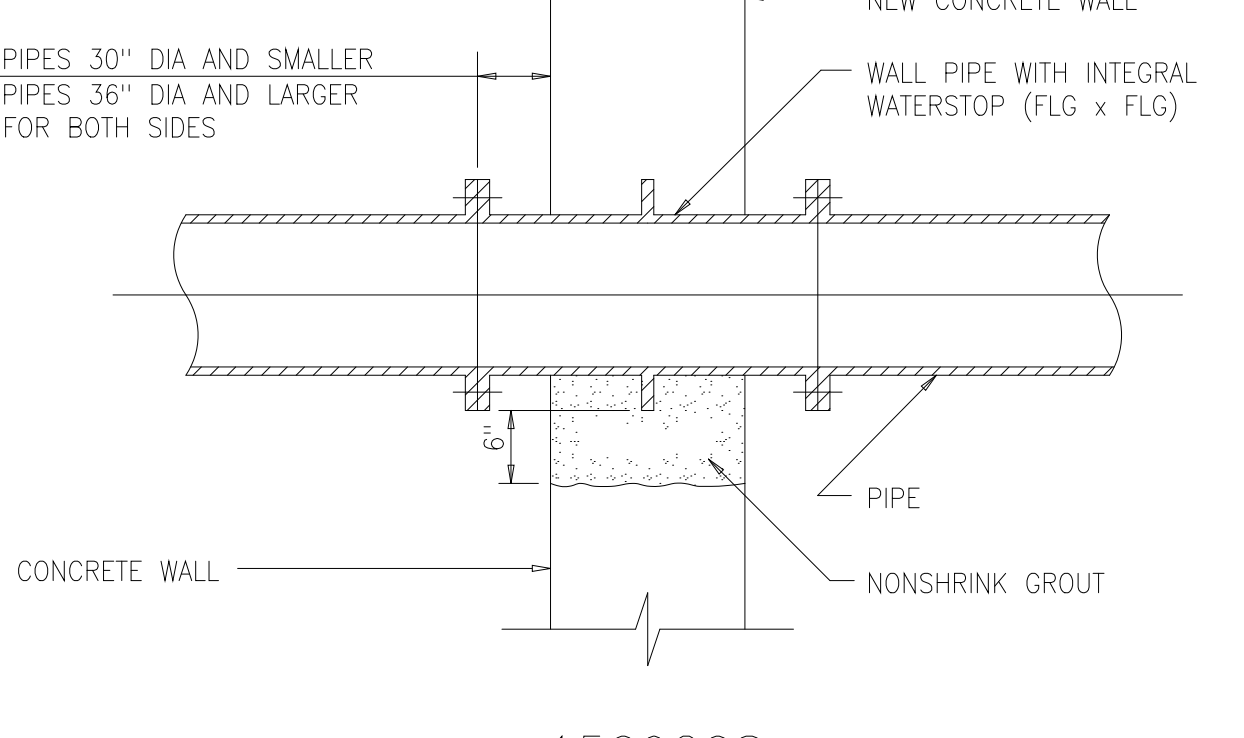


FLOOR PENETRATION

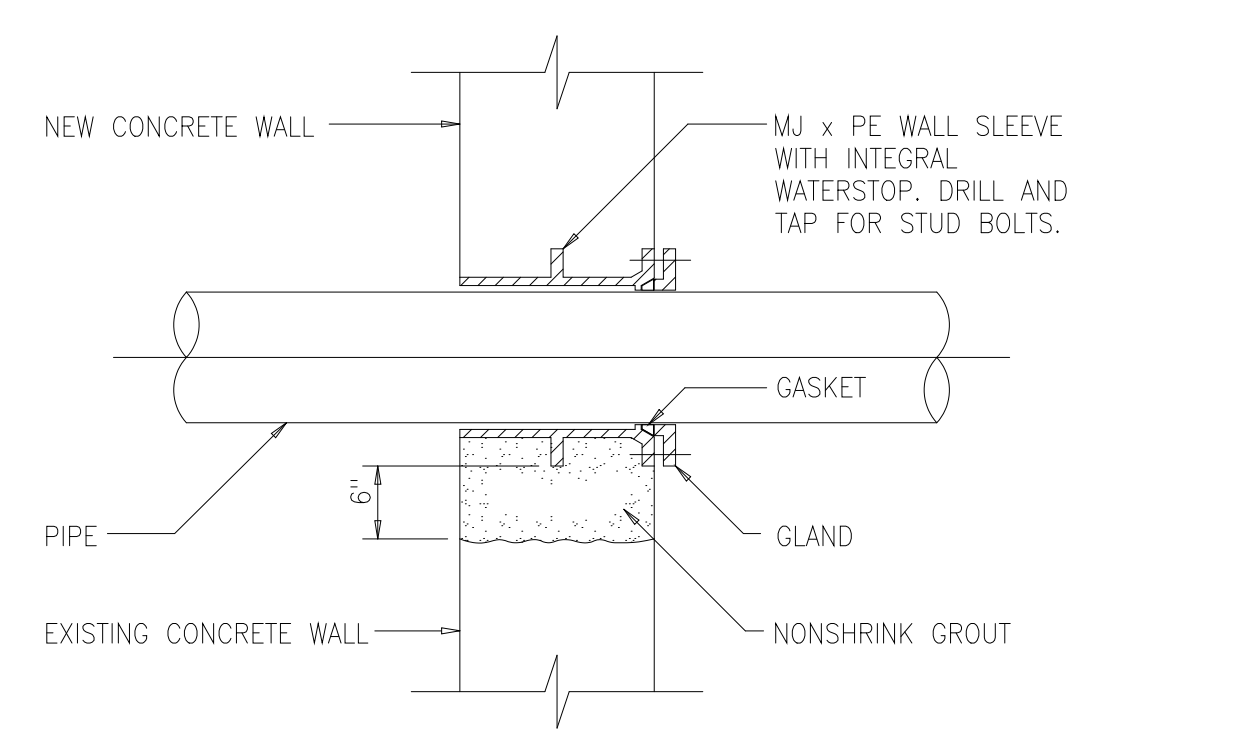
- GENERAL CONCRETE NOTES:**
- CONCRETE PROTECTION FOR REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE DRAWINGS:
 A - CONCRETE DEPOSITED DIRECTLY AGAINST SOIL _____ 3"
 B - CONCRETE EXPOSED TO WEATHER (#5 OR SMALLER) _____ 1 1/2"
 (#6 OR LARGER) _____ 2"
 C - SLABS AT SURFACES CONTACTING WATER OR SEWAGE _____ 2"
 D - BEAMS AND COLUMNS (TO MAIN REINFORCEMENT) (TO COLUMN TIES OR STIRRUPS) SURFACES EXPOSED TO SEAWATER _____ 4"
 E - WALLS 12" OR MORE _____ 2"
 WALLS LESS THAN 12" (#5 OR SMALLER) SURFACES EXPOSED TO SEAWATER _____ 1 1/2"
 (#6 OR LARGER) _____ 2"
 F - FOR SURFACES EXPOSED TO WATER OR SEWAGE IN BEAMS, COLUMNS AND WALLS ADD 1/2" TO ABOVE.
 - SPLICES SHALL BE CLASS "B" CONFORMING TO THE PROVISIONS OF ACI 318-89 UNLESS NOTED OTHERWISE.
 - ALL EMBEDDED ITEMS SHALL BE INSTALLED AND SECURED IN PLACE BEFORE CONCRETE PLACEMENT. CONSULT ELECTRICAL, MECHANICAL AND HVAC DRAWINGS FOR PIPING, EMBEDDED ITEMS AND OPENINGS.
 - ALL JOINTS IN WATER BEARING STRUCTURES SHALL HAVE A WATERSTOP. ALL JOINTS BELOW GRADE IN WALLS OR SLABS WHICH ENCLOSE AN ACCESSIBLE AREA SHALL HAVE WATERSTOPS.
 - CONSTRUCTION JOINTS NOT SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER PRIOR TO SUBMITTING REBAR SHOP DRAWINGS.
 - PROVIDE VERTICAL CONSTRUCTION JOINTS IN WALLS AND HORIZONTAL JOINTS IN SLABS NOT GREATER THAN 45'-0" ON CENTER.
 - NO BACKFILL SHALL BE PLACED AGAINST ANY SUBSTRUCTURE WALLS UNLESS ADJACENT FLOOR SLABS HAVE TAKEN THEIR FINAL SET, OR WALLS HAVE BEEN PROPERLY BRACED, AND IN ANY CASE NOT SOONER THAN 28 DAYS AFTER THE PLACING OF CONCRETE UNLESS APPROVED BY THE ENGINEER.



STAIR NOSING



FLOOR PENETRATION



FLOOR PENETRATION

BASIC DEVELOPMENT LENGTH AND SPLICE LENGTH FOR BARS IN COMPRESSION

fy = 60,000 psi fc' = 4000 psi OR GREATER

BASIC DEVELOPMENT LENGTH			SPLICE LENGTH		
BASIC	CONFINEMENT *	BAR SIZE	BASIC	CONFINEMENT *	
8"	8"	# 3	12"	12"	
10"	8"	# 4	1'-3"	12"	
1'-0"	9"	# 5	1'-7"	1'-3"	
1'-3"	1'-0"	# 6	1'-11"	1'-6"	
1'-5"	1'-1"	# 7	2'-3"	1'-9"	
1'-7"	1'-3"	# 8	2'-6"	1'-11"	
1'-10"	1'-4"	# 9	2'-10"	2'-2"	
2'-1"	1'-7"	# 10	3'-3"	2'-6"	
2'-3"	1'-8"	# 11	3'-7"	2'-9"	

* BAR ENCLOSED WITHIN SPIRALS OF NOT LESS THAN 1/4 INCH DIAMETER AND NOT MORE THAN 4 INCH PITCH OR WITHIN #4 TIES IN CONFORMANCE WITH ACI 318-95, SECTION 7.10.5 AT NOT MORE THAN 4 INCHES ON CENTER, FACTOR 0.75 USED.

BASIC DEVELOPMENT LENGTH AND SPLICE LENGTH FOR BARS IN TENSION

fy = 60,000 psi fc' = 4000 psi OR GREATER, NORMAL WEIGHT CONCRETE

BASIC DEVELOPMENT LENGTH **				CLASS B SPLICE LENGTH **				
ℓ_d		BAR SIZE	1.3 \times d		ℓ_d		1.3 \times d	
CLEAR SPACING \geq 3"	CLEAR SPACING $<$ 3"		CLEAR SPACING \geq 3"	CLEAR SPACING $<$ 3"	CLEAR SPACING \geq 3"	CLEAR SPACING $<$ 3"	CLEAR SPACING \geq 3"	CLEAR SPACING $<$ 3"
BASIC	TOP *	BASIC	TOP *	BASIC	TOP *	BASIC	TOP *	
1'-0"	1'-0"	1'-0"	1'-4"	# 3	1'-0"	1'-3"	1'-4"	1'-8"
1'-0"	1'-3"	1'-7"	2'-1"	# 4	1'-3"	1'-8"	2'-1"	2'-8"
1'-3"	1'-7"	2'-4"	3'-0"	# 5	1'-7"	2'-0"	3'-0"	3'-11"
1'-5"	1'-11"	3'-1"	4'-0"	# 6	1'-11"	2'-5"	4'-0"	5'-2"
2'-5"	3'-1"	4'-11"	6'-4"	# 7	3'-1"	4'-0"	6'-4"	8'-3"
3'-0"	3'-11"	6'-0"	7'-9"	# 8	3'-11"	5'-1"	7'-9"	10'-1"
3'-8"	4'-9"	6'-8"	8'-8"	# 9	4'-9"	6'-2"	8'-8"	11'-4"
4'-5"	5'-8"	7'-5"	9'-8"	# 10	5'-8"	7'-5"	9'-8"	12'-7"
5'-2"	6'-8"	8'-2"	10'-8"	# 11	6'-8"	8'-8"	10'-8"	13'-10"

* TOP REINFORCEMENT IS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.
 ** LENGTHS SHOWN IN CHART SHALL BE MODIFIED WHERE REQUIRED TO CONFORM TO THE PROVISIONS OF ACI 318-95, SECTION 12.2.

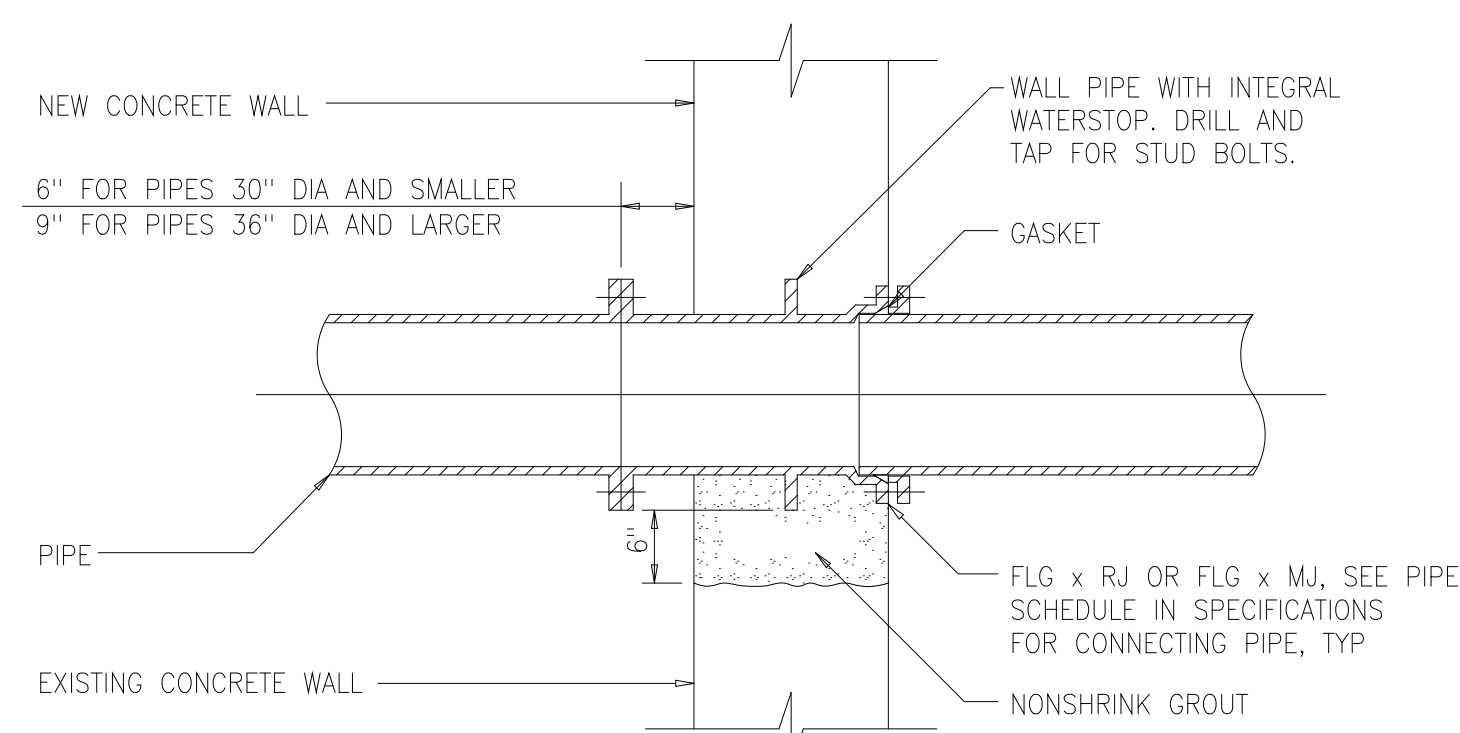
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 4011 WestChase Blvd, Raleigh, North Carolina 27607

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 Scientists
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 FAX: (301) 210-4156

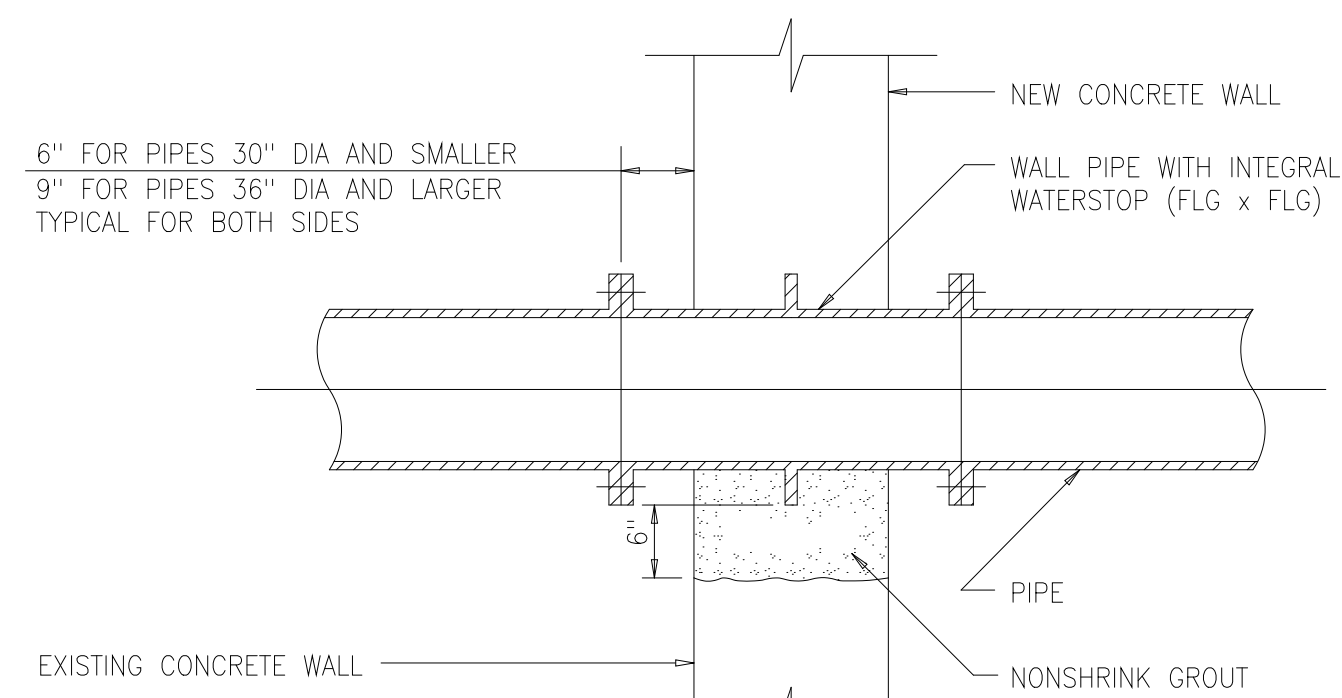
ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
 ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

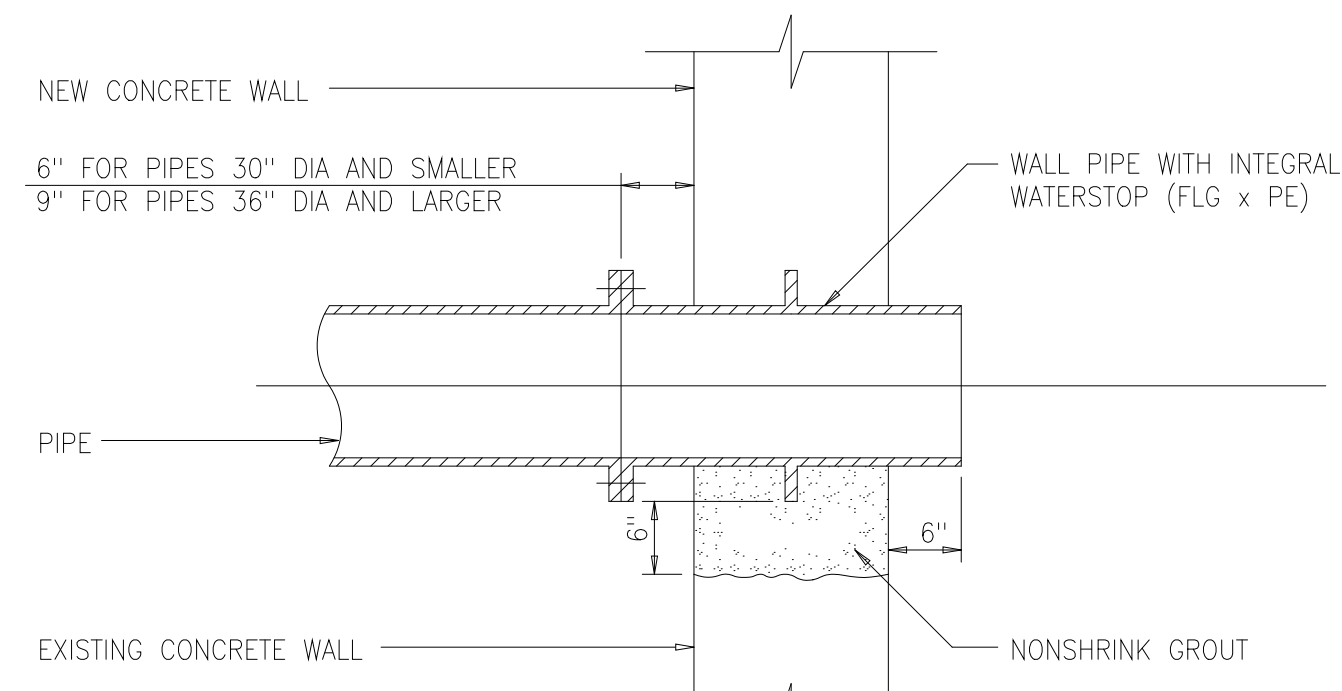
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 CONTRACT NUMBER: 2000-01-MPC
 DRAWING NUMBER: D006
 SHEET 88 OF 99



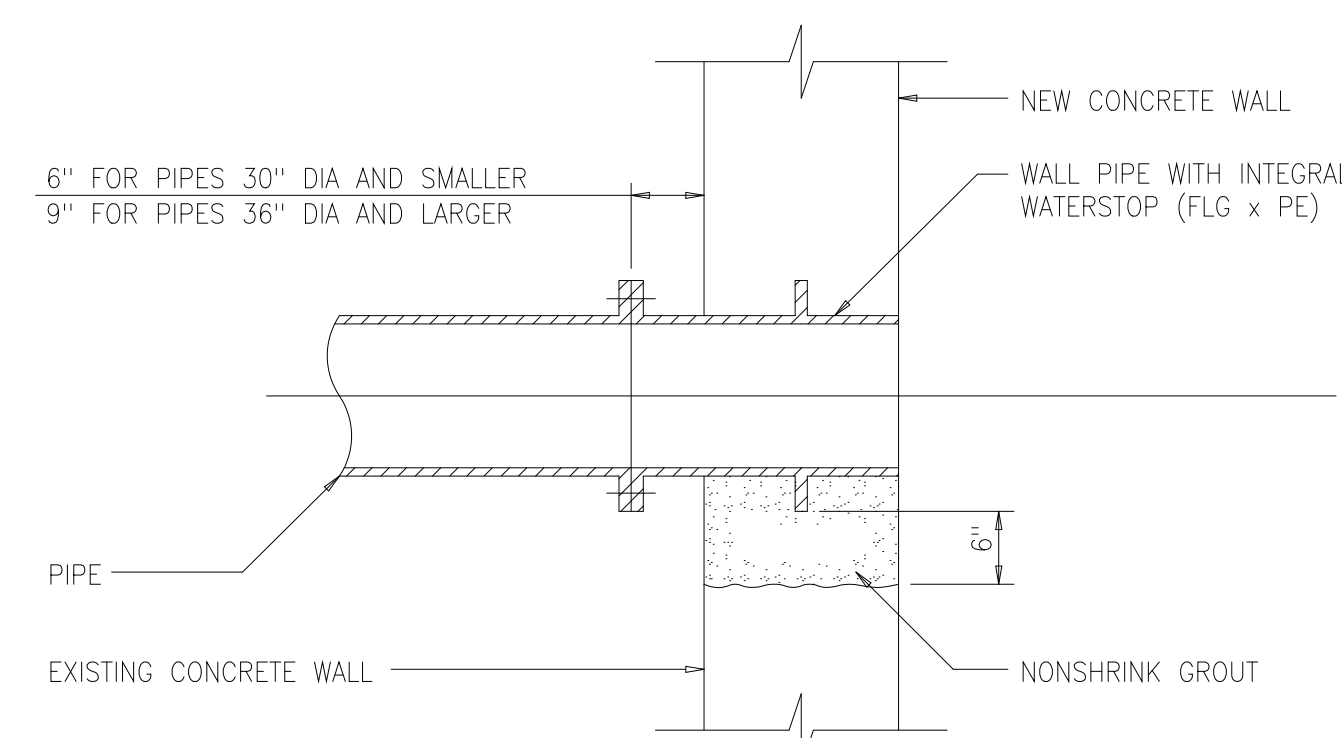
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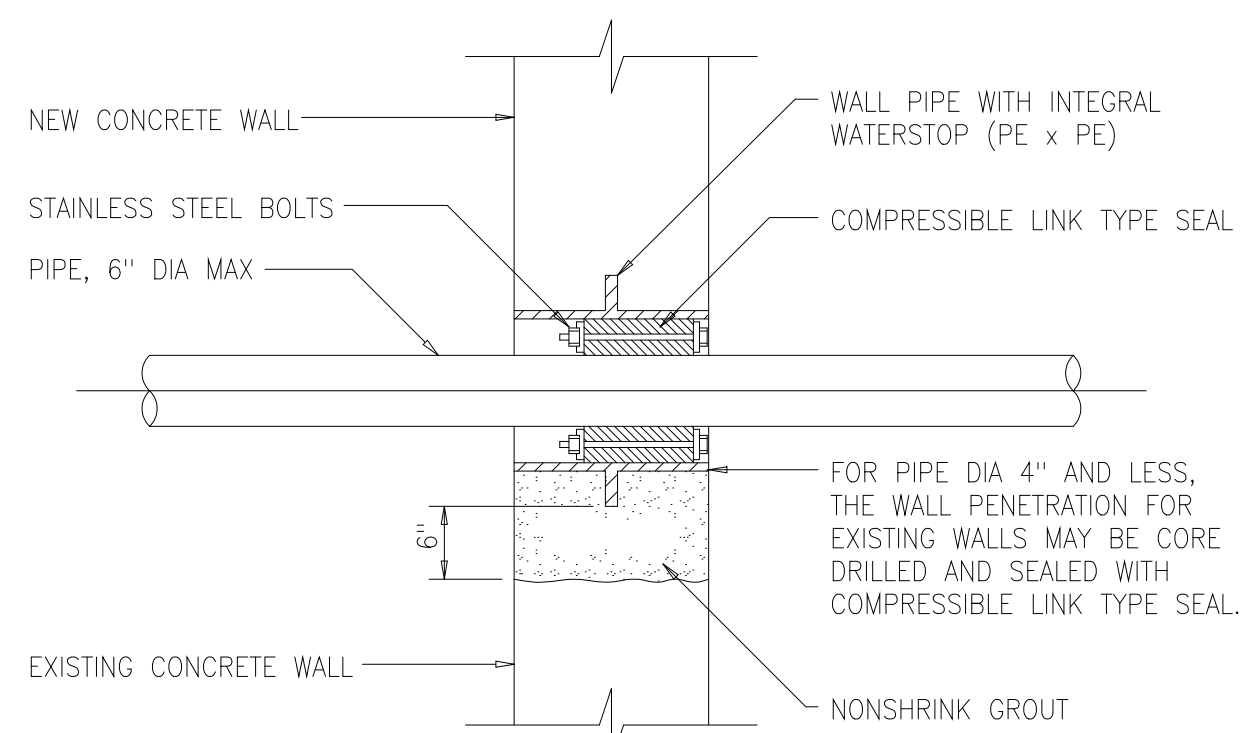
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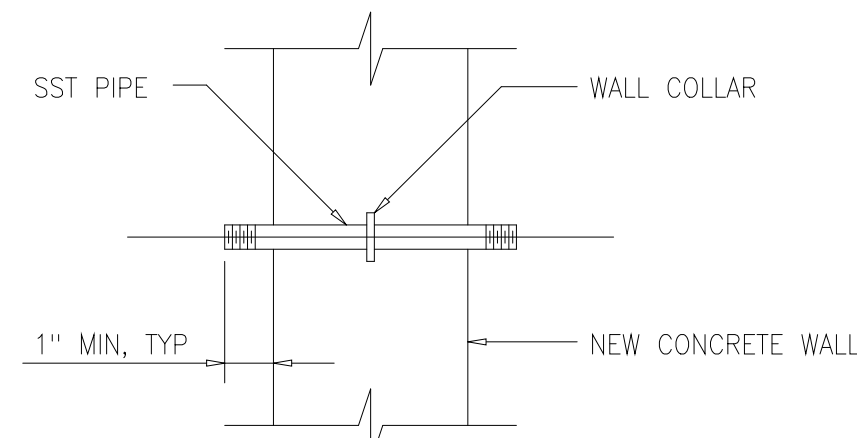
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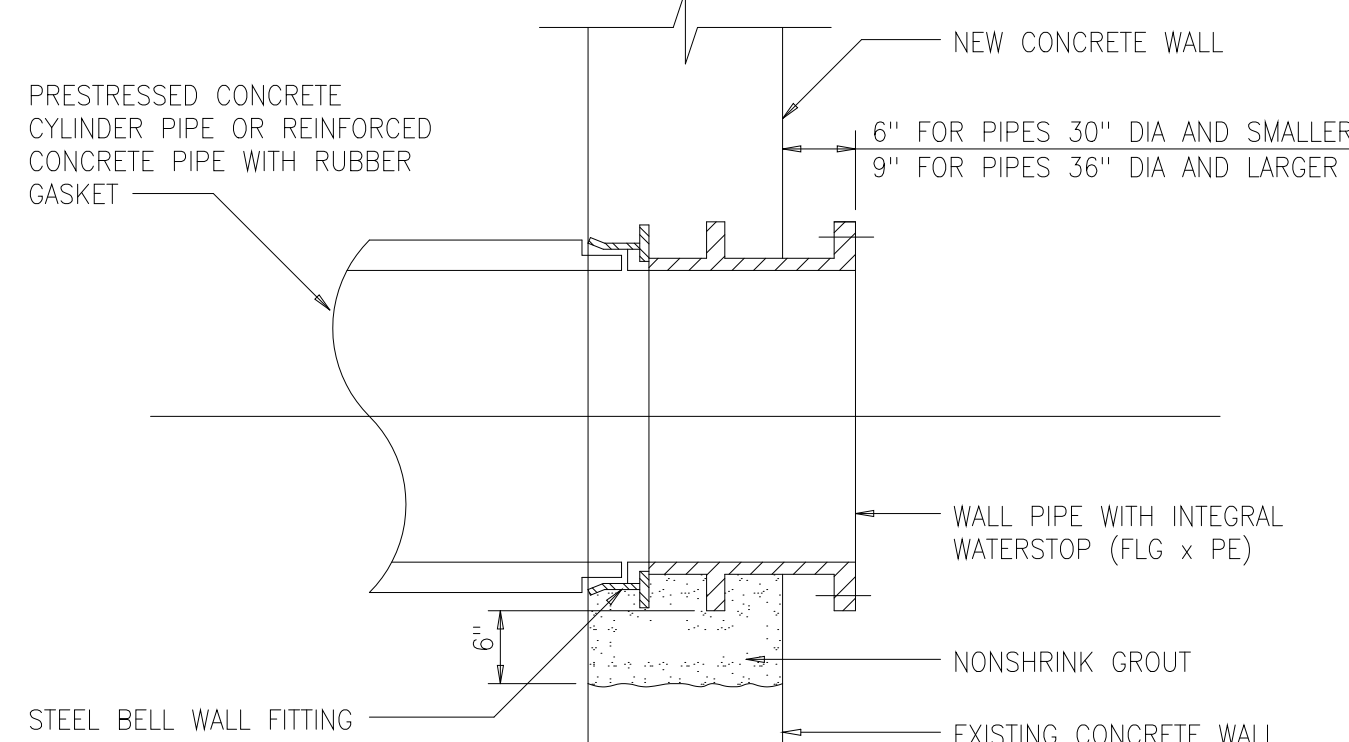
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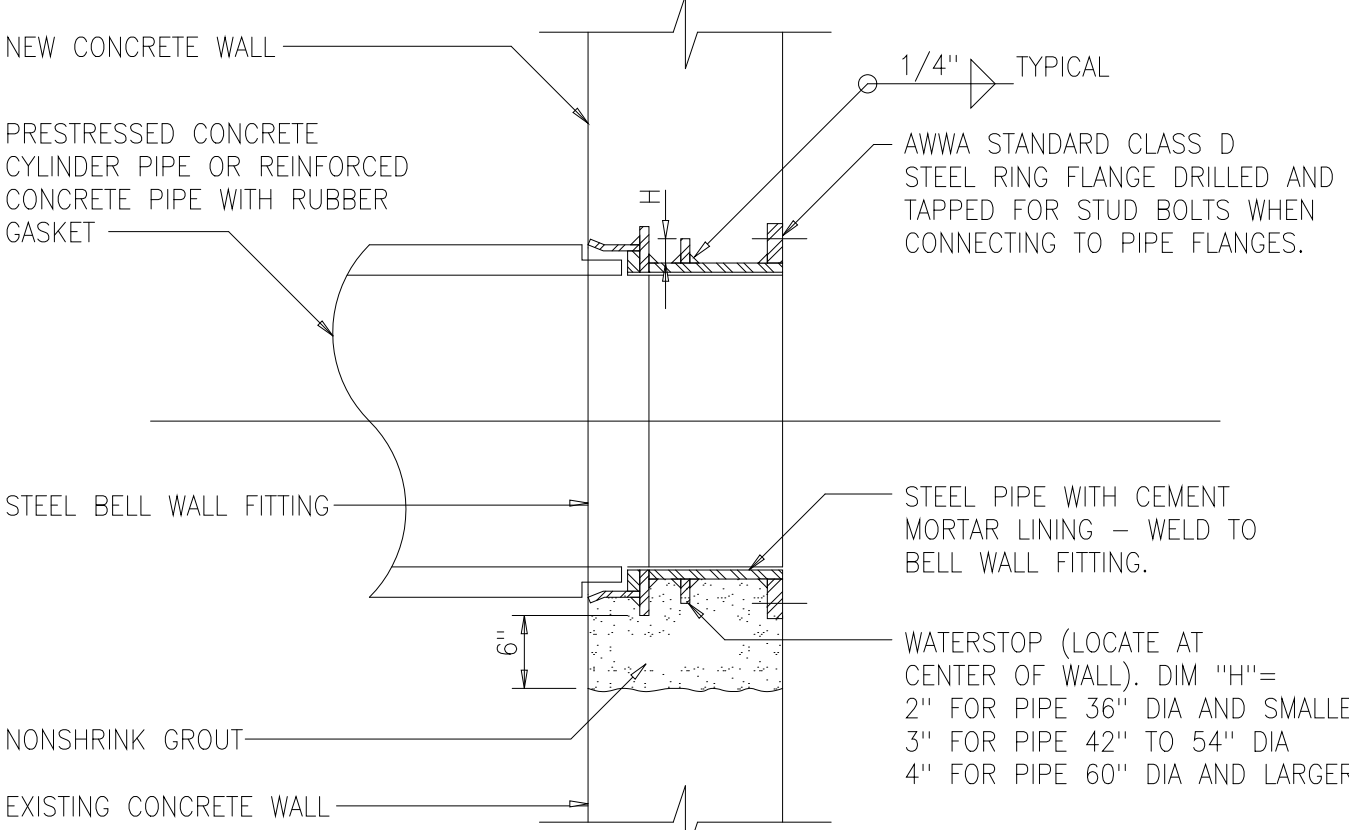
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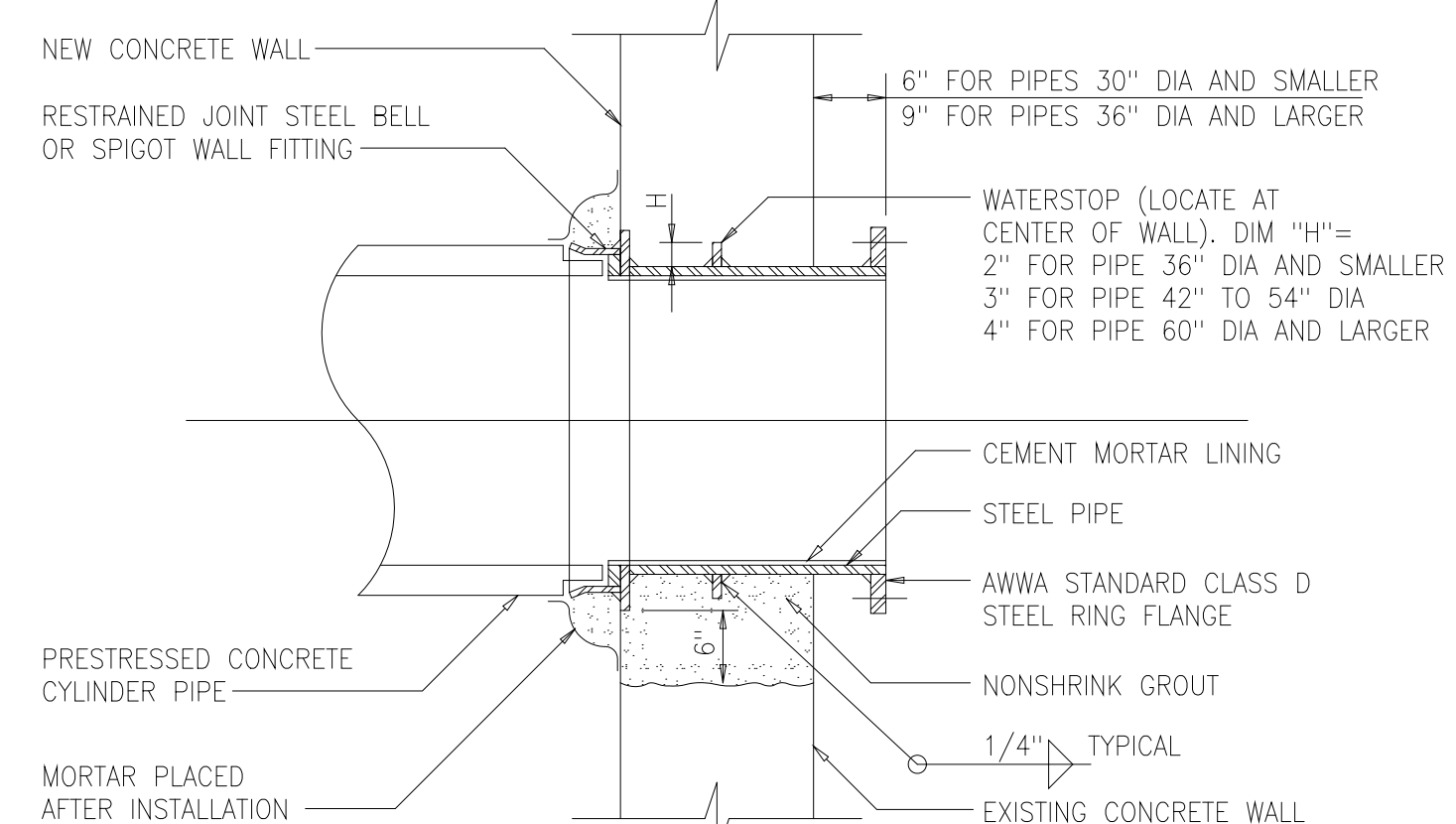
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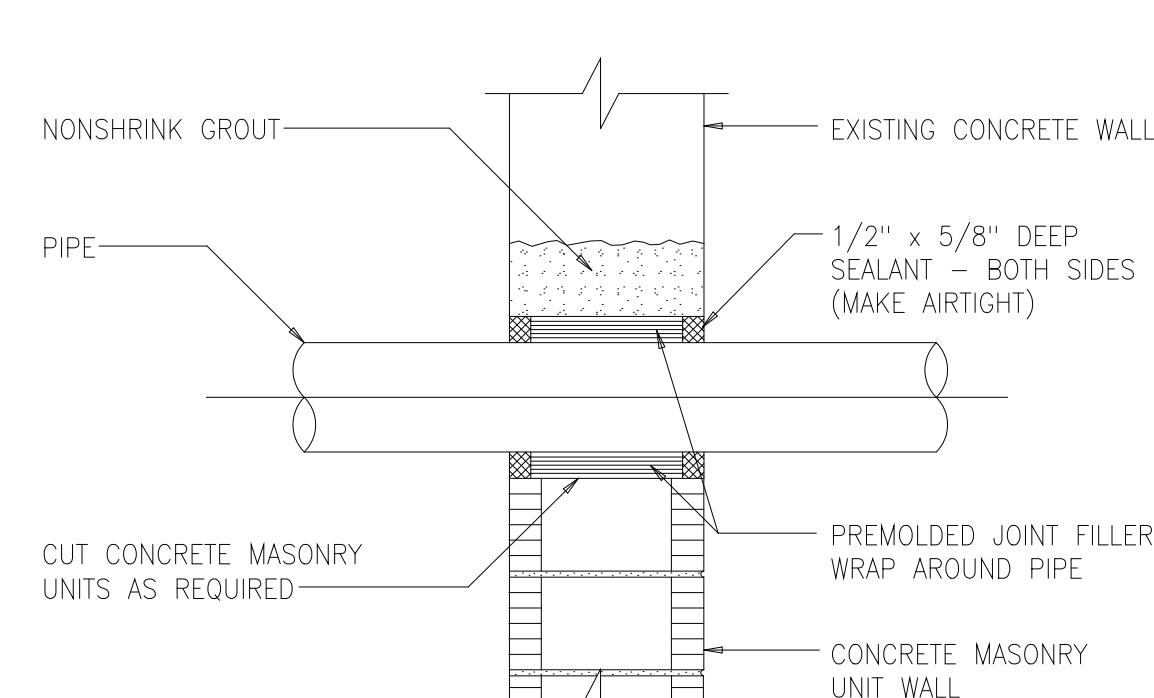
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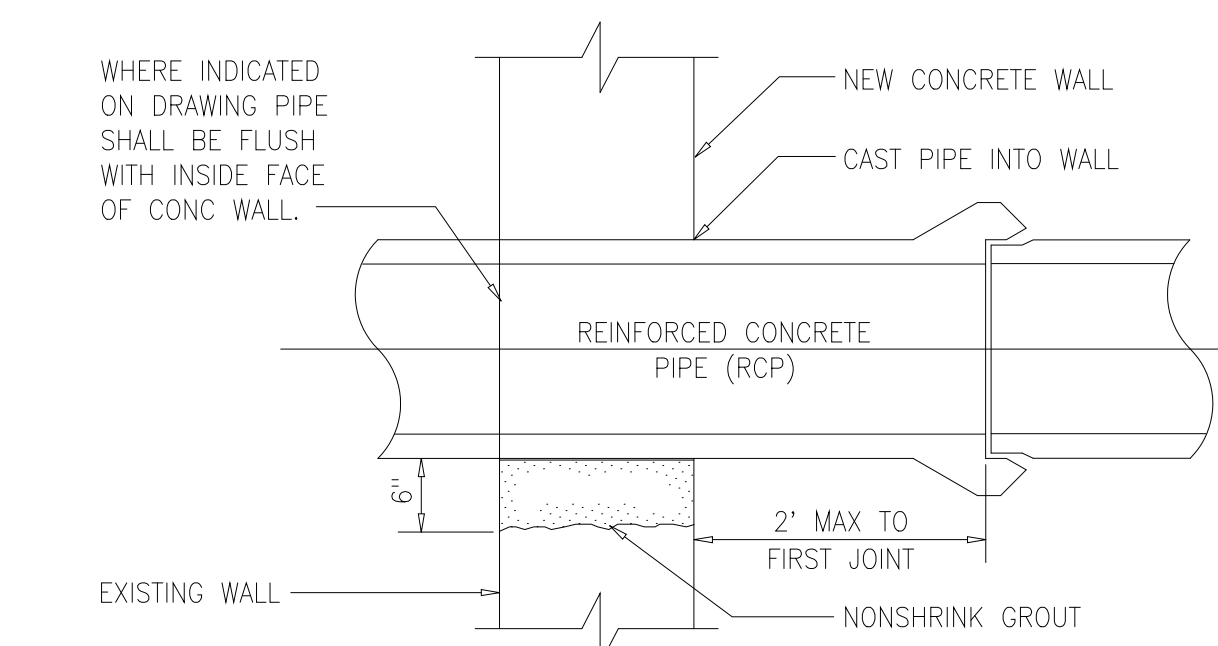
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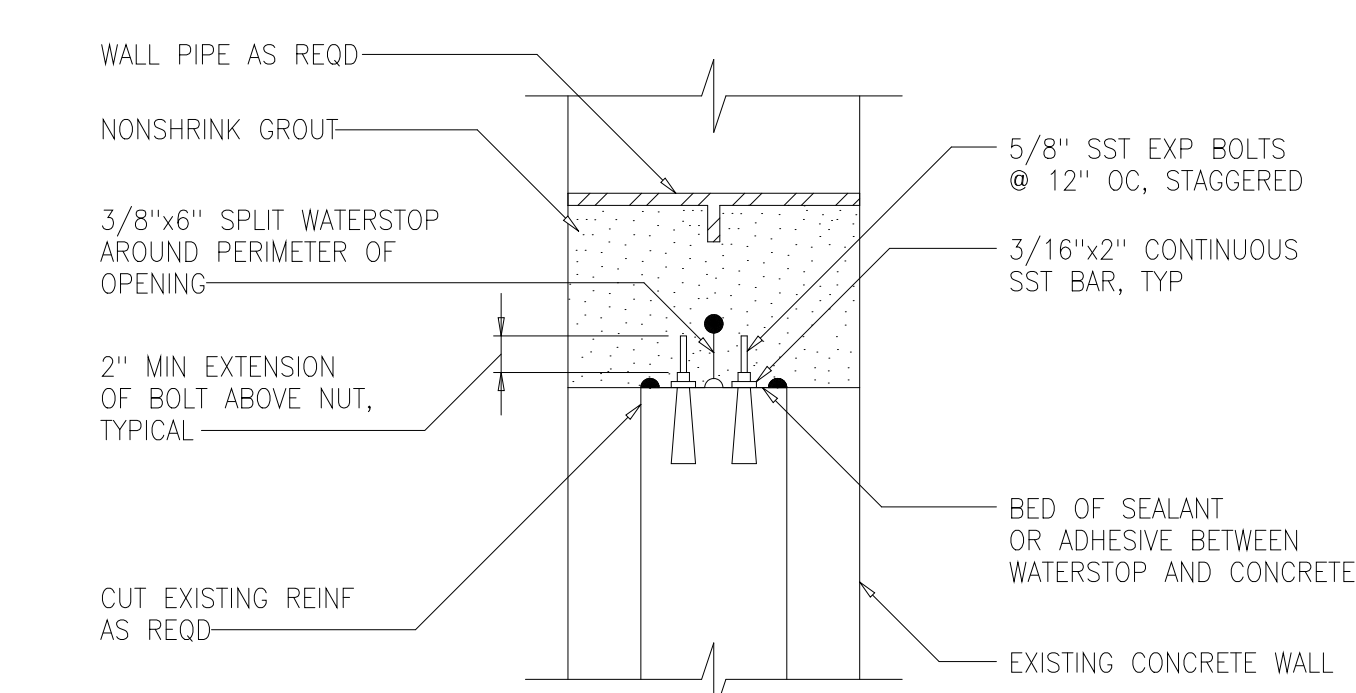
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CAULKED WALL PENETRATION
1509217

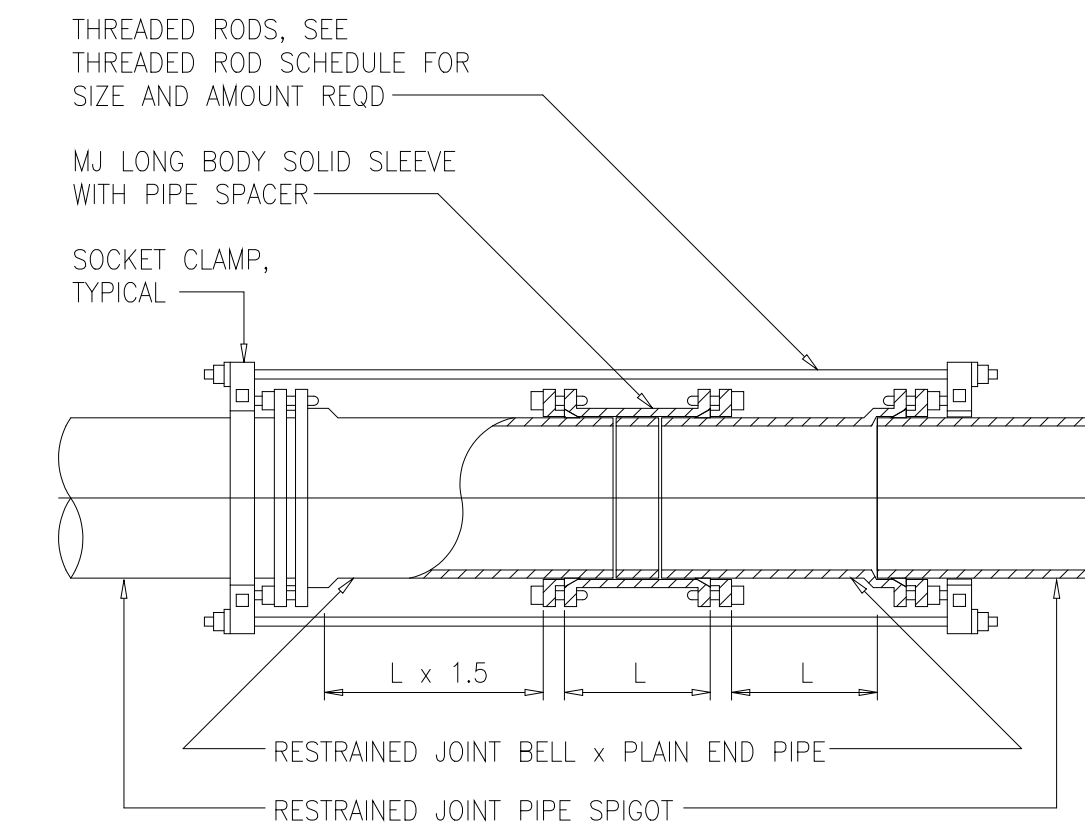


REINFORCED CONCRETE PIPE
WALL PENETRATION
1509218

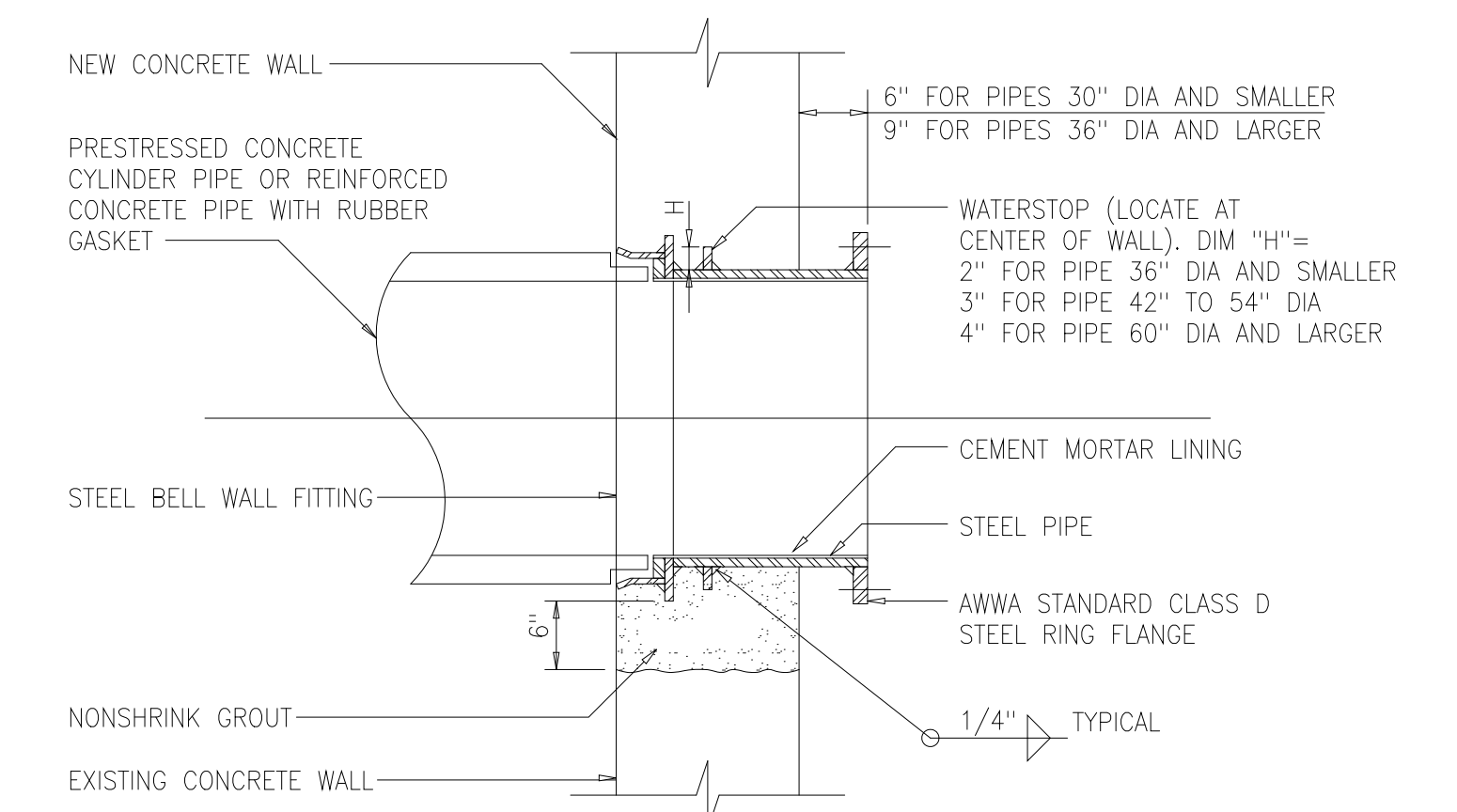


NOTE: EXPANDING RUBBER WATERSTOP PER SPECIFICATIONS MAY BE USED IN LIEU OF DETAIL SHOWN AT CONTRACTOR'S OPTION.

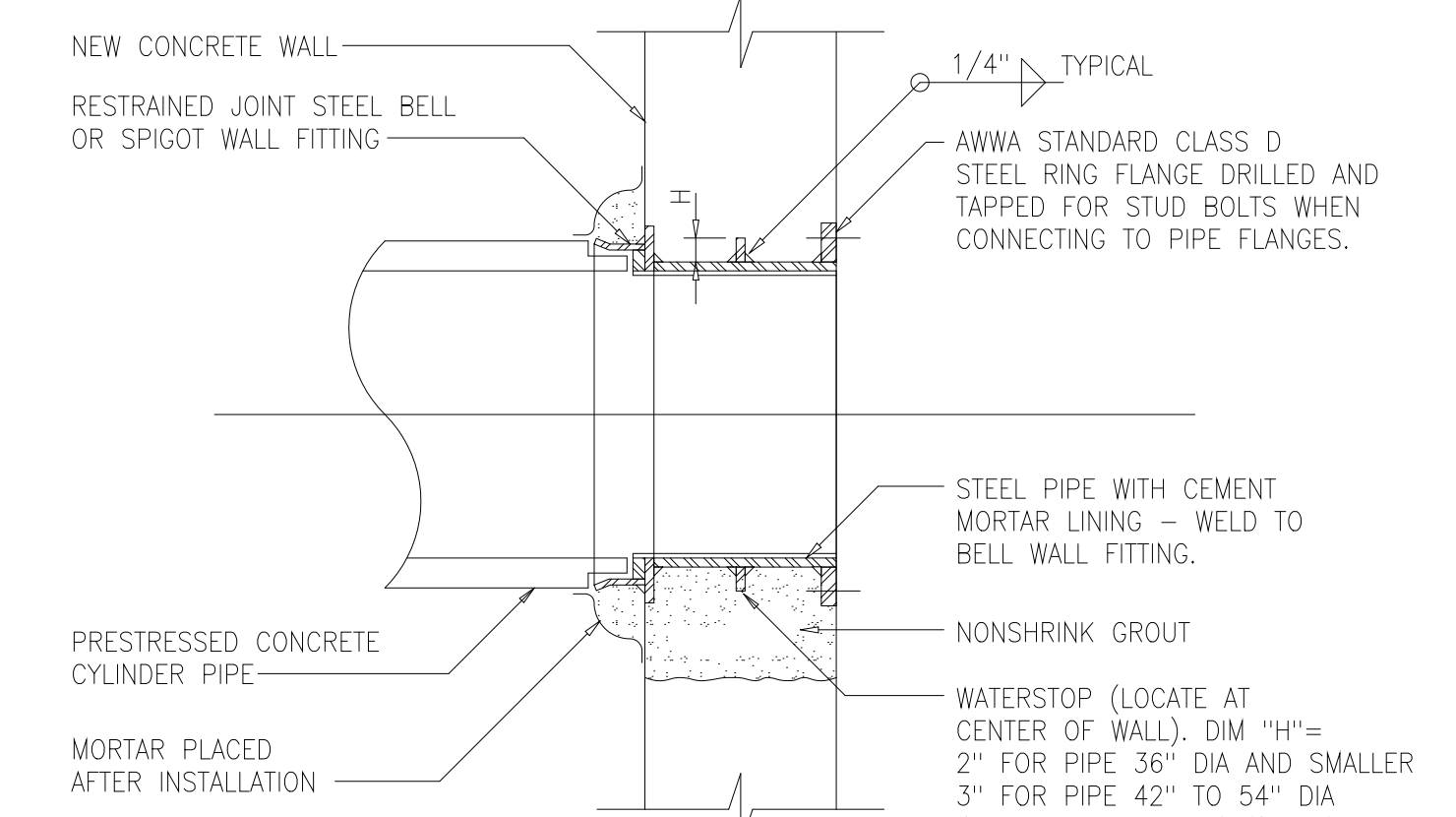
SPLIT WATERSTOP
1509219



RESTRAINED MJ SOLID SLEEVE
1509221



1509226



1509227

NOTES:

- 1 ALL WALL PIPES SHALL BE CAST-IN-PLACE UNLESS OTHERWISE NOTED.
- 2 PROVIDE PIPE JOINT WITHIN TWO (2) FEET OF EXTERIOR FACE OF WALL AT CONNECTION TO ALL NEW AND EXISTING STRUCTURES OR MANHOLES.
- 3 SPLIT WATERSTOP SHALL BE REQUIRED AT ALL NEW PIPE PENETRATIONS THROUGH EXISTING CONCRETE WALLS UNLESS OTHERWISE INDICATED ON THE CONTRACT DRAWINGS. SEE SPLIT WATERSTOP DETAIL, 1509219.
- 4 ALL NEW OPENINGS IN EXISTING CONCRETE WALLS SHALL BE ACCOMPLISHED WITH A CLEAN SAW-CUT. SURFACES SHALL BE ROUGHENED BY APPROVED METHODS.

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ. ENGR.	ASG
APPROVED	

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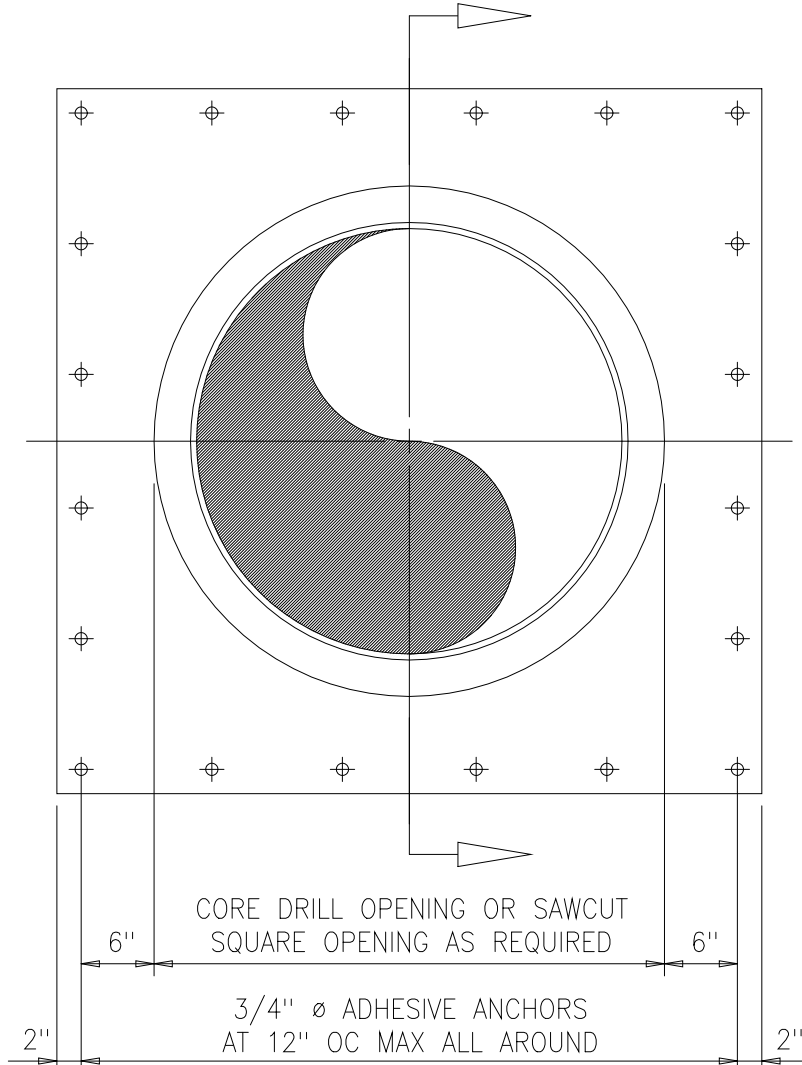
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

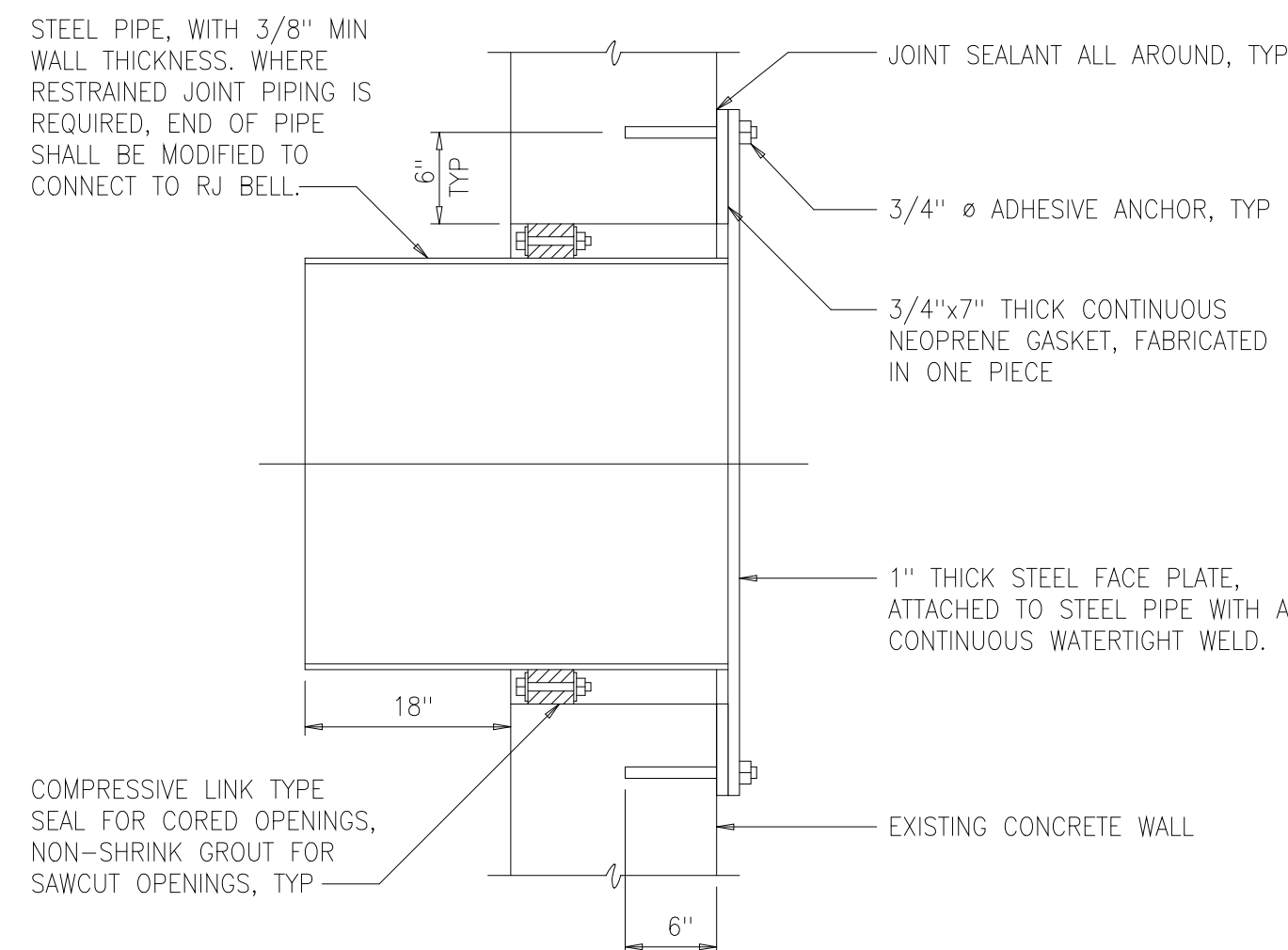
ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D007
	SHEET 89 OF 99

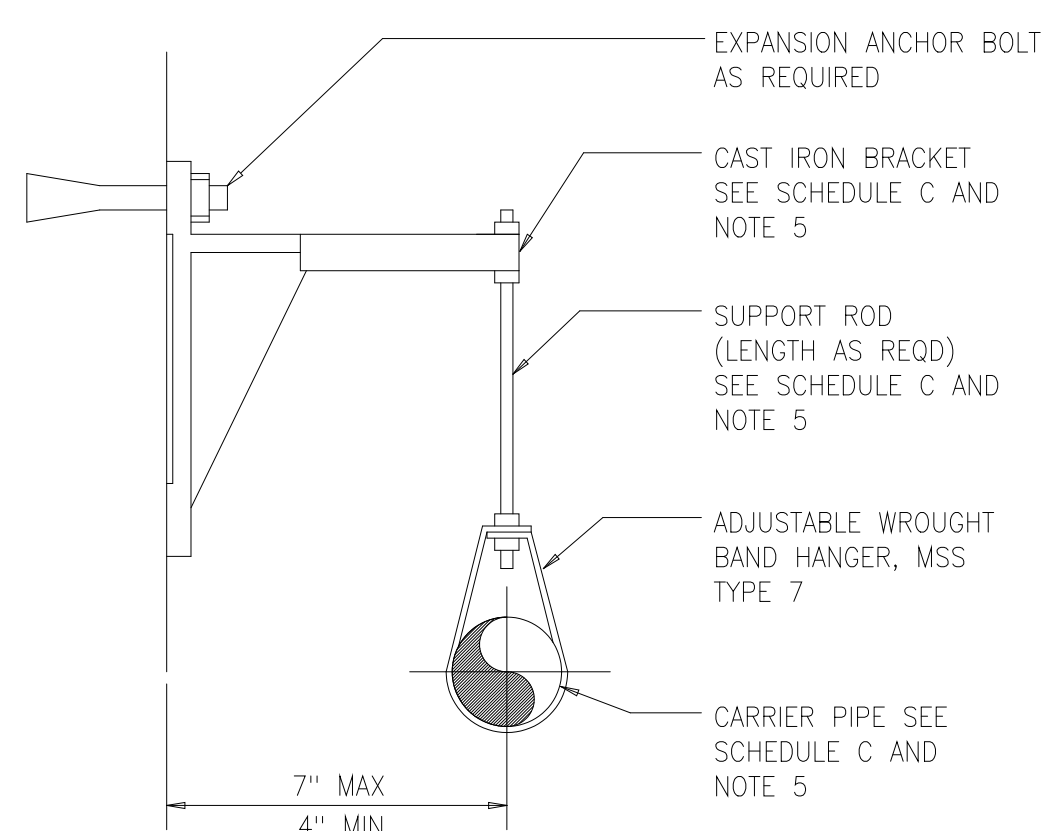


ELEVATION

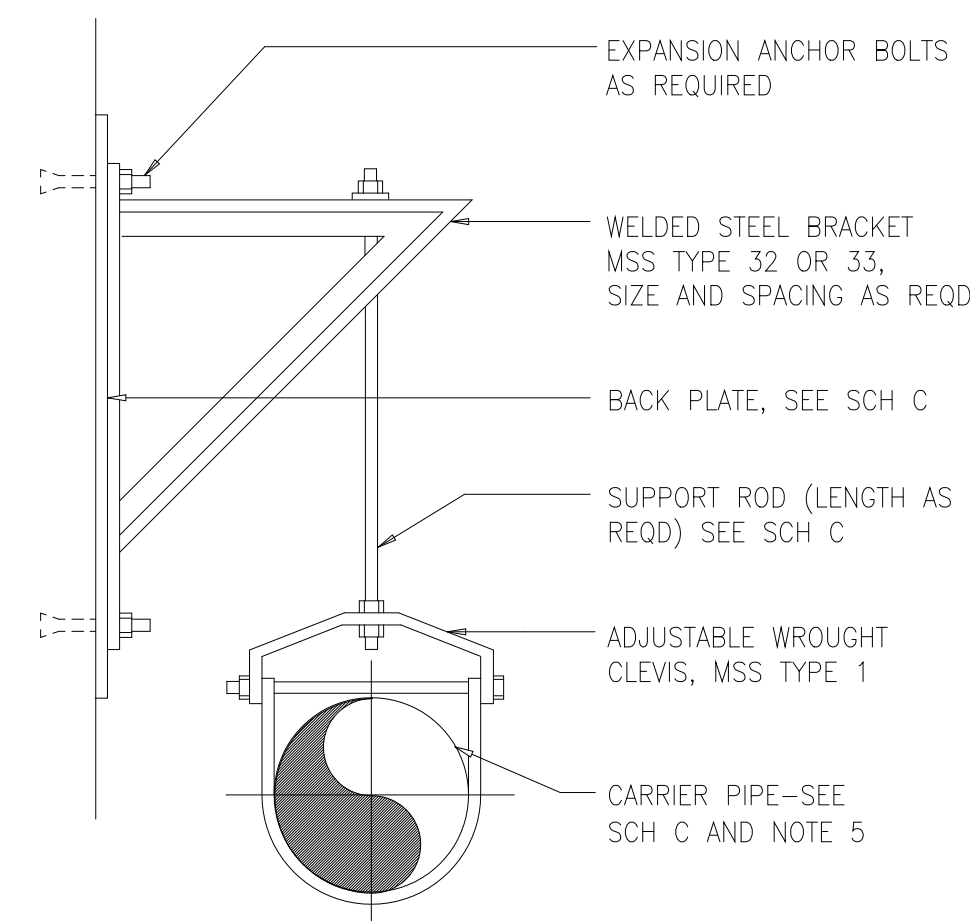


SECTION

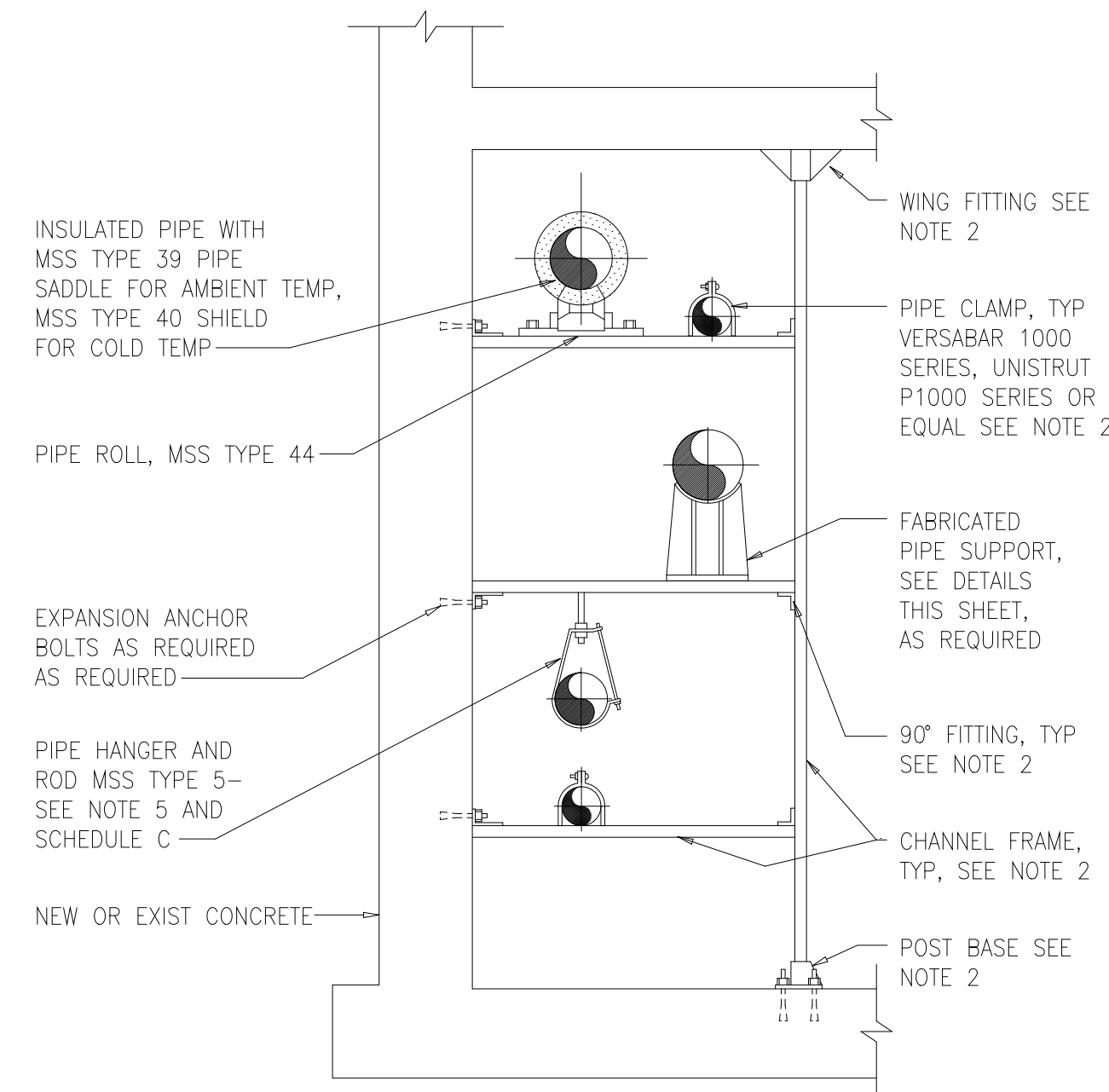
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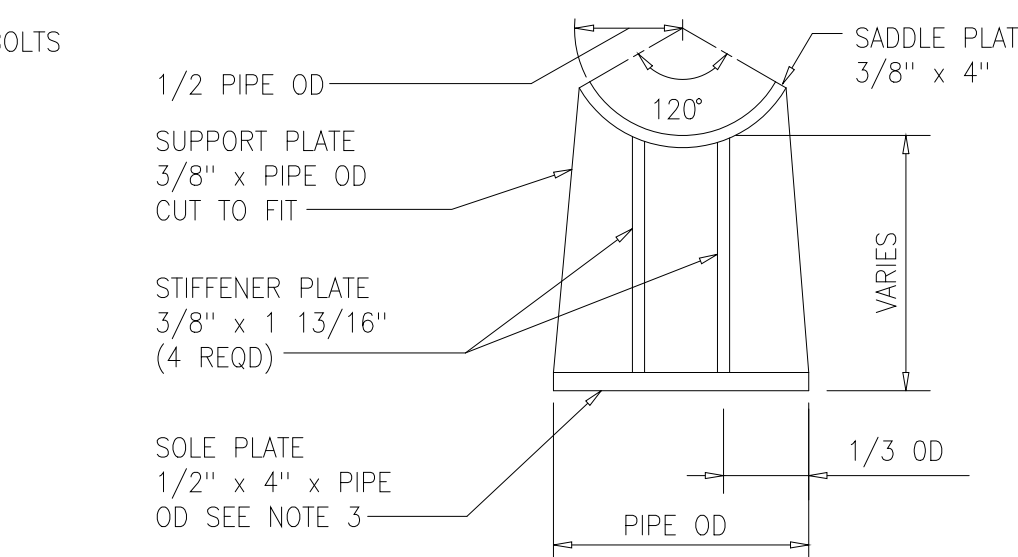
PIPE SUPPORT BRACKET
1509406



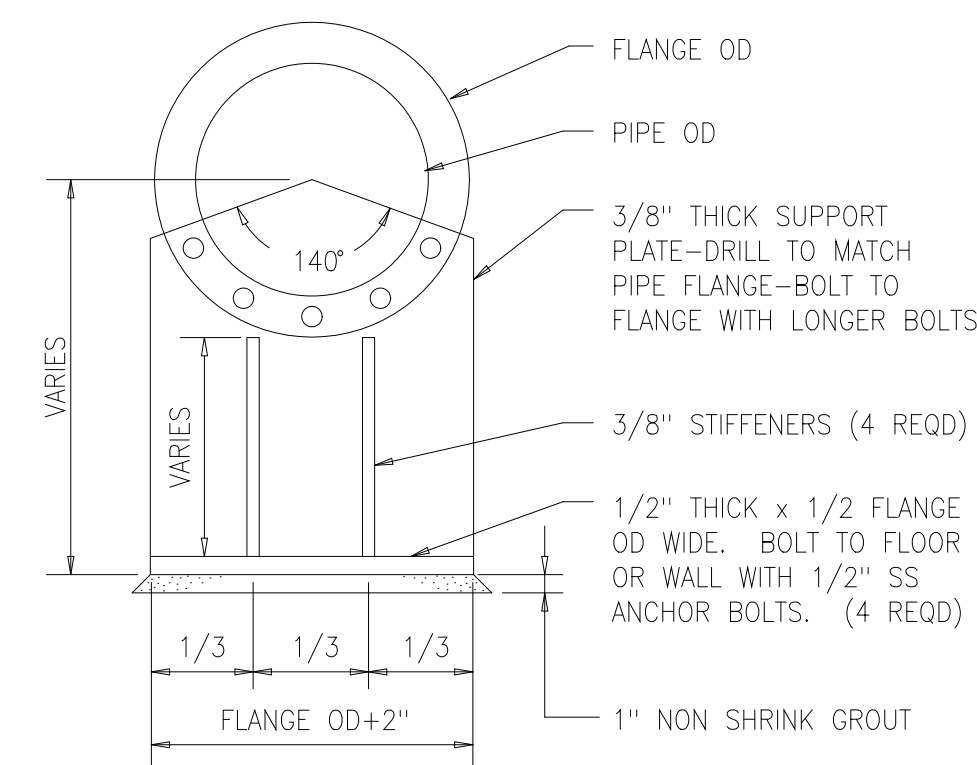
PIPE SUPPORT BRACKET
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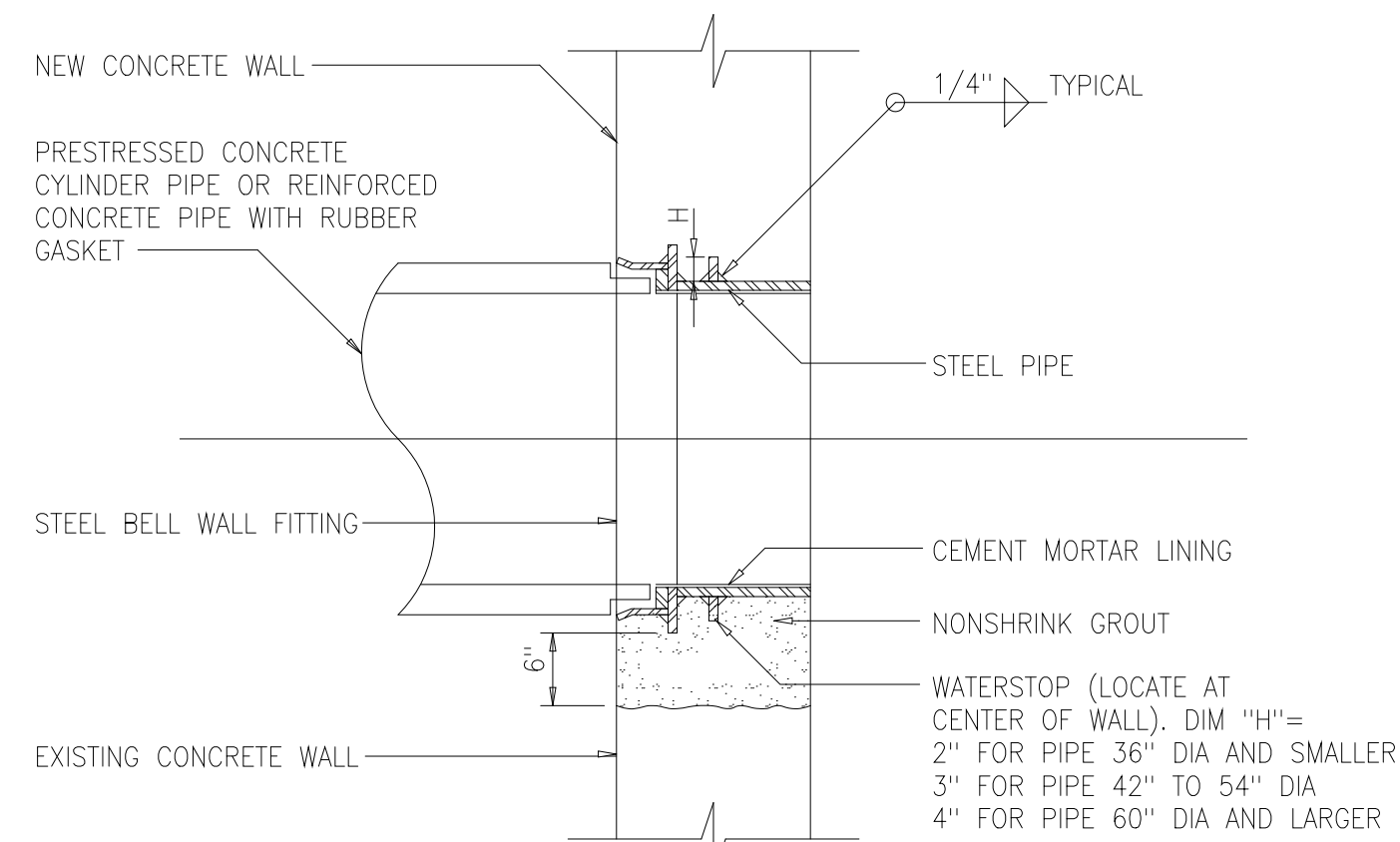
PIPE SUPPORT RACK
1509408



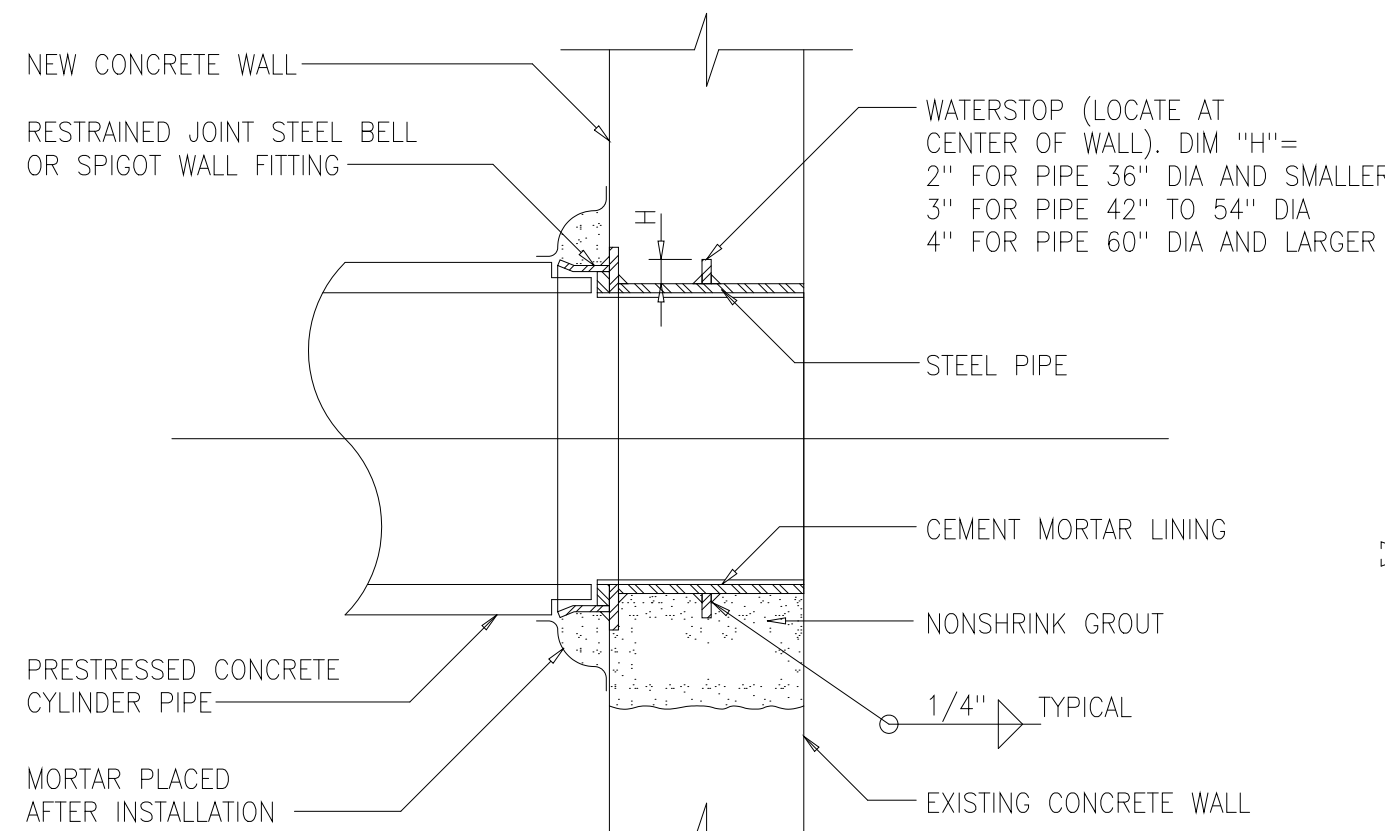
FABRICATED PIPE SUPPORT
(AT PIPE)
1509410



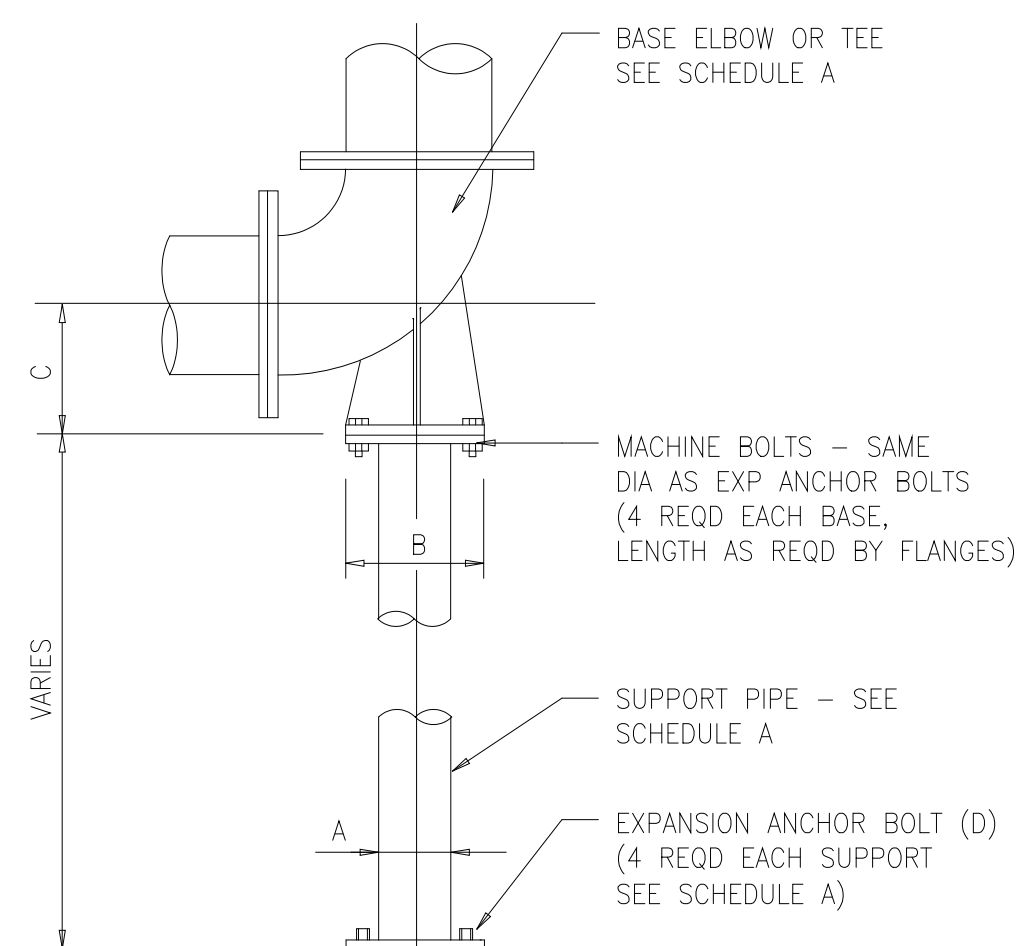
FABRICATED PIPE SUPPORT
(AT FLANGE)
1509409



1509228

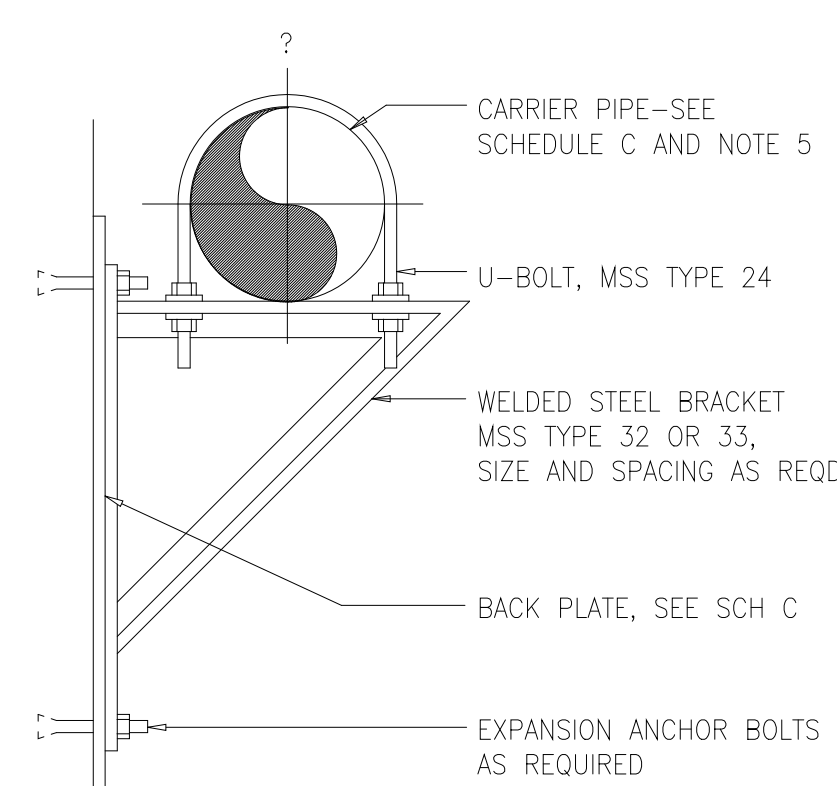


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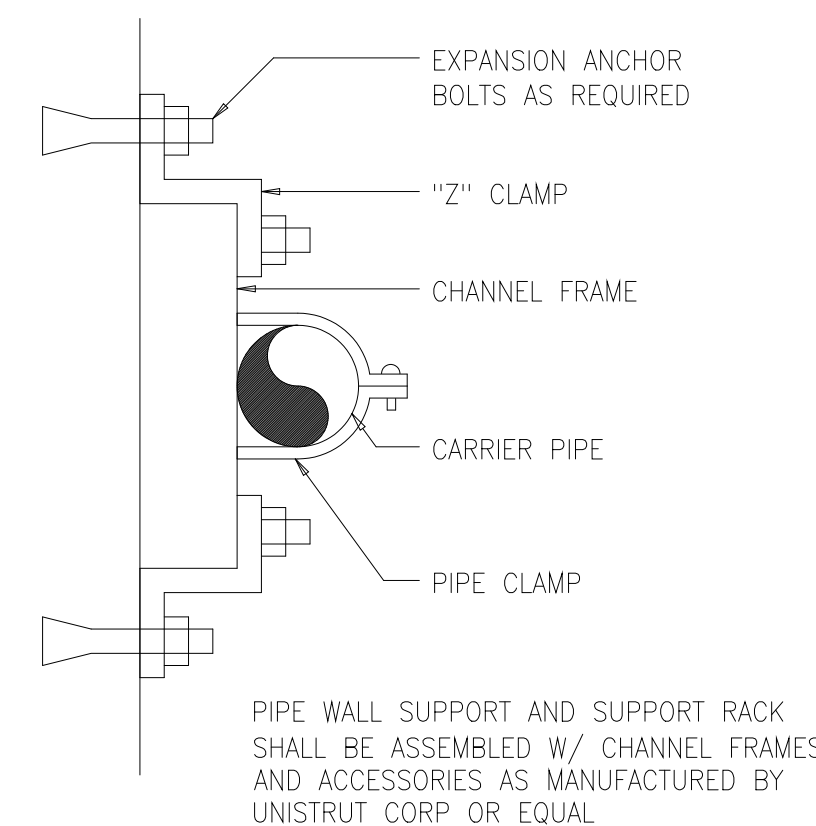


BASE ELBOW (TEE)

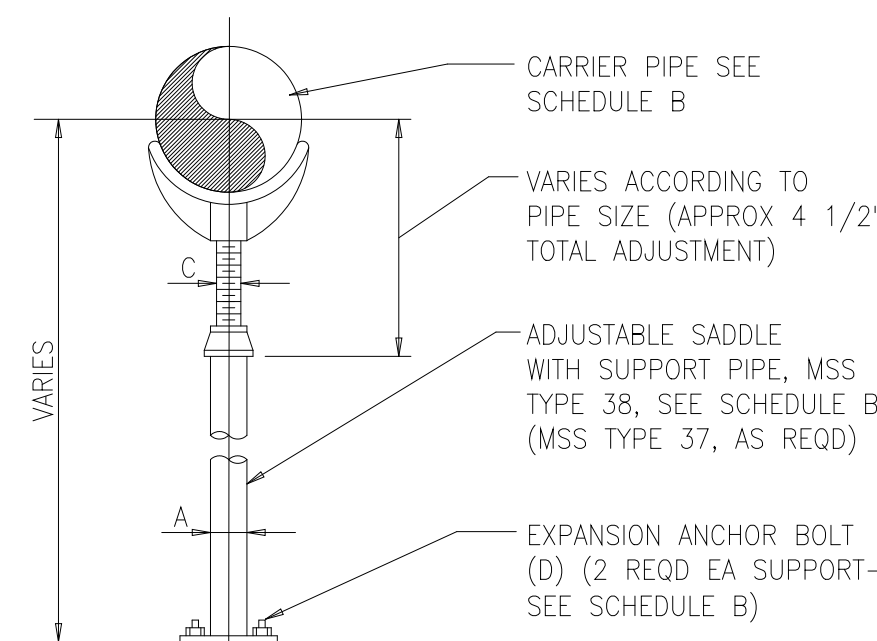
1509400



PIPE SUPPORT BRACKET
1509404



PIPE WALL SUPPORT
1509402



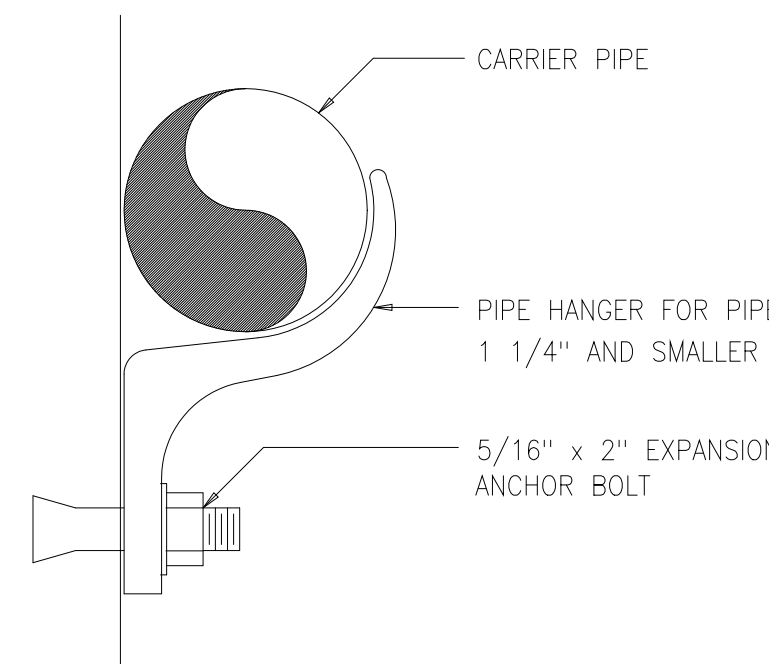
ADJUSTABLE SADDLE
1509405

SCHEDULE A				
BASE ELBOW (TEE) (DIM IN INCHES)				
PIPE SIZE	A	B	C	D DIA x LG
3	1 1/2	5	4 7/8	1/2 x 5
4	2	6	5 1/2	5/8 x 5
5-6	2 1/2	7	VARIABLES	5/8 x 5
8-10	4	9	VARIABLES	5/8 x 5
12-16	6	11	VARIABLES	3/4 x 6
18-24	8	13 1/2	VARIABLES	3/4 x 6
30	10	16	23	7/8 x 7
36	12	19	26	7/8 x 7

SCHEDULE B				
ADJUSTABLE SADDLE (DIM IN INCHES)				
PIPE SIZE	A	B	C	D DIA x LG
3	2 1/2	7	1 1/2	5/8 x 5
4-12	3	7 1/2	2 1/2	5/8 x 5
14-16	4	9	3	5/8 x 5
18-20	6	11	3 1/2	3/4 x 6
24-36	6	11	4	3/4 x 6

NOTES:

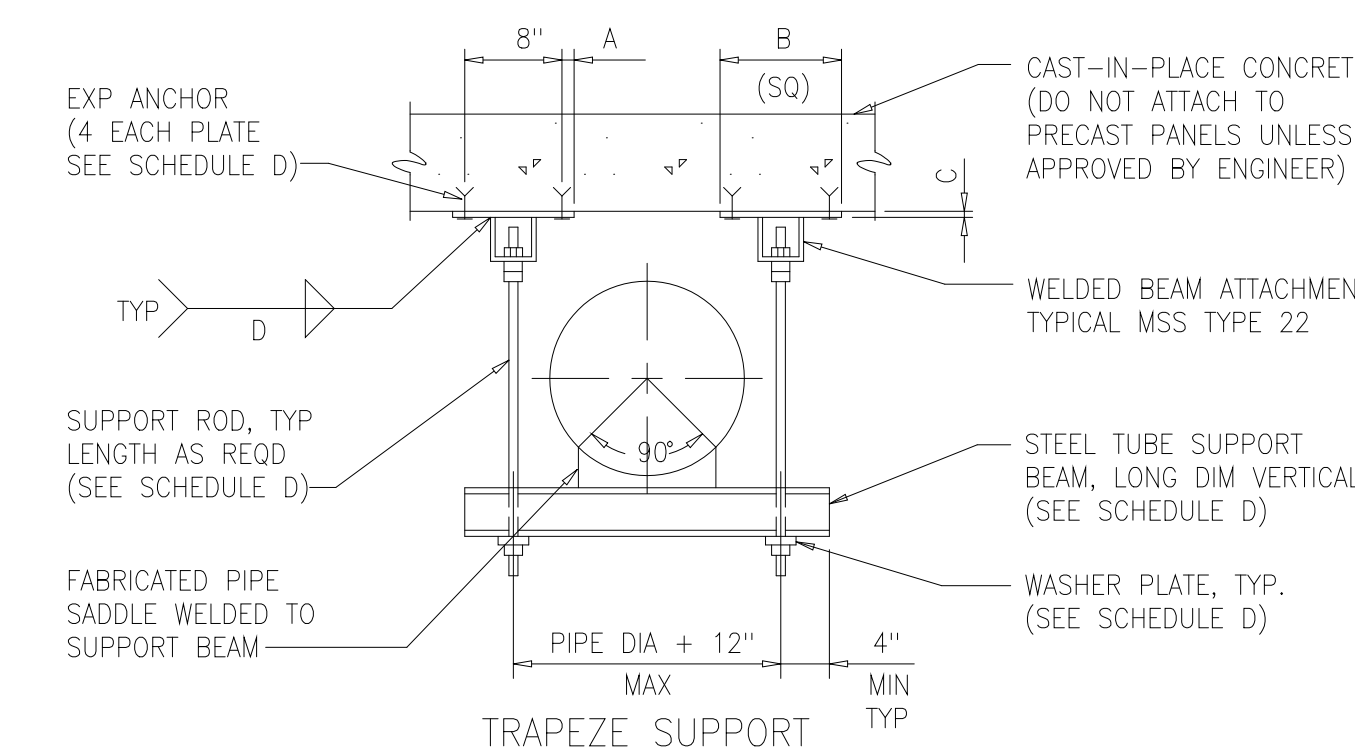
- 1 ALL WALL PIPES SHALL BE CAST-IN-PLACE UNLESS OTHERWISE NOTED.
- 2 PROVIDE PIPE JOINT WITHIN TWO (2) FEET OF EXTERIOR FACE OF WALL AT CONNECTION TO ALL NEW AND EXISTING STRUCTURES OR MANHOLES.
- 3 SPLIT WATERSTOP SHALL BE REQUIRED AT ALL NEW PIPE PENETRATIONS THROUGH EXISTING CONCRETE WALLS UNLESS OTHERWISE INDICATED ON THE CONTRACT DRAWINGS. SEE SPLIT WATERSTOP DETAIL 1509219.
- 4 ALL NEW OPENINGS IN EXISTING CONCRETE WALLS SHALL BE ACCOMPLISHED WITH A CLEAN SAW-CUT. SURFACES SHALL BE ROUGHENED BY APPROVED METHODS.



WALL HANGER PIPE SUPPORT
1509403

SCHEDULE C							
SUPPORT RODS AND BRACKET SPACING (FOR STANDARD WEIGHT PIPE)							
PIPE SIZE (INCHES)	BACK PLATE (INCHES)	MINIMUM ROD ? (INCHES)		MAX SPAN IN FEET (SEE NOTE 8)			
		PROCESS PIPING	STEEL AIR PIPING	COPPER	PLASTIC	STEEL	DIP (SEE NOTE 7)
UP TO 1	SEE NOTE 4	3/8	3/8	5	5	6	-
1 1/4-2	"	3/8	3/8	8	5	10	-
2 1/2-3 1/2	"	3/8	3/8	8	5	12	6
4-5	"	1/2	3/8	-	5	14	8
6	"	5/8	3/8	-	5	15	9
8-12	"	3/4	1/2	-	5	15	9
14-16	"	7/8	1/2	-	5	15	9
18	"	1	1/2	-	5	18	10
20-24	"	1 1/4	5/8	-	5	18	10

SCHEDULE D											
TRAPEZE SUPPORT (DIM. IN INCHES)											
PIPE SIZE	STEEL TUBE SUPPORT BEAM VERT. x HOR.	MINIMUM ROD ? (INCHES)		WASHER PLATE	BASE PLATE				EXP. ANCHOR DIA. x LENGTH	MAX. SUPPORT SPACING IN FEET (SEE NOTE 8)	
		PROCESS PIPING	STEEL AIR PIPING		A	B	C	D		PROCESS PIPING	STEEL AIR PIPING
12-14	4x4x3/8	1/2	1/2	4x4x1/4	1	10	3/8	3/16	1/2 x 4	10	15
16-24	4x4x3/8	3/4	5/8	4x4x3/8	1	10	1/2	3/16	5/8 x 5	10	15
30-36	6x4x3/8	1	3/4	4x4x1/2	2	12	1/4	1/4	3/4 x 6	10	20
42	6x4x3/8	1 1/4	3/4	5x5x1/2	2	12	3/4	1/4	7/8 x 6	10	25
48	8x4x3/8	1 1/2	1	5x5x3/4	2	12	1	1/4	1 x 7	10	30



TRAPEZE SUPPORT
1509413

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ. ENGR.	ASG
APPROVED	

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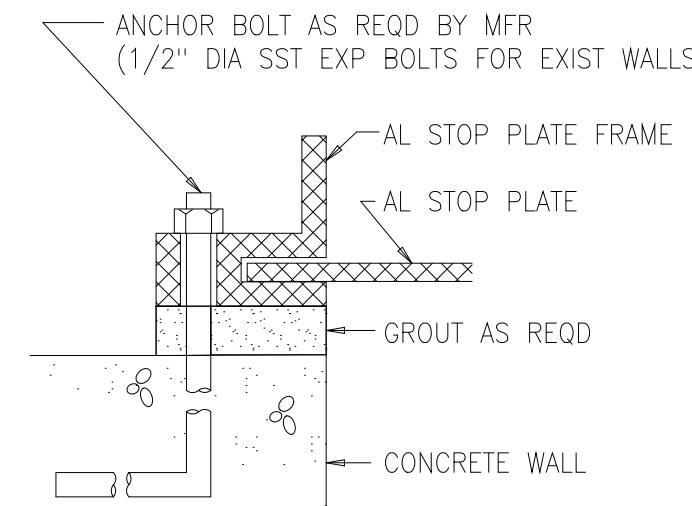
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

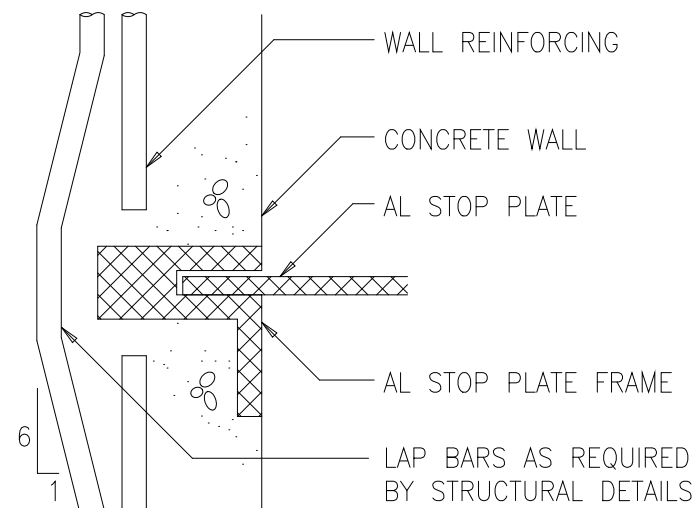
MISCELLANEOUS STANDARD DETAILS

RECORD DRAWING

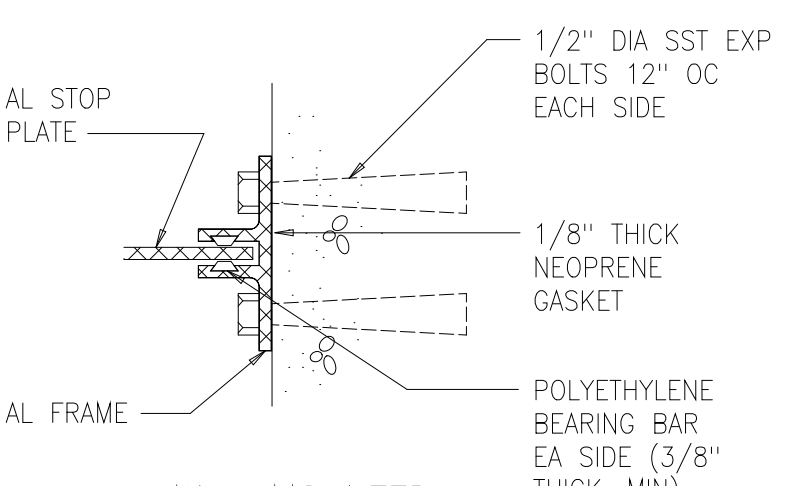
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D008
	SHEET 90 OF 99



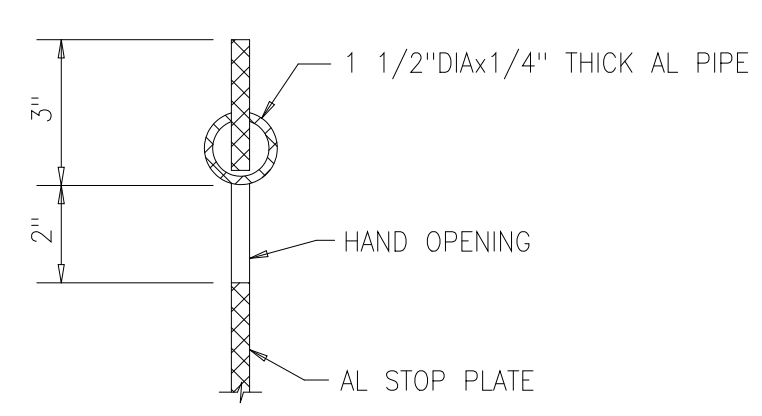
FACE MOUNTED



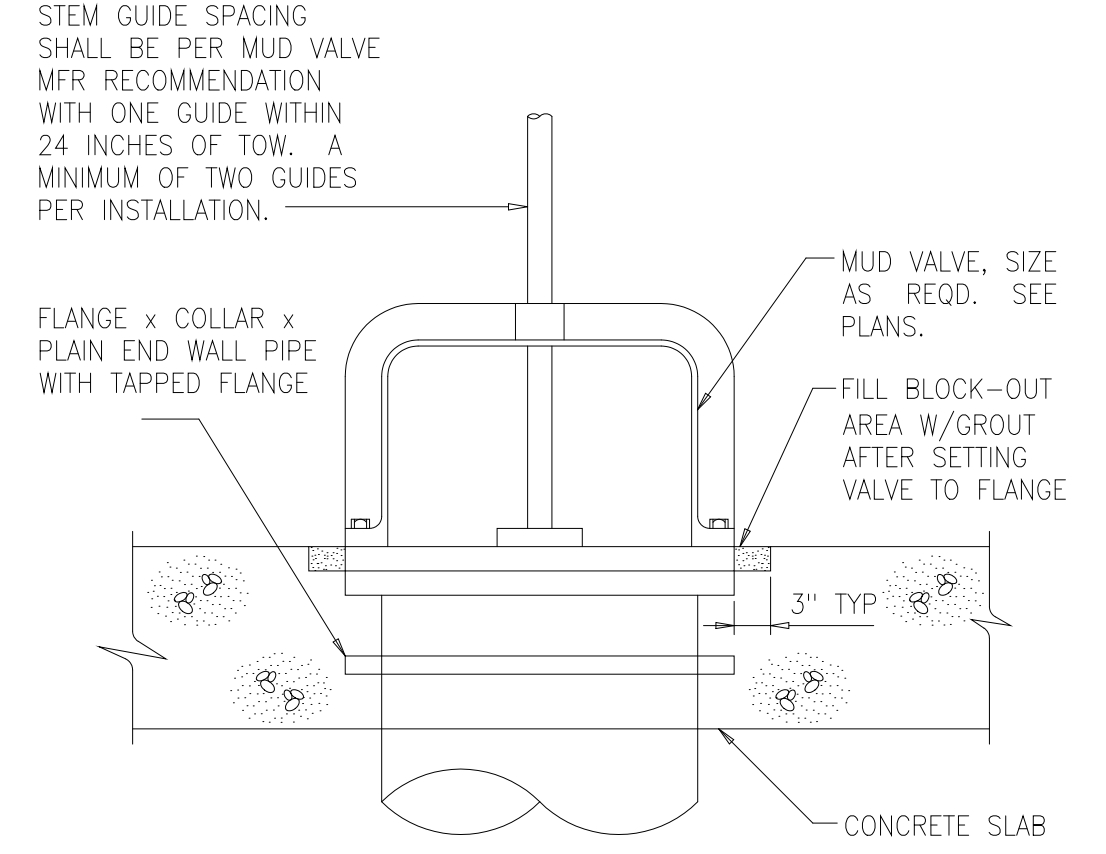
EMBEDDED STOP PLATE FRAME NEW CONSTRUCTION



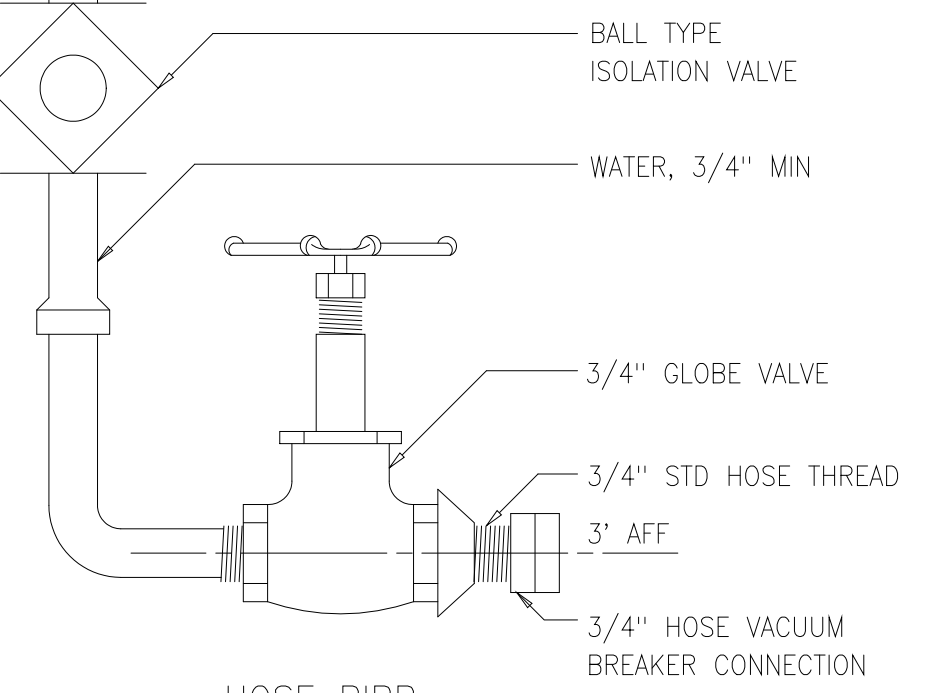
WALL MOUNTED EXISTING CONSTRUCTION



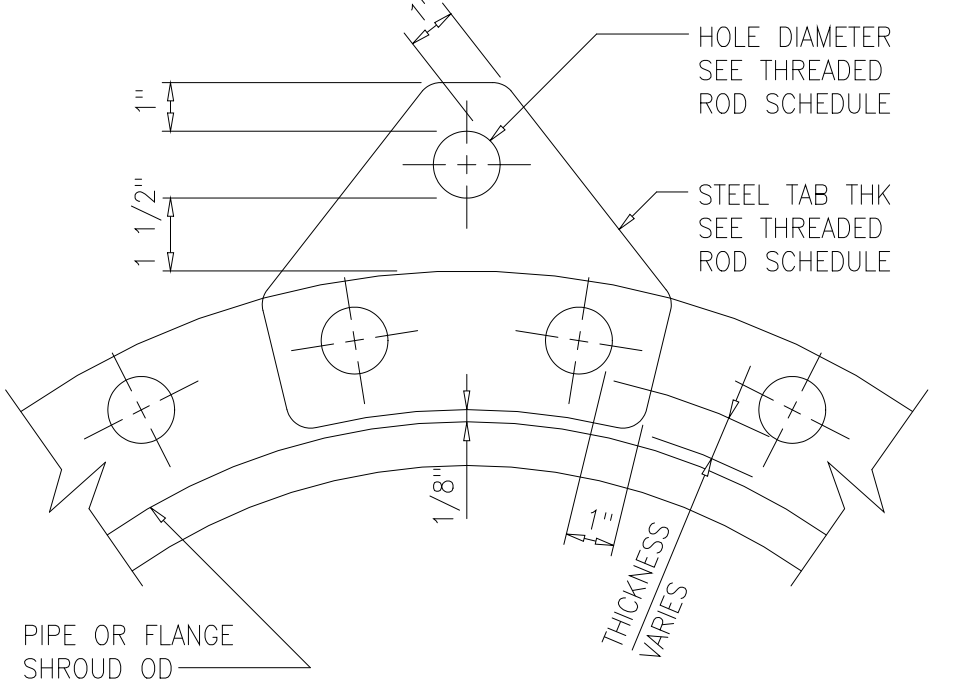
WELD ALL CONNECTIONS HAND OPENING DETAIL



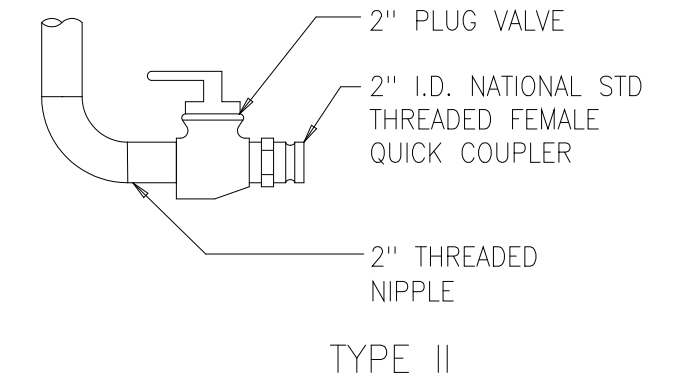
MUD VALVE INSTALLATION 1510401



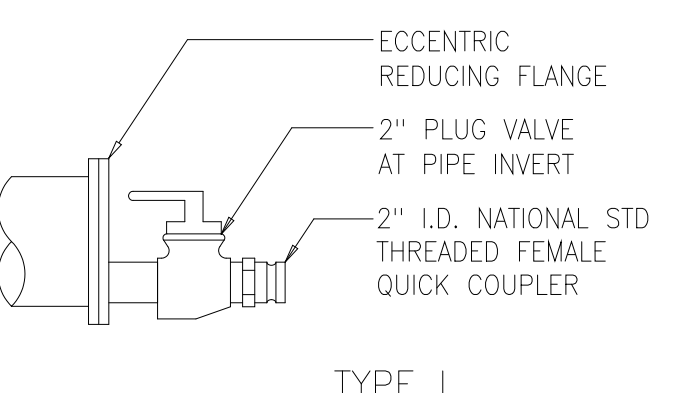
HOSE BIBB 1511500



STEEL TAB 1516401

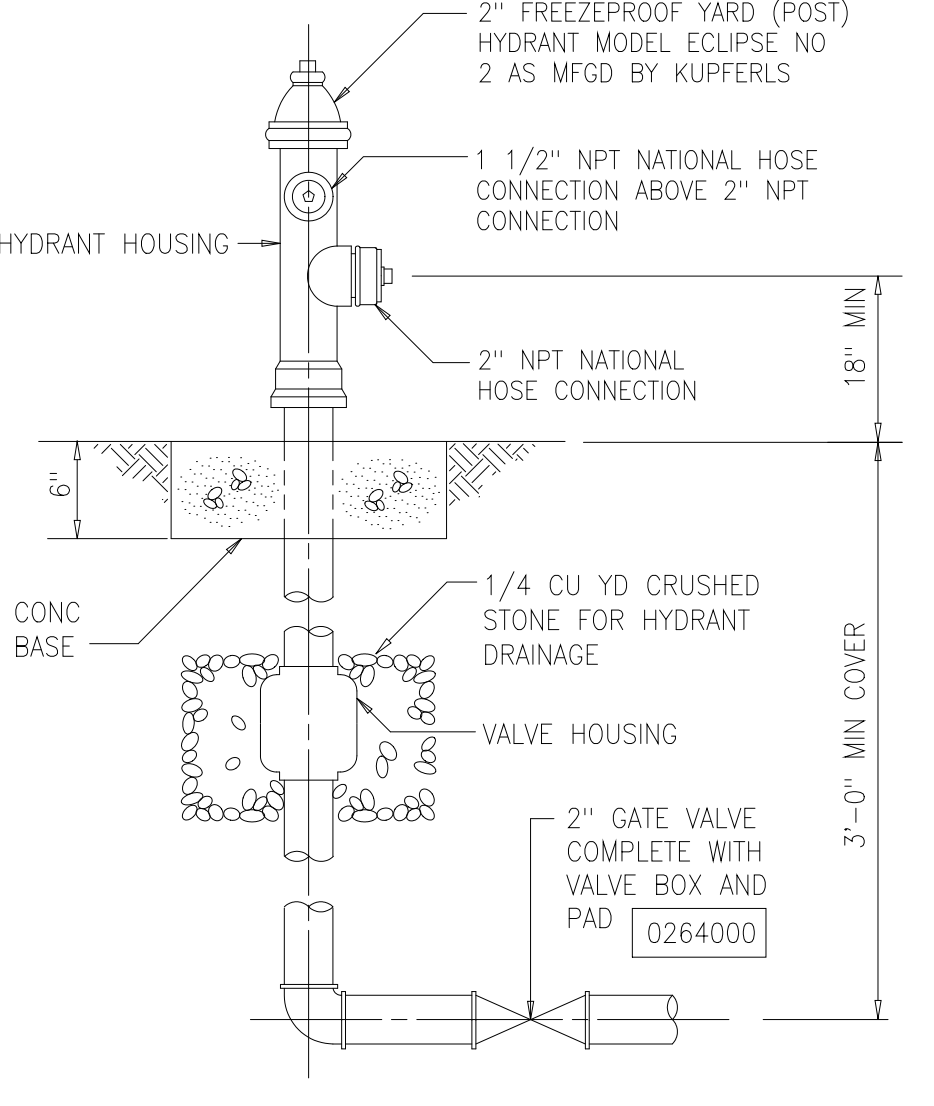


TYPE II

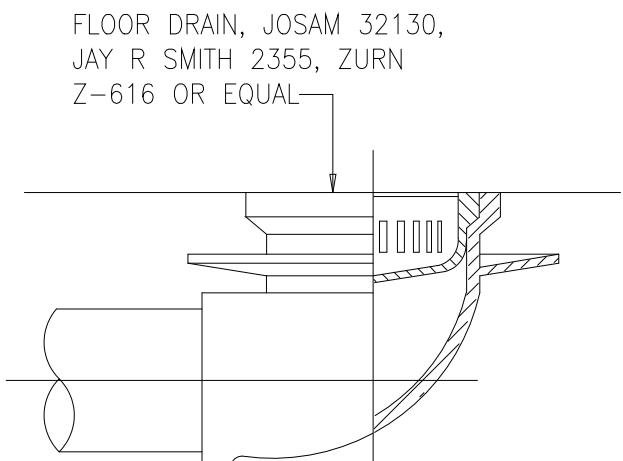


TYPE I

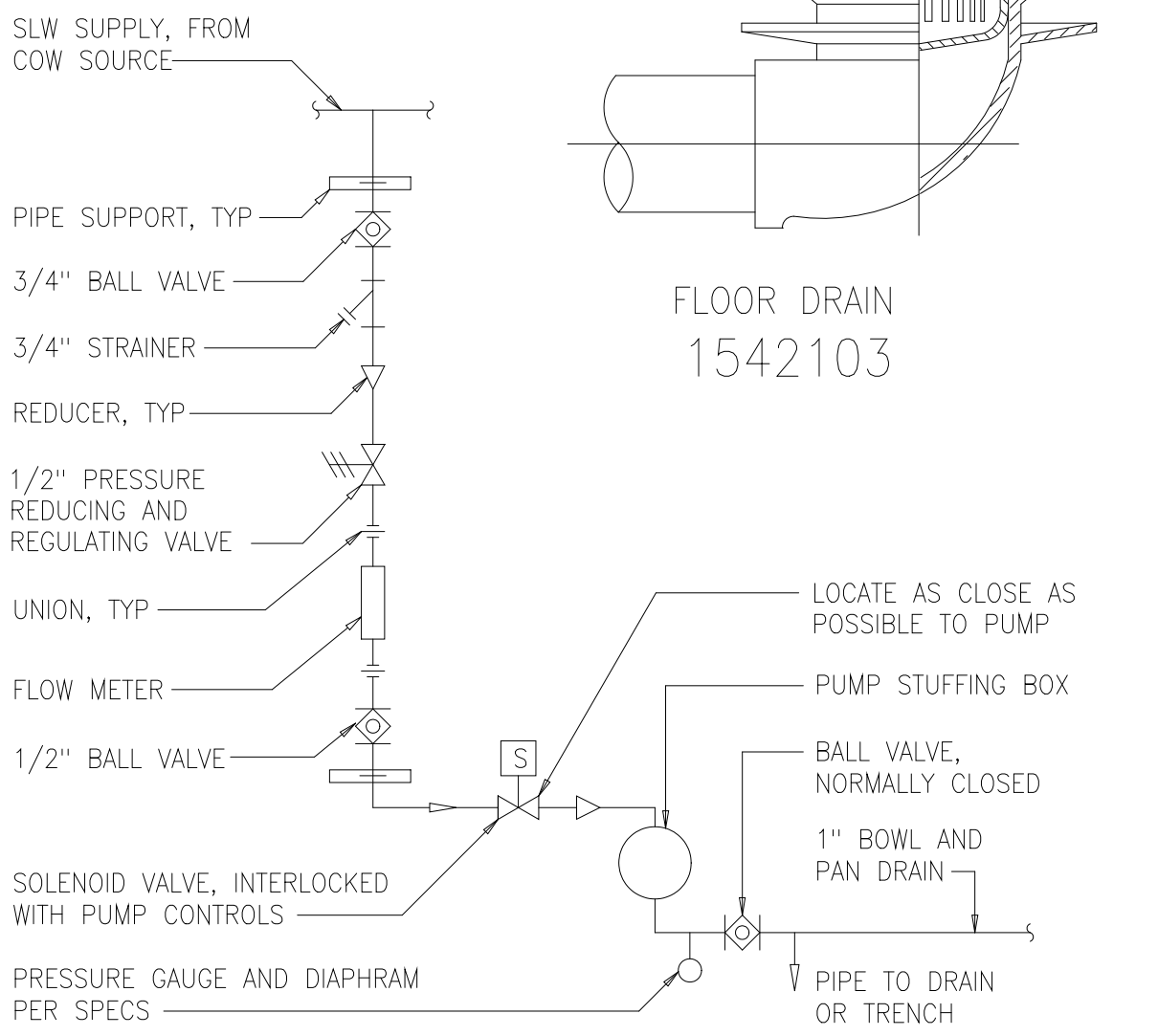
FLUSHING CONNECTIONS 1511501



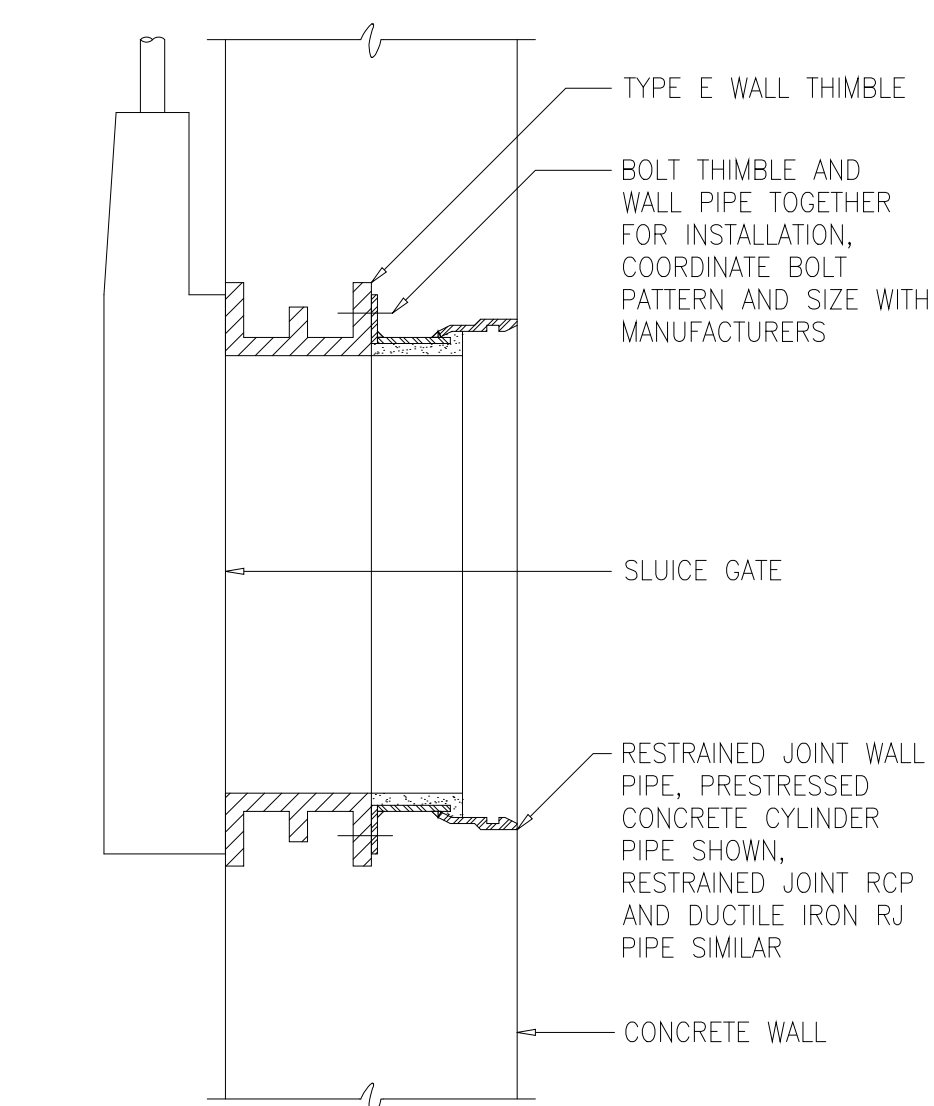
1511502



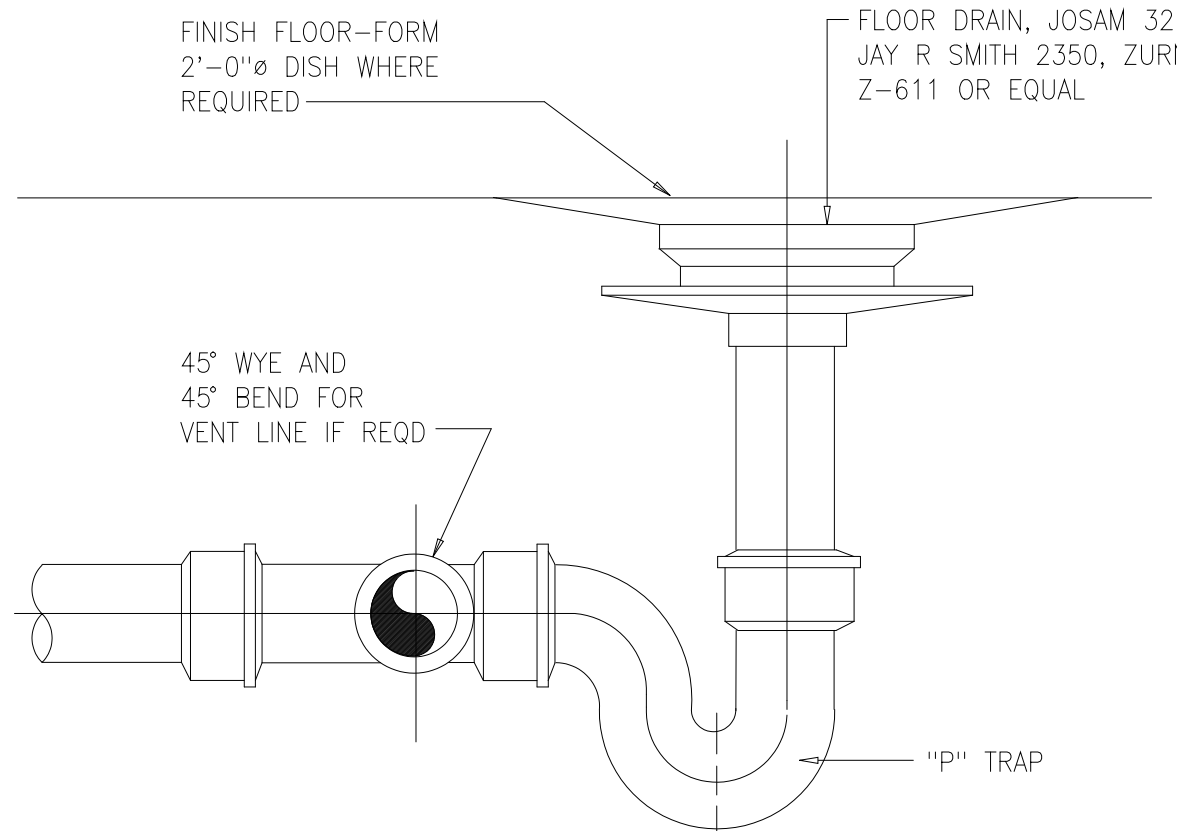
FLOOR DRAIN 1542103



SEAL WATER ASSEMBLY 1513400R

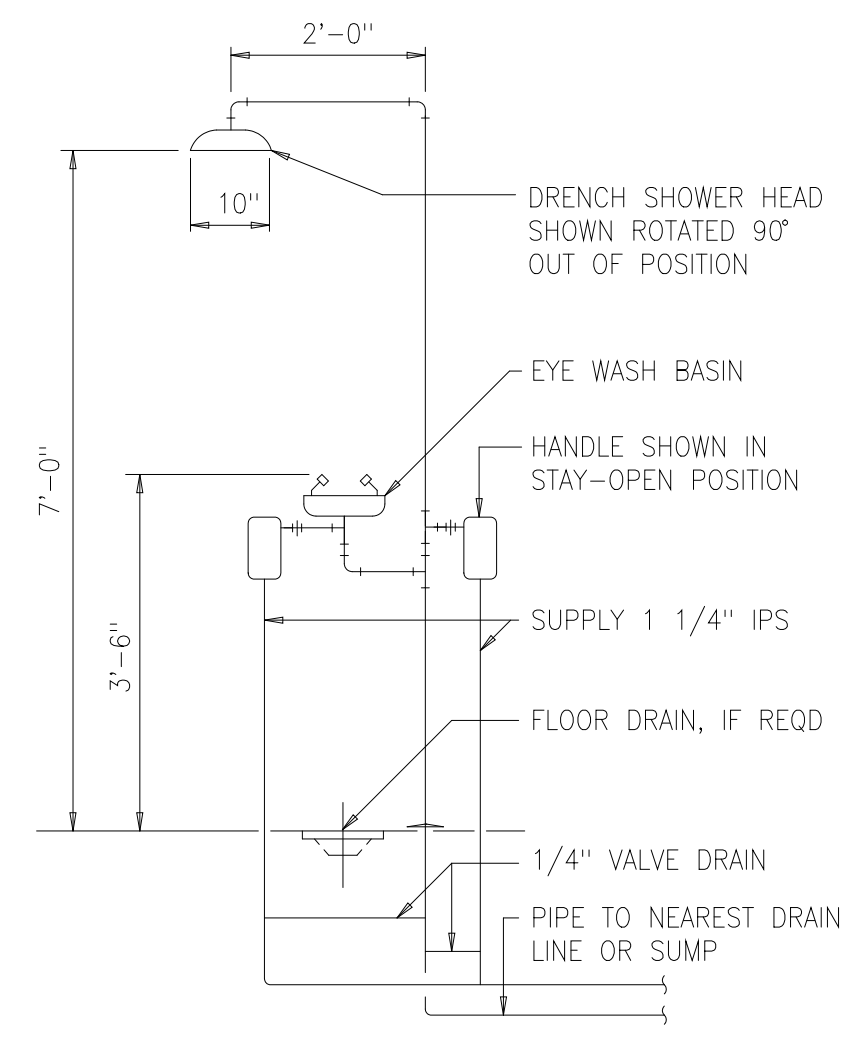


SLUICE GATE WALL THIMBLE 1520600

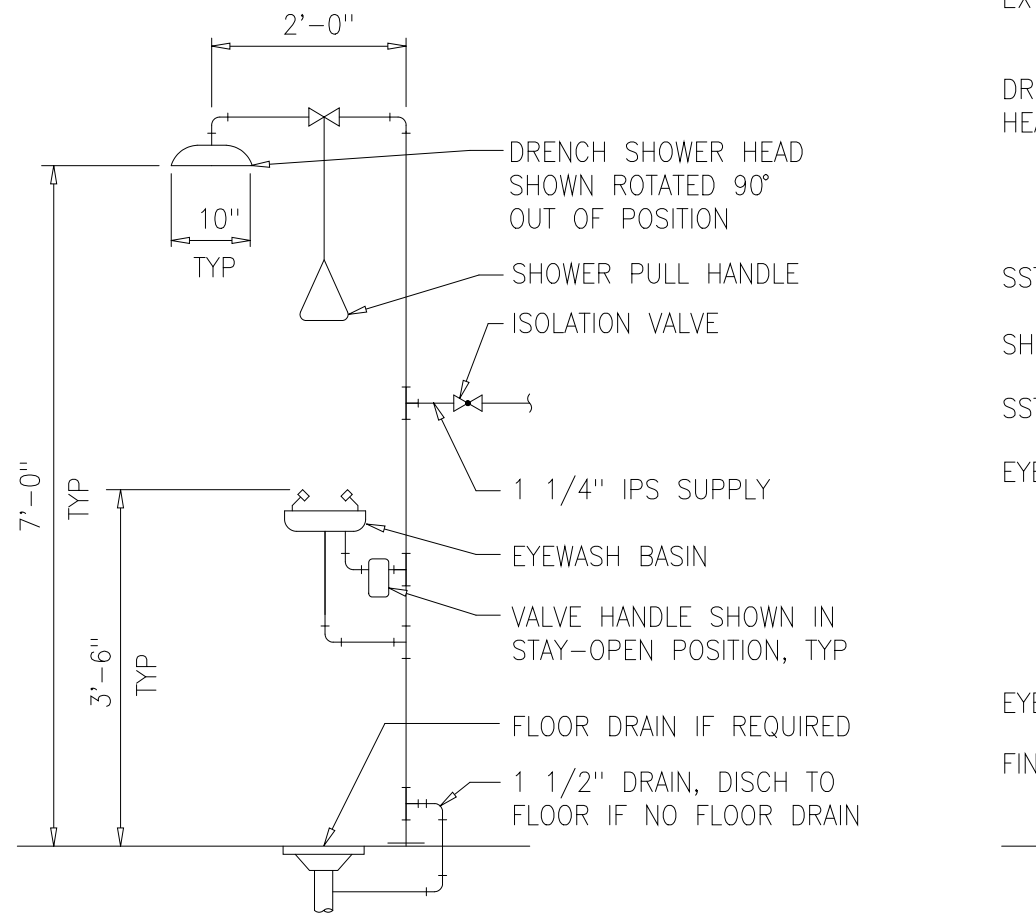


FLOOR DRAIN 1542102

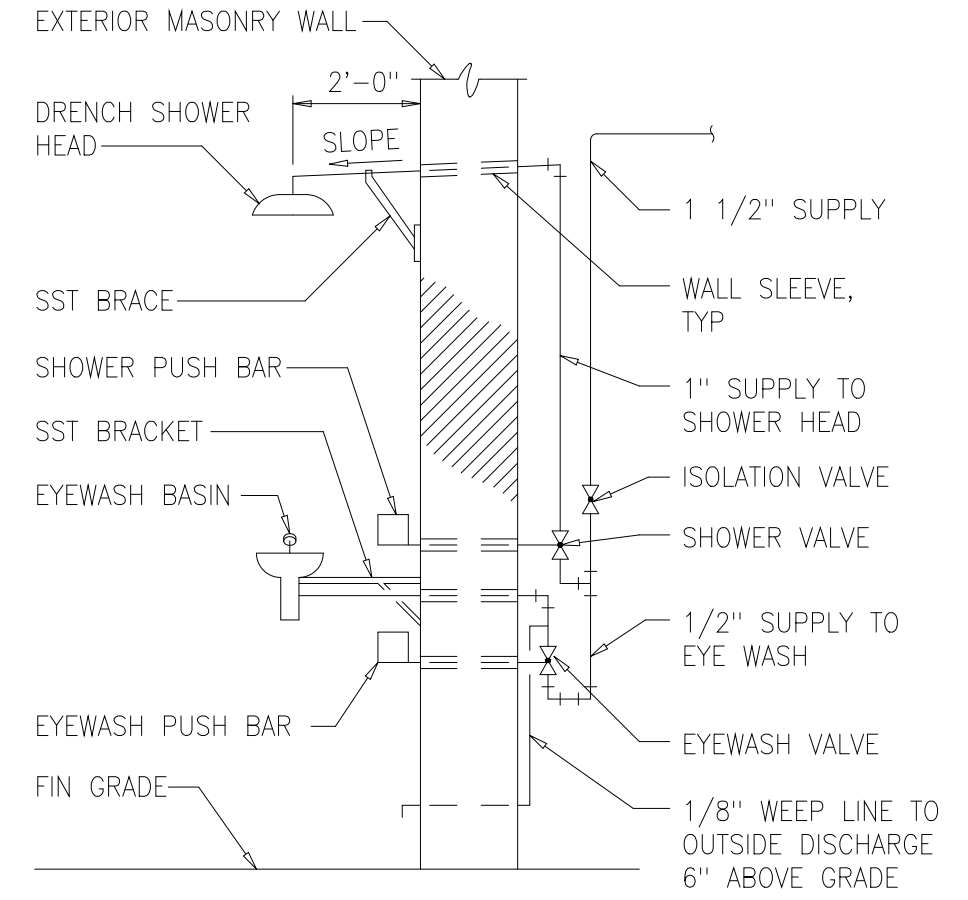
NOTE: INTERIOR FLOOR DRAIN AND CLEANOUTS TO HAVE NICKEL BRONZE TOPS. EXTERIOR FLOOR DRAINS AND CLEANOUTS TO HAVE LACQUERED CAST IRON TOPS.



EMERGENCY SHOWER AND EYEWASH 1545100

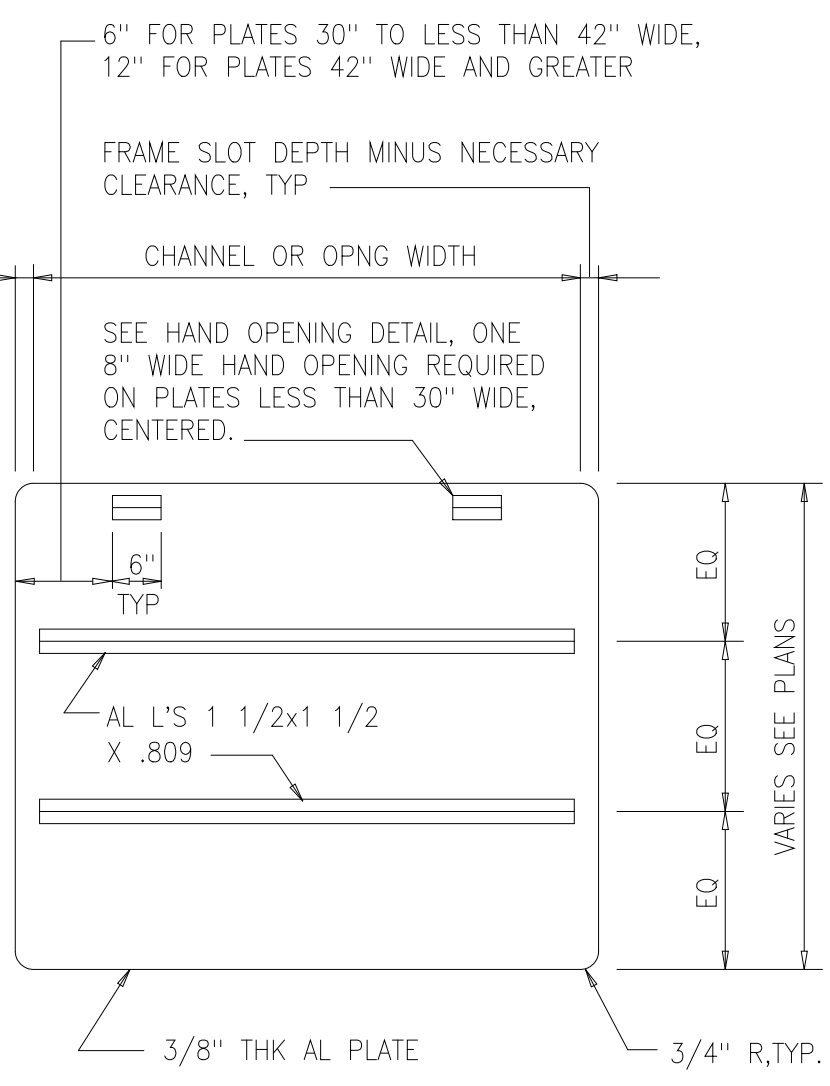


TYPE 1 - INTERIOR

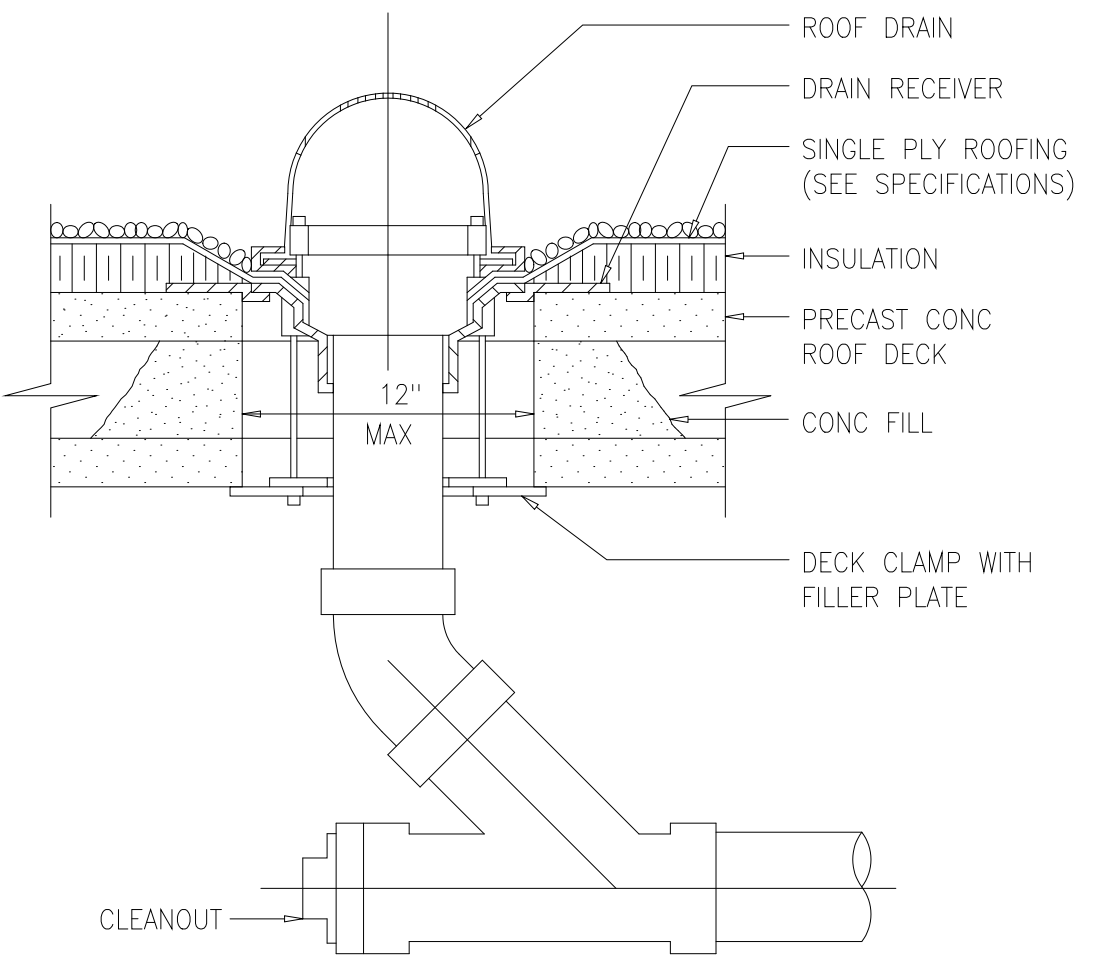


TYPE 2 - EXTERIOR THRU-WALL

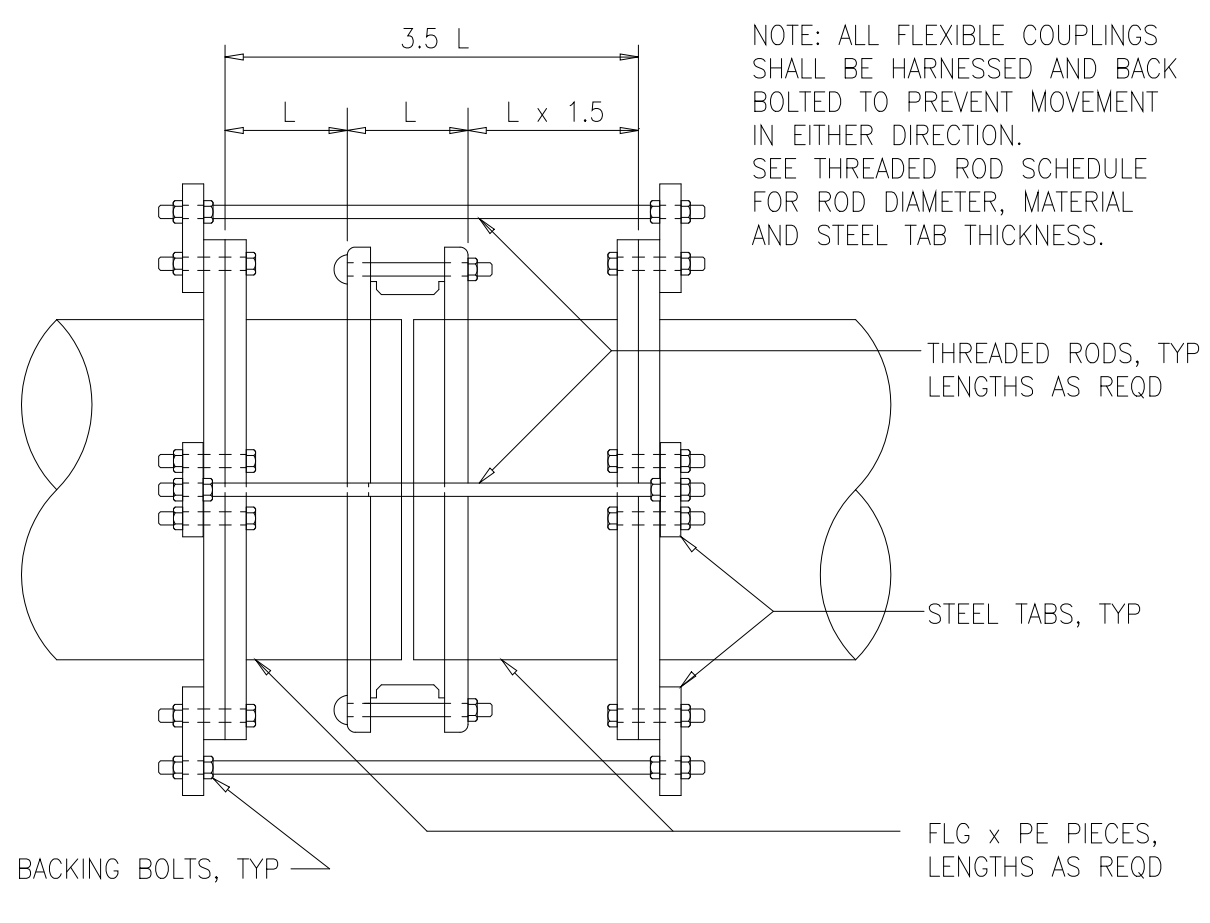
EMERGENCY EYEWASH AND SHOWER 1545101



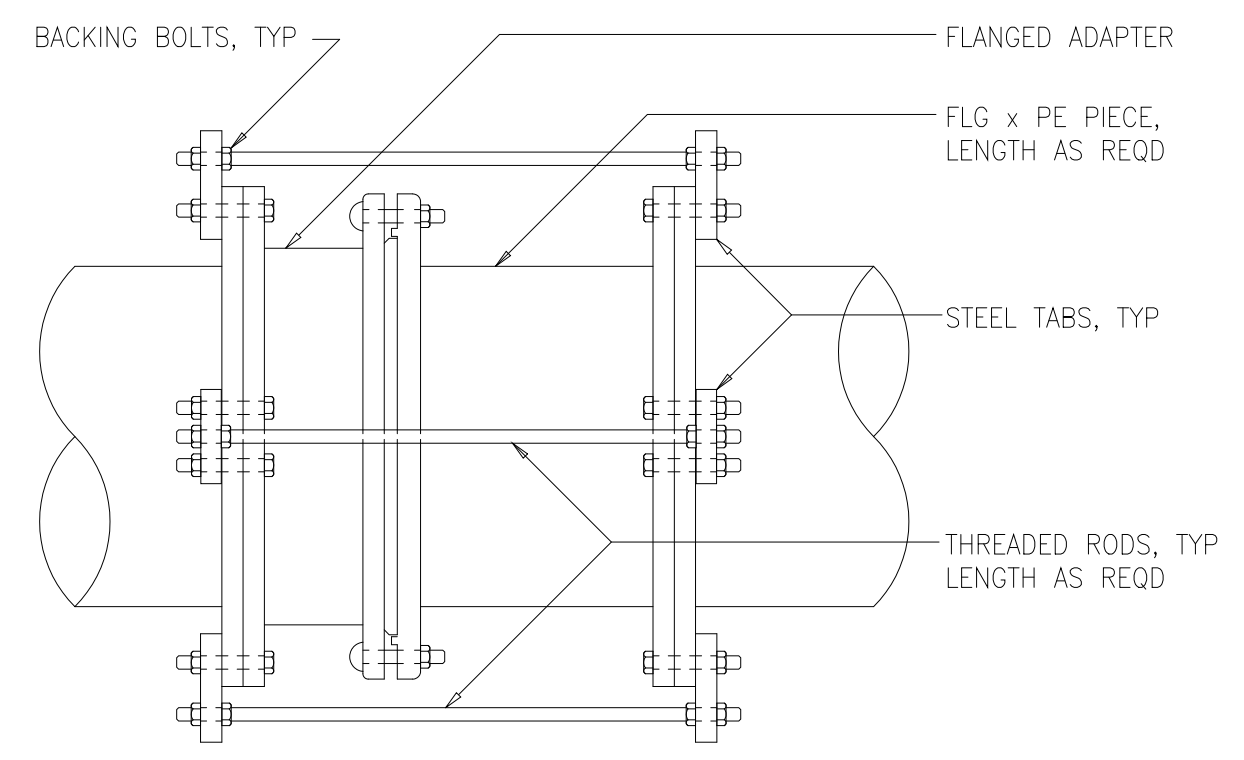
STOP PLATE 1513600



ROOF DRAIN 1542201



HARNESSED FLEXIBLE COUPLING 1516400



HARNESSED FLANGED ADAPTER 1516402

NOTE: ALL FLANGED ADAPTERS SHALL BE HARNESSED AND BACK BOLTED TO PREVENT MOVEMENT IN EITHER DIRECTION. SEE THREADED ROD SCHEDULE FOR ROD DIAMETER, MATERIAL AND STEEL TAB THICKNESS.

THREADED ROD SCHEDULE														
DESIGN PRESSURE (DIMENSIONS IN INCHES)														
PIPE SIZE	50 PSI		100 PSI		150 PSI		200 PSI		250 PSI		300 PSI		350 PSI	
	NO-DIA	TAB THK	BOLTS NO-DIA	TAB THK	BOLTS NO-DIA	TAB THK	BOLTS NO-DIA	TAB THK	BOLTS NO-DIA	TAB THK	BOLTS NO-DIA	TAB THK	BOLTS NO-DIA	TAB THK
4.6	2-3/4	1	2-3/4	1	2-3/4	1	2-3/4	1	2-3/4	1	2-3/4	1	2-3/4	1
8	2-3/4	1 1/4	2-3/4	1 1/4	2-3/4	1 1/4	2-3/4	1 1/4	2-3/4	1 1/4	2-3/4	1 1/4	2-3/4	1 1/4
10	2-3/4	1 1/4	2-3/4	1 1/4	2-3/4	1 1/4	4-3/4	1 1/4	4-3/4	1 1/4	4-3/4	1 1/4	4-3/4	1 1/4
12	2-3/4	1 1/4	2-3/4	1 1/4	4-3/4	1 1/4	4-3/4	1 1/4	4-3/4	1 1/4	6-3/4	1 1/4	6-3/4	1 1/4
14	2-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2
16	2-3/4	1 1/2	4-3/4	1 1/2	6-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2	4-3/4	1 1/2	6-3/4	1 1/2
18	2-3/4	1 3/4	4-3/4	1 3/4	6-3/4	1 3/4	4-3/4	1 3/4	6-3/4	1 3/4	6-3/4	1 3/4	6-3/4	1 3/4
20	4-3/4	1 3/4	4-3/4	1 3/4	4-3/4	1 3/4	4-3/4	1 3/4	6-3/4	1 3/4	6-3/4	1 3/4	8-3/4	1 3/4
24	4-3/4	2	4-3/4	2	6-3/4	2	6-3/4	2	8-3/4	2	10-3/4	2	10-3/4	2
30	4-1	2 1/4	4-1	2 1/4	4-1	2 1/4	6-1	2 1/4	8-1	2 1/4	10-1	2 1/4	10-1	2 1/4
36	4-1	2 1/2	4-1	2 1/2	6-1	2 1/2	8-1	2 1/2	10-1	2 1/2	12-1	2 1/2	14-1	2 1/2
42	4-1 1/4	2 3/4	4-1 1/4	2 3/4	6-1 1/4	2 3/4	8-1 1/4	2 3/4	10-1 1/4	2 3/4	12-1 1/4	2 3/4	14-1 1/4	2 3/4
48	6-1 1/4	2 3/4	4-1 1/4	2 3/4	8-1 1/4	2 3/4	8-1 1/4	2 3/4	12-1 1/4	2 3/4	12-1 1/4	2 3/4	14-1 1/4	2 3/4
54	6-1 1/4	3	6-1 1/4	3	8-1 1/4	3	12-1 1/4	3	14-1 1/4	3	16-1 1/4	3	18-1 1/4	3

- THREADED RODS FOR ALL PIPE DIAMETERS IN THE SHADED AREA SHALL BE ASTM A193 (GRADE B7).
- ALL OTHER THREADED RODS SHALL BE ASTM A36. ALL TABS SHALL BE ASTM A572 GR50.
- ASTM A193 (GRADE B7) RODS SHALL BE LABELLED AND BUNDLED SEPARATELY.
- THIS SCHEDULE SHALL APPLY FOR HARNESSED FLANGED ADAPTERS, HARNESSED FLEXIBLE COUPLINGS AND ALL MECHANICAL JOINT COUPLINGS, SLEEVES ETC. THAT ARE REQUIRED TO BE HARNESSED.
- RODS THREADED AT ENDS (INCLUDING NUTS) SHALL BE EQUALLY SPACED AROUND PIPE BETWEEN ALL MECHANICAL JOINT FITTINGS (TEE, VALVES, BEND, PLUG, ETC.) OR AS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS. THREADED RODS SHALL BE AS SHOWN IN THE THREADED ROD SCHEDULE. SEE NOTE 6.
- RODS, NUTS, ETC., IN CONTACT WITH SOIL SHALL BE PAINTED WITH TWO COATS COAL TAR (MIN 26 DRY MIL THICKNESS) TNMCC 46-465 HI-BUILD OR EQUAL.

DESIGNED	ASG			
DRAWN	FXP			
CHECKED	CAS			
PROJ. ENGR.	ASG			
NO.	ISSUED FOR	DATE	BY	APPROVED

DATE: SEPT 2000
H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC
DRAWING NUMBER: D009
SHEET 91 OF 99

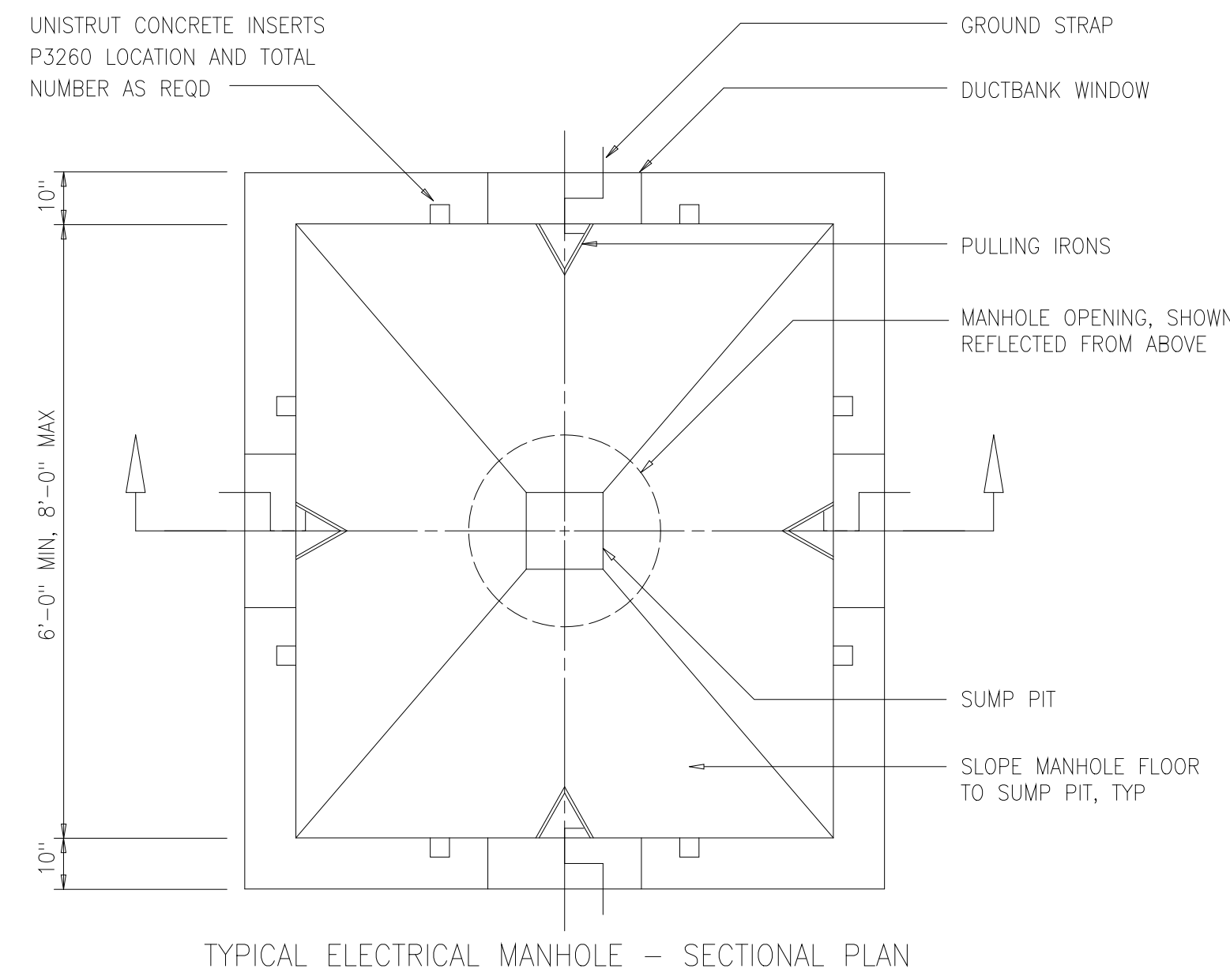
RECORD DRAWING
MISCELLANEOUS STANDARD DETAILS

Hazen and Sawyer
Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

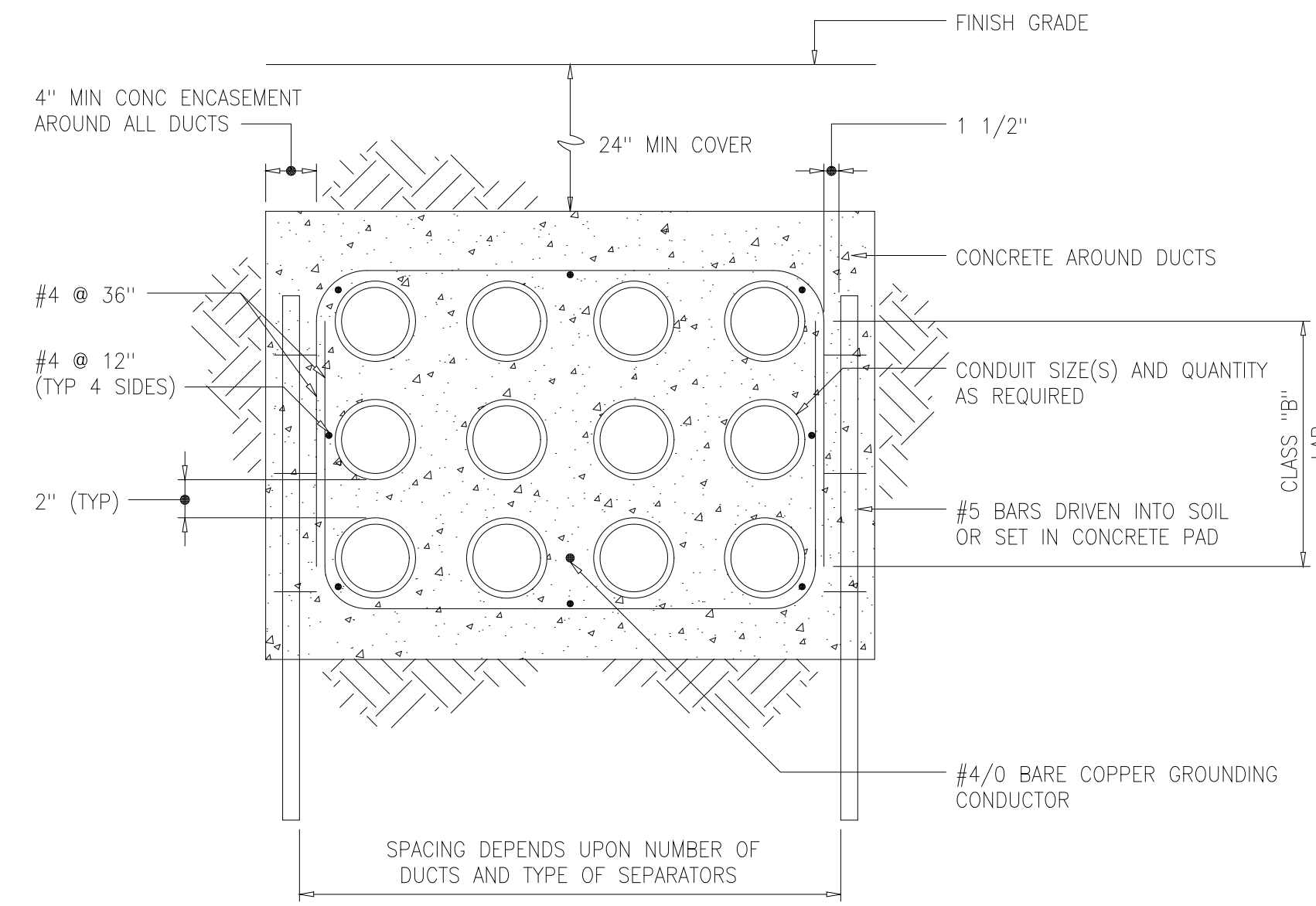
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Scientists
12101 INDIAN CREEK COURT
BELTSVILLE, MD 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156

ARLINGTON COUNTY WATER POLLUTION CONTROL PLANT
ODOR CONTROL IMPROVEMENTS

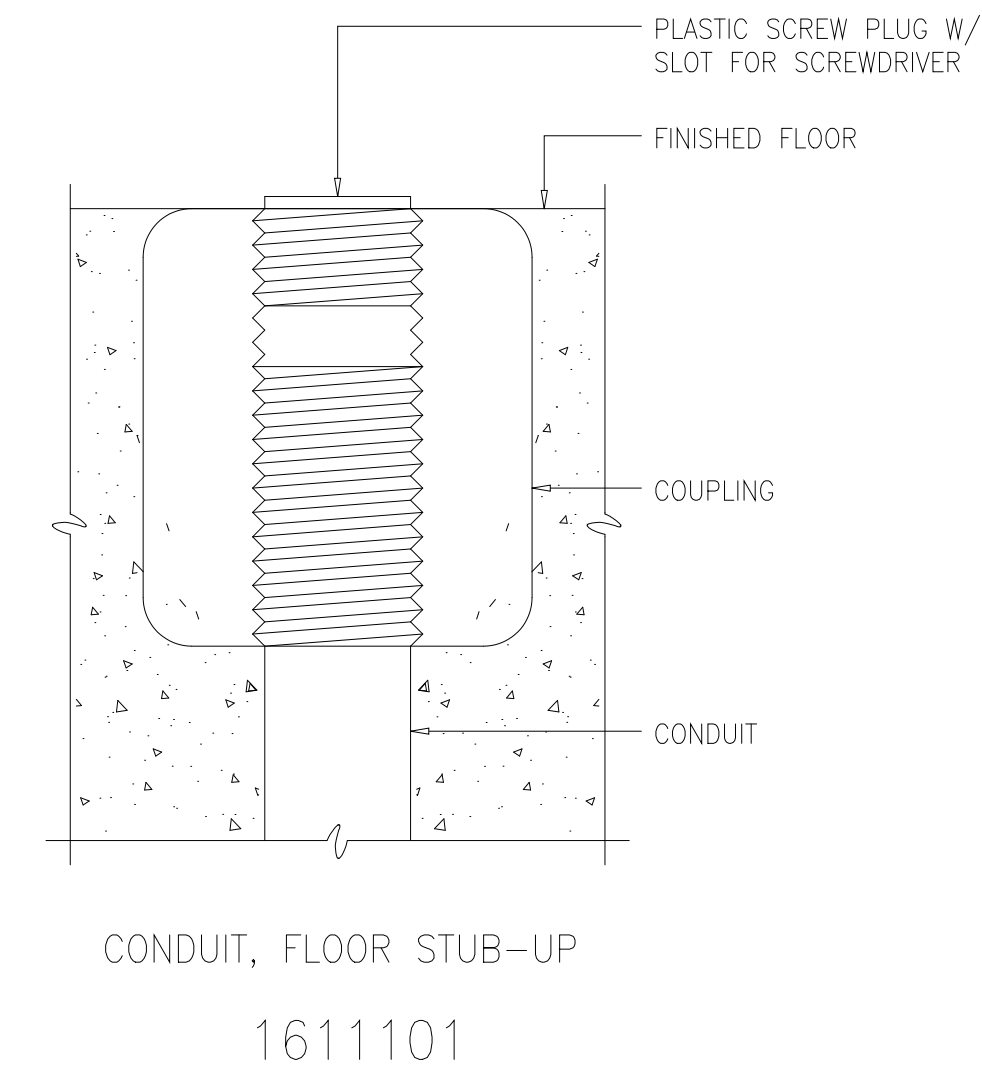
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.



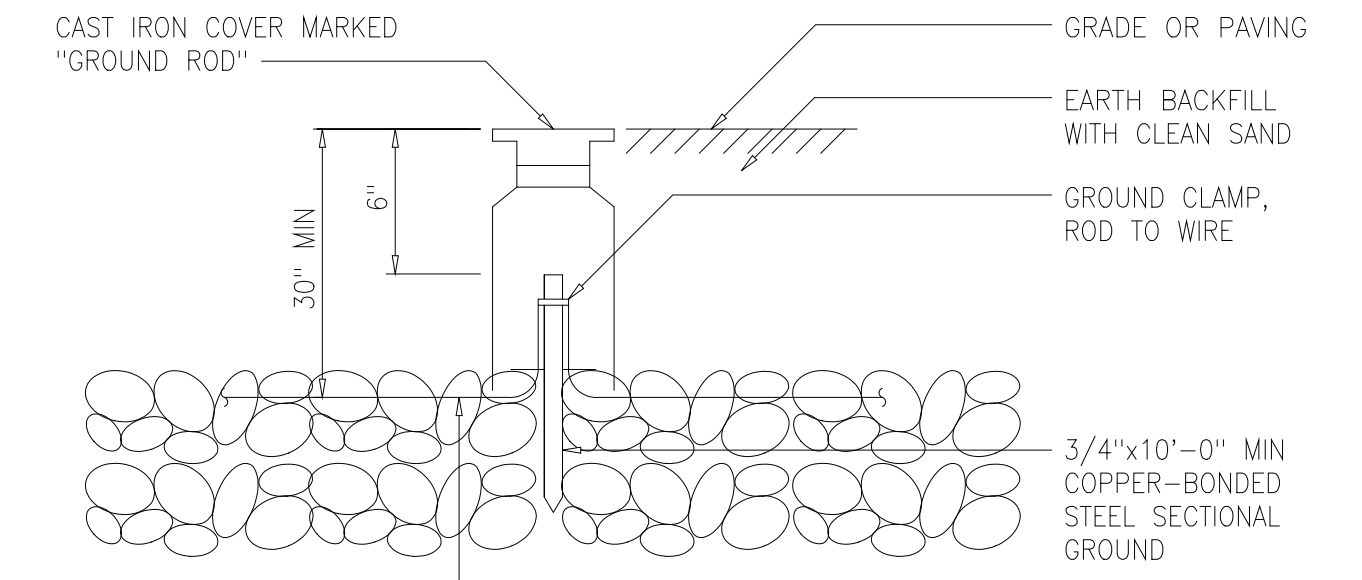
TYPICAL ELECTRICAL MANHOLE - SECTIONAL PLAN



TYPICAL DUCT BANK DETAIL
1611801

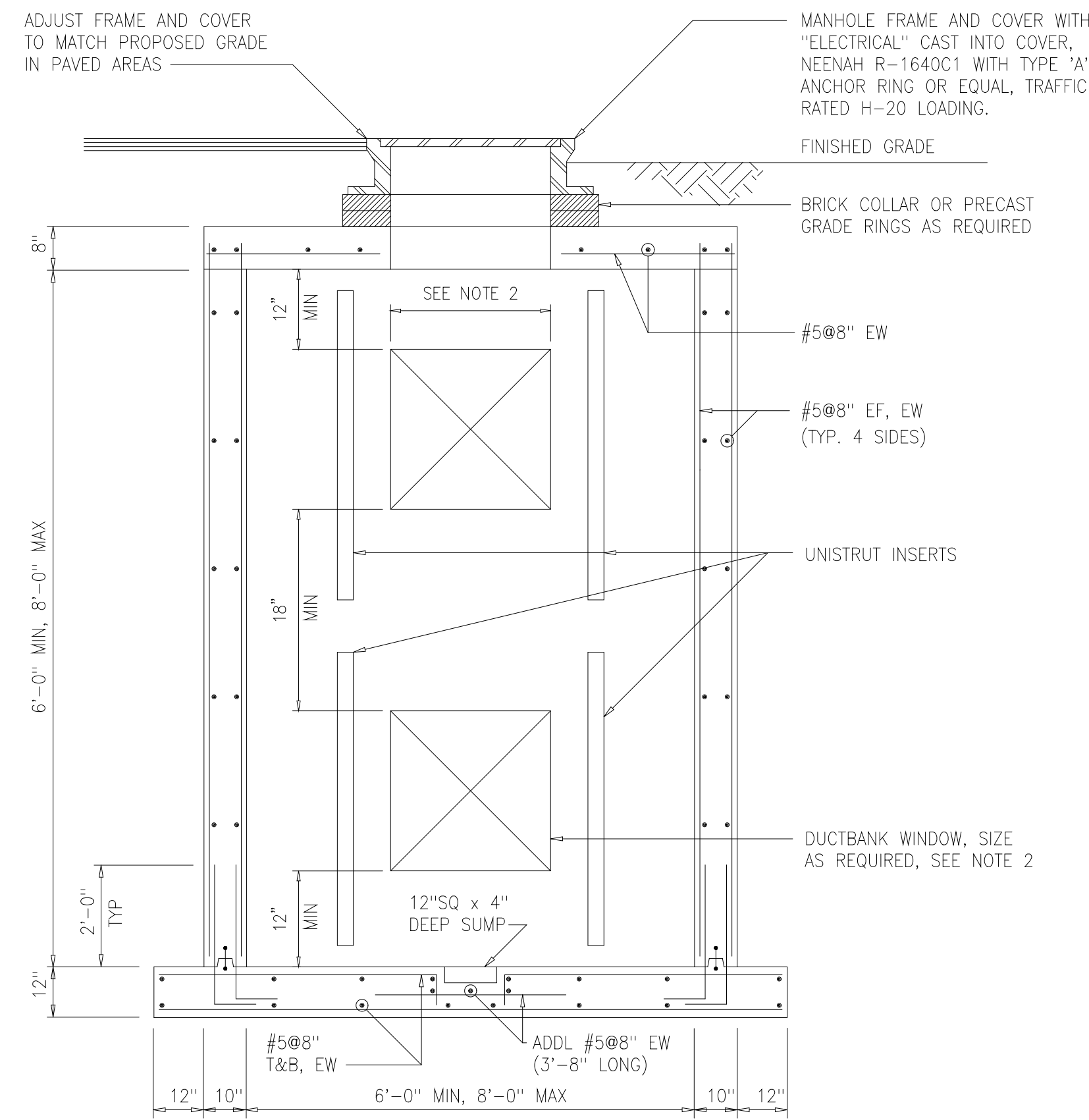


CONDUIT, FLOOR STUB-UP
1611101



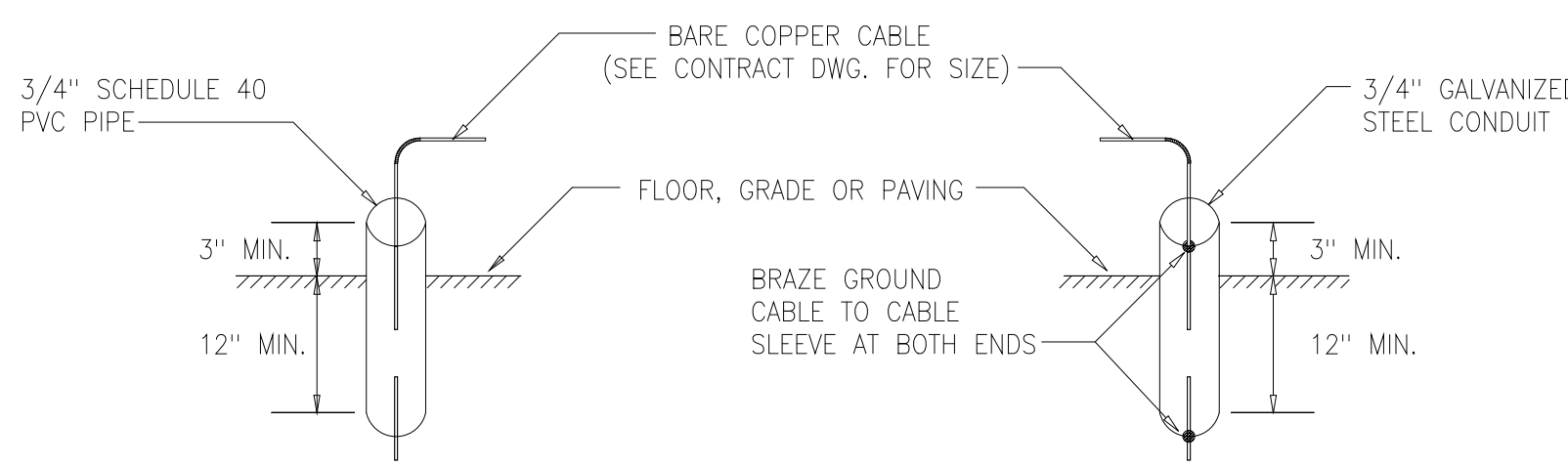
NOTES:
1 REFER TO JOB SPECIFICATION FOR MINIMUM SYSTEM RESISTANCE TO GROUND. IF THIS RESISTANCE CANNOT BE MET WITH SINGLE 10'-0" RODS, ADD ADDITIONAL SECTIONS TO RODS OR ADD NEW RODS AS REQUIRED, SPACED 6'-0" TO 10'-0" FROM EXISTING RODS.

ELECTRICAL INSTALLATION DETAIL
GROUND ROD ASSEMBLY
1617003

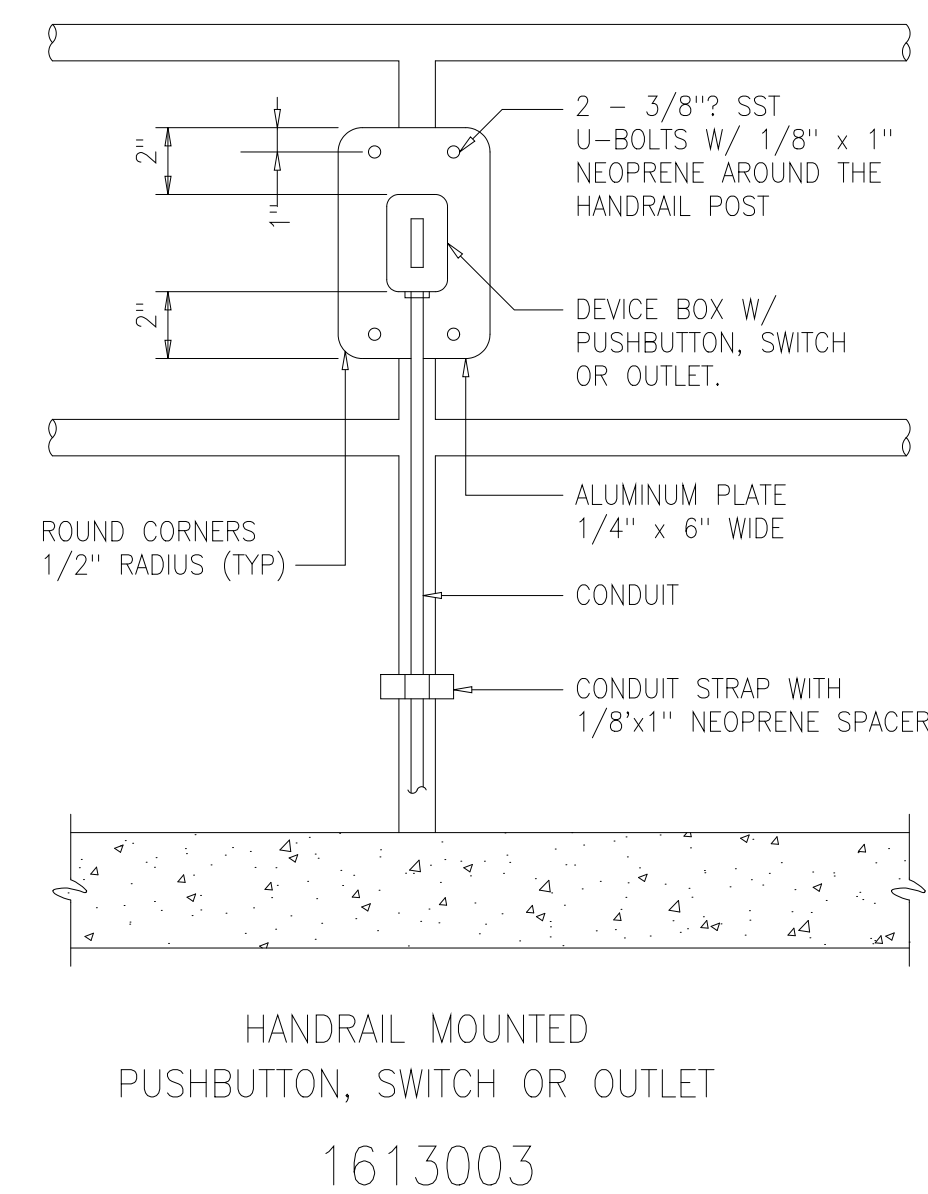


ELECTRICAL MANHOLE NOTES:
1 EPOXY PAINT ALL EXTERIOR SURFACES IN ACCORDANCE WITH PAINT SPECIFICATIONS IN DIVISION 9.
2 DUCTBANK WINDOW WIDTH SHALL BE LIMITED TO ONE-THIRD (1/3) OF THE WALL WIDTH, I.E. 2'-0" FOR A 6'-0" WALL.
3 PRECAST MANHOLES MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE MANHOLE SHOWN AT THE CONTRACTOR'S OPTION. PRECAST MANHOLES SHALL BE RATED FOR H-20 TRAFFIC LOADS.

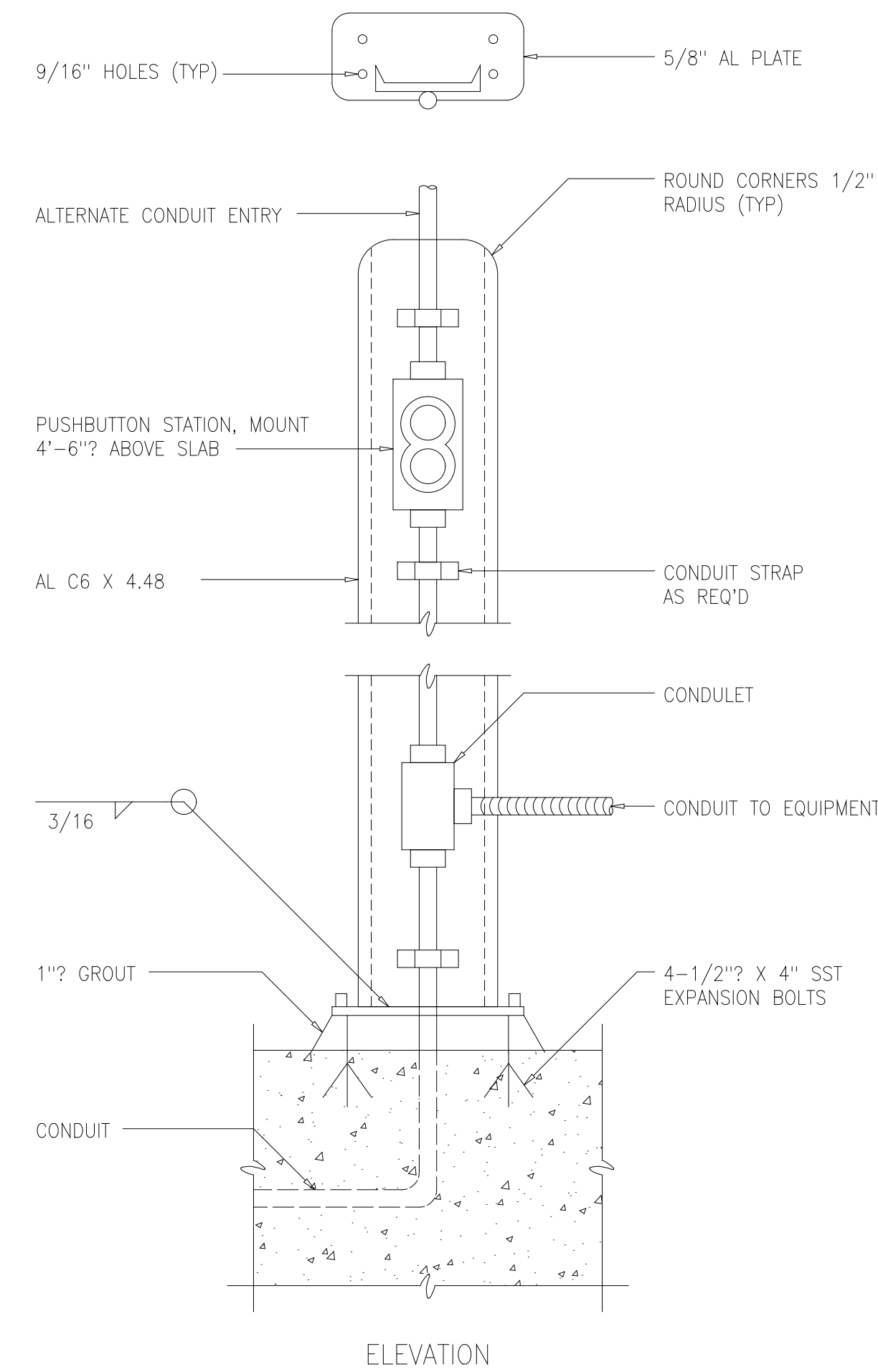
TYPICAL ELECTRICAL MANHOLE - SECTION
1611802



PREFERRED SLEEVE INSTALLATION ALTERNATIVE SLEEVE INSTALLATION
GROUND CABLE SLEEVE INSTALLATION
1617001

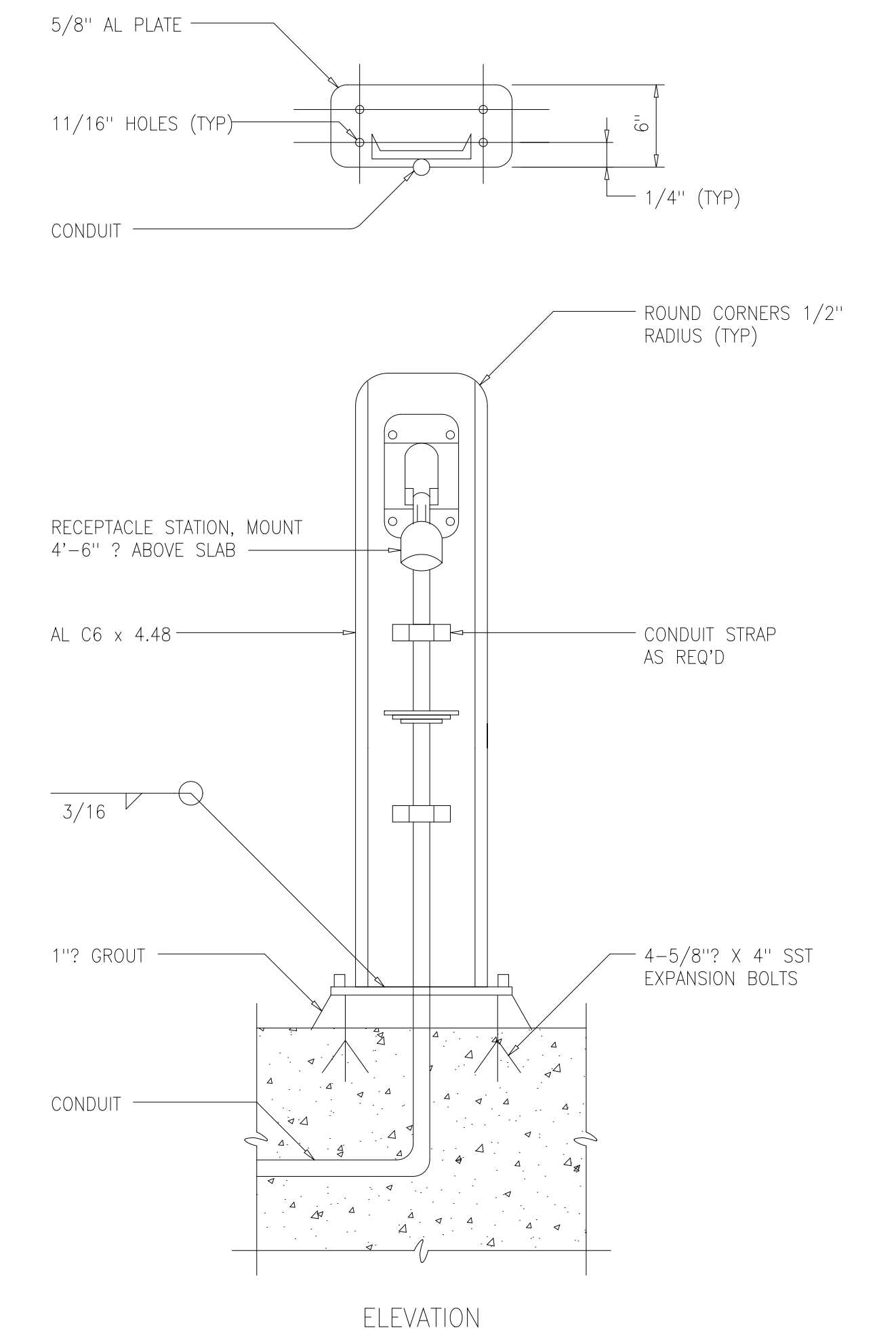


HANDRAIL MOUNTED
PUSHBUTTON, SWITCH OR OUTLET
1613003



NOTES:
1 COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
2 SUPPLY 1'-2" DIAMETER X 2'-6" DEEP FOUNDATION WHERE MOUNTING SURFACE IS NOT AVAILABLE.
3 USE SST WASHERS, NUTS AND BOLTS FOR MOUNTING DEVICES.
4 WHEN MOUNTING TO METAL FLOORS, CHANNEL AND BASE PLATE TO BE SIMILAR TO FLOOR MATERIAL. WELD BASE TO FLOOR.

TYPICAL PUSHBUTTON STATION INSTALLATION DETAIL
1613001



NOTES:
1 COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
2 CONSTRUCT 1'-6" DIA X 2'-6" DEEP CONCRETE FOUNDATION WHERE NO CONCRETE SLAB EXISTS.
3 USE SST WASHERS, NUTS AND BOLTS FOR MOUNTING DEVICES.

LARGE RECEPTACLE SUPPORT AND MOUNTING
1613002

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ.ENGR.	ASG
APPROVED	

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Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

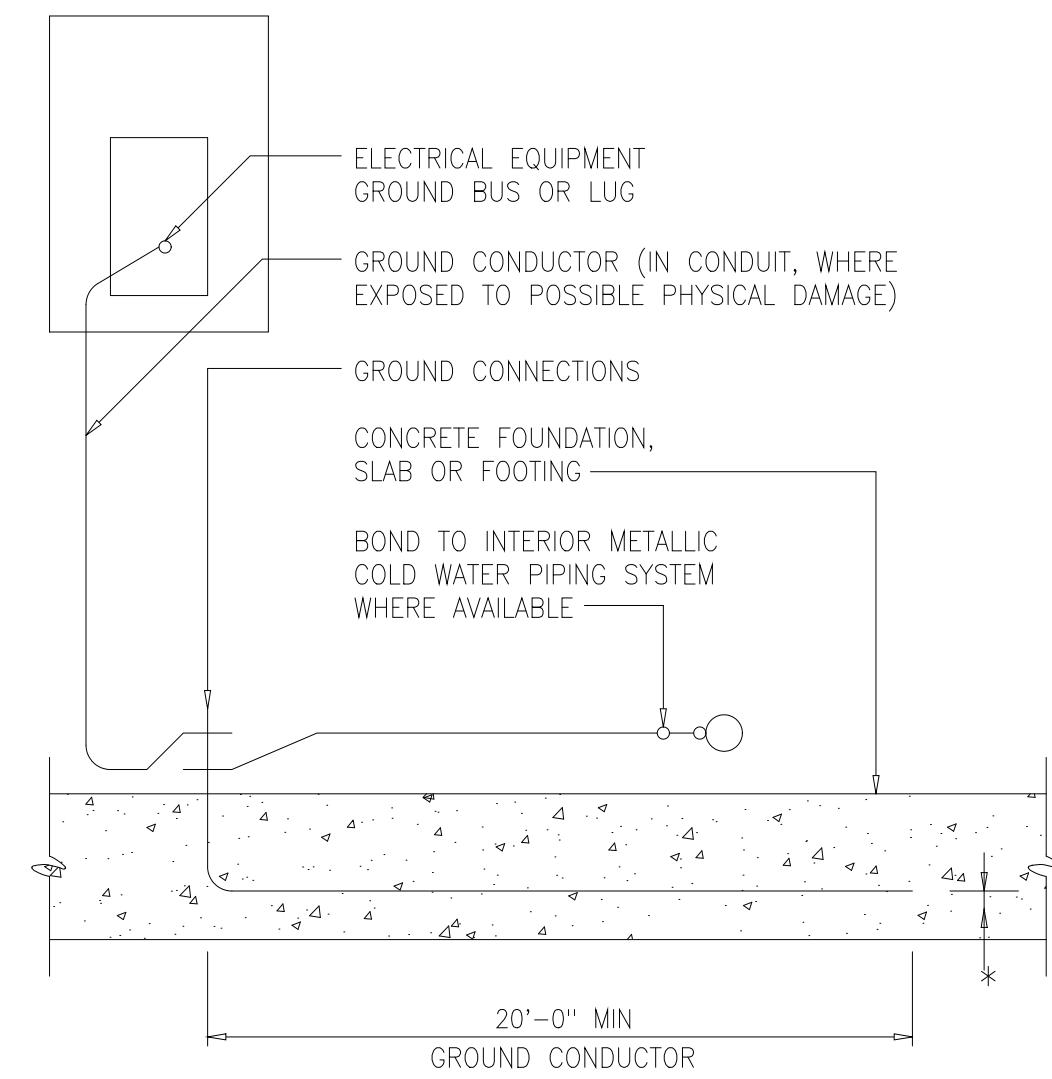
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TELEPHONE: (301) 210-6800
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

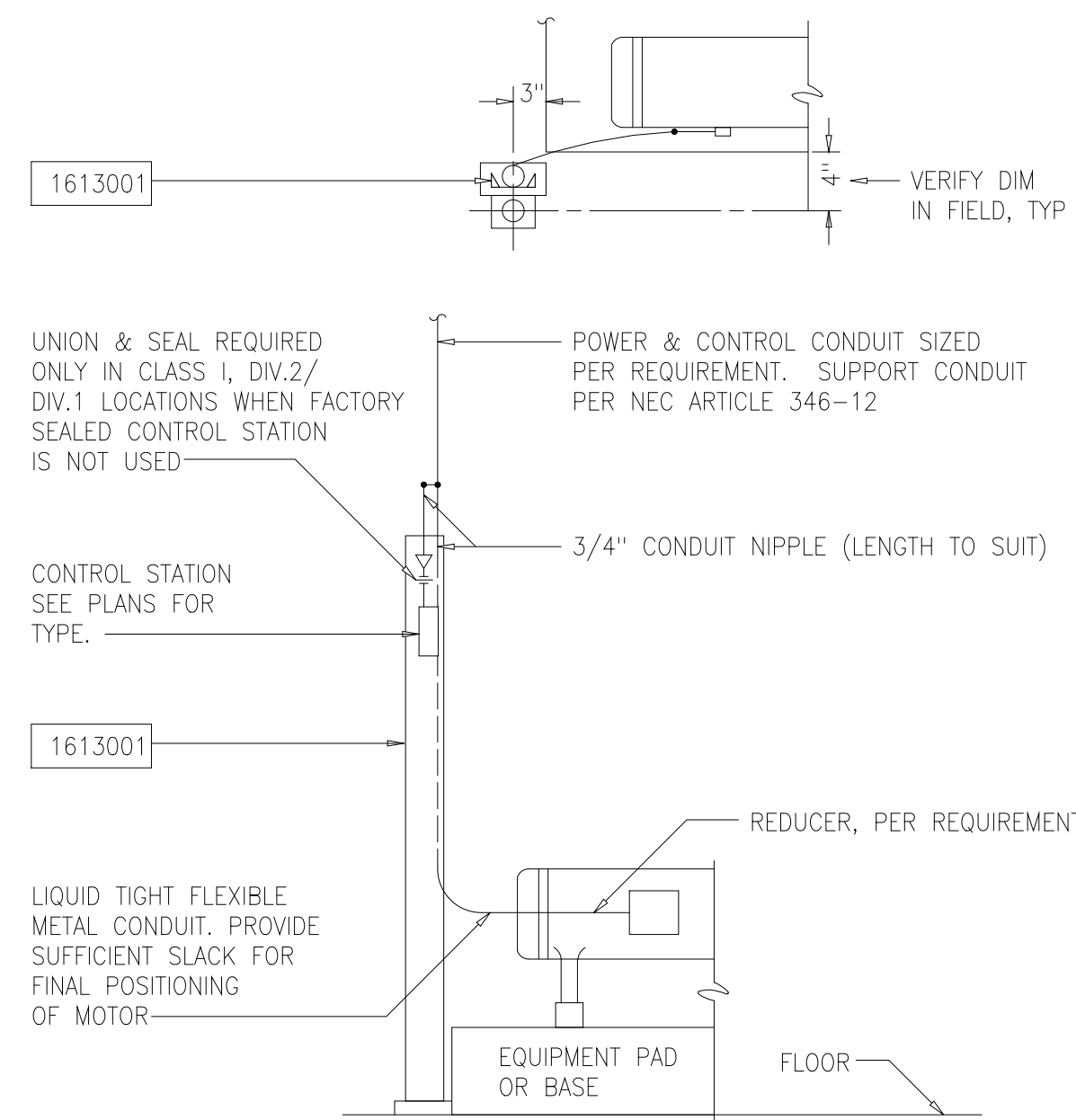
DATE: SEPT 2000
H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC
DRAWING NUMBER: D010
SHEET 92 OF 99



* 1" CLEAR FOR ELEVATED SLABS
3" CLEAR FOR SLABS ON GRADE OR FOOTING

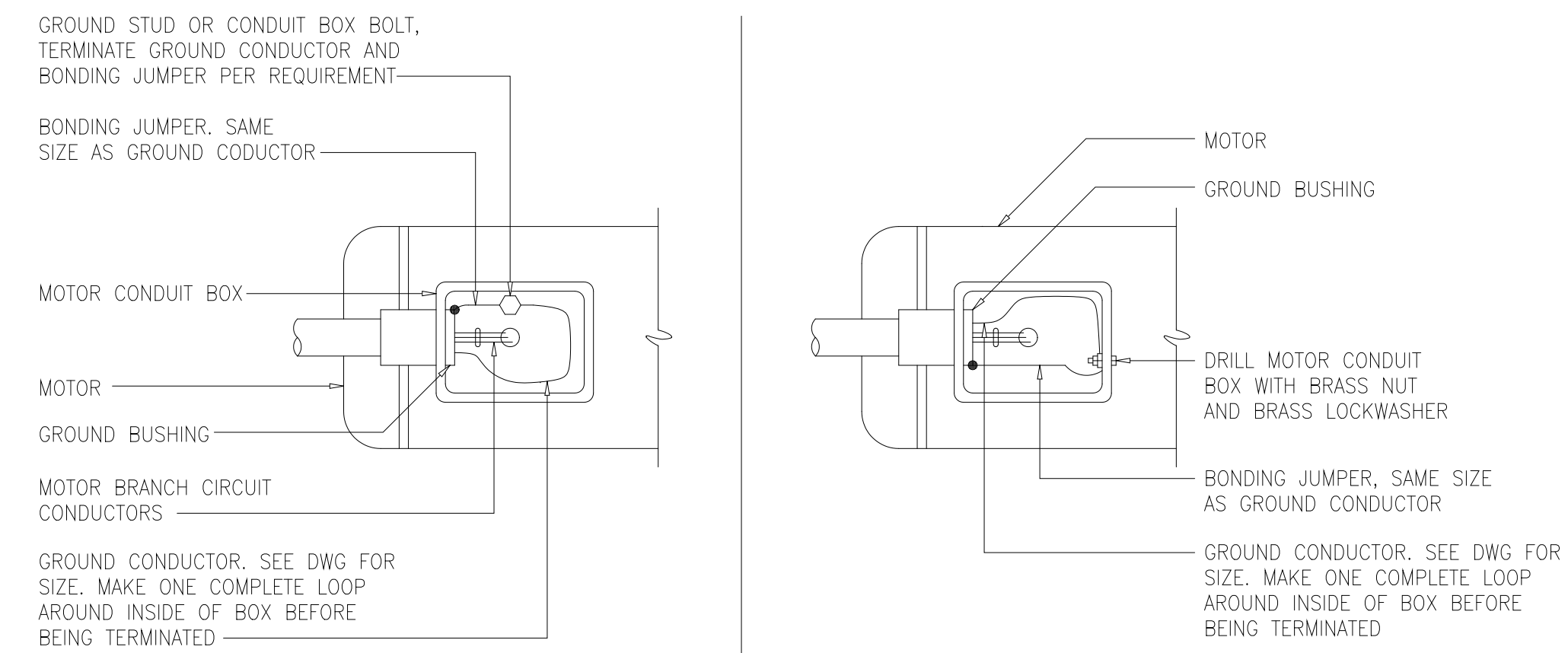
CONCRETE ENCASED GROUND

1617004



MOTOR CONDUIT INSTALLATION DETAIL
HAZARDOUS AND NONHAZARDOUS LOCATIONS
POWER AND CONTROL WIRE IN SAME CONDUIT

1618001



NOTE:
OMIT GROUND BUSHING AND BONDING JUMPER FOR MOTOR CONDUIT BOX WITH THREADED HUB

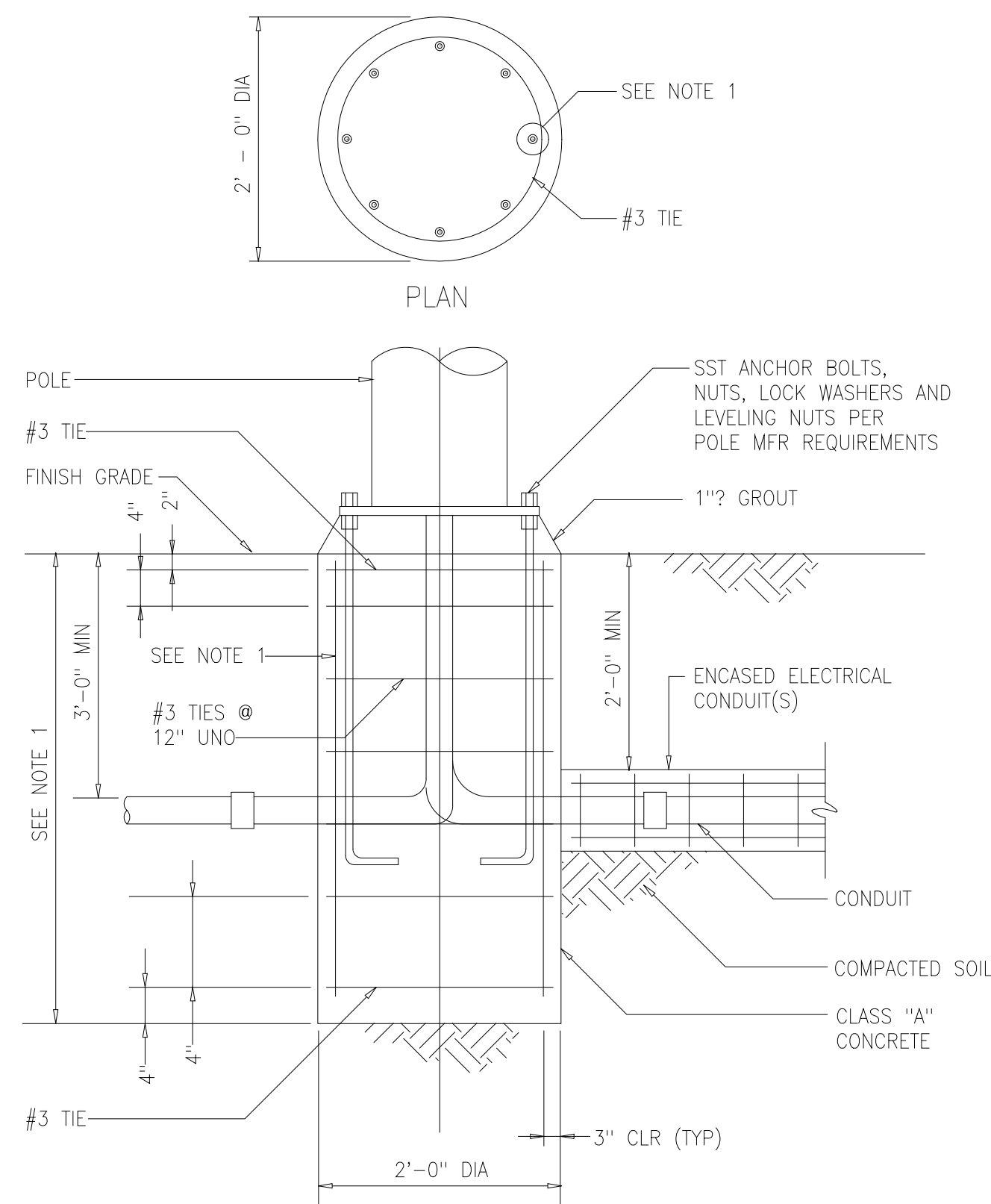
PREFERRED INSTALLATION

NOTE:
OMIT GROUND BUSHING AND BONDING JUMPER FOR MOTOR CONDUIT BOX WITH THREADED HUB

ALTERNATE INSTALLATION

LOW VOLTAGE MOTOR GROUNDING CONNECTIONS
HAZARDOUS AND NONHAZARDOUS

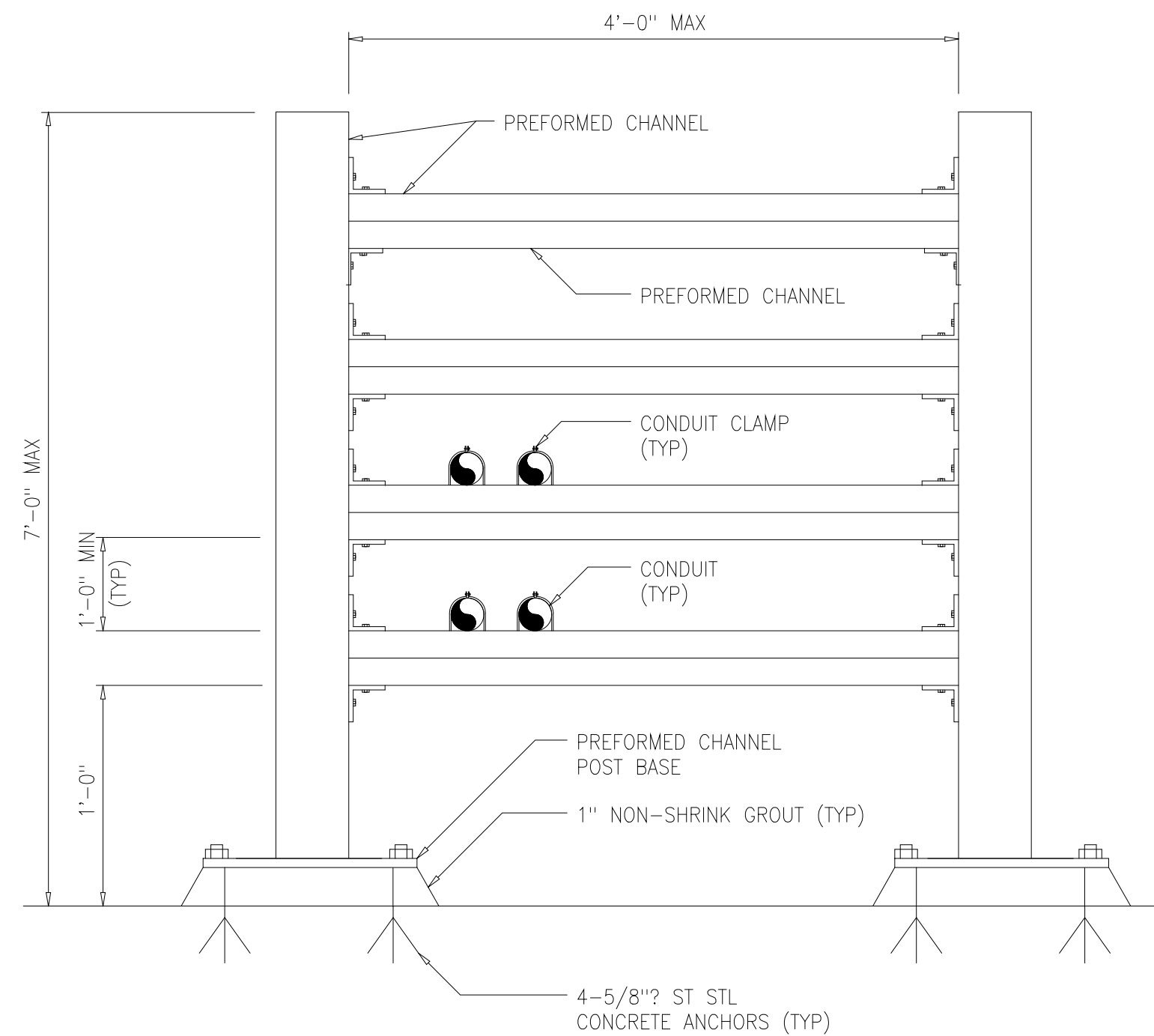
1618002



NOTES:
1 IF NOT SPECIFIED OR SHOWN, DEPTH AND REINFORCEMENT SHALL BE DETERMINED BY POLE MANUFACTURER. LOADING SHALL BE DEAD LOAD PLUS 100 MPH WIND, STANDARD EXPOSURE PER STANDARD BUILDING CODE.

AREA LIGHTING FIXTURE MOUNTING

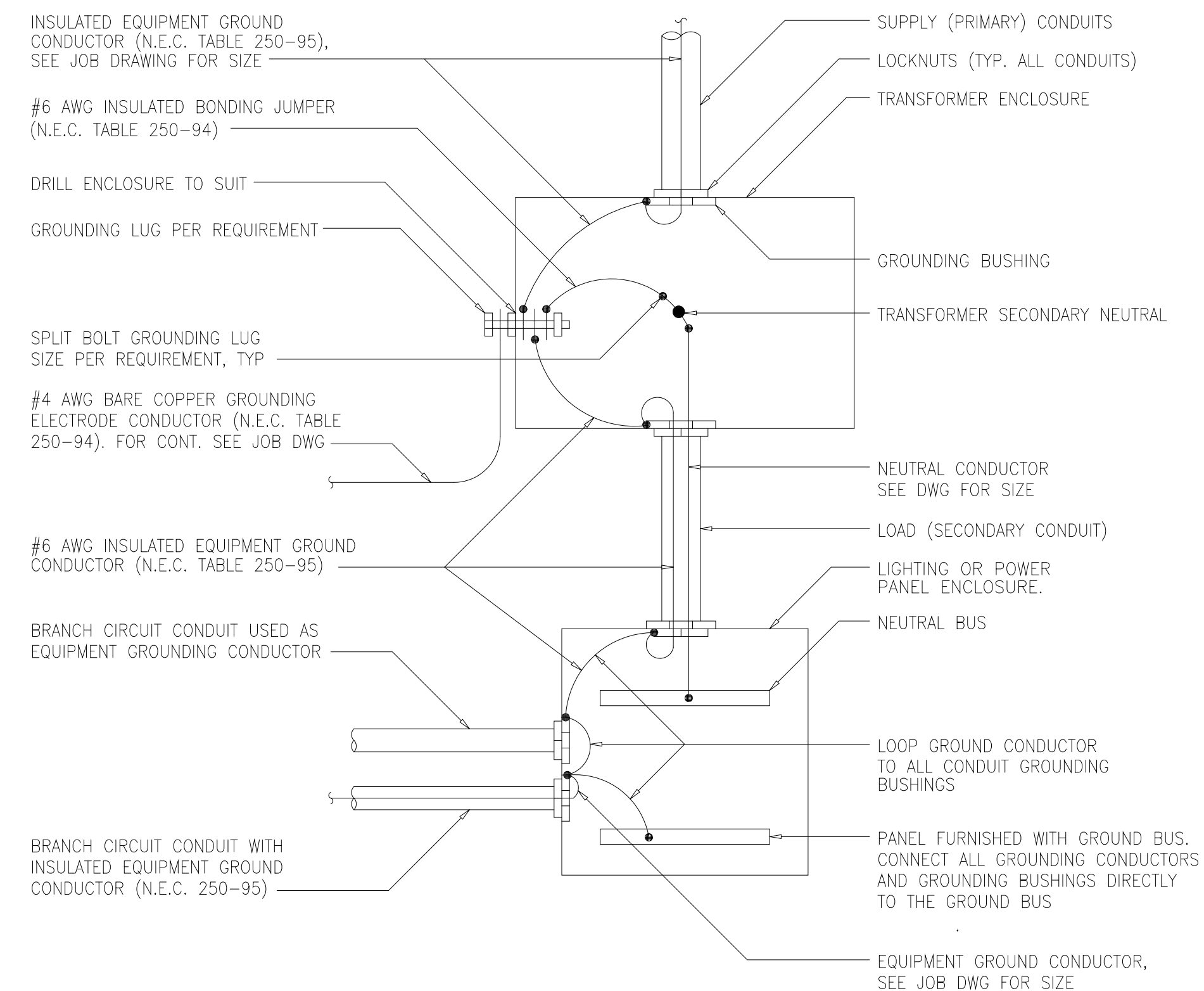
1650001



NOTES:
1 CONDUIT SUPPORT RACK SPACING SHALL BE BASED ON MAXIMUM SPAN ALLOWABLE FOR ANY INDIVIDUAL PIPE AND FOR MAXIMUM LOAD.

CONDUIT SUPPORT RACK INSTALLATION DETAIL

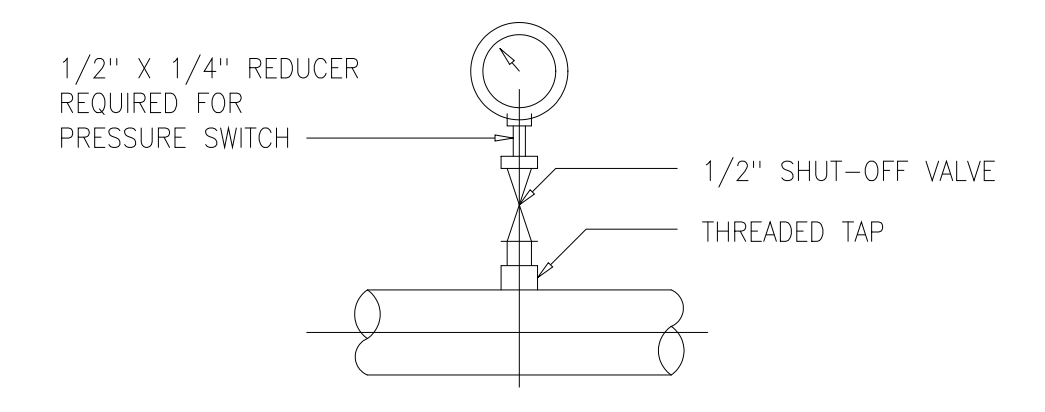
1619001



NOTES:
1 GROUNDING CONDUCTORS SHOWN ARE FOR TRANSFORMERS UP TO 45KVA. SEE ELECT. JOB DRAWINGS FOR LARGER TRANSFORMERS OR WHEN VOLTAGE DROP REQUIRES LARGER CONDUCTORS.

LOW VOLTAGE TRANSFORMER GROUNDING INSTALLATION DETAIL

1618003



PRESSURE GAUGE OR SWITCH
INSTALLATION WITH THREADED TAP
(SHOWN WITHOUT DIAPHRAGM SEAL)
USED FOR PIPES 2" AND LARGER

1691004

RECORD DRAWING

DESIGNED	ASG
DRAWN	FXP
CHECKED	CAS
PROJ.ENGR.	ASG
APPROVED	

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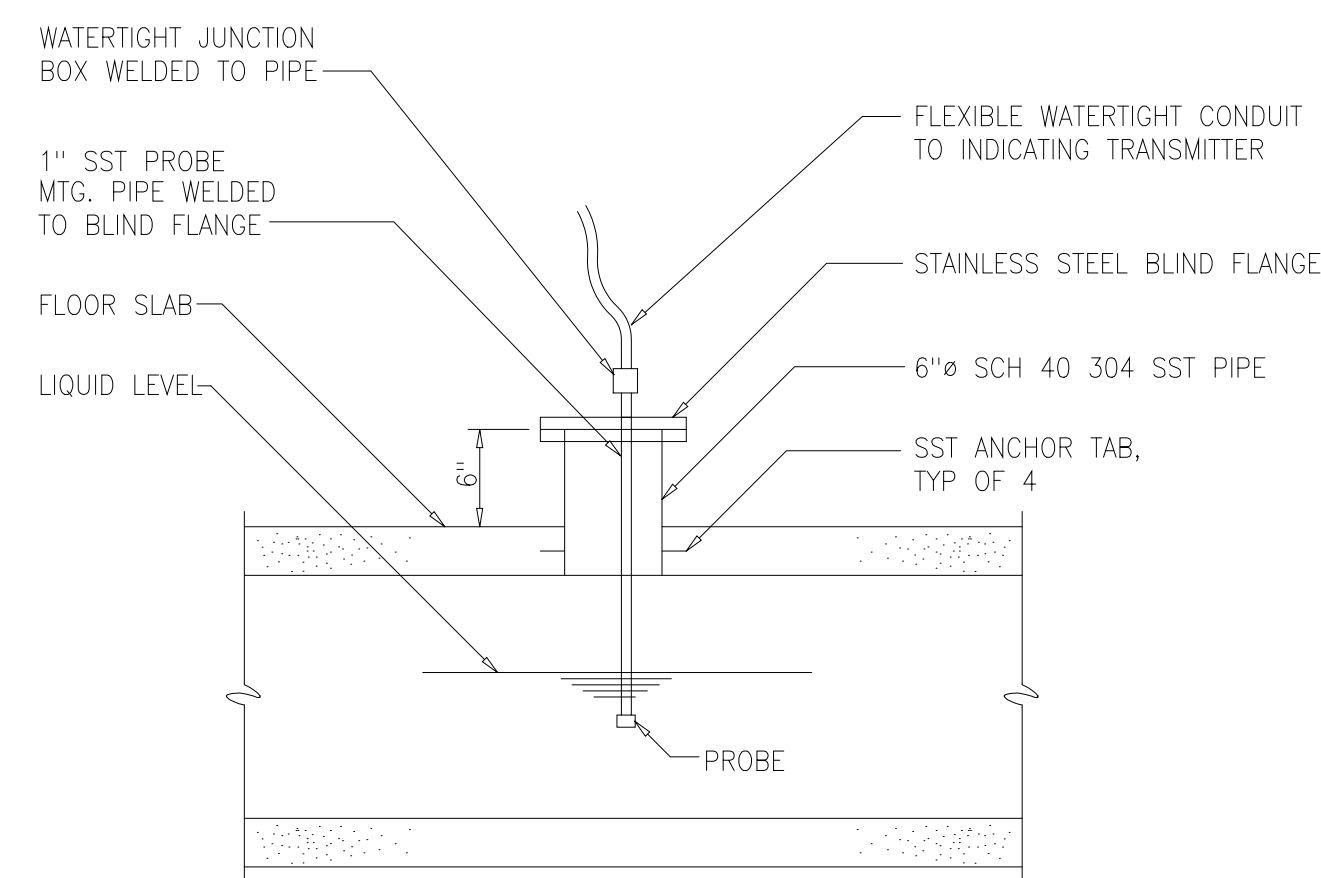
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ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

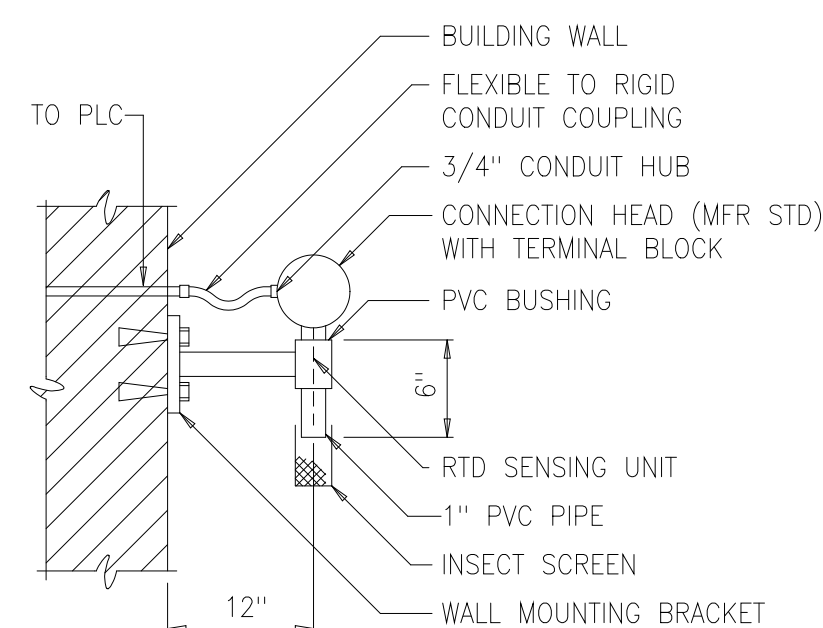
ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

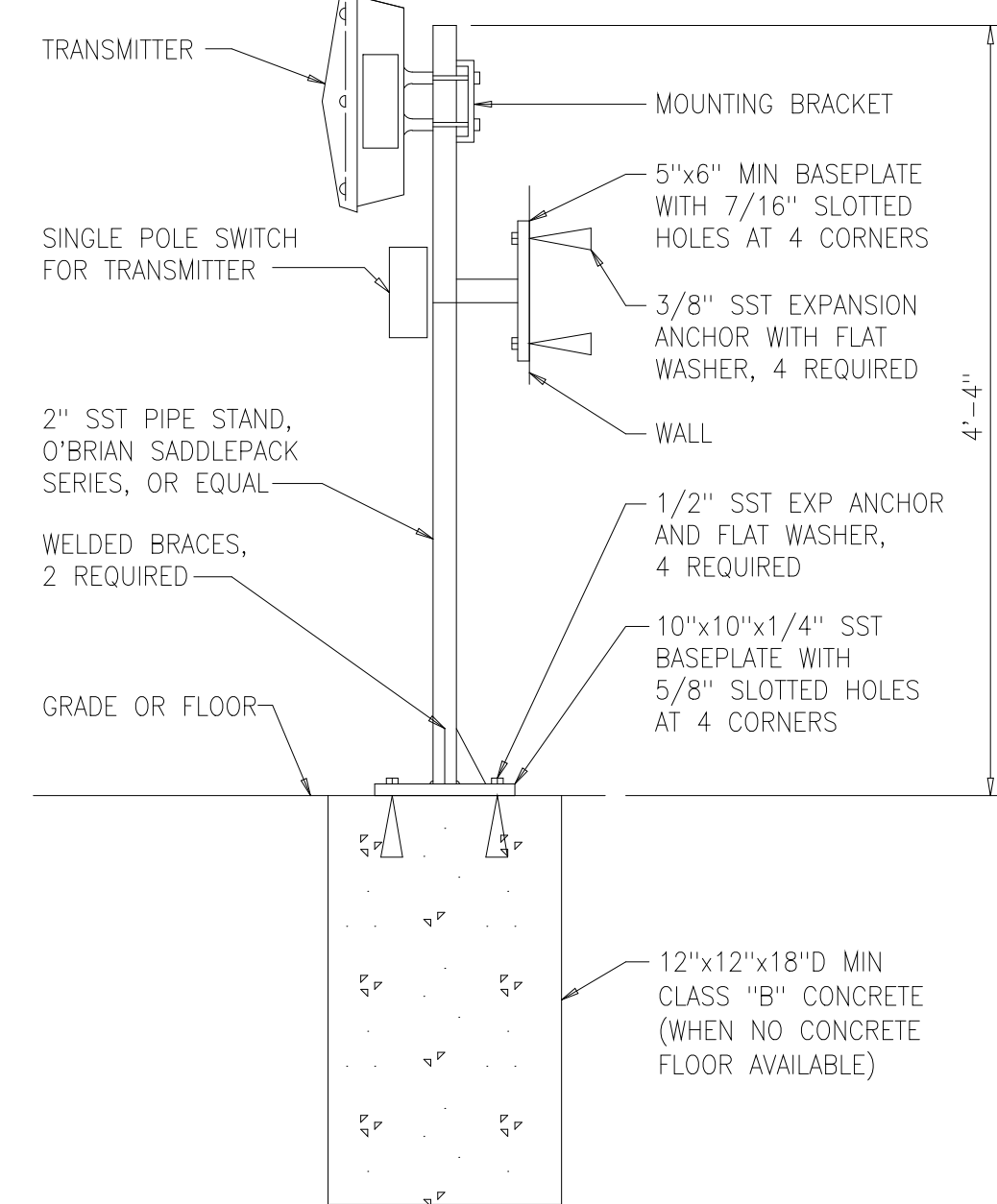
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D011
	SHEET 93 OF 99



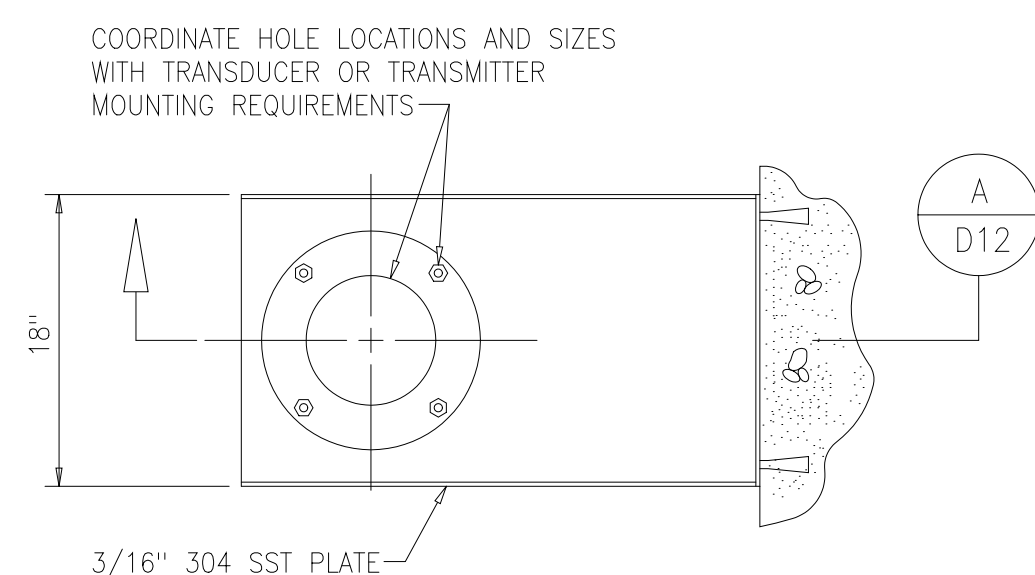
pH PROBE
ENCLOSED CHANNEL INSERTION
MOUNTING DETAIL
1691009



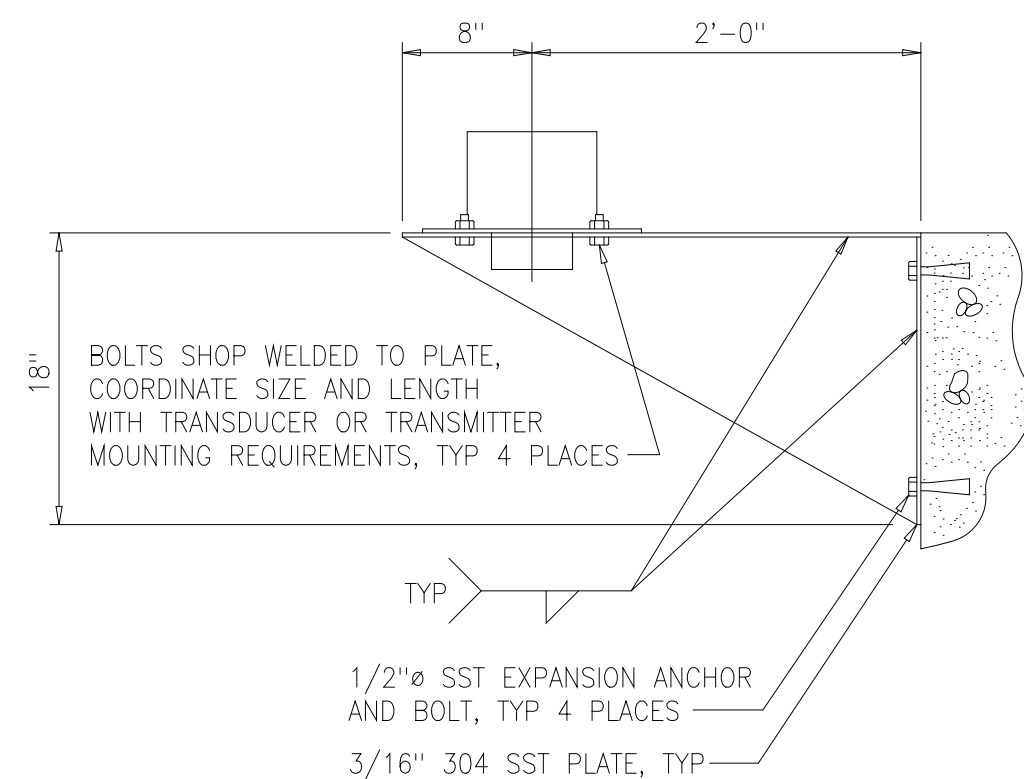
NOTE: TIP OF PROBE SHOULD NOT PROTRUDE FROM THE PVC PIPE.
TYPICAL AMBIENT TEMPERATURE
SENSING ELEMENT MOUNTED
ON EXTERIOR WALL
1696103



TYPICAL PIPE STAND TRANSMITTER MOUNT
FLOOR OR WALL
1696214R

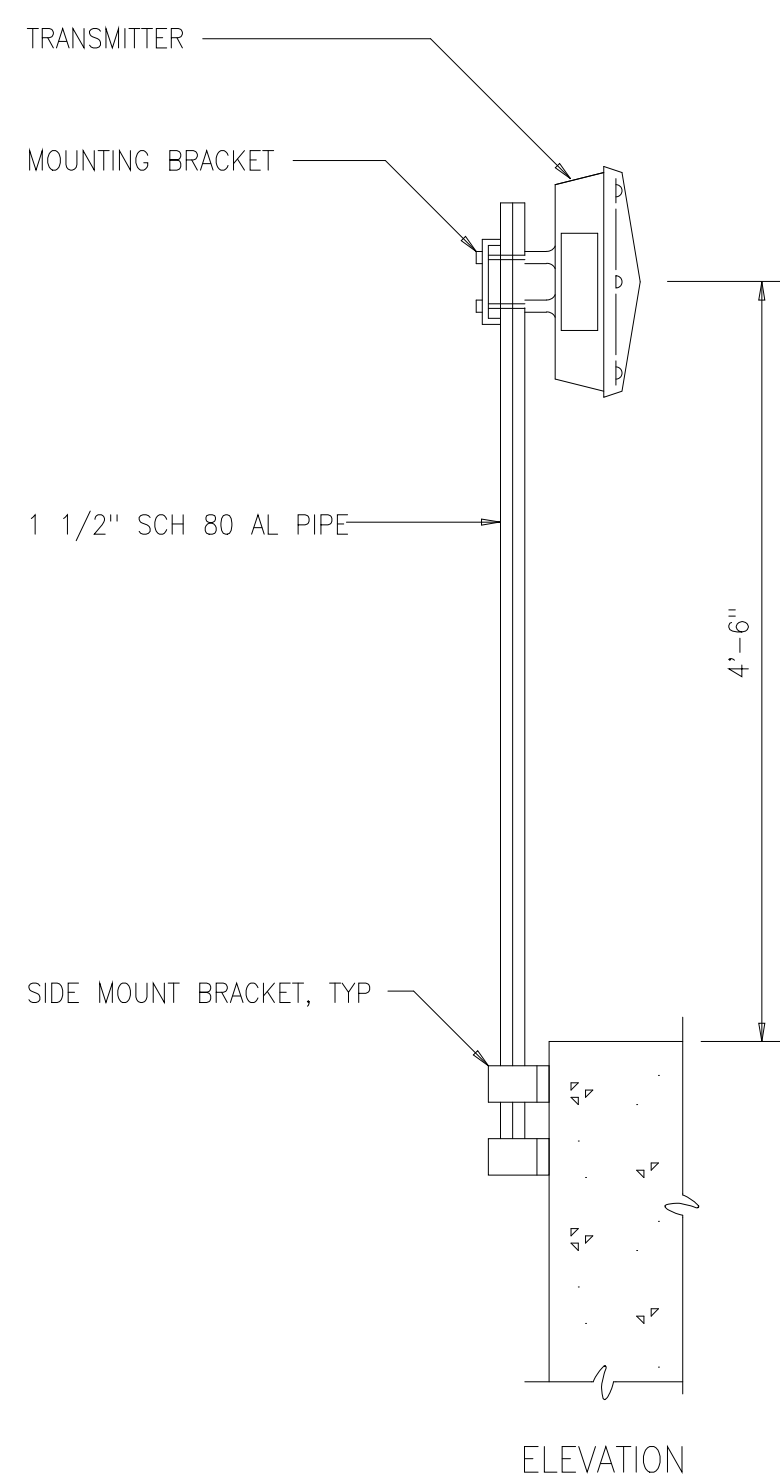


ULTRASONIC LEVEL TRANSDUCER OR TRANSMITTER
WALL MOUNTING DETAIL
1696210

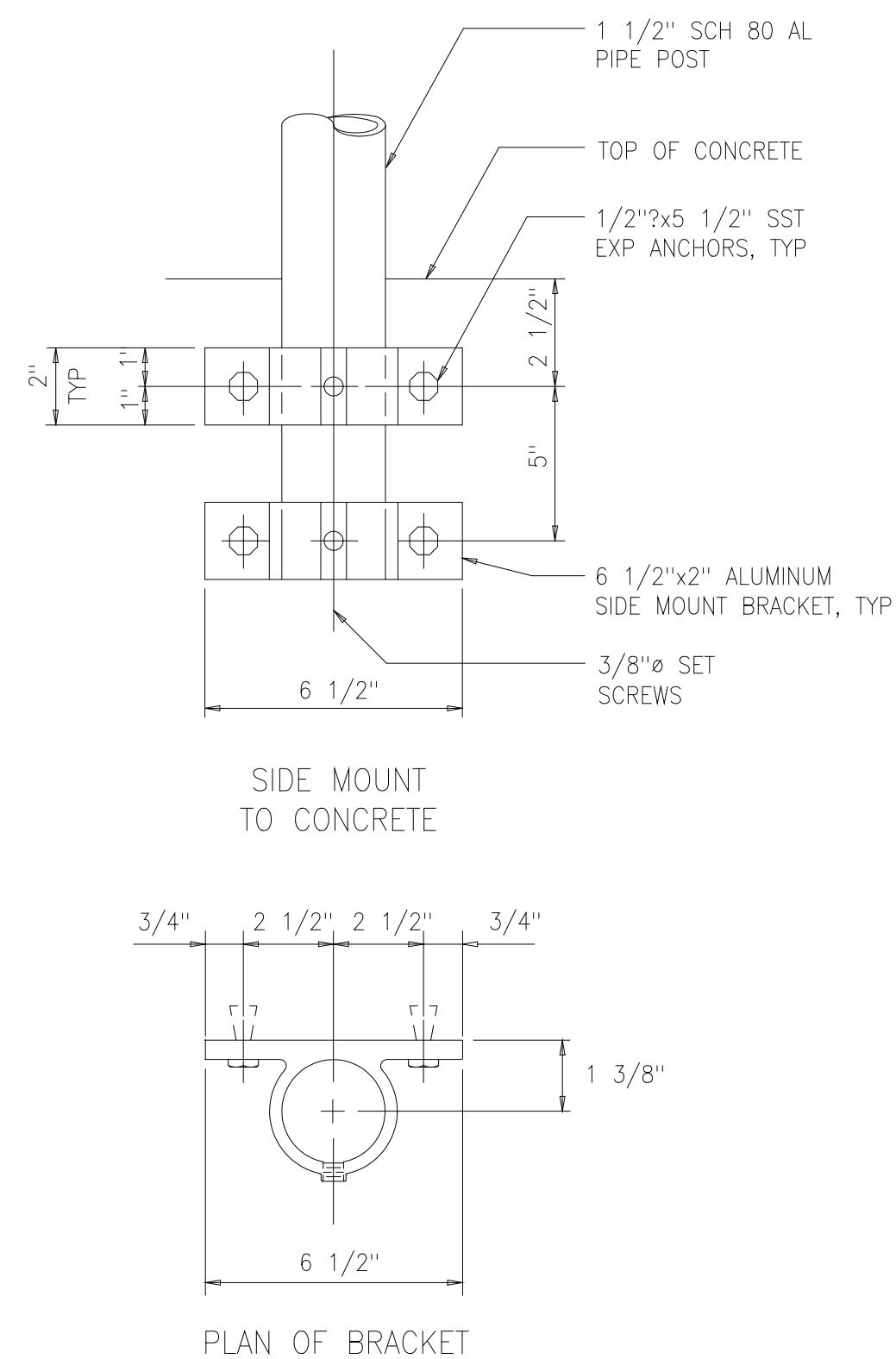


ULTRASONIC LEVEL TRANSDUCER OR TRANSMITTER
WALL MOUNTING DETAIL

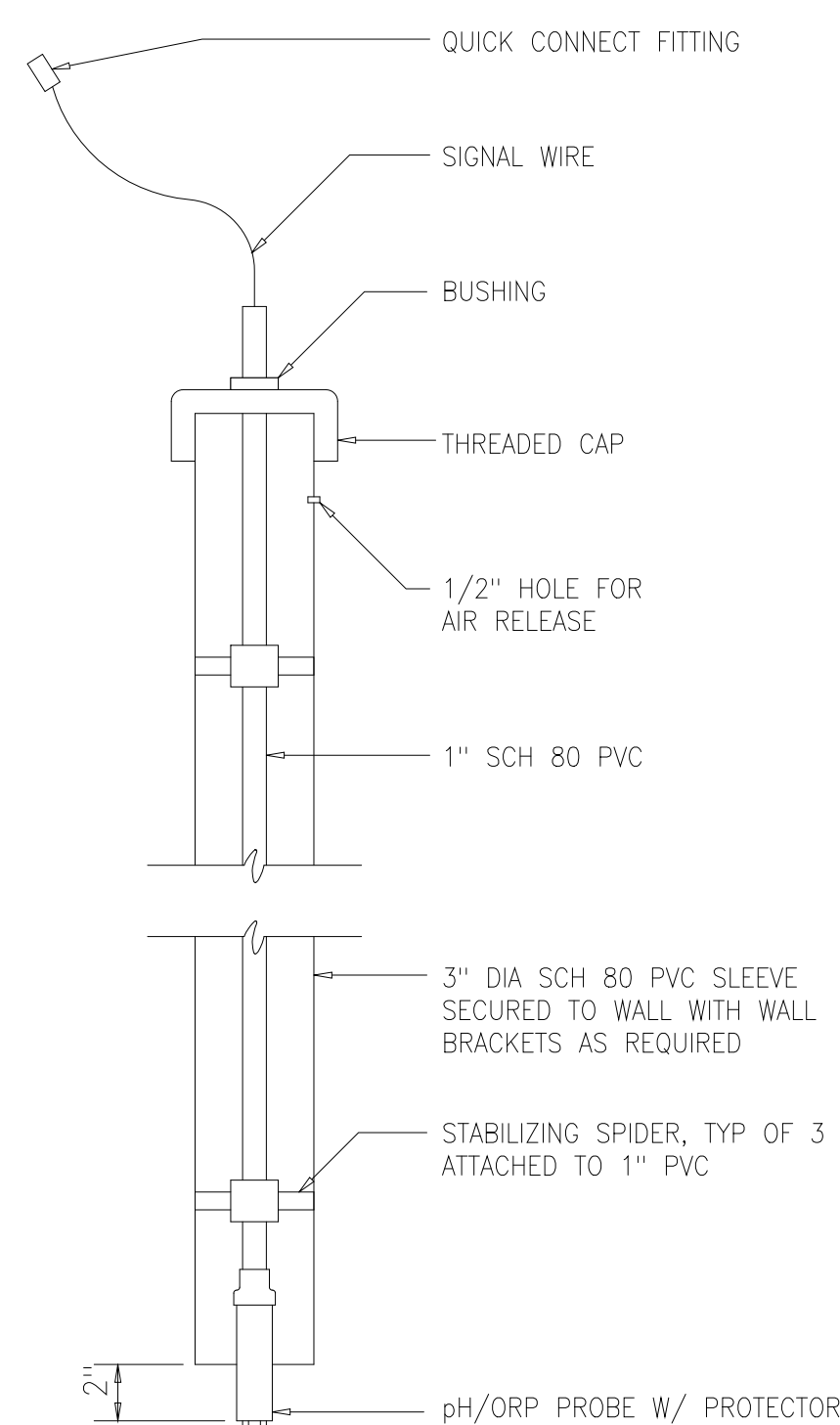
SECTION A
NTS D12



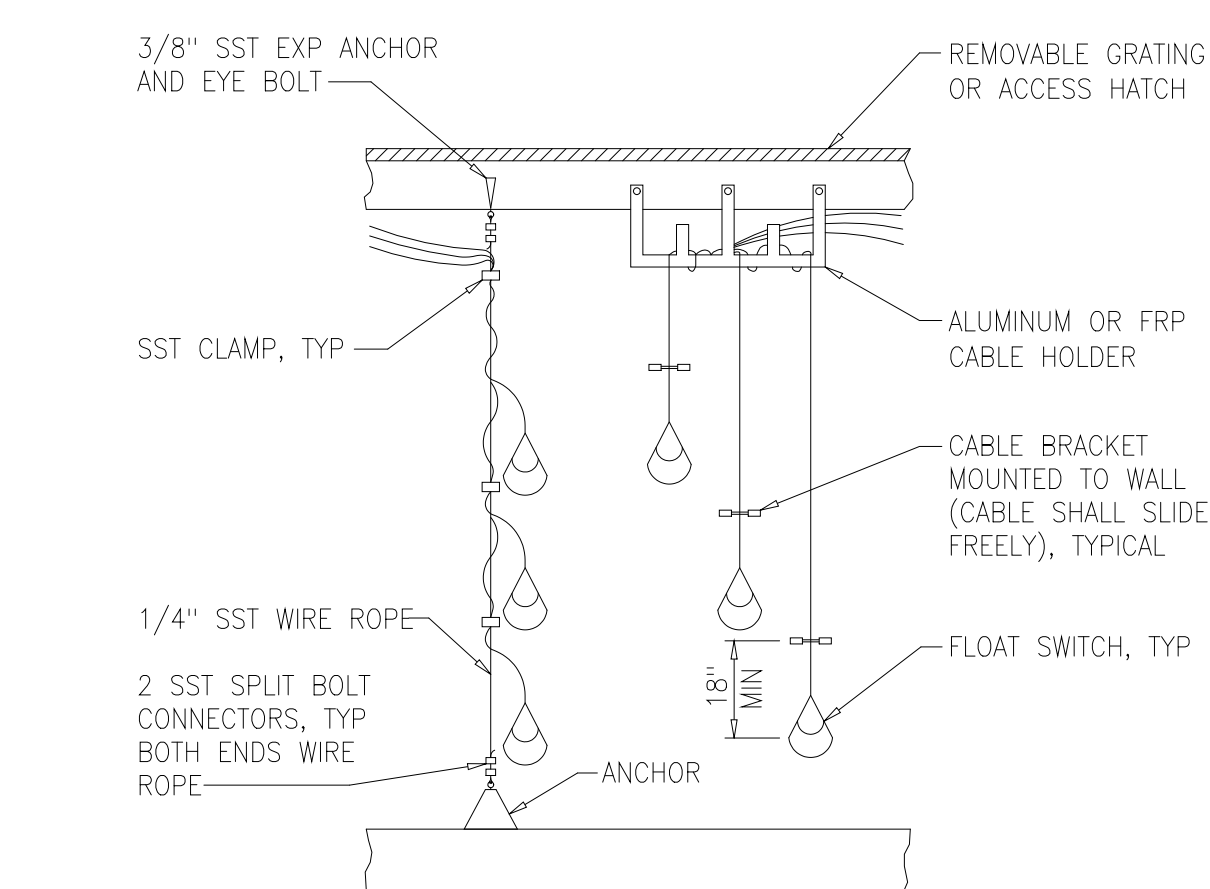
TYPICAL PIPE STAND TRANSMITTER
MOUNTED ON SIDE WALL
1696213



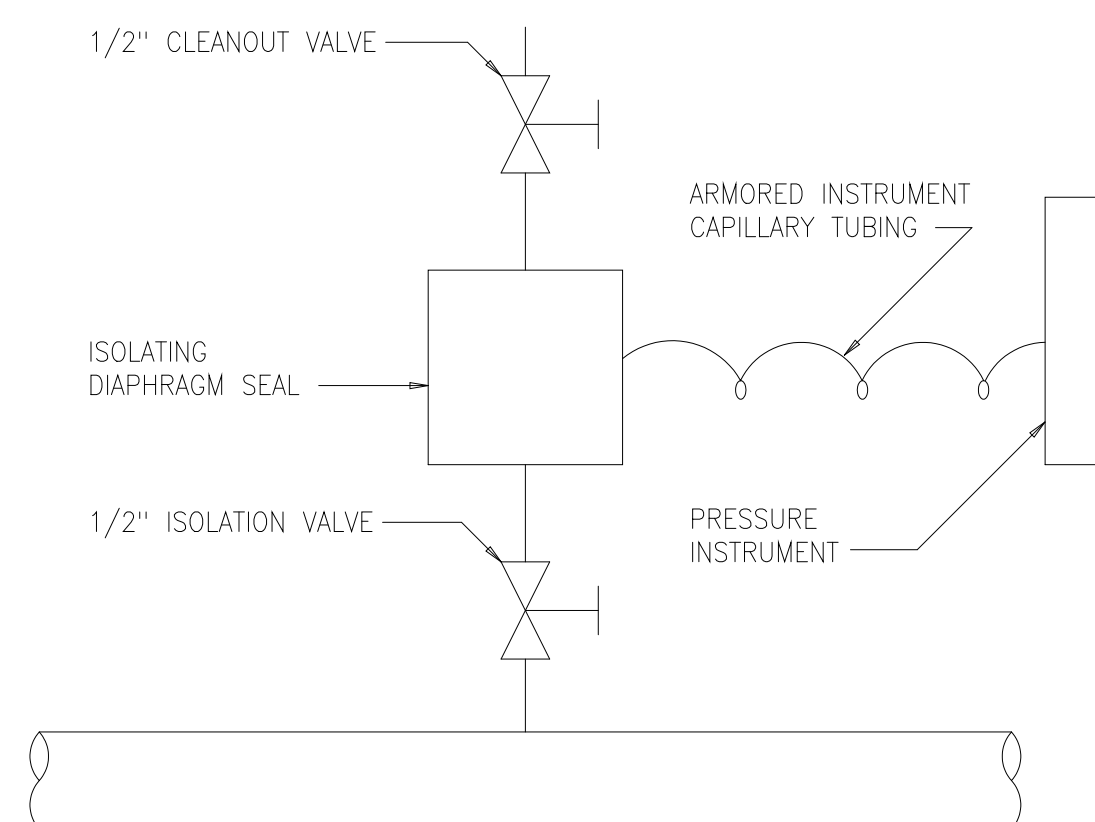
PLAN OF BRACKET



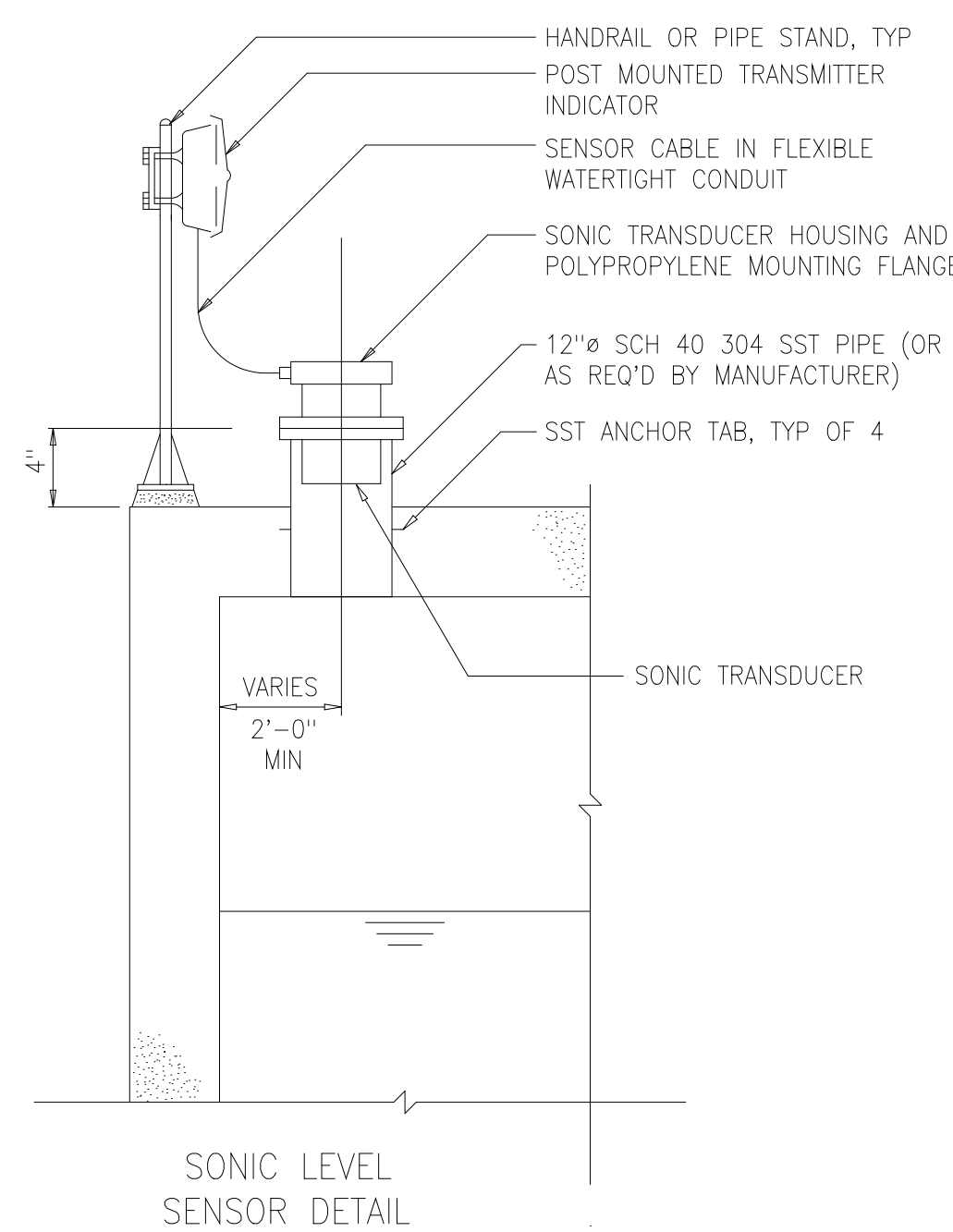
REMOVABLE pH/ORP PROBE
IN STATIONARY SLEEVE
1696104



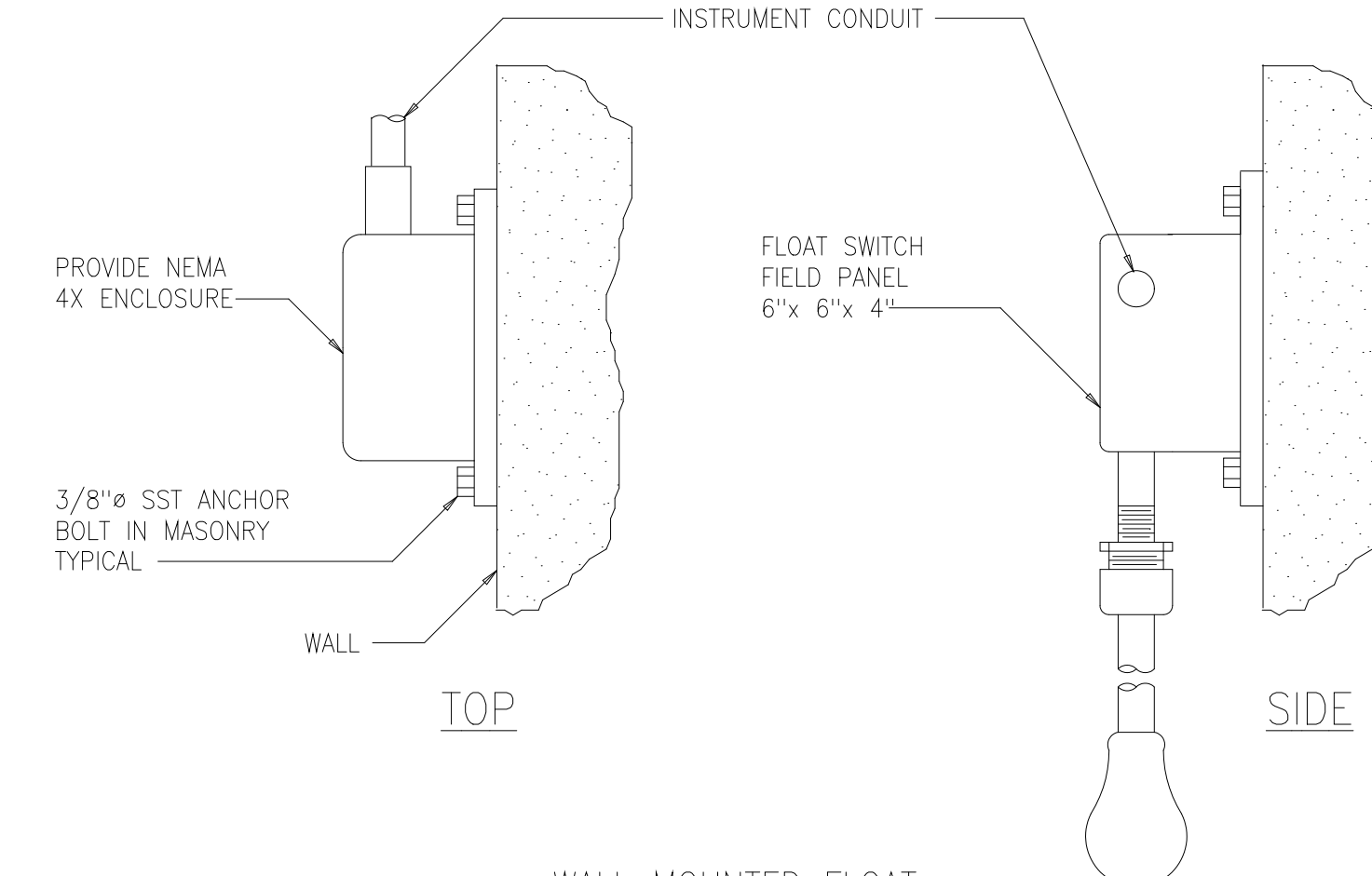
TYPICAL LEVEL SWITCH
MOUNTING DETAILS
1696200



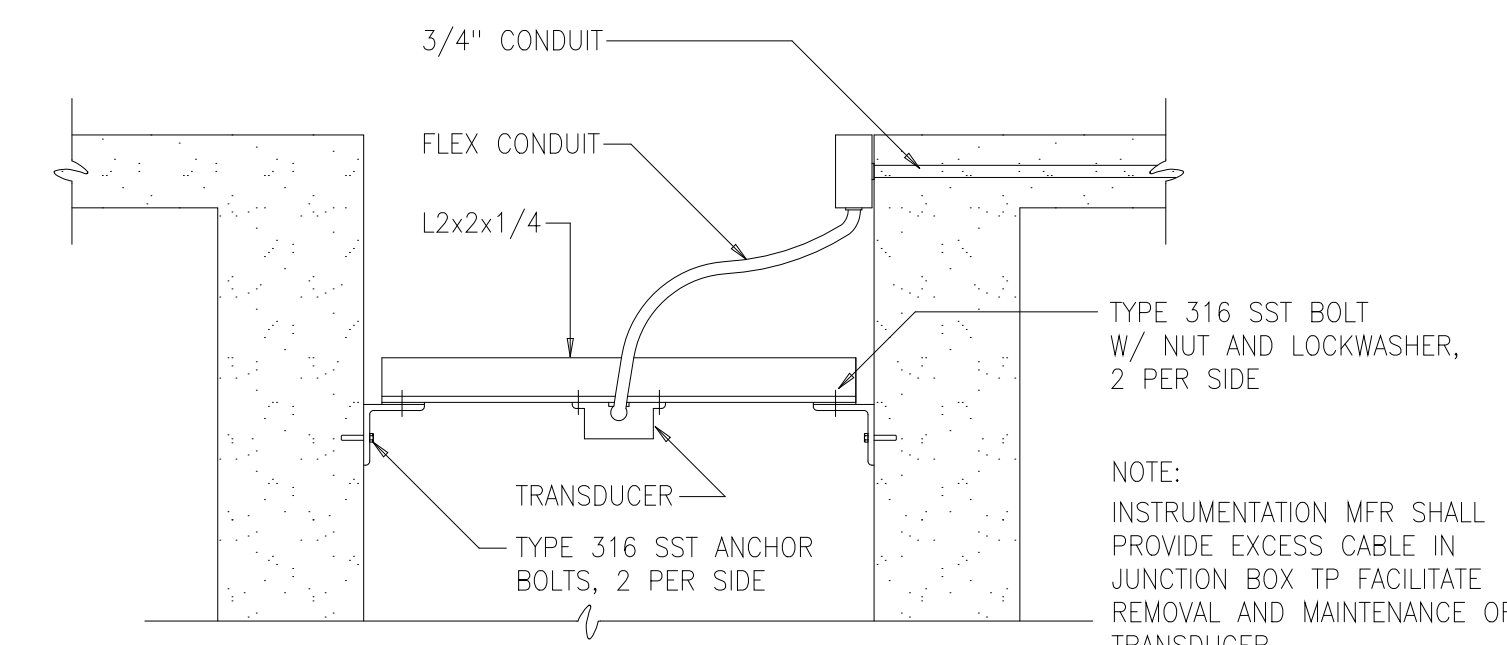
TAPPED DIAPHRAM SEAL DETAIL
1696105



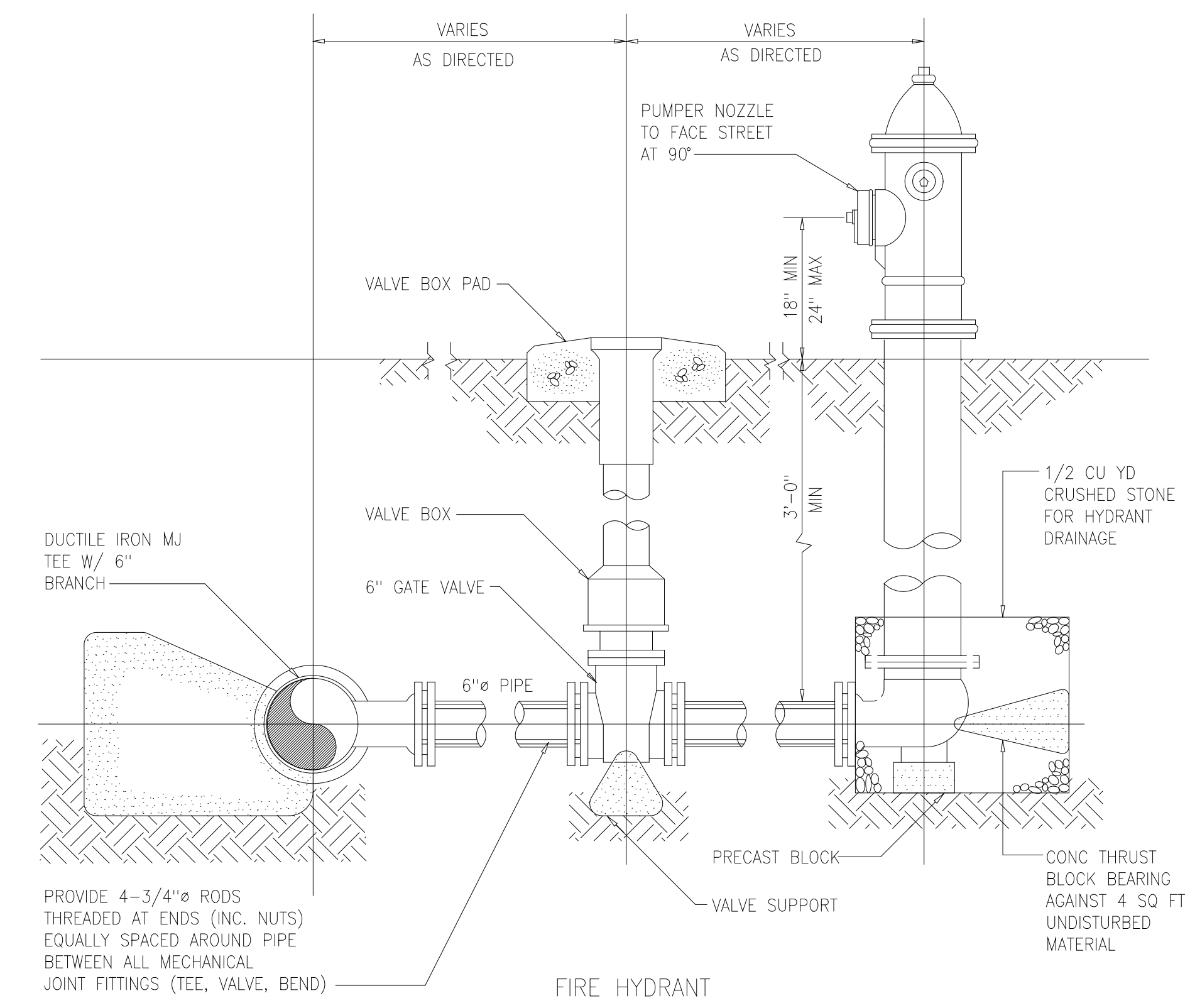
SONIC LEVEL
SENSOR DETAIL
1696202



WALL MOUNTED FLOAT
SWITCH DETAIL
1696203



TRANSDUCER MOUNTING DETAIL
1696215



PROVIDE 4-3/4\"/>

FIRE HYDRANT
1553000

RECORD DRAWING

DESIGNED ASG
DRAWN FXP
CHECKED CAS
PROJ.ENGR. ASG

NO. ISSUED FOR DATE BY APPROVED

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Environmental Engineers &
4011 WestChase Blvd, Raleigh, North Carolina 27607

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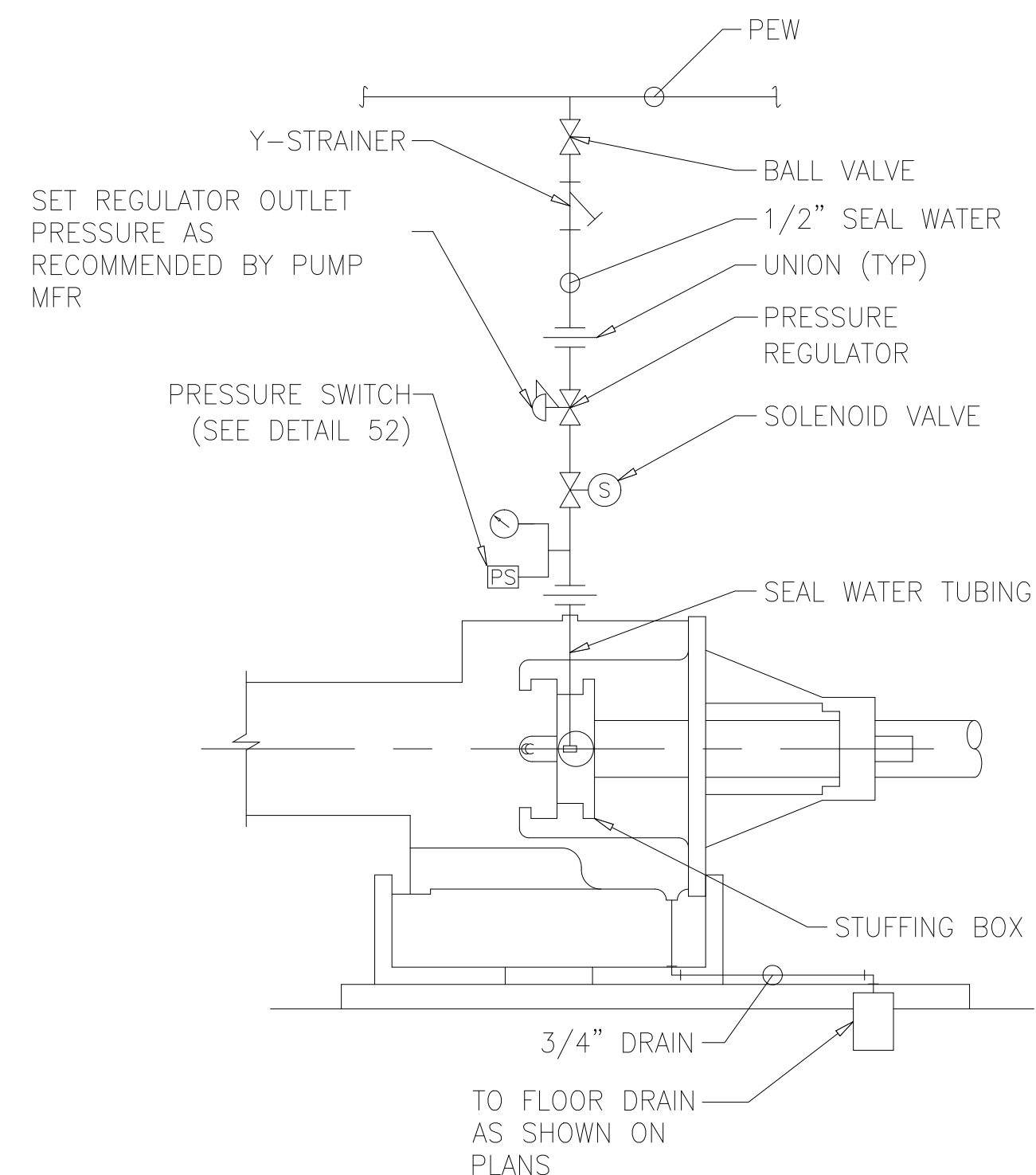
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

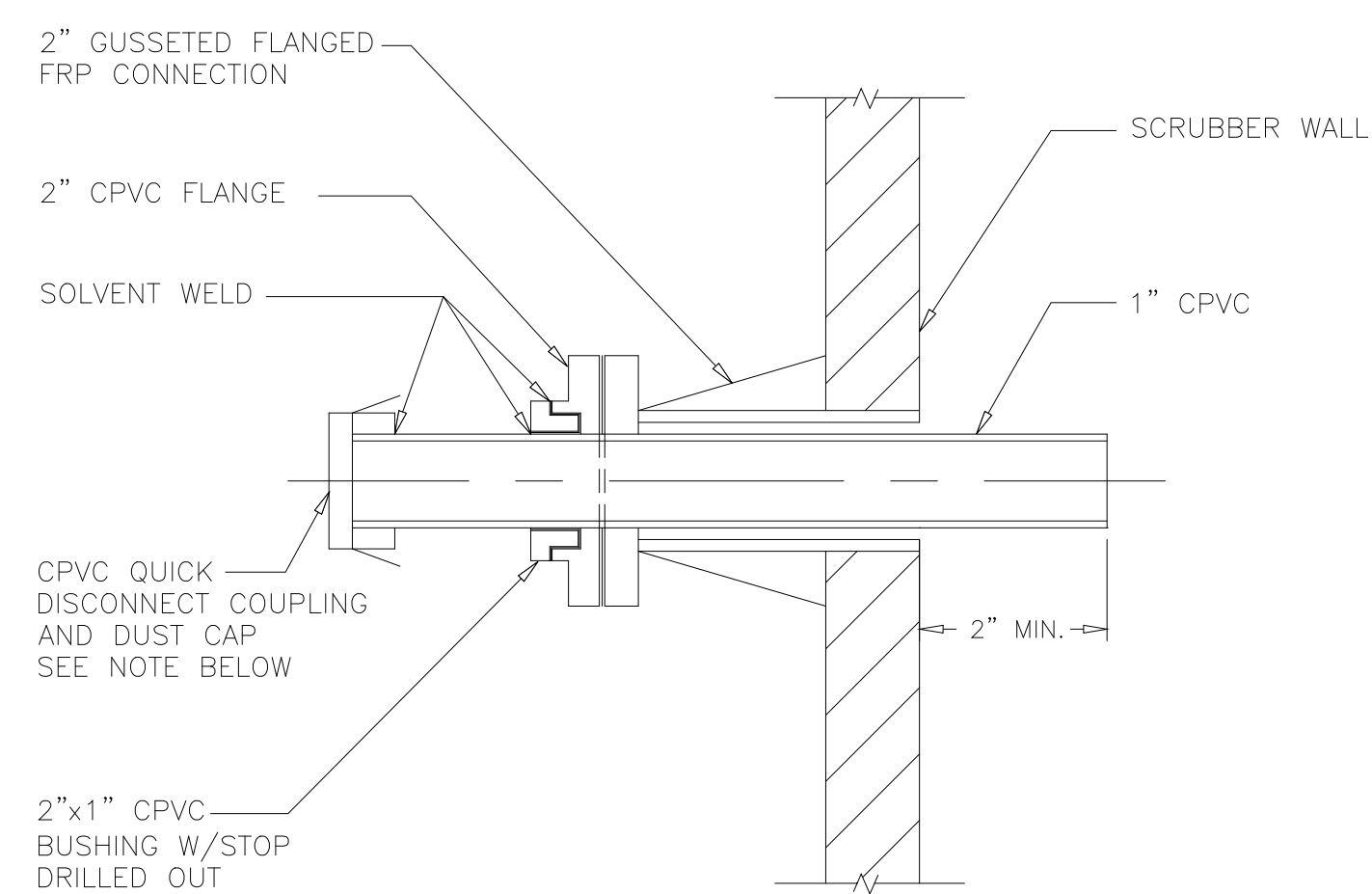
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

DATE: SEPT 2000
H & S JOB NUMBER: 30313
CONTRACT NUMBER: 2000-01-MPC
DRAWING NUMBER: D012
SHEET 94 OF 99



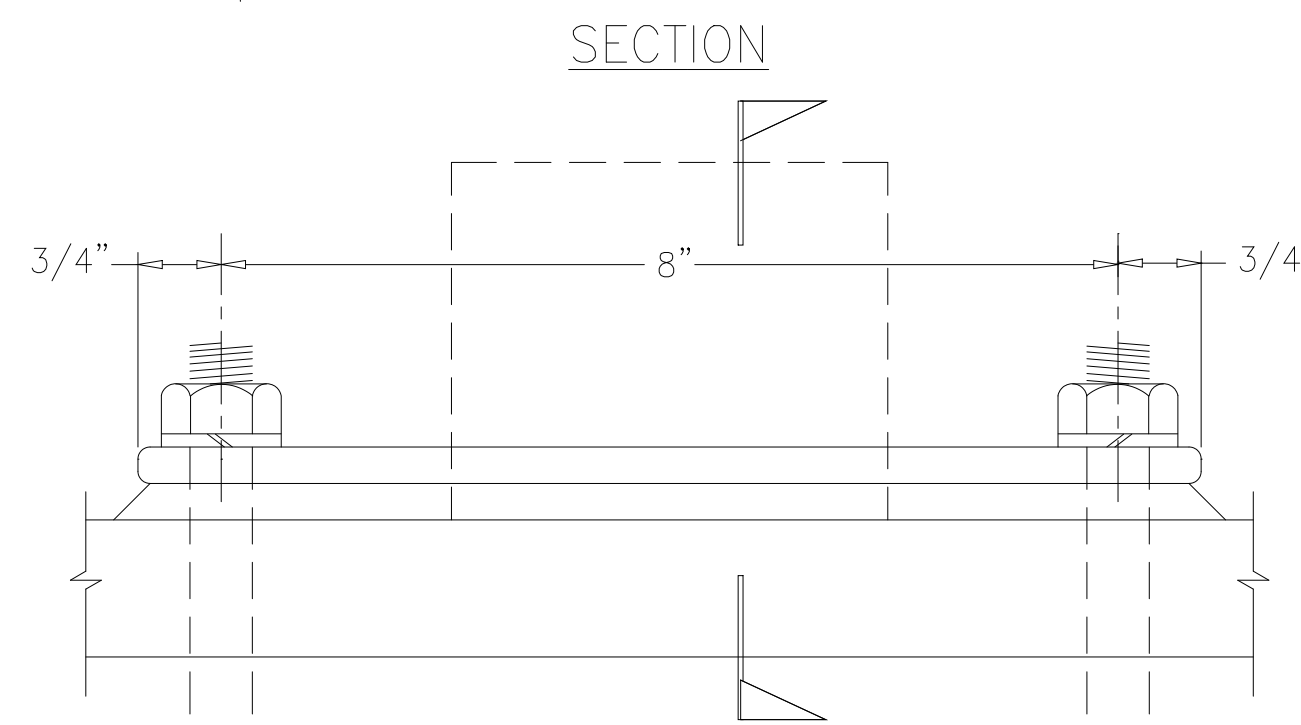
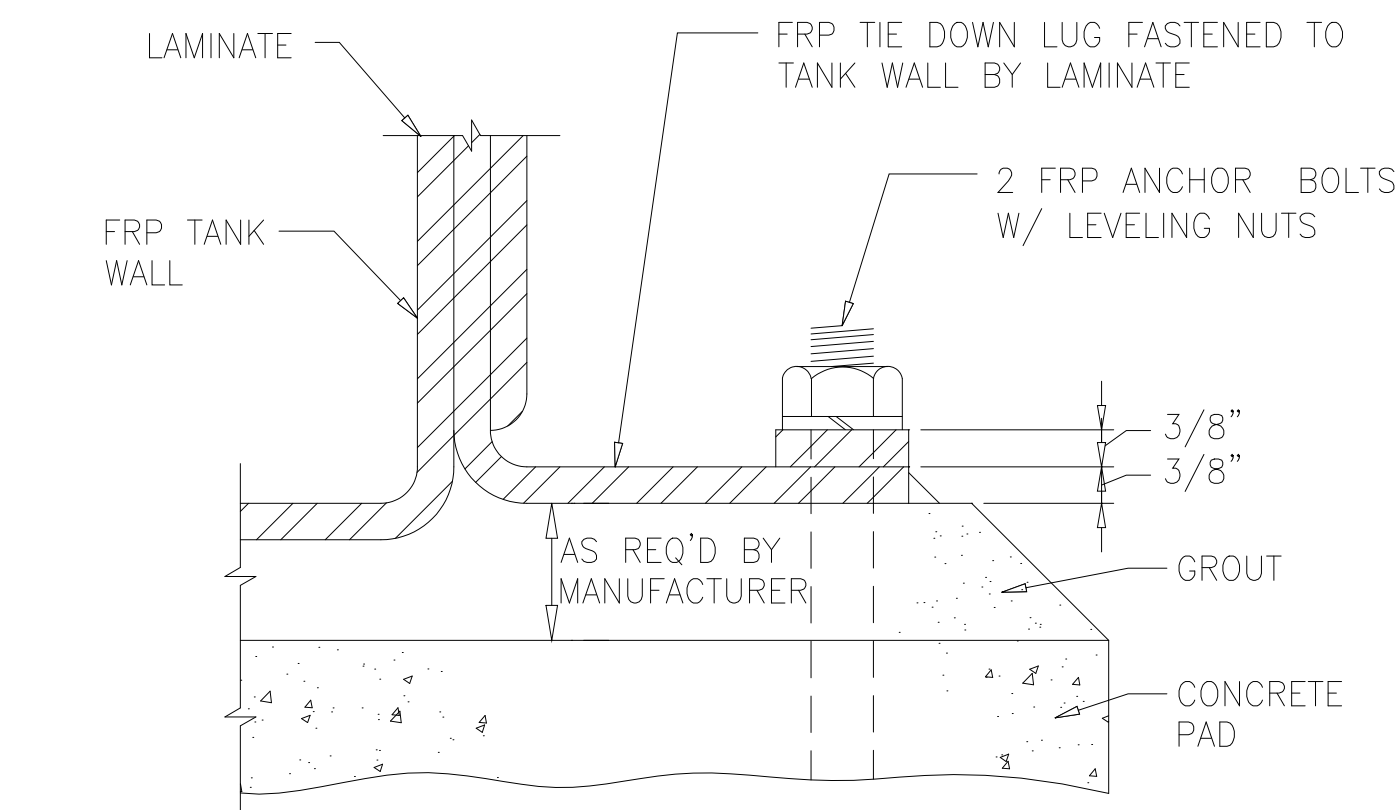
- NOTE:
1. SEE PIPE SCHEDULE FOR PIPING MATERIALS
 2. GENERAL CONFIGURATION SHOWN, INSTALL PER PUMP MANUFACTURER RECOMMENDATIONS

1 TYPICAL PUMP SEAL WATER PIPING
NTS



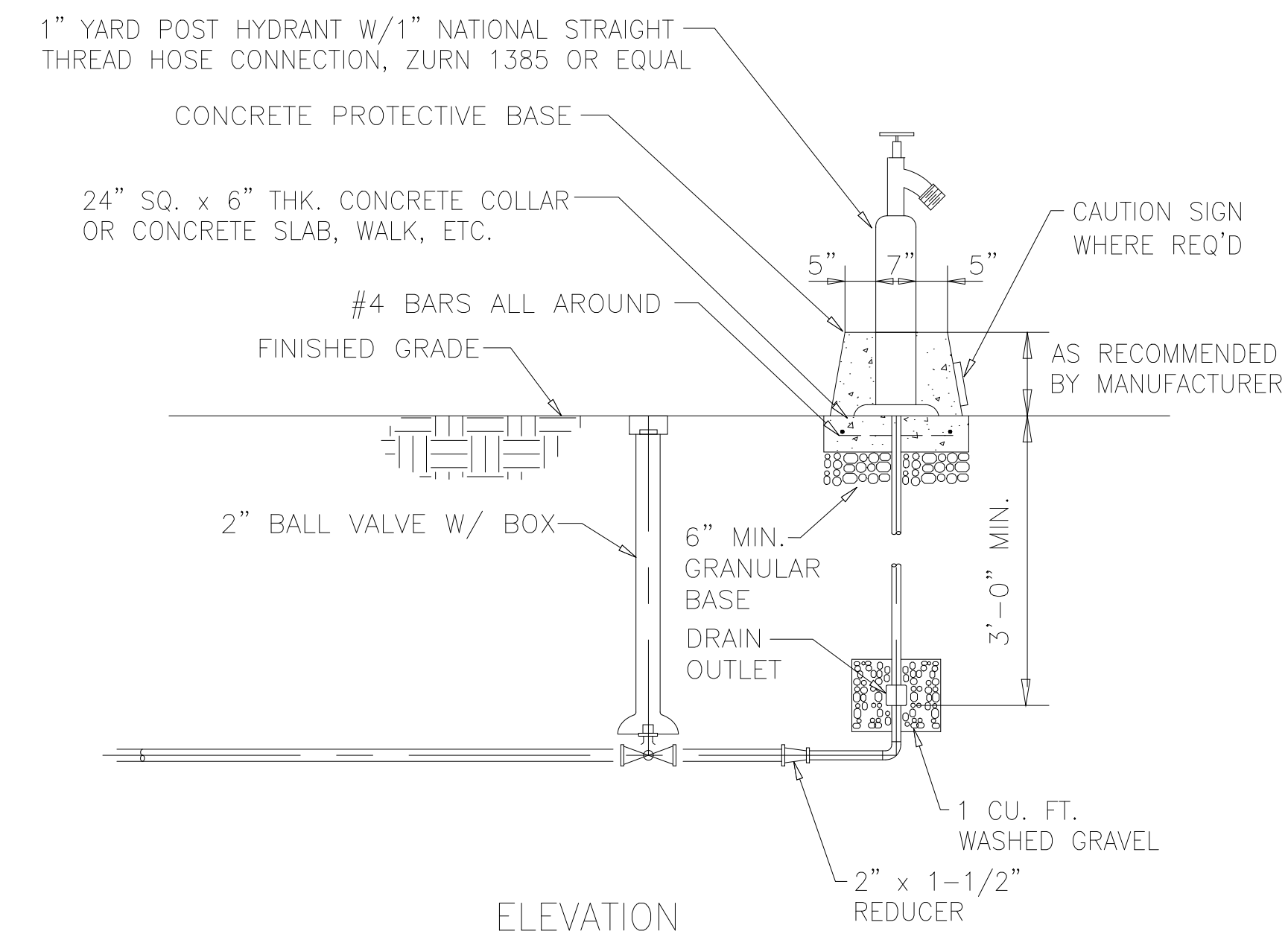
- NOTES:
- THE OWNER SHALL SUPPLY THE QUICK DISCONNECT COUPLING AND DUST CAP FOR MURIATIC ACID HOSE CONNECTION. THE CONTRACTOR SHALL SUPPLY APPROPRIATE REDUCING FITTINGS, IF NECESSARY, AND SHALL INSTALL THE COUPLING AND FITTINGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

3 ACID CLEANING CONNECTION DETAIL
NTS



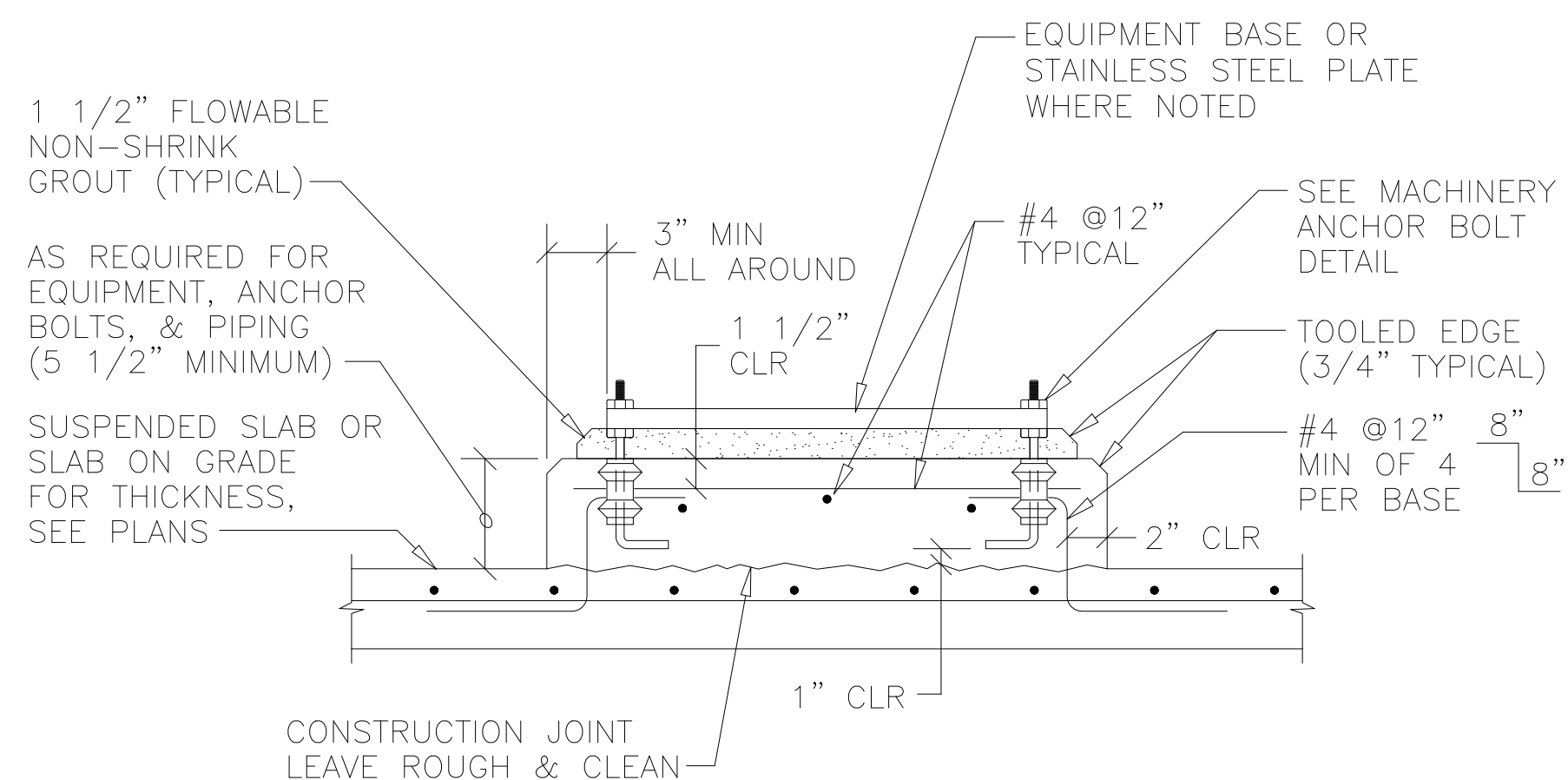
- NOTE:
- USE FOR TYING DOWN FRP TANKS AND SCRUBBERS

15 FRP TIE DOWN LUG
NTS

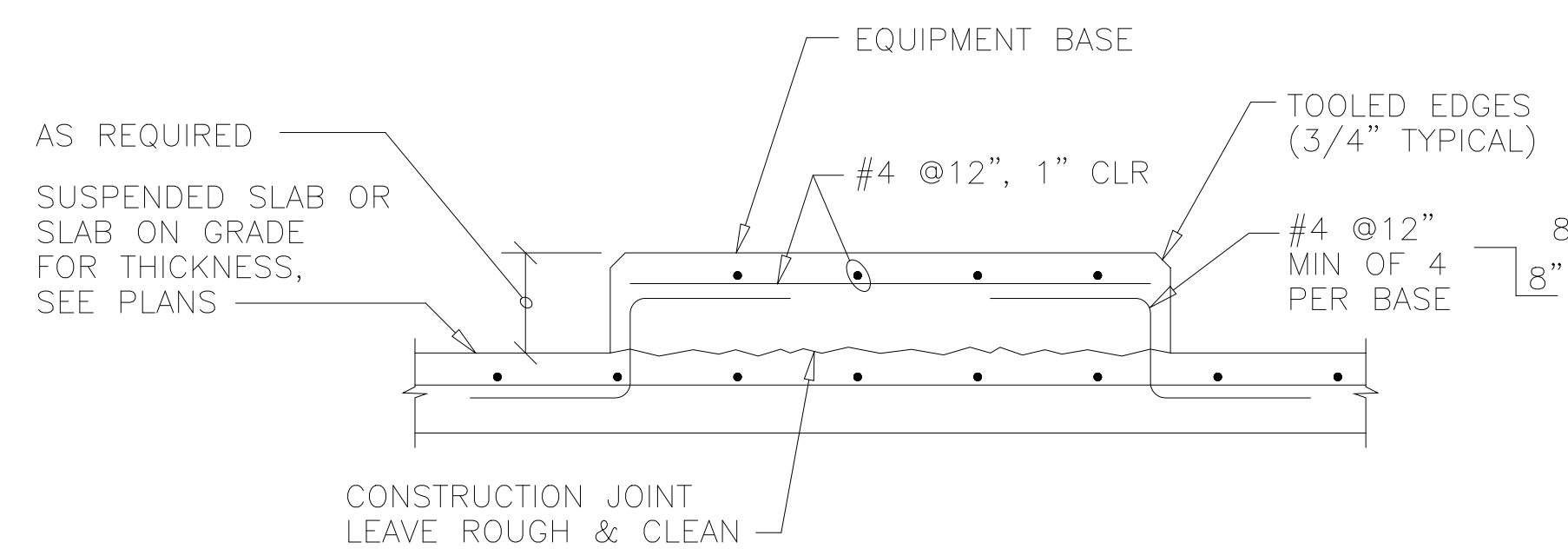


- NOTE:
1. LOCATE DRAIN OUTLET AWAY FROM OTHER UNDERGROUND PIPING AND UTILITIES.
 2. PROVIDE CAUTION SIGN FOR NON-POTABLE WATER YARD HYDRANTS. SEE DETAIL P5

21 YARD HYDRANT SETTING
NTS

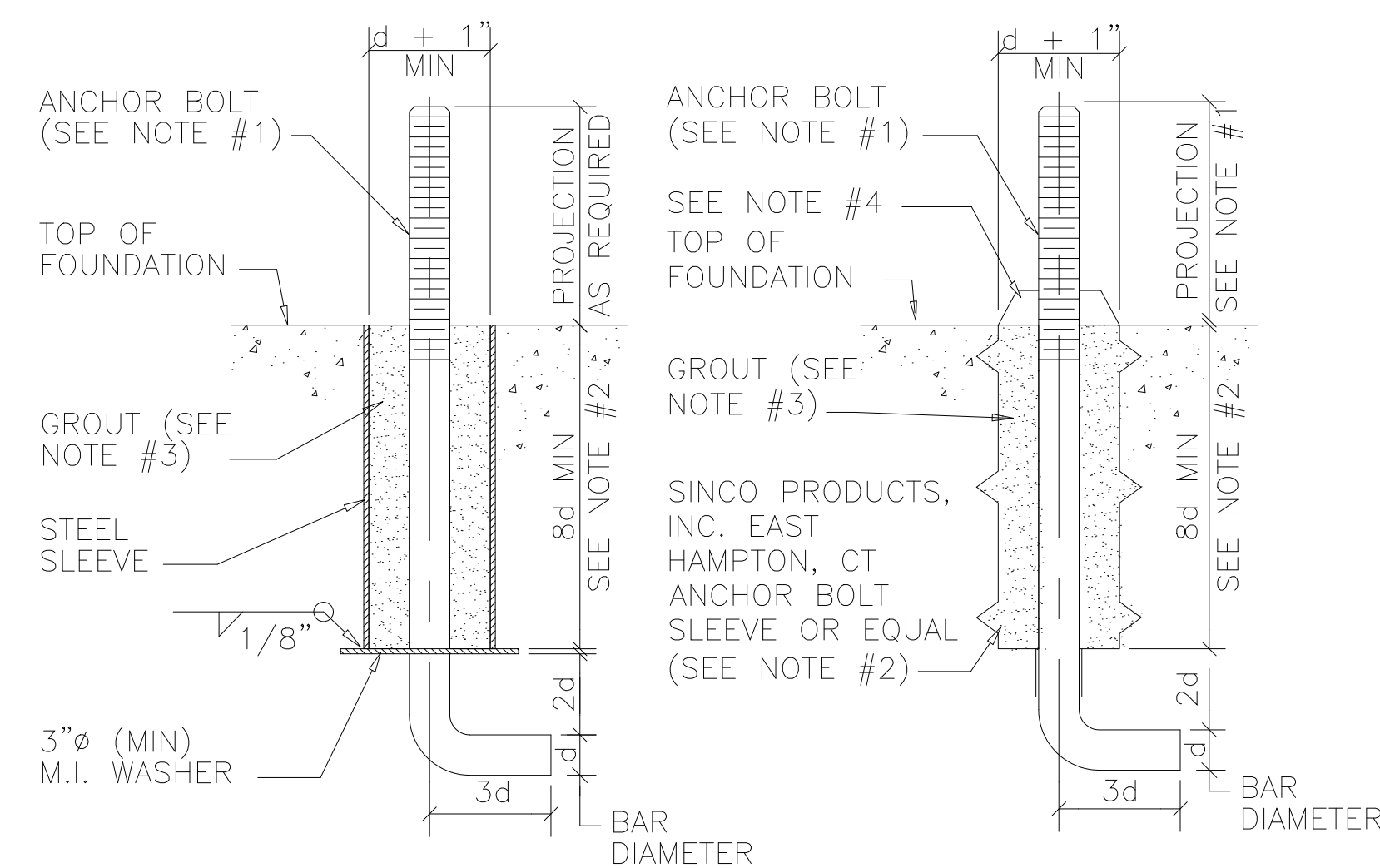


TYPE A EQUIPMENT PAD



TYPE F EQUIPMENT PAD

- NOTES:
1. PAD SIZE SHALL BE MINIMUM INDICATED OR AS SHOWN ON THE DRAWINGS OR AS INDICATED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
 2. THE EQUIPMENT BASE SHALL BE INSTALLED LEVEL UNLESS SPECIFIED OTHERWISE.
 3. WEDGES OR SHIMS SHALL BE USED TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. IF LEFT IN, THE WEDGES OR SHIMS SHALL NOT BE EXPOSED TO VIEW.
 4. THE MINIMUM DEPTH BELOW THE SURROUNDING SLAB SHALL BE EITHER EQUAL TO THE SURROUNDING SLAB THICKNESS, OR AS REQUIRED FOR ANCHOR BOLT CLEARANCE, OR AS INDICATED ON THE DRAWINGS.
 5. UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, TYPE A EQUIPMENT PADS SHALL BE INSTALLED FOR ALL EQUIPMENT AND EQUIPMENT SUPPORTS, INCLUDING BUT NOT LIMITED TO PUMPS, FANS, CHEMICAL PUMPS, ODOR CONTROL AND EQUIPMENT SUPPORTS AND SUPPORT FRAMES.
 6. UNLESS OTHERWISE NOTED, TYPE F EQUIPMENT PADS SHALL BE INSTALLED FOR ALL CHEMICAL STORAGE AND DAY TANKS. TWO LAYERS OF 30# ASPHALT FELT SHALL BE PLACED ON TOP OF THE PAD FOR ALL CHEMICAL STORAGE AND DAY TANKS.
 7. ALL ANCHOR BOLTS USED FOR EQUIPMENT PADS SHALL BE STAINLESS STEEL ANCHORS.



MACHINERY ANCHOR BOLT

- NOTES:
1. THE SIZE, NUMBER, TYPE, LOCATION & THREAD PROJECTION OF THE BOLT SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER, AND SHALL BE AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A TEMPLATE WHILE PAD IS BEING POURED.
 2. PROVIDE THE ANCHOR BOLT A MINIMUM 1/2" MOVEMENT IN ALL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER.
 3. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT AFTER EQUIPMENT LEVELING.
 4. REMOVE FORM AT TOP BY CUTTING OFF AFTER CONCRETE IS CAST AND PRIOR TO GROUTING.

13 EQUIPMENT PADS
NTS

DESIGNED	AMS
DRAWN	FAH
CHECKED	JSI
PROJ. ENGR.	AMS
NO.	ISSUED FOR
DATE	BY
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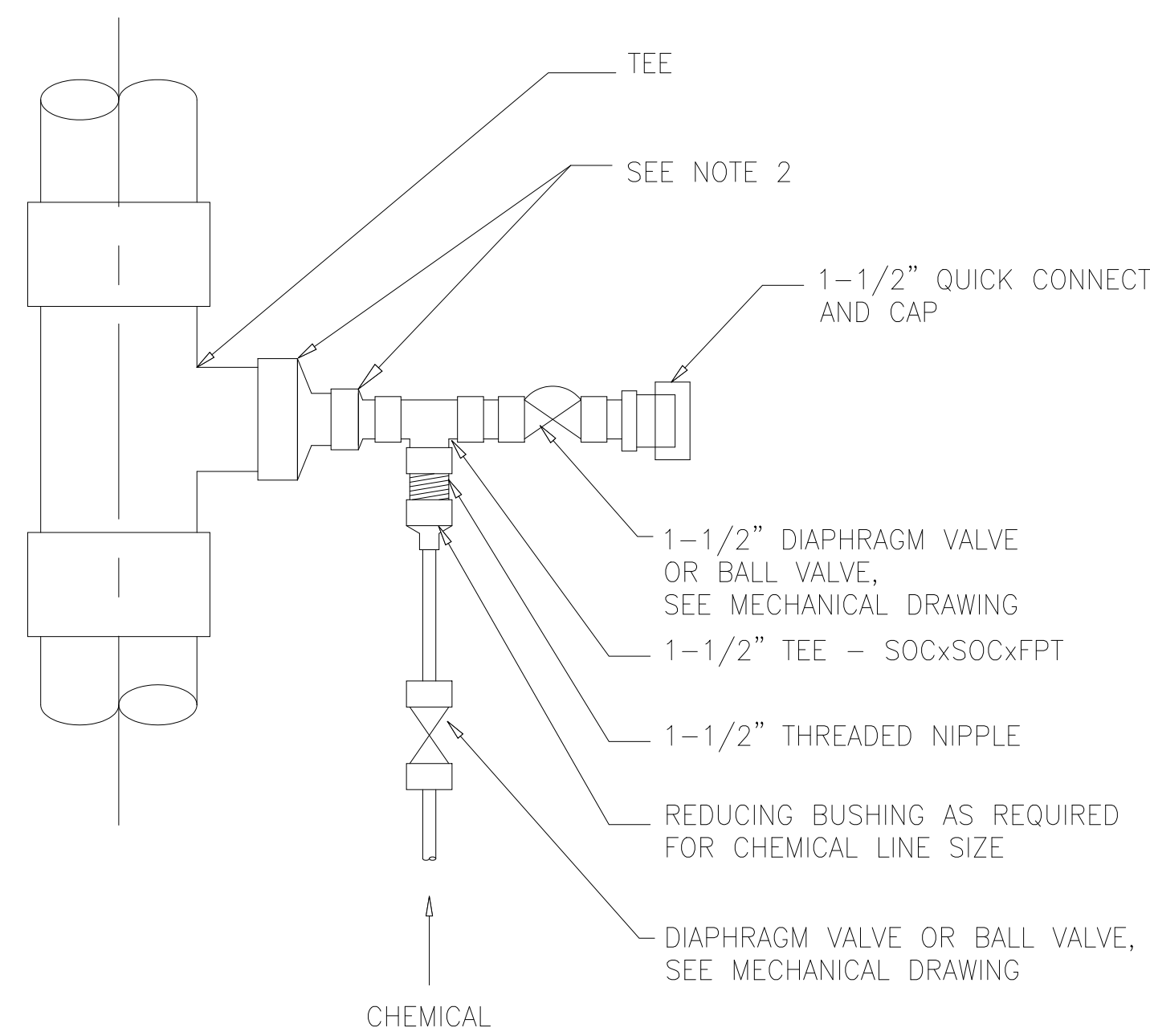
ARLINGTON COUNTY WATER POLLUTION
CONTROL PLANT

ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

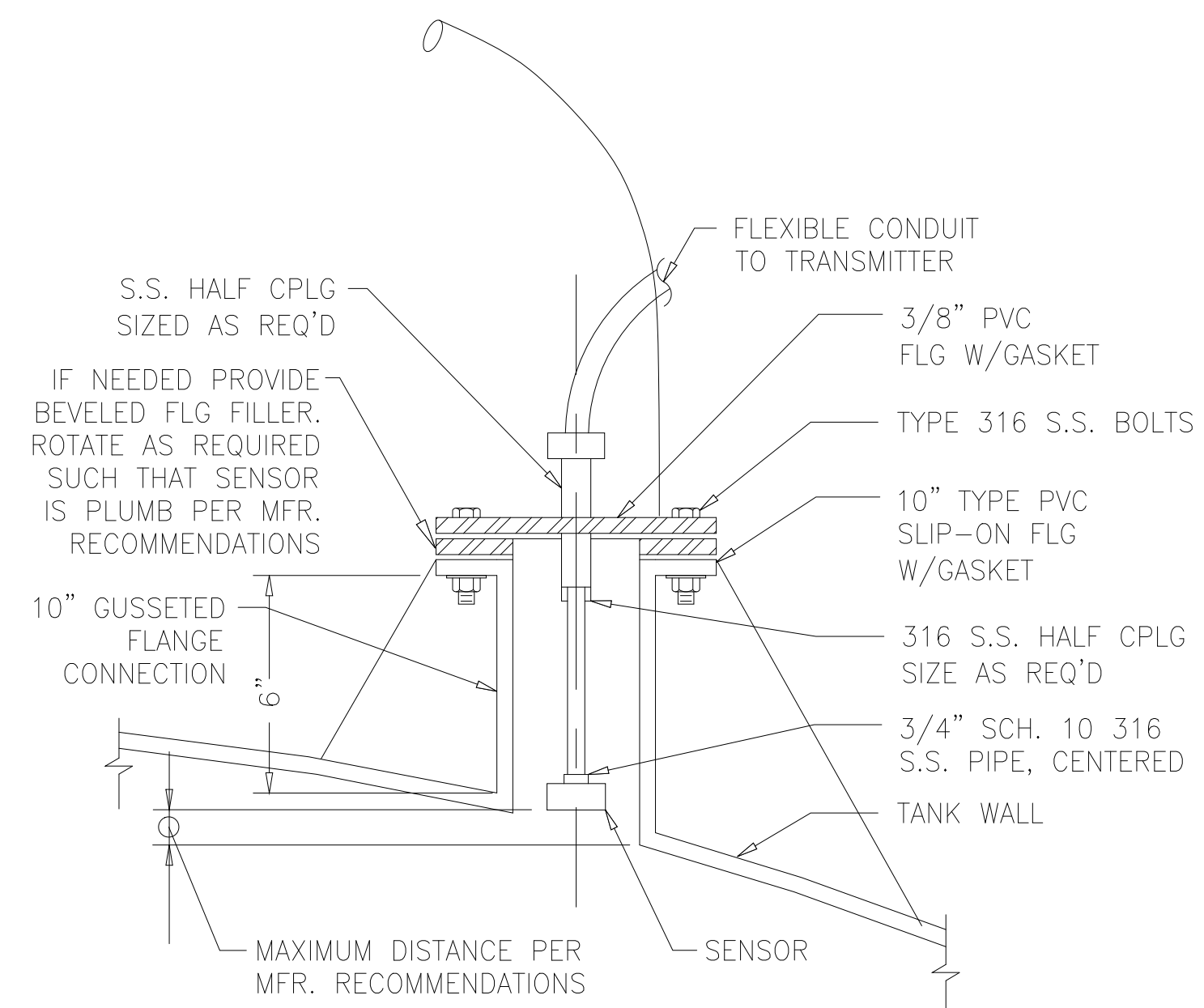
RECORD DRAWING

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE: SEPT 2000
	H & S JOB NUMBER 30313
	CONTRACT NUMBER 2000-01-MPC
	DRAWING NUMBER D013
	SHEET 95 OF 99

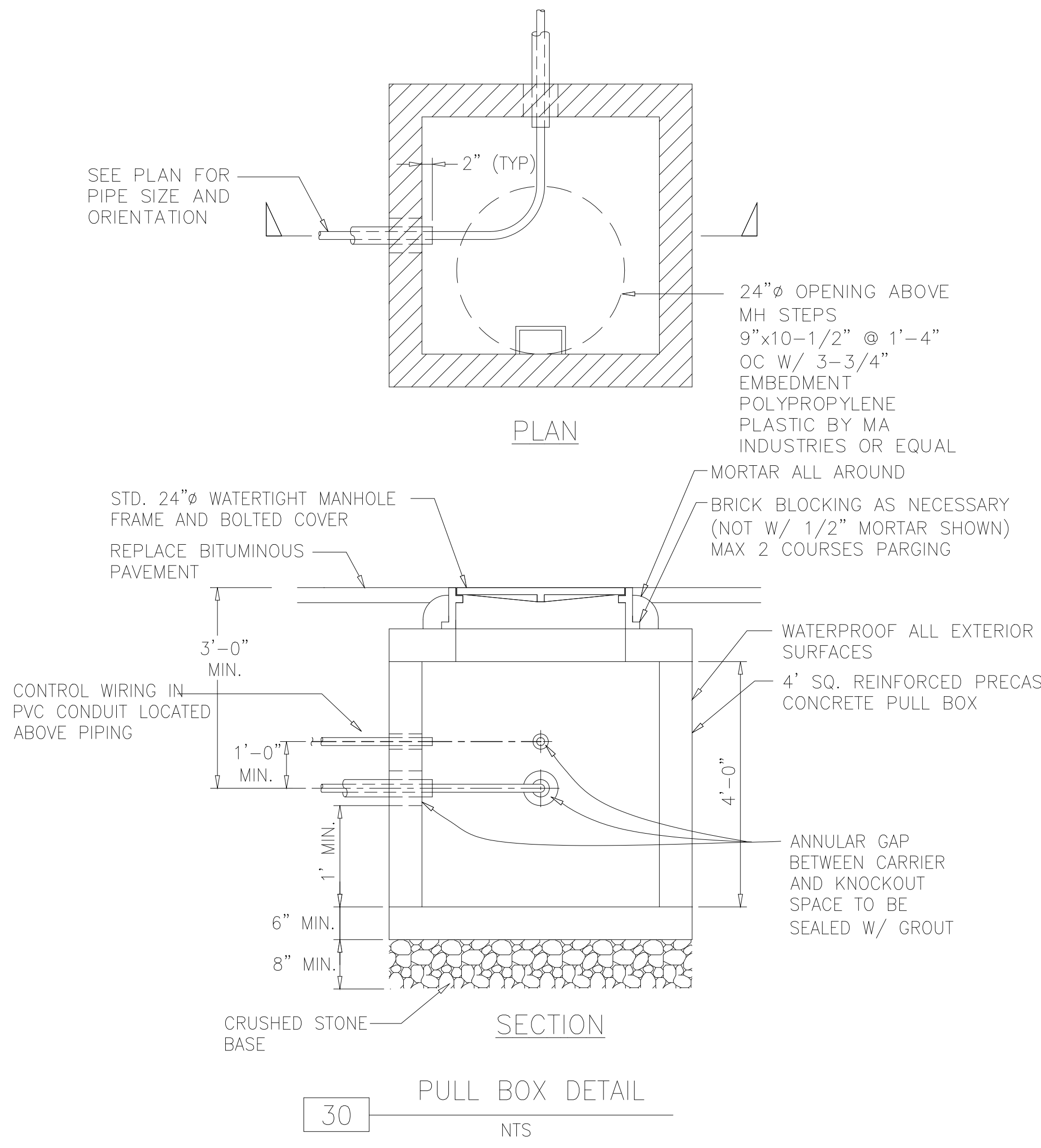


- NOTES**
- DRAWING DEPICTS CONNECTION FOR NaOCl TO RECIRCULATION LINE. CONNECTION FOR NaOH IS SIMILAR.
 - INSTALL REDUCING FITTINGS AS REQUIRED FOR 1-1/2" CONNECTION.
 - USE SIMILAR CONNECTION FOR NaOCl AND NaOH CONNECTION TO SCRUBBER.

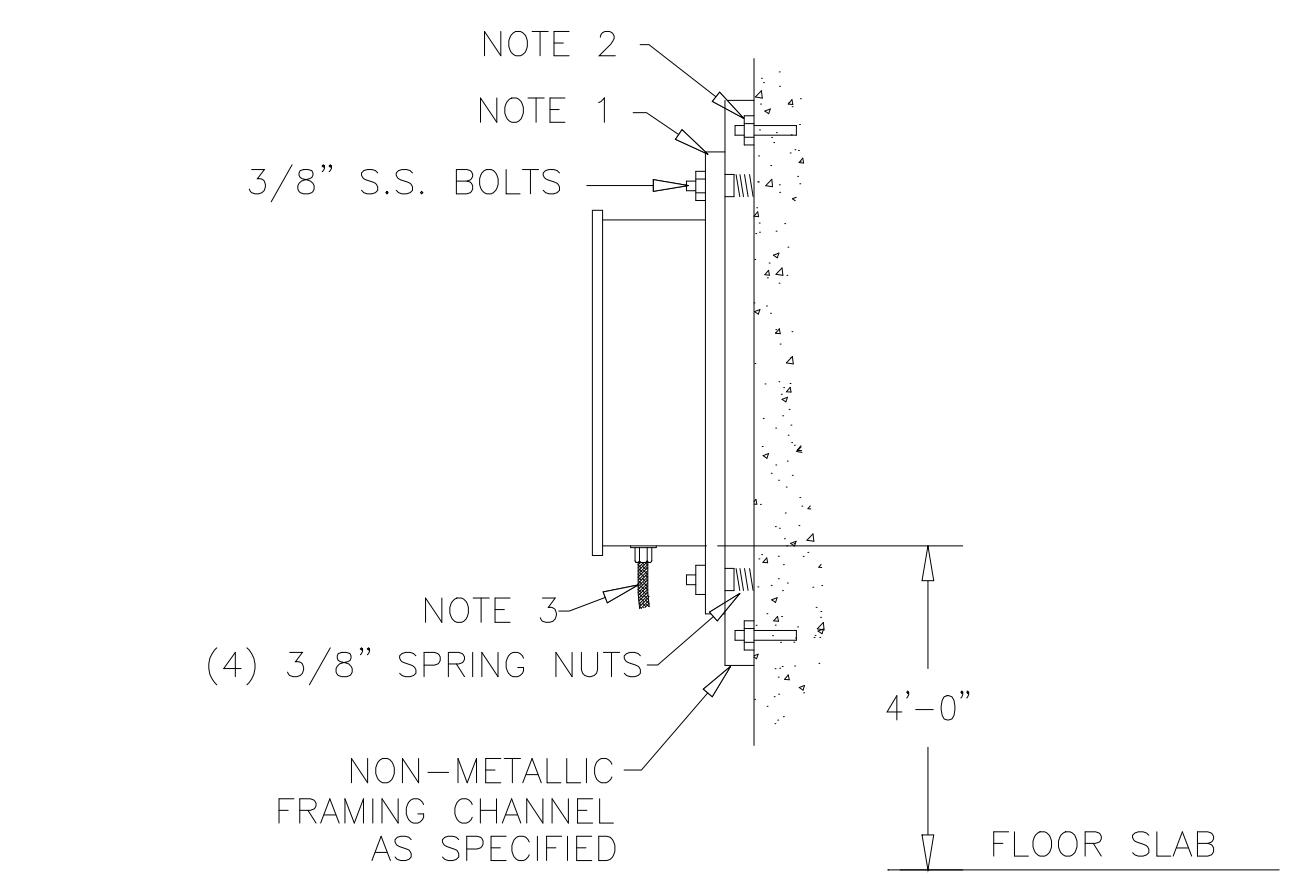
22 CHEMICAL ADDITION CONNECTION
NTS



45 ULTRASONIC LEVEL ELEMENT, FLANGE MOUNT
NTS

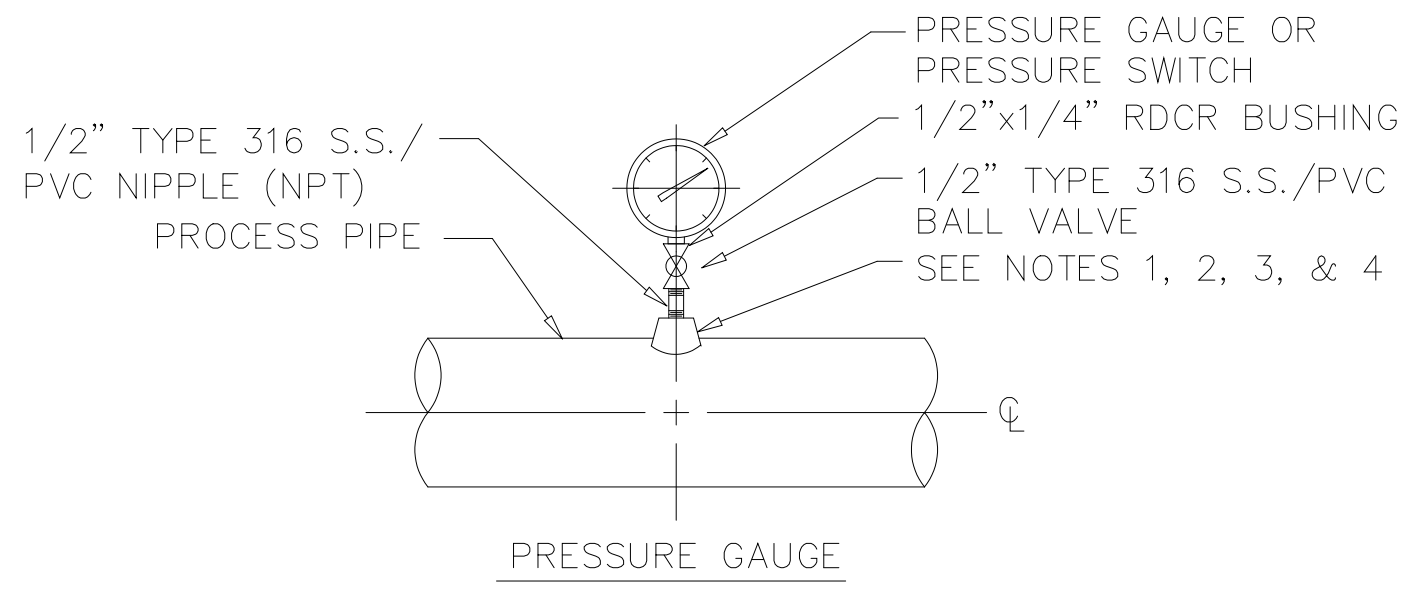
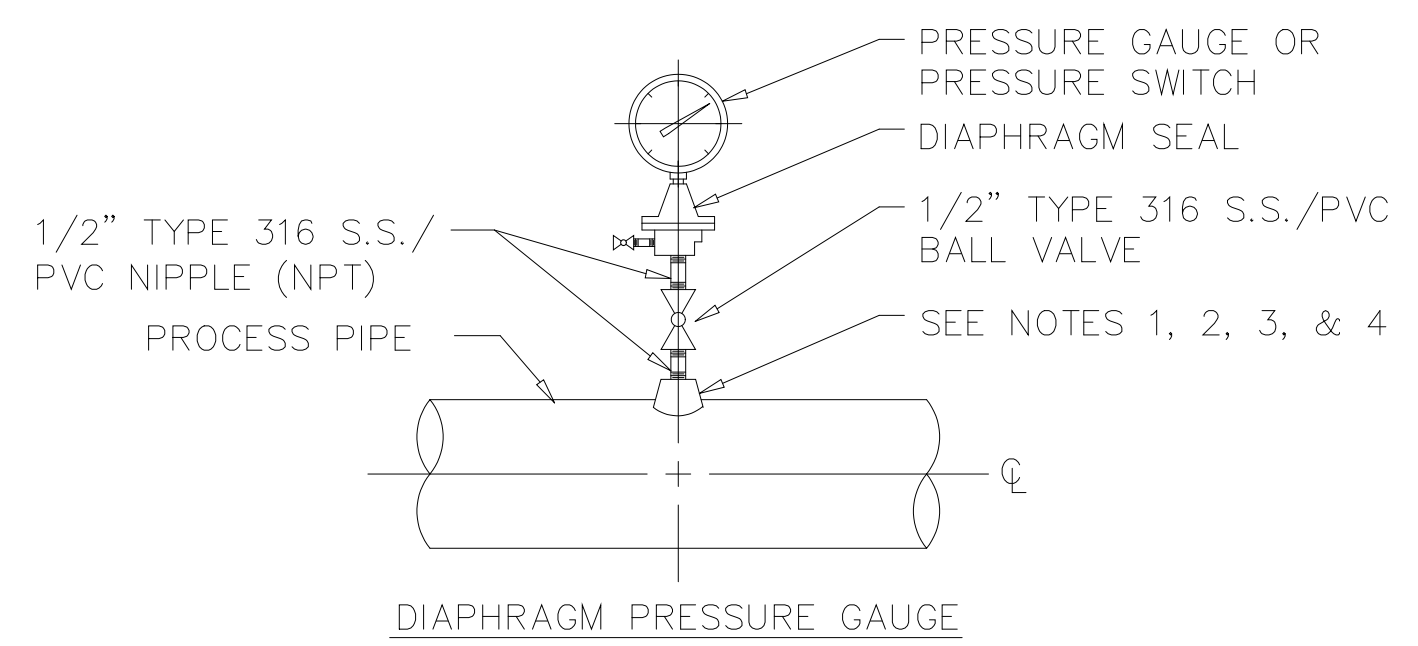


30 PULL BOX DETAIL
NTS



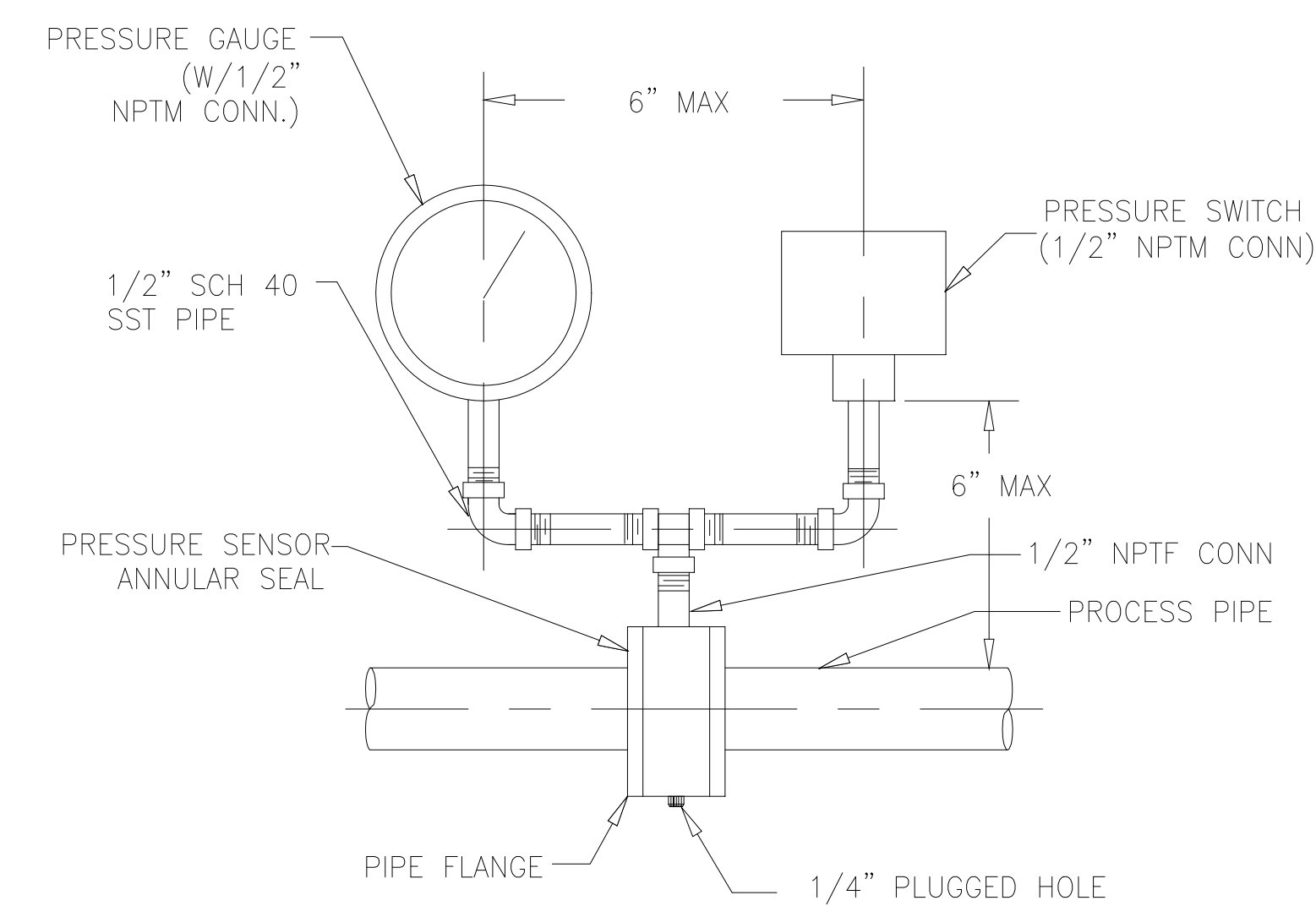
- NOTES:**
- USE 1/4" ALUMINUM PLATE, DIMENSION TO SUIT INSTRUMENT BEING USED AND QUANTITY OF INSTRUMENTS ON PLATE.
 - USE (4) 3/8" S.S. ANCHOR BOLTS TO MOUNT FRAMING CHANNEL TO WALL.
 - ALL CONDUIT TO BE LIQUID TIGHT 3/4" FLEXIBLE TO J-BOX.
- WALL MOUNTED TRANSMITTER, ANALYZER, OR MISC. INSTRUMENTATION INSTALLATION

43 WALL MOUNTED TRANSMITTER, ANALYZER, OR MISC. INSTRUMENTATION INSTALLATION
NTS



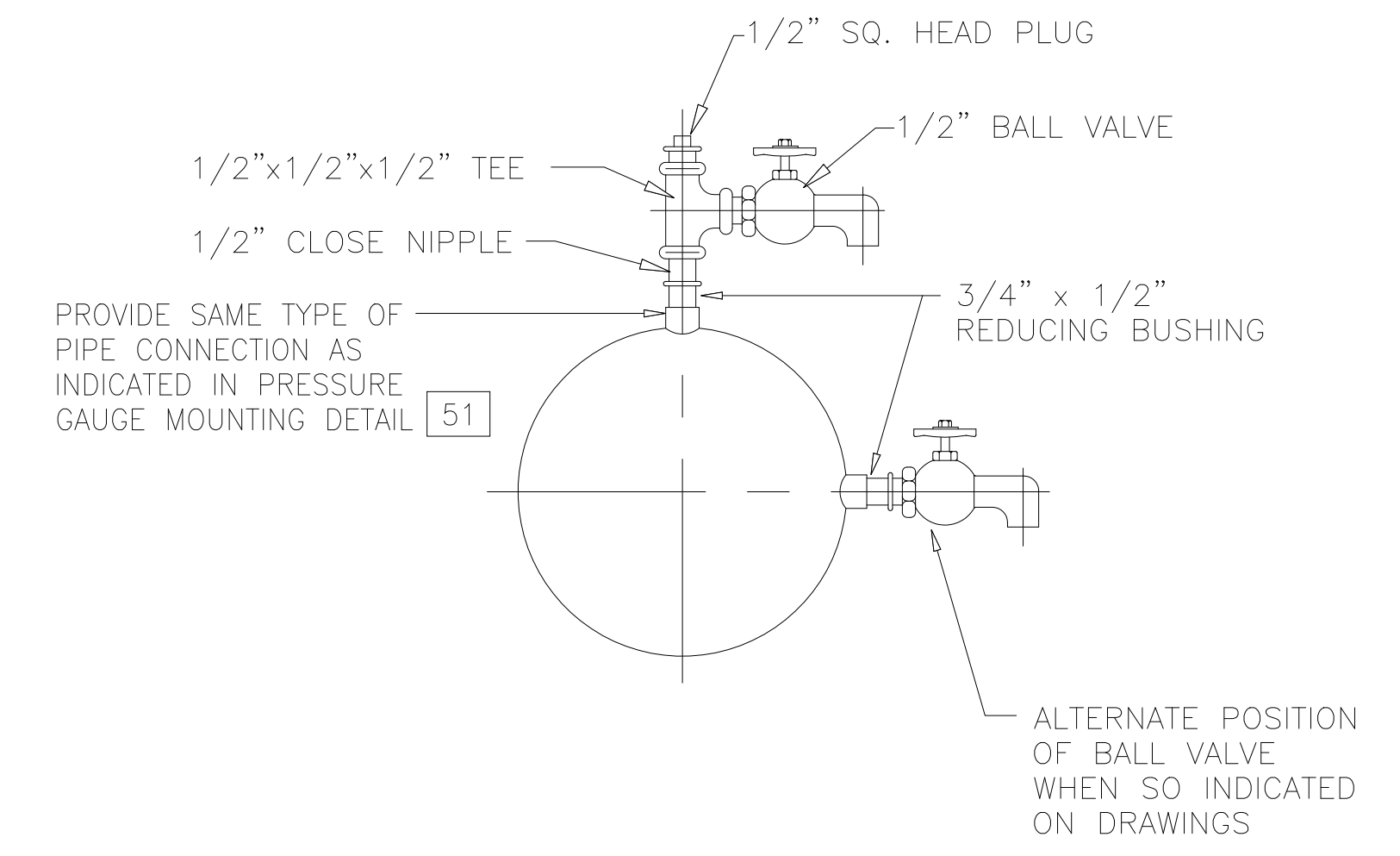
- NOTES:**
- FOR STEEL, STAINLESS STEEL GALVANIZED STEEL, AND PVC, 2-1/2" AND SMALLER, USE A TEE WITH BUSHING OF THE SAME MATERIAL AS THE PIPE.
 - FOR DUCTILE IRON PIPE, ALL SIZES, USE PIPE SADDLE WITH BUSHING.
 - FOR STEEL AND STAINLESS STEEL PIPES, 3" AND LARGER, AND PRESSURE VESSELS, USE THREAD-O-LET AS SHOWN.
 - FOR FIBERGLASS REINFORCED PIPE, ALL SIZES, USE FRP TEE WITH CPVC BLIND FLANGE. DRILL AND TAP FLANGE FOR 1/2" NPT CONNECTION.
 - FOR PVC PIPE, 3" AND LARGER, USE REDUCING TEE AND BUSHING.
 - PROVIDE SNUBBER FOR POSITIVE DISPLACEMENT PUMP INSTALLATIONS.
 - SINGLE INSTRUMENT MOUNTING SHOWN. FOR MULTIPLE INSTRUMENTS, PROVIDE TEE CONNECTION AS SHOWN IN DETAIL 52.
 - ON PVC PIPES, USE PVC CONNECTIONS. ON ALL OTHER PIPE, USE STAINLESS STEEL CONNECTION.

51 PRESSURE GAUGE MOUNTING
NTS



NOTE:
GAUGE AND SWITCH INSTALLATION SHOWN. FOR SINGLE INSTRUMENT INSTALLATIONS, MOUNT DEVICE DIRECTLY TO SEAL.

52 ANNULAR SEAL INSTALLATION
NTS



53 SAMPLE TAP DETAIL
NTS

DESIGNED	AMS
DRAWN	FAH
CHECKED	JSI
PROJ. ENGR.	AMS
APPROVED	

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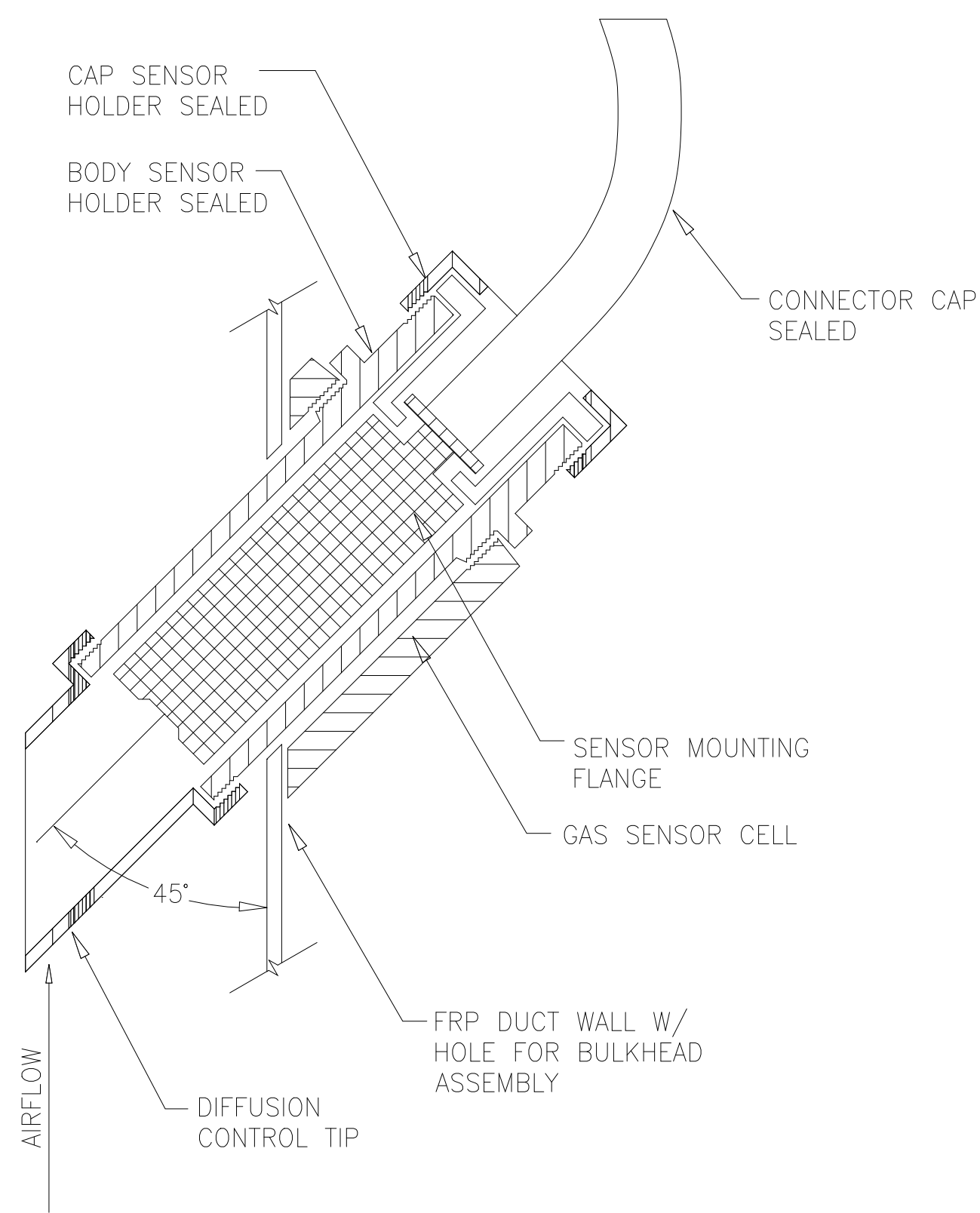
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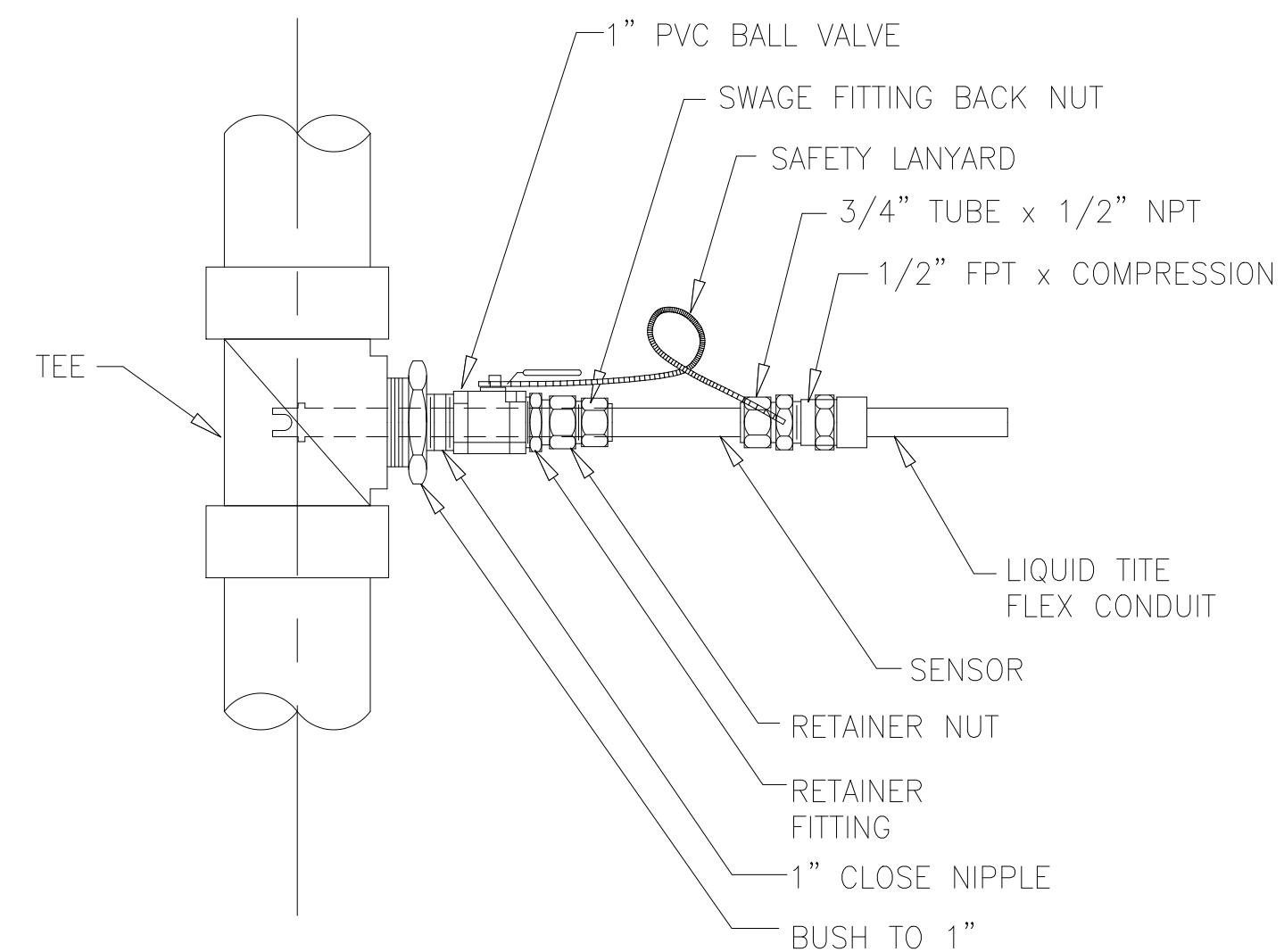
MISCELLANEOUS STANDARD DETAILS

RECORD DRAWING

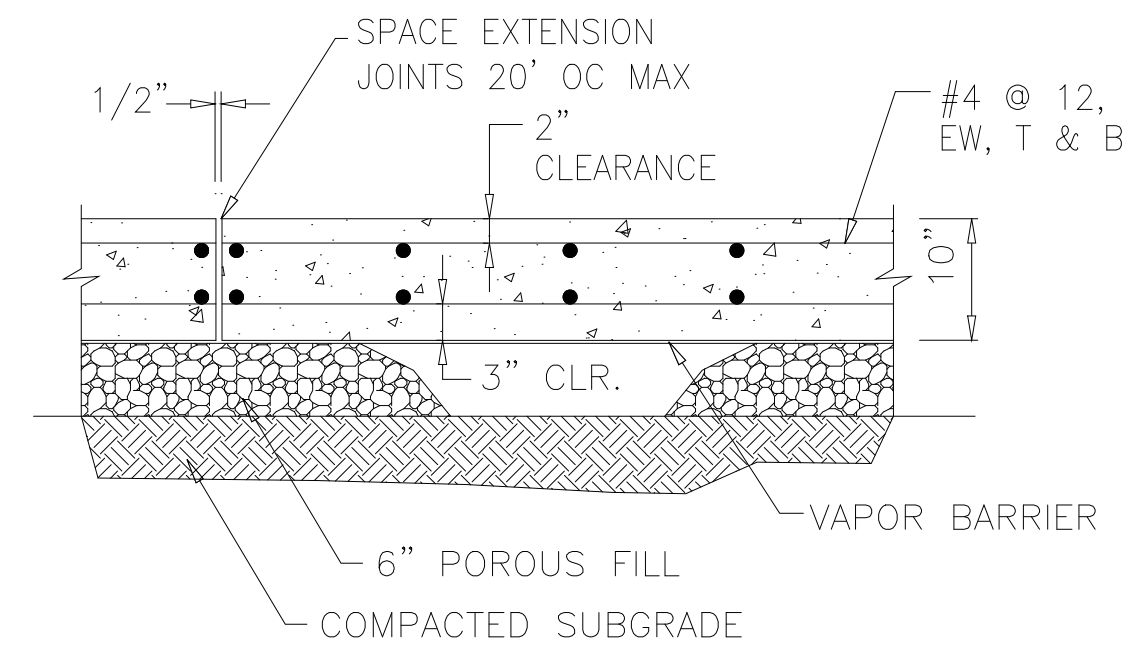
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	DRAWING NUMBER D014
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91 CHLORINE MONITOR DETAIL
NTS

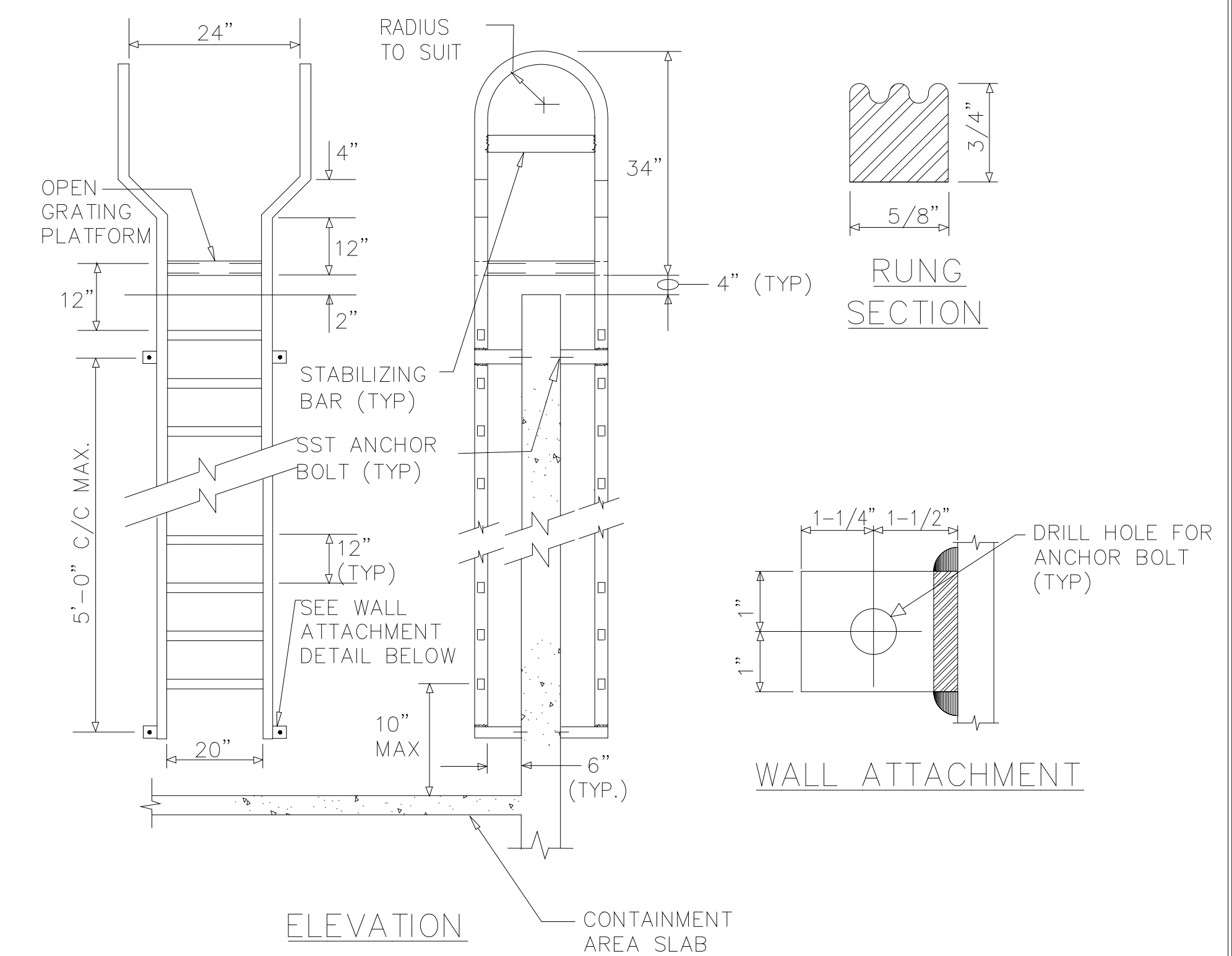


95 pH PROBE DETAIL
NTS

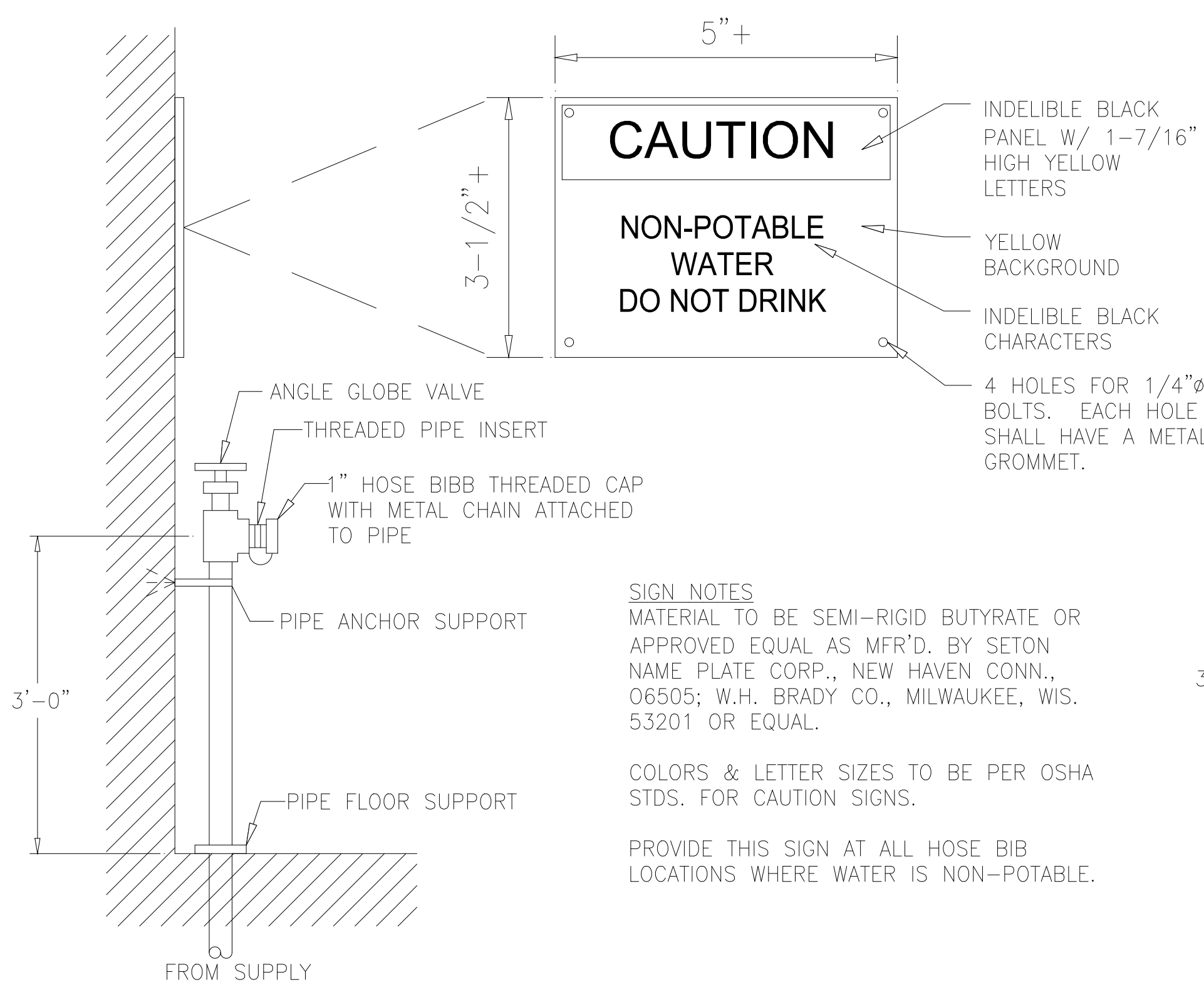


NOTE:
PREMOLDED EXPANSION FILLER REQUIRED AT EVERY EXPANSION JOINT AND WHERE CONCRETE INTERSECTS WITH CURBING, BUILDING OR PAVED AREAS

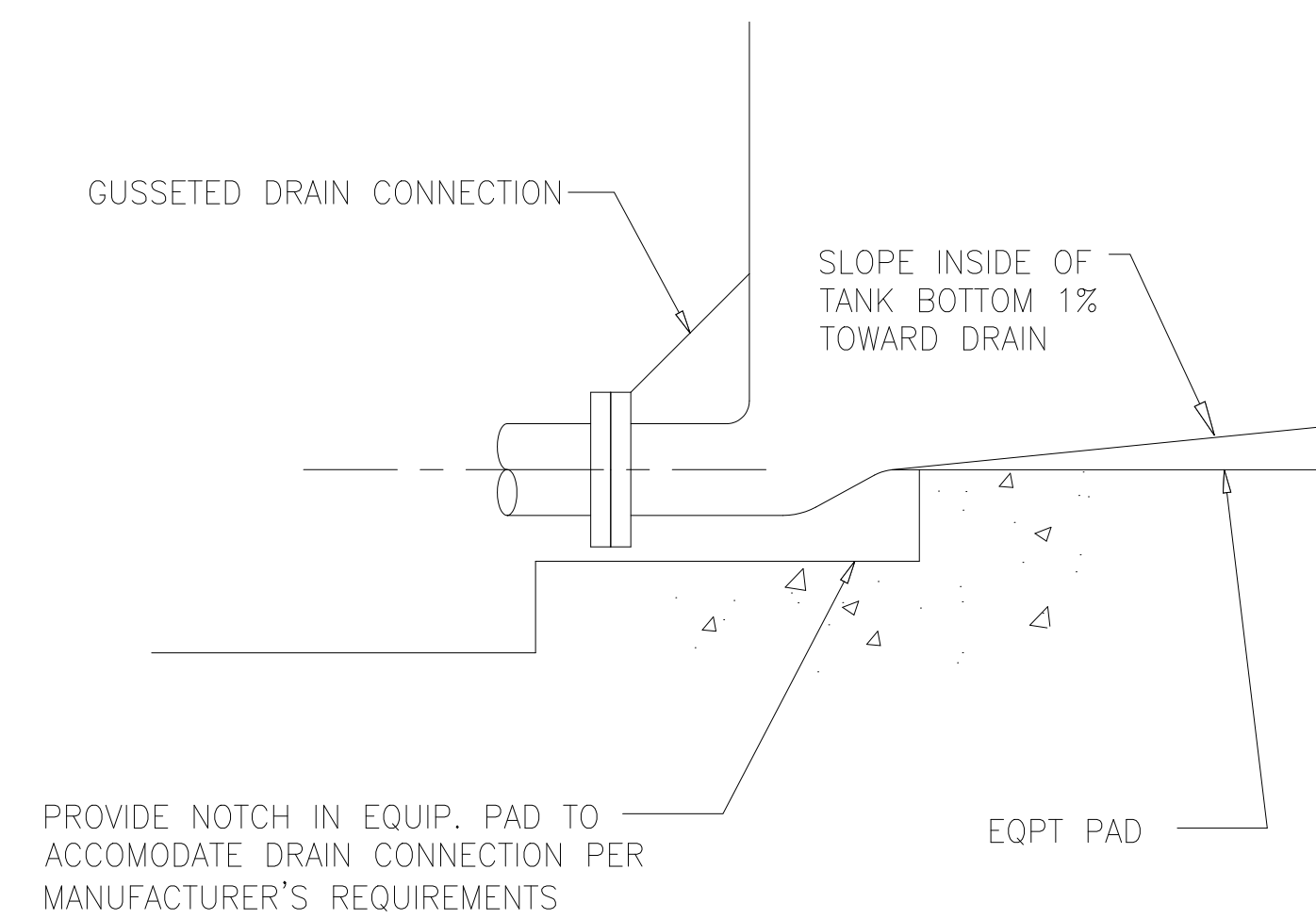
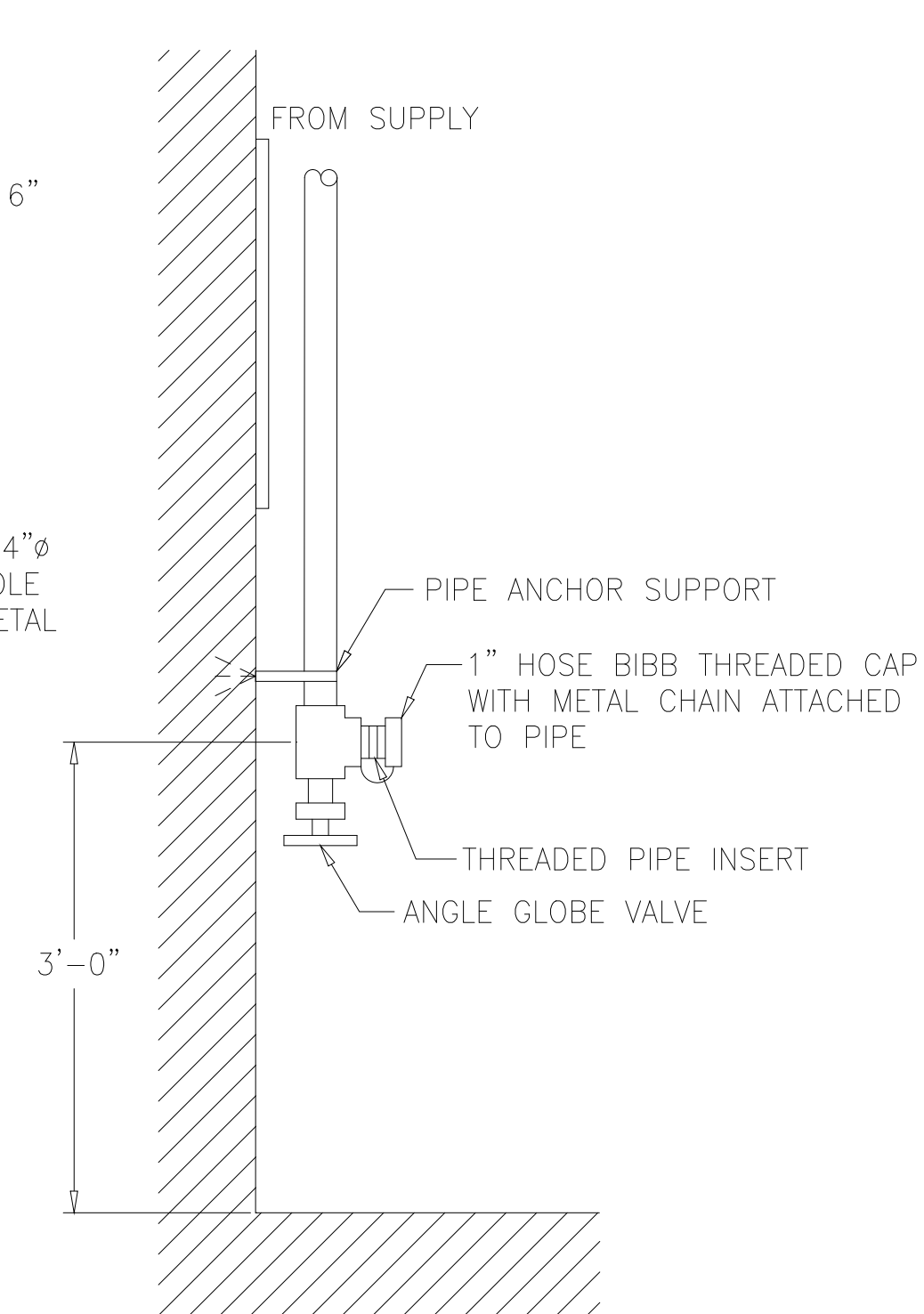
99 HS-20 TRUCK UNLOADING SLAB
SCALE: 3/4" = 1'-0"



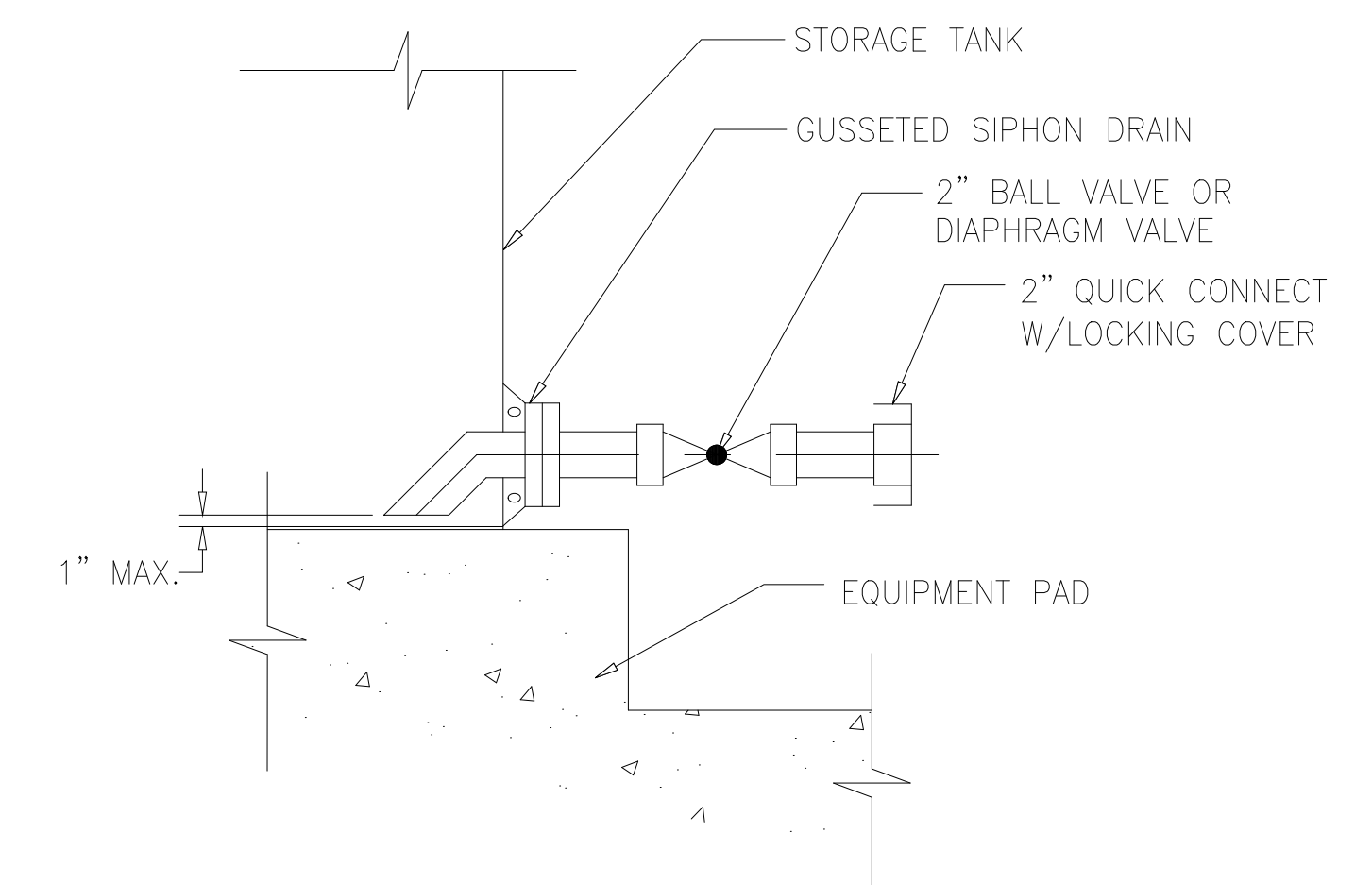
111 FRP LADDER DETAIL
NTS



P5 NON-POTABLE HOSE BIB DETAIL
NTS



P20 TANK DRAIN DETAIL
NTS



P22 SIPHON DRAIN DETAIL
NTS

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DRAWN	FAH
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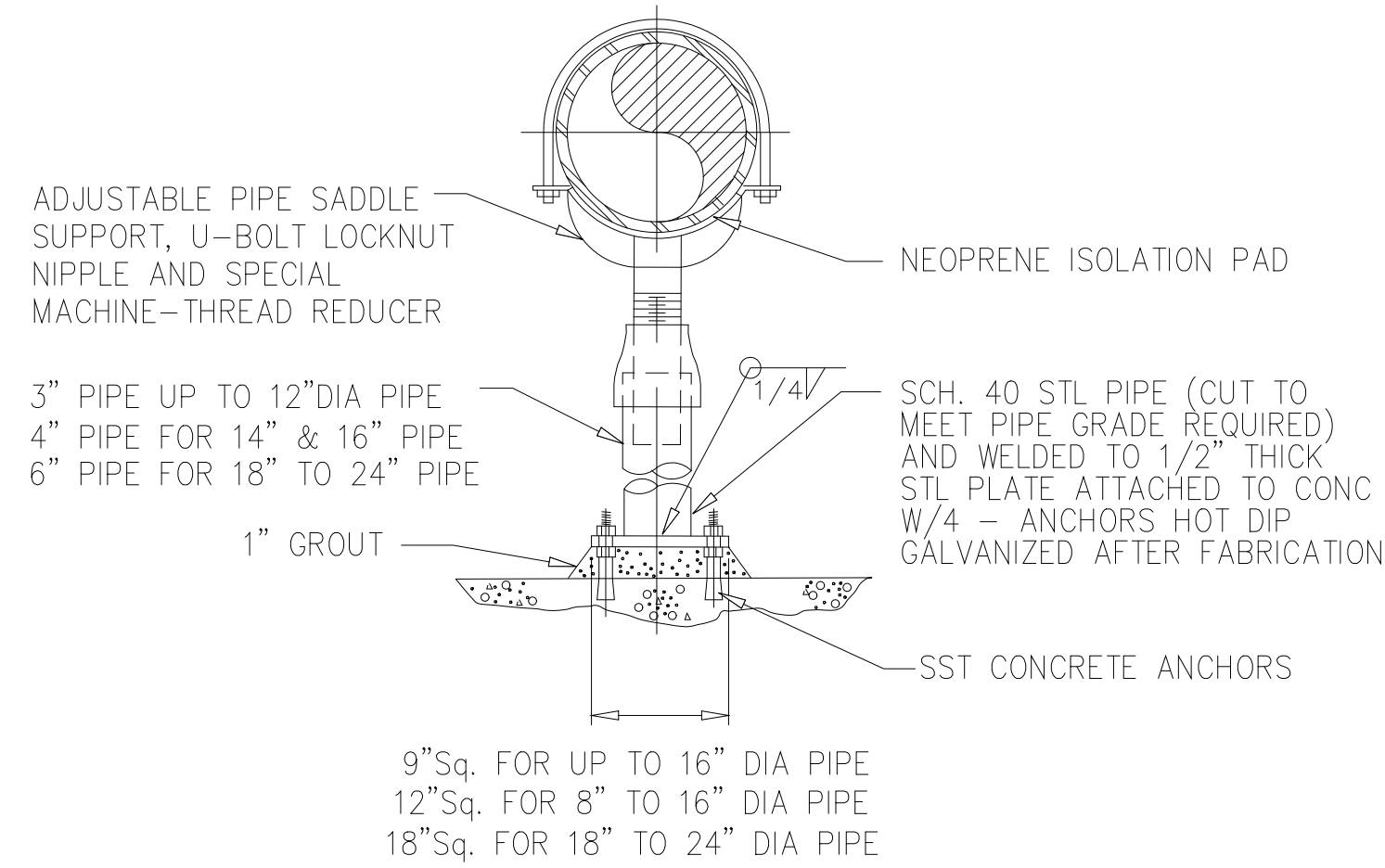
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ODOR CONTROL IMPROVEMENTS

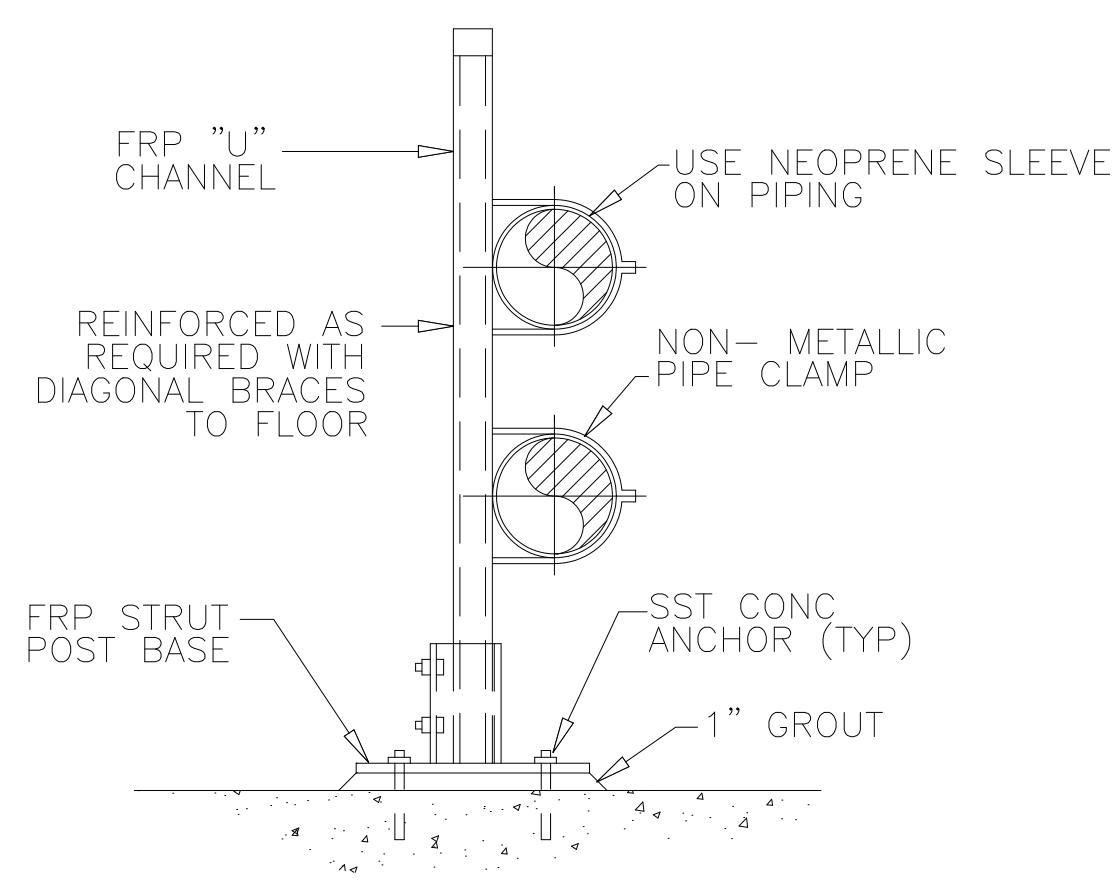
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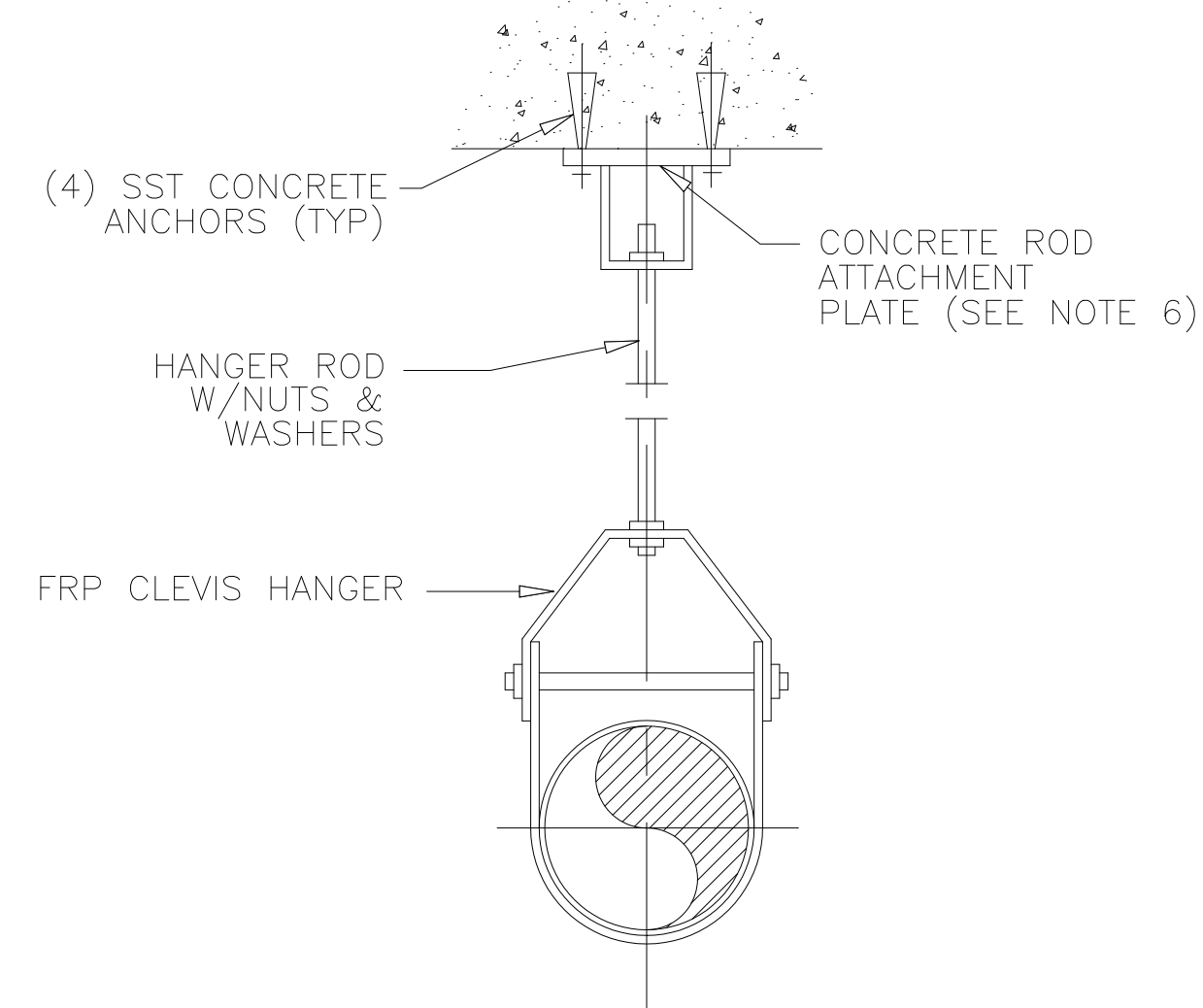
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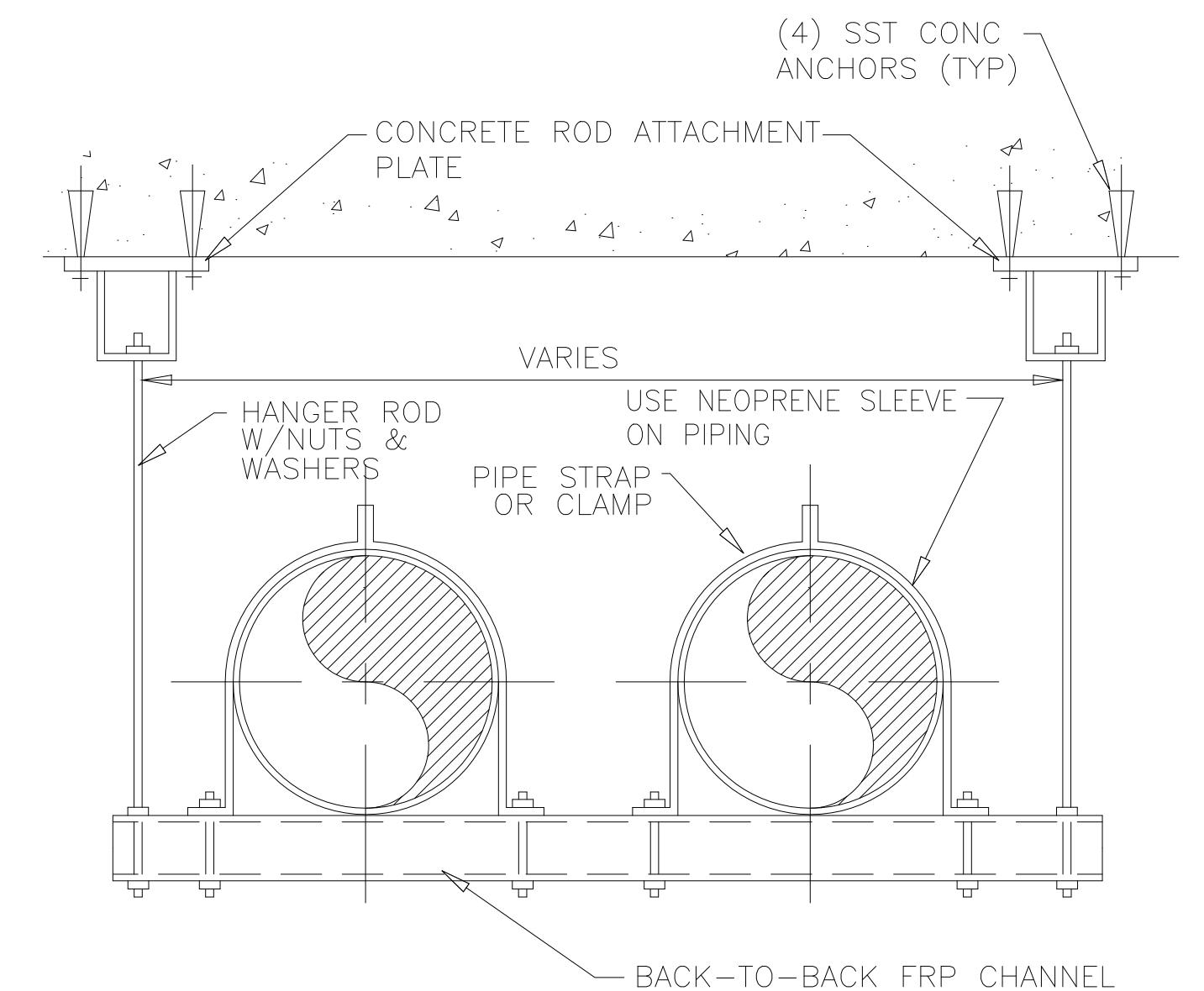
200 STANCHION SUPPORT FOR 3" TO 24" PIPE OR DUCT
NTS



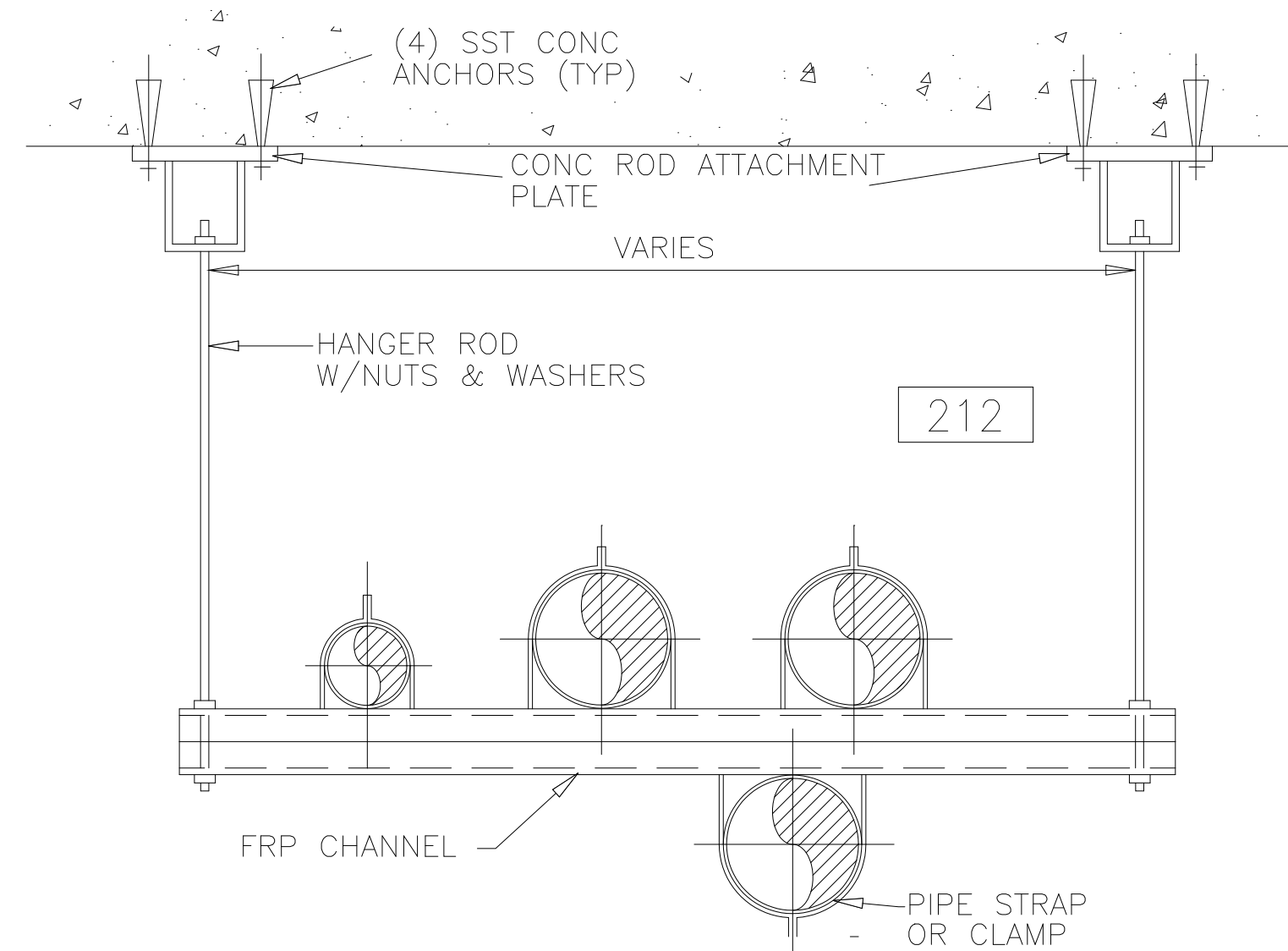
207 STANCHION SUPPORT FOR 2" DIA. OR SMALLER PIPE
NTS



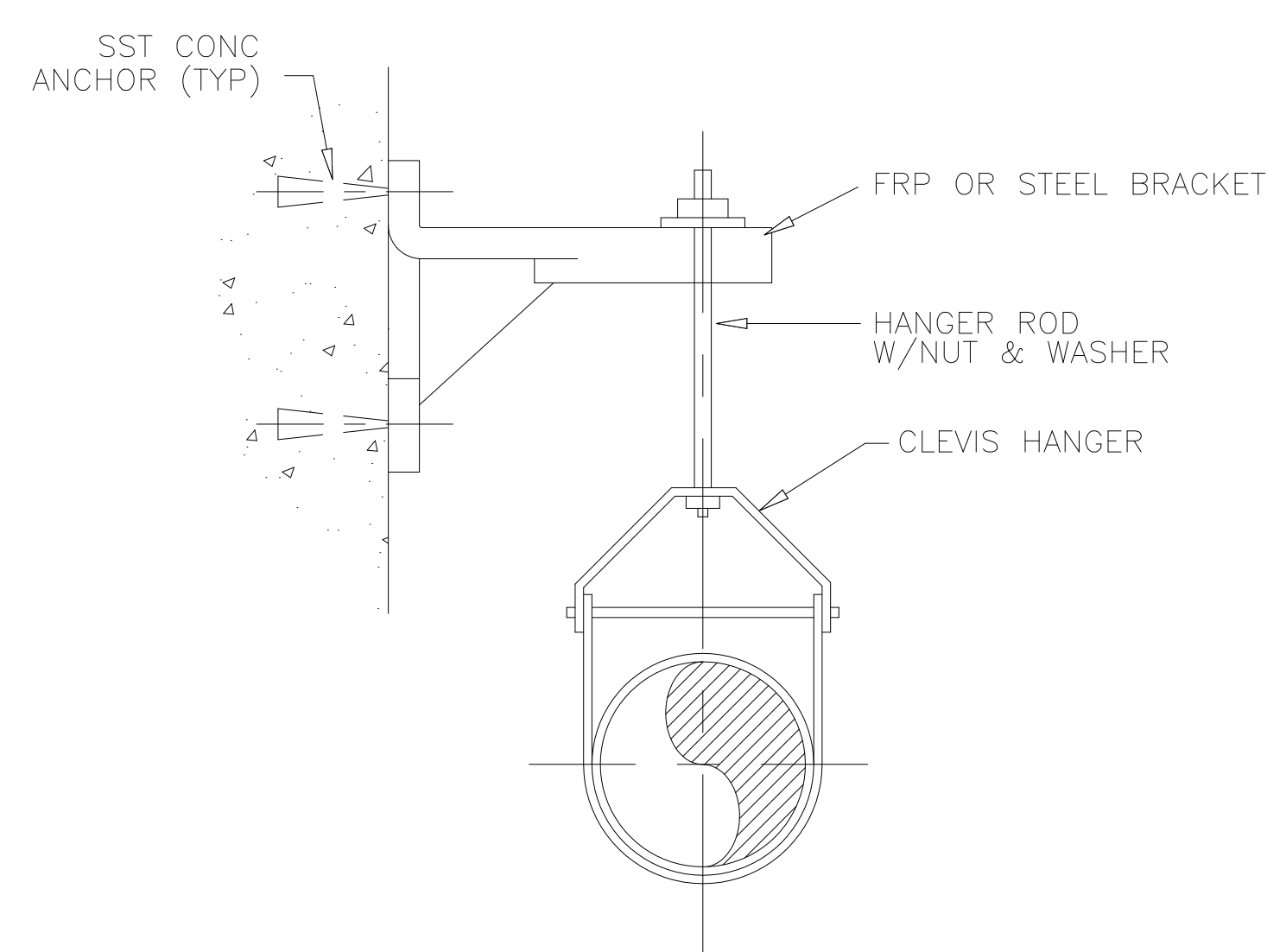
210 PIPE OR DUCT HANGER FOR 1/2" TO 16" DIA. PIPE OR DUCT
NTS



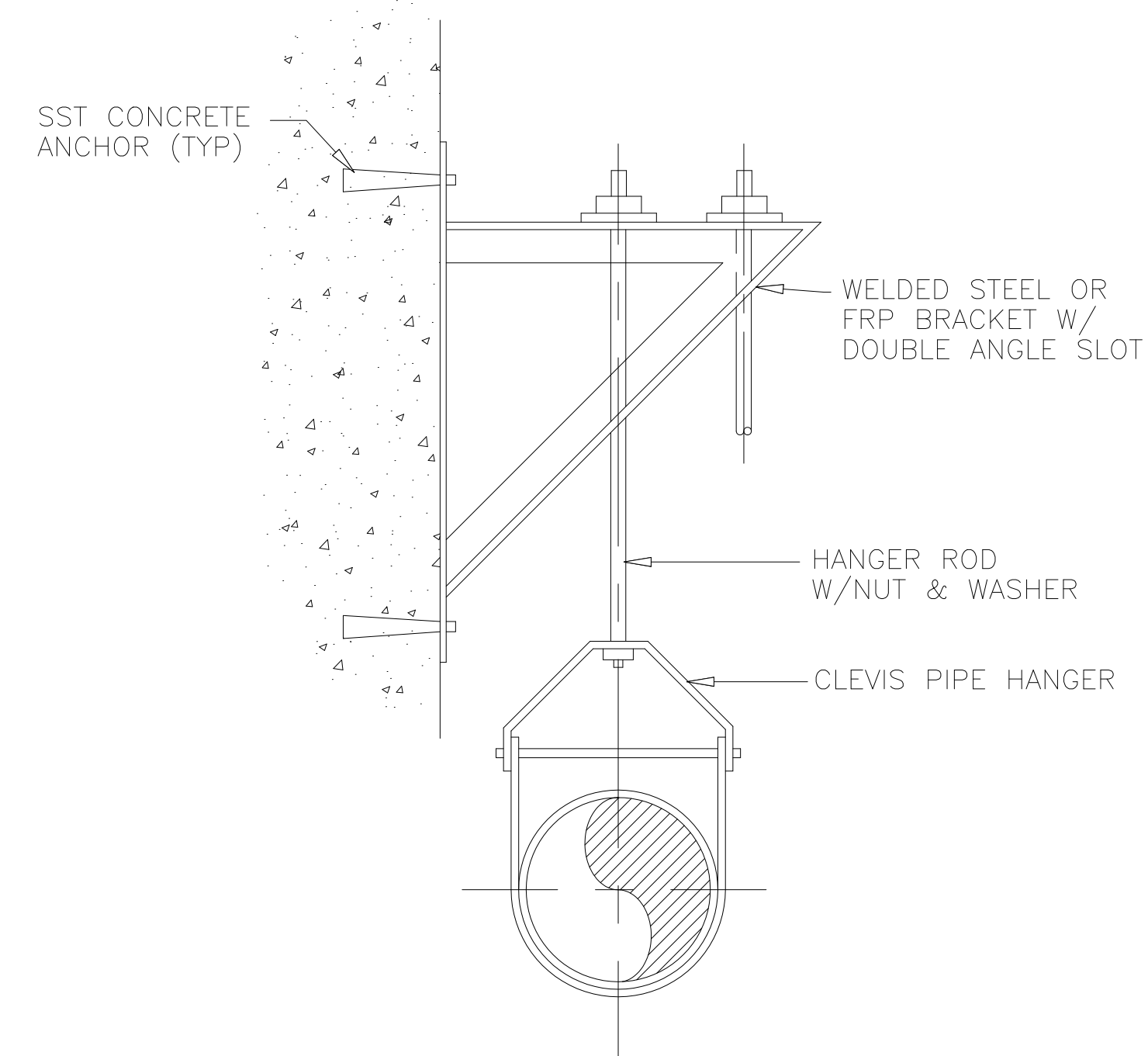
211 TRAPEZE HANGER FOR PIPES OR DUCTS LARGER THAN 2" DIA.
NTS



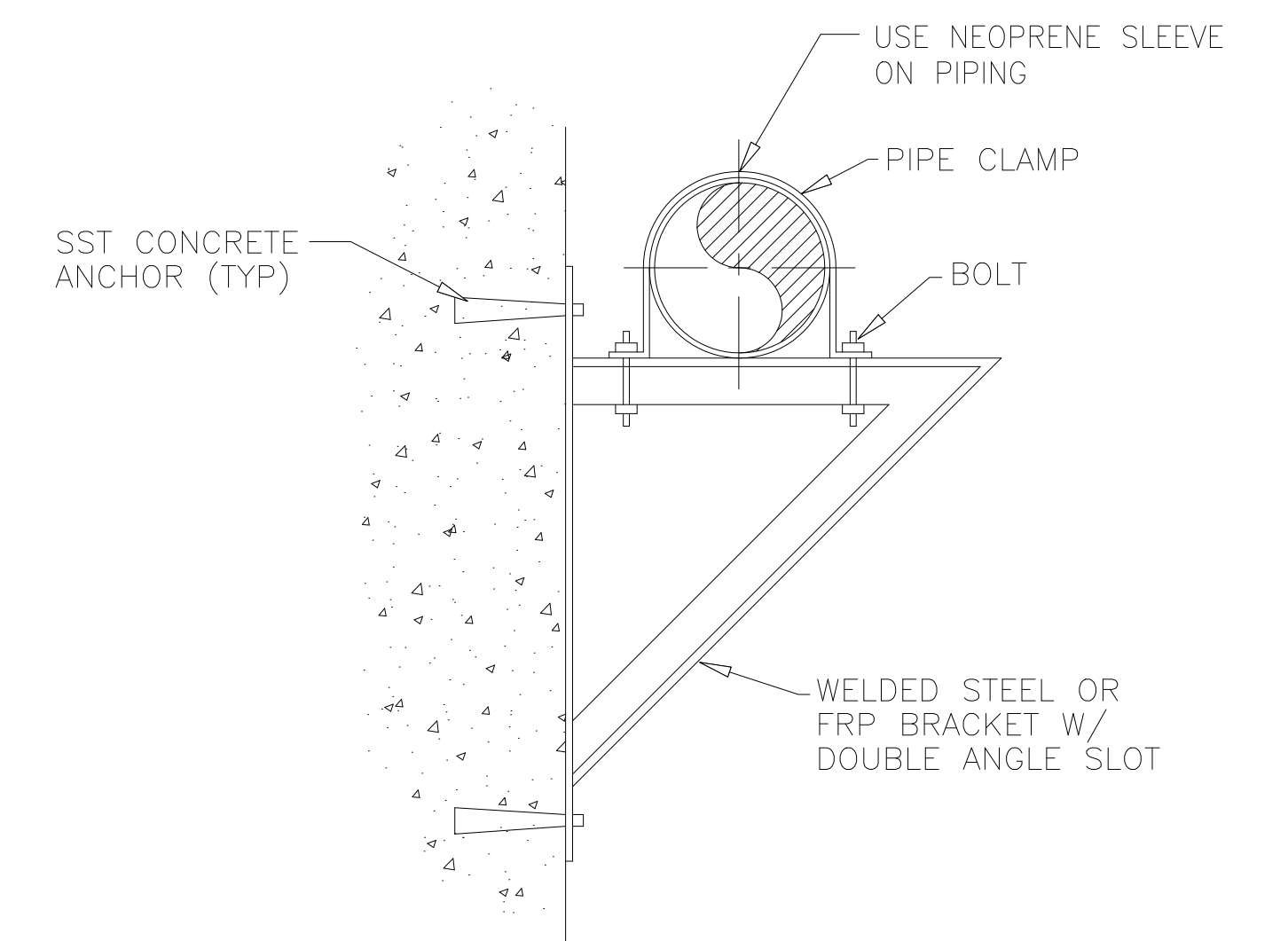
212 TRAPEZE HANGER FOR 2" DIA. & SMALLER PIPE OR DUCT
NTS



220 SINGLE PIPE WALL SUPPORT FOR 2" DIA. & SMALLER PIPE
NTS



221 SINGLE OR MULTIPLE PIPE OR DUCT HANGER WALL SUPPORT FOR 2" TO 16" DIA. PIPE OR DUCT
NTS



222 SINGLE PIPE OR DUCT WALL SUPPORT FOR 4" DIA. & LARGER PIPE OR DUCT
NTS

RECORD DRAWING

DESIGNED AMS
DRAWN FAH
CHECKED JSI
PROJ.ENGR. AMS

APPROVED

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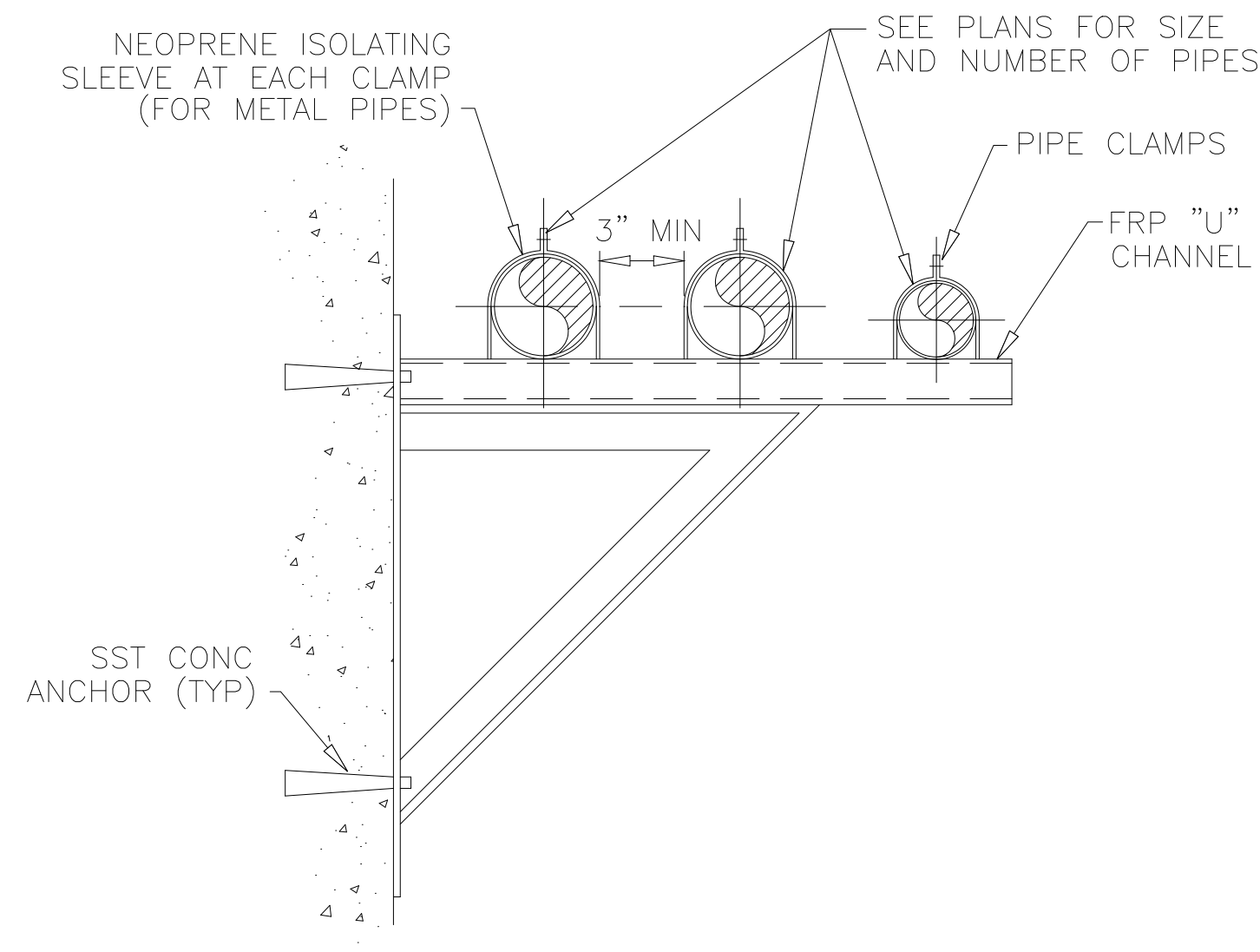
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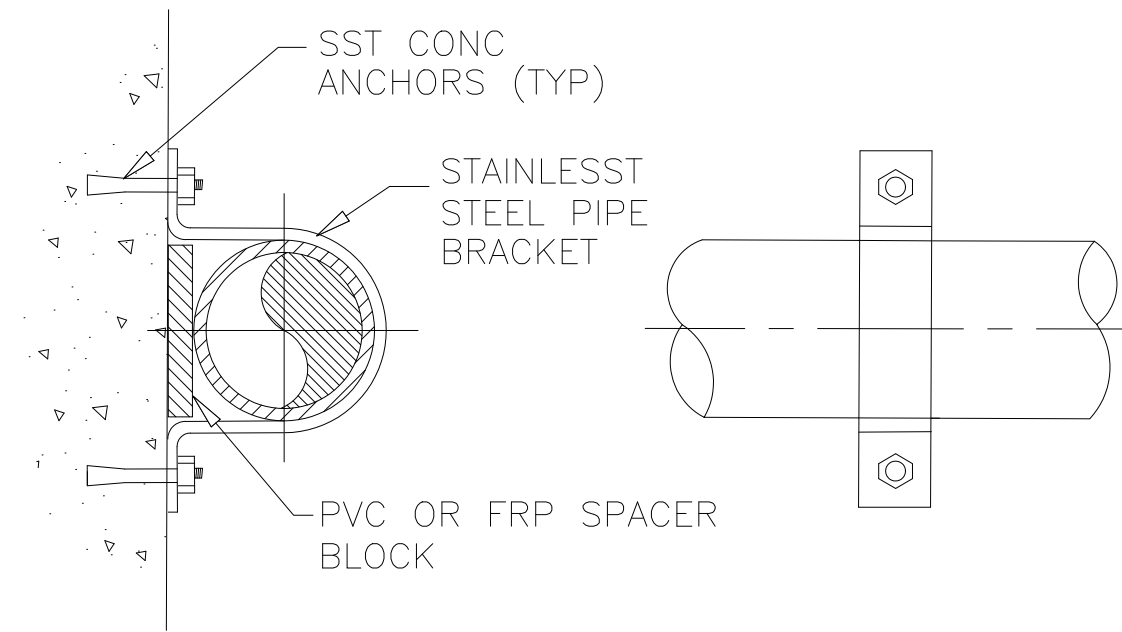
ODOR CONTROL IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

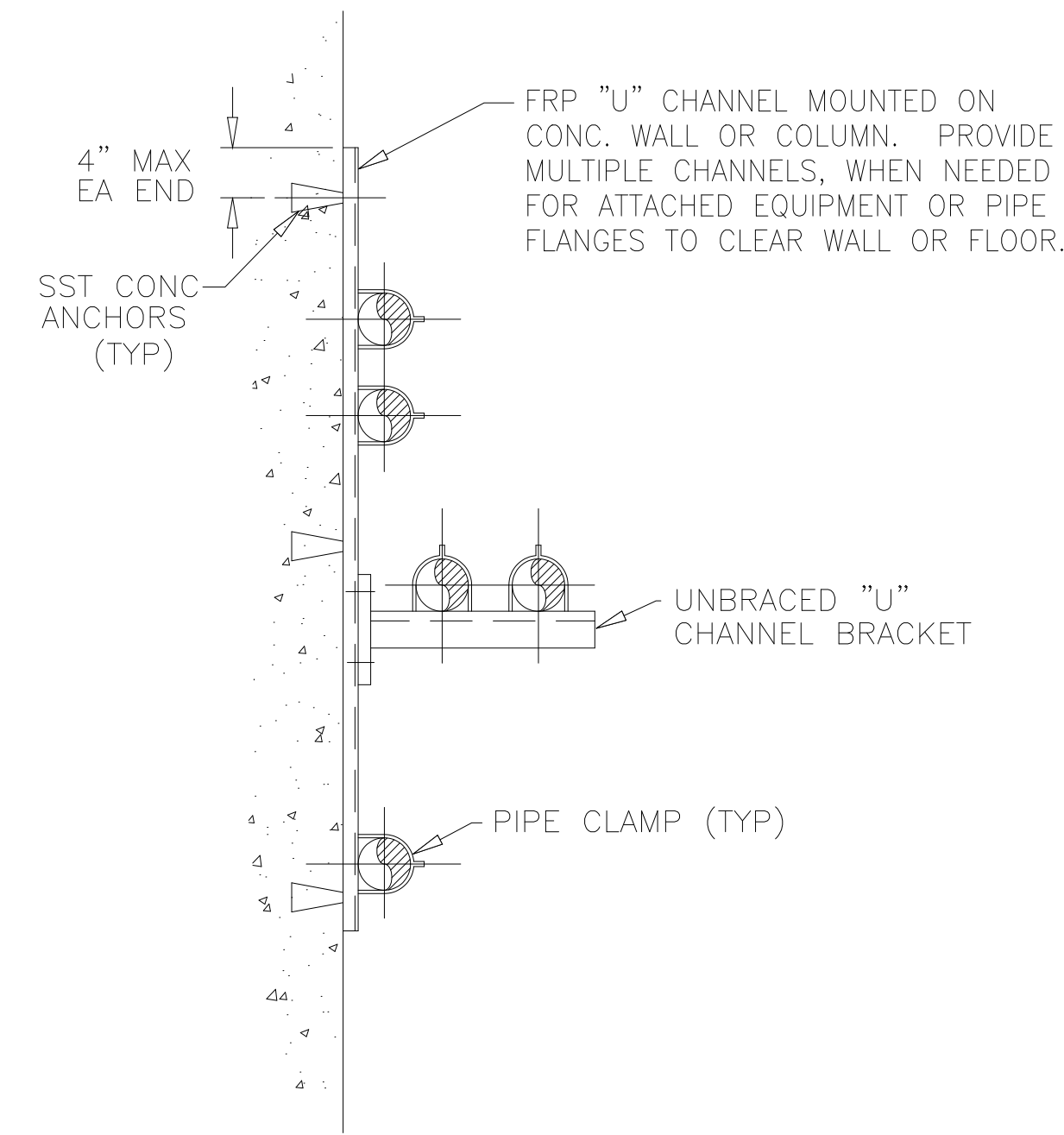
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DATE: SEPT 2000
H & S JOB NUMBER 30313
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DRAWING NUMBER D016
SHEET 98 OF 99



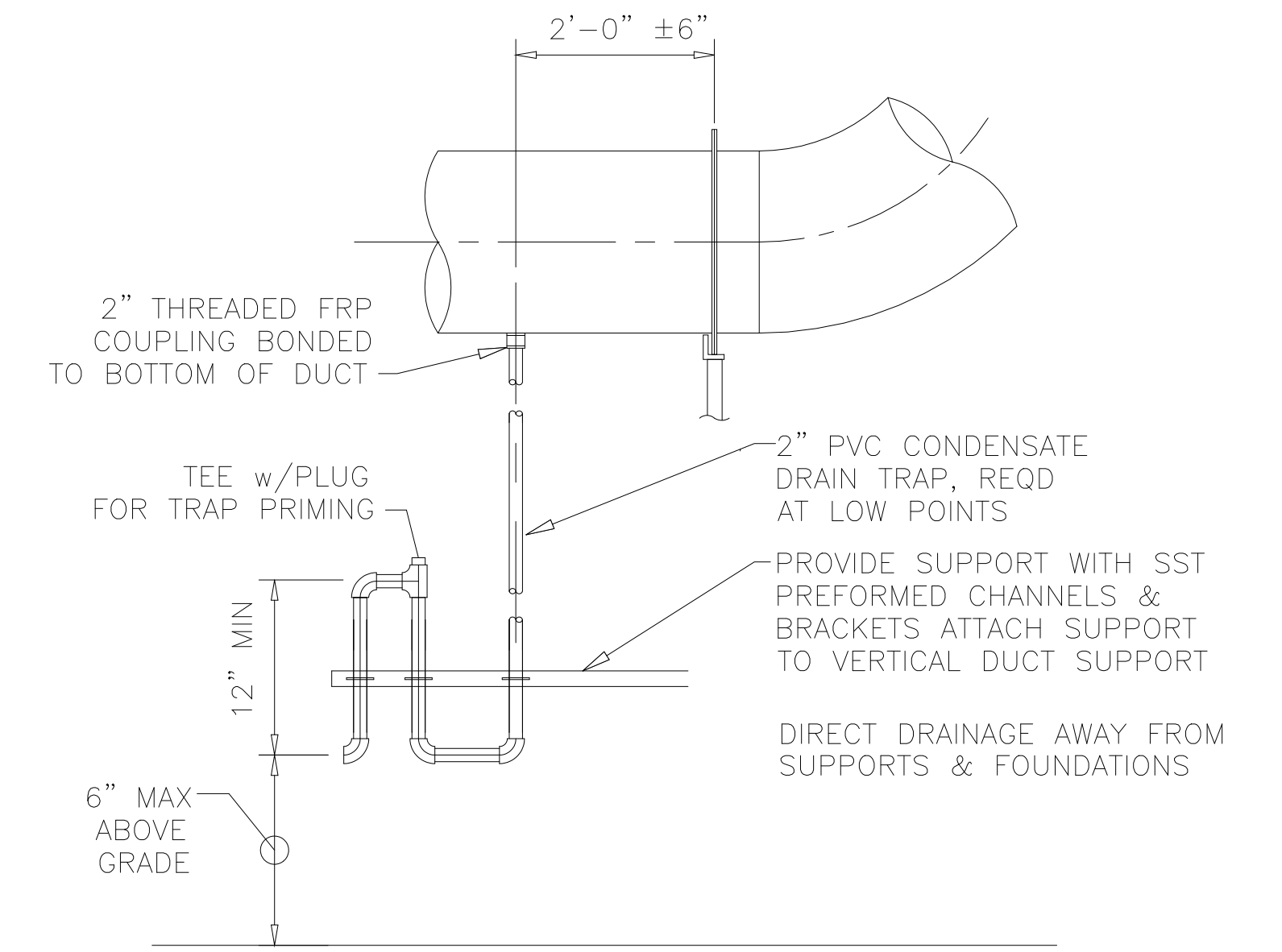
223 MULTIPLE PIPE WALL SUPPORT FOR 6" DIA. & SMALLER PIPE
NTS



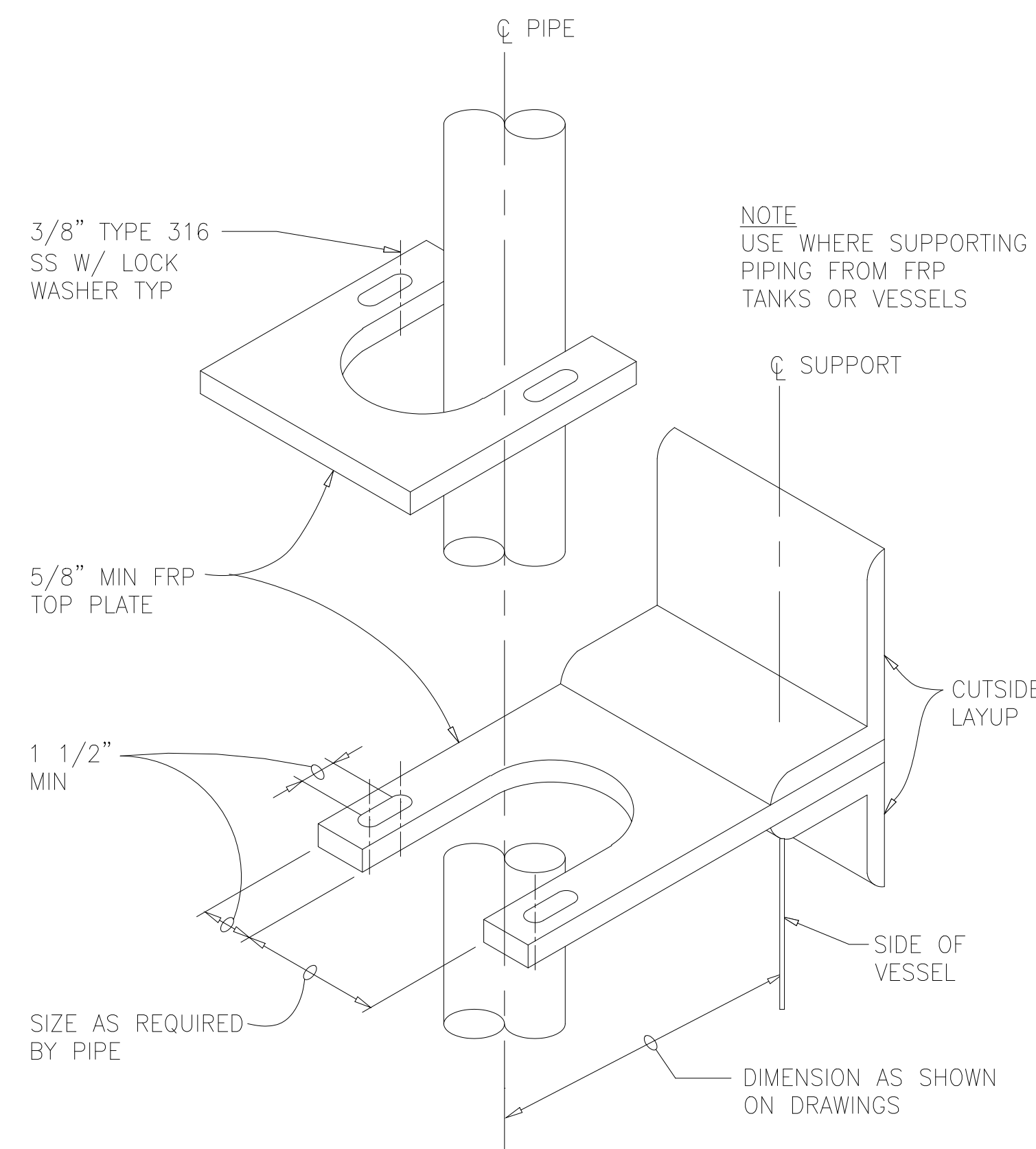
224 PIPE OR DUCT STRAP DETAIL
NTS



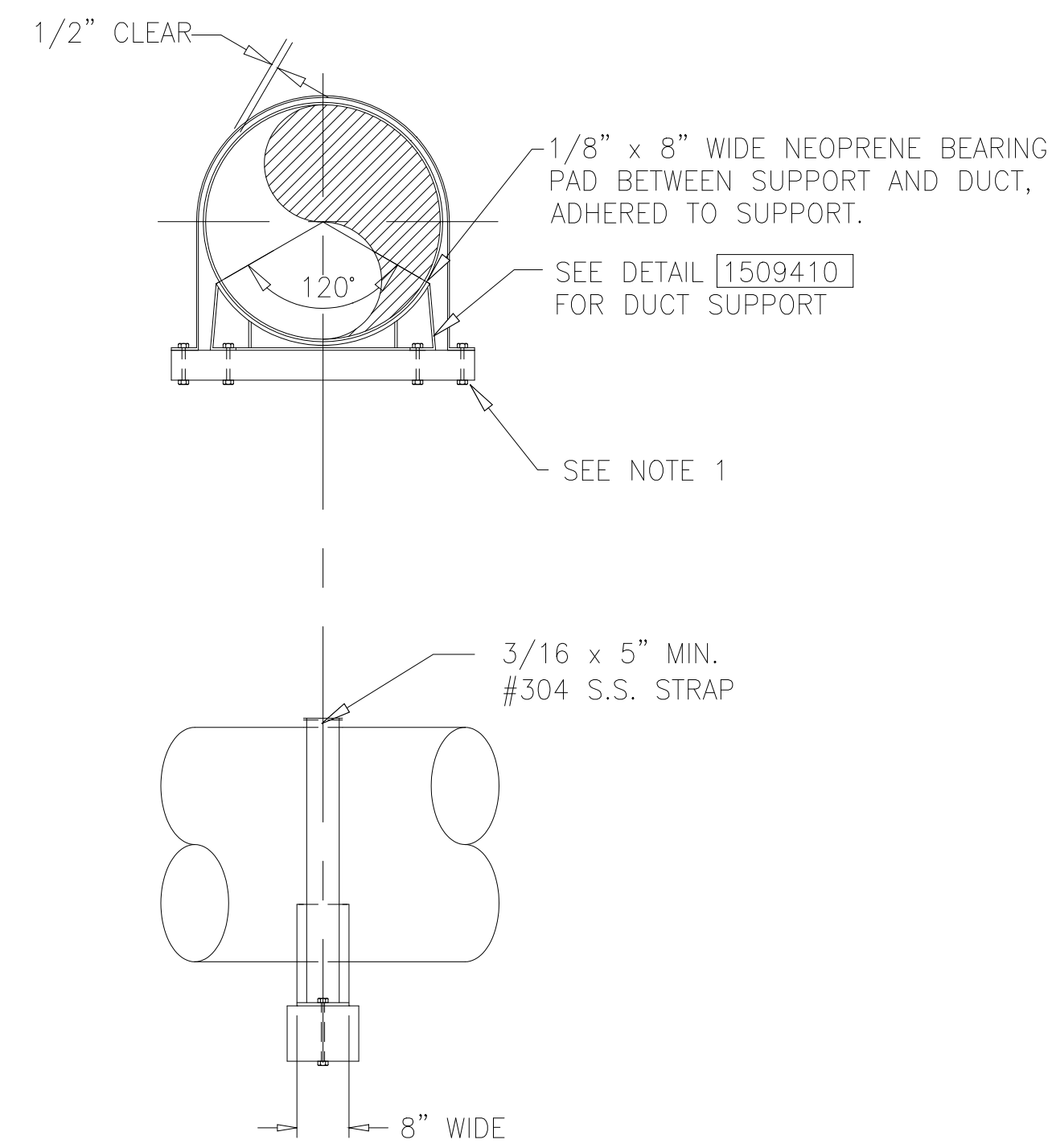
225 STACKED PIPE CEILING OR WALL SYSTEM
NTS



339 CONDENSATE TRAP DETAIL
NTS

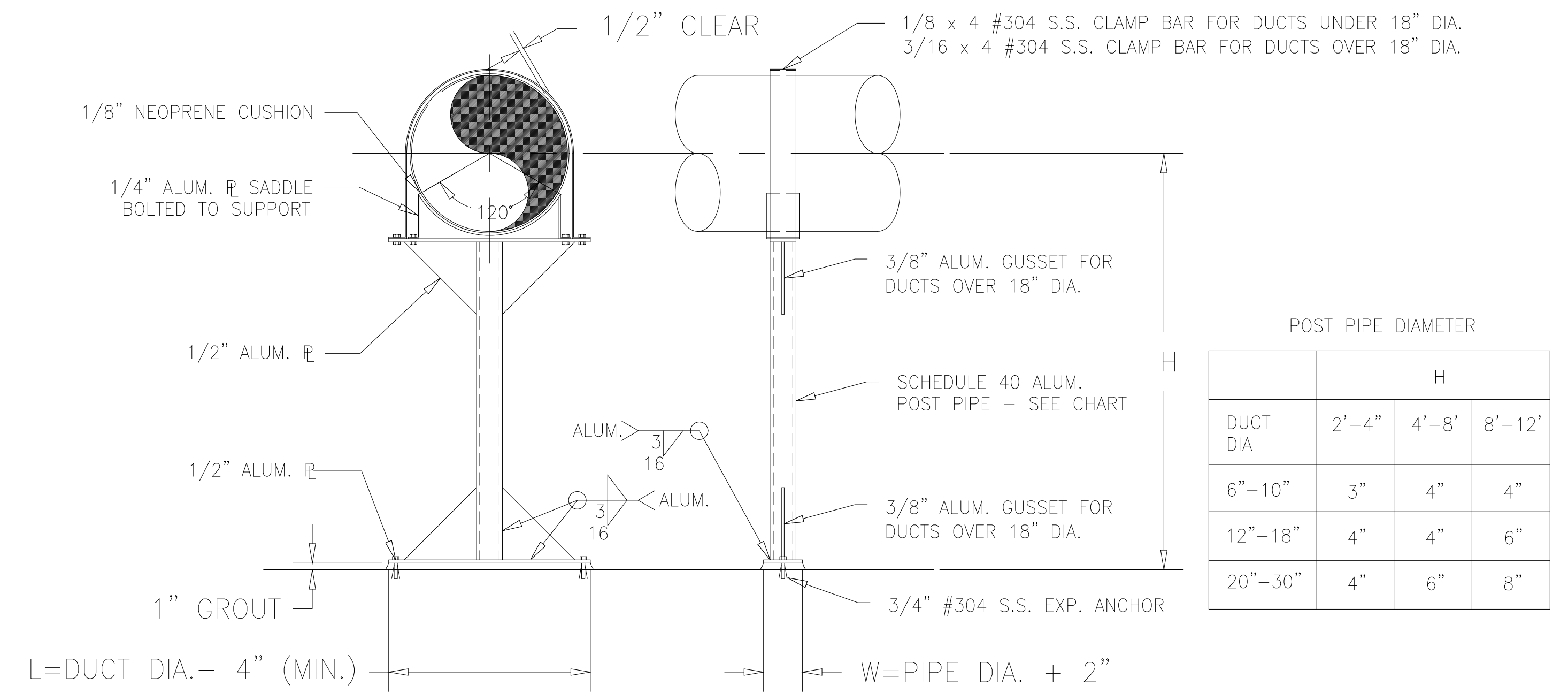


230 FRP VESSEL PIPE SWAY BRACE
NTS



NOTE:
1. SEE STRUCTURAL DRAWINGS FOR FASTENING/ANCHORING.

301A DUCT SUPPORT DETAIL
NTS



301 DUCT SUPPORT DETAIL
NTS

DESIGNED	AMS
DRAWN	FAH
CHECKED	JSI
PROJ.ENGR.	AMS
APPROVED	

1	AS BUILT	OCT 2000	FXP
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