

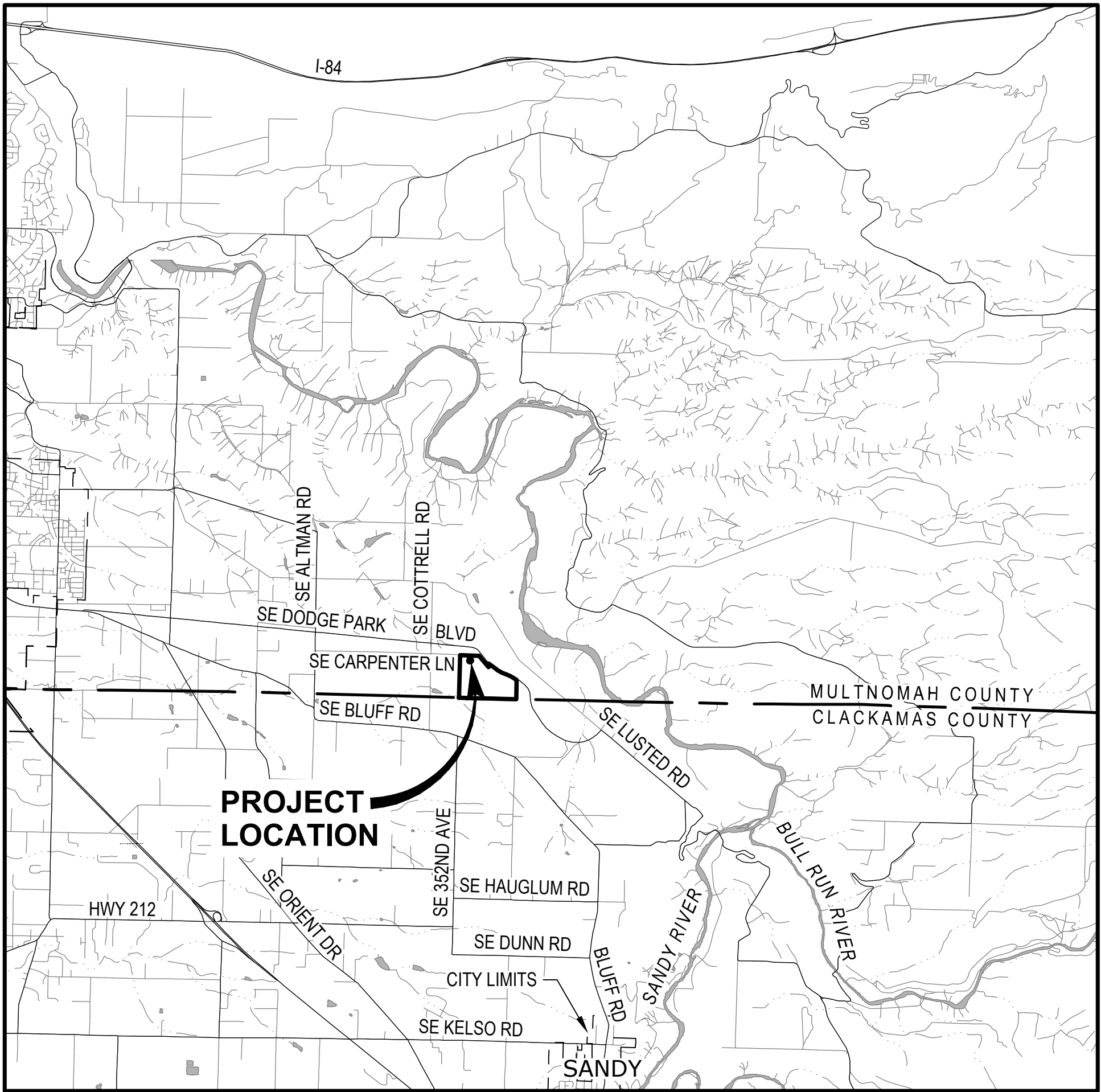
Appendix A: Plan Set

Page	Sheet Name	Set
	Page Reference	
1	Sheet	Overview
2	Cover Page	Cover Page
3	G-002	General
4	G-003	General
5	L-100	Overview
6	W02229	Overview
7	C-001	Civil
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10	C-102	Civil
11	C-103	Civil
12	C-104	Civil
13	C-105	Civil
14	C-201	Civil
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17	C-204	Civil
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19	A-001	Architectural
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23	E-103	Electrical
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25	L-101	Landscape
26	L102	Landscape
27	L-103	Landscape
28	L-104	Landscape
29	LU-304	Civil
30	LU-307	Civil
31	GEN-C-923	Civil
32	D-101	Details
33	D-102	Details

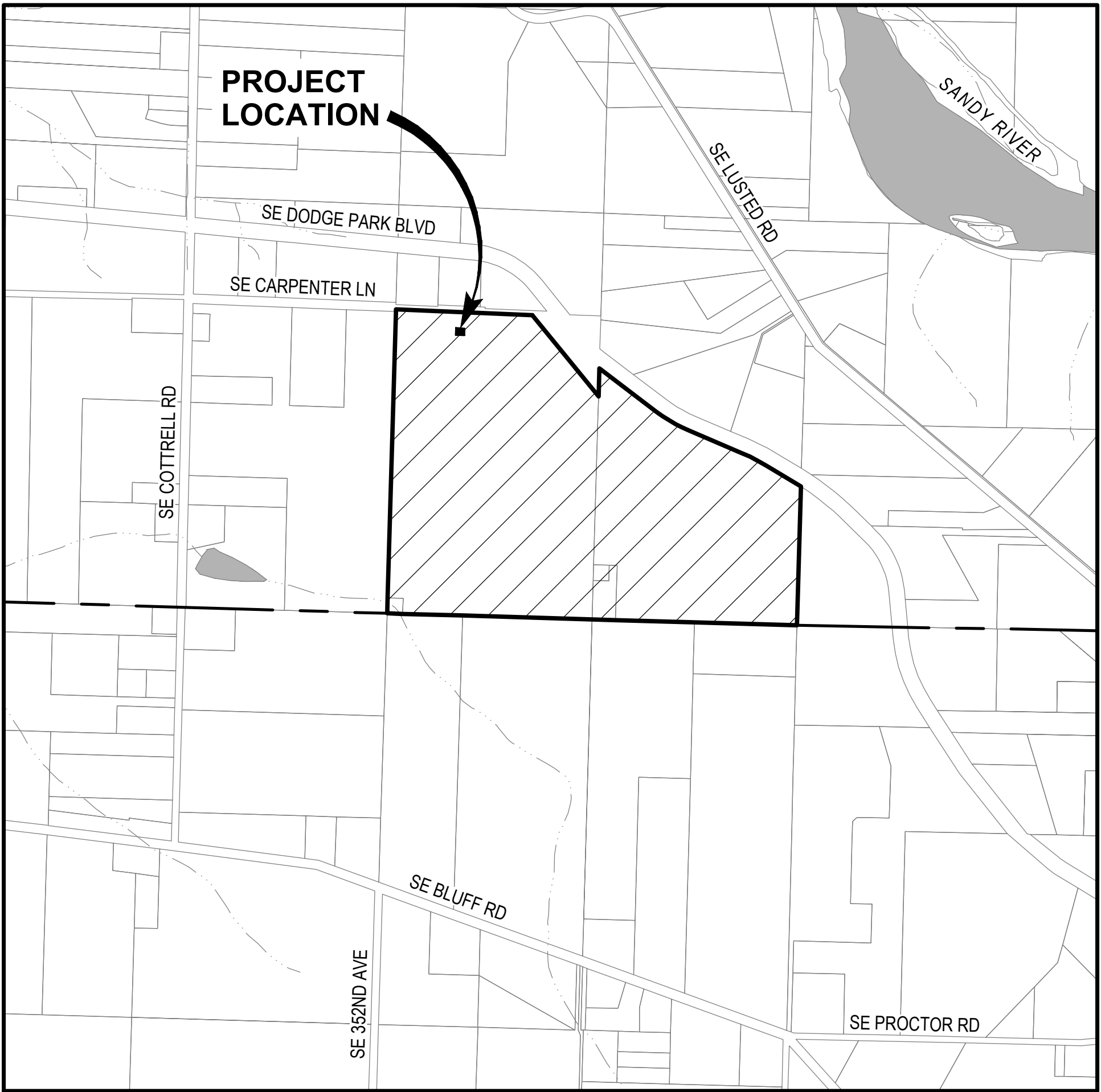
CITY OF SANDY

BULL RUN SUPPLY PUMP STATION - PHASE 2

PERMIT SET
PROJECT NO: W232464OR
JULY 2025



VICINITY MAP
SCALE: 1" = 5000'



LOCATION MAP
SCALE: 1" = 1000'

PRELIMINARY
NOT FOR
CONSTRUCTION

ATTENTION: OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0090. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE UTILITY NOTIFICATION CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-232-1987.) THE ONE-CALL NUMBER IS 1-800-332-2344.



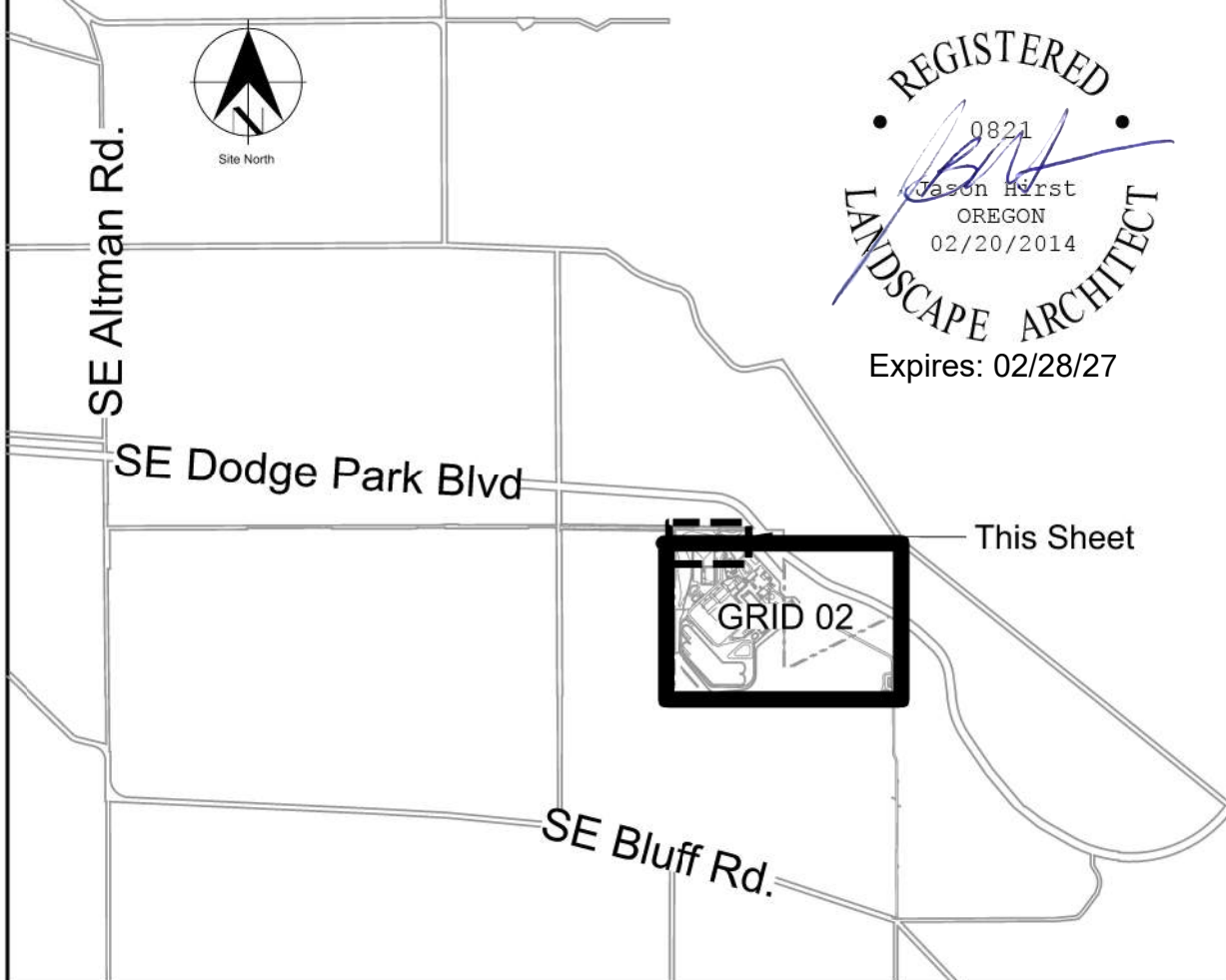
1		2		3		4		5		6		7	
A	@	AT	CMF	CORRUGATED METAL PIPE	FLR	FLOOR	KPL	KICK PLATE	POC	POINT OF CURVATURE	T OR TEL	TELEPHONE	
	AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	CMU	CONCRETE MASONRY UNIT	FM	FORCE MAIN	KVA	KILOVOLT AMPERE	POLY	POLYETHYLENE	T&B	TOP & BOTTOM	
	AB	ANCHOR BOLT	CND	CONDUIT	FO	FIBER OPTIC	KW	KILOWATT	PP	POWER POLE / PURPLE PIPE	TAN	TANGENCY	
	ABAN(D)	ABANDON(ED)	CO	CLEANOUT	FOF	FACE OF FINISH	KWY	KEYWAY	PRC	POINT OF REVERSE CURVATURE	TB	THRUST BLOCK	
	ABS	ACRYLONITRILE BUTADIENE STYRENE	COL	COLUMN	FOM	FACE OF MASONRY	L	LENGTH	PRCST	PRECAST	TBM	TEMPORARY BENCHMARK	
	ABV	ABOVE / ALCOHOL BY VOLUME	COMB	COMBINATION	FOS	FACE OF STUDS	LAB	LABORATORY	PREP	PREPARATION	TC	TOP OF CONCRETE / TOP OF CURB	
	AC	ASPHALTIC CONCRETE	CONC	CONCRETE	FPM	FEET PER MINUTE	LAV	LAVATORY	PRESS	PRESSURE	TCE	TEMPORARY CONSTRUCTION EASEMENT	
	ACP	ASPHALTIC CONCRETE PAVING	CONN	CONNECTION	FPS	FEET PER SECOND	LB	POUND	PRKG	PARKING	TDH	TOTAL DYNAMIC HEAD	
	ADJ	ADJUSTABLE	CONST	CONSTRUCTION	FRP	FIBERGLASS REINFORCED PLASTIC	LF	LINEAR FOOT	PRV	PRESSURE REDUCING VALVE	TEMP	TEMPERATURE / TEMPORARY	
	ADJC	ADJACENT	CONT	CONTINUOUS / CONTINUATION	FT	FEET / FOOT	LIN	LINEAL	PS	PUMP STATION	T&G	TONGUE & GROOVE	
B	AFF	ABOVE FINISHED FLOOR	COORD	COORDINATE	FTG	FOOTING	LN	LANE	PSIG	POUNDS PER SQUARE INCH GAUGE	THK	THICK / THICKNESS	
	AFG	ABOVE FINISHED GRADE	COP	COPPER	FUT	FUTURE	LOC	LOCATION	PSL	PIPE SLEEVE	THRD	THREAD (ED)	
	AHR	ANCHOR	CORP	CORPORATION	FUTR	FIXTURE	LONG	LONGITUDINAL	PSPT	PIPE SUPPORT	THRU	THROUGH	
	AL	ALUMINUM	CORR	CORRUGATED	FXTR	FIXTURE	LP	LOW PRESSURE	PT	POINT OF TANGENCY	TP	TEST PIT / TOP OF PAVEMENT / TURNING POINT	
	ALT	ALTERNATE	CP	CONTROL POINT	FW	FINISHED WATER	LPT	LOW POINT	PTVC	POINT OF TANGENCY ON VERTICAL CURVE	TSP	TRI-SODIUM PHOSPHATE	
	AMP	AMPERE	CPLG	COUPLING	G	GAS	LRG	LARGE	PTW	PUMP TO WASTE	TST	TOP OF STEEL	
	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CPVC	CHLORINATED POLYVINYL CHLORIDE	GA	GAUGE	LS	LONG SLEEVE / LUMP SUM	PV	PLUG VALVE	TW	TOP OF WALL	
	APPROX	APPROXIMATE	CR	CRUSHED ROCK	GAL	GALLON	LT	LEFT	PVC	POLYVINYL CHLORIDE	TYP	TYPICAL	
	APPVD	APPROVED	CS	COMBINED SEWER	GALV	GALVANIZED	LVL	LEVEL	PVMT	PAVEMENT	UG	UNDERGROUND	
	APWA	AMERICAN PUBLIC WORKS ASSOCIATION	CSP	CONCRETE SEWER PIPE	GC	GROOVED COUPLING	LWL	LOW WATER LINE	PW	POTABLE WATER	UH	UNIT HEATER	
C	ARCH	ARCHITECTURAL	CT	COURT	GFA	GROOVED FLANGE ADAPTER	MAN	MANUAL	PWR	POWER	UN	UNION	
	ARV	AIR RELEASE VALVE	CTR	CENTER	GI	GALVANIZED IRON	MAT	MATERIAL	QTY	QUANTITY	UON	UNLESS OTHERWISE NOTED	
	ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	CU	CUBIC	GIP	GALVANIZED IRON PIPE	MAX	MAXIMUM	RAD	RADIUS	USGS	UNITED STATES GEOLOGIC SURVEY	
	ASR	AQUIFER STORAGE & RECOVERY	CULV	CULVERT	GJ	GRIP JOINT	MCC	MOTOR CONTROL CENTER	RC	REINFORCED CONCRETE	V	VENT / VOLT	
	ASSN	ASSOCIATION	CV	CONTROL VALVE	GL	GLASS	MCP	MASTER CONTROL PANEL	RCP	REINFORCED CONCRETE PIPE	VAC	VACUUM	
	ASSY	ASSEMBLY	CW	CLOCKWISE / COLD WATER	GLV	GLOBE VALVE	MECH	MECHANICAL	RD	ROAD / ROOF DRAIN	VB	VACUUM BREAKER	
	ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	CY	CUBIC YARDS	GND	GROUND	MET	METAL	RDCR	REDUCER	VBOX	VALVE BOX	
	ATM	ATMOSPHERE	CYL	CYLINDER LOCK	GPD	GALLONS PER DAY	MFR	MANUFACTURER	REF	REFERENCE	VC	VERTICAL CURVE	
	AUTO	AUTOMATIC	D	DRAIN	GPH	GALLONS PER HOUR	MGD	MILLION GALLONS PER DAY	REINF	REINFORCE(D)(ING)(MENT)	VERT	VERTICAL	
	AUX	AUXILIARY	DC	DIRECT CURRENT	GPM	GALLONS PER MINUTE	MH	MANHOLE	REQ'D	REQUIRED	VFD	VARIABLE FREQUENCY DRIVE	
D	AVE	AVENUE	DEFL	DEFLECTION	GPS	GALLONS PER SECOND	MIN	MINIMUM	RESTR	RESTRAINED	VOL	VOLUME	
	AVG	AVERAGE	DEQ	DEPARTMENT OF ENVIRONMENTAL QUALITY	GR	GRADE	MIPT	MALE IRON PIPE THREAD	RFA	RESTRAINED FLANGE COUPLING ADAPTER	VCP	VITRIFIED CLAY PIPE	
	AWWA	AMERICAN WATER WORKS ASSOCIATION	DET	DETAIL	GR LN	GRADE LINE	MISC	MISCELLANEOUS	RM	ROOM	VTR	VENT THROUGH ROOF	
	B&S	BELL & SPIGOT	DI	DUCTILE IRON	GRTG	GRATING	MJ	MECHANICAL JOINT	RND	ROUND	W	WATER	
	BC	BOLT CIRCLE	DIA	DIAMETER	GV	GATE VALVE	MON	MONUMENT / MONOLITHIC	RO	ROUGH OPENING	W/	WITH	
	BD	BOARD	DIM	DIMENSION	GRV	GRAVEL	MOT	MOTOR	R/W	RIGHT-OF-WAY	W/IN	WITHIN	
	BETW	BETWEEN	DIR	DIRECTION	GY	GYPSPUM	MP	MILEPOST	RWBPD	REDUCED PRESSURE BACKFLOW PREVENTION DEVICE	W/O	WITHOUT	
	BF	BOTH FACE	DIST	DISTANCE	HB	HOSE BIBB	MSL	MEAN SEAL LEVEL	RPM	REVOLUTIONS PER MINUTE	WW	WALL TO WALL	
	BFD	BACKFLOW PREVENTION DEVICE	DN	DOWN	HC	HOLLOW CORE	MTD	MOUNTED	RR	RAILROAD	WD	WOOD	
	BFILL	BACKFILL	DR	DRIVE	HDPE	HIGH DENSITY POLYETHYLENE	NA	NOT APPLICABLE	RST	REINFORCED STEEL	WF	WIDE FLANGE	
E	BFV	BUTTERFLY VALVE	DS	DOWNSPOUT	HDR	HEADER	NAV	NORTH AMERICAN VERTICAL DATUM	RT	RIGHT	WH	WATER HEATER	
	BHP	BRAKE HORSEPOWER	DWG	DRAWING	HDWE	HARDWARE	NC	NORMALLY CLOSED	RT	RIGHT	WI	WROUGHT IRON	
	BKGD	BACKGROUND	DWL	DOWEL	HGR	HANGER	NF	NEAR FACE	RT	RIGHT	WM	WATER METER	
	BKDG	BACKGROUND	DWV	DRAIN WASTE AND VENT	HGT	HEIGHT	NIC	NOT IN CONTRACT	RT	RIGHT	WP	WORKING POINT / WATERPROOFING	
	BLDG	BUILDING	DWY	DRIVEWAY	HH	HANDHOLD	NO / NO.	NORMALLY OPEN / NUMBER	RT	RIGHT	WS	WATER SERVICE	
	BLK	BLOCK	E / ELEC	ELECTRICAL	HM	HOLLOW METAL	NOM	NOMINAL	RT	RIGHT	WT	WEIGHT	
	BLVD	BOULEVARD	EA	EACH	HMAC	HOT MIX ASPHALT CONCRETE	NORM	NORMAL	RT	RIGHT	WTP	WATER TREATMENT PLANT	
	BM	BENCHMARK / BEAM	ECC	ECCENTRIC	HNDR	HANDRAIL	NRS	NON-RISING STEM	RT	RIGHT	WTRT	WATERTIGHT	
	BMP	BEST MANAGEMENT PRACTICES	EF	EACH FACE	HOA	HAND-OFF-AUTO	NTS	NOT TO SCALE	RT	RIGHT	WWF	WELDED WIRE FABRIC	
	BO	BLOW-OFF	EL	ELEVATION	HOR	HAND-OFF-REMOTE	NTS	NOT TO SCALE	RT	RIGHT	WWTF	WASTEWATER TREATMENT FACILITY	
F	BOC	BACK OF CURB	ELB	ELBOW	HORIZ	HORIZONTAL	O TO O	OUT TO OUT	RT	RIGHT	WWTP	WASTEWATER TREATMENT PLANT	
	BS	BOTH SIDES	ENCL	ENCLOSURE	HP	HIGH PRESSURE / HORSEPOWER	OAR	OREGON ADMINISTRATIVE RULES	RT	RIGHT	X SECT	CROSS SECTION	
	BSMT	BASEMENT	ENCL	ENCLOSURE	HPG	HIGH PRESSURE GAS	OC	ON CENTER	RT	RIGHT	XFMR	TRANSFORMER	
	BTF	BOTTOM FACE	EQ	EQUAL	HPT	HIGH POINT	OD	OUTSIDE DIAMETER	RT	RIGHT	YD	YARD DRAIN / YARD	
	BTU	BRITISH THERMAL UNIT	EQ SP	EQUALLY SPACED	HSB	HIGH STRENGTH BOLT	ODOT	OREGON DEPARTMENT OF TRANSPORTATION	RT	RIGHT	YH	YARD HYDRANT	
	BV	BALL VALVE	EQUIP	EQUIPMENT	HP	HIGH PRESSURE / HORSEPOWER	OF	OVERFLOW / OUTSIDE FACE	RT	RIGHT	YR	YEAR	
	BW	BOTH WAYS	ESC	EROSION & SEDIMENT CONTROL	HV	HOSE VALVE	OHA	OREGON HEALTH AUTHORITY	RT	RIGHT	ZN	ZINC	
	C	CELSIUS	ESMT	EASEMENT	HVAC	HEATING, VENTILATION, AIR CONDITIONING	OPNG	OPENING	RT	RIGHT			
	C TO C	CENTER TO CENTER	EW	EACH WAY	HWL	HIGH WATER LINE	OPP	OPPOSITE	RT	RIGHT			
	CARV	COMBINATION AIR RELEASE VALVE	EXC	EXCAVATE	HWY	HIGHWAY	ORIG	ORIGINAL	RT	RIGHT			
G	CATV	CABLE TELEVISION	EXIST	EXISTING	HYD	HYDRANT	ORS	OREGON REVISED STATUTES	RT	RIGHT			
	CB	CATCH BASIN	EXP	EXPANSION	HYDR	HYDRAULIC	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	RT	RIGHT			
	CCP	CONCRETE CYLINDER PIPE	EXP BT	EXPANSION BOLT	I&C	INSTRUMENTATION & CONTROL	OSSC	OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION	RT	RIGHT			
	CCW	COUNTER CLOCKWISE	EXT	EXTERIOR	IAW	IN ACCORDANCE WITH	OVHD	OVERHEAD	RT	RIGHT			
	CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	F	FAHRENHEIT	ID	INSIDE DIAMETER			RT	RIGHT			
	CFM	CUBIC FEET PER MINUTE	F TO F	FACE TO FACE	IE	INVERT ELEVATION			RT	RIGHT			
	CFS	CUBIC FEET PER SECOND	FAB	FABRICATE	IF	INSIDE FACE			RT	RIGHT			
	CHAN	CHANNEL	FB	FLAT BAR	IMPVT	IMPROVEMENT			RT	RIGHT			
	CHEM	CHEMICAL	FC	FLANGED COUPLING ADAPTER	IN	INCH			RT	RIGHT			
	CHFR	CHAMFER	FCA	FLANGED COUPLING ADAPTER	INCC	INCLUDE(D)(ING)			RT	RIGHT			
H	CHKV	CHECK VALVE	FCO	FLOOR CLEANOUT	INFL	INFLUENT			RT	RIGHT			
	CI	CAST IRON	FD	FLOOR DRAIN	INJ	INJECTION			RT	RIGHT			
	CIP	CAST IRON PIPE	FDN	FOUNDATION	INSTL	INSTALLATION			RT	RIGHT			
	CIPC	CAST IN PLACE CONCRETE	FEXT	FIRE EXTINGUISHER	INSUL	INSULATION			RT	RIGHT			
	CISP	CAST IRON SOIL PIPE	FF	FINISHED FLOOR / FAR FACE	INTER	INTERCEPTOR			RT	RIGHT			
	CJ	CONSTRUCTION JOINT	FGL	FIBERGLASS	INTR	INTERIOR			RT	RIGHT			
	CL OR C/L	CENTER LINE	FH	FIRE HYDRANT	INV	INVERT			RT	RIGHT			
	CL2	CHLORINE	FIN	FINISH(ED)	IP	IRON PIPE			RT	RIGHT			
	CLG	CEILING	FIPT	FEMALE IRON PIPE THREAD	IPT	IRON PIPE THREAD			RT	RIGHT			
	CLJ	CONTROL JOINT	FITG	FITTING	IR	IRON ROD			RT	RIGHT			
I	CLR	CLEAR	FL	FLOOR LINE	IRRIG	IRRIGATION			RT	RIGHT			
	CLSM	CONTROLLED LOW STRENGTH MATERIAL	FLEX	FLEXIBLE	JT	JOINT			RT	RIGHT			
			FLG	FLANGE	JUNC	JUNCTION			RT	RIGHT			
			FLL	FLOW LINE					RT	RIGHT			
					</								

	1	2	3	4	5	6	7
A	GENERAL NOTES		1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL, COUNTY, STATE, AND UTILITY CONSTRUCTION PERMITS, AND SHALL CONTACT EACH PERMITTING AGENCY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO STARTING WORK. CONTRACTOR SHALL OBTAIN ALL REQUIRED LICENSES BEFORE STARTING CONSTRUCTION.	CONTRACTOR TO VALIDATE CLAIMS OF MATERIAL OR CONSTRUCTION ADEQUACY/COMPLIANCE. SUCH TEST/REPORTS SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.	18. CONNECTIONS TO EXISTING WATERLINES MAY REQUIRE TEMPORARY SHUTDOWNS OF THE EXISTING FACILITIES. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CITY AND REQUEST SHUTDOWNS A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF DESIRED TIMING OF CONNECTION WORK. CONTRACTOR SHALL NOT ASSUME SHUTDOWN TIMES, BUT RATHER SCHEDULE AND COORDINATE SHUTDOWNS WITH THE CITY OF SANDY.		
	2. A COPY OF THE CONTRACTOR'S CERTIFICATE OF INSURANCE SHALL BE AVAILABLE AT THE WORK AREA AT ALL TIMES.			20. ALL STRUCTURES, LOTS, SWALES, DITCHES, CURBS, SPEED BUMPS, FENCES, WALLS, MAILBOXES, SIGNS, POLES, GUY WIRES, PIPING, AND UTILITIES DISTURBED DURING CONSTRUCTION TO BE RESTORED TO EXISTING CONDITION UNLESS OTHERWISE SPECIFIED. SUCH REPAIR SHALL BE CONSIDERED INCIDENTAL.	19. ALL PIPING SHALL BE FULLY RESTRAINED.		
	3. CONSTRUCTION SHALL BE CONFINED TO THE RIGHT-OF-WAY, EASEMENTS, OR OTHER AREAS AS SHOWN ON THE PLANS AND APPROVED FOR CONSTRUCTION. WORK SHALL NOT ENCROACH BEYOND THE AREAS SHOWN ON THE PLANS WITHOUT PRIOR APPROVAL BY ENGINEER.		21. AT THE END OF EACH WORK DAY ALL OPEN TRENCHES SHALL BE BACKFILLED. ALL TRENCHES WITHIN STREETS SHALL BE TEMPORARILY PAVED OR COVERED TO MEET THE PERMIT AGENCIES REQUIREMENTS.		20. VALVE BOXES SHALL BE FURNISHED FOR BURIED VALVES. HEAVY DUTY VALVE BOXES SHALL BE USED WHEN VALVE IS LOCATED WITHIN ASPHALT OR GRAVEL LIMITS PER CITY OF SANDY STANDARDS.		
	4. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNERS, SURVEY MONUMENTS AND CONTROL POINTS. SURVEY MONUMENTS OF THIS TYPE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH STATE OF OREGON REQUIREMENTS AT CONTRACTOR'S EXPENSE, WITH APPROPRIATE SURVEYS FILED WITH THE COUNTY SURVEYOR.		22. NO UNDERGROUND WORK SHALL BE "BURIED" UNTIL INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE.		STORMWATER NOTES		
B	5. LOCATIONS AND GRADES OF SHOWN UTILITIES ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE AND ARE BASED UPON INFORMATION PROVIDED BY THE UTILITIES AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL HAVE UTILITIES LOCATED IN ACCORDANCE WITH ORS 757.514 THROUGH 757.51 PRIOR TO COMMENCING CONSTRUCTION. OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090.		23. THE CONTRACTOR IS RESPONSIBLE FOR ALL ESC, REFER TO THE ESC PLANS.		1. PIPE BEDDING AND BACKFILL SHALL BE AS SPECIFIED.		
	6. THE CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS, TYPE AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING NEW PIPING OR CONDUITS AND SHALL ADJUST NEW PIPING AND CONDUITS AS REQUIRED. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS NOT SHOWN ON THE PLANS AND SHALL KEEP EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION UNLESS OTHERWISE NOTED. WHERE INTERRUPTION OF EXISTING FACILITIES IS REQUIRED, CONTRACTOR SHALL PROVIDE AT LEAST A 72 HOUR NOTICE TO ENGINEER AND THE AFFECTED UTILITY. CONTRACTOR SHALL ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION.		WATER SYSTEM NOTES		2. ALL FLEXIBLE PIPE SHALL BE TESTED FOR DEFLECTION USING A 95% MANDREL. SEE SPECIFICATION 33 01 30.		
	7. THE CONTRACTOR SHALL NOTIFY EACH UNDERGROUND UTILITY AT LEAST 48 BUSINESS-DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS, PRIOR TO EXCAVATING OR BORING.		1. CITY OF SANDY WATERLINES SHALL HAVE A MINIMUM OF 36" OF COVER TO FINISH GRADE UNLESS OTHERWISE APPROVED.		3. LOTS ARE TO BE FINAL GRADED TO DIRECT SURFACE DRAINAGE TO STREET OR APPROVED STORM DRAINAGE SYSTEM.		
	8. NO ADDITIONAL PAYMENT SHALL BE MADE FOR UTILITY RELOCATION COORDINATION OR DELAYS CAUSED BY UTILITY CONFLICTS. ALL COSTS RELATED TO UTILITY COORDINATION AND RELOCATION, INCLUDING ADDITIONAL POTHOLING, ARE TO BE CONSIDERED INCIDENTAL AND INCLUDED IN THE UNIT PRICES OF THE BID.		2. CONTRACTOR SHALL PROVIDE TEMPORARY TAPS, TEMPORARY CONNECTIONS, BLOW-OFFS AND THRUST RESTRAINTS AS REQUIRED TO FACILITATE FLUSHING, TESTING AND DISINFECTING OF WATERLINES. AT COMPLETION OF DISINFECTION, REMOVE TEMPORARY TEST TAPS AND REPLACE WITH TEMPORARY PLUGS UNTIL CONNECTIONS TO EXISTING FACILITIES ARE COMPLETE.		SURVEY NOTES		
C	9. UTILITIES OR INTERFERING PORTIONS OF UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL GROUT PLUG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES, UNLESS OTHERWISE REQUIRED BY THE ENGINEER OR NOTED OTHERWISE ON THE DRAWINGS.		3. CITY OF SANDY WATER VALVES SHALL ONLY BE OPERATED BY CITY STAFF.		1. DRAWINGS WERE DEVELOPED USING THE FILTRATION FACILITY PROPERTY SURVEY PROVIDED BY EMERIO DESIGN, LLC DESCRIBED AS FOLLOWS:		
	10. UNLESS NOTED ON THE PLANS OR SPECIFIED OTHERWISE, ALL CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH THE MOST RECENT VERSION OF CITY OF SANDY, OREGON STANDARD DETAILS AND THE OREGON ADMINISTRATION RULES (OAR), CHAPTER 333.		4. ALL DIRECT-BURIED LINE VALVES LARGER THAN 12" SHALL BE BUTTERFLY VALVES. ALL 12" AND SMALLER, DIRECT-BURIED LINE VALVES SHALL BE RESILIENT SEAT GATE VALVES. ALL VALVES SHALL BE DESIGNED TO AWWA SPECIFICATIONS AND SHALL HAVE A STANDARD 2" SQUARE OPERATING NUT UNLESS OTHERWISE APPROVED. ALL VALVES SHALL OPEN COUNTER-CLOCKWISE.		ORIGINAL SURVEY FOR FILTRATION FACILITY PROPERTY CONDUCTED IN JULY 2020. SUPPLEMENTAL SURVEY PERFORMED AUGUST - NOVEMBER 2021.		
	11. CONTRACTOR SHALL KEEP AND MAINTAIN A CURRENT SET OF DRAWINGS ON SITE, REFER TO SPECIFICATION 01 70 00.		5. TRENCH, PIPE BEDDING, AND BACKFILL PER DETAIL 1 ON SHEET C-201.		HORIZONTAL CONTROL BASIS: CONTROL NETWORK ESTABLISHED IN 2010 FOR THE WATER BUREAU'S LISTED HILL FACILITY, USING HIS SCALE FACTOR CONTROL IS ON STATE PLANE COORDS - NORTH ZONE, NAD83(91), INTERNATIONAL FEET, WITH A COMBINED SCALE FACTOR OF 0.999903260, RESULTING IN A COORDINATE SYSTEM THAT REFLECTS TRUE GROUND DISTANCES THEN ALIGNED TO PAST PROJECTS IN THE AREA.		
	12. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL HOMES AND BUSINESSES AT ALL TIMES. PROVIDE WRITTEN NOTICE TO ALL PROPERTY OWNERS AT LEAST TWO BUSINESS DAYS IN ADVANCE OF WORK IN AND/OR CROSSING OF DRIVEWAYS. PROVIDE CITY AND ENGINEER WITH COPIES OF NOTIFICATION PRIOR TO PROPOSED WORK COMMENCING.		6. FINAL LOCATIONS OF ALL VALVE BOXES, WATER QUALITY STATIONS, AIR RELEASE VALVES, BLOWOFFS AND TEST STATIONS SHALL BE FIELD VERIFIED BY OWNER PRIOR TO CONSTRUCTION.		VERTICAL CONTROL IS BASED ON THE CITY OF PORTLAND VERTICAL DATUM, AND WAS ESTABLISHED BY HOLDING CITY BENCHMARK BM 4283 RECORD ELEVATION OF 654.716'.		
D	13. CONTRACTOR SHALL PROTECT TRAFFIC AT ALL TIMES DURING CONSTRUCTION. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED BY CITY, COUNTY AND STATE AS REQUIRED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS TO THE ENGINEER PRIOR TO COMMENCING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.		8. ALL DI FLANGE CONNECTIONS TO BE PROVIDED WITH FULL-FACE GASKETS.		SITE NORTH IS 1.6 DEGREES CCW FROM TRUE NORTH. FACILITY NORTH IS 41 DEGREES CCW FROM TRUE NORTH.		
	14. CONTRACTOR SHALL INSTALL TEMPORARY PROJECT INFORMATION SIGN(S) PER SPECIFICATION 01 10 00 SUMMARY OF WORK. NO WORK SHALL COMMENCE ON THE PROJECT SITE UNTIL THE SIGN(S) ARE INSTALLED.		9. ALL NEW WATERLINE AND APPURTENANCES TO BE BURIED AND INSTALLED IN VAULTS SHALL BE VISUALLY INSPECTED FOR LEAKS.				
	15. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER 48 HOURS BEFORE STARTING CONSTRUCTION, AND 24 HOURS BEFORE RESUMING WORK AFTER SHUTDOWNS EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS, SUNDAYS, OR HOLIDAYS. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE A MINIMUM OF 48 HOURS PRIOR TO ANY TESTING OR REQUIRED INSPECTION.		10. THE USE OF CONCRETE THRUST BLOCKS IS ALLOWED ONLY WHERE SHOWN ON PLANS. REQUIRED THRUST RESTRAINT IN ALL OTHER LOCATIONS WILL BE ACCOMPLISHED WITH APPROVED JOINT RESTRAINT SYSTEM.				
	16. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE PLANS AND PROJECT SPECIFICATIONS.		11. PIPE DEFLECTION IS LIMITED TO THE ONE-HALF OF THE MANUFACTURER'S RECOMMENDATIONS.				
17. ANY ALTERATION OR VARIANCE FROM THESE PLANS, EXCEPT MINOR FIELD ADJUSTMENT NEEDED TO MEET EXISTING FIELD CONDITIONS, SHALL FIRST BE APPROVED BY THE ENGINEER. ANY ALTERATIONS OR VARIANCE FROM THESE PLANS SHALL BE DOCUMENTED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER. ANY PROPOSED CHANGES IN CONSTRUCTION PLANS MUST BE SUBMITTED IN WRITING AND APPROVED BY ENGINEER PRIOR TO COMMENCING WORK.			12. BEGINNING AND ENDING JOINT DEFLECTION LABELS ARE NOT INCLUDED FOR PIPE SIZES EQUAL TO OR LESS THAN 12-INCHES IN DIAMETER. SEE THE SPECIFICATIONS AND MANUFACTURERS INSTALLATION REQUIREMENTS FOR THE VARYING ALLOWABLE DEGREES OF JOINT DEFLECTION PER PIPE SIZE.				
18. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED OR REPLACED MATERIAL AND EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, EXCEPT THOSE ITEMS DESIGNATED BY THE OWNER FOR SALVAGING. SALVAGED ITEMS SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE CAREFULLY REMOVED AND STORED AS DIRECTED.			13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PROPER SEPARATION BETWEEN SANITARY SEWER LINES AND WATERLINES AS REQUIRED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AND OREGON HEALTH AUTHORITY, UNLESS OTHERWISE NOTED ON THE DRAWINGS.				
19. THE ENGINEER MAY, AT THEIR DISCRETION, REQUIRE TESTS AND/OR REPORTS FROM THE			14. ALL WATERLINES SHALL BE THOROUGHLY FLUSHED AND CHLORINATED ACCORDING TO AWWA C651. POTABLE WATER TEST SHALL BE COMPLETED BY THE CITY FOLLOWING THE OREGON HEALTH AUTHORITY AND CITY POLICIES, PRIOR TO CONNECTION TO THE EXISTING WATER SYSTEM. REFER TO SPECIFICATION 33 13 00 TESTING AND DISINFECTING FOR FURTHER REQUIREMENTS.				
			15. CONTRACTOR SHALL COMPLY WITH ALL OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) REQUIREMENTS IN THE DISPOSAL OF CHLORINATED WATER. REEFER TO SPECIFICATION 33 13 00 TESTING AND DISINFECTING FOR WATER UTILITY PIPING.				
			16. ALL WATERLINES AND SERVICES SHALL BE PRESSURE TESTED ACCORDING TO AWWA C600 EXCEPT AS NOTED. CONTRACTOR SHALL PRESSURIZE THE WATERLINES TO 150 PSI, OR 1.5 TIMES THE NORMAL WORKING PRESSURE, WHICHEVER IS HIGHER, FOR TWO (2) HOURS. A CITY OF SANDY INSPECTOR SHALL WITNESS THE TEST.				
			17. PROVIDE POLYETHYLENE ENCASEMENT FOR ALL WATER PIPE ACCORDING TO ANSI/AWWA, UNLESS OTHERWISE NOTED.				
 This document, ideas, and designs incorporated herein, are an instrument of professional service, and is not to be used, in whole or in part, for any other project without the written authorization of Consor.		Consultant:	Engineer's Seal:	Client / Owner:	Project Title:	Drawing Title:	
			PRELIMINARY NOT FOR CONSTRUCTION		CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	GENERAL GENERAL NOTES	Designed By: BKH/NEA Drawn By: MBE Checked By: AJC Approved By: EPK
							Consor Project No.: W232464OR Issued On: JULY 2025 Drawing No.: G-003 0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE

Plot Date: 29-JUL-2026 14:45 User: jason
File: Pumpstation-L-101.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PenTable.pen PlotScale: 1:0.0833333



KEY PLAN



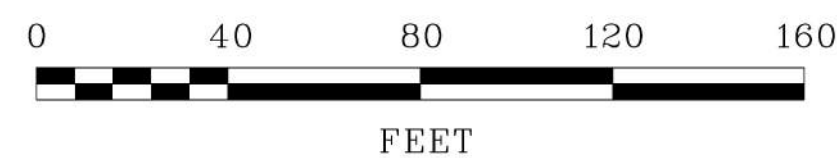
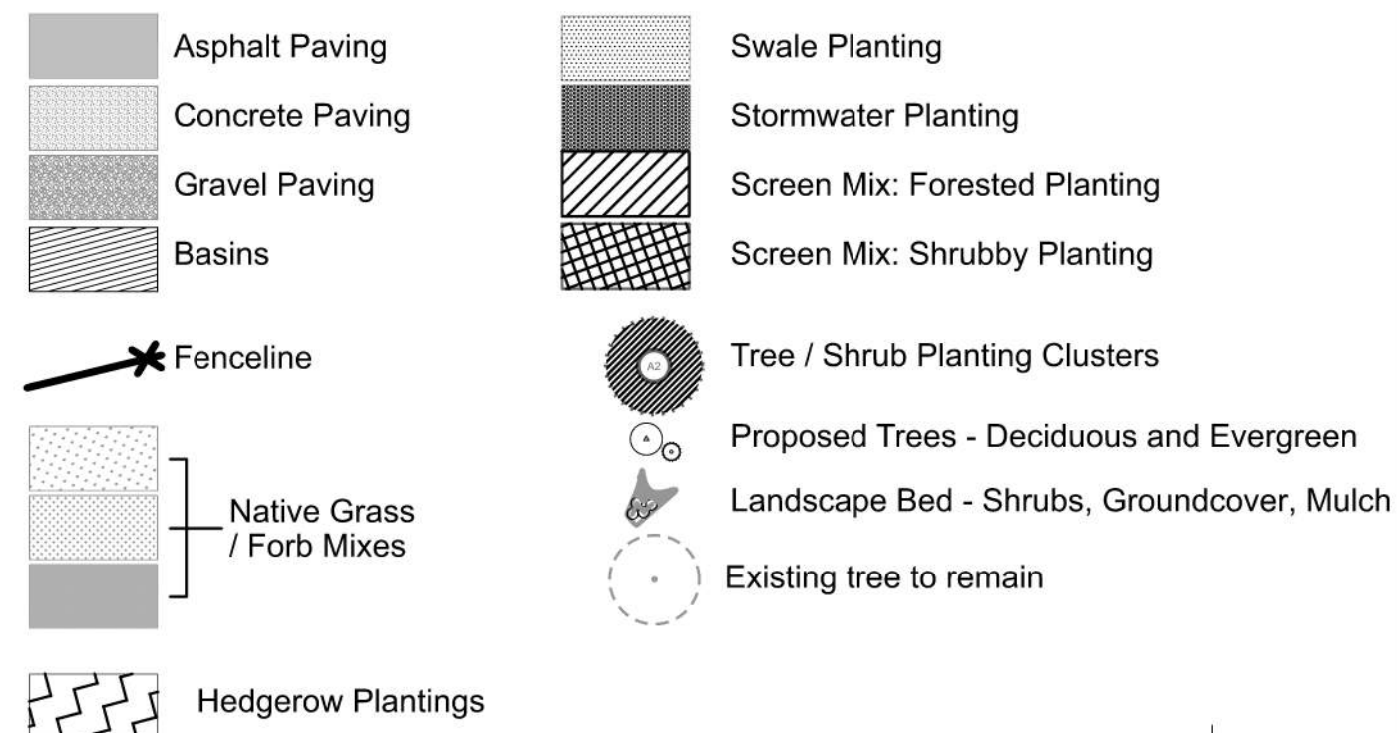
Sheet Keynotes

- | | |
|--------------------------------|--|
| 1. Carpenter Lane Entry | 26. Finish Water Clearwell (Below Grade) |
| 2. Main Facility Entry Gates | 27. City of Sandy Pumpstation |
| 3. North PGE Electrical Cutout | 28. West Screening Berm |
| 4. Septic Structure (At Grade) | 29. Easement on PWB Property (To Remain) |
| 5. Septic Drainage Field | 46. No Parking Sign |

General Sheet Notes

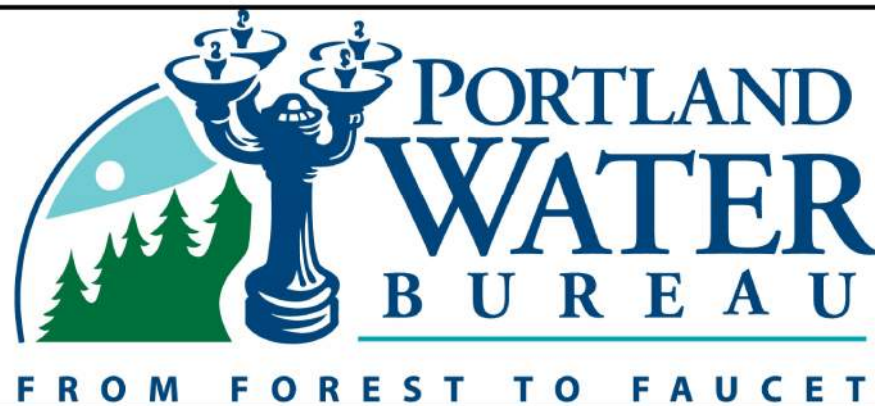
- Site is Zoned MUA-20
- No development or construction activity proposed within SEC zones on Filtration Site. Revegetation of existing agricultural land to be performed with hand tools only. Native plant species only allowed for revegetation in these zones
- No development or construction activity proposed within Geohazard Area on Filtration Site.

Legend



Designed By	NNA	Design Mgr	NNA
Drawn By	NNA	Const Mgr	NNA
Checked By	NNA	CM/I Engr Mgr	NNA
Project Mgr	NNA	Date	XX/XX/XX

Warning
0 1/2 1
If this bar does not measure 1" then the drawing is not to scale



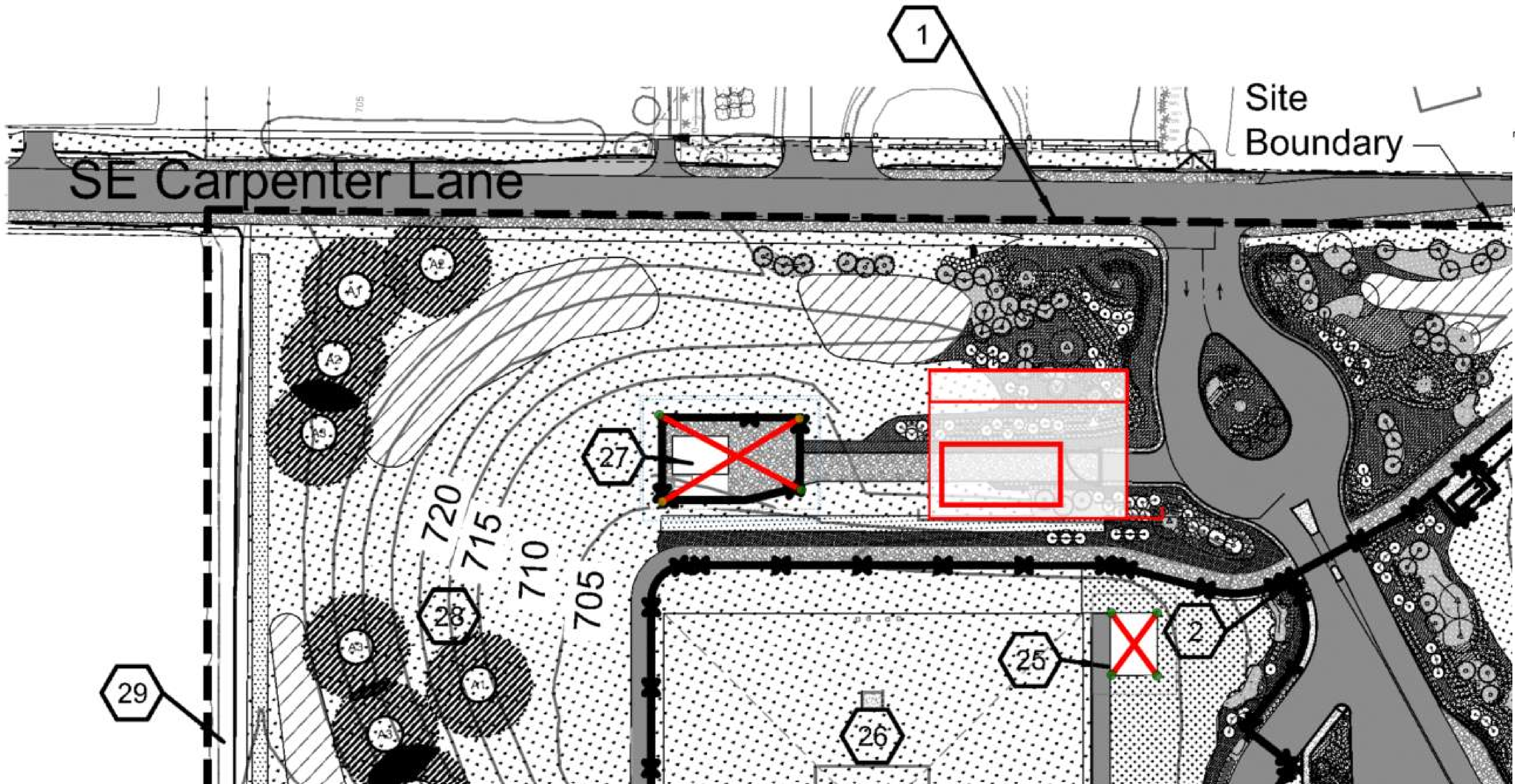
David W. Peters, Engineering Manager, PE No 16683



Bull Run Filtration Facility
Land Use Plans
Proposed Conditions Site Plan Enlargement
Sandy Pumpstation w/ Site Boundary

SAP Project No
W02229
1/4 Section
Sheet No
L-100

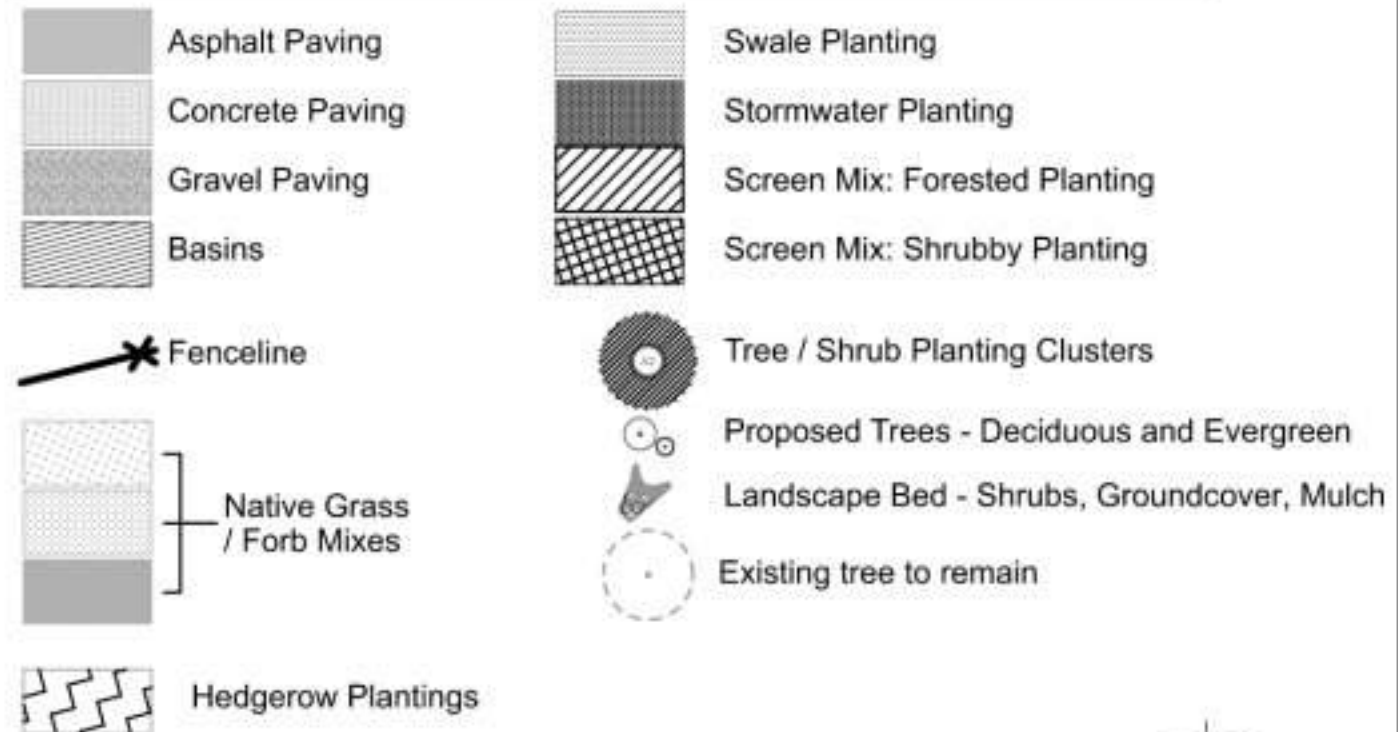
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File: Pumpstation-L-101.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PenTable.pen PlotScale: 1:0.0833333



KEY PLAN



Legend



Site North

CF No	Date	Description	MRG Appd
05/10/24	05/10/24	For Conformed Documents	MRG
Revision			
Survey			



Designed By	NNA	Design Mgr	NNA
Drawn By	NNA	Const Mgr	NNA
Checked By	NNA	CM/Engr Mgr	NNA
Project Mgr	NNA	Date	XX/XX/XX

Warning
0 1/2 1
If this bar does not measure 1" then the drawing is not to scale



David W. Peters, Engineering Manager, PE No 16683



Bull Run Filtration Facility

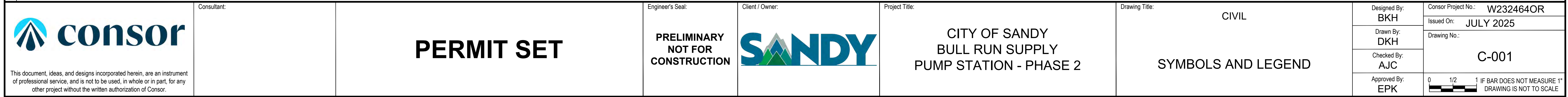
Land Use Plans

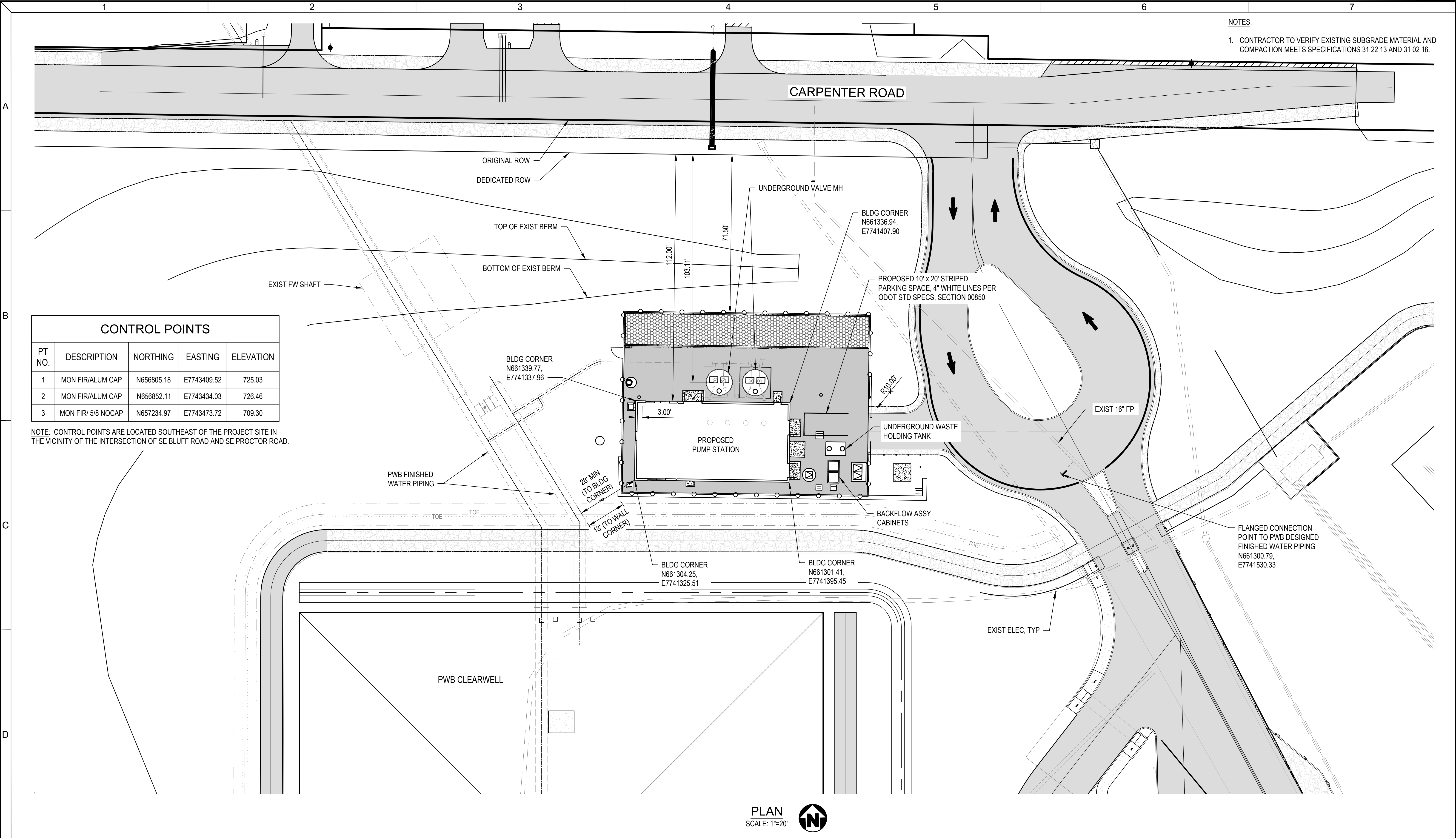
Proposed Sandy Pump Station
(PHWD and Firep Pump Stations Removed)

SAP Project No
W02229

1/4 Section

Sheet No

[illegible]



NOTES:
1. CONTRACTOR TO VERIFY EXISTING SUBGRADE MATERIAL AND COMPACTION MEETS SPECIFICATIONS 31 22 13 AND 31 02 16.

CONTROL POINTS				
PT NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	MON FIR/ALUM CAP	N656805.18	E7743409.52	725.03
2	MON FIR/ALUM CAP	N656852.11	E7743434.03	726.46
3	MON FIR/ 5/8 NOCAP	N657234.97	E7743473.72	709.30

NOTE: CONTROL POINTS ARE LOCATED SOUTHEAST OF THE PROJECT SITE IN THE VICINITY OF THE INTERSECTION OF SE BLUFF ROAD AND SE PROCTOR ROAD.



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Consultant:

PERMIT SET

Engineer's Seal:
**PRELIMINARY
NOT FOR
CONSTRUCTION**



Client / Owner:

Project Title:

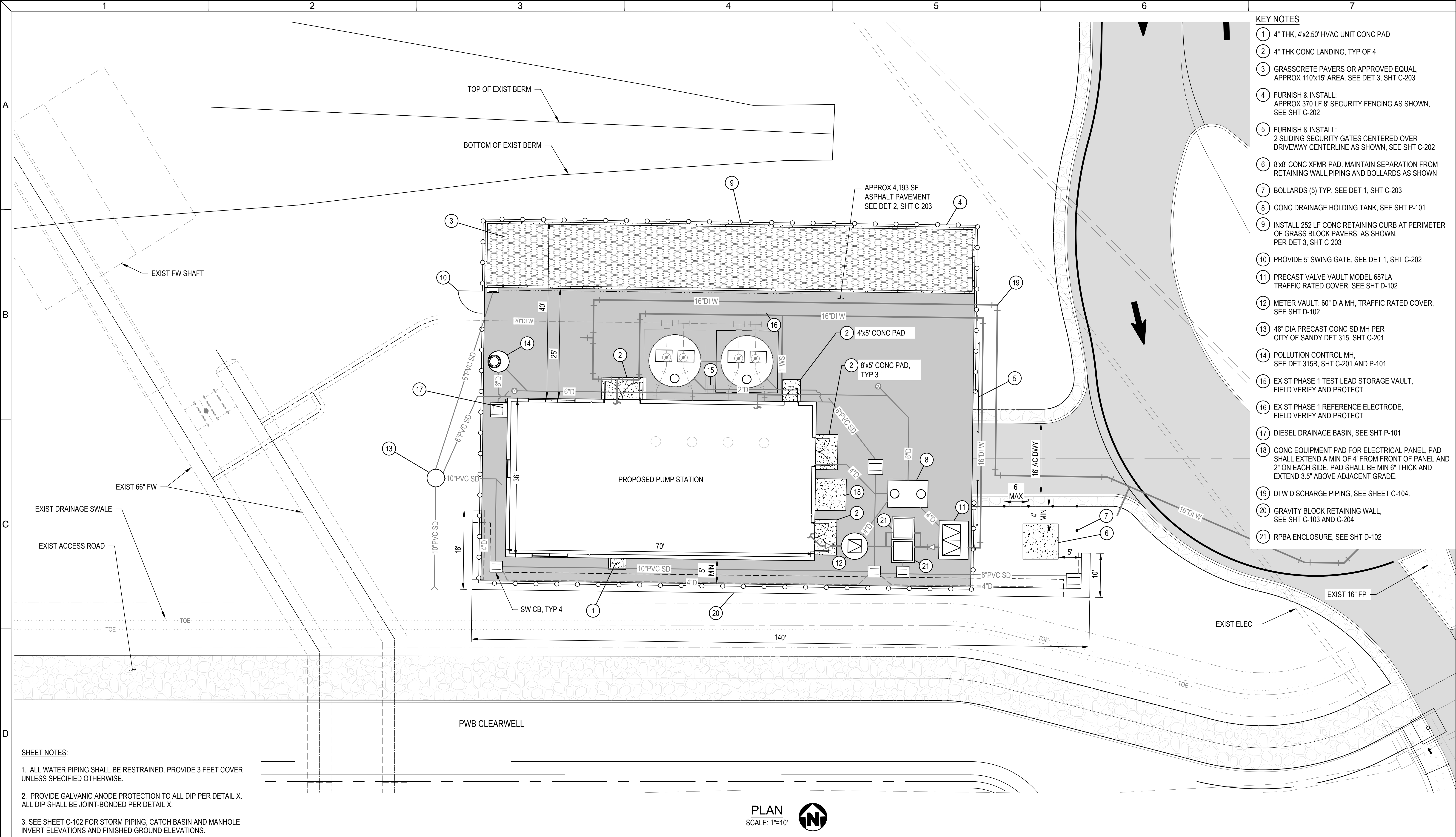
**CITY OF SANDY
BULL RUN SUPPLY
PUMP STATION - PHASE 2**

Drawing Title:

CIVIL

SITE PLAN CONTROL

Designed By: WRK	Consor Project No.: W232464OR
Drawn By: MBE	Issued On: JANUARY 2026
Checked By: BES	Drawing No.: C-100
Approved By: EPK	0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE



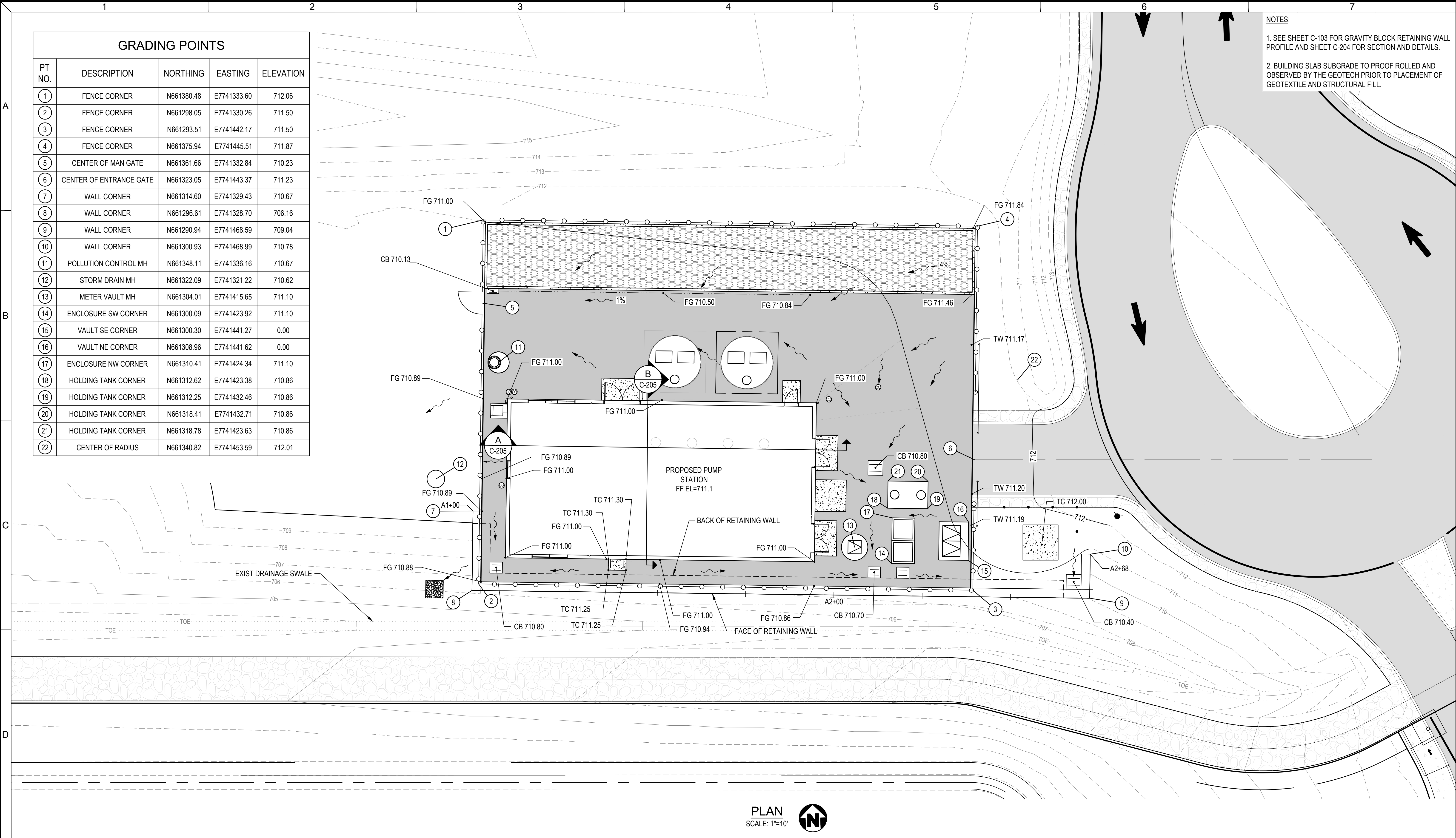
- KEY NOTES**
- ① 4" THK, 4'x2.50' HVAC UNIT CONC PAD
 - ② 4" THK CONC LANDING, TYP OF 4
 - ③ GRASSCRETE PAVERS OR APPROVED EQUAL, APPROX 110'x15' AREA. SEE DET 3, SHT C-203
 - ④ FURNISH & INSTALL: APPROX 370 LF 8' SECURITY FENCING AS SHOWN, SEE SHT C-202
 - ⑤ FURNISH & INSTALL: 2 SLIDING SECURITY GATES CENTERED OVER DRIVEWAY CENTERLINE AS SHOWN, SEE SHT C-202
 - ⑥ 8'x8' CONC XFMR PAD. MAINTAIN SEPARATION FROM RETAINING WALL, PIPING AND BOLLARDS AS SHOWN
 - ⑦ BOLLARDS (5) TYP, SEE DET 1, SHT C-203
 - ⑧ CONC DRAINAGE HOLDING TANK, SEE SHT P-101
 - ⑨ INSTALL 252 LF CONC RETAINING CURB AT PERIMETER OF GRASS BLOCK PAVERS, AS SHOWN, PER DET 3, SHT C-203
 - ⑩ PROVIDE 5' SWING GATE, SEE DET 1, SHT C-202
 - ⑪ PRECAST VALVE VAULT MODEL 687LA TRAFFIC RATED COVER, SEE SHT D-102
 - ⑫ METER VAULT: 60" DIA MH, TRAFFIC RATED COVER, SEE SHT D-102
 - ⑬ 48" DIA PRECAST CONC SD MH PER CITY OF SANDY DET 315, SHT C-201
 - ⑭ POLLUTION CONTROL MH, SEE DET 315B, SHT C-201 AND P-101
 - ⑮ EXIST PHASE 1 TEST LEAD STORAGE VAULT, FIELD VERIFY AND PROTECT
 - ⑯ EXIST PHASE 1 REFERENCE ELECTRODE, FIELD VERIFY AND PROTECT
 - ⑰ DIESEL DRAINAGE BASIN, SEE SHT P-101
 - ⑱ CONC EQUIPMENT PAD FOR ELECTRICAL PANEL, PAD SHALL EXTEND A MIN OF 4" FROM FRONT OF PANEL AND 2" ON EACH SIDE. PAD SHALL BE MIN 6" THICK AND EXTEND 3.5' ABOVE ADJACENT GRADE.
 - ⑲ DI W DISCHARGE PIPING, SEE SHEET C-104.
 - ⑳ GRAVITY BLOCK RETAINING WALL, SEE SHT C-103 AND C-204
 - ㉑ RPBA ENCLOSURE, SEE SHT D-102

- SHEET NOTES:**
- 1. ALL WATER PIPING SHALL BE RESTRAINED. PROVIDE 3 FEET COVER UNLESS SPECIFIED OTHERWISE.
 - 2. PROVIDE GALVANIC ANODE PROTECTION TO ALL DIP PER DETAIL X. ALL DIP SHALL BE JOINT-BONDED PER DETAIL X.
 - 3. SEE SHEET C-102 FOR STORM PIPING, CATCH BASIN AND MANHOLE INVERT ELEVATIONS AND FINISHED GROUND ELEVATIONS.

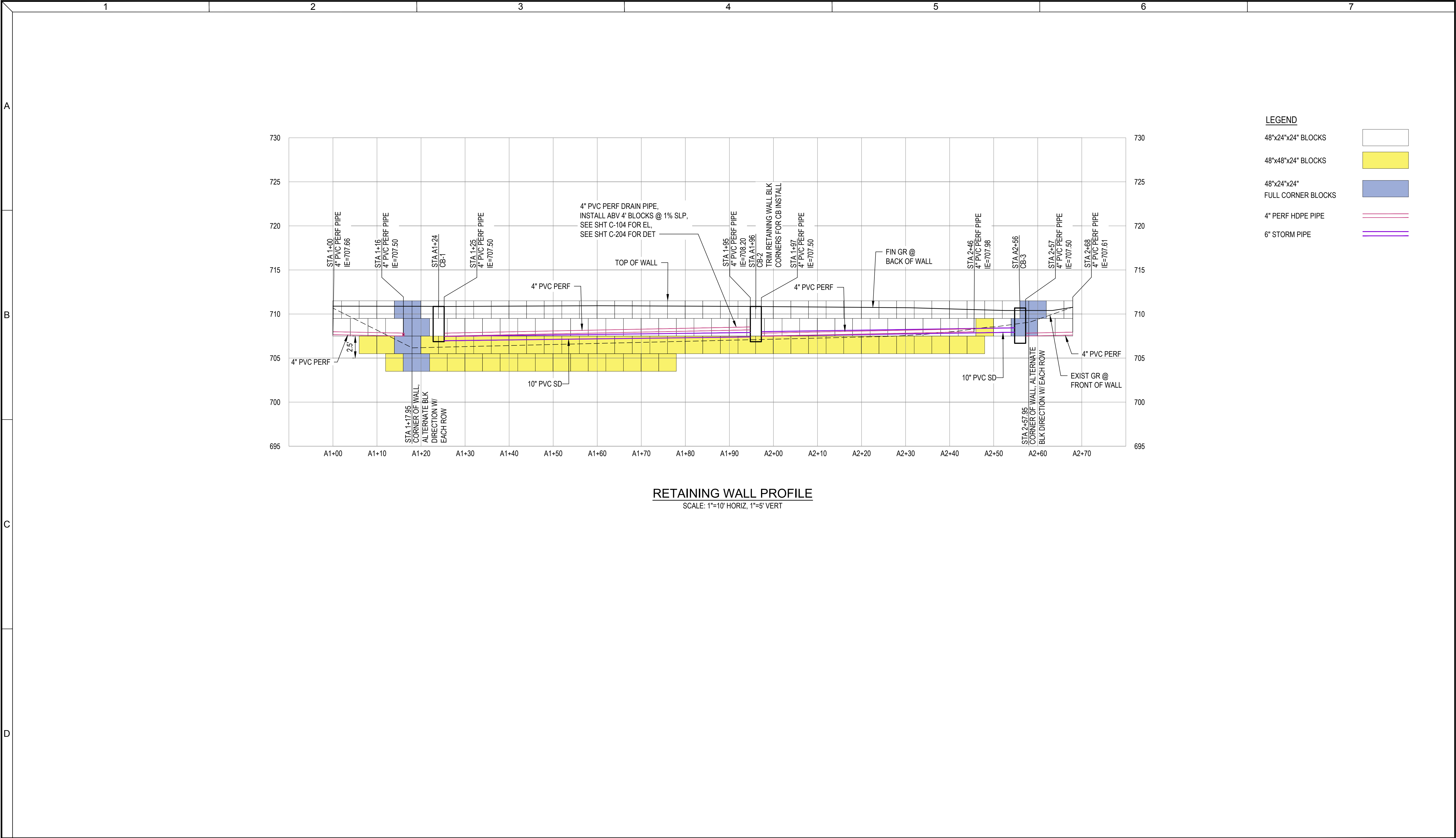
PLAN
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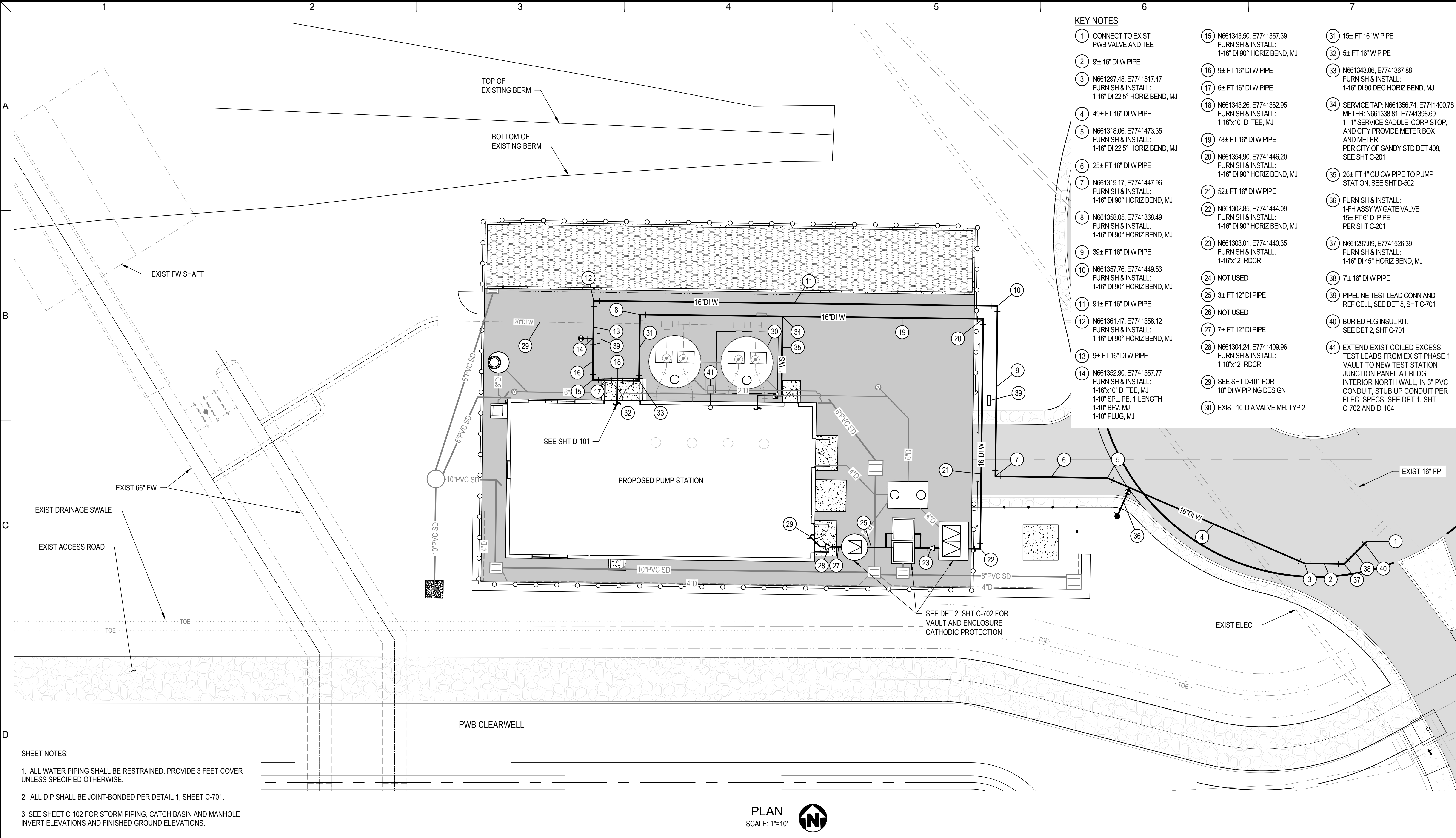


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			PRELIMINARY NOT FOR CONSTRUCTION		CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	CIVIL	WRK	W232464OR
						SITE PLAN	Drawn By:	Issued On:
							MBE	JANUARY 2026
							Checked By:	Drawing No.:
							BES	C-101
							Approved By:	0 1/2 1 IF BAR DOES NOT MEASURE 1"
							EPK	DRAWING IS NOT TO SCALE

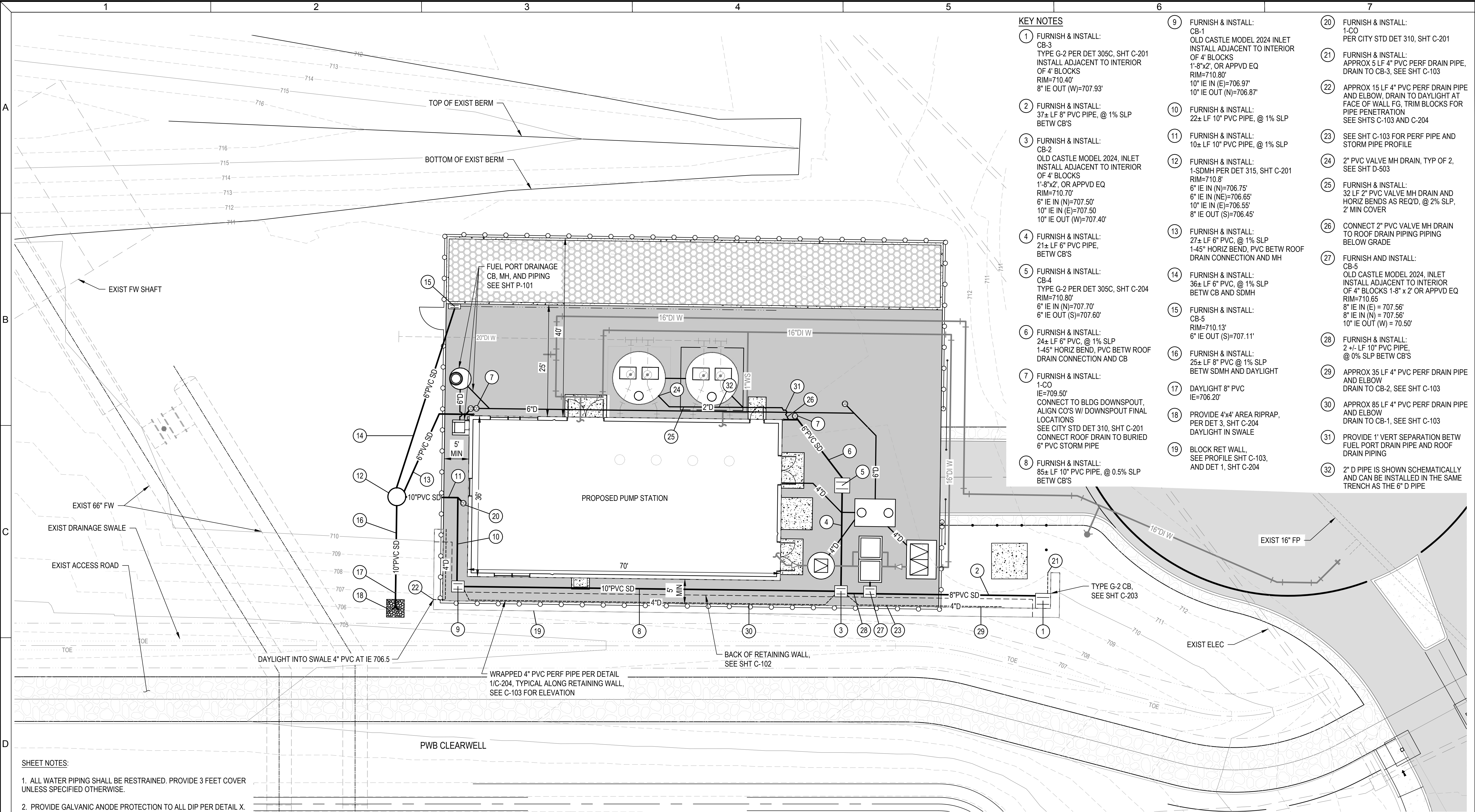


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				Drawn By: MBE			Issued On: JANUARY 2026	
				Checked By: BES			Drawing No.: C-102	
				Approved By: EPK			0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE	





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				PRELIMINARY NOT FOR CONSTRUCTION		CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	CIVIL SITE WATER PLAN	WRK	W232464OR
								Drawn By:	Issued On:
								MBE	JANUARY 2026
								Checked By:	Drawing No.:
			BES	C-104					
			Approved By:				EPK	01/21 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE	

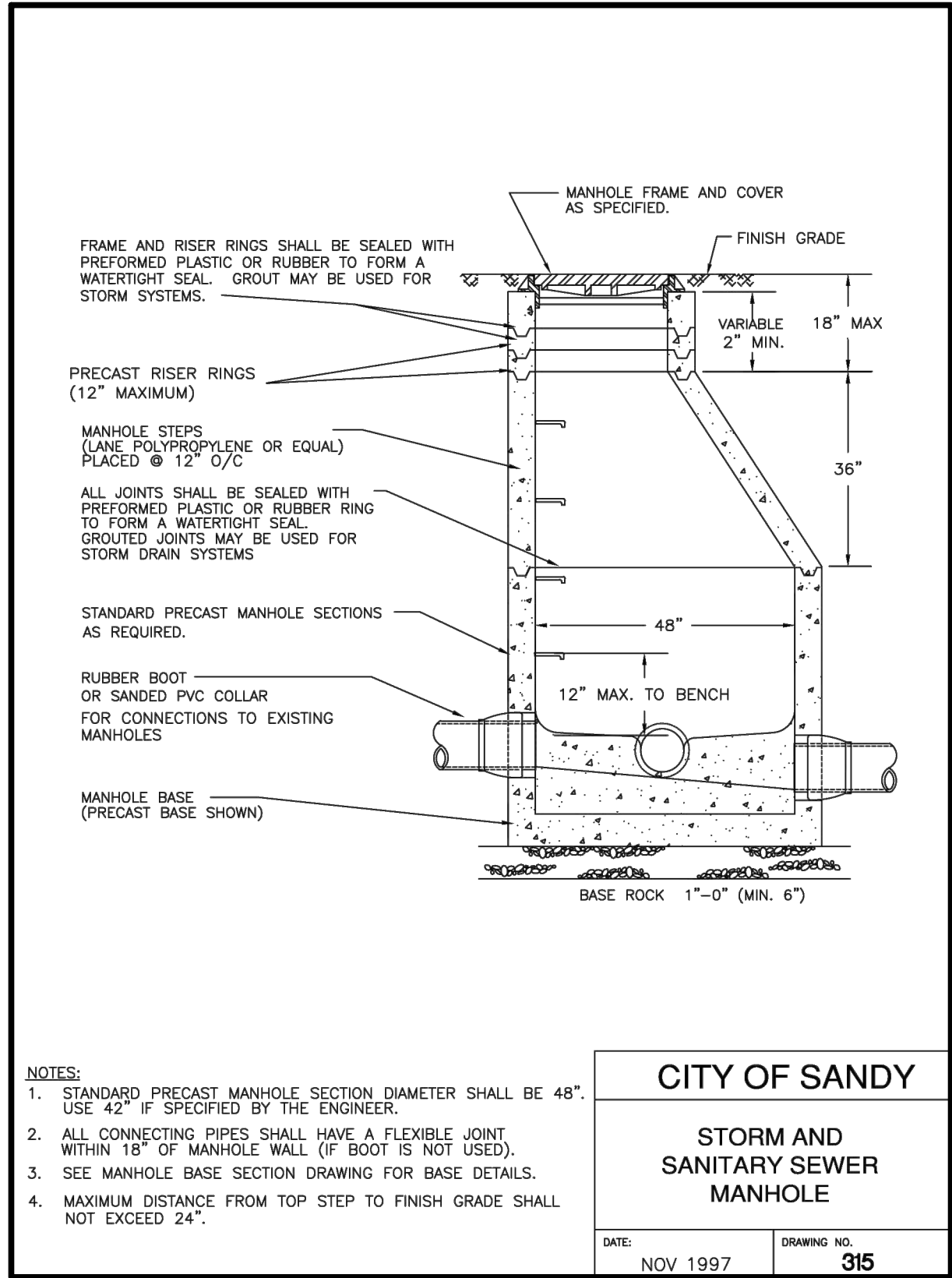
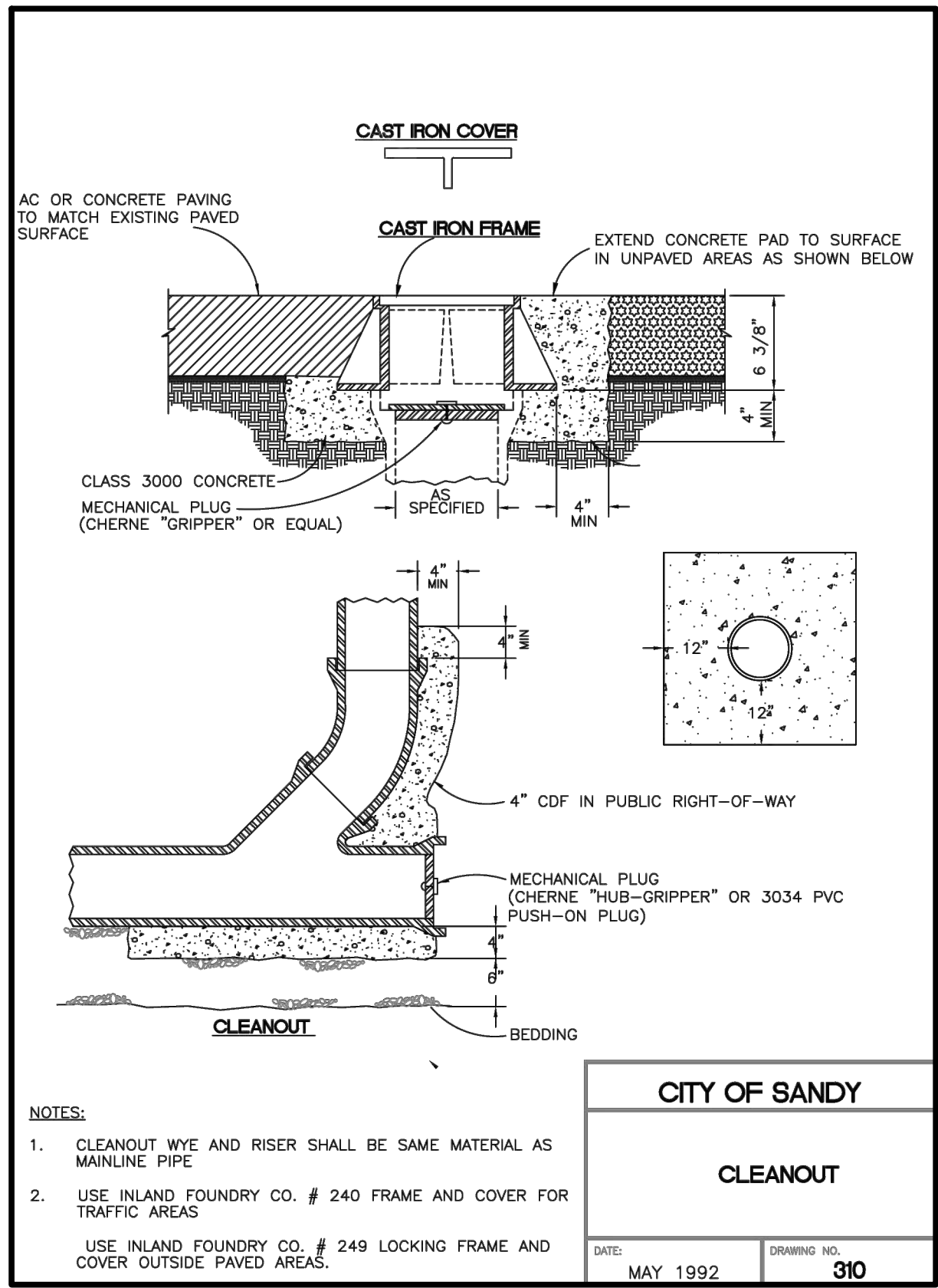
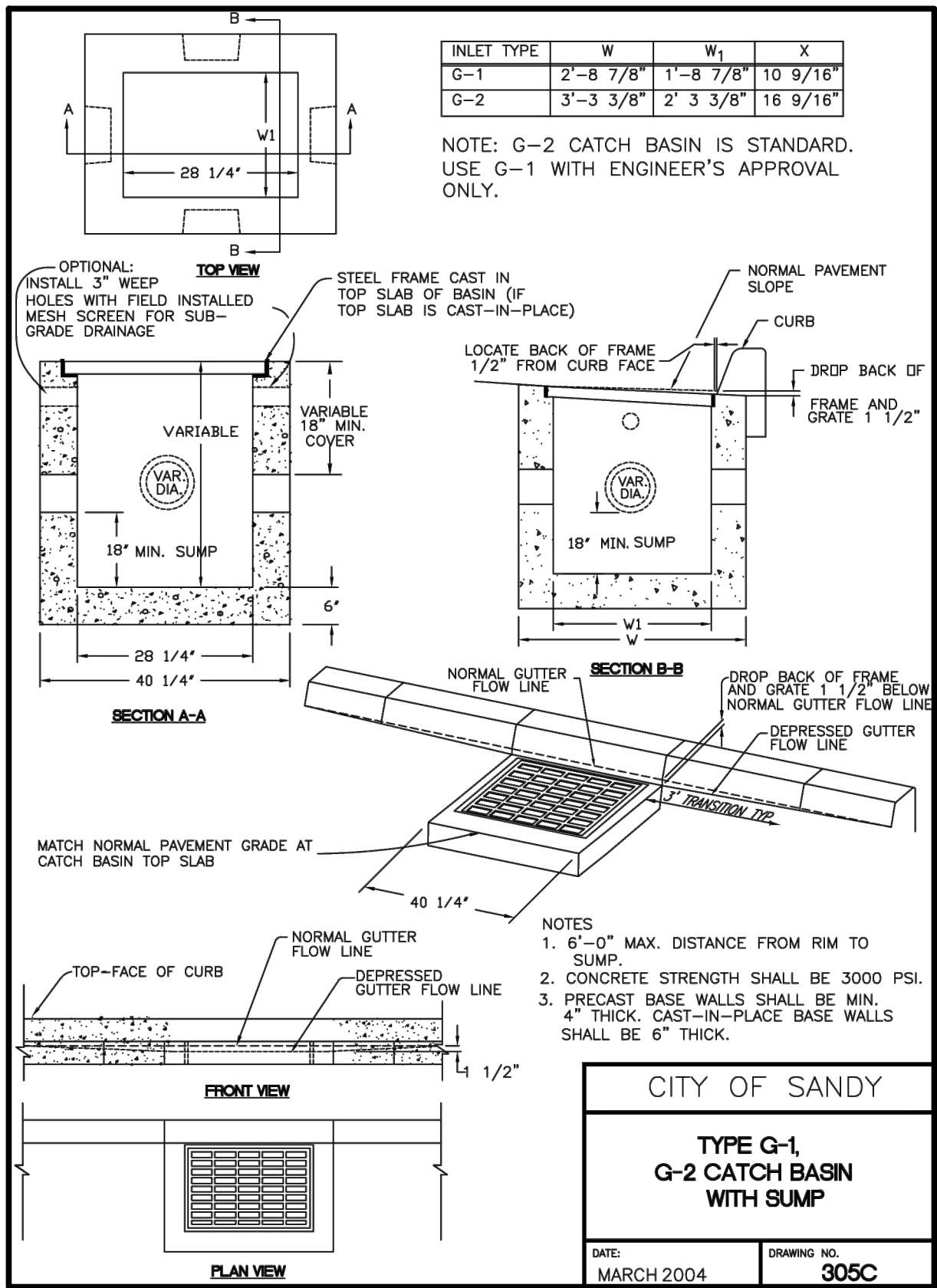
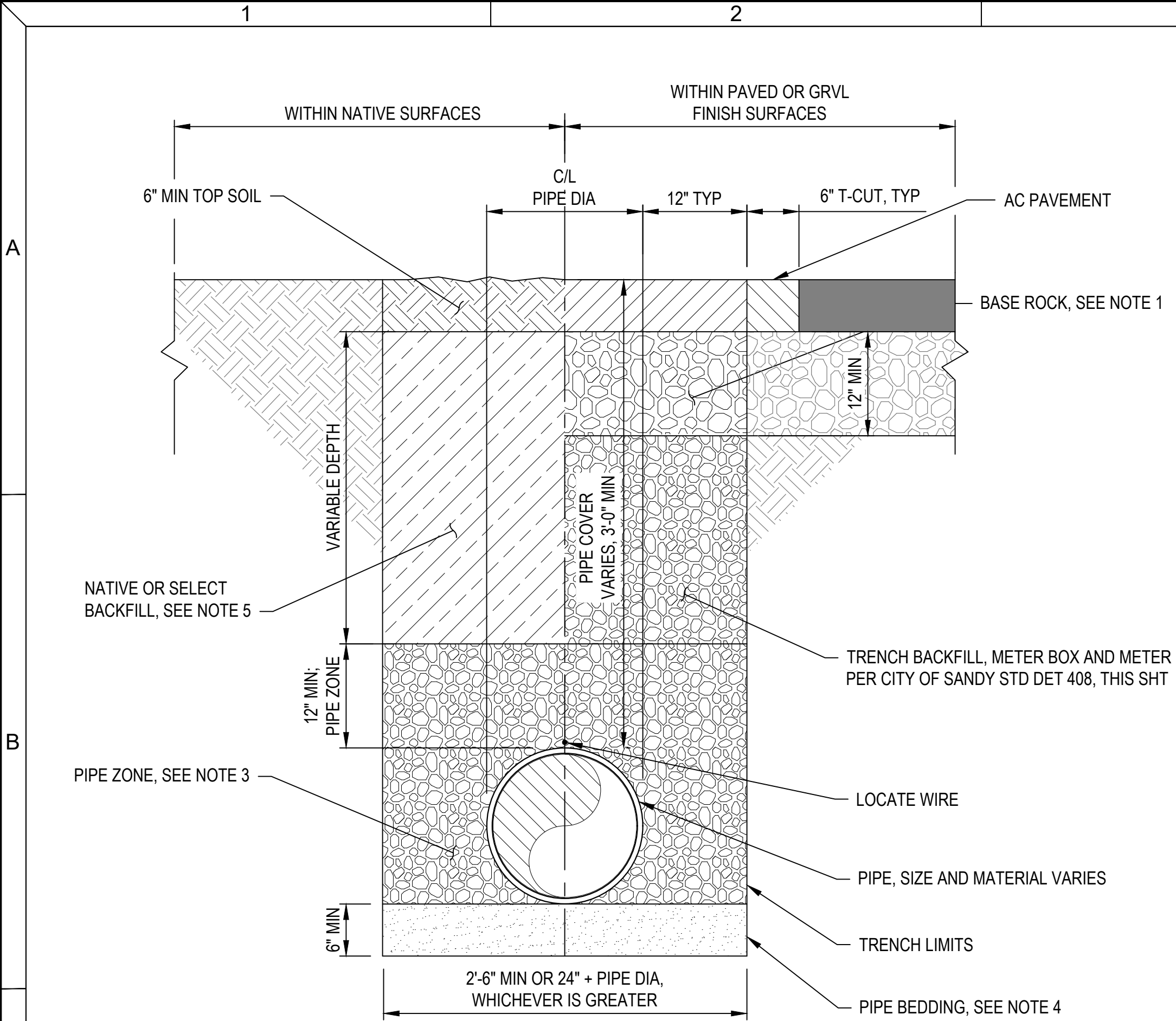


- KEY NOTES**

 - 1 FURNISH & INSTALL:
CB-3
TYPE G-2 PER DET 305C, SHT C-201
INSTALL ADJACENT TO INTERIOR
OF 4' BLOCKS
RIM=710.40'
8" IE OUT (W)=707.93'
 - 2 FURNISH & INSTALL:
37± LF 8" PVC PIPE, @ 1% SLP
BETW CB'S
 - 3 FURNISH & INSTALL:
CB-2
OLD CASTLE MODEL 2024, INLET
INSTALL ADJACENT TO INTERIOR
OF 4' BLOCKS
1'-8"x2", OR APPVD EQ
RIM=710.70'
6" IE IN (N)=707.50'
10" IE IN (E)=707.50
10" IE OUT (W)=707.40'
 - 4 FURNISH & INSTALL:
21± LF 6" PVC PIPE,
BETW CB'S
 - 5 FURNISH & INSTALL:
CB-4
TYPE G-2 PER DET 305C, SHT C-204
RIM=710.80'
6" IE IN (N)=707.70'
6" IE OUT (S)=707.60'
 - 6 FURNISH & INSTALL:
24± LF 6" PVC, @ 1% SLP
1-45° HORIZ BEND, PVC BETW ROOF
DRAIN CONNECTION AND CB
 - 7 FURNISH & INSTALL:
1-CO
IE=709.50'
CONNECT TO BLDG DOWNSPOUT,
ALIGN CO'S W/ DOWNSPOUT FINAL
LOCATIONS
SEE CITY STD DET 310, SHT C-201
CONNECT ROOF DRAIN TO BURIED
6" PVC STORM PIPE
 - 8 FURNISH & INSTALL:
85± LF 10" PVC PIPE, @ 0.5% SLP
BETW CB'S
 - 9 FURNISH & INSTALL:
CB-1
OLD CASTLE MODEL 2024 INLET
INSTALL ADJACENT TO INTERIOR
OF 4' BLOCKS
1'-8"x2", OR APPVD EQ
RIM=710.80'
10" IE IN (E)=706.97'
10" IE OUT (N)=706.87'
 - 10 FURNISH & INSTALL:
22± LF 10" PVC PIPE, @ 1% SLP
 - 11 FURNISH & INSTALL:
10± LF 10" PVC PIPE, @ 1% SLP
 - 12 FURNISH & INSTALL:
1-SDMH PER DET 315, SHT C-201
RIM=710.8'
6" IE IN (N)=706.75'
6" IE IN (NE)=706.65'
10" IE IN (E)=706.55'
8" IE OUT (S)=706.45'
 - 13 FURNISH & INSTALL:
27± LF 6" PVC, @ 1% SLP
1-45° HORIZ BEND, PVC BETW ROOF
DRAIN CONNECTION AND MH
 - 14 FURNISH & INSTALL:
36± LF 6" PVC, @ 1% SLP
BETW CB AND SDMH
 - 15 FURNISH & INSTALL:
CB-5
RIM=710.13'
6" IE OUT (S)=707.11'
 - 16 FURNISH & INSTALL:
25± LF 8" PVC @ 1% SLP
BETW SDMH AND DAYLIGHT
 - 17 DAYLIGHT 8" PVC
IE=706.20'
 - 18 PROVIDE 4'x4' AREA RIPRAP,
PER DET 3, SHT C-204
DAYLIGHT IN SWALE
 - 19 BLOCK RET WALL,
SEE PROFILE SHT C-103,
AND DET 1, SHT C-204
 - 20 FURNISH & INSTALL:
1-CO
PER CITY STD DET 310, SHT C-201
 - 21 FURNISH & INSTALL:
APPROX 5 LF 4" PVC PERF DRAIN PIPE,
DRAIN TO CB-3, SEE SHT C-103
 - 22 APPROX 15 LF 4" PVC PERF DRAIN PIPE
AND ELBOW, DRAIN TO DAYLIGHT AT
FACE OF WALL FG, TRIM BLOCKS FOR
PIPE PENETRATION
SEE SHTS C-103 AND C-204
 - 23 SEE SHT C-103 FOR PERF PIPE AND
STORM PIPE PROFILE
 - 24 2" PVC VALVE MH DRAIN, TYP OF 2,
SEE SHT D-503
 - 25 FURNISH & INSTALL:
32 LF 2" PVC VALVE MH DRAIN AND
HORIZ BENDS AS REQ'D, @ 2% SLP,
2' MIN COVER
 - 26 CONNECT 2" PVC VALVE MH DRAIN
TO ROOF DRAIN PIPING PIPING
BELOW GRADE
 - 27 FURNISH AND INSTALL:
CB-5
OLD CASTLE MODEL 2024, INLET
INSTALL ADJACENT TO INTERIOR
OF 4' BLOCKS 1-8" x 2' OR APPVD EQ
RIM=710.65
8" IE IN (E) = 707.56'
8" IE IN (N) = 707.56'
10" IE OUT (W) = 70.50'
 - 28 FURNISH & INSTALL:
2 +/- LF 10" PVC PIPE,
@ 0% SLP BETW CB'S
 - 29 APPROX 35 LF 4" PVC PERF DRAIN PIPE
AND ELBOW
DRAIN TO CB-2, SEE SHT C-103
 - 30 APPROX 85 LF 4" PVC PERF DRAIN PIPE
AND ELBOW
DRAIN TO CB-1, SEE SHT C-103
 - 31 PROVIDE 1' VERT SEPARATION BETW
FUEL PORT DRAIN PIPE AND ROOF
DRAIN PIPING
 - 32 2" D PIPE IS SHOWN SCHEMATICALLY
AND CAN BE INSTALLED IN THE SAME
TRENCH AS THE 6" D PIPE

- SHEET NOTES:**
- 1. ALL WATER PIPING SHALL BE RESTRAINED. PROVIDE 3 FEET COVER UNLESS SPECIFIED OTHERWISE.
 - 2. PROVIDE GALVANIC ANODE PROTECTION TO ALL DIP PER DETAIL X. ALL DIP SHALL BE JOINT-BONDED PER DETAIL X.
 - 3. SEE SHEET C-102 FOR STORM PIPING, CATCH BASIN AND MANHOLE INVERT ELEVATIONS AND FINISHED GROUND ELEVATIONS.

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							Drawn By:	Issued On:
							MBE	JANUARY 2026
							Checked By:	Drawing No.:
							BES	C-105
							Approved By:	0 1/2 1 IF BAR DOES NOT MEASURE 1"
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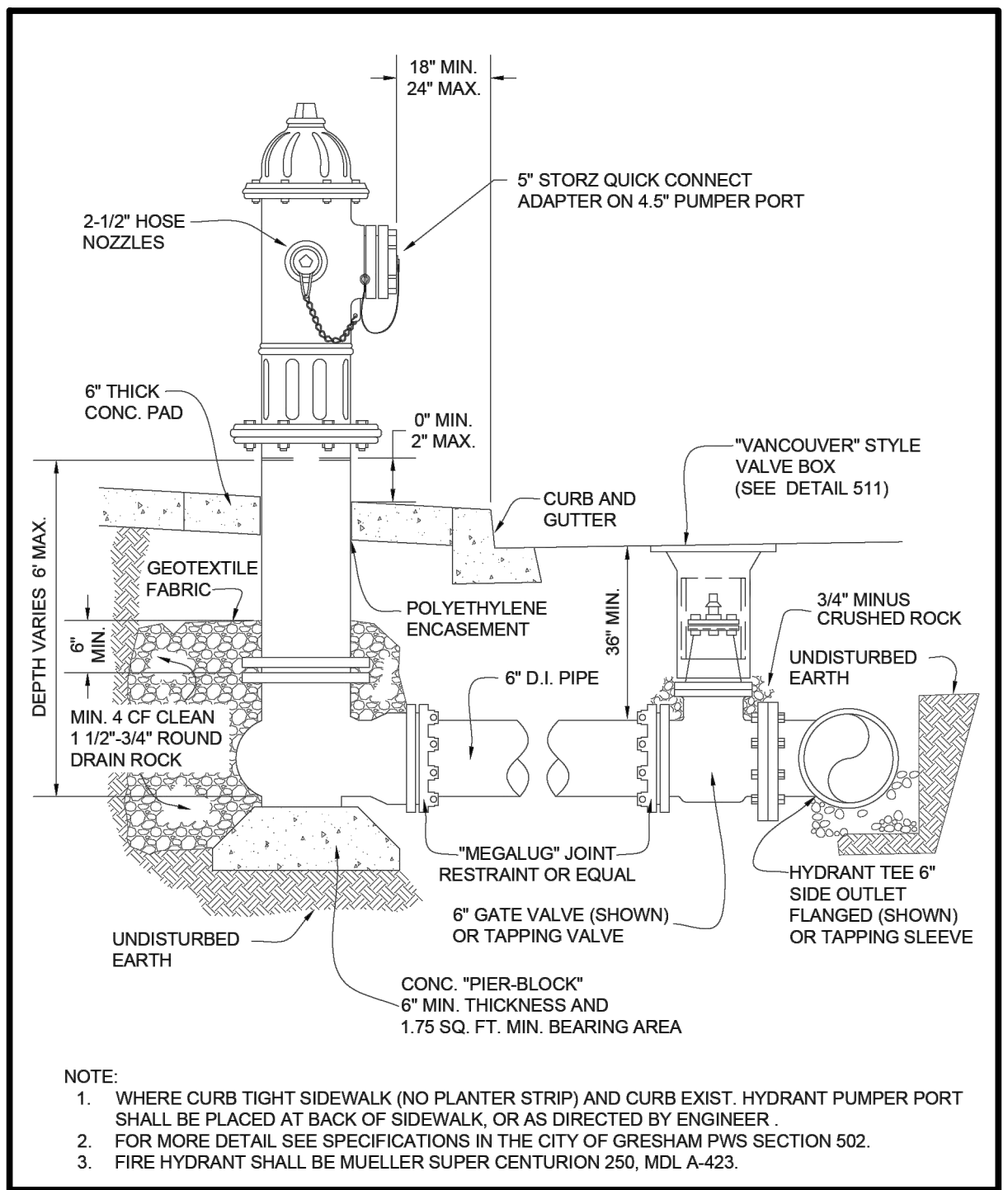
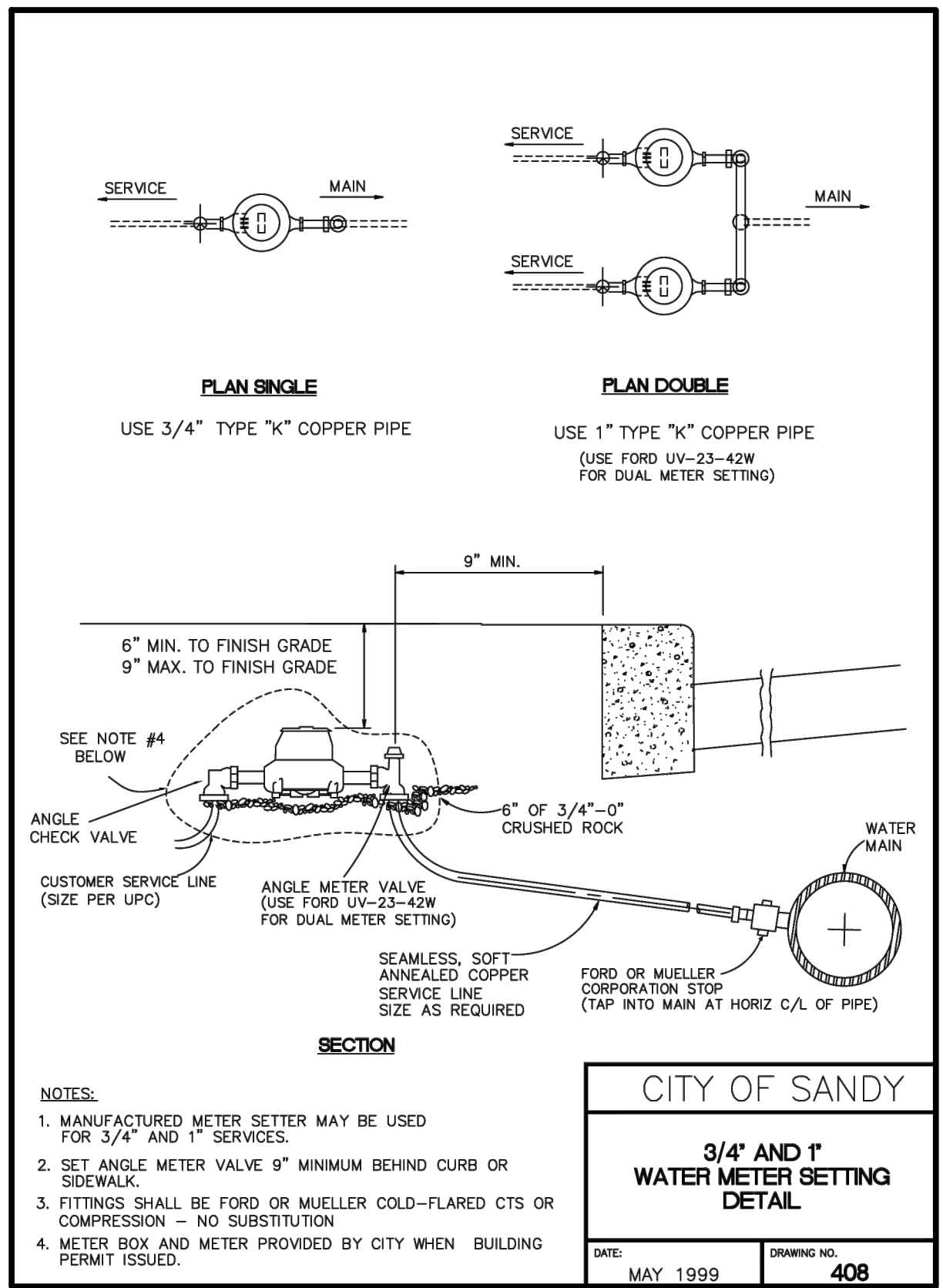
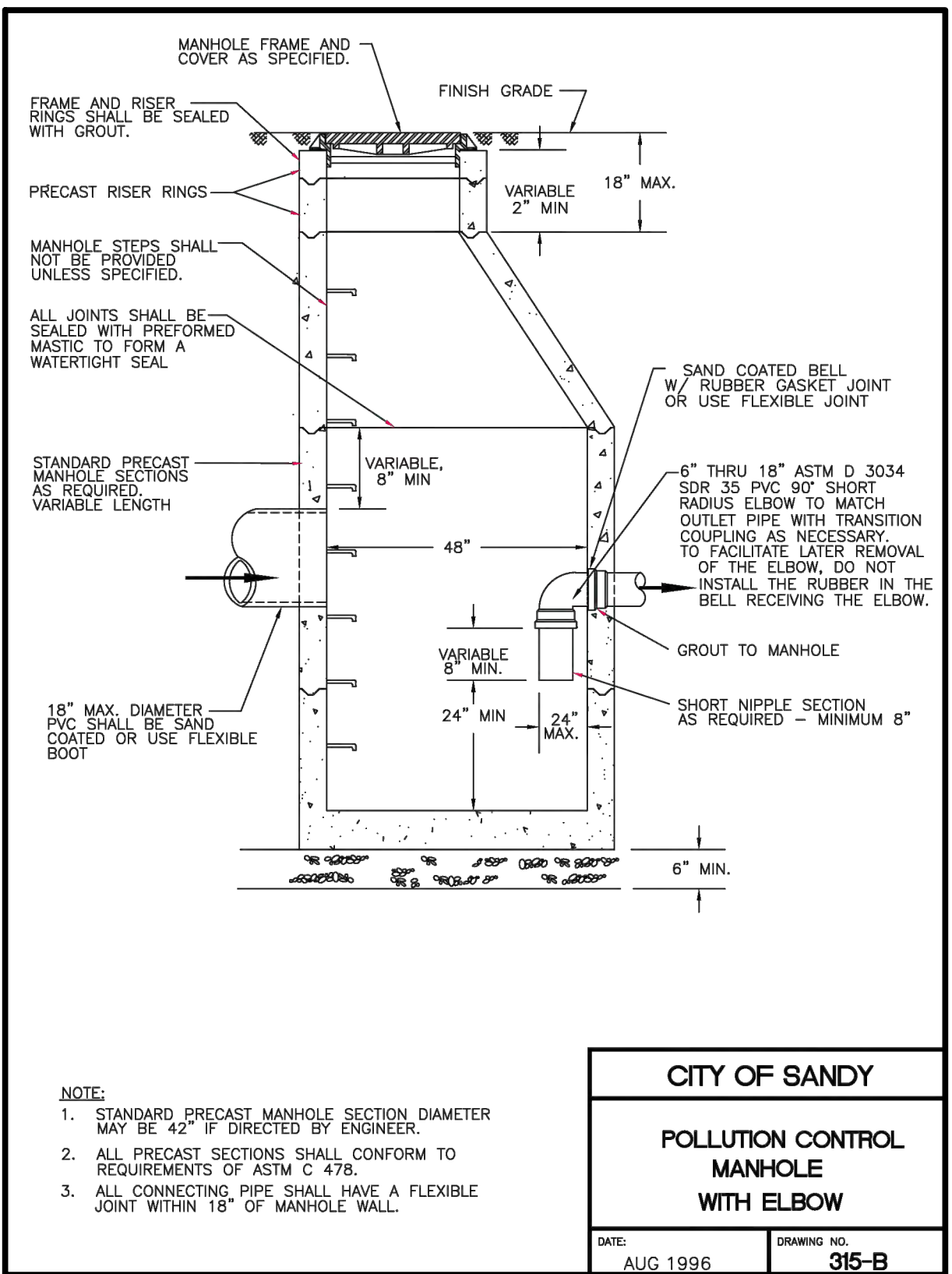


NOTES:

- BASE ROCK, 3/4"-0", CRUSHED AGGREGATE, PLACED IN 2 LIFTS, COMPACTED TO 95% OPTIMUM DENSITY.
- TRENCH BACKFILL, 3/4"-0" CRUSHED AGGREGATE, OR APPROVED IMPORTED GRANULAR BACKFILL COMPACTED TO 95% OPTIMUM DENSITY (ASTM D698).
- HAND TAMPED PIPE ZONE BACKFILL, 3/4"-0" CRUSHED AGGREGATE, OR APPROVED IMPORTED GRANULAR MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (ASTM D698).
- PIPE BEDDING, 3/4"-0" CRUSHED AGGREGATE.
- APPROVED NATIVE OR SELECT BACKFILL. USE CLSM WHERE SPECIFIED AND WHERE REQUIRED BY THE ENGINEER, 90% OPTIMUM DENSITY (ASTM D698).

1 TYPICAL SINGLE TRENCH SECTION

SCALE: NTS



2 FIRE HYDRANT

SCALE: NTS



Consultant:

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Drawing Path and Name: A:\VWP\Projects\OR\Sandy\2023\W232464OR\0012 CADD\12-5 Sheets\1-Pump Station\W232464OR_C-201.dwg, Plotted Date: July 10, 2025 2:44 PM By: Derek Cloud

PERMIT SET

Engineer's Seal:

PRELIMINARY
NOT FOR
CONSTRUCTION

Client / Owner:



Project Title:

CITY OF SANDY
BULL RUN SUPPLY
PUMP STATION - PHASE 2

Drawing Title:

CIVIL

CIVIL DETAILS - 1

Designed By:

BKH

Drawn By:

MBE

Checked By:

AJC

Approved By:

EPK

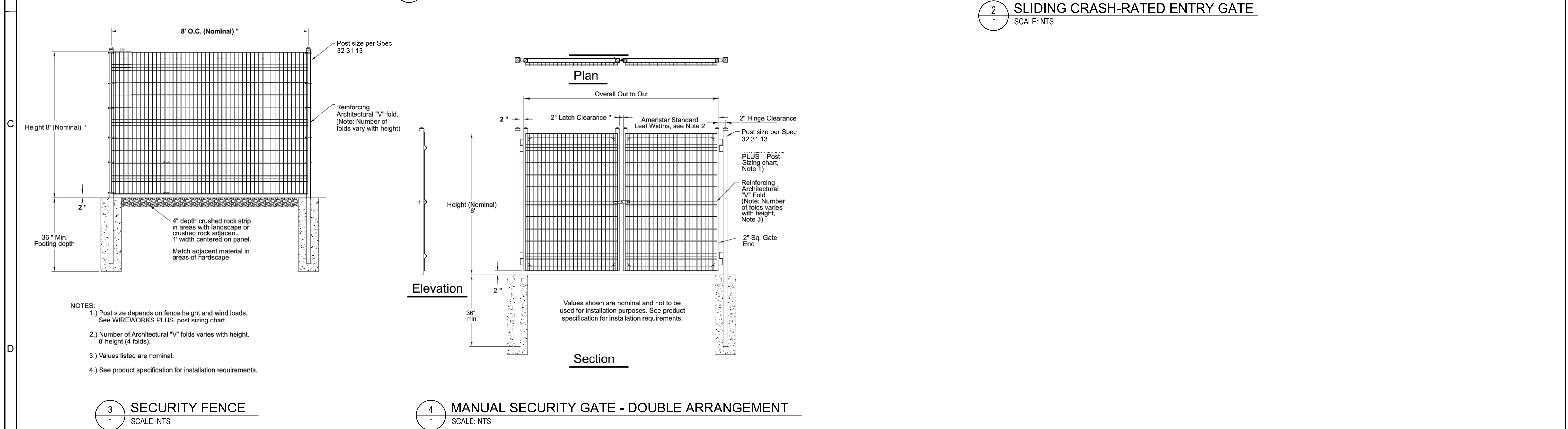
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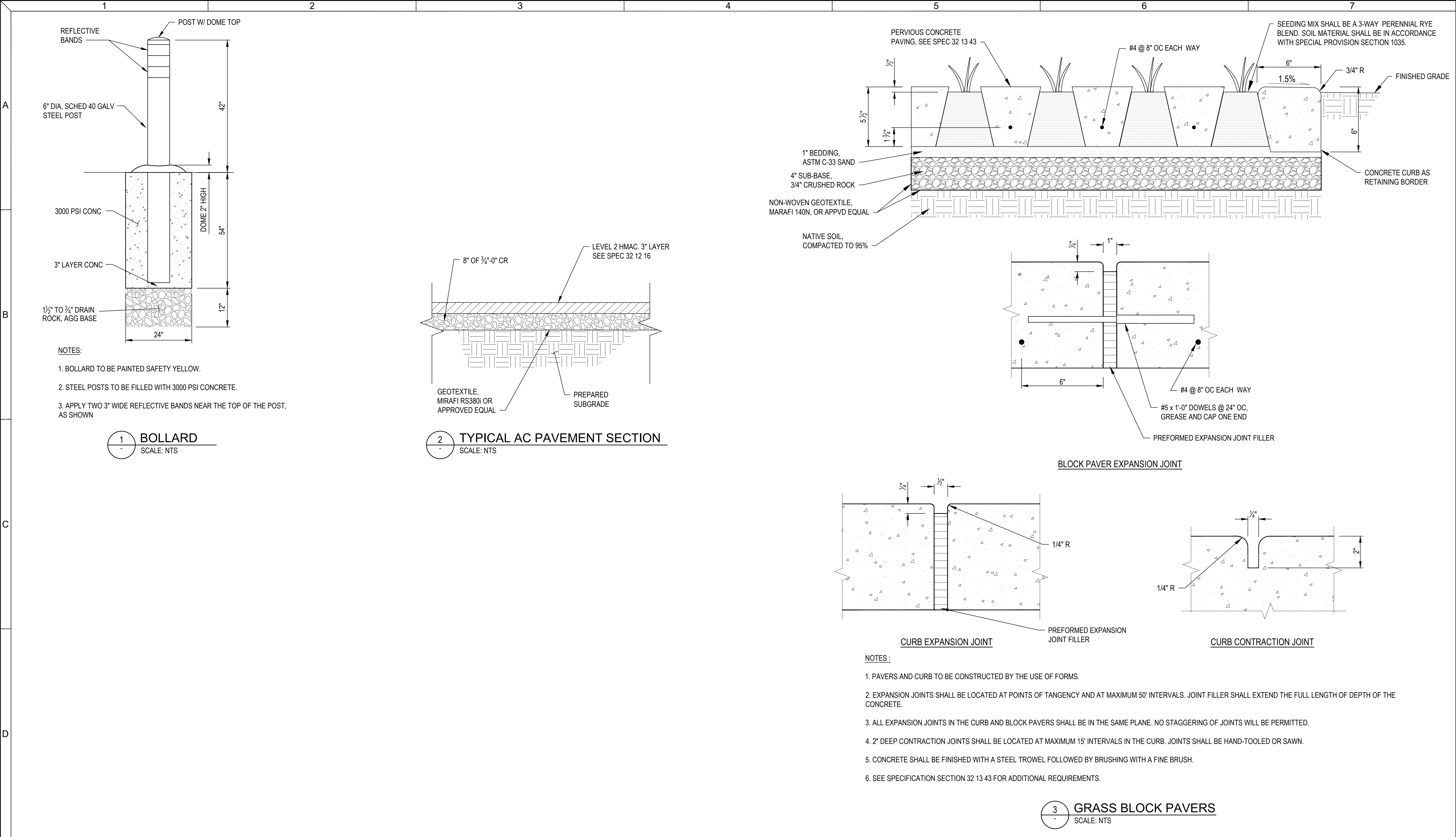
Issued On: JULY 2025

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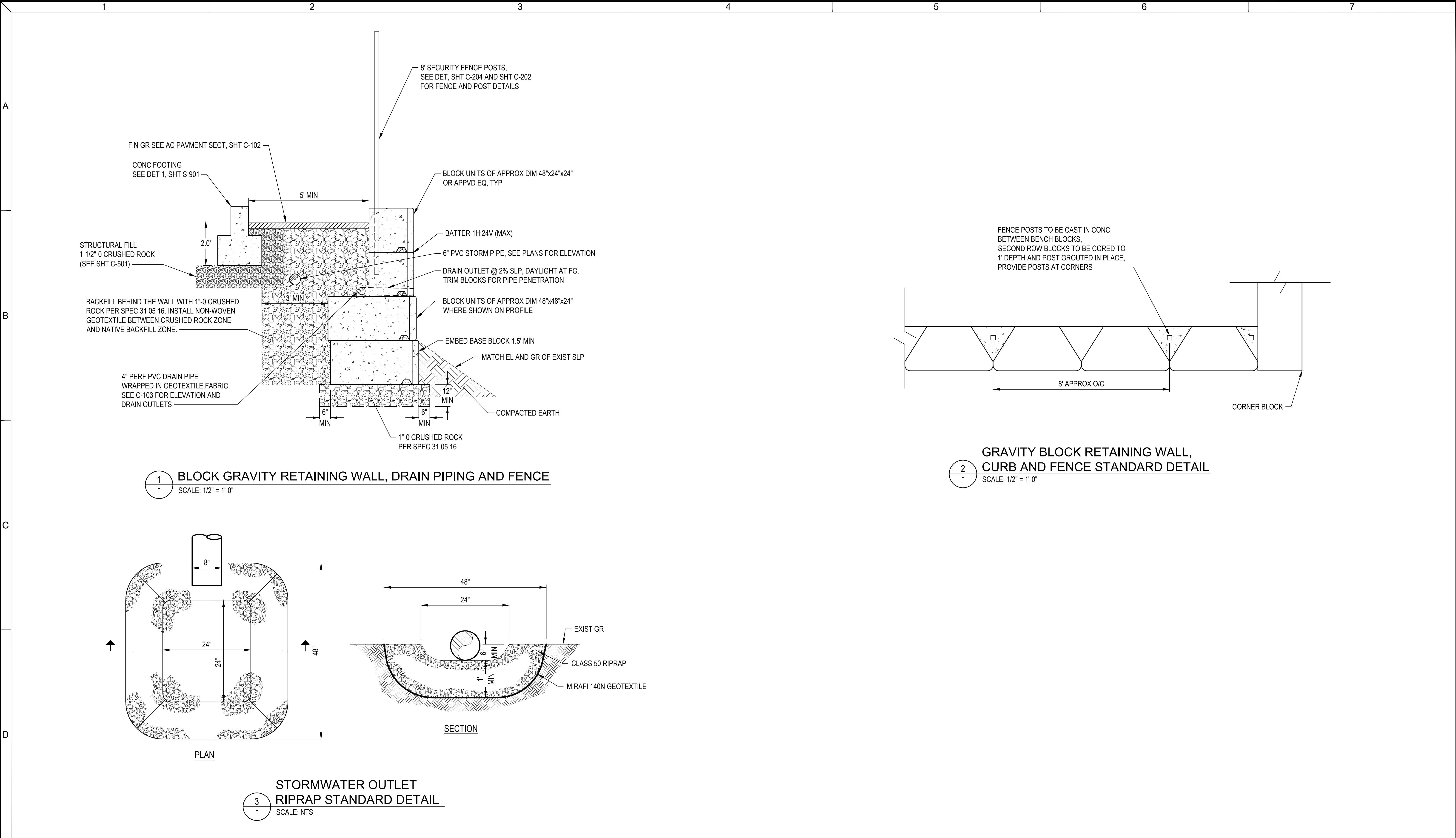
C-201

0 1/2 1 IF BAR DOES NOT MEASURE 1"
DRAWING IS NOT TO SCALE

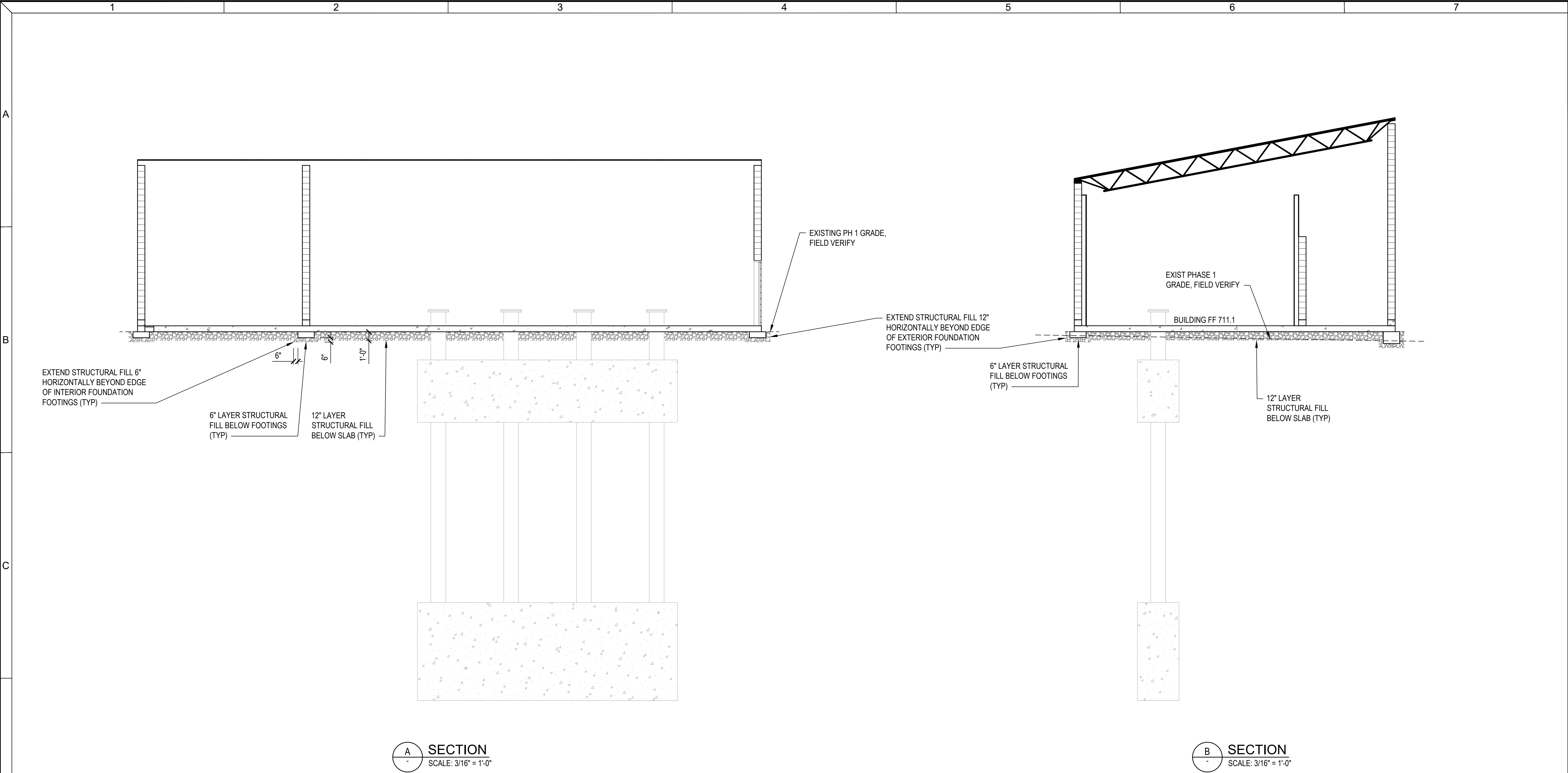




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			PRELIMINARY NOT FOR CONSTRUCTION		CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	CIVIL	Drawn By: MBE	Issued On: JULY 2025
						CIVIL DETAILS - 3	Checked By: AJC	Drawing No.: C-203
							Approved By: EPK	0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE



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							Drawn By: MBE	Issued On: JULY 2025
							Checked By: AJC	C-204
							Approved By: EPK	



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							Drawn By: JLC	Issued On: JULY 2025
							Checked By: AJC	Drawing No.: C-205
							Approved By: EPK	0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE

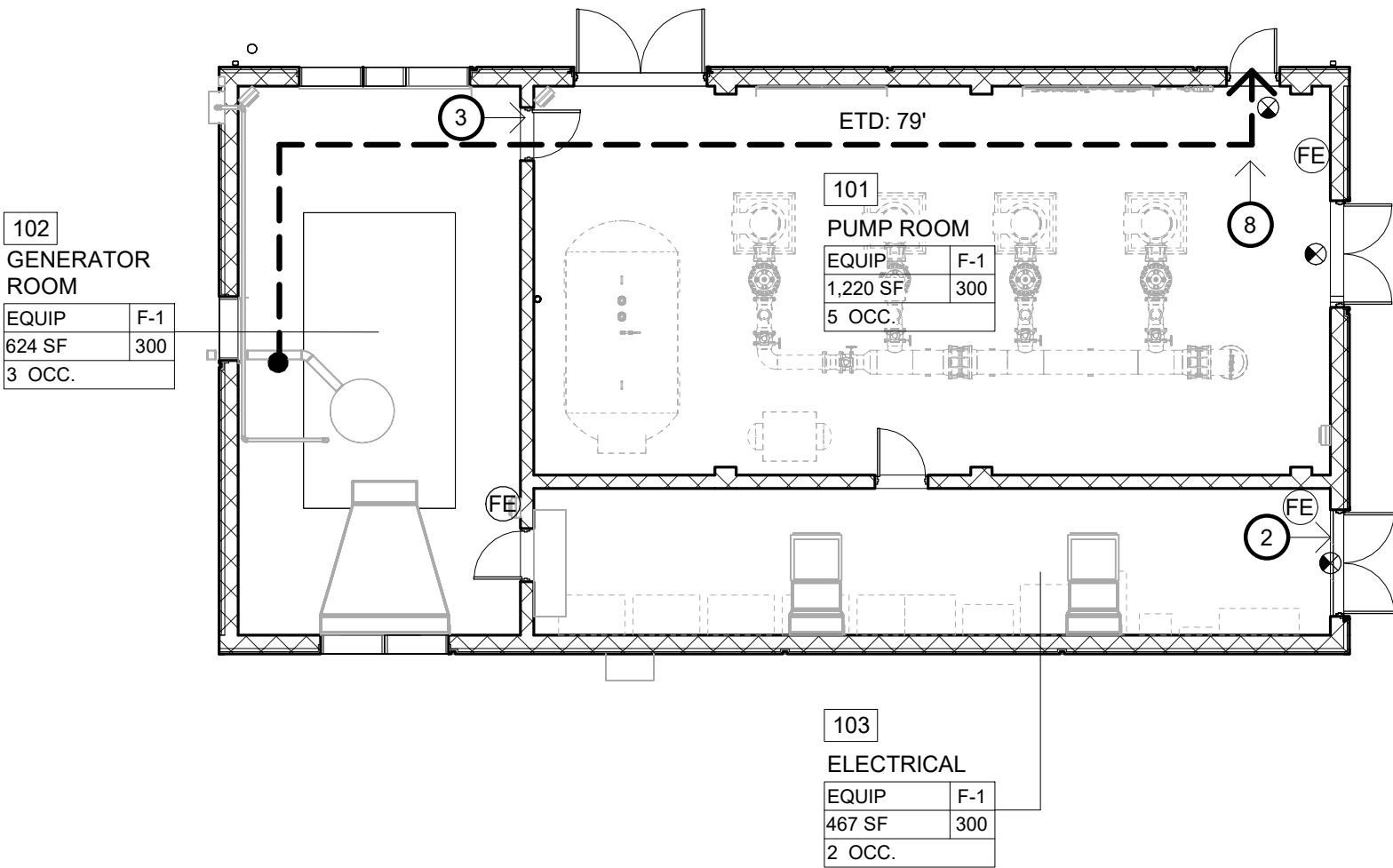
1		2		3		4		5		6		7			
CITY OF SANDY BULL RUN SUPPLY PUMP STATION															
GENERAL NOTES				ABBREVIATIONS				SYMBOLS LEGEND				SHEET INDEX		PROJECT DESCRIPTION	
A	1. COMPLY WITH ALL JURISDICTION EROSION CONTROL REQUIREMENTS.			ABV	ABOVE				NORTH ARROW			A-001	ARCHITECTURAL GENERAL NOTES & SYMBOLS		NEW 1-STORY, TYPE V-B CONSTRUCTION, PUMP STATION INCLUDING A PUMP ROOM, ELECTRICAL ROOM, AND A GENERATOR ROOM. ARCHITECT STRONGWORK ARCHITECTURE LLC CONTACT: ALAN ARMSTRONG 3309 SE SHERRETT ST, UNIT A PORTLAND, OR 97222 503-966-9030 ALAN@STRONGWORKARCHITECTURE.COM PROPERTY INFO BULL RUN FACILITY SE CARPENTER LANE SANDY, OREGON
	2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL NEW AND EXISTING CONDITIONS AND DIMENSIONS AT JOB SITE FOR COMPARISON WITH DRAWINGS AND SPECIFICATION PRIOR TO START OF AND DURING CONSTRUCTION. IF ANY DISCREPANCIES, INCONSISTENCIES, OR OMISSIONS ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED, IN WRITING, FOR CLARIFICATION PRIOR TO PROCEEDING WITH WORK.			ACC	ACCESSORY				EXTERIOR ELEVATION			A-002	CODE SUMMARY		
	3. CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND COORDINATING INFORMATION SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS. IF ANY DISCREPANCIES ARE FOUND, ALERT ARCHITECT, IN WRITING, IMMEDIATELY.			ADD'L	ADDITIONAL				INTERIOR ELEVATION			A-003	SCHEDULES & TYPES		
	4. CONTRACTOR SHALL ADHERE TO ALL CODES, AND REGULATIONS GOVERNING BUILDING ACCESS AND THE USE OF FACILITIES AS SET BY FEDERAL, STATE, AND LOCAL CODES, THE JURISDICTION HAVING AUTHORITY.			BLKG	BLOCKING				BUILDING SECTION			A-004	ASSEMBLIES		
B	5. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL RELY ON WRITTEN DIMENSION AS GIVEN. THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE FOR CLARIFICATIONS. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR AND COORDINATED WITH ALL WORK OF ALL TRADES. IF DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, FOR CLARIFICATION BEFORE THE COMMENCEMENT OR RESUMPTION OF WORK.			CLR	CLEAR				SECTION DETAIL			A-201	FLOOR & ROOF PLAN		
	6. ALL STANDARD CONSTRUCTION SHALL CONFORM TO THE STANDARD DETAILS EXCEPT AS EXPLICITLY SUPERSEDED BY SPECIFIC DESIGN DETAILS GIVEN.			CLST	CLOSET				(N) WALL - STUD CORE			A-401	EXTERIOR ELEVATIONS AND SECTIONS		
	7. LARGE SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS AT ALL TIMES EXCEPT AS OTHERWISE NOTED.			C.I.	CONTINUOUS INSULATION				(N) WALL - MASONRY CORE			A-501	WALL SECTIONS		
	8. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION AND SERVICES NECESSARY FOR THE SATISFACTORY COMPLETION OF WORK UNLESS DESIGNATED (NIC) OR (OFOI) OR (OFCI).			C.J.	CONTROL JOINT				(N) WALL - CONCRETE CORE			A-701	REFLECTED CEILING PLAN		
C	9. CONTRACTOR SHALL COMPLY, OBTAIN, AND PAY FOR ALL REQUIRED FEES, PERMITS, AND INSPECTIONS ASSESSED BY ANY GOVERNMENTAL AGENCY OR UTILITY COMPANY.			DBL	DOUBLE				WINDOW/ DOOR/ LOUVER MARKER			A-901	ARCHITECTURAL DETAILS - 1		
	10. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING THE SAFETY OF PERSONS AND PROPERTY. DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORT, ETC. THE ARCHITECT'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF ADEQUACY OR THE CONTRACTOR'S SAFETY MEASURES.			DN	DOWN				ASSEMBLY TAG			A-902	ARCHITECTURAL DETAILS - 2		
	11. THE CONTRACTOR SHALL WARRANT THAT ALL MATERIALS AND WORKMANSHIP ARE IN COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS, AND ALL CHANGES HAVE THE APPROVAL OF THE ARCHITECT.			MSTR	MASTER				FINISH TAG			A-903	ARCHITECTURAL DETAILS - 3		
	12. THE CONTRACTOR IS RESPONSIBLE TO COMPARE AND COORDINATE ALL DRAWINGS FOR PROPER FIT AND ATTACHMENT OF ALL PARTS. DETAILS NOT SHOWN, NOR DETAILED ON DRAWINGS, NOR CALLED FOR IN THESE NOTES SHALL BE CONSTRUCTED TO SAME SIZE AND CHARACTER AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN, DETAILED SPECIFICATIONS, OR COMMONLY CONSTRUCTED IN THE INDUSTRY.			CL	CENTERLINE				KEYNOTE TAG						
D	13. ABBREVIATIONS THROUGHOUT THE PLANS ARE THOSE IN COMMON USE. NOTIFY THE ARCHITECT OF ANY ABBREVIATIONS IN QUESTION.			CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED				ROOM TAG						
	14. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL AND PLUMBING ROUGH-IN LOCATIONS FOR ANY SPECIAL EQUIPMENT WITH THE SUPPLIER OF SUCH EQUIPMENT.			CONC	CONCRETE				SMOKE DETECTOR						
	15. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THEIR SEPARATE SUBCONTRACTORS SUCH AS WINDOWS, ETC. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION AND REQUIRED CLEARANCES OF THE EQUIPMENT. NO STRUCTURAL MEMBER SHALL BE OMITTED, NOTCHED, CUT, BLOCKED OUT, OR RELOCATED WITHOUT PRIOR APPROVAL BY THE ARCHITECT OR ENGINEER.			CONT	CONTINUOUS										
	16. THE CONTRACTOR OF EACH TRADE SHALL KEEP THE PREMISES CLEAN AT ALL TIMES AND SHALL REMOVE ALL RUBBISH AS OFTEN AS REQUIRED FOR THE CONSTRUCTION AND FOR CONVENIENCE OF THE OWNER.			CPT	COMMON PATH OF TRAVEL										
				DEMO	DEMOLISH/DEMOLITION										
				DS	DOWNSPOUT										
				(E)	EXISTING										
				EQ	EQUAL										
				EN	END NAIL										
				ETD	EXIT TRAVEL DISTANCE										
				EXT	EXTERIOR										
				FD	FLOOR DRAIN										
				FLR	FLOOR										
				GC	GENERAL CONTRACTOR										
				GYP	GYPSUM WALL BOARD										
				HT	HEIGHT										
				HR	HOUR										
				INFO	INFORMATION										
				INT	INTERIOR										
				LYR	LAYER										
				MAX	MAXIMUM										
				MFR	MANUFACTURER										
				MIN	MINIMUM										
				(N)	NEW										
				NOM	NOMINAL										
				NIC	NOT IN CONTRACT										
				NTS	NOT TO SCALE										
				NFPA	NATIONAL FIRE PROTECTION ASSOCIATION										
				NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION										
				OFOI	OWNER FURNISHED OWNER INSTALLED										
				OFCI	OWNER FURNISHED CONTRACTOR INSTALLED										
				PRE-MFR	PRE-MANUFACTURED										
				PT	PRESSURE TREATED										
				REQ'S	REQUIREMENTS										
				RO	ROUGH OPENING										
				SIMP	SIMPSON										
				SOG	SLAB ON GRADE										
				SPEC	SPECIFICATION										
				T.O.	TOP OF										
				TYP	TYPICAL										
				UNO	UNLESS NOTED OTHERWISE										
				VIF	VERIFY IN FIELD										
				VFY	VERIFY										
				VOS	VERIFY ON SITE										
				WIN	WINDOW										
				WRB	WEATHER RESISTIVE BARRIER										

A

B

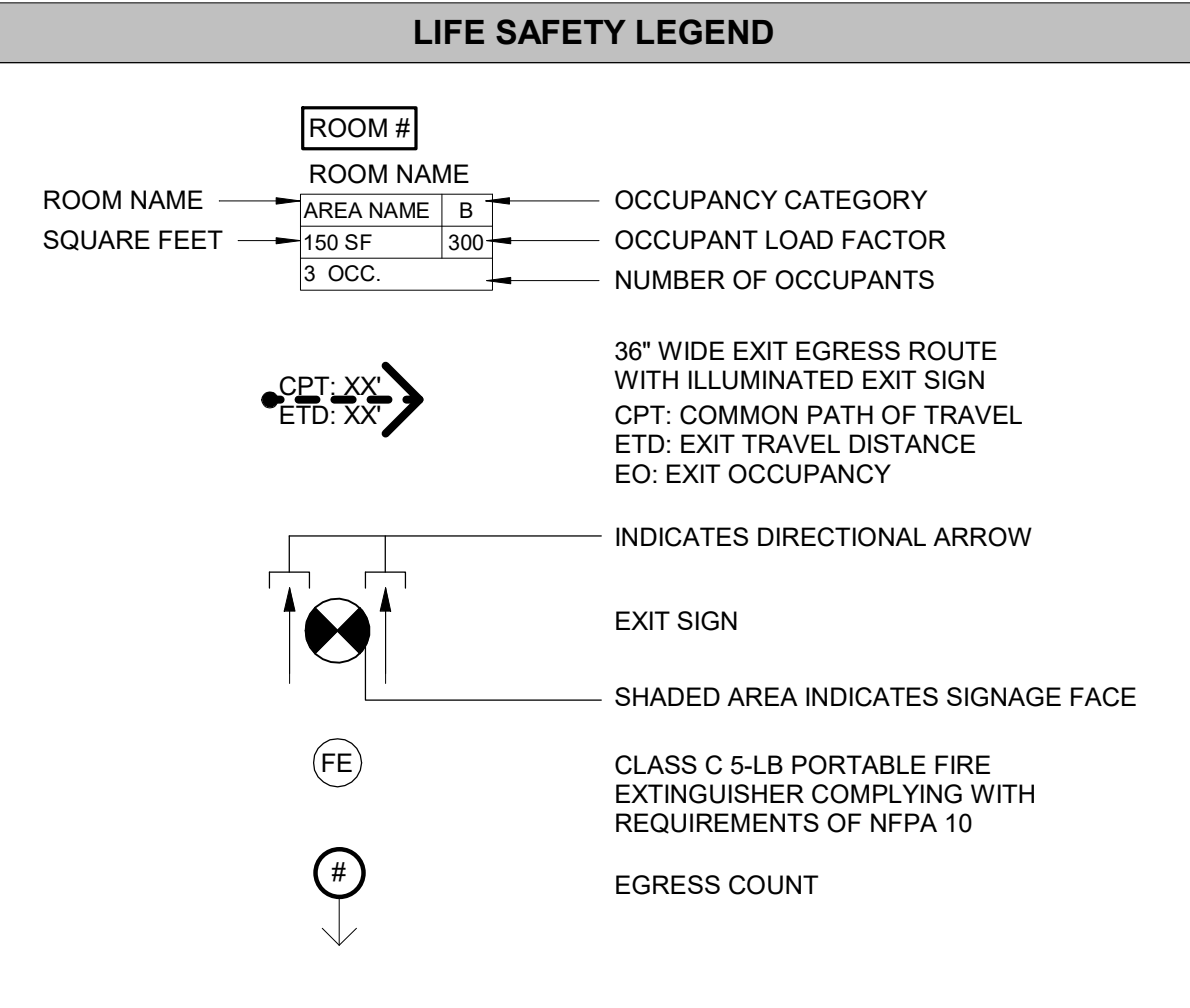
C

D



CODE PLAN

SCALE: 3/32" = 1'-0"



1 | SCOPE & ADMINISTRATION

CODE PATH

BUILDING CODE: THE 2022 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
ENERGY CODE: THE 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)
FIRE CODE: THE 2022 OREGON FIRE CODE (OFC)

3 | USE & OCCUPANCY

OCCUPANCY GROUPS

F-1: WATER TREATMENT FACILITY

NON-SEPARATED OCCUPANCIES

4 | SPECIAL OCCUPANCY REQUIREMENTS

NONE

5 | BUILDING CONSTRUCTION

CONSTRUCTION TYPE

CONSTRUCTION TYPE: V-B, UNSPRINKLERED

HEIGHT IN FEET

MAXIMUM HEIGHT: 40'-0"

PROPOSED HEIGHT: <25'

NUMBER OF STORIES

1 STORY MAX

PROPOSED: 1 STORY

GROSS FLOOR AREA SUMMARY

BUILDING	OVERALL DIMS	GROSS AREA
GROSS FLOOR AREA	70'-0" X 36'-0"	2,520 SF

BUILDING AREA SUMMARY

MAX ALLOWED BUILDING AREA PER FLOOR: 8,500 SF

PROPOSED: 2,520 SF

6 | TYPES OF CONSTRUCTION

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

	TYPE V-B
PRIMARY STRUCTURAL FRAME	0 HR
EXTERIOR BEARING WALLS	0 HR
INTERIOR BEARING WALLS	0 HR
STRUCTURAL FRAME SUPPORTING ROOF ONLY	0 HR
FLOORS & SECONDARY MEMBERS	0 HR
ROOF CONSTRUCTION	0 HR

7 | FIRE & SMOKE PROTECTION FEATURES

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS

FIRE SEPARATION DISTANCE	V-B
X < 5	2
5 < X < 10	1
10 < X < 30	0
X > 30	0 PROJECT MEETS CRITERIA

BUILDING SEPARATION

FIRE SEPARATION DISTANCE (FEET)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA
0 TO LESS THAN 3	ALL	NOT PERMITTED
3 TO LESS THAN 5	UNPROTECTED/NONSPRINKLERED	NOT PERMITTED
	PROTECTED	15%
5 TO LESS THAN 10	UNPROTECTED/NONSPRINKLERED	10%
	PROTECTED	25%
10 TO LESS THAN 15	UNPROTECTED/NONSPRINKLERED	15%
	PROTECTED	45%
15 TO LESS THAN 20	UNPROTECTED/NONSPRINKLERED	25%
	PROTECTED	75%
20 TO LESS THAN 25	UNPROTECTED/NONSPRINKLERED	45%
	PROTECTED	NO LIMIT
25 TO LESS THAN 30	UNPROTECTED/NONSPRINKLERED	70%
	PROTECTED	NO LIMIT
30 OR GREATER	UNPROTECTED/NONSPRINKLERED	NO LIMIT
	PROTECTED	NO LIMIT

FACADE	PROTECTION / SPRINKLERING	DISTANCE TO MEASURED SEPARATION
NORTH	NON-PROTECTED / UNSPRINKLED	>30'
EAST	NON-PROTECTED / UNSPRINKLED	>30'
SOUTH	NON-PROTECTED / UNSPRINKLED	>30'
WEST	NON-PROTECTED / UNSPRINKLED	>30'

FIRE-RATING REQUIREMENTS FOR BUILDING ELEMENTS

NONE

8 | INTERIOR FINISHES

FLAME-SPREAD RATING

WALL AND CEILING FINISH MATERIALS TO HAVE THE FOLLOWING FLAME SPREAD RATING OR HIGHER:		
INTERIOR EXIT STAIRWAYS & RAMPS & EXIT PASSAGEWAYS	CORRIDORS & ENCLOSURE FOR EXIT ACCESS STAIRWAYS & RAMPS	ROOMS & ENCLOSED SPACES
F-1 N/A	N/A	C

9 | FIRE PROTECTION SYSTEMS

SPRINKLER SYSTEM

NOT REQUIRED; NOT USED

OTHER:

CLASS C 5-LB PORTABLE FIRE EXTINGUISHER COMPLYING WITH REQUIREMENTS OF NFPA 10

11 | ACCESSIBILITY

EXEMPT PER OSSC 1103.2.9 "EQUIPMENT SPACES"

10 | MEANS OF EGRESS

OCCUPANCY LOAD SUMMARY

ROOM	OCC GROUP	USE	LOAD FACTOR	AREA	# OF OCCUPANTS
PUMP ROOM	F-1	EQUIP	300	1,220 SF	5
GENERATOR ROOM	F-1	EQUIP	300	624 SF	3
ELECTRICAL	F-1	EQUIP	300	467 SF	2

NUMBER OF EXITS

REQUIRED: 1

PROVIDED: 2

EXIT ACCESS TRAVEL DISTANCE & COMMON PATH OF TRAVEL DISTANCE

	PATH OF TRAVEL
CPT: F-1 OCCUPANCY MAXIMUM: 75'	
ETD: F-1 49 OCCUPANCY MAXIMUM: 200'	PROPOSED: <100'

13 | ENERGY EFFICIENCY

2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE
CLIMATE ZONE: 4C

FIXED FENESTRATION: 0.36 U, 0.36 SHGC
OPERABLE FENESTRATION: 0.45 U, 0.33 SHGC
ENTRANCE DOORS: 0.63 U, 0.33 SHGC
SKYLIGHTS: 0.50 U, 0.40 SHGC

PROPOSED:

ROOF: R-30 ABOVE DECK
WALLS: R-10, 2.5" MINERAL WOOL BOARD (TRADE-OFF APPROACH)
FLOOR: R-30
UN HEATED SLAB ON GRADE: NONE (TRADE-OFF APPROACH)

NOTE: R-VALUES MUST BE OBSERVABLE UPON INSPECTION, SEE COMCHECK FOR ADDITIONAL INFORMATION

AIR BARRIER SYSTEM REQUIREMENTS:

THE AIR BARRIER SYSTEM IS AN AIR TIGHT BUILDING ENCLOSURE AND IS COMPRISED OF MULTIPLE PRODUCTS THAT FORM A CONTINUOUS PATH THAT CONTROLS INFILTRATION OR EXFILTRATION OF AIR. ADDITIONAL DESCRIPTIONS AND SYSTEM REQUIREMENTS ARE AS FOLLOWS:

1. THE AIR TIGHT COMPONENTS OF THE BUILDING ENCLOSURE AND THE JOINTS, JUNCTURES AND TRANSITIONS BETWEEN MATERIALS, PRODUCTS AND ASSEMBLIES FORMING THE AIR TIGHTNESS OF THE BUILDING ENCLOSURE ARE CALLED THE "AIR BARRIER SYSTEM". SERVICES INCLUDE COORDINATION BETWEEN THE TRADES, THE PROPER SCHEDULING AND SEQUENCING OF THE WORK, AND PRECONSTRUCTION MEETINGS.

2. THE CONTRACTOR SHALL ENSURE THAT THE INTENT OF CONSTRUCTING THE BUILDING ENCLOSURE WITH A CONTINUOUS AIR BARRIER SYSTEM TO CONTROL AIR LEAKAGE, INTO OR OUT OF THE CONDITIONED SPACE IS ACHIEVED. THE AIR BARRIER SYSTEM SHALL HAVE THE FOLLOWING CHARACTERISTICS:

A. IT MUST BE CONTINUOUS, WITH ALL JOINTS SEALED.

B. IT MUST BE STRUCTURALLY SUPPORTED TO WITHSTAND POSITIVE AND NEGATIVE AIR PRESSURES APPLIED TO THE BUILDING ENCLOSURE.

C. CONNECTION SHALL BE MADE BETWEEN:

- FOUNDATION AND WALLS
- WALLS AND WINDOWS/DOORS
- DIFFERENT WALL SYSTEMS
- WALL AND ATTIC ROOF/CEILING ASSEMBLY
- WALLS, FLOORS, AND ROOF AT UTILITY, PIPE AND DUCT PENETRATIONS

3. AIR BARRIER PENETRATIONS: ALL PENETRATIONS OF THE AIR BARRIER AND PATHS OF AIR INFILTRATION/EXFILTRATION SHALL BE SEALED.

4. AIR BARRIER TESTING: (1) AIR BARRIER TEST MUST BE PERFORMED AND SUBMITTED TO THE JURISDICTION HAVING AUTHORITY ONCE THE TEST IS COMPLETE; (2) IF TEST RESULTS EXCEED 0.4 CFM/FT2 AT 0.3 IN. WG IN ACCORDANCE WITH ASTM E779 THEN VISUALLY INSPECT AIR BARRIER AND SEAL NOTED SOURCES OF LEAKAGE; (3) SUBMIT A FOLLOW-UP REPORT TO JURISDICTION HAVING AUTHORITY NOTING CORRECTIVE MEASURES TAKEN.

15 | ROOF ASSEMBLIES

ALL ROOF ASSEMBLIES TO BE CLASS C OR HIGHER

PROPOSED: CLASS A



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Consultant:



PERMIT SET

Architect's Seal:

PRELIMINARY
NOT FOR
CONSTRUCTION

Client / Owner:



Project Title:

CITY OF SANDY BULL
RUN SUPPLY PUMP
STATION - PHASE 2

Drawing Title:

CODE SUMMARY

Designed By:

AA

Drawn By:

YH/KP

Checked By:

TS

Approved By:

AA

Consor Project No.: W232464OR

Issued On: JANUARY 2025

Drawing No.: Sheet No.: OF

A-002

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IF BAR DOES NOT MEASURE
1" DRAWING IS NOT TO SCALE

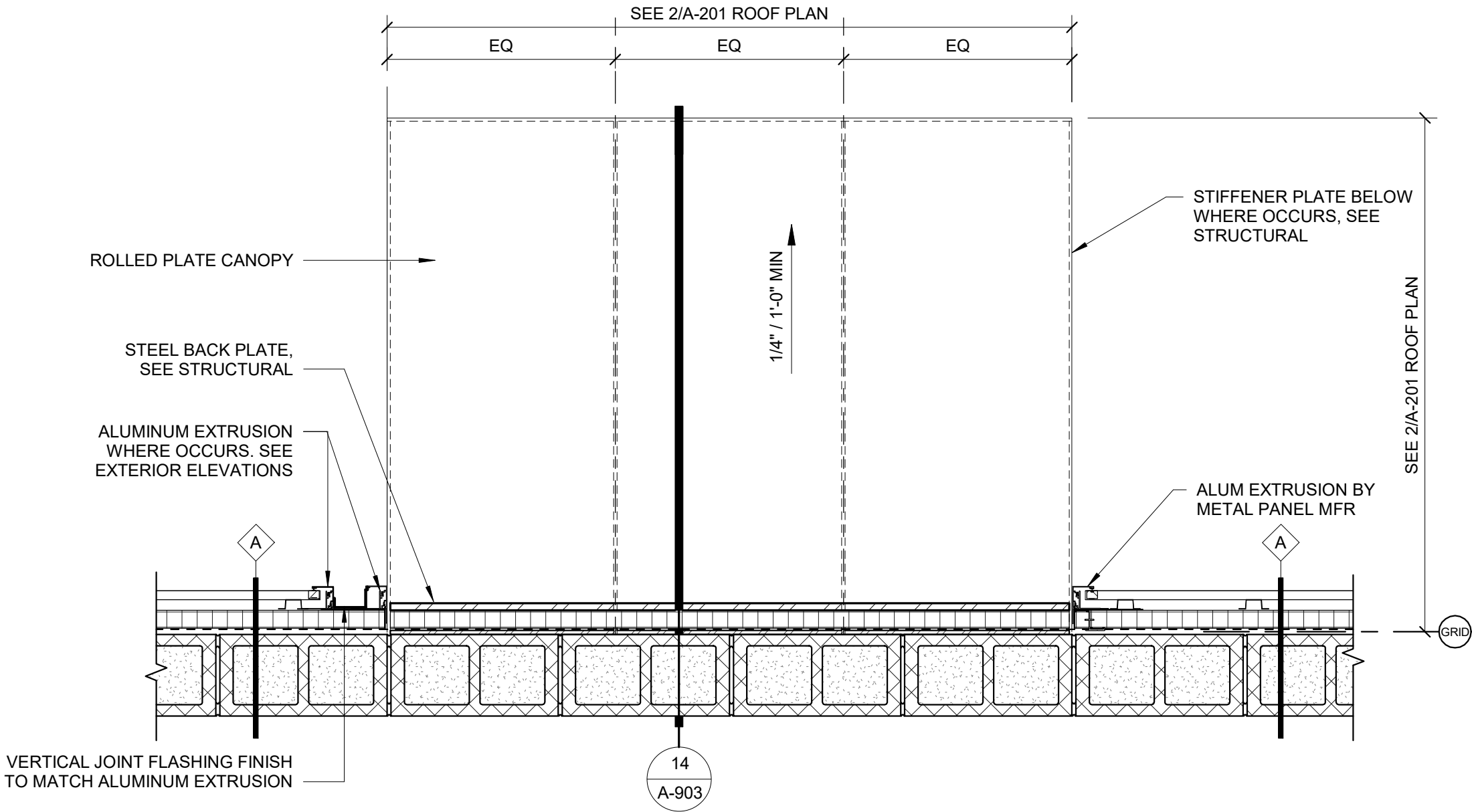
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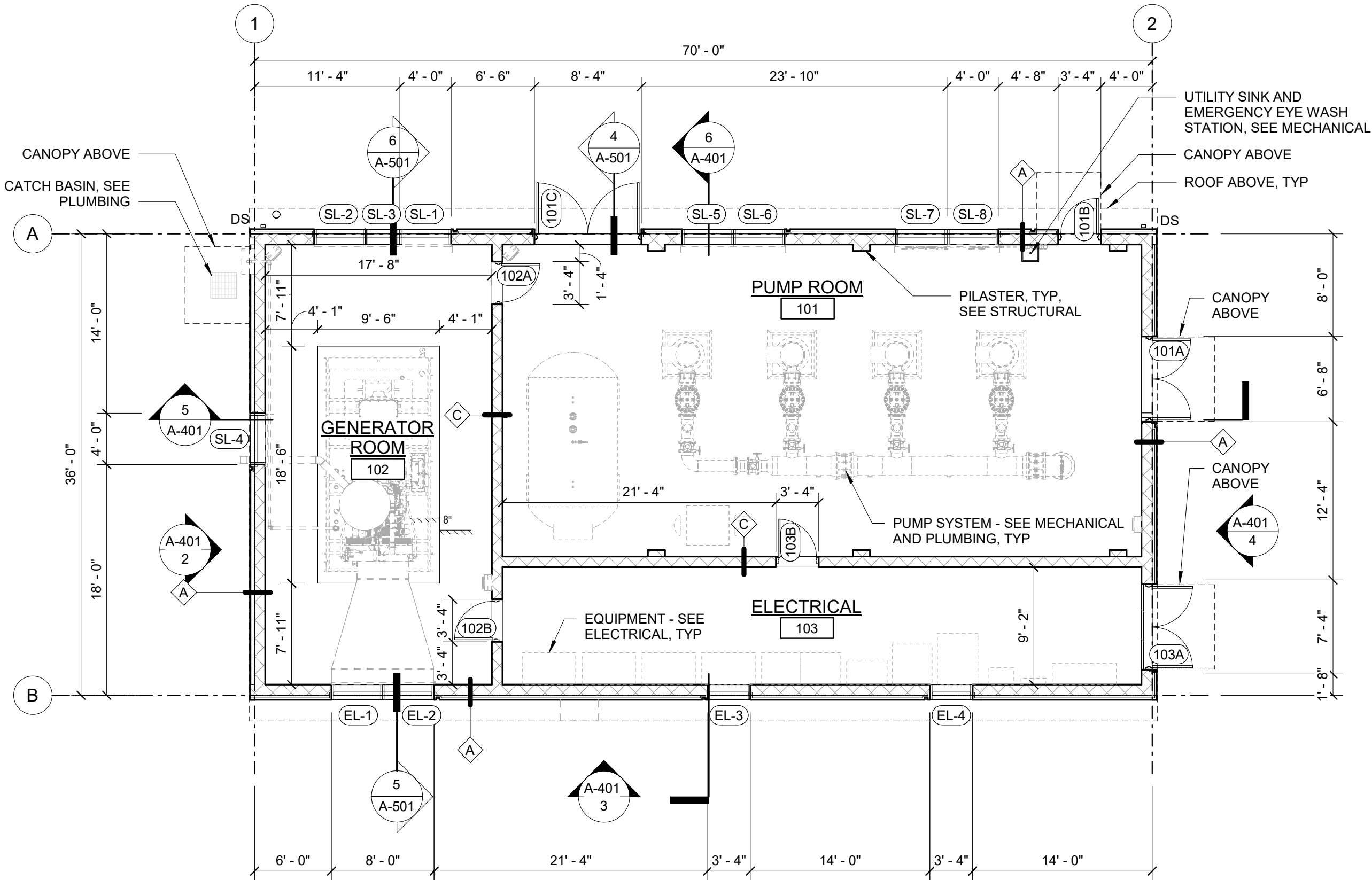
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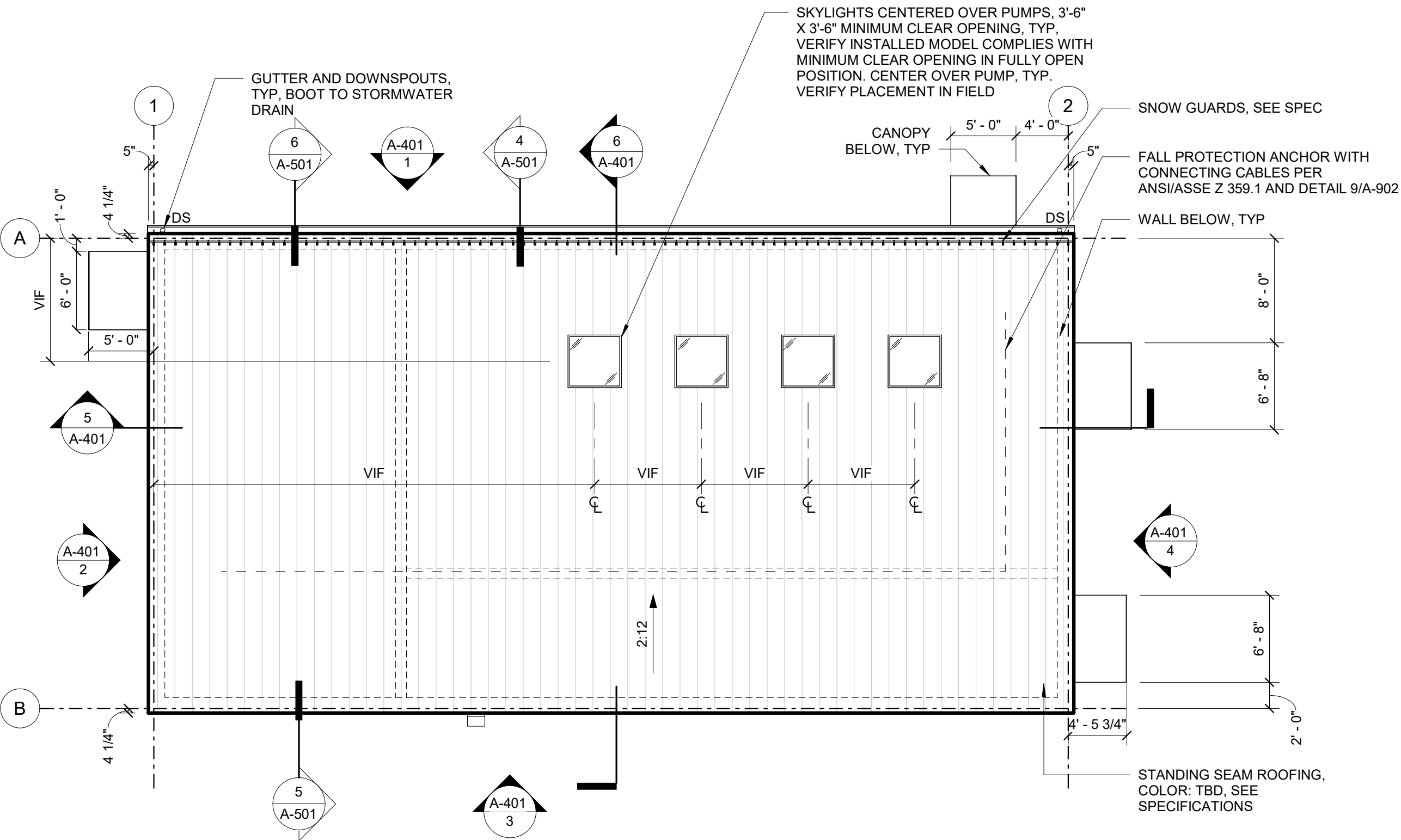
- GENERAL NOTES:
- CONTRACTOR TO COORDINATE ARCHITECTURAL DRAWINGS WITH PLUMBING, MECHANICAL, ELECTRICAL, STRUCTURAL, & EQUIPMENT VENDORS.
 - DIMENSIONS ARE TO FACE OF STUD, FACE OF CONCRETE OR NOMINAL FACE OF MASONRY UNLESS OTHERWISE INDICATED.
 - COORDINATE ROOF PENETRATIONS WITH RESPECTIVE TRADES.
 - COORDINATE WITH BUILDING SECTIONS & STRUCTURAL DRAWINGS FOR FINISH FLOOR ELEVATIONS.
 - SEE STRUCTURAL FOR INTERIOR SLAB PLAN.



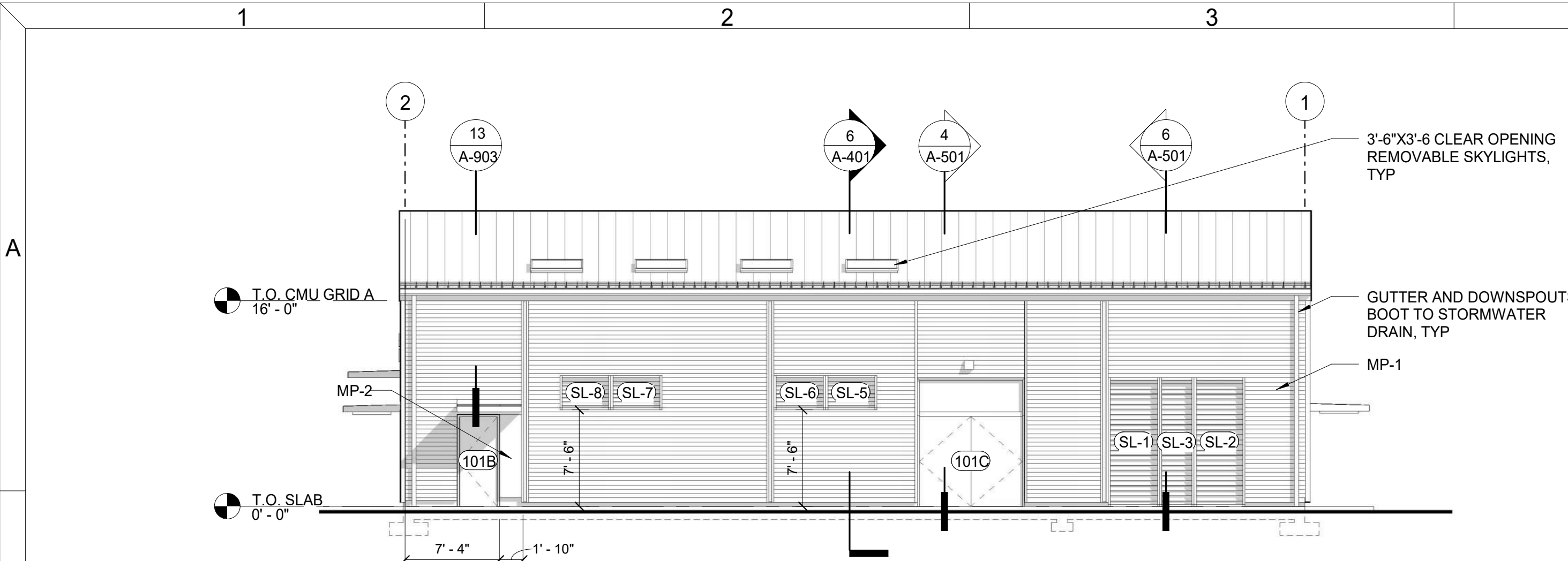
3 METAL PLATE CANOPY PLAN
SCALE: 1" = 1'-0"



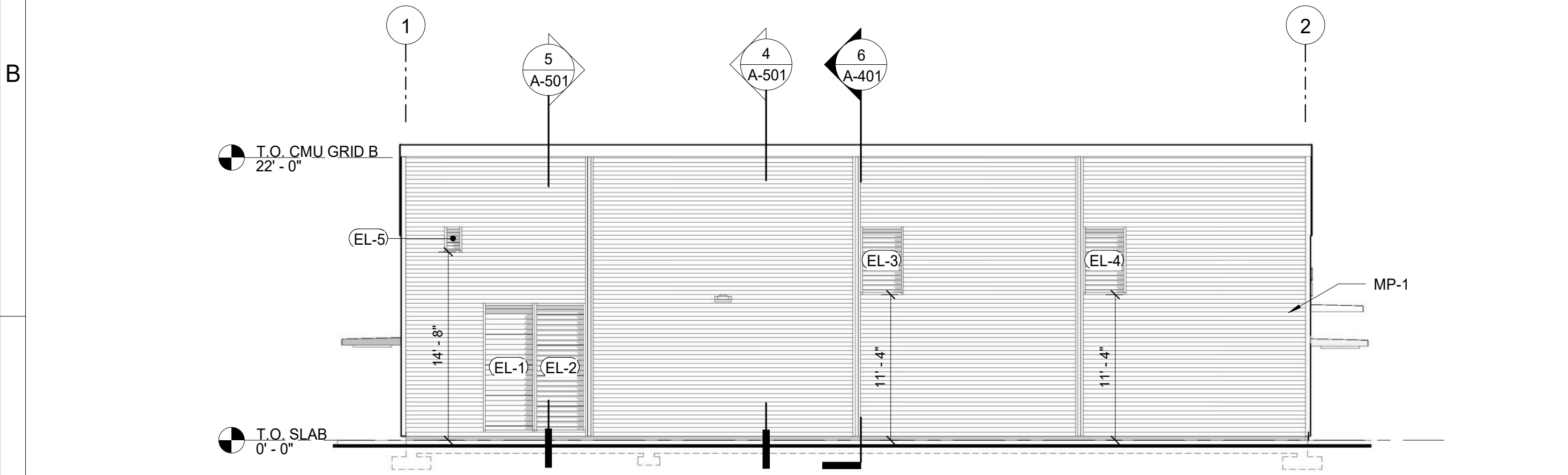
1 FLOOR PLAN
SCALE: 1/8" = 1'-0"



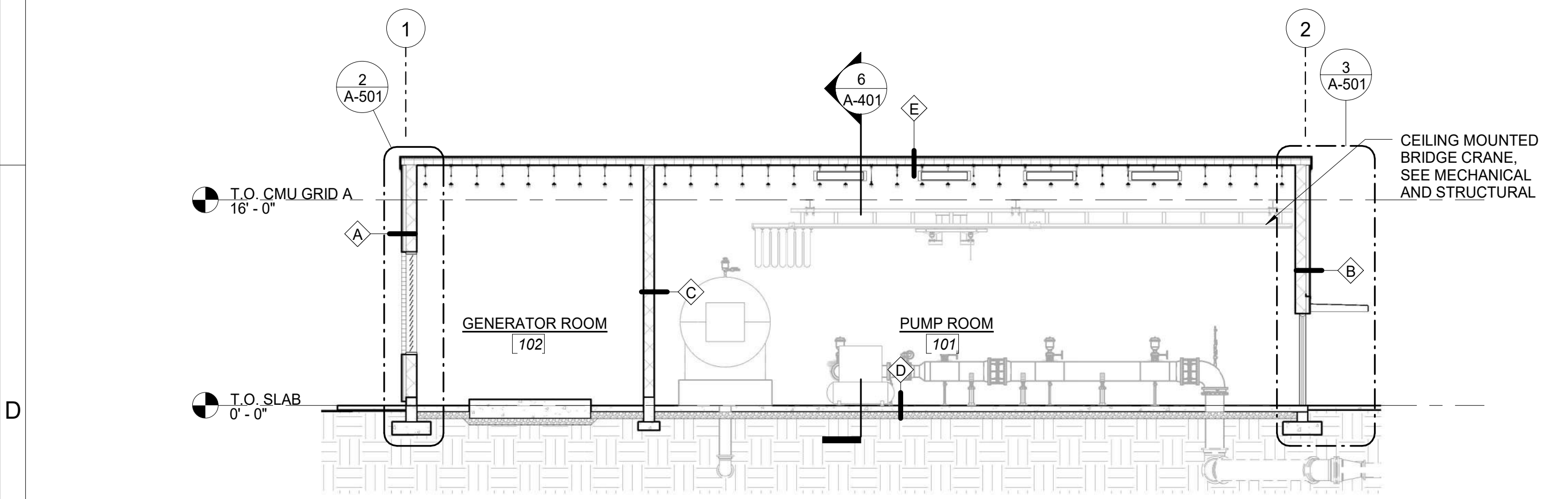
2 ROOF PLAN
SCALE: 1/8" = 1'-0"



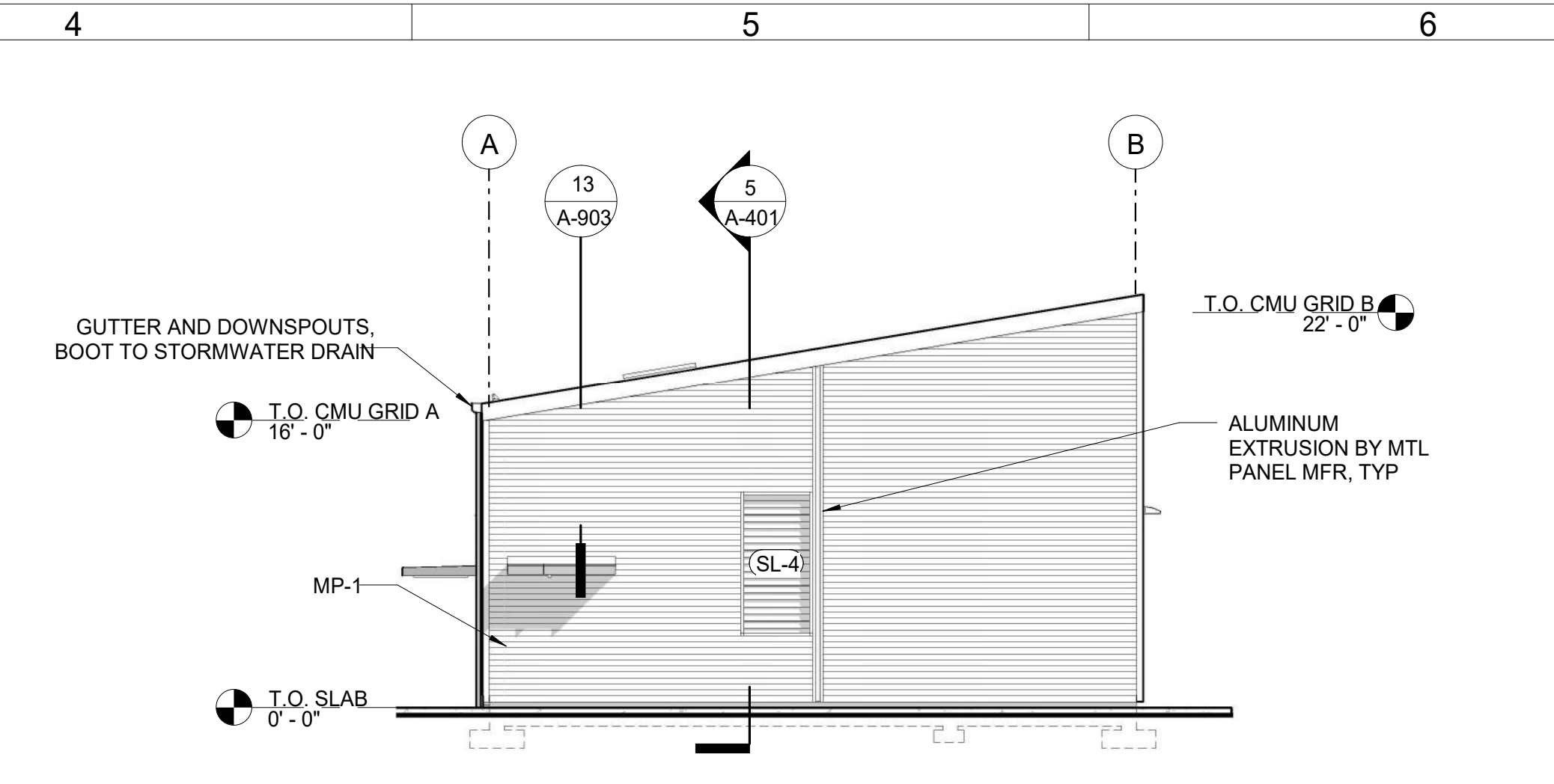
1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



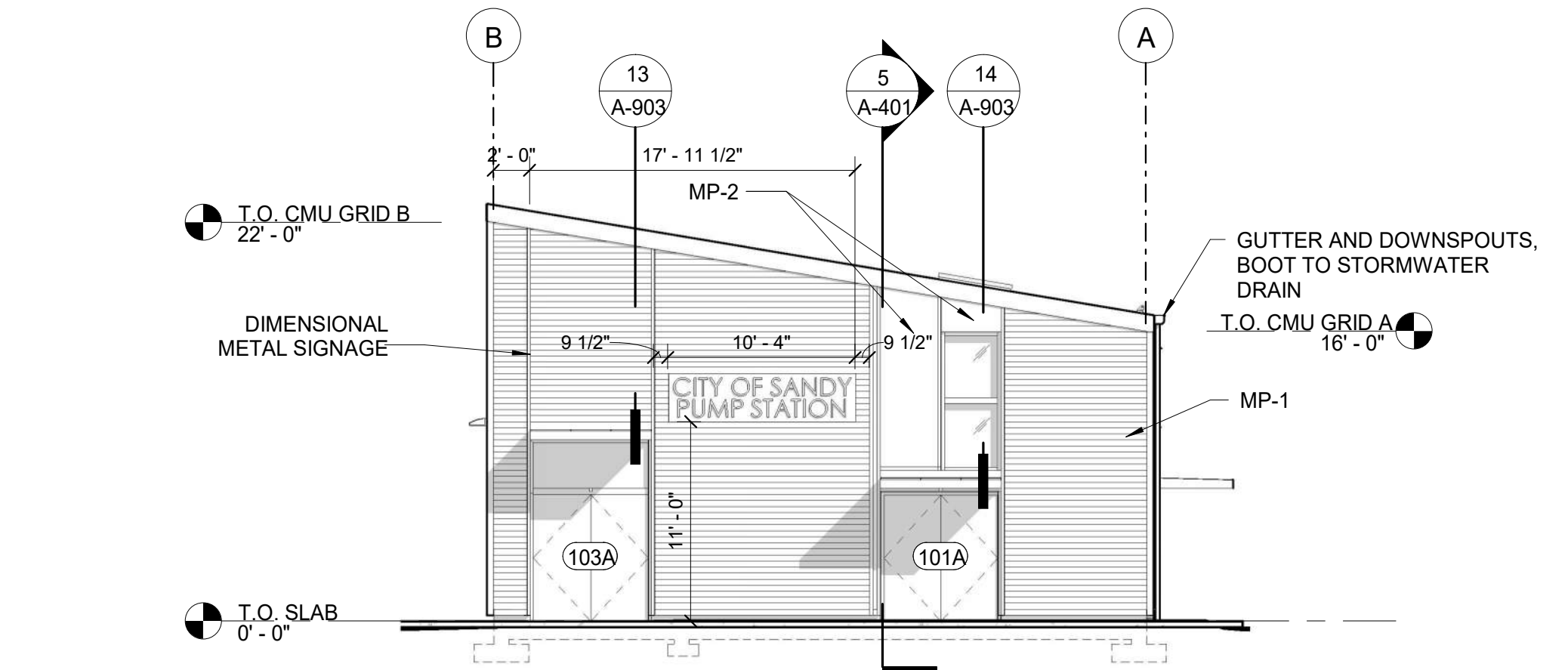
3 SOUTH ELEVATION
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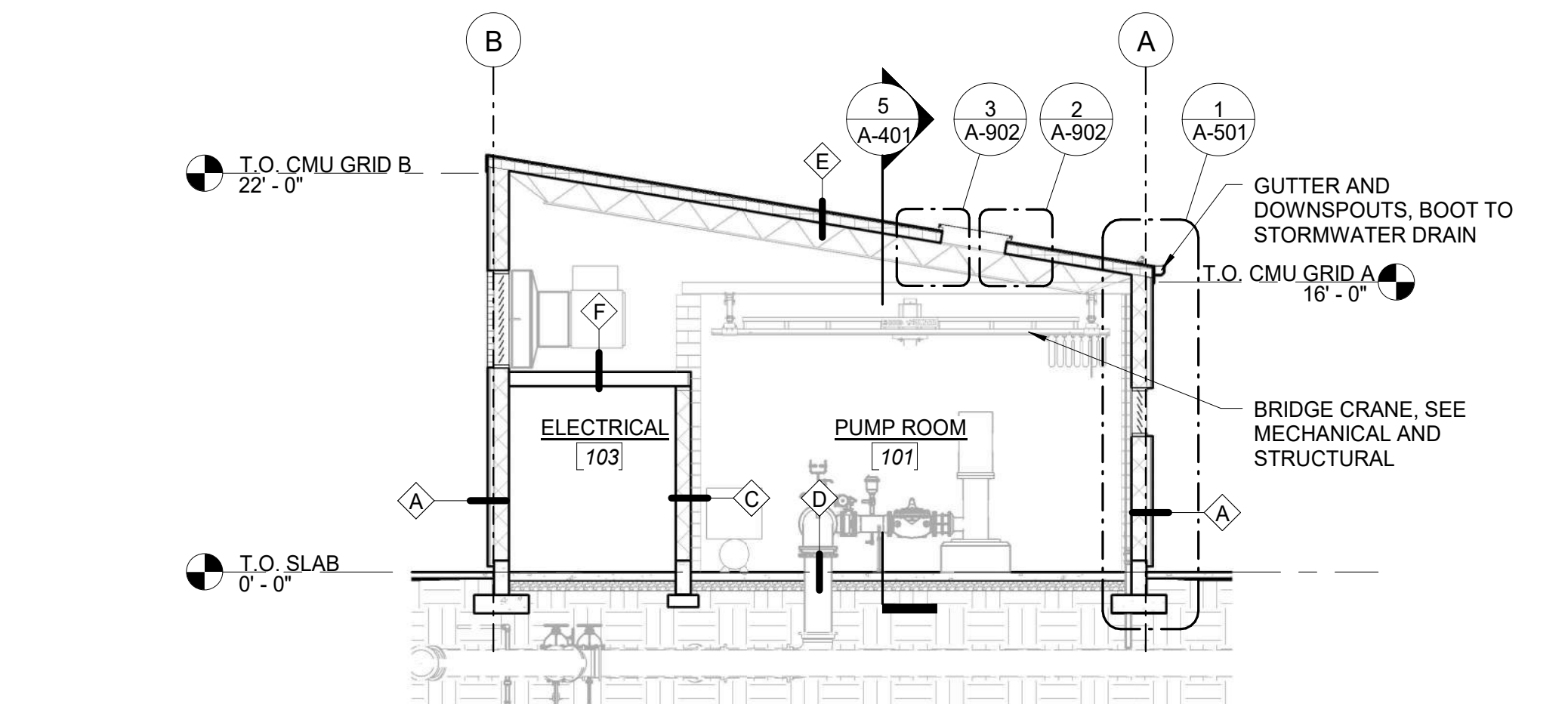
5 BUILDING SECTION - E/W
SCALE: 1/8" = 1'-0"



2 WEST ELEVATION
SCALE: 1/8" = 1'-0"

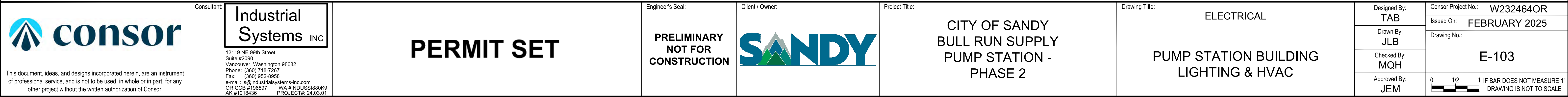


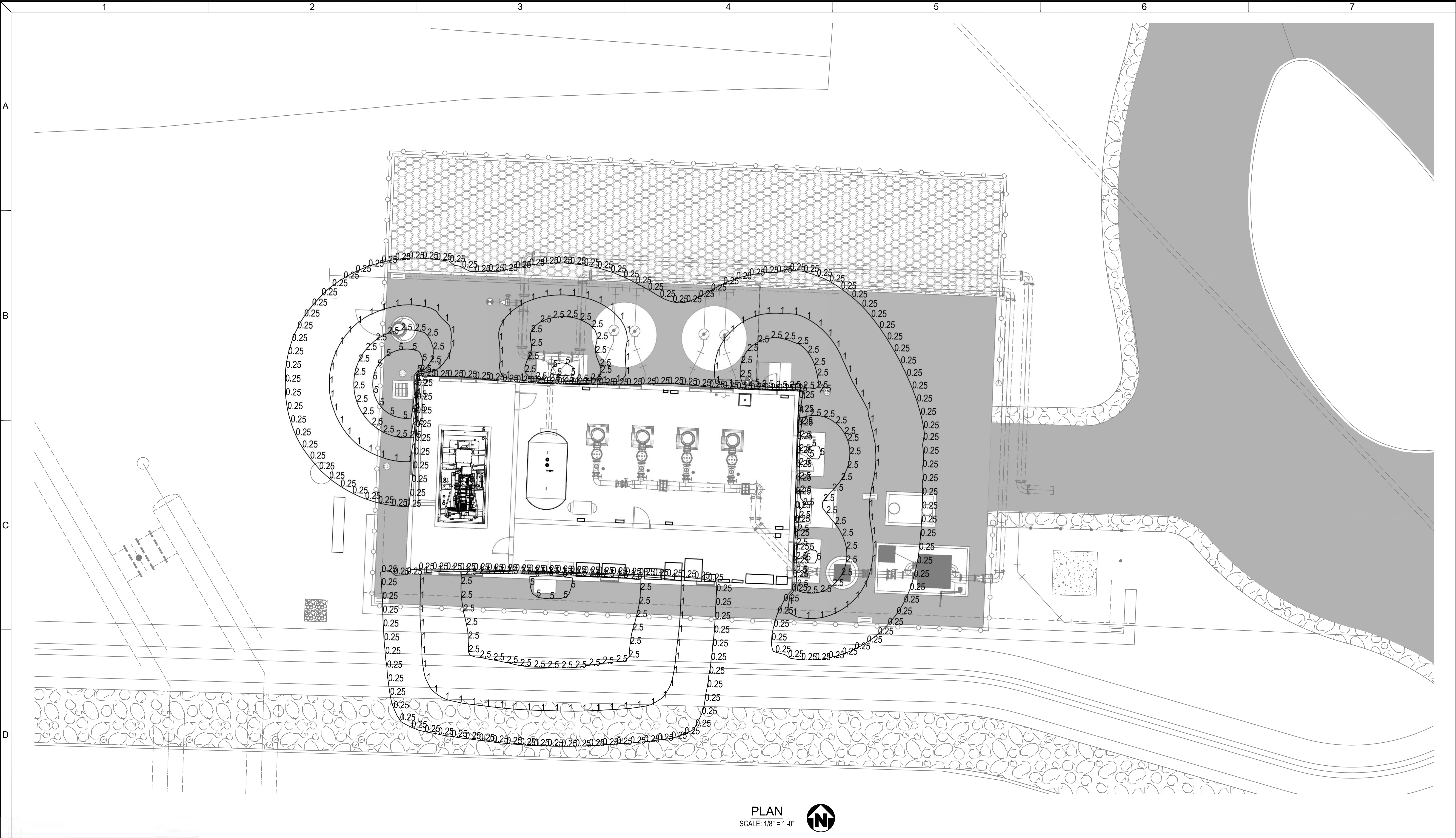
4 EAST ELEVATION
SCALE: 1/8" = 1'-0"



6 BUILDING SECTION - N/S
SCALE: 1/8" = 1'-0"

- GENERAL NOTES:**
1. CONTRACTOR TO COORDINATE ARCHITECTURAL DRAWINGS WITH PLUMBING, MECHANICAL, HVAC, ELECTRICAL, STRUCTURAL, & EQUIPMENT VENDORS.
 2. MATCH FLASHING TO ADJACENT FINISH, TYP.
 3. COORDINATE ALL PENETRATIONS WITH RESPECTIVE TRADES.
 4. SEE SCHEDULES & TYPES A-003 FOR MORE INFORMATION
- FINISH NOTES:**
- MP-1:** HORIZONTAL METAL PANEL, SEE SPECIFICATIONS
- MP-2:** INSULATED METAL PANEL, SEE SPECIFICATIONS



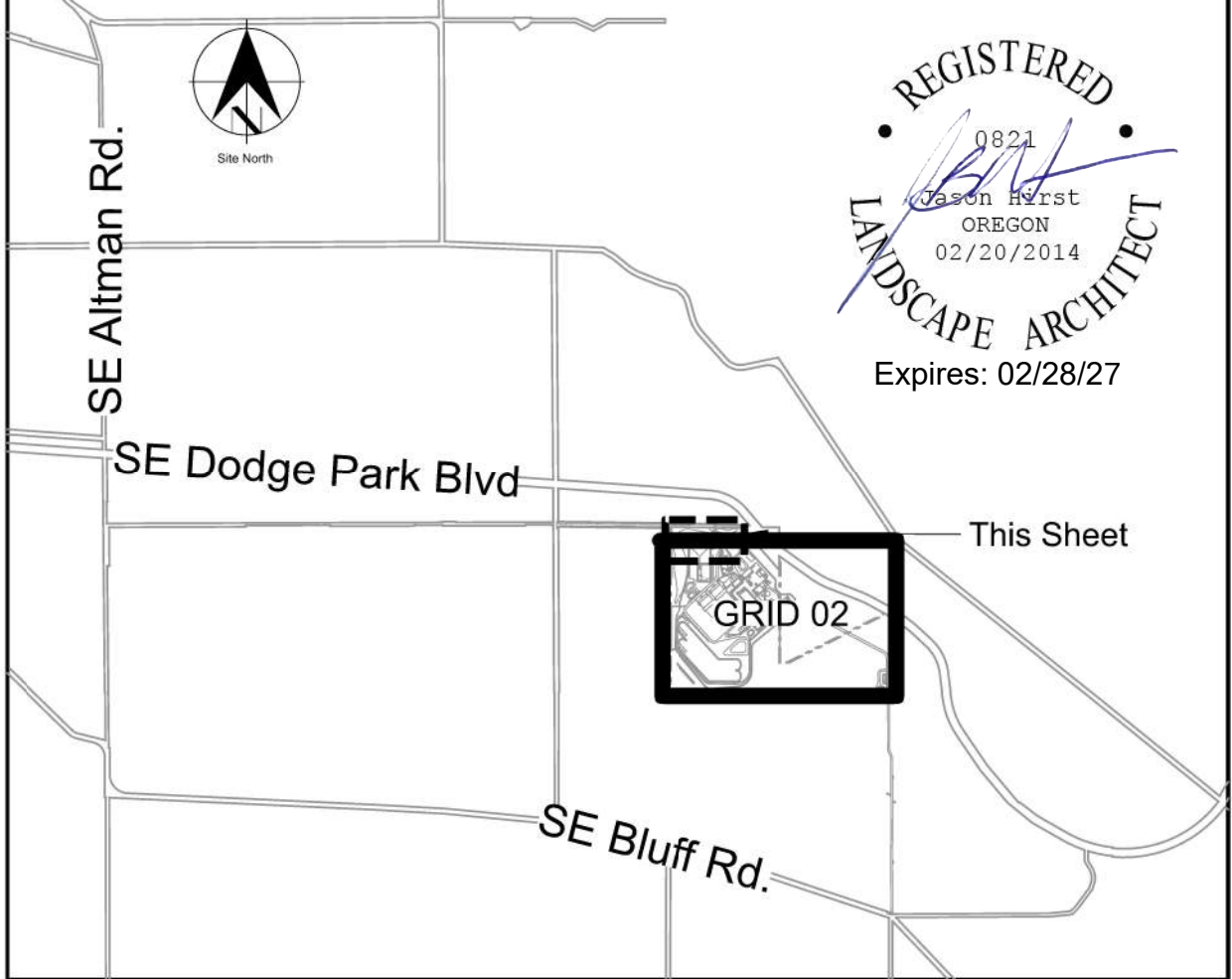


 This document, ideas, and designs incorporated herein, are an instrument of professional service, and is not to be used, in whole or in part, for any other project without the written authorization of Consor.	Consultant: Industrial Systems INC 12119 NE 99th Street Suite #2090 Vancouver, Washington 98682 Phone: (360) 718-7267 Fax: (360) 952-8958 e-mail: is@industrialsystems-inc.com OR CCB #196597 WA #INDUS88093 AK #1019438 PROJECT#: 24.03.01	Engineer's Seal: PRELIMINARY NOT FOR CONSTRUCTION 	Client / Owner: CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	Project Title: ELECTRICAL PUMP STATION BUILDING SITE PLAN PHOTOMETRICS	Designed By: JSC	Consor Project No.: W232464OR
					Drawn By: JSC	Issued On: FEBRUARY 2025
					Checked By: MQH	E-104
					Approved By: JEM	0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE

Plot Date: 29-JUL-2026 14:10 User: jason
File: Pumpstation-L-101.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PenTable.pen PlotScale: 1:0.0833333



KEY PLAN



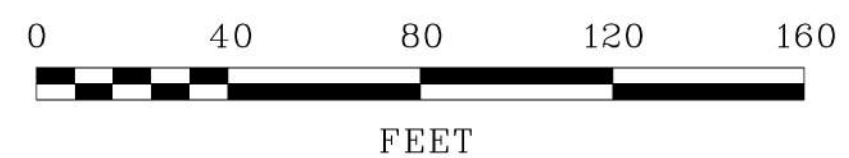
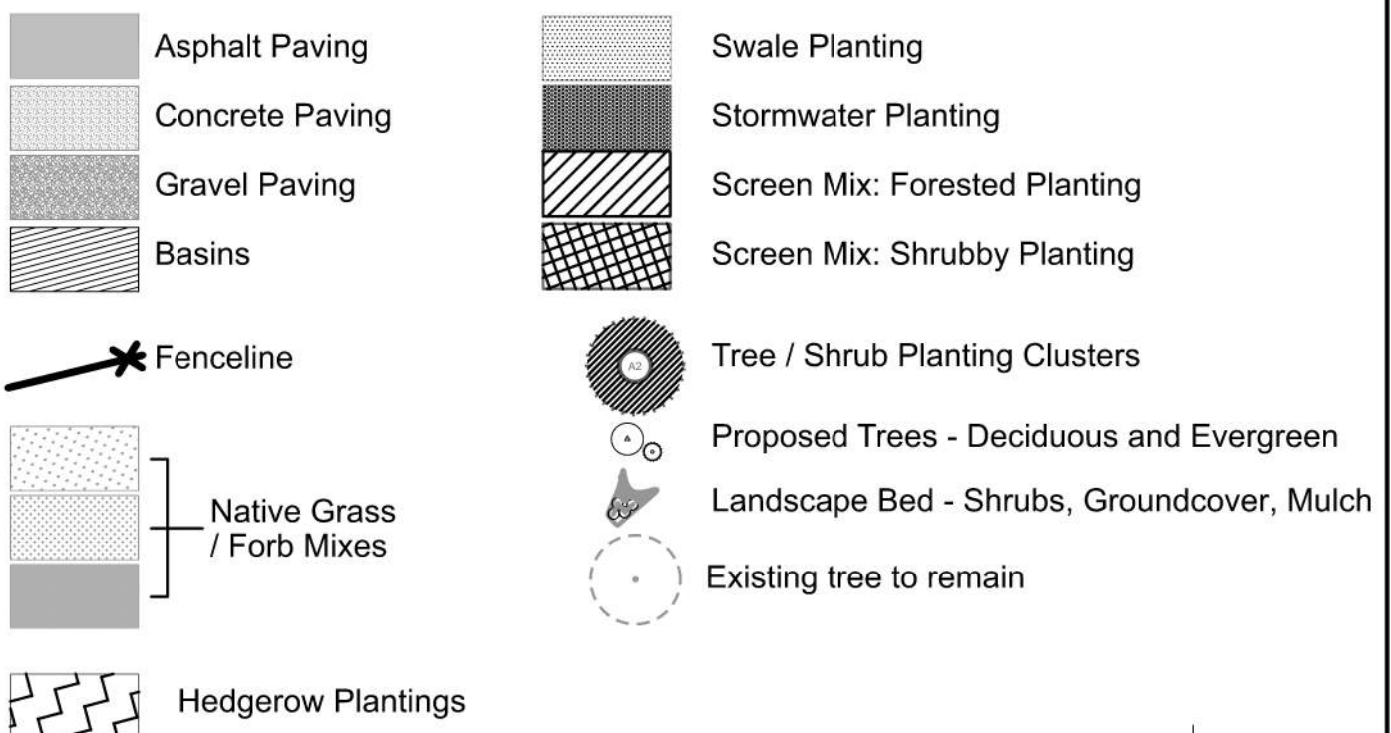
Sheet Keynotes

- | | |
|--------------------------------|--|
| 1. Carpenter Lane Entry | 26. Finish Water Clearwell (Below Grade) |
| 2. Main Facility Entry Gates | 27. City of Sandy Pumpstation |
| 3. North PGE Electrical Cutout | 28. West Screening Berm |
| 4. Septic Structure (At Grade) | 29. Easement on PWB Property (To Remain) |
| 5. Septic Drainage Field | 46. No Parking Sign |

General Sheet Notes

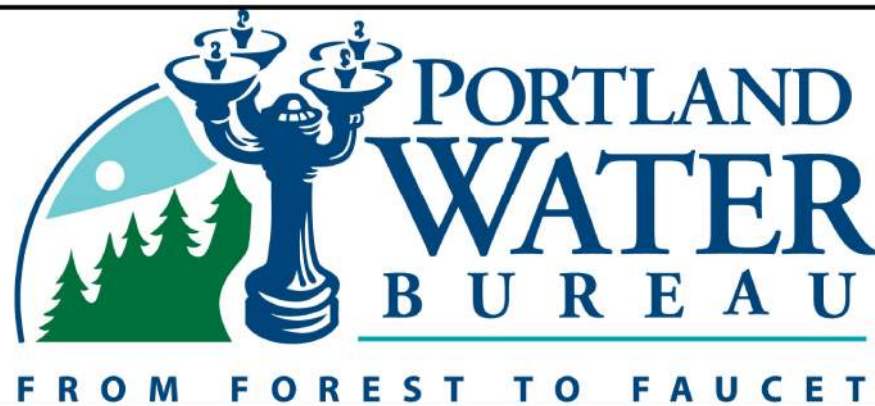
- Site is Zoned MUA-20
- No development or construction activity proposed within SEC zones on Filtration Site. Revegetation of existing agricultural land to be performed with hand tools only. Native plant species only allowed for revegetation in these zones
- No development or construction activity proposed within Geohazard Area on Filtration Site.

Legend



Designed By	NNA	Design Mgr	XXX
Drawn By	NNA	Const Mgr	XXX
Checked By	NNA	CM/I Engr Mgr	XXX
Project Mgr	Date	XXX/XXX/XX	

Warning
0 1/2 1
If this bar does not measure 1" then the drawing is not to scale



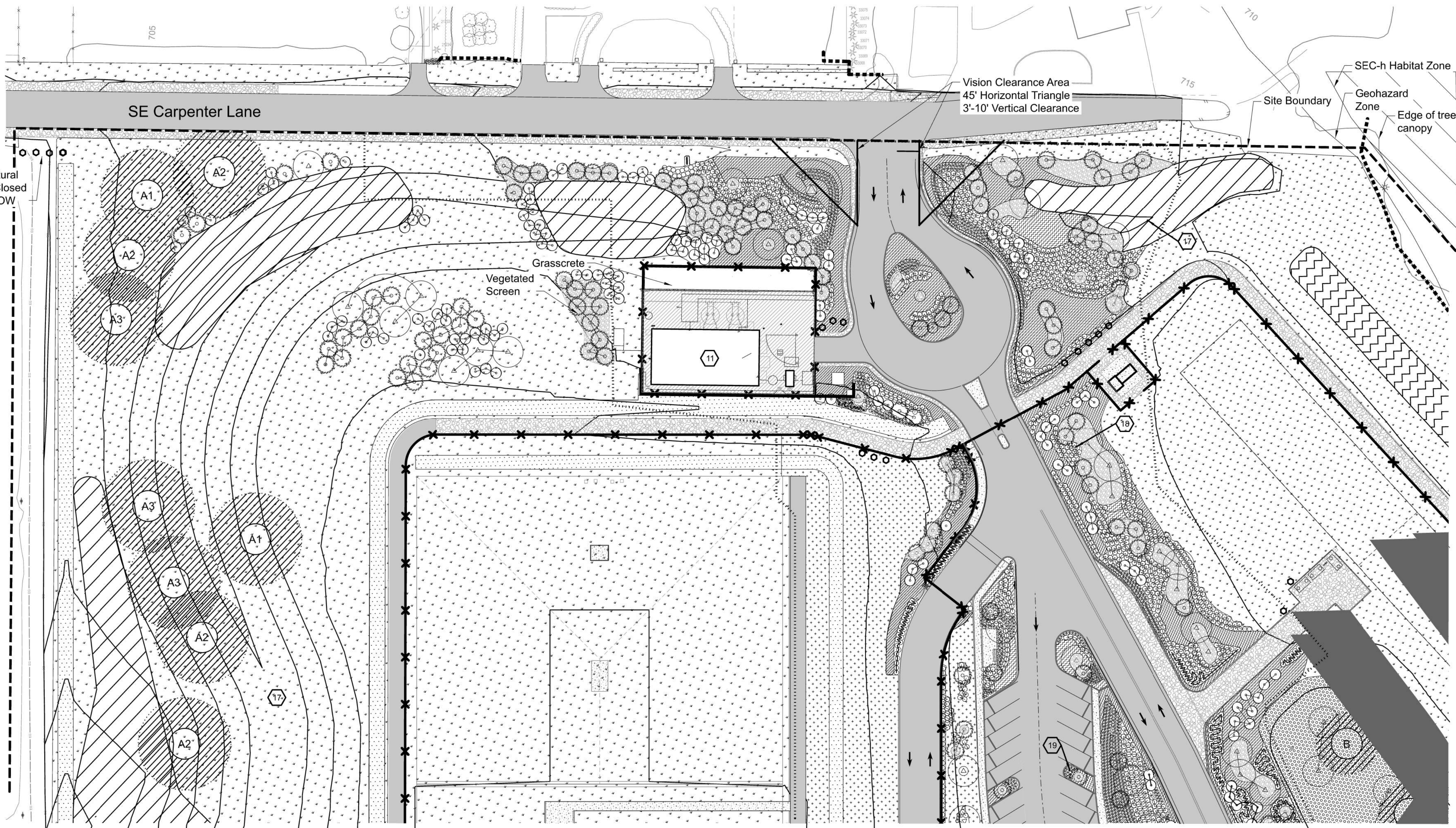
David W. Peters, Engineering Manager, PE No 16683



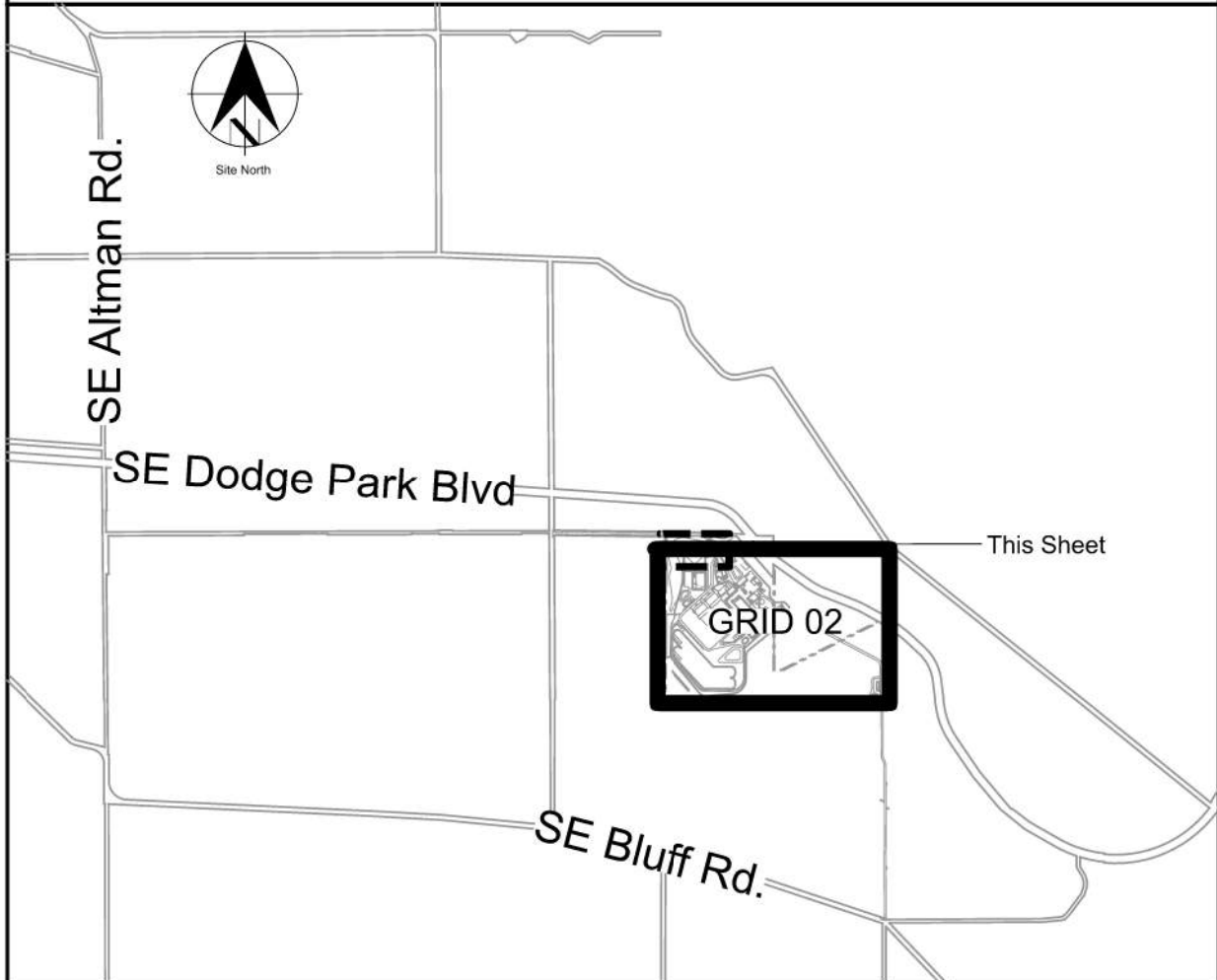
Bull Run Filtration Facility
Land Use Plans
Proposed Conditions Site Plan Enlargement
Sandy Pumpstation

SAP Project No
W02229
1/4 Section
Sheet No
L-101

Plot Date: 29-JUL-2026 15:17 User: jason
File: Pumpstation-L-102.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PenTable.pen PlotScale: 1:0.0833333



KEY PLAN



Sheet Keynotes

11. City of Sandy Pump Station
17. Planted Berm for Screening
18. Plantings at Facility Entry (See Planting Note 2)
19. Parking Area plantings (See Planting Note 3)

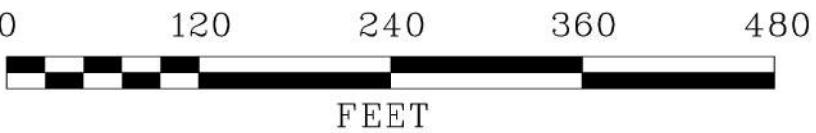
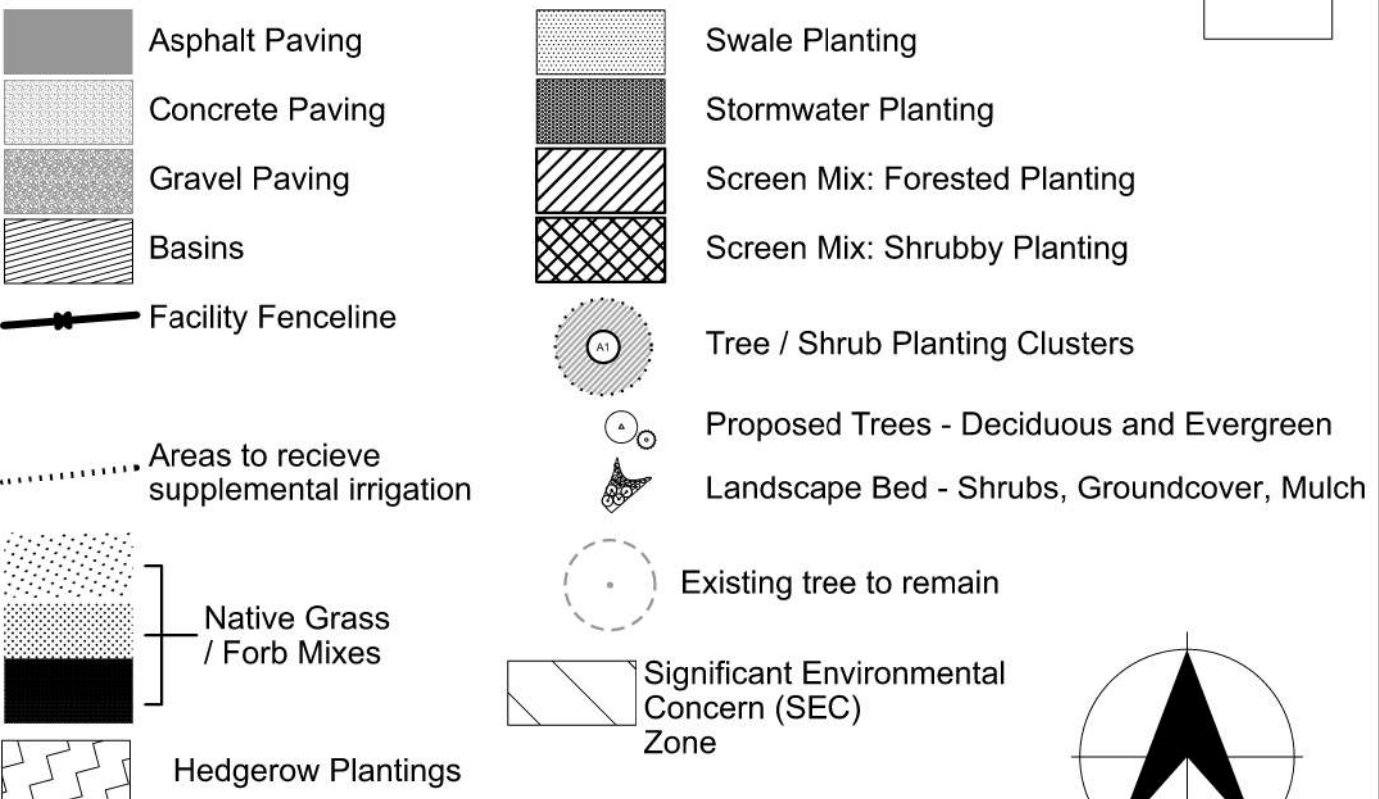
Planting Notes

1. Communication Tower Area planting is designed to meet screening and parking requirements. See sheet LU-403 for enlargment and more detail on specific requirements.
2. Plantings around facility buildings are of a more ornamental nature and are proposed as containerized plants which will have supplemental irrigation. See sheet LU-400,401 and 402 for enlargements to see plant sizes and locations in this area. Additional seeded areas shown within facility also may recieve supplemental irrigation as a fire risk mitigation measure. See outlined area.
3. Parking Area plantings - See sheets LU-400 and LU-402 for enlargments to see locations of parking islands with plant sizes to meet parking lot planting requirements and listed by Multnomah County.
4. SEC Water Resource Area - This area is currently under agricultural use and has bare soil. Proposed plans have no additional disturbance within this zone. Proposed plantings to be all native species installed with hand tools only.

General Sheet Notes

1. No development or construction activity proposed within SEC zones on Filtration Site. Native plantings only within these zones.

Legend

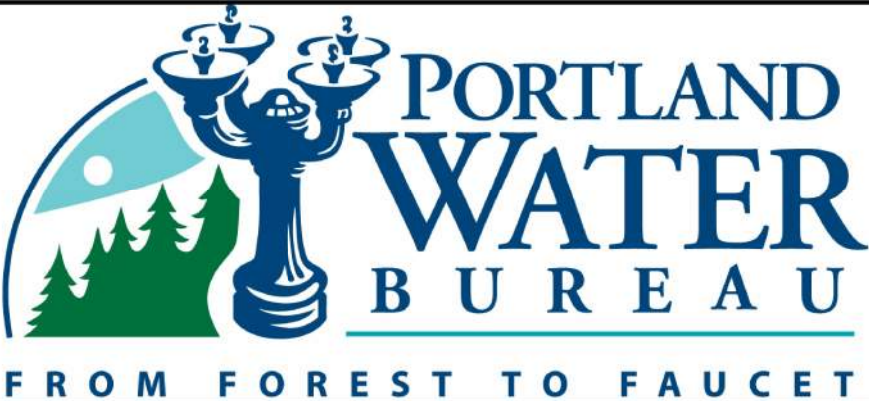


SCALE: 1" = 120'-0"



Designed By	NNA	Design Mgr	XXX
Drawn By	NNA	Const Mgr	XXX
Checked By	NNA	CM/I Engr Mgr	XXX
Project Mgr	XXX	Date	XX/XX/XX

Warning
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If this bar does not measure 1" then the drawing is not to scale



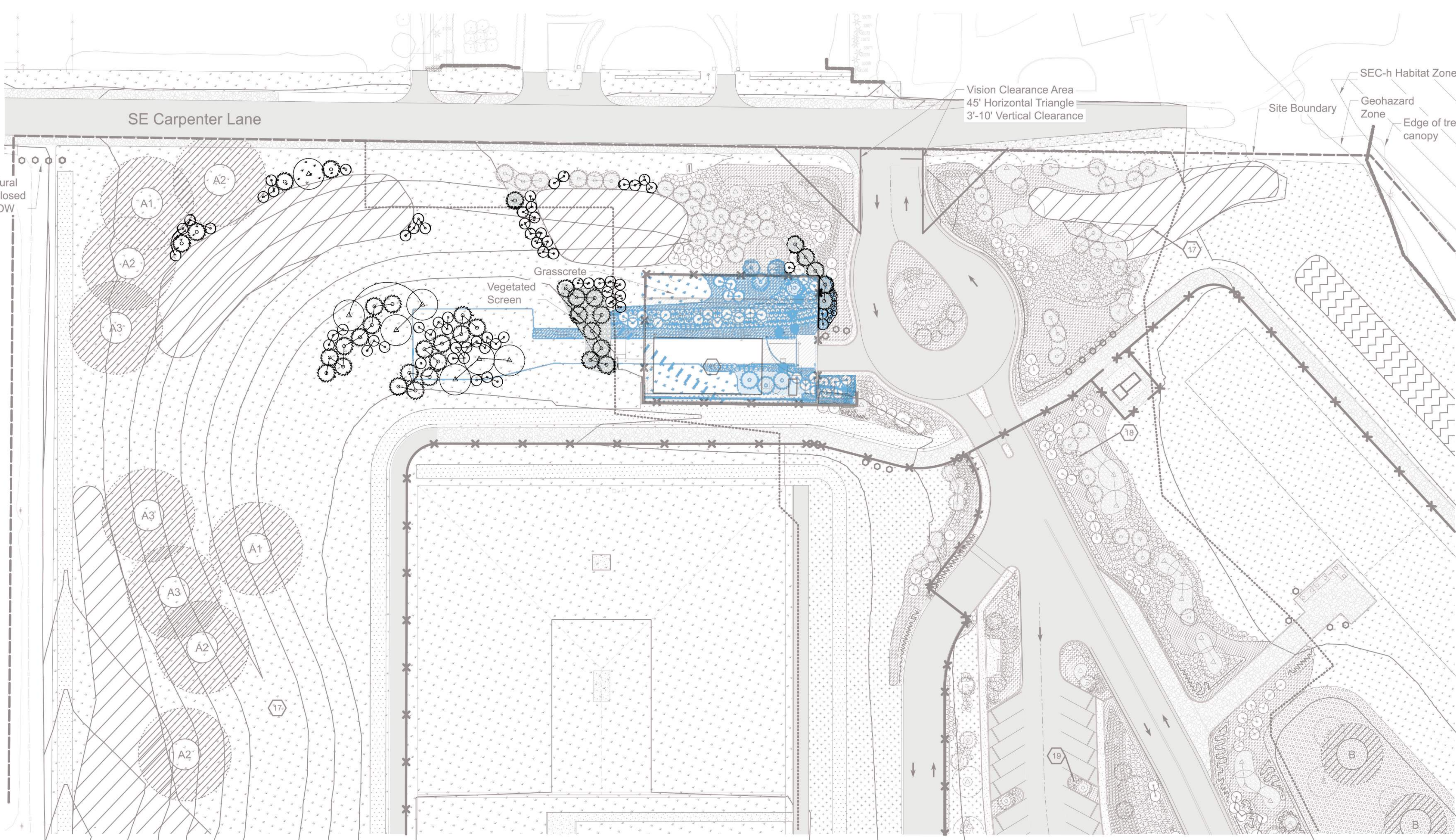
David W. Peters, Engineering Manager, PE No 16683



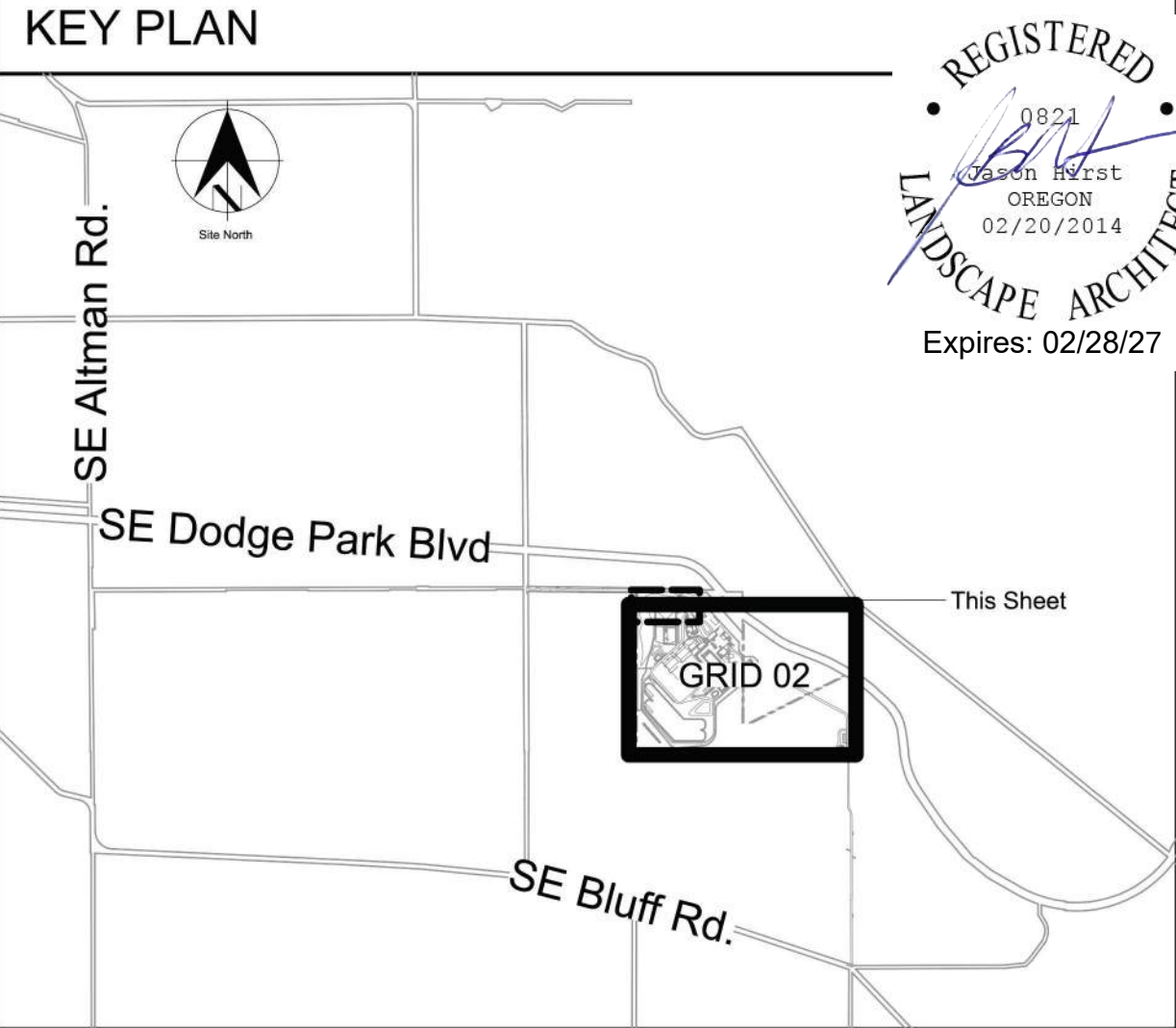
Bull Run Filtration Facility
Land Use Plans
Landscape Plan Enlargement
Sandy Pumpstation

SAP Project No
W02229
1/4 Section
-
Sheet No
L-102

Plot Date: 24-JUN-2026 16:12 User: BRIANNA File: Pumpstation Copy - W02229-FF-00-LU-306.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PerTable.pen PlotScale: 1:0.0833333



7 Trees Replaced
27 Shrubs Replaced
36 Trees Added
36 Shrubs Added



Sheet Keynotes

11. City of Sandy Pump Station
17. Planted Berm for Screening
18. Plantings at Facility Entry (See Planting Note 2)
19. Parking Area plantings (See Planting Note 3)

Planting Notes

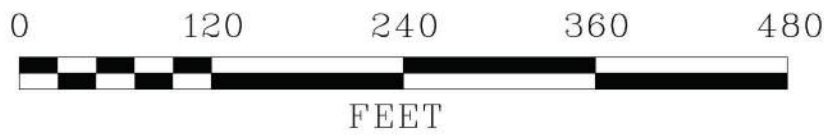
1. Communication Tower Area planting is designed to meet screening and parking requirements. See sheet LU-403 for enlargement and more detail on specific requirements.
2. Plantings around facility buildings are of a more ornamental nature and are proposed as containerized plants which will have supplemental irrigation. See sheet LU-400, 401 and 402 for enlargements to see plant sizes and locations in this area. Additional seeded areas shown within facility also may receive supplemental irrigation as a fire risk mitigation measure. See outlined area.
3. Parking Area plantings - See sheets LU-400 and LU-402 for enlargements to see locations of parking islands with plant sizes to meet parking lot planting requirements and listed by Multnomah County.
4. SEC Water Resource Area - This area is currently under agricultural use and has bare soil. Proposed plans have no additional disturbance within this zone. Proposed plantings to be all native species installed with hand tools only.

General Sheet Notes

1. No development or construction activity proposed within SEC zones on Filtration Site. Native plantings only within these zones.

Legend

Asphalt Paving	Swale Planting
Concrete Paving	Stormwater Planting
Gravel Paving	Screen Mix: Forested Planting
Basins	Screen Mix: Shrubby Planting
Facility Fenceline	Tree / Shrub Planting Clusters
Areas to receive supplemental irrigation	Proposed Trees - Deciduous and Evergreen
Native Grass / Forb Mixes	Landscape Bed - Shrubs, Groundcover, Mulch
Hedgerow Plantings	Existing tree to remain
	Significant Environmental Concern (SEC) Zone

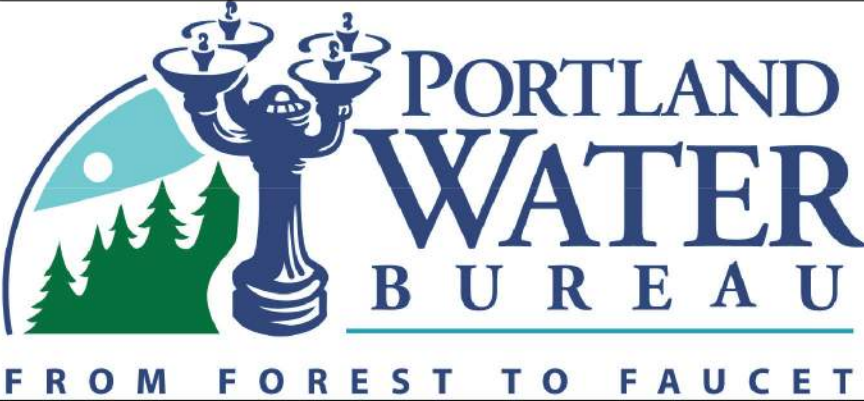
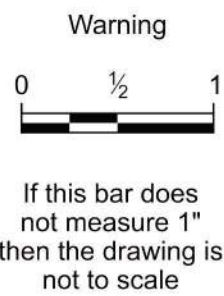


SCALE: 1" = 120'-0"



CF No	Date	Description	MRG Appd
Revision			
Survey			

Designed By	NNA	Design Mgr	NNA
Drawn By	NNA	Const Mgr	NNA
Checked By	NNA	CM/II Engr Mgr	NNA
Project Mgr	NNA	Date	XX/XX/XX



David W. Peters, Engineering Manager, PE No 16683



Bull Run Filtration Facility
Land Use Plans
Planting Comparison

SAP Project No W02229
1/4 Section -
Sheet No L-103

Plot Date: 31-Jul-2026 10:34 User: jason
File: Pumpstation-L-103.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PentTable.pen PlotScale: 1:0.0833333

Planting Lists on this sheet describe plantings outside the Facility fence only on sheets 00-LU-302EN and 00-LU-306EN for the Sandy Pumpstation Area Update.

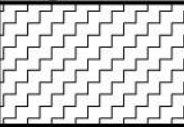
Planting Clusters

Planting Clusters				
Legend	Botanical Name	Common Name	Plant Size Unirrigated / Irrigated	% Composition
A1	<i>Quercus garryana</i>	Oregon White Oak	1.5" Cal. B&B	100%
A2	<i>Pinus ponderosa</i> var. <i>benthamiana</i>	Pacific Ponderosa Pine	6' Ht. B&B	20%
	<i>Quercus garryana</i>	Oregon White Oak	1.5" Cal. B&B	80%
A3	<i>Amelanchier alnifolia</i>	Western Service Berry	1 Gal. Bareroot	5%
	<i>Holodiscus discolor</i>	Oceanspray	1 Gal. Bareroot	5%
	<i>Mahonia aquifolium</i>	Oregon Grape	1 Gal. Bareroot	10%
	<i>Philadelphus lewisii</i>	Mockorange	1 Gal. Bareroot	5%
	<i>Physocarpus capitatus</i>	Ninebark	1 Gal. Bareroot	5%
	<i>Quercus garryana</i>	Oregon Oak	1.5" Cal. B&B	30%
	<i>Rosa gymnocarpa</i>	Baldhip Rose	1 Gal. Bareroot	15%
	<i>Symphoricarpos albus</i>	Snowberry	1 Gal. Bareroot	15%

Screening Planting Mixes

Screening Mix - Forested				
Legend	Botanical Name	Common Name	Plant Size Unirrigated / Irrigated	% Composition
	Trees			
	<i>Abies grandis</i>	Grand Fir	6' Height	15%
	<i>Acer macrophyllum</i>	Bigleaf Maple	1.5" Cal. B&B	5%
	<i>Calocedrus decurrens</i>	Incense Cedar	6' Height	15%
	<i>Larix occidentalis</i>	Western Larch	6' Height	5%
	<i>Pinus ponderosa</i>	Ponderosa Pine	6' Height	10%
	<i>Pseudotsuga menziesii</i>	Douglas Fir	6' Height	5%
	<i>Rhamnus purshiana</i>	Cascara	1.5" Cal. B&B	5%
	<i>Salix scouleriana</i>	Scouler's Willow	1.5" Cal. B&B	5%
	Shrubs			
	<i>Mahonia aquifolium</i>	Tall Oregon Grape	Bareroot	15%
	<i>Oemleria ceracisiformis</i>	Osoberry	Bareroot	5%
	<i>Polystichum munitum</i>	Swordfern	Bareroot	5%
	<i>Rubus parviflorus</i>	Thimbleberry	Bareroot	5%
	<i>Symphoricarpos albus</i>	Snowberry	Bareroot	5%

Groundcover Mix

Extended Area Groundcover				
Legend	Botanical Name	Common Name	Plant Size	% Composition
	<i>Arctostaphylos</i> 'Vancouver Jade'	Vancouver Jade Bearberry	1 Gal.	33%
	<i>Carex flacca</i>	Grey Sedge	1 Gal.	33%
	<i>Fragaria chiloensis</i>	Beach Strawberry	1 Gal.	34%

Type 3 Seeding

Grassland Seeding - Color and Fire Resistance Focused			
Legend	Botanical Name	Common Name	lbs/Acre
	<i>Danthonia californica</i>	California Oatgrass	6
	<i>Deschampsia elongata</i>	Slender Hairgrass	5
	<i>Festuca occidentalis</i>	Western Fescue	1
	<i>Festuca roemerii</i>	Roemer's Fescue	2
	<i>Hordeum brachyantherum</i>	Meadow Barley	2
	<i>Koeleria macrantha</i>	Prairie Junegrass	1
	<i>Poa scabrella</i>	Pine Junegrass	2
	Forbs		
	<i>Achillea millefolium</i>	Yarrow	0.5
	<i>Asclepias speciosa</i>	Milkweed	0.5
	<i>Anaphalis marginata</i>	Pearly Everlasting	0.5
	<i>Brodiaea coronaria</i>	Brodiaea	0.5
	<i>Epilobium angustifolium</i>	Fireweed	0.25
	<i>Eriophyllum lanatum</i>	Oregon Sunshine	0.5
	<i>Gaillardia aristata</i>	blanket flower	0.5
	<i>Geranium oreganum</i>	Western Geranium	0.5
	<i>Lomatium macrocarpum</i>	Bigseed Biscuitroot	1
	<i>Lupinus polyphyllus</i>	Bigleaf Lupine	0.1
	<i>Penstemon cardwellii</i>	Cardwell's penstemon	0.25
	<i>Prunella vulgaris</i> ssp <i>lanceolata</i>	Common Selfheal	0.5
	<i>Sidalcea campestris</i>	Meadow checkermallow	0.5
	<i>Solidago canadensis</i>	Canada Goldenrod	0.5

Swale Planting

Stormwater - Seed Mix			
Legend	Botanical Name	Common Name	Lbs/Acre
	Grasses		
	<i>Danthonia californica</i>	California Oatgrass	5
	<i>Deschampsia cespitosa</i>	Tufted Hairgrass	3
	<i>Deschampsia elongata</i>	Slender Hairgrass	3
	<i>Hordeum brachyantherum</i>	Meadow Barley	1
	Flowering Plants		
	<i>Achillea millefolium</i>	Yarrow	0.5
	<i>Aesclepias speciosa</i>	Milkweed	0.5
	<i>Carex densa</i>	Dense Sedge	1
	<i>Carex unilateralis</i>	Lateral Sedge	1
	<i>Juncus patens</i>	Slender Rush	1
	<i>Juncus tenuis</i>	Spreading Rush	1
	<i>Lupinus latifolius</i>	Broadleaf Lupine	0.1
	<i>Potentilla gracilis</i>	Graceful Cinqufoil	0.5
	Conveyance Swale - Shrubs		
	<i>Mahonia repens</i>	Low Oregon Grape	
	<i>Rosa pisocarpa</i>	Swamp Rose	
	<i>Spiraea betulifolia</i>	Birchleaf spirea	
	<i>Spiraea douglasii</i>	Douglas Spirea	

Hedgerow Planting

Hedgerow Planting			
Botanical Name	Common Name	Plant Size	Composition
Trees			
<i>Rhamnus purshiana</i>	Cascara	1/2" Bareroot	39/10,000 sf
Shrubs			
<i>Mahonia aquifolium</i>	Tall Oregon Grape	Bareroot	57/10,000 sf
<i>Ribes malvaceum</i>	Chapparral Currant	Bareroot	57/10,000 sf
<i>Rosa gymnocarpa</i>	Baldhip Rose	Bareroot	57/10,000 sf
<i>Rosa nutkana</i>	Nootka Rose	Bareroot	57/10,000 sf
<i>Rubus parviflorus</i>	Thimbleberry	Bareroot	57/10,000 sf
<i>Spiraea douglasii</i>	Douglas Spiraea	Bareroot	57/10,000 sf
<i>Symphoricarpos albus</i>	Snowberry	Bareroot	57/10,000 sf

Individual Plants

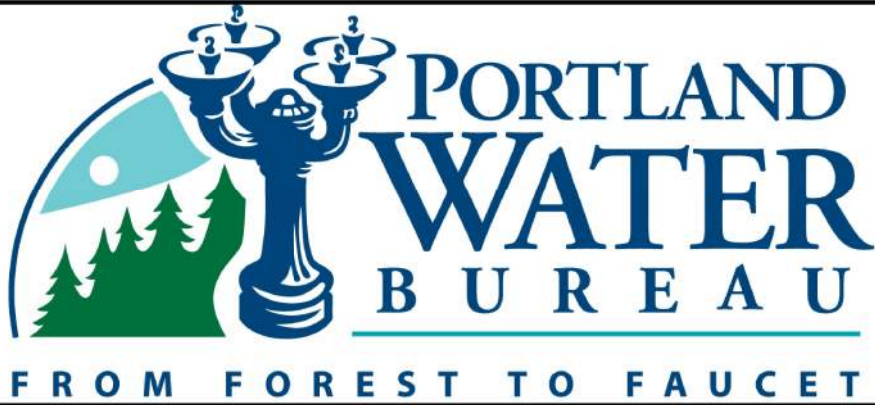
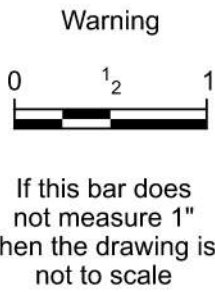
Managed Landscape Areas Outside of Facility Fence			
Legend	Botanical Name	Common Name	Plant Size
Trees			
ALN RHO	<i>Alnus rhombifolia</i>	White Alder	1.5" Cal.
CAL DEC	<i>Calocedrus decurrens</i>	Incense-Cedar	6' Height
PIN PON	<i>Pinus ponderosa</i> var. <i>benthamiana</i>	Pacific Ponderosa	6' Height
PSE MEN	<i>Pseudotsuga menziesii</i>	Douglas-fir	1.5" Cal.
QUE GAR	<i>Quercus garryana</i>	Oregon White Oak	2" Cal.
RHA PUR	<i>Rhamnus purshinana</i>	Cascara	1.5" Cal.
Large Shrubs (5-10')			
GAR ELL	<i>Garrya elliptica</i>	Silk Tassle Tree	5 Gal.
MYR CAL	<i>Myrica californica</i>	Pacific Wax Myrtle	5 Gal.
Small Shrubs (2' - 5')			
COR KEL	<i>Cornus</i> 'Kelsey'	Kelsey's Dogwood	1 Gal.
MAH COM	<i>Mahonia aquifolium</i> 'Compacta'	Compact Oregon Grape	1 Gal.
PHI LEW	<i>Philadelphus lewisii</i> 'Snow Dwarf'	Dwarf Mockorange	1 Gal.
POL MUN	<i>Polystichum munitum</i>	Western Sword Fern	5 Gal.
SPI BET	<i>Spiraea betulifolia</i> var. 'Tor'	Birchleaf Spirea	1 Gal.
VAC OVA	<i>Vaccinium ovatum</i>	Evergreen Huckleberry	5 Gal.
Herbaceous (perennials, ferns, grasses)			
DES GOL	<i>Deschampsia</i> 'Goldtau'	Gold Dew Tufted Hairgrass	1 Gal.



CF	05/10/24	For Conformed Documents		MIRG
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Revision				
Survey				



Designed By	XXX	Design Mgr	XXX
Drawn By	XXX	Const Mgr	XXX
Checked By	XXX	CM/I Engr Mgr	XXX
Project Mgr	XXX	Date	05/10/24



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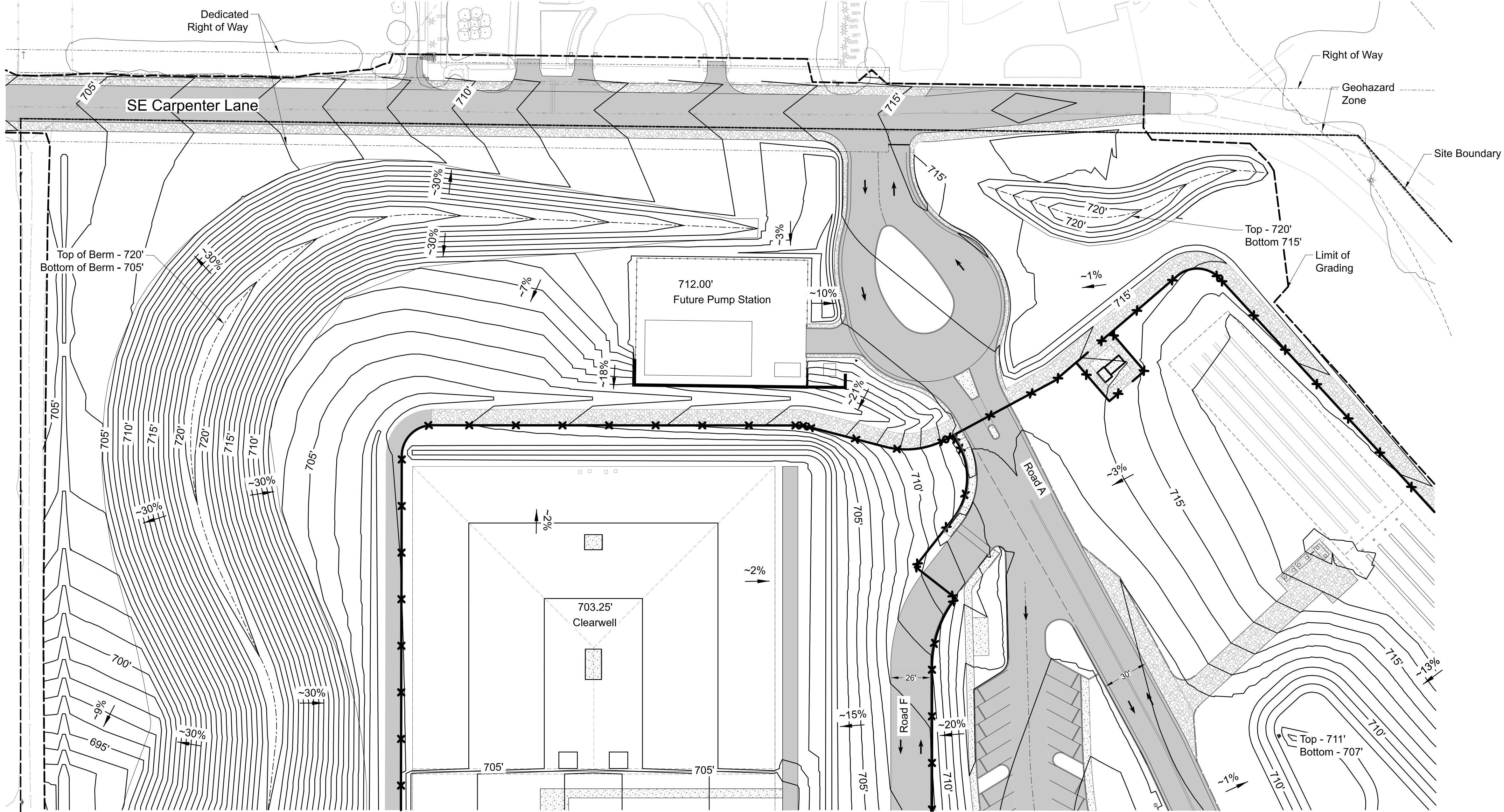
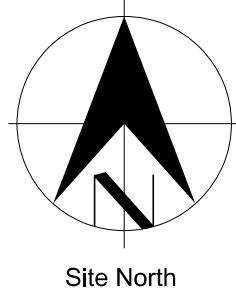


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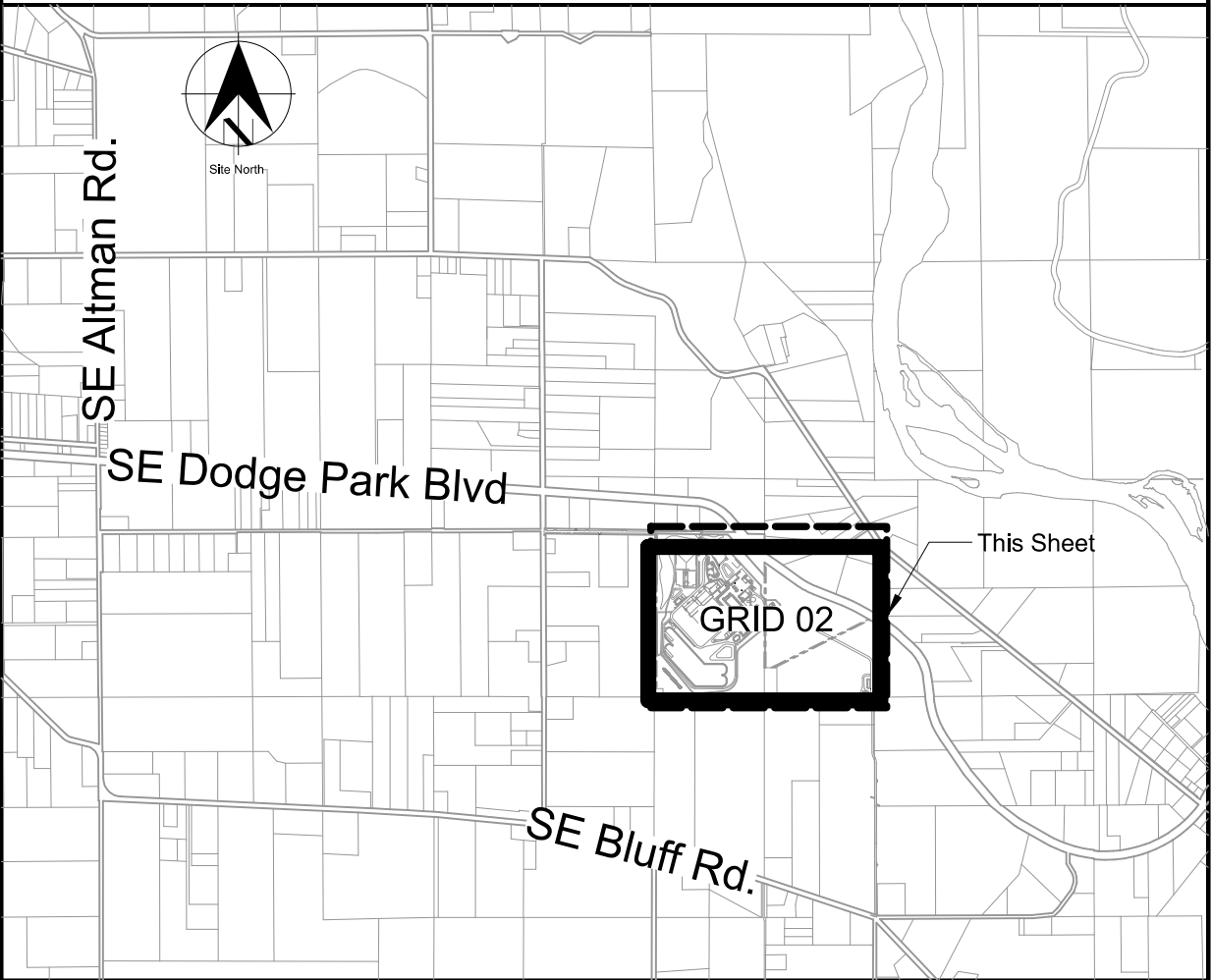
Bull Run Filtration Facility
Land Use Plans
Pumpstation Area Planting Lists

SAP Project No W02229
1/4 Section -
Sheet No L-104

Plot Date: 25-AUG-2025 15:13 User: kflowler
File: SLU_W02229_FF_00-LU-304.dgn Model: Layout1 ColorTable: user attached from dialog DesignScript: PWB_PenTable_Red.pen PlotScale: 1:0.0833333



KEY PLAN



Cut and Fill Data:

-Cut 688 CY
-Fill 176 CY
-Net adjusted 512 CY

Legend

- Major Contour
- Minor Contour
- Geohazard
- Deciduous Tree
- Evergreen Tree
- Existing Water Line
- Existing Fence
- Existing Gas Line
- Existing Overhead line
- Existing Structure
- Existing Edge of Vegetation
- Property Line
- Right-of-Way
- Easement
- Ditch
- Water Valve
- Utility Pole
- Sanitary Maintenance Hole
- Edge of Gravel
- Site Boundary



Designed By	JSL	Design Mgr	USH
Drawn By	BVS	Const Mgr	TG
Checked By	RG	CM/I Engr Mgr	AB
Project Mgr	MRG	Date	05/10/24

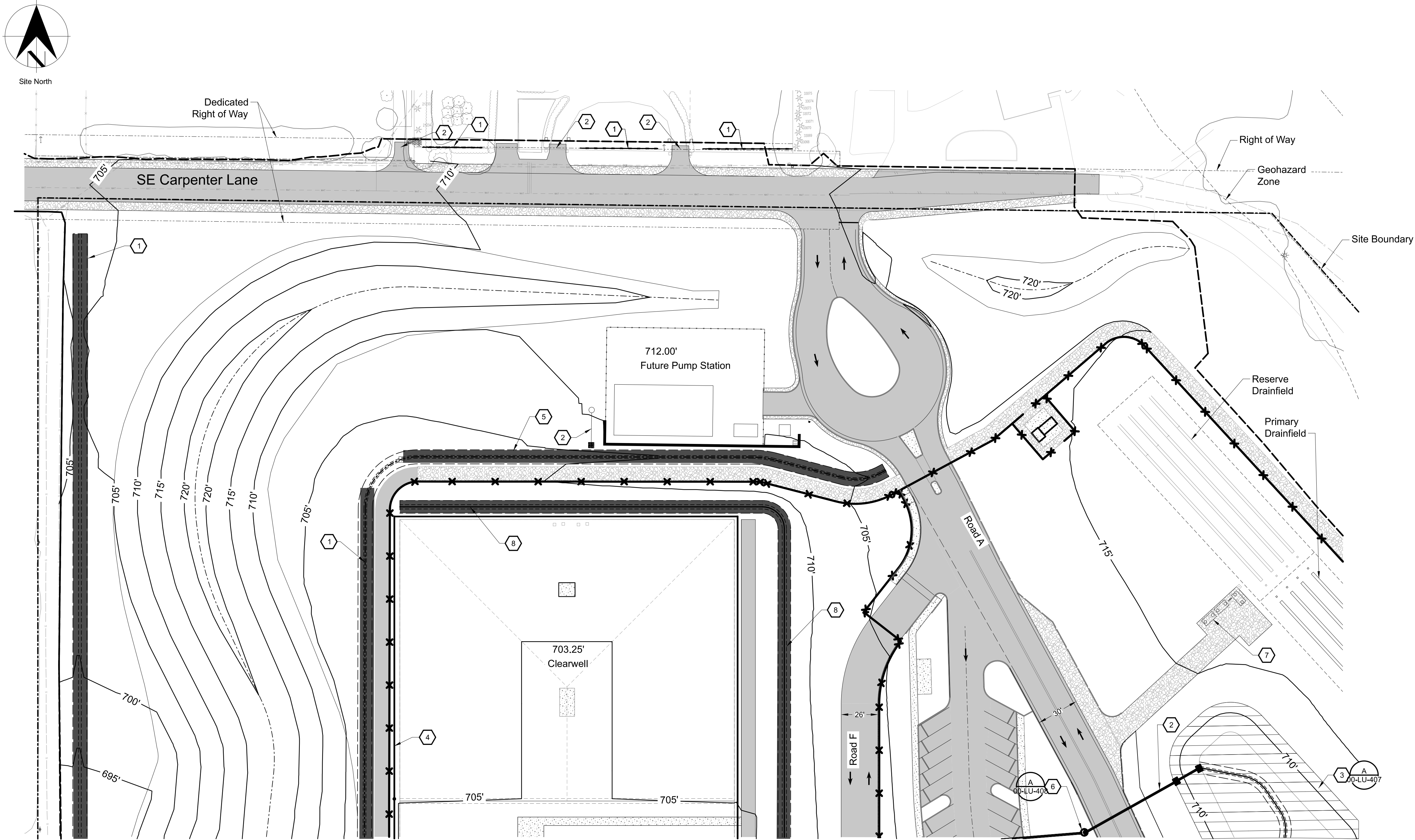
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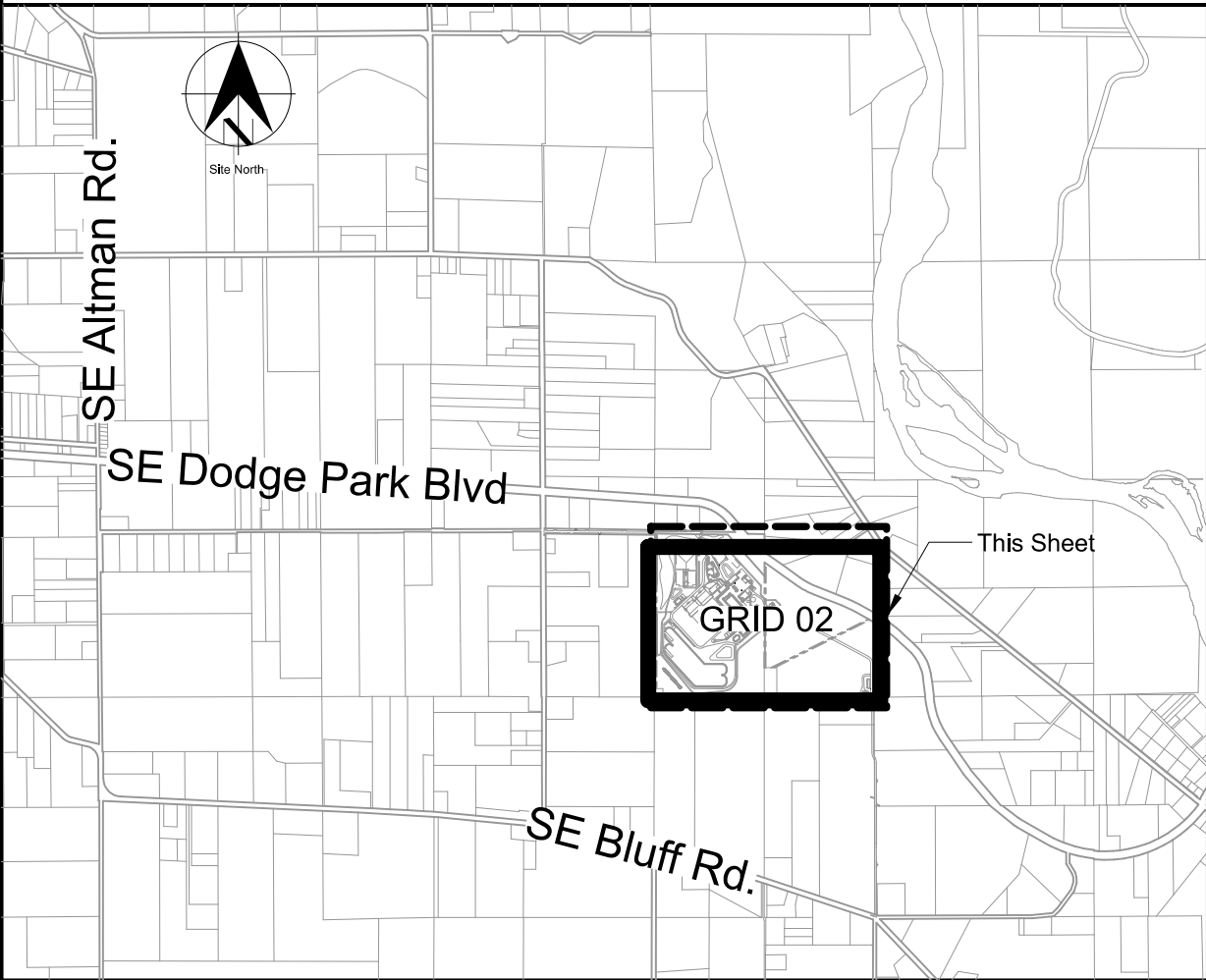
Bull Run Filtration Facility
Civil
Grading Plan
Filtration Facility

SAP Project No
W02229
1/4 Section
3765 / 3766
Sheet No
00-LU-304
of 2434

Plot Date: 25-AUG-2025 15:41 User: krowler
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KEY PLAN



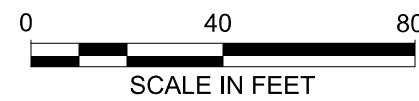
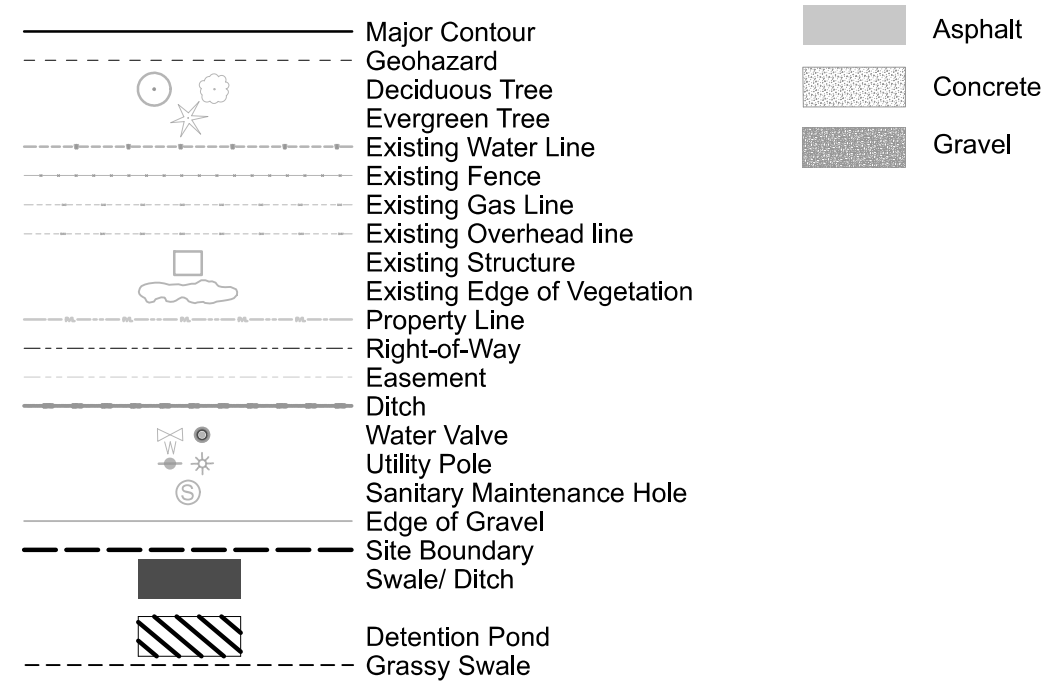
General Sheet Notes

1. Refer to Filtration Facility Stormwater Report (Appendix H.1) for stormwater calculations and sizing.
2. See 00-LU-304 (Grading Plan) for ground disturbance limits.
3. See 00-LU-306 (Landscape Plan) for propose vegetation.

Sheet Keynotes

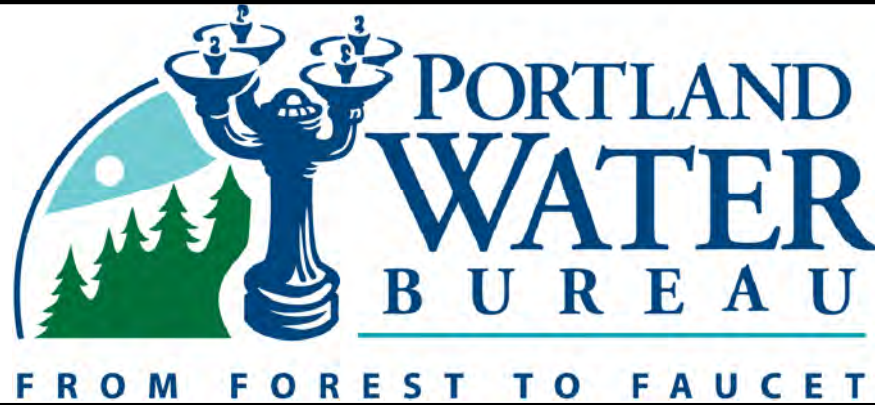
1. Drainage Ditch per detail C-170/GEN-C-923
2. Storm Pipes
3. Detention Pond
4. Underdrain Storm Pipe
5. Water Quality Swale per detail C-169/GEN-C-923
6. Flow Control Maintenance Hole
7. Septic Tank
8. Basin with Underdrain per detail C-161/GEN-C-923

Legend



Designed By	USL	Design Mgr	USH
Drawn By	BYS	Const Mgr	TG
Checked By	RG	CM/I Engr Mgr	AB
Project Mgr	MRG	Date	05/10/24

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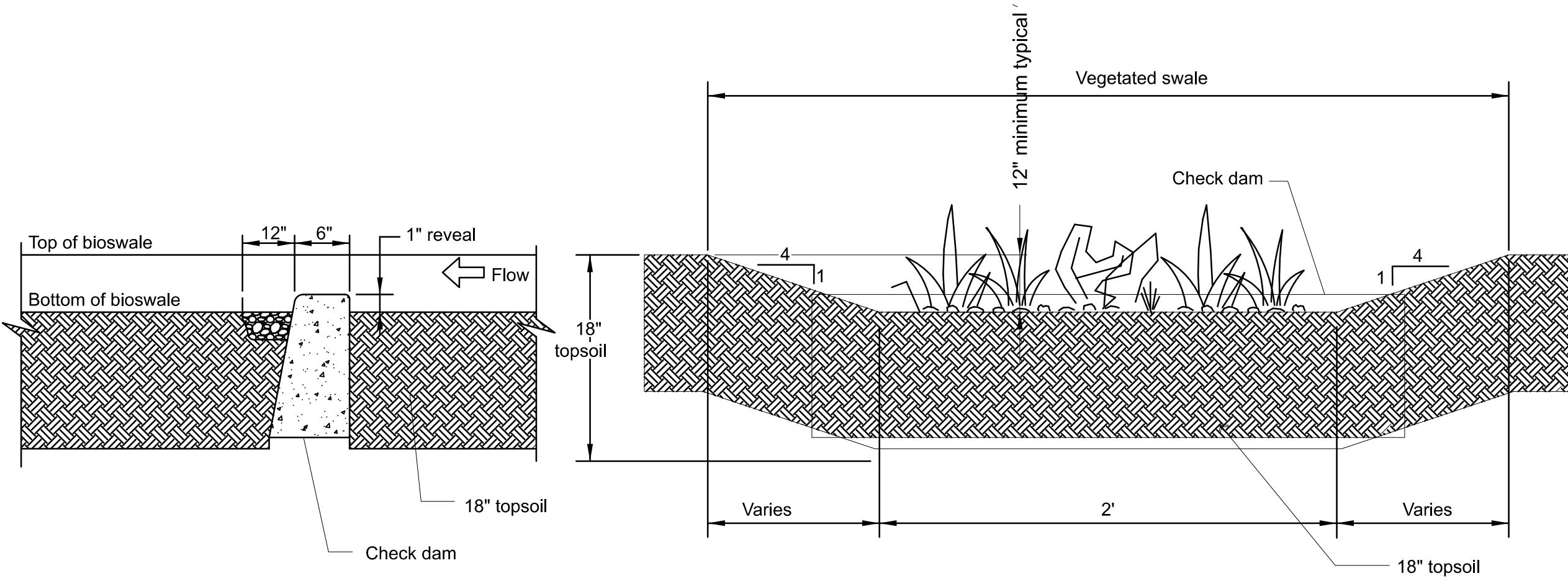
David W. Peters, Engineering Manager, PE No 16683



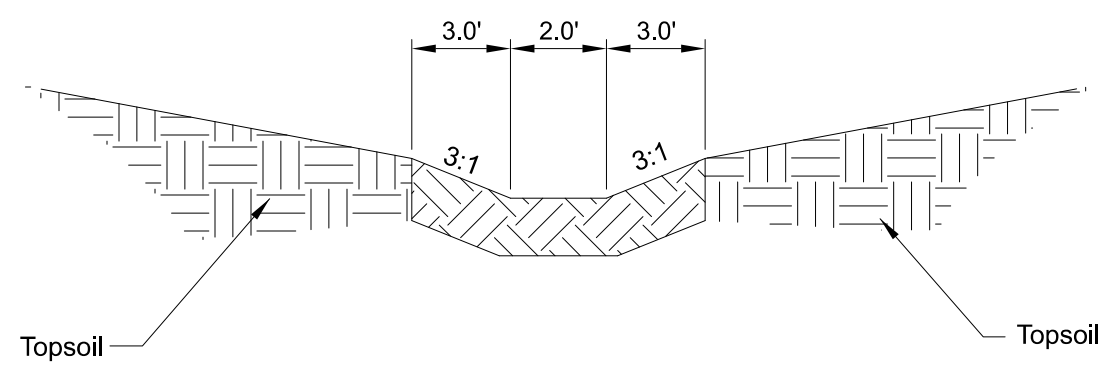
Bull Run Filtration Facility
Civil
Stormwater Management Plan
Filtration Facility

SAP Project No
W02229
1/4 Section
3765 / 3766
Sheet No
00-LU-307
of 2434

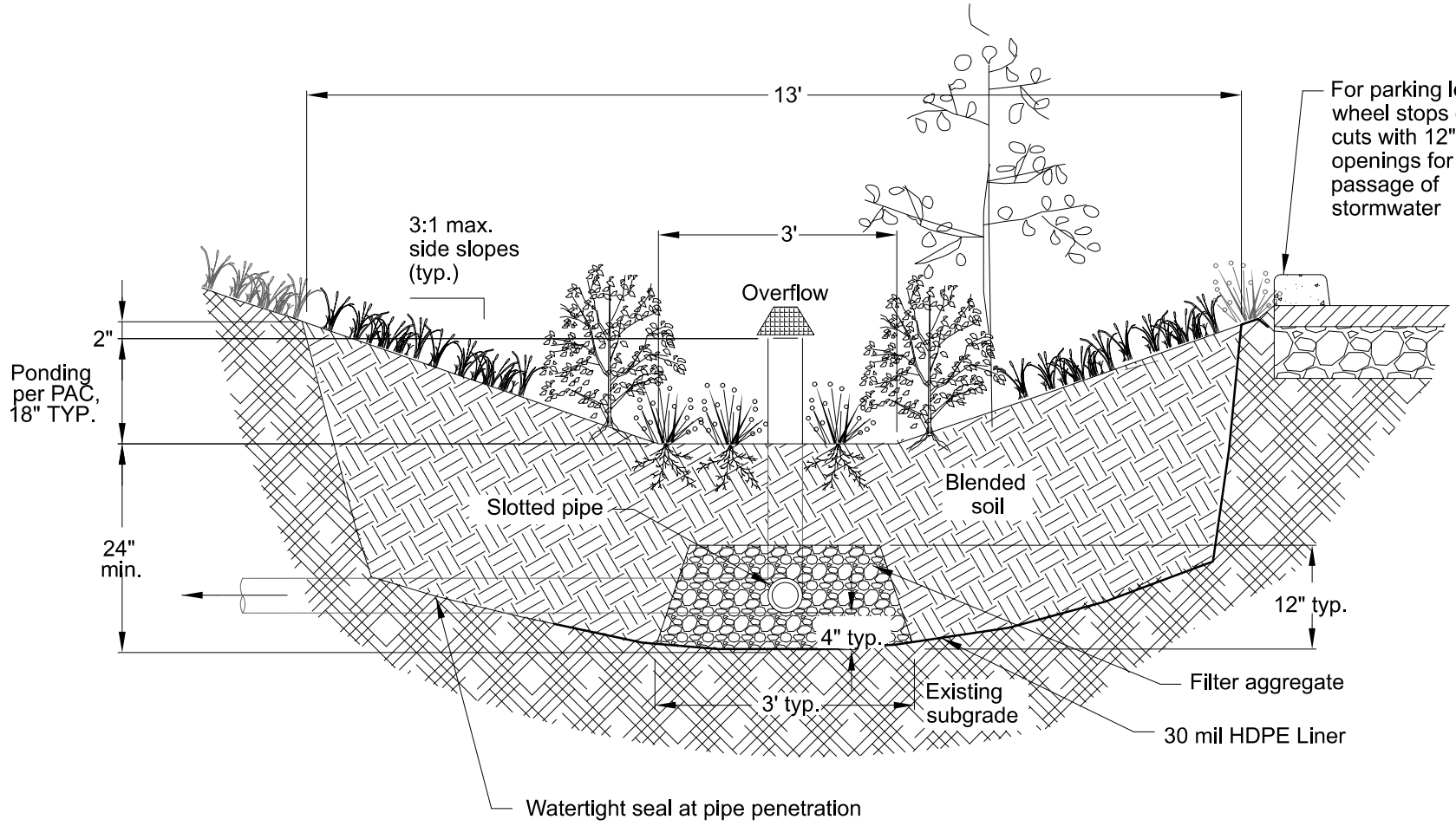
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C-169 TYPICAL GRASSY SWALE
NTS

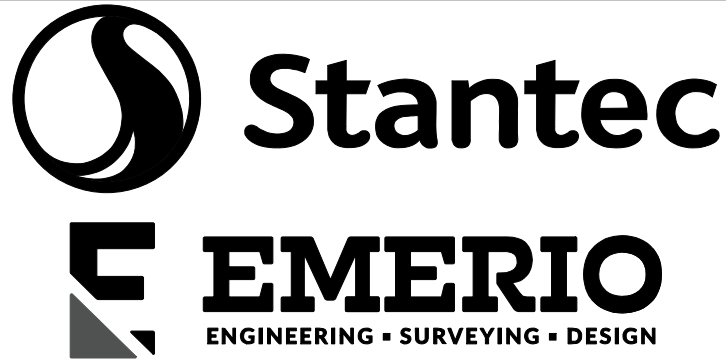


C-170 DITCH
NTS



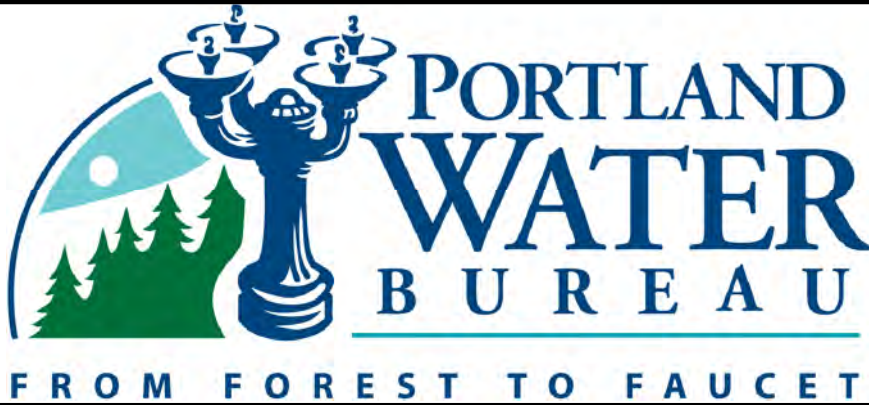
C-161 BASIN WITH UNDERDRAIN
NTS

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Revision				
Survey				



Designed By	RG	Design Mgr	LGH
Drawn By	DJD	Const Mgr	TG
Checked By	LCS	CM/I Engr Mgr	AB
Project Mgr	MRG	Date	05/10/24

Warning
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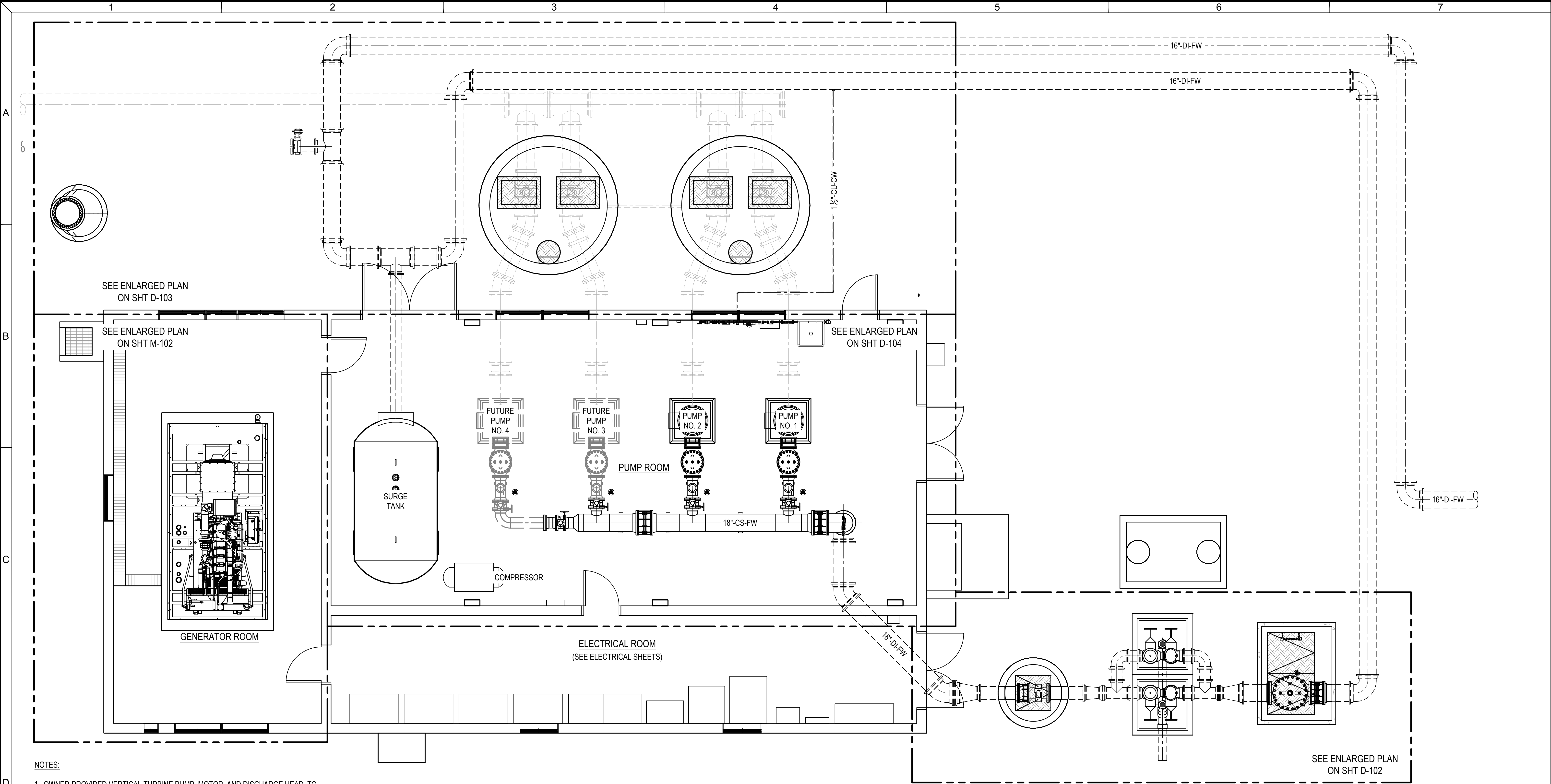


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Bull Run Filtration Facility
Civil
Storm
Details 4

SAP Project No
W02229
1/4 Section
3765 / 3766
Sheet No
GEN-C-923
of 2434



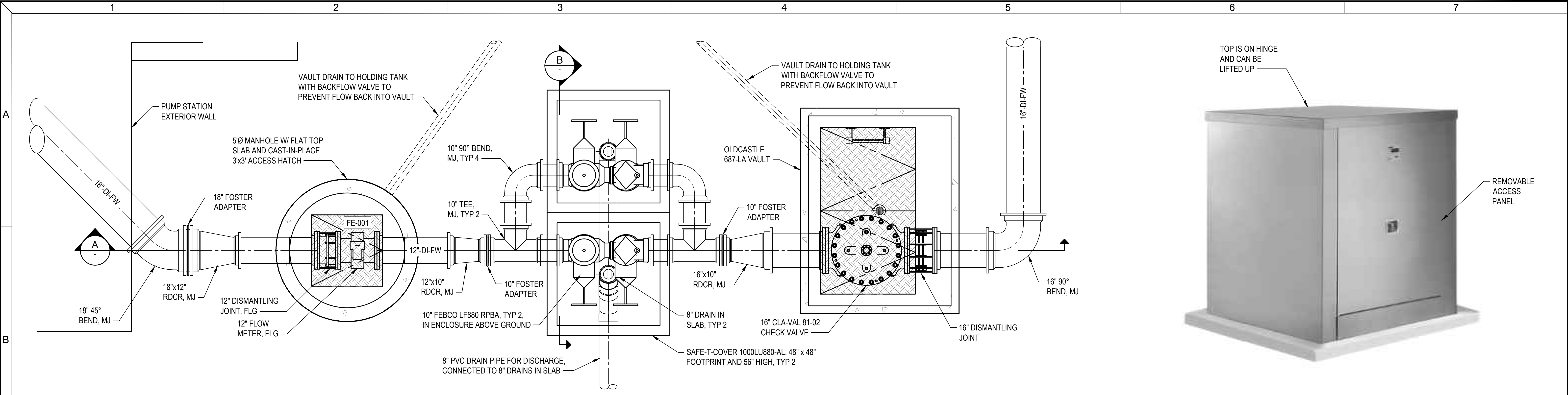
NOTES:

- 1. OWNER-PROVIDED VERTICAL TURBINE PUMP, MOTOR, AND DISCHARGE HEAD. TO BE INSTALLED BY CONTRACTOR PER MANUFACTURERS RECOMMENDATIONS. COORDINATE INSTALLATION WITH THE MANUFACTURER'S SERVICE REPRESENTATIVE FOR INSTALLATION INSPECTION, STARTUP AND FIELD SERVICES AND TESTING.
- 2. ROUTE CONTROL VALVE DRAINS AND AIR VALVE VENTS TO CLOSEST FLOOR DRAIN. TERMINATE WITHIN PLAN LOCATION 3" ABOVE THE DRAIN.
- 3. SEE CIVIL SHEETS FOR LOCATIONS OF STRUCTURES, PIPE, FITTINGS, AND VALVES.



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

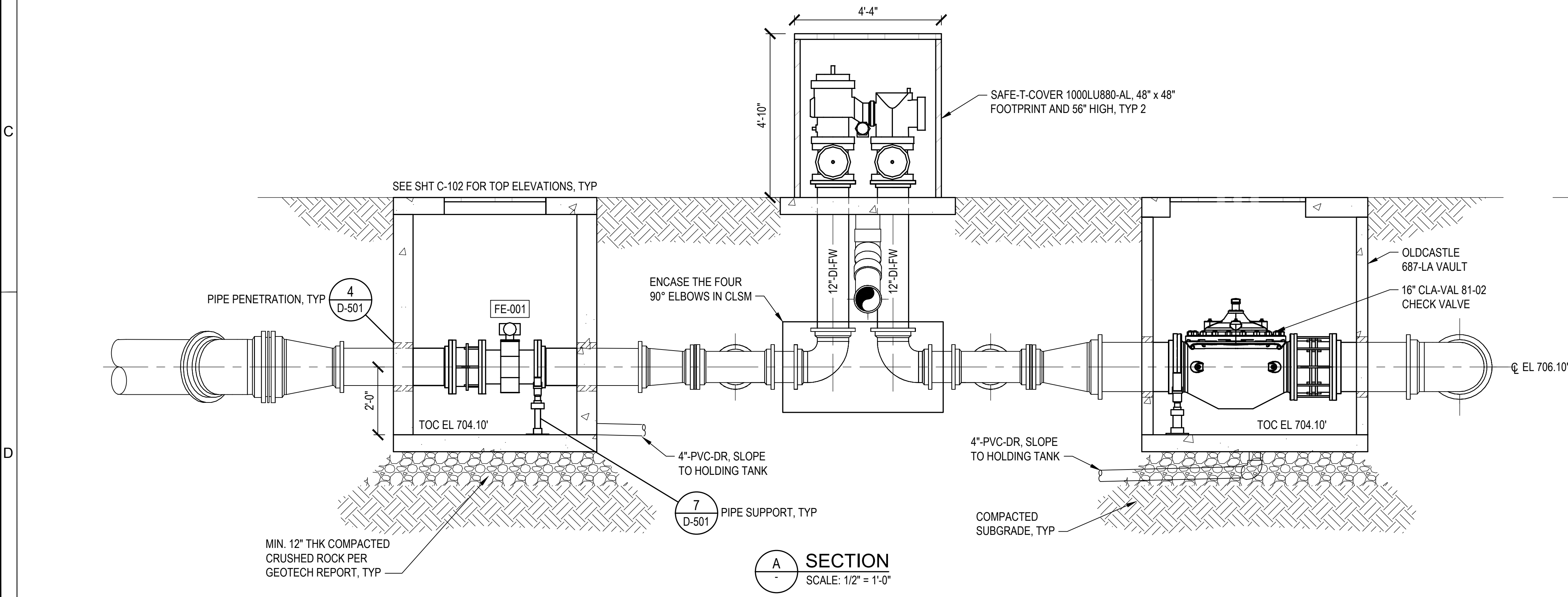
 This document, ideas, and designs incorporated herein, are an instrument of professional service, and is not to be used, in whole or in part, for any other project without the written authorization of Consor.	Consultant:	PERMIT SET	Engineer's Seal: PRELIMINARY NOT FOR CONSTRUCTION	Client / Owner: 	Project Title: CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	Drawing Title: PROCESS PUMP STATION PLAN	Designed By: WRK	Consor Project No.: W232464OR
							Drawn By: JLC	Issued On: JANUARY 2026
							Checked By: BES	D-101
							Approved By: EPK	0 1/2 1 IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE



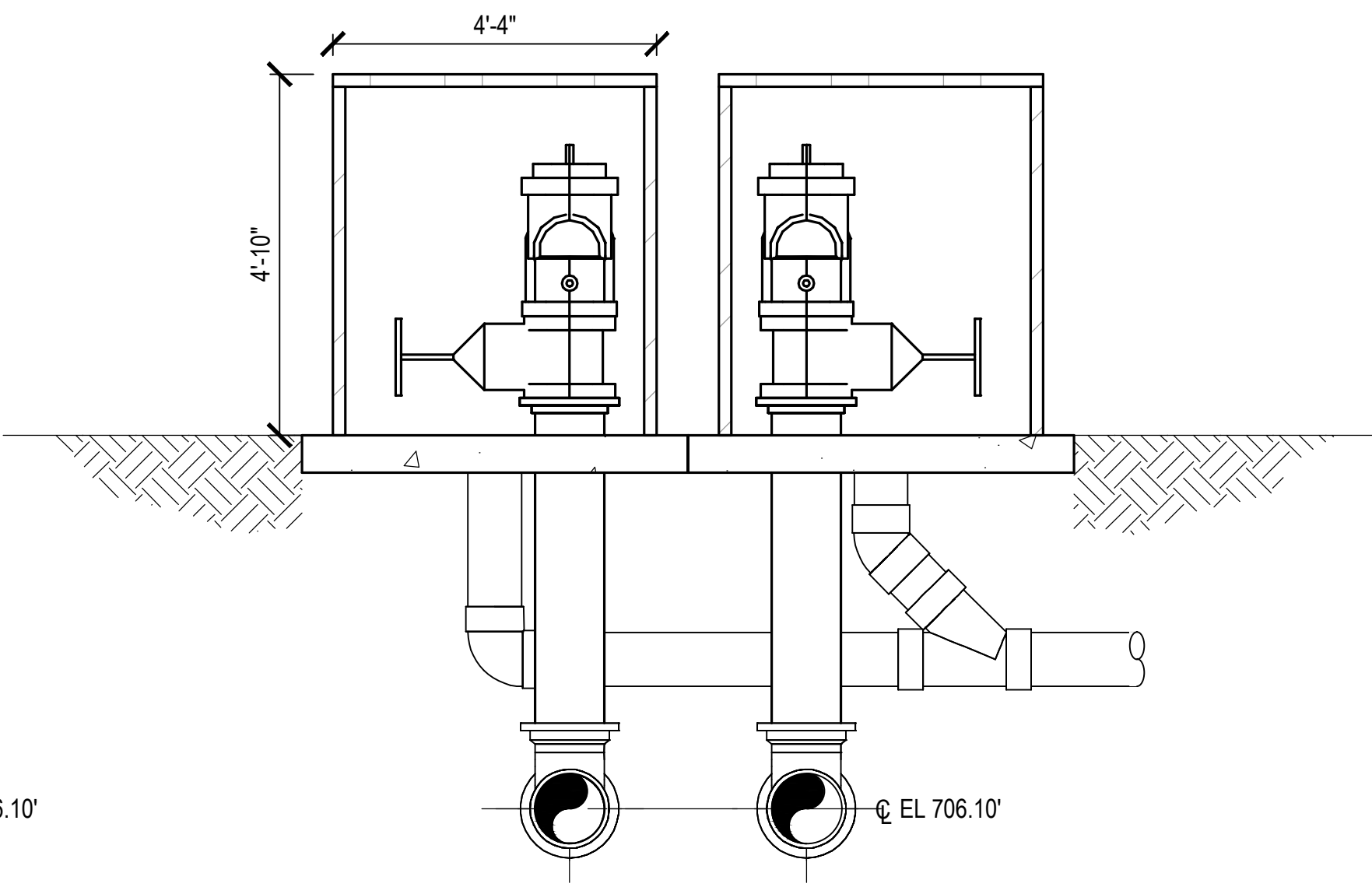
PLAN
SCALE: 1/2" = 1'-0"



SAFE-T-COVER UNIT PICTURE



A SECTION
SCALE: 1/2" = 1'-0"



B SECTION
SCALE: 1/2" = 1'-0"

 This document, ideas, and designs incorporated herein, are an instrument of professional service, and is not to be used, in whole or in part, for any other project without the written authorization of Consor.	Consultant:	PERMIT SET	Engineer's Seal: PRELIMINARY NOT FOR CONSTRUCTION	Client / Owner: 	Project Title: CITY OF SANDY BULL RUN SUPPLY PUMP STATION - PHASE 2	Drawing Title: PROCESS METER VAULT AND DOUBLE CHECK VALVE VAULT DETAILS	Designed By: WRK	Consor Project No.: W232464OR
							Drawn By: JLC	Issued On: JANUARY 2026
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